Think BURRUS

Catalyst · POWER PLUS · HOBLIT · Hughes HYBRIDS

2015 HARVEST REPORT

BIGGER *isn't* ALWAYS BETTER!

THE BURRUS PASSION TO BE THE BEST SUPPLIER YOU HAVE DRIVES US TO GO THE EXTRA MILE IN EVERYTHING WE DO.

Dear Grower,

First and foremost, we are farmers like you — that gives us in-the-field practical know-how that boardroom decision makers just don't have.

Our multi-brand strategy puts us a step ahead of the game. Providing growers with choice is a big deal. With Burrus, this means you can rotate corn rootworm traits from field to field supporting the long-term durability of CRW Bt. Our single bag refuge products like Optimum® AcreMax® XTreme or Agrisure® 3122 E-Z Refuge™ ensure compliance in one step — fill the planter and go!

WHAT IT BOILS DOWN TO IS THAT OUR STANDARD ISN'T EVEN ON THE RADAR SCREEN FOR MANY OF OUR COMPETITORS.

In soybeans, our strategy provides the option of rotating your herbicide trait system from Glyphosate tolerant to LibertyLink®, reducing the chance of weed resistance while getting the same high quality and service you expect from Burrus. In the near future, we will be offering stacked trait beans with two modes of action for more durability.

Bigger isn't always better! The Burrus passion to be the best supplier you have drives us to go the extra mile in everything we do. Our seed production techniques provide the utmost care to achieve the highest quality. Scoop your hand into the seed and compare. You can see the difference.

The extra attention Burrus spends on many small details means extra profitability for you — things like hooded spraying to improve purity four-color color sorting, double gravitying, Defol to control seed size and improve cold germination, having the ideal treatment recipe to establish a stand under cold, wet conditions as well as add yield. And those are just a few on the list. We have furnished 100% free replant for 80 years because we are just as interested in you getting a stand as you are.

Whether it's our Poncho® 500 VOTiVO PowerShield® seed treatment standard at no extra cost or our 24-hour service guarantee, Burrus does it right. The best way to predict the future is to create it.

Other seed companies would view those as upgrades or extra-mile services. Not here! We also have a testing program designed to identify the highest performing products for your local area. We understand that not every acre you farm is flat and black. Nationwide companies only test on the most productive soils then choose products that can go far and wide. Those products are good but often not the very best for your soils and management style.

Our Crop Optimization Planner (COP) through MyFarms℠ is an easy-to-use tool that combines farm knowledge and data with our product knowledge and experience for your individual fields. We can create prescription planting plans to vary your population by soil type and management zone all on the go. We can even write a prescription to change hybrids automatically — you don't have to worry about anything except driving.

You'll find, too, that Burrus is a non-GM leader. Technology-owned companies often handicap their conventional hybrids to make sure their "high dollar products" are better. We don't do that … and don't need to do that. Our conventional products are the best they can be.

Finished planting your corn? Go right ahead and plant your soybeans! PowerShield seed treatment for soybeans includes fungicides, insecticides, phytopthera suppression, and biologicals to encourage root growth and enhance yield. Because we back them with a 100% Free Replant guarantee, you can plant early to maximize your performance. We include ILeVO® for Sudden Death Syndrome control on beans. We call it PowerShield SDS.

What it boils down to is that our standard isn't even on the radar screen for many of our competitors. Even our Coon's Choice sweet corn gets updates from year to year. Unequalled, unmatched.

Better yet, all of these great offerings to help you get maximum profitability out of every acre are featured on our redesigned, responsive website. We encourage you to explore the site and discover what a tremendous grower resource it is. Check out some of the new videos, too, to see why Burrus is different and to see why what we do, we do for you.

Yes, we are confident that Burrus is the best choice. We have corn in our blood. Serving you is a privilege, not a job. What we bring to your operation is the best it can be or we wouldn't put our name on the bag.

Successfully,

Tom Burrus

Dave Hyde

Tom and Dave

Seed corn technology review

Technology	ECB Trait	CRW Trait	Viptera	Herbicide RR	Herbicide LL	Refuge Requirements	Different insects controlled by technology: ECB	CRW	BCW	FAW	CEW	WBC	SB
Optimum® AcreMax® Xtreme **(AMXT)**	◆◆	●●		✓	✓	5%	C	C	C	C	s	C	s
Optimum® Intrasect® XTreme **(CYXR)**	◆◆	●●		✓	✓	20%	C	C	C	C	s	C	s
Optimum® AcreMax® Xtra **(AMX)**	◆◆	●		✓	✓	10%	C	C	C	C	s	C	s
Optimum® AcreMax® Xtra **(AMX-R)**	◆◆	●		✓		10%	C	C	C	C	s	C	s
Optimum® AcreMax TRIsect™ **(AMT)**	◆◆	●		✓	✓	10%	C	C	C	C	s	C	s
Optimum® Intrasect® Xtra **(YXR)**	◆◆	●		✓	✓	20%	C	C	C	C	s	C	s
Optimum® TRIsect® **(CHR)**	◆	●		✓	✓	20%	C	C	C	C	s	C	NoA
Optimum® AcreMax® **AM**	◆◆			✓	✓	5%	C	NoA	C	C	s	C	s
Optimum® AcreMax® **(AM-R)**	◆◆			✓		5%	C	NoA	C	C	s	C	s
Herculex® XTRA/RR **(HXT/RR/Q)**	◆	●		✓	✓	20%	C	C	C	C	s	C	NoA
Herculex® XTRA **(HXT)**	◆	●			✓	20%	C	C	C	C	s	C	NoA
Herculex® 1 **(HX1/RR/S)**	◆			✓	✓	20%	C	NoA	C	C	s	C	NoA
Optimum® AcreMax® 1 **(AM1)**	◆	●		✓	✓	10% & 20%	C	C	C	C	s	C	NoA
Optimum® AcreMax® RW **(AMRW-R)**		●		✓		10%	NoA	C	NoA	NoA	NoA	NoA	NoA
Optimum® Intrasect® **(YHR)**	◆◆			✓	✓	5%	C	NoA	C	C	s	C	s
Agrisure® Duracade® 5222 E-Z Refuge®	◆◆	●●	■	✓		5%	C	C	C	C	C	C	C
Agrisure® Duracade® 5122 E-Z Refuge®	◆◆	●●		✓		5%	C	C	C	C	C	C	C
Agrisure® 3122 E-Z Refuge®	◆◆	●●		✓		5%	C	C	C	C	s	C	s
Agrisure Viptera® 3111	◆	●	■	✓	✓	20%	C	C	C	C	C	C	C
Agrisure® 3000GT	◆	●		✓	✓	20%	C	C	NoA	s	s	NoA	s
Agrisure Viptera® 3220 E-Z Refuge™	◆◆		■	✓		5%	C	NoA	C	C	C	C	C
Agrisure Viptera® 3110	◆		■	✓	✓	20%	C	NoA	C	C	C	C	C
Agrisure® 3010	◆			✓	✓	20%	C	NoA	NoA	s	s	NoA	s
Refuge Advanced® Powered by SmartStax®	◆◆	●●		✓	✓	5%	C	C	C	C	C	C	C
Genuity® SmartStax® **(GENSS)**	◆◆	●●		✓	✓	5%	C	C	C	C	C	C	C
Genuity® VT Triple PRO® **(GENVT3P)**	◆	●		✓		10%	C	C	NoA	C	C	NoA	C
YieldGard VT Triple® **(VT3)**	◆	●		✓		20%	C	C	NoA	s	s	NoA	s
Genuity® VT Double PRO® **(GENVT2P)**	◆			✓		5%	C	NoA	NoA	C	C	NoA	C

Key

- ◆ - TC1507 (European Corn Borer event)
- ◆ - MON 810 (European Corn Borer event)
- ◆ - BT11 (European Corn Borer event)
- ◆ - MON89034 (European Corn Borer event)
- **C** = Control of the insect
- **s** = Suppression of the insect
- **NoA** = No activity on the insect
- ● - DAS591227 (Corn Rootworm event)
- ● - MIR604 (Corn Rootworm event)
- ● - MON88017 (Corn Rootworm event)
- ● - Event 5307 (Corn Rootworm event)
- ■ - MIR162 (Broad Lepidopteran control)
- ✓ - Liberty (Glufosinate) herbicide tolerance
- ✓ - Roundup (Glyphosate) herbicide tolerance

ECB - European corn borer
CRW - Corn rootworm
BCW - Black cutworm
FAW - Fall armyworm
CEW - Corn earworm
WBC - Western bean cutworm
SB - Common stalk borer

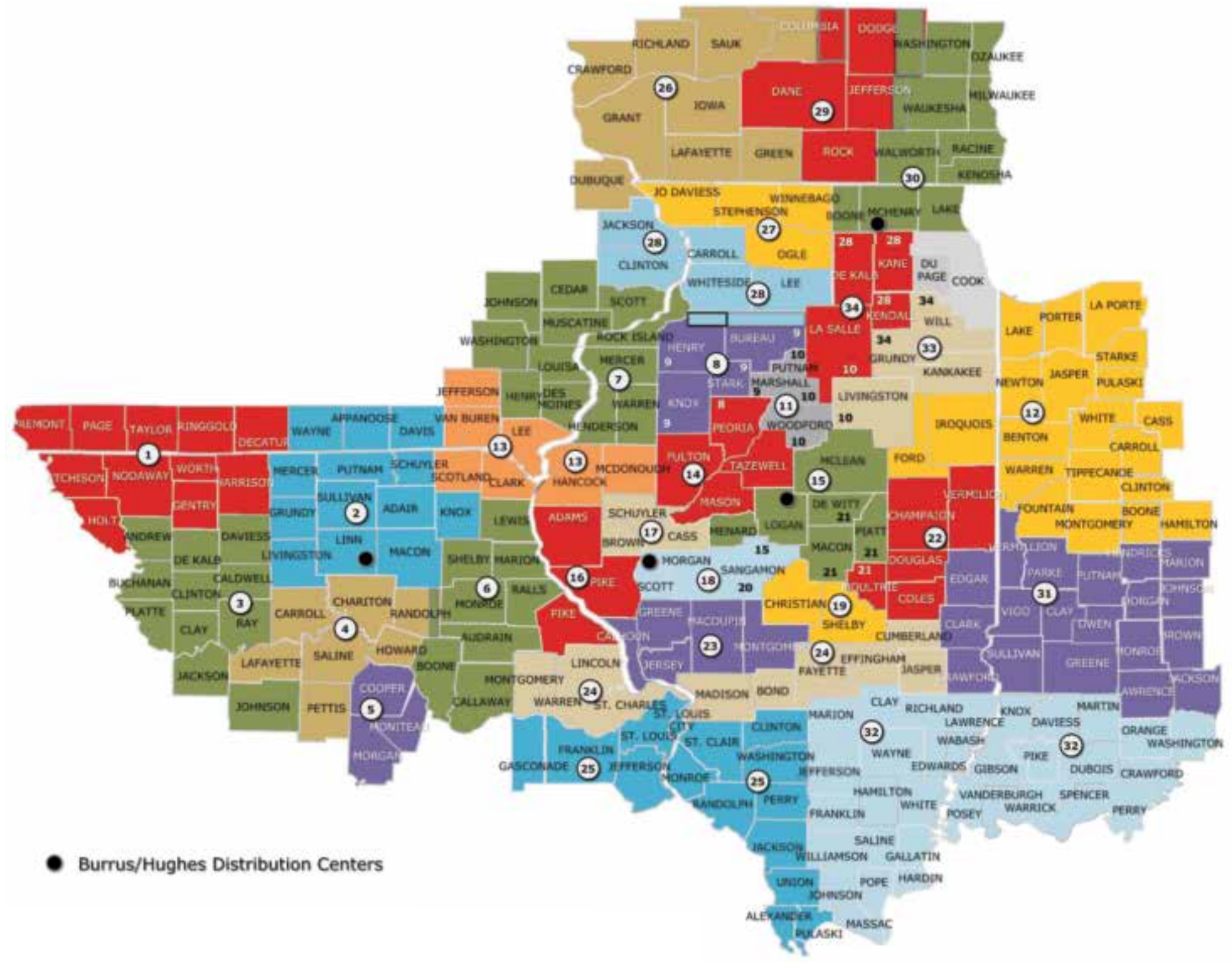
Corn Belt Refuge guidelines
20% non-B.T. refuge must be within field or directly adjacent
20% non-B.T. refuge must be within 1/2 mile of the field
5% is single bag refuge with refuge blended in the bag, no separate refuge needed
10% is single bag refuge with refuge blended in the bag, no separate refuge needed
5% non B.T. refuge must be within 1/2 mile of the field
10% & 20% means 10% of CRW refuge is blended in the bag plus 20% non B.T. refuge for ECB must be within 1/2 mile from the field

The Burrus/Hughes multi-brand, multi-trait supplier strategy provides us the most diversity and protection for your farm.

Photo courtesy of Chad Mitchell Photography

INDEX

CONTACT



BURRUS PLANT & OFFICE CONTACT

826 Arenzville Rd. • Arenzville, IL 62611
Toll Free 877-4-BURRUS (428-7787) • 217-997-5511
Fax 217-997-5522 • **burrusseed.com**

TOM BURRUS
h: 217-997-5876
c: 217-248-5511
tom.burrus@burrusseed.com

TODD BURRUS
h: 217-997-5920
c: 217-248-0214
todd.burrus@burrusseed.com

TIM GREENE
h: 217-457-2326
c: 217-370-1987
tim.greene@burrusseed.com

KEVIN BURRUS
c: 217-491-3355
kevin.burrus@burrusseed.com

MARTHA KROHE
c: 217-248-1788
martha@burrusseed.com

#BurrusSeed

HUGHES PLANT & OFFICE CONTACT

206 N. Hughes Rd. • Woodstock, IL 60098
Toll Free 888-THE-CORN (843-2676) • 815-338-1141
Fax 815-338-1122 • **hugheshybrids.com**

DAVE HUGHES
c: 815-482-1255
dave@hugheshybrids.com

DON HUGHES
c: 815-482-1256
don@hugheshybrids.com

JIM HUGHES
c: 815-482-1257
jim@hugheshybrids.com

GENERAL SALES MANAGER

JOHN R. BRUTTY
h: 402-564-9767
c: 402-564-9500
john.brutty@burrusseed.com

SALES MANAGERS

BRIAN REED (31)
c: 217-202-9567
1603 Briarwood Lane
Mahomet, IL 61853
brian.reed@burrusseed.com

CRAIG PATTY
c: 309-256-8013
713 Marcus Court
Chillicothe, IL 61523
craig.patty@burrusseed.com

SETH LINK (2)
h: 660-895-5292
c: 800-284-8490
23895 Dayton Dr.
Meadville, MO 64659
seth.link@burrusseed.com

TIM CARMODY (23)
c: 618-556-8400
RR #2 Box 88A
Hardin, IL 62047
tim.carmody@burrusseed.com

TOM SANDAHL, C.C.A.
c: 815-541-3783
W7083 CR H
New Glarus, WI 53574
tom.sandahl@hugheshybrids.com

AGRONOMISTS

MATT MONTGOMERY, C.C.A.
c: 309-657-0328
matt.montgomery@burrusseed.com

STEPHANIE PORTER, C.C.A.
c: 217-898-9299
stephanie.porter@burrusseed.com

JOSH GUNTHER
c: 217-617-3370
josh.gunther@burrusseed.com

IT SPECIALIST

TROY HORTON
217-997-5511 ext. 234
troy.horton@burrusseed.com

COMMUNICATIONS ASSOCIATE

OLIVIA RAHE
217-997-5511 ext. 282
olivia.rahe@burrusseed.com

CUSTOMER SERVICE REPRESENTATIVES

JUDY HALL
217-997-5577 ext. 262
judy.hall@burrusseed.com

DEB HOOTS
217-997-5577 ext. 223
deb.hoots@burrusseed.com

ANGELA KNAPP
217-997-5577 ext. 228
angie.knapp@burrusseed.com

ANN RATLIFF
815-338-1141
ann.ratliff@hugheshybrids.com

SARA RUNYON
217-997-5577 ext. 222
sara.runyon@burrusseed.com

MICHELLE SANDMAN
217-997-5577 ext. 256
michelle.sandman@burrusseed.com

SHEILA SMITH
217-997-5577 ext. 221
sheila.smith@burrusseed.com

ACCOUNT MANAGERS

ROB CHURCH (1)
c: 816-244-9526
24033 State Hwy EE
Maryville, MO 64468
rob.church@burrusseed.com

RILEY YOUNG (3)
c: 660-413-1212
18641 Vernon Kennedy Ave.
Mendon, MO 64660
riley.young@burrusseed.com

DONNY MARNIN, C.C.A. (4)
h: 866-621-1352
c: 660-247-1388
18456 Elkspring Rd.
Mendon, MO 64660
donny.marnin@burrusseed.com

MATT IVY (5)
c: 660-888-0176
20652 Oakwood Dr.
Blackwater, MO 65322
matt.ivy@burrusseed.com

JORDAN WATSON (6)
c: 573-470-4352
3949 Hwy 36
Shelbina, MO 63468
jordan.watson@burrusseed.com

CLAYTON COOK (7)
c: 309-333-8883
9460 N. 2100th Rd.
Sciota, IL 61475
clayton.cook@burrusseed.com

DALTON SHEPHERD (8)
c: 309-221-2167
7780 Sugar Grove Rd.
Rushville, IL 62681
dalton.shepherd@burrusseed.com

BRENT ANGELO (9)
c: 309-370-3387
712 Marcus Court
Chillicothe, IL 61523
brent.angelo@burrusseed.com

JEFF SECKLER (10)
c: 309-415-1696
306 South Lafayette St.
Metamora, IL 61548
jeff.seckler@burrusseed.com

RICHARD BURNS (11)
h: 800-529-7480
c: 309-208-9049
9318 N. Old Towerline Rd.
Kickapoo, IL 61528
dick.burns@burrusseed.com

QUINN MOLLER (12)
c: 765-430-5630
9223 N. Rainsville Rd.
Pine Village, IN 47975
quinn.moller@burrusseed.com

JEFF HYDE, C.C.A. (13)
c: 309-299-3850
340 W. Breckenridge
Blandinsville, IL 61420
jeff.hyde@burrusseed.com

RICK URISH, C.C.A. (14)
c: 309-613-2244
302 Sunset Dr.
Manito, IL 61546
rick.urish@burrusseed.com

JUSTIN BREESE (15)
c: 309-262-9695
15 River Run
Downs, IL 61736
justin.breese@burrusseed.com

RANDY MCCASKILL (16)
c: 217-242-1262
1574 East 3050 St.
Clayton, IL 62324
randy.mccaskill@burrusseed.com

ROSS BROCKHOUSE, C.C.A. (17)
c: 217-491-6575
4673 N. Burlingame Rd.
Virginia, IL 62691
ross.brockhouse@burrusseed.com

BRIAN SIX (18)
c: 217-491-1525
2139 St. Paul's Church Rd.
Chapin, IL 62628
brian.six@burrusseed.com

LUKE TURNER (19)
h: 866-649-4920
c: 217-825-9594
1109 Unique Ct.
Mattoon, IL 61938
luke.turner@burrusseed.com

JIM ALLEN (20)
c: 217-303-1071
68 Camelot Dr.
Rochester, IL 62563
jim.allen@burrusseed.com

JON KENT (21)
c: 217-412-6018
905 W. Forsyth Parkway
Forsyth, IL 62535
jon.kent@burrusseed.com

RYNE BREWER (22)
c: 309-838-7247
3916 Wild Flower Dr.
Champaign, IL 61822
ryne.brewer@burrusseed.com

JOE FLETCHER (24)
h: 618-466-3530
c: 618-980-8676
4610 Camellia Place
Alton, IL 62002
joe.fletcher@burrusseed.com

JOHN HOWELL, C.C.A. (25)
h: 800-838-7930
c: 618-806-5163
7530 Griggs Rd.
Red Bud, IL 62278
john.howell@burrusseed.com

GARY OTT, C.C.A. (26)
c: 608-370-3848
1628 Hemlock St.
Sauk City, WI 53583
gary.ott@hugheshybrids.com

BRYCE SANDAHL (27)
c: 608-301-7169
10217 N. Adeline Rd.
German Valley, IL 61039
bryce.sandahl@hugheshybrids.com

JUSTIN PARKS (28)
c: 815-677-5233
3909 Hitt Rd.
Milledgeville, IL 61051
justin.parks@hugheshybrids.com

ROBERT WAGNER (29)
c: 608-444-1708
7686 Westman Way Rd.
Middleton, WI 53562
wagner@hugheshybrids.com

BRAD KUFALK, C.C.A. (30)
c: 920-296-3088
N4706 County Road M
Delavan, WI 53115
brad.kufalk@hugheshybrids.com

ADAM ADLER (32)
c: 812-568-0500
12202 S. 50 W.
Haubstadt, IN 47639
adam.adler@burrusseed.com

KRISTA LOTTINVILLE (33)
c: 815-383-3752
1450 N. 3000 East Rd.
Sheldon, IL 60966
krista.lottinville@burrusseed.com

LANCE BRILLON (34)
c: 630-310-4449
30W336 Claymore Lane
Naperville, IL 60563
lance.brillon@hugheshybrids.com

Our standard in seed treatment is another's extra mile

In today's world, Burrus believes that exceptional seed begins with not only outstanding seed quality, but also that our seed should be protected by the latest seed treatment components that science has to offer. We are proud to be known for our high seed quality and we protect our seed with our PowerShield® seed treatment packages.

Our PowerShield seed treatment is made up of components that are chosen based on proven testing under cold, wet conditions, in many different environments over multiple years. Not all seed treatments are the same, nor are they equal! PowerShield seed treatment on both corn and soybeans consists of biologicals due to BioStacked® technology, which is a result of Becker Underwood's proprietary research, that combines 3 complimentary biological components to keep an even stand in adverse conditions, as well as a rapid early growth response due to enhanced root growth and uptake of nutrients, and on average, a 2 bushel per acre yield increase.

PowerShield seed treatment on corn consists of an insecticide, multiple fungicides, nematicides, and biologicals. Often times, our competitors such as Monsanto, Pioneer, Wyffels, and Agrigold have Poncho® or Cruiser® 250 standard within their corn seed treatment. An upgrade from the competitors from Poncho or Cruiser 250 to the higher rate of insecticide of Poncho® or Cruiser® 500 can cost $17 to $18 a unit. However, at Burrus, Poncho/VOTiVO 500 is standard on our Burrus, Hughes, and Power Plus® brands and Cruiser/Avicta® 500 is standard on our Catalyst brands for added return on investment for our customers.

This standard higher rate of Poncho or Cruiser insecticide within our corn seed treatment ensures that our customers have a greater return on investment because it has been proven that Poncho/VOTiVO® 500 can give you a 5.4 bushel per acre yield increase by giving greater systemic protection against early season insects such as wireworm, black cutworm, and grape colapsis. The nematicides, VOTiVO and Avicta, protect our corn against a wide array of corn nematodes early in the season.

Competitor seed treatments may vary in their specific and broad spectrum disease control. PowerShield on corn consists of Maxim® Quattro, which has four different fungicidal modes of actions that provide both systemic and contact protection against early season fungal pathogens such as *Pythium* spp, *Fusarium* spp., *Rhizoctonia* spp., and many others.

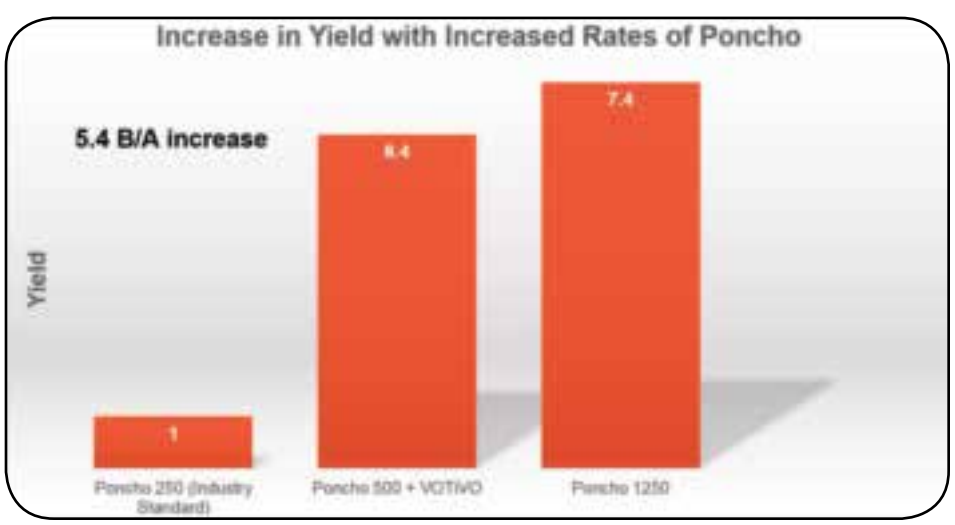
If the grain price is at $4 per bushel, the added 5.4 bu/a gained from having Burrus Poncho/VOTiVO 500 standard gives you an additional $21.60 per acre. A unit of seed gives you 2.5 acres a unit, so this increases your investment to $54 for each unit of seed purchased.

However don't forget the additional 2 bu/a, which equates to another $8 per acre or $20 per unit gained by having the 3 biologicals within PowerShield. The added value as well as peace of mind from having 100% replant is a $10 per acre bonus. This then adds another $25 per unit. When you total the $54 per unit earned by using Poncho/VOTiVO 500 over Poncho/VOTiVO 250, the $20 per unit gained from having 3 biologicals, and $25 per unit of added value from the 100% free replant, there is a grand total of $99 per unit of return on investment by having PowerShield corn.

All of our soybean brands, which include Hughes, Power Plus®, and Hoblit are available with our PowerShield seed treatment. PowerShield seed treatment for soybeans includes insecticide, multiple fungicides, and biologicals. We are proud to report that 93% of Burrus soybean seed is treated with PowerShield. Gaucho® 600 was the insecticide included in our PowerShield in soybeans because it can provide greater early season protection of soybean aphids, when compared to other insecticidal seed treatments, while protecting against many other early season insects.

In 2015, the high rate (.15 mg/seed) ILeVO seed treatment will be introduced as PS SDS seed treatment and will be optional on selected soybean varieties: Hughes 201, Power Plus® 25A5™*, 26Z5™*, 30B5™*, 35Z6™*, 36J3™*, 39R5™*, 41M4™*, and Hoblit 285LL, 355LL, 384LL, and 405LL. ILeVO is a unique compound from Bayer CropScience that brings both fungicidal and nematicidal activity within the seed zone and protects against Sudden Death Syndrome (SDS) disease symptoms above and below the soil. PowerShield on our soybeans also consists of Evergol™ Energy, which provides multiple modes of action of systemic fungicides against early season disease pathogens such as *Pythium* spp., *Phytophthora* spp., *Fusarium* spp., *Rhizoctonia* spp., and others. Unlike many of our competitors, our soybean PowerShield seed treatment also consists of Allegiance®, which provides an even longer early season control of *Pythium* and *Phytophthora* spp.

Burrus corn and soybeans that are treated with PowerShield qualify for 100% free replant. You can never plant too early with our replant policy. Be sure to qualify for the replant guarantee of free seed as well as free seed treatment if available and free tech fee of equal or less value if from the same technology and supplier family. The supply of seed is subject to availability at the time of the replant need.



ADAMS

Power Plus® 6F74AMX™* brand top honors

Kent Shriver
Quincy, IL

Planted: April 9 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 22. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: VRT, K: VRT. **Herbicide:** Degree Extra, Atazine. **Insecticide:** Tombstone. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6F74AMX™*	229.3	18.5	98	59.6	31
BURRUS 6T54 3000GT	218.8	18.8	98	59.7	32
POWER PLUS 6L45AMT™*	218.3	18.2	85	60.5	31
POWER PLUS 6C41 S™*	218.1	19.0	90	59.7	32
POWER PLUS 7H23 S™*	216.2	15.4	90	58.0	31
POWER PLUS 4J93AM™*	215.4	16.3	95	60.0	32
POWER PLUS 6F74AMX™*	213.0	17.4	95	62.3	30
POWER PLUS 4J90™*	209.0	16.2	100	61.0	31
POWER PLUS 6C40™*	208.5	18.7	95	62.6	30
BURRUS 5Z44 3122	207.1	18.0	100	60.5	30
CATALYST 7577 3010	206.0	19.2	100	59.7	28
POWER PLUS 6N83AM™*	205.5	16.0	90	62.0	32
CATALYST 7893 3111	201.6	17.7	90	57.4	31
BURRUS 6Q60	196.1	17.7	100	57.0	32
POWER PLUS 7H20™*	177.1	15.0	90	59.0	30
POWER PLUS 5N48™*	161.9	16.4	95	62.0	32
Average	206.4	17.4	94	60.1	31

BROWN

John Salrin
Mt Sterling, IL

Planted: April 12 in 30" rows. **Planting Population:** 36,000. **Harvested:** September 10. **Previous Crop:** Corn. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
Agrigold A6559VT2P	204.1	21.0
Agrigold A6462	202.6	20.9
Wyffels W7108RIB	201.0	22.2
Wyffels W7158RIB	197.9	21.0
BURRUS 6T54 3000GT	**195.7**	**20.1**
Agrigold A6499STX	194.1	20.4
POWER PLUS 6P75AMX™*	**189.6**	**20.4**
POWER PLUS 6L45AMT™*	**186.9**	**20.4**
Wyffels W7888RIB	183.1	20.9
BURRUS 5Z44 3122	**178.0**	**19.6**
Agrigold A6472VT3P	177.7	19.7
Agrigold A6573	176.4	21.9
Wyffels W7888RIB	168.4	18.7
POWER PLUS 5C17AMXT™*	**152.0**	**19.0**
Average	186.2	20.4

BUREAU

Jim Chase
Ohio, IL

Planted: April 30 in 30" rows. **Planting Population:** 35,500. **Harvested:** October 2. **Previous Crop:** Corn. **Soil Type:** Medium loam. **Weather:** May–normal, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
Munson 7400SS	277.8	20.4
Dekalb DKC61-54RIB	274.5	20.1
Agrigold A6499STX	272.9	21.1
Dekalb DKC58-06RIB	266.4	18.6
FS 63SX1-RIB	264.8	20.5
Dekalb DKC63-71RIB	263.5	22.6
Dekalb DKC55-20RIB	260.4	16.9
Agrigold A6441STX	259.1	18.7
Pioneer P1257AMX	258.7	20.2
Dekalb DKC62-77RIB	258.0	20.4
InVision FS 61SX1 RIB	257.5	17.9
Pioneer P1197AMXT	256.8	24.4
Pioneer P1417AMX	256.8	22.8
Pioneer P1311AMXT	255.2	22.4
Agrigold A6542STX	254.9	20.9
POWER PLUS 5C17AMXT™*	**247.2**	**20.1**
Munson 7084SS	247.2	19.1
NK Brand N70J-3011A	244.7	21.7
NK Brand N60F-3111	243.2	17.8
POWER PLUS 6P75AMX™*	**242.2**	**22.2**
Agrigold A6462STXRIB	241.7	18.2
Munson 7252SS RIB	241.6	19.5
Mycogen X13759S3	239.8	21.3
POWER PLUS 4J95AMX™*	**238.3**	**20.8**

InVision FS 57QX1 RIB	235.8	16.7
BURRUS 6T54 3000GT	**233.4**	**20.6**
Mycogen 2A749	233.2	19.5
Pioneer P0945AMX	231.3	17.4
NK Brand N65D-3122	231.3	19.4
Mycogen 2Y669	229.9	17.3
NK Brand N58S-3111	228.1	19.2
Average	249.9	20.0

CASS

Demonstrates our non-GM power

Burrus Bros. and Associated Growers
Arenzville, IL

Planted: April 11 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 3. **Previous Crop:** Corn. **Fertilizer:** N: 240, P: 80, K: 400. **Soil Type:** Silt loam. **Weather:** May–wet, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
POWER PLUS 7H20™*	**225.7**	**23.8**	**100**	**33**
POWER PLUS 6C40™*	**222.3**	**28.9**	**97**	**33**
POWER PLUS 6N83AM™*	**216.2**	**25.9**	**94**	**32**
POWER PLUS 7H23 S™*	**215.6**	**26.5**	**68**	**34**
CATALYST 7577 3010	**215.4**	**29.3**	**97**	**34**
POWER PLUS 4J93AM™*	**210.4**	**22.1**	**100**	**34**
BURRUS 6Q60	**207.9**	**29.1**	**100**	**33**
BURRUS 6T54 3000GT	**207.4**	**28.2**	**97**	**35**
POWER PLUS 6L45AMT™*	**205.4**	**27.5**	**97**	**34**
BURRUS 6T51 GT	**205.4**	**25.2**	**97**	**33**
POWER PLUS 6F71 R™*	**205.4**	**27.8**	**100**	**34**
POWER PLUS 7A18 Q™*	**202.8**	**27.8**	**100**	**34**
POWER PLUS 4J90™*	**202.5**	**23.9**	**100**	**34**
POWER PLUS 4J95AMX™*	**199.5**	**22.1**	**97**	**32**
POWER PLUS 4J99 R™*	**196.5**	**24.0**	**97**	**34**
POWER PLUS 7U15AM-R™*	**195.7**	**30.2**	**100**	**34**
POWER PLUS 5C17AMXT™*	**194.4**	**22.8**	**100**	**34**
POWER PLUS 6F74AMX™*	**194.3**	**24.8**	**97**	**33**
POWER PLUS 6C41 S™*	**191.4**	**29.4**	**52**	**31**
CATALYST 7893 3111	**190.8**	**27.6**	**90**	**29**
POWER PLUS 4V45AM™*	**190.6**	**22.8**	**83**	**36**
POWER PLUS 5N48™*	**188.9**	**24.6**	**100**	**35**
BURRUS 5Z44 3122	**184.5**	**25.5**	**97**	**29**
CATALYST 4685 3111	**183.7**	**23.2**	**100**	**36**
POWER PLUS 6P75AMX™*	**175.4**	**27.3**	**91**	**32**
POWER PLUS 2N82AM™*	**174.1**	**18.9**	**100**	**32**
Average	200.1	25.7	94	33

Power Plus® 6F74AMX™* brand is best

Brian Burrus
Arenzville, IL

Planted: April 17 in 30" rows. **Planting Population:** 35,600. **Harvested:** September 15. **Previous Crop:** Soybeans. **Fertilizer:** N: 186, P: 92, K: 120. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6F74AMX™*	**216.0**	**16.4**	**90**	**61.0**	**34**
POWER PLUS 7H23 S™*	**205.5**	**14.8**	**85**	**58.5**	**36**
POWER PLUS 6P75AMX™*	**205.0**	**16.6**	**90**	**60.2**	**34**
BURRUS 6T54 3000GT	**203.3**	**16.2**	**90**	**58.5**	**34**
BURRUS 5Z44 3122	**202.2**	**17.1**	**85**	**59.3**	**33**
POWER PLUS 4J95AMX™*	**200.9**	**15.3**	**85**	**59.0**	**35**
POWER PLUS 6N83™*	**190.7**	**15.9**	**85**	**58.0**	**31**
POWER PLUS 5C17AMXT™*	**188.5**	**15.9**	**85**	**60.0**	**35**
CATALYST 7893 3111	**185.6**	**16.0**	**70**	**57.0**	**35**
POWER PLUS 6F71 R™*	**170.7**	**15.5**	**80**	**60.0**	**35**
Average	196.8	16.0	84	59.2	34

Power Plus® 6F74AMX™* & Power Plus® 7A18AM1™* as food grade choices were near the top in Champaign Co. for Tyler & Rick Knight.

New Power Plus® 6P75AMX™* at 230 bu/a

Ron Kuhlmann
Beardstown, IL

Planted: April 16 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 15. **Previous Crop:** Corn. **Herbicide:** Bicep, Roundup. **Insecticide:** Force. **Soil Type:** Medium loam. **Weather:** May–normal, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6P75AMX™*	**230.7**	**18.4**	**100**	**59.5**	**34**
POWER PLUS 7H23 S™*	**225.5**	**17.1**	**100**	**59.3**	**35**
POWER PLUS 7H23 S™*	**224.2**	**16.8**	**100**	**59.2**	**34**
POWER PLUS 6N83AM™*	**218.4**	**17.6**	**100**	**58.4**	**35**
POWER PLUS 6F71 R™*	**216.1**	**17.9**	**100**	**61.0**	**34**
BURRUS 6T54 3000GT	**215.3**	**18.5**	**100**	**58.6**	**34**
BURRUS 5Z44 3122	**209.9**	**18.9**	**100**	**58.2**	**34**
CATALYST 7893 3111	**209.6**	**20.1**	**100**	**57.0**	**33**
POWER PLUS 4J95AMX™*	**208.9**	**17.3**	**100**	**58.3**	**36**
POWER PLUS 6F74AMX™*	**208.4**	**17.5**	**100**	**61.4**	**34**
POWER PLUS 6F71 R™*	**196.3**	**18.3**	**100**	**61.0**	**33**
POWER PLUS 5C17AMXT™*	**190.6**	**17.0**	**100**	**61.3**	**34**
Average	212.8	18.0	100	59.4	34

CHAMPAIGN

Two Power Plus® hybrids over 260 bu/a

Richard Knight
Homer, IL

Planted: May 2 in 30" rows. **Harvested:** October 23. **Previous Crop:** Alfalfa. **Herbicide:** PreResidual, Roundup. **Insecticide:** None. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 5C17AMXT™*	**263.4**	**7.5**	**64.0**
POWER PLUS 6L45AMT™*	**262.3**	**9.9**	**61.0**
Pioneer P1360	259.8	14.5	66.0
POWER PLUS 6F74AMX™*	**259.0**	**12.3**	**66.0**
POWER PLUS 7A18AM1™*	**257.9**	**13.3**	**68.5**
POWER PLUS 6P75AMX™*	**253.0**	**11.8**	**62.0**
Channel 213-28STXRIB	252.4	12.0	63.0
POWER PLUS 4J95AMX™*	**249.1**	**7.7**	**60.0**
XL Brand 6175AMX	246.2	12.9	63.0
Kitchen KSC40R221C	243.3	12.6	65.5
Channel 209-53	239.1	12.1	63.0
BURRUS 5Z44 3122	**238.8**	**14.2**	**62.5**
Average	252.0	11.7	63.7

Laura, Anna & Brian Burrus saw Power Plus® 6F74AMX™* win at 216 bu/a in Cass Co.

Power Plus® is 4th & 6th

Gifford State Bank
Gifford, IL

Planted: May 19 in 30" rows. **Planting Population:** 35,700. **Harvested:** October 21. **Previous Crop:** Corn. **✓Check Hybrid:** Pioneer 1360CHR

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	212.2		16.3
✓Check	216.6		17.0
Pioneer P1417AMX	196.8	10	17.2
Pioneer P1142AMX	170.8	12	16.3
LG Seeds LG5618STX-RIB	175.5	11	15.4
Great Lakes 5918STXRIB	189.1	7	13.3
Great Lakes 6462STXRIB	183.8	9	15.6
FS 60ZX1 RIB	186.0	8	14.7
✓Check	152.6		14.9
FS 63SX1 RIB	191.2	5	15.4
Channel 215-05STXRIB	202.3	3	15.4
Agrigold A6559STXRIB	223.4	1	14.0
POWER PLUS 5C17AMXT™*	**218.6**	**6**	**14.8**
POWER PLUS 6F74AMX™*	**224.7**	**4**	**15.1**
Beck's XL 5939AMXT	232.2	2	14.7
✓Check	210.1		14.9
Average	199.1		15.3
Check Average	197.9		15.8

Blake Grice & Kent Shriver of Adams Co. saw Power Plus® 6F74AMX™* win at 229 bu/a.

Power Plus® 7A18AM1™* brand wins at 220 bu/a

Bryan Fogerson
Mahomet, IL

Planted: May 1 in 30" rows. **Planting Population:** 36,000. **Harvested:** October 21. **Previous Crop:** Soybeans.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 7A18AM1™*	**220.5**	**11.2**
POWER PLUS 6F74AMX™*	**202.5**	**09.8**
POWER PLUS 4J95AMX™*	**200.2**	**10.8**
BURRUS 5Z44 3122	**187.0**	**09.2**
Pioneer P1162AMX	186.4	11.8
POWER PLUS 6P75AMX™*	**184.2**	**10.6**
POWER PLUS 5C17AMXT™*	**172.7**	**10.4**
Average	193.4	10.5

Jeff Seckler

Burrus welcomes Jeff Seckler to the team as an Account Manager serving Woodford, Marshall, Putnam, LaSalle, and Livingston counties in Illinois. For the past twelve years he has helped customers complete projects while adding profit to their bottom line. Now he is ready to help growers select the right products for their farm.

Jeff obtained a bachelor's degree in business administration from Eureka College in Eureka, IL. He met his wife, Sarah, while in college and they have two sons, Brady, 5, and Briggs, 3. Sarah is a stay-at-home mom and donates her time to various non-profit organizations. Jeff enjoys golf, hunting, and playing catch with his boys in the backyard. Jeff was born and raised in central Illinois and feels great pride in working in his community.

Jeff also enjoys visiting with growers to learn about their operation and helping not to just achieve but to exceed their goals. He wants to help new growers in his territory so feel free to call him at 309-415-1696 or connect at jeff.seckler@burrusseed.com.

Economics of corn and soybeans

By Matt Montgomery

Per Acre Income

Burrus provides our own thoughts on potential per acre income each year. We do so in each *Harvest Report* published in the fall. Yet, we always do so with this cautionary statement:

"Our central goal at Burrus is to provide growers with quality seed and research-based production information. Our claim to fame is not providing marketing advice or business planning services. Ours is not a substitute for the perspective offered by experts in this field."

We simply try to provide growers with information that helps them ask questions. Burrus offers growers our own thoughts and musings, hoping those musings will encourage important conversations between growers, landlords, and marketing specialists.

How do we develop these graphs?

First, and most importantly, we are indebted to the University of Illinois and the University of Missouri. We use their data to generate the initial numbers that eventually create the graphs.

We take University of Illinois and University of Missouri crop budget data for the coming growing season and combine that with our own internal numbers, then tweak certain inputs based on competitive intelligence and other factors. We also look at recent yield trends and potential per bushel price scenarios.

An average income estimate is developed for the current growing season (depicted in the graphs by a red rectangle). We develop a high income scenario and a low income scenario. The high and low income scenarios around the average are depicted by arrows above and below the rectangle.

The end result is an average income estimate over a three year period (in this case 2015 to 2017). We develop an average income estimate for several different three year crop rotations ("C" stands for corn in those rotations, and "B" stands for beans in those three year rotations).

Once again, think of the red bars as the likely average income over a three year period. Think of the arrows as representing the best or worst possible scenarios around that more likely estimate.

Graphs are generated for 5 different regions or zones. We have included a zone map (Figure 6), and have projected pre-rent/pre-land returns for various cropping systems within each of those zones (Figures 1 to 5).

2015 to 2017

The graphs tell the story very well. Regardless of the cropping system in question and regardless of the zone in question, margins will again be tight during the seasons ahead.

So what now?

The intent of this article is to provide perspective. That perspective can help growers make wise, more informed decisions. We should stress that the situation is not hopeless. There are choices that growers can make to help improve those margins. Those choices all relate to a very simple, time tested formula. It is the same formula at play when margins are tight and when margins are not so tight:

NET INCOME (the margin that a grower lives on) = GROSS INCOME – EXPENSES

Improving the margin requires that a grower ***preserve or improve gross income*** while ***decreasing expenses in a manner that does not impact gross income***. This can be a delicate balancing act, but it is doable.

Improving gross income

Growers should consult a marketing specialist. At the very least, they should develop a marketing plan. Let us be clear, better marketing alone will not improve margins. However, every penny of gross income has always counted. Now those pennies matter even more.

Marketing consultants can help you squeeze more gross income out of every bushel. The expense of visiting with a consultant will, more often than not, yield a return. If you do not think you can afford the expense of a marketing consultant, at least select a few different calendar dates and discipline yourself to sell a portion of

Figure I. Zone 5 & 6 Pre-Rent/Pre-Land Returns
(Estimated 3 Year Per Acre Average Annual Income)

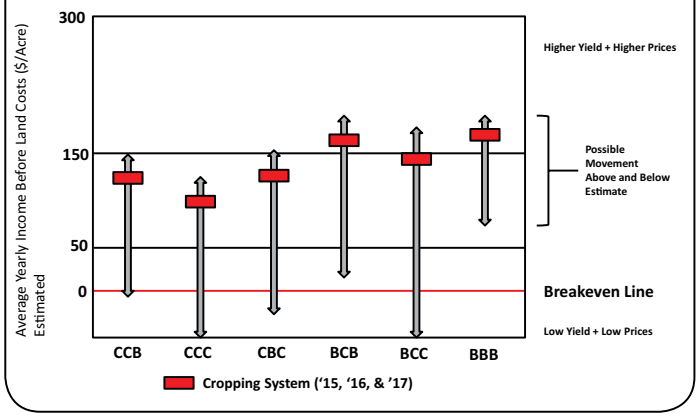


Figure 2. Zone 7 Eastern IL & Western IN
Pre-Rent/Pre-Land Returns
(Estimated 3 Year Average Per Acre Annual Income)

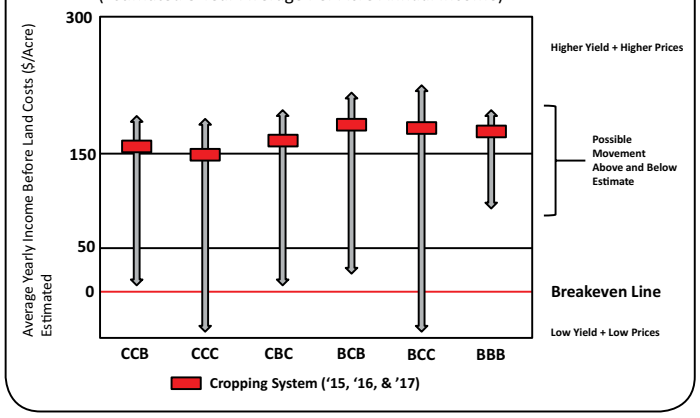


Figure 3. Zone 7 Western Illinois
Pre-Rent/Pre-Land Returns
(Estimated 3 Year Average Per Acre Annual Income)

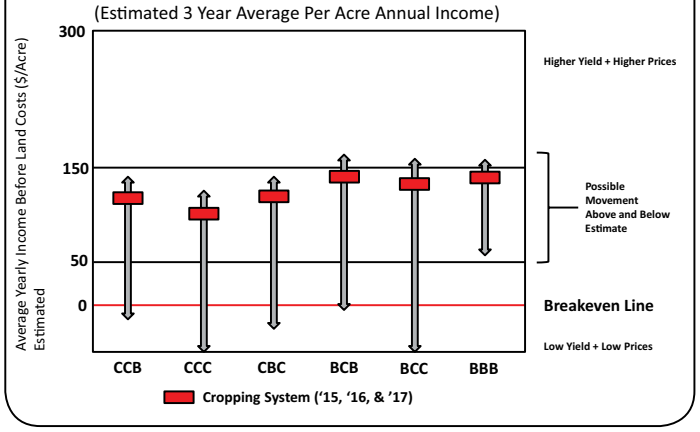


Figure 4. Zone 8 Southern IL & Southern IN
Pre-Rent/Pre-Land Returns
(Estimated 3 Year Average Per Acre Annual Income)

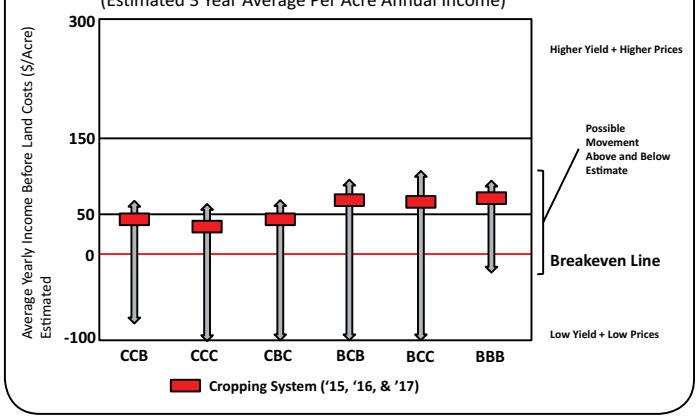


Figure 5. Zone 7 & 8 Missouri
Pre-Rent/Pre-Land Returns
(Estimated 3 Year Per Acre Average Annual Income)

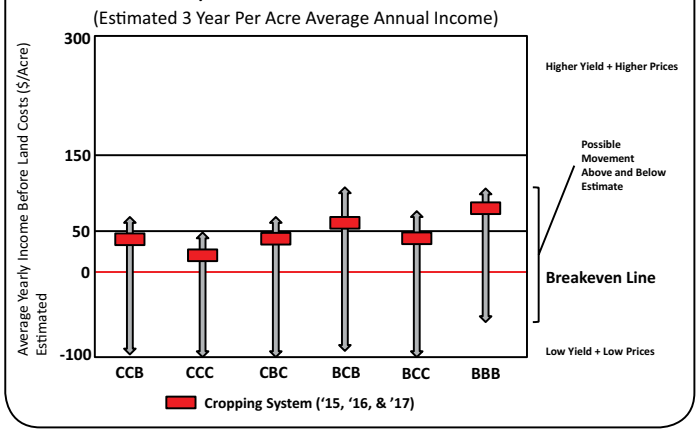
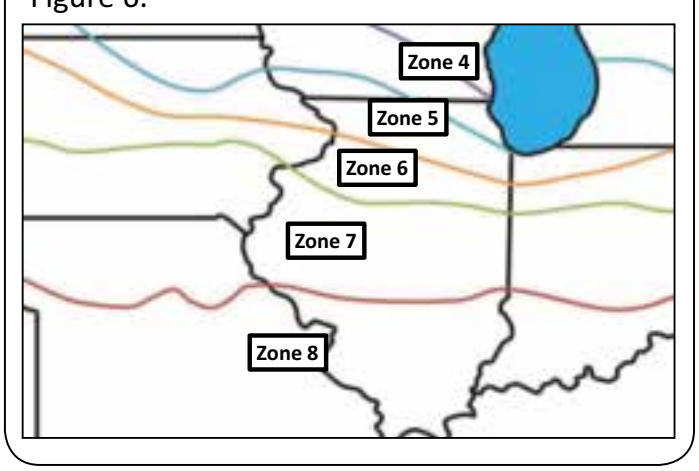


Figure 6.



your grain on each of those dates. If you make and stick with a diverse marketing plan, it will benefit gross income over the long term.

Note that we are talking about *marketing plans*. We are not talking about single, magical dates as the means to improving gross or net income. A plan will improve gross income. Single-shot marketing has more risk.

Growers should place hybrids in a manner that best assures increased yield. Sales Agronomists and Account Managers can be useful in getting that right fit between hybrid and location. When a hybrid and a location mesh, the likelihood of yield gains increase. When a hybrid and location mesh, the likelihood of improved gross income therefore does as well. Add in some online tools (tools that tap yield data in relation to various soil types) as another layer in this effort and you have a potent plan for improving yield/gross.

This is one of the reasons Burrus is so passionate for our customers to embrace MyFarms℠ with the Crop Optimization Planner as they visit with their Account Manager. Getting a hybrid-location fit boosts gross income which in turn boosts net income.

Improving gross income is one very important path toward better margins.

Preserving gross income

We will discuss the need to cut costs in the section that follows. However, we want to strike a note of caution beforehand. We must remind the reader that all expenses are not the same. Some come with very big costs.

Growers must be careful not to cut essentials. The grower must ask himself or herself if potential cost saving options risk a reduction in gross income. Remember, the goal is always to improve net income. A decision that decreases gross income will make achieving that goal more difficult if not impossible. **First and foremost, higher yield per acre means a lower cost per bushel raised.** So we need to look for items that can increase yield, items that we can get a return from the investment in higher yield.

Growers will be severely tempted in seasons to come. They will be tempted to make devastating cuts, the type of cuts that make survival improbable. They will be tempted to do so because those cuts look enticing on paper. For example, during last winter's agronomic meeting circuit – we heard more than one grower state, "I'm cutting back on fertilizer. I know it is a bad idea, but I just have to. The money has to come from somewhere."

Stop and think about that statement!! Some growers were saying, "I'm going to cut back on the building blocks that my crop uses to set yield." By not thinking of the impact that decision would have on yield/gross income, by only thinking about how that cost looked on paper, these individuals were setting themselves up for a net income hit!! They were proposing cuts that would further decrease their margins rather than improving those margins. They were proposing the type of cuts that makes financial survival much less likely.

Growers will be changing things in their operations because of tight margins. However, if you are thinking about cutting back or making significant changes related to the necessities (fertilizer, crop insurance, quality seed, weed control, etc.), you are in a very dangerous spot. You are being tempted to tamper with the essentials of your operation. If you find yourself in this spot, you must take a deep breath … step away from the table … calm yourself down … regroup … and examine your budget after you are in a better frame of mind. Be careful before you bite into that apple. Be sure it's not a poison one that slashes gross income. Be sure the cut will absolutely not come with a gross income cost. Consider how you can tweak expenses associated with the essentials, but do not reformulate the essentials. We have included questions that you should ask yourself (Figure 7). The answer to those questions can help you steer clear of cuts that could impact gross income.

Preserving gross income is a must when improving the margins.

Reducing expenses

"You cannot cut your way to prosperity." This is a true statement. Cuts alone will not improve margins. Some cuts will most definitely decrease margins and those cuts must never be considered. However, the expense line must still be reduced. We would counsel growers to:

1. Consider the necessity.
2. Observe the return.
3. Reduce per bushel cost.
4. Engage the uncomfortable.

Consider the necessity. Growers must be careful when expending capital. Before a grower makes a significant purchase, they should consider their current financial situation carefully. They must ask themselves if their business, given tighter margins, can afford to take on more debt. Growers must determine if certain purchases are necessities or if they are luxuries. The current environment should shift grower favor toward necessities. Luxury consumption must be reduced to improve margins.

Observe the return. Growers must ask themselves if an input yields reliable returns. Does a purchase yield dollars 70% of the time? If it does not, then the input is not providing a reliable return. Consistent substantial returns on an investment are the order of the day. Occasional small returns must be cast aside to improve margins.

Reduce per bushel cost. Reducing cost means a lower cost per bushel raised. So we need to look for items that can increase yield, items that provide a return investment in the form of higher yield. At Burrus, we suggest using some structured refuge products. This maintains yield potential while decreasing per bushel cost.

Another way to lower cost is to utilize our Early Pay Savings opportunity or choose one of many RABO or John Deere Financial low or no interest financing options.

Don't be afraid to use programs to decrease those per bushel costs. For example, we also recommend Syngenta CRW products that qualify for Force rebates to decrease insecticide input costs (ask your Account Manager about this opportunity). Likewise, if you are using smart boxes, talk to your Account Manager about the $5/unit rebate from AMVAC. We remind growers that choosing to plant BX3 or BX6 allows them to lower seed cost by another $10/unit. These are all good choices to lower costs without sacrificing yield.

Engage the uncomfortable. Growers must enter into very uncomfortable conversations. They must broach the subject of land costs. While the likelihood of decreasing rent and other land-related costs are unrealistic for many, growers cannot afford to dance around the subject. Rent negotiation must be part of the strategy. Test the waters, if rent negotiations are a dead end then so be it. However, producers must determine if reduced rent is even possible. Even a partial improvement in land costs will be a huge net income gain. Asking to reduce rent is daring, but you cannot dare not to dare. A partial decrease in land costs is needed to improve margins.

FIGURE 7

Before you cut an expense, ask these questions:

1) Is this expense is necessary to maintain yield?
2) Does the change I am thinking of (to decrease costs), sound too good to be true?
3) If I haven't considered this change before, why have I not done so up to this point?
4) Am I really familiar with the product I am considering to replace this expense?
5) Where can I go for quality information?
6) Is there plenty of data supporting this move or is there only a little?
7) Does discarding that expense make sense in my area? Does discarding that expense sound risky in my area?

CHAMPAIGN

Gifford State Bank
Gifford, IL

Planted: April 30 in 30" rows. **Planting Population:** 35,700. **Harvested:** October 8. **Previous Crop:** Soybeans. **✓Check Hybrid:** DeKalb DKC64-87

Brand-Variety	Bu. Per Acre	Rank	% Moisture
Dekalb DKC64-87	175.6	28	15.9
✓Check	238.6		16.6
Pioneer P1197AMXT	247.7	4	18.1
Pioneer P1257AMX	216.6	24	16.1
Dekalb DKC58-06RIB	209.9	29	15.2
Dekalb DKC62-77RIB	208.7	12	15.7
Great Lakes 6462STXRIB	201.6	19	16.6
Great Lakes 5755STXRIB	185.6	31	15.1
✓Check	194.5		15.3
InVision FS 61ZX1-RIB	194.4	11	15.4
FS FS 59SX1-RIB	178.5	25	15.0
Stone 6158RIB	170.2	32	15.4
Stone 6378RIB	195.3	5	16.4
Agrigold A6499STX	193.0	6	16.5
Agrigold A6462 STXRIB	183.9	13	15.3
✓Check	177.0		16.5
Golden Harvest G12J11-3011A	164.1	26	16.6
Golden Harvest G11U58-3122	163.9	27	17.0
Beck's XL 5828AMX	174.7	18	16.8
Beck's XL 6365AMX	178.5	17	16.6
POWER PLUS 4J95AMX™*	**174.2**	**20**	**16.2**
POWER PLUS 6P75AMX™*	**180.3**	**15**	**17.2**
✓Check	182.1		16.7
Wyffels W7108RIB	178.7	21	15.7
Wyffels W7888RIB	188.0	14	17.5
LG Seeds LG5618STX-RIB	194.9	7	17.1
LG Seeds LG5622 STXRIB	187.8	22	16.7
Channel 214-45STXRIB	194.2	16	16.9
Channel 211-35 STX RIB	201.7	10	15.9
✓Check	201.3		16.9
Pfister 3366RASS	230.5	3	17.2
Pfister 2565RASS	214.2	8	16.7
Dairyland 9314RA	236.1	2	19.1
Dairyland DS-9409RA	244.9	1	18.3
U.S. Seeds 1093VT3111	198.0	30	17.1
Dekalb DKC64-87	219.3	9	17.2
✓Check	222.8		17.1
Average	197.3		16.5

Keith Garman of Tazewell Co. knows that Burrus brings opportunity to all of the growers in his area. If you haven't tried Burrus, now's the time!

CHAMPAIGN

Gifford State Bank
Gifford, IL

Planted: April 29 in 30" rows. **Planting Population:** 35,700. **Harvested:** September 25. **Previous Crop:** Soybeans. **Soil Type:** Silt loam. **✓Check Hybrid:** Pioneer 1360CHR

Brand-Variety	Bu. Per Acre	Rank	% Moisture
Pioneer P1360CHR	262.5	8	19.8
✓Check	258.8		20.1
Pioneer P1197AMXT	257.8	15	20.5
Pioneer P1257AMX	251.8	19	19.3
Dekalb DKC61-54RIB	260.7	12	19.2
Dekalb DKC64-87RIB	266.6	16	19.2
Great Lakes 6462STXRIB	278.2	2	19.7
Great Lakes 5755STXRIB	249.1	30	17.4
✓Check	276.6		19.9
FS 60ZX1 RIB	254.7	28	18.7
FS FS 63SX1-RIB	255.6	26	20.1
Stone 6158RIB	265.3	17	18.6
Stone 6378RIB	270.6	4	18.4
Agrigold A6499STX	276.4	1	19.2
Great Lakes 6462STXRIB	265.1	10	18.3
✓Check	262.4		18.1
Golden Harvest G11U58-3122	244.9	25	18.0
Beck's XL 5828AMX	257.1	13	18.9
Beck's XL 6365AMX	252.0	18	20.2
POWER PLUS 4J95AMX™*	**243.2**	**24**	**19.3**
POWER PLUS 6P75AMX™*	**254.3**	**14**	**19.6**
✓Check	257.6		18.8
Wyffels W7108RIB	245.8	20	17.7
Wyffels W7888RIB	262.7	3	19.3
LG Seeds LG5618STX-RIB	261.9	6	20.0
LG Seeds LG5622	256.7	11	19.2
Channel 214-45STXRIB	261.3	7	19.3
Channel 211-35 STX RIB	257.9	9	18.5
✓Check	258.4		18.3
Pfister 3366RA	242.9	23	20.1
Pfister 2565RASS	245.1	22	17.4
Dairyland DS-9314	246.3	21	20.8
Dairyland 9412-VT2PRIB	240.8	27	20.3
U.S. Seeds 1093VT3111	234.9	31	19.8
U.S. Seeds 1141VT2PRIB	237.0	29	20.0
Pioneer P1360CHR	263.1	5	19.1
✓Check	258.8	___	19.1
Average	256.6	___	19.2
Check Average	262.1		19.0

Gifford State Bank
Gifford, IL

Planted: May 1 in 30" rows. **Planting Population:** 35,700. **Harvested:** October 2. **Previous Crop:** Soybeans. **Soil Type:** Silt loam. **✓Check Hybrid:** Pioneer 1360CHR

Brand-Variety	Bu. Per Acre	Rank	% Moisture
Pioneer P1360CHR	215.5	15	16.0
✓Check	232.4		15.8
Pioneer P1197AMXT	217.8	24	16.6
Pioneer P1257AM	226.8	19	15.0
Dekalb DKC58-06RIB	225.5	20	14.8
Dekalb DKC62-77RIB	237.7	9	14.6
Great Lakes 6462STXRIB	241.6	5	16.4
Great Lakes 5755STXRIB	217.3	27	14.1
✓Check	241.9		15.7
FS 61ZX1-RIB	214.9	30	14.3
FS 59SX1-RIB	238.5	10	15.0
Stone 6158RIB	228.5	23	14.5
Stone 6378RIB	235.0	13	15.9
Agrigold A6499STX	231.1	16	16.2
Agrigold A6462 STXRIB	226.6	21	14.9
✓Check	236.2		16.4
Golden Harvest G12J11-3011A	212.0	29	16.2
Golden Harvest G11U58-3122	213.9	28	15.5
Beck's 5828	236.3	7	17.2
Beck's XL 6365AMX	232.6	18	17.0
POWER PLUS 4J95AMX™*	**228.8**	**22**	**15.8**
POWER PLUS 6P75AMX™*	**221.5**	**26**	**16.6**
✓Check	241.3		16.6
Wyffels W7108RIB	235.7	14	15.1
Wyffels W7888RIB	247.7	1	16.3
LG Seeds LG5618STX-RIB	237.1	12	16.1
LG Seeds LG5622 STXRIB	241.6	2	16.7
Channel 214-45STXRIB	234.0	11	16.7
Channel 211-35 STX RIB	229.5	17	15.5
✓Check	234.7		15.9
Pfister 3366RASS	239.2	3	16.5
Pfister 2565RASS	237.9	6	16.8
Dairyland 9314RA	217.7	25	15.1
Dairyland DS-9412RA	235.9	8	16.7
U.S. Seeds 1093VT3111	242.0	4	16.3
U.S. Seeds 1141VT2PRIB	203.1	31	15.4
Pioneer P1360CHR	183.0	32	16.0
✓Check	240.6	___	16.1
Average	229.3	___	15.9
Check Average	237.8		16.1

CHRISTIAN

Paul Rochkes
Pana, IL

Planted: May 15 in 30" rows. **Harvested:** September 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 196, P: 92, K: 120. **Herbicide:** Capreno. **Insecticide:** None. **Corn Borer Rating:** Heavy. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
BURRUS 516227	**261.2**	**17.2**	**100**	**31**
BURRUS 878207	**256.7**	**16.5**	**100**	**28**
POWER PLUS 6C41 S™*	**256.1**	**17.5**	**100**	**30**
BURRUS 223549	**246.2**	**17.2**	**88**	**30**
BURRUS 575278	**244.4**	**17.3**	**100**	**30**
POWER PLUS 6P75AMX™*	**242.3**	**15.7**	**100**	**30**
POWER PLUS 7A18 Q™*	**241.6**	**15.8**	**100**	**30**
BURRUS 130796	**240.7**	**19.1**	**96**	**33**
BURRUS 743294	**240.5**	**14.7**	**100**	**27**
POWER PLUS 6F74AMX™*	**239.9**	**15.3**	**100**	**29**
BURRUS 456116	**237.9**	**17.0**	**96**	**28**
BURRUS 6T54 3000GT	**237.4**	**17.0**	**100**	**29**
POWER PLUS 7H23 S™*	**235.8**	**15.0**	**40**	**27**
BURRUS 187233	**235.3**	**19.2**	**100**	**30**
BURRUS 967547	**234.6**	**15.7**	**96**	**29**
BURRUS 502792	**234.6**	**15.4**	**100**	**30**
POWER PLUS 6L45AMT™*	**231.9**	**16.0**	**100**	**28**
BURRUS 255137	**230.9**	**15.2**	**100**	**28**
BURRUS 642749	**230.9**	**15.7**	**96**	**28**
CATALYST 7893 3111	**230.3**	**17.8**	**100**	**27**
BURRUS 6T54 3000GT	**229.5**	**17.1**	**100**	**32**
BURRUS 735025	**227.3**	**16.1**	**96**	**30**
BURRUS 638535	**227.1**	**16.5**	**100**	**30**
BURRUS 276488	**225.5**	**15.8**	**96**	**31**
POWER PLUS 6N83AM™*	**222.9**	**15.4**	**84**	**28**
POWER PLUS 6F74AMX™*	**220.5**	**16.5**	**100**	**30**
BURRUS 499913	**220.1**	**18.5**	**100**	**30**
BURRUS 995336	**219.1**	**18.4**	**100**	**31**
POWER PLUS 4V45AM™*	**218.6**	**16.0**	**100**	**26**
BURRUS 941589	**217.1**	**15.0**	**100**	**27**
BURRUS 631644	**215.2**	**16.5**	**100**	**32**
CATALYST 7577 3010	**214.2**	**17.8**	**100**	**27**
BURRUS 5Z41 GT	**211.8**	**15.0**	**96**	**24**
POWER PLUS 4J93AM™*	**211.2**	**14.6**	**100**	**30**
BURRUS 5Z44 3122	**210.1**	**17.1**	**100**	**28**
BURRUS 362660	**209.8**	**18.9**	**100**	**27**
BURRUS 5Z44 3122	**209.3**	**16.5**	**96**	**32**
POWER PLUS 4J95AMX™*	**209.1**	**15.6**	**100**	**27**
BURRUS 5Z41 GT	**208.7**	**16.0**	**84**	**24**
BURRUS 6T54 3000GT	**206.5**	**17.8**	**100**	**27**
BURRUS 880174	**200.2**	**14.4**	**92**	**28**
BURRUS 5Z44 3122	**193.1**	**16.6**	**96**	**27**
POWER PLUS 4J95AMX™*	**166.4**	**15.5**	**100**	**28**
Average	225.6	16.5	97	29

Cameron Farms Inc.
Pana, IL

Planted: April 29 in 30" rows. **Harvested:** October 5. **Previous Crop:** Soybeans. **Fertilizer:** N: 160, P: 160, K: 160. **Herbicide:** Corvus. **✓Check Hybrid:** Power Plus 4J95AMX™*

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	173.5		13.5
POWER PLUS 2V56AMX™*	**169.3**	**11**	**13.8**
POWER PLUS 4V45AM™*	**147.1**	**17**	**13.6**
✓Check	176.4		14.5
POWER PLUS 5C17AMXT™*	**185.6**	**3**	**14.4**
Wyffels W7108RIB	181.3	1	14.1
✓Check	150.6		14.5
POWER PLUS 6P75AMX™*	**160.5**	**6**	**14.0**
BURRUS 5Z44 3122	**177.3**	**5**	**14.9**
✓Check	182.1		14.8
BURRUS 6T54 3000GT	**173.8**	**14**	**14.7**
POWER PLUS 6F71 R™*	**171.5**	**15**	**14.2**
✓Check	177.8		14.6
Wyffels W7888RIB	201.2	2	14.9
POWER PLUS 6F74AMX™*	**174.7**	**12**	**14.6**
✓Check	181.2		14.3
POWER PLUS 5N48™*	**183.7**	**7**	**13.5**
POWER PLUS 4J90™*	**197.5**	**4**	**13.9**
✓Check	185.2		14.9
POWER PLUS 7H20™*	**186.4**	**9**	**12.6**
BURRUS 6Q60	**188.6**	**8**	**13.1**
✓Check	189.2		14.2
POWER PLUS 6L45AMT™*	**181.4**	**13**	**14.4**
BURRUS XP5325-3000GT	**175.0**	**16**	**13.8**
✓Check	180.9		14.2
CATALYST 7893 3111	**178.3**	**10**	**14.9**
✓Check	179.7	___	15.1
Average	178.1	___	14.2
Check Average	177.7		14.5

CLAY

Brian and Levi Garrison
Louisville, IL

Planted: May 1 in 30" rows. **Planting Population:** 29,900. **Harvested:** September 25. **Previous Crop:** Wheat. **Fertilizer:** N: 150, P: 150, K: 150. **Herbicide:** Lexar EZ, Antrex, Grizzly. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7H23 S™*	**160.2**	**14.9**	**95**	**57.0**	**24**
BURRUS 6T54 3000GT	**145.1**	**19.3**	**100**	**57.7**	**28**
POWER PLUS 4J93AM™*	**144.3**	**16.4**	**100**	**58.0**	**30**
POWER PLUS 7U15AM-R™*	**143.7**	**16.4**	**100**	**58.0**	**29**
CATALYST 7893 3111	**142.4**	**19.1**	**100**	**55.7**	**28**
POWER PLUS 6N83AM™*	**136.1**	**16.4**	**100**	**57.0**	**26**
POWER PLUS 6C41 S™*	**132.5**	**18.3**	**95**	**59.5**	**27**
CATALYST 7577 3010	**129.2**	**20.2**	**100**	**56.0**	**23**
POWER PLUS 4V45AM™*	**124.3**	**16.7**	**95**	**58.2**	**25**
POWER PLUS 6F74AMX™*	**124.2**	**17.0**	**100**	**59.3**	**30**
Average	138.2	17.5	98	57.6	27

Population test

Brian Garrison
Louisville, IL

Planted: May 1 in 30" rows. **Harvested:** September 25. **Previous Crop:** Wheat. **Fertilizer:** N: 150, P: 150, K: 150. **Herbicide:** Lexar EZ, Antrex, Grizzly. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–normal, August–dry. **Remarks:** Population study, 42" of rain in 4 months.

Stephanie Porter, Burrus/Hughes Agronomist, Andy Schmalshof Burrus dealer, Dalton Shepherd Burrus Account Manager & Craig Patty Burrus Sales Manager plant their first Burrus Preview plot of the year near Avon, IL.

Power Plus® 6P75AMX™* took top honors in Cass Co. for Jenni & Ron Kuhlmann.

Jonathan Urish, son of Burrus Account Manager, Rick & Barb, is all smiles after showing the Reserve Champion Duroc gilt at the 2015 IL State Fair.

Lois & Jim Latimer saw uniform yields from top to bottom in Dekalb Co.

The 2015 Burrus/Hughes intern team assisted our sales staff & agronomists. Allen Bennett, Evan Weyant, Grant Clark, Courtney Brown & Austin Kocher. Not pictured is Seth Kuss.

“The Burrus people are honest employers and owners who are always there for your concerns.”
Roger Fricke, Burrus Production crew – 37 years

Power Plus® 6P75AMX™* made 265.5 bu/a for Bruce & John Spangler of Fulton Co.


Jade Nadler, daughter of John & Amber Nadler, of Jasper Co. loves dogs, cats & Burrus Coon’s Choice Plus sweet corn!


Kyra & Brian Willenborg had six hybrids plus the Power Plus® 6F71 R™* check above the average in Fayette Co.


Kay & Ron Schultz saw Power Plus® 4J93AM™* win at 173 bu/a in Shelby Co.


Gannon Greene, Pete Mitchell, Tom & Marcy Burrus, Griffin Greene & Taylor Mitchell enjoy a dinner together to celebrate Mother’s Day or as the grandkids would say, “Bubbles’ Day.”

Updated numbering system for 2016

The Burrus numbering system indicates the maturity with the first digit. Multiply the first digit by two than add 100 for the maturity day rating. The example Power Plus® 6F74AMX™* brand, multiply the digit by 2=12 then add 100. This depicts the maturity range as 112-113 day. The second letter is at random, if the last two digits are above 50 add the extra day. So, Power Plus® 6F74AMX™* brand is 113 day. When the letter stays the same and the digits are somewhat consecutive indicates a similar family e.g. Brands Power Plus® 4J90™*, 4J93AM™*, 4J95AMX™*, 4J99R™*. The chart below explains what each means.

Brands	Maturity	Group	Technology	Designation	RR	LL	Resistance or Control
Power Plus® 5C17AMXT™*	113	Above/ Below-Ground Insect Control	Optimum® AcreMax® XTreme	AMXT		■	Herculex® Xtra, Agrisure® Rootworm, YieldGard® Corn Borer
Burrus 5Z44 3122	110		Agrisure® 3122 E-Z Refuge®	3122			Agrisure® Rootworm, Herculex® Xtra, Agrisure® Corn Borer
Power Plus® 6F74AMX™*	113		Optimum® AcreMax® Xtra	AMX		■	Herculex® Xtra, YieldGard® Corn Borer
Power Plus® 6L45AMT™*	112		Optimum® AcreMax® TRIsect	AMT		■	Agrisure® Rootworm, YieldGard® Corn Borer, Herculex® I Corn Borer
Power Plus® 7A18Q™*	114		Herculex® Xtra	Q		■	Herculex® Xtra, Herculex® I Corn Borer
Catalyst 7893 3111	109		Agrisure Viptera® 3111	3111		■	Agrisure Viptera®, Agrisure® Rootworm, Agrisure® Corn Borer
Burrus 6T54 3000GT	113		Agrisure® 3000GT	3000GT		■	Agrisure® Rootworm, Agrisure® Corn Borer
Power Plus® 4J93AM™*	109	Above-Ground Insect Control	Optimum® AcreMax®	AM		■	Herculex® I Corn Borer, YieldGard® Corn Borer
Catlayst 7577 3010			Agrisure® 3010	3010		■	Agrisure® Corn Borer
Power Plus® 7U15AM-R™*	114		Optimum® AcreMax®	AM-R			Herculex® I Corn Borer, YieldGard® Corn Borer
Power Plus® 7H23 S™*	108		Stacked, Herculex® I	S		■	Herculex® I Corn Borer
Power Plus® 6F71 R™*	113	Glyphosate-Resistant	Roundup Ready®	R	■		Glyphosate tolerant
Burrus 6T51 GT	113		Agrisure® GT	GT	■		Glyphosate tolerant
Hughes 2428 GTA	100		Agrisure Artesian® GTA	GTA	■		Agrisure Artesian®, Glyphosate tolerant
Burrus 6Q60	113	Non-GM	Non-GM Conventional	no letters			No traits

IMPORTANT: Characteristic scores provide key information useful in selecting and managing products in your area. Information and ratings are based on comparisons with other products sold by Burrus. Information and scores are assigned by Burrus and are based on period-of-years testing through 2015 harvest and were the latest available at time of printing. Some scores may change after 2016 harvest. Scores represent an average of performance data across areas of adaptation, multiple growing conditions, and a wide range of both climate and soil types, and may not predict future results. Individual product responses are variable and subject to a variety of environmental, disease and pest pressures. Please use this information as only one component of your product positioning decision. 10 is best 1 is worst

Nomenclature – the more things change… the more they stay the same

Dealers and customers will see the same nomenclature as 2015. Here is a review of the Burrus® nomenclature to designate seed size and treatment:

HP – this still represents high rate Poncho® 1250 with VOTiVO® nematicide.

BXR – is recognized as what was previously PX23 in the Burrus system. This seed size is a Poncho® 500 VOTiVO treated round-sized seed ranging from 38 lbs. and up.

BX3 – is a Poncho® 500 VOTiVO treated seed that has been sized as either a flat or a round. The size range is 30-39 lbs. This seed size carries a discount.

BX4 – is also treated with Poncho® 500 VOTiVO and is a flat or round weighing 40-49 lbs.

Many growers have come to realize that a number listed behind the nomenclature marker represents the weight range of that specific hybrid in the Burrus system. For example, a BX4 will weigh between 40-49 lbs. and a BX5 will be in the weight range of 50-59 lbs.

Growers can capitalize on additional seed size discounts within our system when those particular sizes are available. Discounts are given for small and extremely large seed sizes. BX3s, BX6s and BX7s have a discount off retail price. The new Catalyst brand brings different seed sizes for added protection from several insects.

All Catalyst brand products will be packaged in 80,000 kernel packages.

F1 & R1 will weigh 32 to 42 lbs. They will appear in the BX3 column for ordering.

F2 will weigh 43 to 55 lbs. They will appear in the BX5 column.

F3 will weigh 56 lbs. & up. They will appear in the BX6 column.

R2 & R3 will weigh 43 to 55 lbs. and 56 lbs. and up respectively and will appear in the BXR column.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
BURRUS 5Z44 3122	180.5	18.2	57.5	26
BURRUS 5Z44 3122	176.1	18.5	57.6	30
BURRUS 5Z44 3122	173.9	17.6	57.4	20
BURRUS 5Z44 3122	162.0	18.1	58.5	35
BURRUS 5Z44 3122	148.8	18.5	58.6	60
Average	168.3	18.2	57.9	35

Population study

Brian Garrison
Louisville, IL

Planted: May 1 in 30" rows. **Harvested:** September 25. **Previous Crop:** Wheat. **Fertilizer:** N: 150, P: 150, K: 150. **Herbicide:** Lexar EZ, Antrex, Grizzly. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–normal, August–dry. **Remarks:** Population study, 42" of rain in 4 months.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4J93AM™*	152.4	16.0	58.0	31
POWER PLUS 4J93AM™*	149.9	15.4	58.0	60
POWER PLUS 4J93AM™*	145.7	15.0	57.0	26
POWER PLUS 4J93AM™*	136.1	16.0	57.0	36
POWER PLUS 4J93AM™*	127.3	15.6	57.0	21
Average	142.3	15.6	57.4	35

Lowering your cost per bushel raised is a good way to be more profitable!

With lower commodity prices, the best way to improve your bottom line is to lower your cost per bushel raised. Two thoughts prevail. The first is to do everything possible to increase yield on every acre. We go back to the basics, selecting the best hybrid or variety, getting it planted at the optimum population, and avoiding chemicals that tend to damage or stunt.

Looking for ways to lower cost is a second option. At Burrus, we offer very good options. First, consider using some structured refuge products. Yes, it means loading two products in the planter if you do a split planter method, but on a 240 unit order you can save nearly $8,000-10,000, as the examples show. Consider using High rate Poncho 1250 as a second mode of action in the corn rootworm area by stacking it on single traited products. The upgrade from our standard treatment is only $10 per unit. Keep in mind that the control under very heavy pressure might not be as effective as two stacked traits, but the savings are good and the CRW pressure is predicted to be some less for 2016.

Another way to save money without sacrificing performance is to capitalize on either of two insecticide rebate opportunities. Syngenta offers rebates if you buy Force® insecticide, from an authorized dealer, in quantities that match the acres of Syngenta CRW traited products. Also, AMVAC offers a rebate for several different insecticides that can be delivered in Smart Boxes for grower safety. Contact your Account Manager for complete details of either of these offers.

Another strategy for the fringe area around the CRW variant area, where heavy pressure is less likely, is to consider adding Poncho 1250 to an above ground only product with a structured refuge or single bag refuge. You can still pour and plant and save about $7,000-8,000, as shown on the example.

If you use the Syngenta Force rebate on half of your corn acres and purchase the other half with 3111 technology, you can save $13,000-15,000. To execute this concept, you would apply the Force on your conventional acres and let the 3111 event protect your traited acres. This concept is more appealing to the fringe area around the CRW variant area.

Another idea for lower seed costs is to choose a larger or smaller seed size. Burrus offers $10 per unit discount for purchasing BX3 or BX6 seed sizes. See the chart adjacent to this article.

Last but certainly not least is to save by utilizing the Early Pay Savings opportunities. We offer discounts on the 10th of each month. You can borrow from the bank, pay their interest, and still make money as our rates are very aggressive. In addition, you can use any of the many John Deere Financial or RABO options listed here too.

Hopefully we have provided some options to consider that can lower your cost per bushel for every bushel you raise. Increasing yield is still the best way to lower cost per bushel. Good luck as you make decisions.

How much can you save by using smaller or larger seed sizes?

- Save $10 per unit on BX3 or BX6
- BX3 weighing 30 to 39.5 lbs per 80 M unit 60 units per EZ load box
- BX6 weighing 60 to 69.5 lbs per 80 M unit 40 units per EZ load box
- Save $20 per unit on BX7 when available
- BX7 weighing 70 lbs per 80M unit and up
- We recommend using EZ load boxes 35 units per EZ load box
- Individual unit packages are 40,000 kernel bags starting at 35 Lbs.

How much can you save by using structured refuge ?

	Refuge in a bag		
240	5C17AMXT	$ 344	$ 82,560
240	4J95AMX	$ 334	$ 80,160

Use Structured Refuge			
200	7A18 Q	$ 309	$ 61,800
40	6F71R	$ 255	$ 10,200
•			$ 72,000
		savings of $8- 10,000	

Use a single mode of action CRW trait and add Poncho 1250 for a second mode of action

Use Structured Refuge			Add HP
200	6T54 3000GT	$ 315	$ 63,000
40	6F71R	$ 265	$ 10,600
			$ 73,600
		savings of $7- 9,000	

In the fringe area where CRW exposure is lower Put High rate Poncho to above ground protection RIB

	Refuge in bag				Refuge in bag		Add HP
240	5C17AMXT	$ 344	$ 82,560	240	4J93 AM	$ 302	$ 72,480
							$ 72,480
240	4J95AMX	$ 334	$ 80,160				savings of $8- 10,000

- **Use a combination of conventional and 3111 product with the Syngenta Force rebate**

120	5N48	$ 203	$ 24,360
120	7893 3111	$ 315	$ 37,800
			$ 62,160
120	Force		$ 7,500
Syngenta	rebate		$ (4,200)
			$ 65,460
	savings of $13- 15,000		

DEKALB

Jim Latimer
DeKalb, IL

Planted: April 30 in 30" rows. **Planting Population:** 34,000. **Harvested:** October 23. **Previous Crop:** Soybeans.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 3H85AMX™*	241.9	16.9	57.0
POWER PLUS 5C17AMXT™*	232.0	17.0	59.0
POWER PLUS 6P75AMX™*	230.1	18.2	56.0
POWER PLUS 4J95AMX™*	225.8	16.8	57.0
POWER PLUS 6F74AMX™*	223.9	16.9	59.0
POWER PLUS 4J95AMX™*	222.7	16.1	56.0
POWER PLUS 2F91AMXT™*	220.8	15.7	59.0
POWER PLUS 2V56AMX™*	214.3	15.5	59.0
POWER PLUS 1S26AMXT™*	212.7	14.7	58.0
Average	224.9	16.4	57.8

ILLINOIS

DOUGLAS

Power Plus® 7A18AM1™ brand* & 6F74AMX™* top two

Bozdech Farms
Villa Grove, IL

Planted: April 30 in 30" rows. **Harvested:** October 14. **Previous Crop:** Corn. **Weather:** May–wet, June–dry, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 7A18AM1™*	209.0	14.8
POWER PLUS 6F74AMX™*	207.0	14.2
POWER PLUS 6P75AMX™*	204.0	13.7
POWER PLUS 6L45AMT™*	200.0	13.8
Beck's XL 6175AMXT	198.0	14.1
POWER PLUS 5C17AMXT™*	189.0	13.6
POWER PLUS 4J95AMX™*	179.0	13.4
BURRUS 5Z44 3122	171.0	13.7
BURRUS XP4173-3111	149.0	13.5
Average	189.6	13.9

FAYETTE

Brian Willenborg
Vandalia, IL

Planted: May 2 in 30" rows. **Planting Population:** 31,500. **Harvested:** October 12. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: VRT, K: VRT. **Herbicide:** Bicep, Atrazine, Halex GT. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–normal. **✓Check Hybrid:** Power Plus 6F71 R™*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect
✓Check	228.2		15.3	100
POWER PLUS 2N82AM™*	159.5	12	13.7	10
POWER PLUS 4V45AM™*	217.0	8	14.3	100
POWER PLUS 4J93AM™*	242.1	2	13.9	100
BURRUS 5Z44 3122	212.0	10	15.3	100
BURRUS 6T54 3000GT	223.6	5	15.4	100
POWER PLUS 6F74AMX™*	223.6	6	13.7	100
✓Check	231.3		12.5	100
POWER PLUS 6C41 S™*	253.2	1	15.7	100
POWER PLUS 6N83AM™*	219.7	7	14.5	100
POWER PLUS 7H23 S™*	233.5	4	13.8	100
POWER PLUS 7U15AM-R™*	234.0	3	14.1	100
CATALYST 7893 3111	206.4	11	15.3	100
CATALYST 7577 3010	215.1	9	15.8	100
✓Check	226.3		14.6	100
Average	221.7		14.5	100
Check Average	228.6		14.1	100

FULTON

Spangler Grain Co.,
Marietta, IL

Planted: April 15 in 30" rows. **Harvested:** September 15. **Previous Crop:** Soybeans. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand-Variety		Bu. Per Acre	% Moisture
Wyffels W7888RIB	Starter	280.5	20.9
Wyffels W7888RIB	No Starter	273.1	21.4
POWER PLUS X7A18™*	Starter	264.6	21.5
POWER PLUS X7A18™*	No Starter	253.5	21.8
Average		267.9	21.4

European corn borer – The pest to watch

By Matt Montgomery

European corn borer (ECB) continues to be an important topic in the Burrus footprint, yet many growers may not fully appreciate how important a topic it is. For the past three years, Burrus has reminded growers that (despite some industry comments) this stalk feeding pest is not a thing of the past. In fact, when we examine non-GM/non-traited hybrids commonly distributed in our network of show plots, we consistently detect infestation levels of at least 10%. Unfortunately, those observations continued and intensified in 2015.

Let's briefly describe what Burrus Account Managers do each fall when they help us conduct this survey. Our show plots, what some might call strip plots, are spread across the Burrus footprint. They contain a few to several hybrids and are planted using the grower's own equipment. It is not uncommon for us to include some non-GM hybrids and some herbicide only hybrids in these plots. Each fall, when our Account Managers bring their weigh wagon to the field, they examine at least one non-GM/non-trait product (if it is present) in each plot. They remove the leaves from the plant and examine it from top to bottom for evidence of corn borer feeding (small quarter to eighth inch holes in the stalk usually accompanied by frass/insect manure).

A reminder, corn borer burrow into the stalk and then feed within it, decreasing water and nutrient flow. This, of course, can have a dramatic impact upon yield. We rate the corn borer pressure at each show plot using a scale-based system. In that system, a "light infestation" is defined as 1-5 plants infested out of 25. A "moderate infestation" is 6-10 plants infested out of 25. More than 10 plants are considered a "heavy infestation." We use that information to better understand the level of ECB pressure encountered during the past growing season. We become most concerned, from a yield standpoint, when we encounter moderate to high ECB infestations.

Burrus has noted, over the past few seasons, that ECB levels have not "zeroed out" (a claim once made by some). We have noted that European corn borer infestations did go from above 30% in 2008 to less than 10% in 2009. However, we also noted that such pressure seemed to stabilize between 10 to 15% following 2009. We therefore cautioned that this pest would bounce back quickly if resistance ever developed because it would not be coming back from zero. We also used this data to generate a map of those areas we deem most at risk for corn borer injury. That map can be seen in Figure 1.

The central part of Missouri tends to suffer more relative corn borer pressure than does the rest of the Burrus footprint. The map in Figure 1 illustrates this by classifying north-central Missouri as a high risk region for corn borer injury. We have included 2015 high to moderately infested fields as red circles on that map.

What did 2015 corn borer pressure look like? Let's start talking about 2015 by first addressing our 2014 survey work. In the 2014 *Burrus Harvest Report*, we noted that corn borer pressure was around 13% to 14%. However, those were preliminary numbers (numbers released at press time before the survey was complete). Once our evaluations wrapped up, we found moderate to high levels of European corn borer in about 22% of examined non-GM/non-traited products. We had not seen infestation levels like that since 2011. As of press time, our 2015 survey work is not yet complete, but we still can release some more preliminary numbers. Those preliminary numbers are very disturbing and can be seen in Figure 2. So far, our Account Managers have detected moderate to heavy ECB pressure in about 41% of surveyed non-GM/non-trait hybrids. This marks the highest corn borer pressure in more than seven years.

Can we explain that pressure away though? Is it merely a function of us perhaps sampling more Missouri fields? After all, we said that Missouri represents a region more prone to ECB damage. Actually, this is not the case at all. As can be seen in Figure 2, Missouri field representation within our sample was about as low as it has been. It was represented at about 40%, a number nearly equal to Missouri's representation in 2011 and 2013. Yet, the pressure was as high (from field to field) as we have seen it for a long, long time.

An examination of Illinois-only data is also shocking. Illinois sampled non-GM/non-traited hybrids have gone from about 6% moderate to severe infestation in 2013, to 15% in 2014, and 26% moderate to severe infestation in 2015. One can accurately say that moderate to severe European corn borer pressure has been on the increase over the last three growing seasons within Missouri and the Land of Lincoln. We would be remiss if we did not mention something else. We also, occasionally, encountered some low-level injury to traited hybrids within a few of these fields. While not evidence of a resistance explosion, encountering even some minor injury to these products was disturbing.

The ECB situation is troubling. European corn borer has displayed an increasing presence over the last three growing seasons. The number of moderate to severely infested non-GM/herbicide only hybrids hit a level that we have not seen in more than seven years. European corn borer sometimes displayed some minor feeding in a couple traited products (feeding that could represent bleed over from non-GM host corn or survival on the refuge component but feeding that is not completely explained by either). We therefore stress a few important points.

First, growers should not assume that a move away from Bt does not carry any yield risk. European corn borer continues to appear in the Burrus footprint, and it can easily damage non-GM/herbicide only hybrids. The yield impact in these fields has sometimes hit a few dozen bushels. A grower must evaluate their own scouting skills before they move away from traited corn. If they are highly confident in their ability to detect corn borer before it nestles safely within the stalk, then such a move may be possible. If they are not confident, traited products must remain a significant portion of their seed purchase.

Growers can use the map in Figure 1 to contemplate their risk level, but they should also pay attention to ECB infestation in 2015 when estimating that risk level.

Finally, nobody is claiming that we are on the edge of resistance to Bt corn. However, our recent observations bring to mind a core principle of Burrus resistance management: "If you notice something unusual with a pest, do not explain it away. While it may not be and probably is not resistance, act as though it is and initiate resistance management strategies. Waiting for resistance confirmation before resistance management is initiated, is too little too late."

If you are growing Power Plus 6C41™* or 7H23 S™* or Catalyst 7577 3010 always plant a 20% refuge with a non ECB Bt product. Rotate traits and rotate through corn borer pyramided products. Do not find a single Bt trait and overuse it.

Figure 1. Area deemed at most risk for European corn borer injury (risk zones generated from 2012 – 2013 Burrus fall survey data)

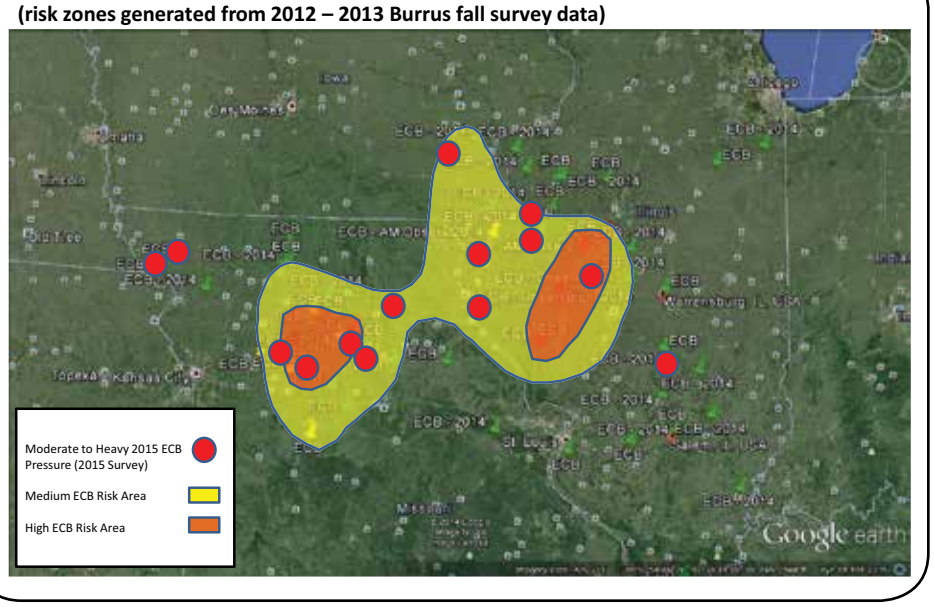
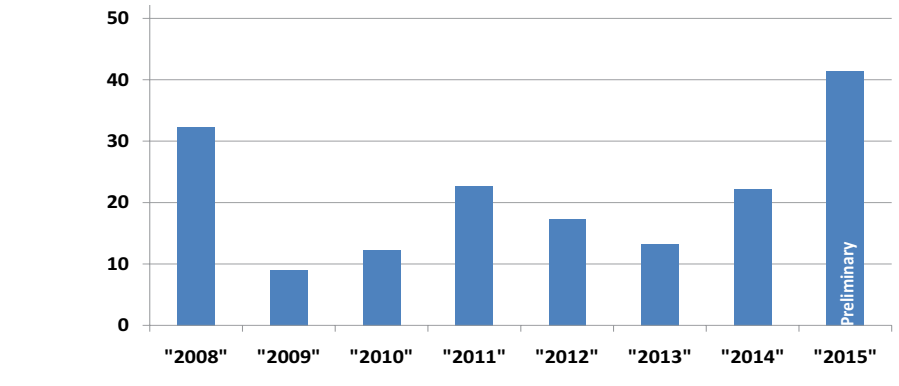


Figure 2.
Percent Plants Moderately to Severely Infested with European Corn Borer (ECB) (2008 – 2015 Preliminary)



Nitrogen – Don't learn the wrong lesson from 2015, it was an outlier

By Matt Montgomery

The 2015 growing season was an outlier. Few, if any, can remember that amount of rainfall between May and August. There are two problems associated with an outlier season like this one. First, it can have a devastating impact on yield, as we learned all too well. The second problem with an outlier season might not be so obvious. A year like 2015 can lead to some really poor agronomic decisions. If growers use this outlier year as a signal for what constitutes good practice, they run an increased chance of making poor agronomic choices that can hurt the bottom line. We will discuss this idea by referencing the all-important subject of nitrogen. If a grower thinks they learned the secret silver bullet when it comes to nitrogen (the one source or method everyone but they have missed up to this point), they learned the wrong lesson. 2015 taught us a lesson about nitrogen, but it is not the lesson some might think.

Consider Figures 1 and 2. Figure 2 highlights nitrogen application/ formulation options commonly available to the grower. Figure 2 also notes scenarios in which specific nitrogen applications/formulations seem to work best. It references how various sources come out when a more typical growing season is encountered. On the other hand, Figure 1 describes the very unique scenario that we encountered in 2015 and describes how various sources performed this past season. We have highlighted what works/ worked using yellow font. The reader will notice that the two lists are polar opposites. 2015 was a complete reverse. If anything, 2015 showed us that it was incredibly different from the norm. It did not give us insight into nitrogen best management practices. It merely reminded us that nature can throw some wicked curve balls. Rewind the tape, apply the same nitrogen source again or apply it using that same unique method. However, this time dry things up. The outcome will be

Think BURRUS

Nitrogen Sources

Figure 1

Nitrogen Source/ Application Technique	Ideal Scenario	More Troubling Scenario	More Information 2015 Scenario in Central Burrus Footprint
Anhydrous w/ Inhibitor (Fall)	Central to Northern, Cold winter/ cool spring, Average to drier spring	Southern, Warm winter or spring, Wet spring	Eventually converted to lost form especially as soils warm - makes loss likely if wet weather follows.
Anhydrous (Spring) Pre* or Post Plant (*More ideal w/ inhibitor)	Cold - average and average - drier spring, Possible to get into field	Very wet spring to early summer, Difficult to get in field	Eventually converted to lost form as summer soils warm - makes loss likely if wet weather follows.
28 or 32 (Injected)	Cool – average and average – drier spring, Possible to get into field	Very wet spring to early summer, Difficult to get in field	Converted to lost form within weeks – makes loss likely if extreme wet weather follows.
Ammonium NO_3 or SO_4 (Surface Late Winter – Early Spring)	Cool and mildly wet spring	Drier or very wet spring to early summer, Warm	More rapidly converted to lost form – a fair amount of rain will be needed to water it in.
Broadcast Urea w/ Inhibitor	Cool and wet late spring to early summer	Drier and warm spring to early summer	More rapidly converted to lost form – some rain needed to water it in as it converts.
28 or 32 (Dribbled) Between Rows	Cooler and wetter late spring to early summer	Drier and warm spring to early summer	More rapidly converted to lost form – makes loss more likely if rain doesn't help water some in.
Solid or Liquid N Fertilizer* (Broadcast) (*Not w/ inhibitor)	Cool to very wet late spring to early summer	Drier and warm spring to early summer	Rapidly converted to lost form – loss likely if extreme rainfall doesn't water it in.

Think BURRUS

Nitrogen Sources

Figure 2

Nitrogen Source/ Application Technique	Ideal Scenario	More Troubling Scenario	More Information More Common Scenario in Central Burrus Footprint
Anhydrous w/ Inhibitor (Fall)	Central to Northern, Cold winter/ cool spring, Average to drier spring	Southern, Warm winter or spring, Wet spring	Eventually converted to lost form especially as soils warm - makes loss likely if wet weather follows.
Anhydrous (Spring) Pre* or Post Plant (*More ideal w/ inhibitor)	Cold - average and average - drier spring, Possible to get into field	Very wet spring to early summer, Difficult to get in field	Eventually converted to lost form as summer soils warm - makes loss likely if wet weather follows.
28 or 32 (Injected)	Cool – average and average – drier spring, Possible to get into field	Very wet spring to early summer, Difficult to get in field	Converted to lost form within weeks – makes loss likely if extreme wet weather follows.
Ammonium NO_3 or SO_4 (Surface Late Winter – Early Spring)	Cool and mildly wet spring	Drier or very wet spring to early summer, Warm	More rapidly converted to lost form – a fair amount of rain will be needed to water it in.
Broadcast Urea w/ Inhibitor	Cool and wet late spring to early summer	Drier and warm spring to early summer	More rapidly converted to lost form – some rain needed to water it in as it converts.
28 or 32 (Dribbled) Between Rows	Cooler and wetter late spring to early summer	Drier and warm spring to early summer	More rapidly converted to lost form – makes loss more likely if rain doesn't help water some in.
Solid or Liquid N Fertilizer* (Broadcast) (*Not w/ inhibitor)	Cool to very wet late spring to early summer	Drier and warm spring to early summer	Rapidly converted to lost form – loss likely if extreme rainfall doesn't water it in.

very different if that happens. The list of what works will be very different.

So what was the nitrogen lesson of 2015? As the reader can see, there are plenty of scenarios where each nitrogen application method and/or form may or may not work. Figures 1 and 2 remind us that there is not a silver bullet when it comes to nitrogen applications. Yes, we should always shoot to get the nitrogen in the soil and yes, we should try to stabilize that nitrogen each fall. Yes, the soil needs to be cool for fall applications. That is as close as we get to a silver bullet. Instead, we learned that nature can generate different scenarios that could cause each nitrogen system/source to fail. Throw the worst possible environment at the crop (as we arguably did in 2015), and you may just get really bad nitrogen options to work rather well.

So again, what was the nitrogen lesson of 2015? We really learned to be prepared for anything. We can prepare for anything by spreading out nitrogen applications (always with an eye for getting nitrogen into the soil and keeping it stable). This spreads our risk. While one of those nitrogen systems or application dates may fail in a given environment, not every system will. We should make sure we apply nitrogen at two or more different times during the growing season. Nature can be a dead shot when the targets are few. However, nature has pretty poor aim when the targets are many.

By spreading out nitrogen applications, we create multiple nitrogen targets. We spread our risk much like a grower does when he or she markets grain on multiple dates. The market may prove less than ideal on one of those dates, but it will not prove less than ideal on every one of those dates. Spread your risk, spread your risk, spread your risk (in nitrogen spread out your nitrogen applications, spread out your nitrogen applications, spread out your nitrogen applications)– that is a nitrogen lesson and a general farming lesson this season.

FULTON

Andy & Adam Schmalshof
Avon, IL

Planted: April 14 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 22. **Previous Crop:** Soybeans. **Fertilizer:** N: 160, P: 46, K: 90. **Herbicide:** Balance Plus Laudis. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 5C17AMXT™*	**231.0**	**18.0**	**100**	**57.5**	**33**
POWER PLUS 6P75AMX™*	**226.9**	**18.6**	**100**	**57.6**	**33**
POWER PLUS 4J95AMX™*	**224.7**	**18.2**	**100**	**58.5**	**32**
BURRUS 6T54 3000GT	**221.9**	**18.7**	**100**	**56.6**	**33**
BURRUS 5Z44 3122	**221.5**	**19.7**	**100**	**55.9**	**30**
POWER PLUS 6F74AMX™*	**217.1**	**17.4**	**100**	**59.3**	**32**
Average	223.8	18.4	100	57.6	32

Andrew Stuckey
Canton, IL

Planted: April 17 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 10. **Previous Crop:** Corn. **Fertilizer:** N: 250, P: 150, K: 50. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6N83AM™*	**229.8**	**23.0**	**90**	**56.7**	**34**
POWER PLUS 4J95 AMX™*	**227.0**	**22.3**	**100**	**57.5**	**33**
POWER PLUS 6P75AMX™*	**221.8**	**24.1**	**100**	**58.0**	**33**
BURRUS 6T54 3000GT	**218.9**	**25.1**	**100**	**58.3**	**33**
BURRUS 5Z44 3122	**217.3**	**25.0**	**100**	**55.3**	**33**
CATALYST 7893 3111	**215.5**	**24.0**	**100**	**54.0**	**32**
POWER PLUS 7H23 S™*	**210.1**	**19.9**	**90**	**56.9**	**32**
POWER PLUS 5C17AMXT™*	**203.0**	**23.0**	**100**	**56.7**	**32**
POWER PLUS 6F74AMX™*	**201.2**	**22.2**	**100**	**58.5**	**33**
Average	216.1	23.2	98	56.9	33

Spangler Grain Co.
Marietta, IL

Planted: April 15 in 30" rows. **Harvested:** September 15. **Previous Crop:** Soybeans. **Fertilizer:** N: 225, P: 175, K: 175. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
Agrigold A6499STX	277.6	22.1
Wyffels W8376RIB	276.7	23.2
Wyffels W7888RIB	266.9	21.9
POWER PLUS 6P75AMX™*	**265.5**	**20.5**
POWER PLUS 7H23 S™*	**263.0**	**19.2**
Wyffels W7736RIB	262.5	20.6
Dekalb DKC64-87	261.8	20.8
Agrigold A6559STXRIB	260.4	20.7
BURRUS 6T54 3000GT	**260.1**	**22.5**
Agrigold A6472VT3P	257.2	21.0
Agrigold A6462 STXRIB	256.9	20.0
Channel 214-45STXRIB	255.1	20.7
Dekalb DKC62-77RIB	251.9	20.3
POWER PLUS 5C17AMXT™*	**248.0**	**19.1**
Wyffels W7108RIB	245.6	19.3
Channel 213-28	237.6	20.3
Average	259.2	20.8

Scott Dean
Astoria, IL

Planted: April 20 in 30" rows. **Harvested:** September 10. **Previous Crop:** Soybeans. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J93AM™*	**245.7**	**21.4**
Pioneer P0832ER	211.3	22.4
Average	228.5	21.9

GREENE

Power Plus® 6P75AMX™* brand wins plot

Doug and Joe Thornton
Carrollton, IL

Planted: April 27 in 30" rows. **Planting Population:** 35,077. **Harvested:** September 25. **Previous Crop:** Soybeans. **Fertilizer:** N: 205, P: 115, K: 150. **Herbicide:** Corvus, Atrazine. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–wet. ✓**Check Hybrid:** Power Plus 6P75AMX™*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓**Check**	210.7		13.9	100	33
POWER PLUS 7H23 S™*	**204.4**	**6**	**13.9**	**95**	**34**
CATALYST 7577 3010	**201.1**	**8**	**15.3**	**100**	**29**
CATALYST 7893 3111	**178.8**	**12**	**14.0**	**100**	**32**
✓**Check**	211.1		14.2	100	31
POWER PLUS 6L45AMT™*	**194.2**	**4**	**15.1**	**100**	**34**
BURRUS 6T54 3000GT	**189.8**	**7**	**15.7**	**100**	**36**
POWER PLUS 6P75AMX™*	**200.6**	**1**	**14.6**	**100**	**35**
✓**Check**	183.6		14.7	100	36
POWER PLUS 6F71 R™*	**175.2**	**11**	**14.7**	**100**	**35**
POWER PLUS 6F74AMX™*	**185.3**	**5**	**14.9**	**100**	**35**
POWER PLUS 6N83AM™*	**191.2**	**2**	**14.1**	**100**	**32**
✓**Check**	195.9		13.9	100	32
POWER PLUS 5C17AMXT™*	**179.8**	**9**	**14.5**	**100**	**34**
BURRUS 5Z44 3122	**179.8**	**10**	**13.5**	**100**	**33**
POWER PLUS 4J95AMX™*	**188.5**	**3**	**13.4**	**100**	**31**
✓**Check**	185.9	—	14.6	100	34
Average	191.5	—	14.4	100	33
Check Average	197.4		14.3	100	33

Joe, Anna Beth, Mel & Doug Thornton saw big yields in Greene Co. with Power Plus® 6P75AMX™* ranked first.

Jim Allen

Join us in welcoming Jim Allen as a Burrus Account Manager. Jim lives in Rochester, IL and enjoys working directly with growers in Sangamon and Menard counties. He will provide the superb service that Burrus customers have come to expect and appreciate.

Jim is a graduate of Illinois State University. He spent a large part of his professional career in sales with Sherwin-Williams and he understands the art of matching a complete program of hybrids, technologies, and seed treatments to meet the needs of growers.

Jean, Jim's wife, has worked for UPS for 26 years. They have two children who attend Rochester High School. Their daughter, Kelly is a senior and plays on the tennis team and son, David, who is a freshman plays both football and basketball. Their family enjoys boating, camping, and fishing.

He finds working with the growers directly to help grow their business a rewarding part of the job. Contact Jim at (217)-303-1071 to learn more about making your operation more profitable by placing Burrus products on your farm.

Agrisure Artesian® corn hybrids convert water into grain more effectively.

- Artesian® corn hybrids maximize yield when it rains and increase yield when it doesn't. Built using scientifically selected genes, this elite class of high-performing hybrids can respond to water stress with multiple modes of action and at virtually any stage of growth—managing gaps in rainfall throughout the season.
- Elite hybrids built for top-end yield
- Advanced corn water technology for season-long performance
- A simple, effective way to manage the unpredictability of weather
- Top-end yield in "normal" or productive conditions and nearly 12% higher yields than the plot average in severe and extreme drought[1]

(1) Source: Data is based on 7,613 Syngenta on-farm strip trials across the Corn Belt, 2010-2014. Syngenta defines a yield environment of 50-99 bu/A as severe and fewer than 50 bu/A as extreme.

Rootworms in 2016 – less beetles but not completely absent

By Dr. Matt Montgomery

A visit to the 2015 University of Illinois Agronomy Day encapsulated this year's rootworm situation very well. Speakers noted less adult rootworm beetles (during summer survey work) than ever before, an indication of high mortality. This has led to some good questions. First, why did we see less adult rootworm beetle pressure and will that translate into fewer issues with rootworms in 2016? Second, if pressure has decreased for 2016, does that make rootworm management a completely mute issue? Third, what should be our strategy in the season to come?

Why fewer beetles and what does that mean?

There is one main explanation behind low beetle counts in 2015. It is accompanied by many secondary explanations.

What primarily explains the decrease? Larvae need to breathe and our saturated soil kept them from doing so. The cells of rootworm larvae initiate a mechanism that allows them to briefly survive when oxygen is low. During this process, lactic acid is produced as a waste product. This process is acceptable as long as lactic acid does not reach a critical level. For the rootworm, more than one day of lactic acid accumulation results in death. Figure 1 and Figure 2 show that rootworms were repeatedly deprived of oxygen this season. They were exposed to a very lethal insecticide – their own lactic acid.

What else decreased field to field rootworm numbers? Once again, rainfall is the answer and it impacted every stage of the rootworm lifecycle. Sometimes that impact resulted in a very direct rootworm decrease. Sometimes that impact was more indirect.

Let's begin with eggs. Rootworm eggs sit in the soil, overwinter there, and hatch the next growing season. They're very hardy when it comes to moisture. They actually need a little soil moisture to survive and seldom suffocate to death. However, this changes when water logged conditions are accompanied by cool weather. Put those two together and egg mortality spikes. The early to middle part of the growing season was unseasonably cool and wet. While resulting egg mortality is not the primary explanation for decreased pressure this season – it did contribute (ever so slightly) to decreased rootworm numbers.

Let's move to larvae. We noted that rootworm larvae do "suffocate to death" in saturated soil. However, excess soil moisture still impacts those larvae that successfully stumble through wet soil. Larvae need to find roots, need a pathway to roots, and need adequate roots to graze upon when they get there. 2015 exploited each of those vulnerabilities.

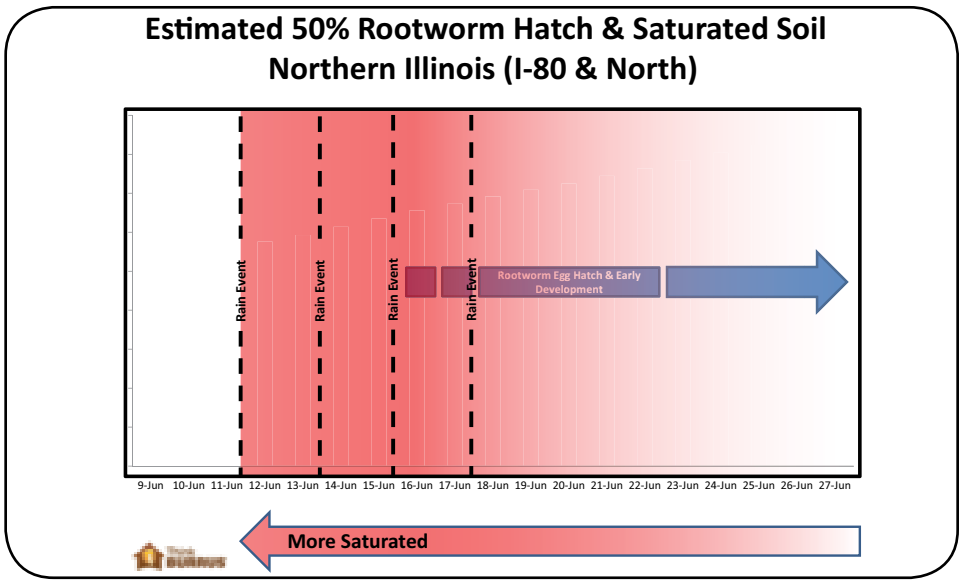
Rootworm larvae rely upon carbon dioxide and chemicals released by corn roots to hone in on those roots. This material must filter through soil pores to larvae. Only then can larvae detect those gases and progress toward the host root material. However, when soil pores are full of water – these gases can't get to rootworms. Survivors literally cannot detect where the roots are and run an increased chance of starving to death.

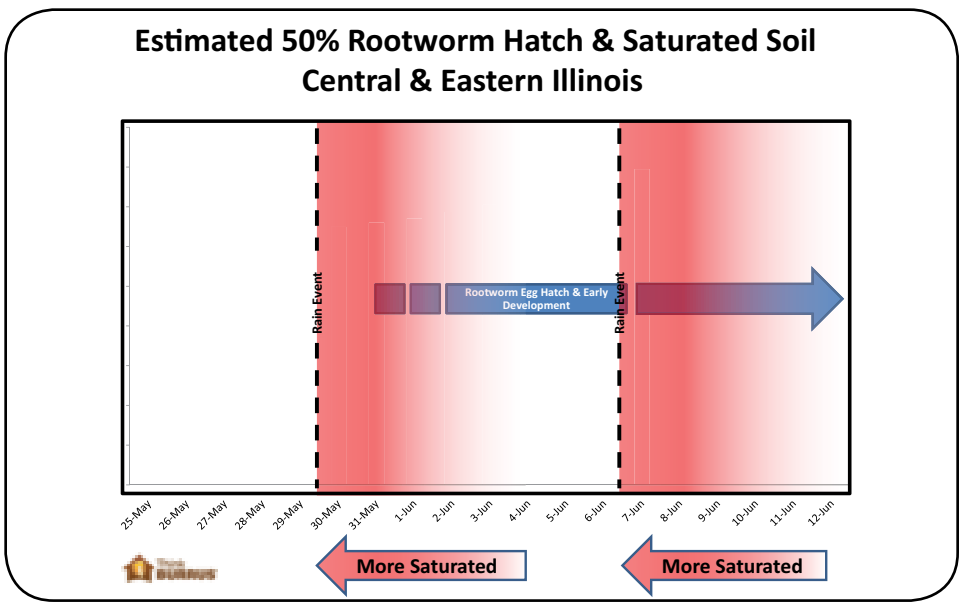
Rootworms do not really "burrow" through the soil. Instead, they crawl through soil pores to reach their host. Saturation literally clogs the small holes/highways used by rootworms to reach roots.

Finally, on a more indirect level, saturated soil results in very shallow/skimpy root systems. We had less root material distributed throughout the soil profile. If rootworm larvae somehow found a way to survive and found a way to reach corn roots, there often was a pretty thin feast waiting for them.

How about the impact of rainy weather on adult beetles? While some "beetle diseases" tend to appear during rainy weather (thus directly reducing beetle numbers), the field to field impact upon beetles is more indirect. Researchers know that prolonged rainy, cool weather decreases rootworm field to field migration. Frankly, if rootworms didn't survive within a specific field, neighboring fields could not boost that field's beetle population this season.

Will this impact rootworm pressure in 2016? The answer is a definitive yes. The impact upon regional rootworm pressure will be dramatic. University specialists fully expect rootworm pressure within our footprint to be as low as it has ever been. The likelihood of an individual field suffering rootworm injury in 2016 decreased drastically this season.





Is rootworm management a mute issue?

We just mapped out the reasons why rootworms will be less prevalent throughout the Burrus footprint in 2016. Does that mean we will not see any issues in 2016?

Common sense says this cannot possibly be the case. Nobody can guarantee zero rootworm pressure and nobody can guarantee zero rootworm injury. There are too many qualifiers.

One of those qualifiers comes in the form of varied rainfall. Rainfall totals varied across the Burrus footprint. The I-80 corridor provides dramatic evidence. The eastern portion of that corridor suffered severe crop injury as rainfall transformed fields into swamps. The western portion received rainfall at just the right rate resulting in a beautiful crop. Rootworm suffocation would have been an issue toward Kankakee County, but it was a non-issue in Rock Island County. While much of the Burrus footprint will experience less pressure due to 2015 rainfall, this will not be the case in every region. There will even be variation within saturated regions of the Burrus footprint.

The second qualifier relates to the subject of rootworm species. Even though overall rootworm pressure decreased in 2015, beetles were not completely absent. Burrus noticed more Northern corn rootworm beetles this season than we did Western corn rootworm beetles. This gave us pause. We know that Northern corn rootworm beetles, particularly those in the northwest part of our footprint, have occasionally displayed extended diapause (a habit of overwintering eggs for more than one year). We noted, in this article, that rootworm eggs tend to survive pretty well in saturated soils (mortality increases in cool, wet conditions but it does not completely zero out rootworm eggs). What

"We have a dedicated production staff committed to producing the highest quality of products on the market. Thanks to our customers for placing their trust in us."
Steve Scobbie, Burrus Plant Manager – 32 years

if some Northern corn rootworm eggs displayed extended diapause and made it through 2015 unscathed? While a remote possibility, it is still a possibility.

These qualifiers keep us from boldly predicting no rootworm pressure in any field in any corner of the Burrus footprint. We can state with confidence that rootworm pressure will be much less likely across the Burrus footprint – but we dare not proclaim that it is a complete non-issue in 2016.

What should be our strategy going forward?

The 2015 growing season was incredibly hard on crops. Despite some positive harvest surprises, nobody wants to see a season like this again. It was gut-wrenching. However, excessive rainfall may have a silver lining associated with it. Excess rainfall might have acted as a rootworm "reset button" in many fields. Our best management efforts could never drag rootworm pressure to 2016 lows. Mother Nature did what our technology was incapable of doing. Think of this year being a magic wand. When it was waved over our fields, it pulled many fields back from the edge of resistance. It did not eliminate resistance concerns, but it did provide us some resistance breathing space. We may have increased the chances that we can beat this thing.

Burrus has encouraged growers to rotate traits each growing season. If they have been relying on only one trait, we have encouraged them to move away from it. We have encouraged them to use alternative traits in the Burrus lineup. That recommendation is still sound. We know it will help us prolong trait life because "it will keep resistance off its' game." Many growers have been hesitant to embrace that recommendation though. "What if I shift to a different trait and it doesn't work?"

It is always more comfortable to stay with the familiar, especially when you believe the risk is high. We do not believe that risk really is high, but after this season, growers should realize that the risks associated with trait rotation are lower than ever before. There has never been a better time to try a rotation to new traits.

Burrus can understand why growers might be tempted to move away from rootworm traits in 2016. After all, we have made a good case for decreased rootworm pressure. However, we explained why we cannot guarantee zero rootworm injury in 2016. Where does that leave a grower? If a grower decides to plant non-rootworm traits and if they live in areas historically prone to rootworms, we would encourage growers to still plant a substantial fraction of their acres to rootworm traits. If they happen to stumble into a rootworm prone area, they will at least reduce their overall exposure to rootworm injury. They might just drop some of those rootworm products into more rootworm prone fields.

A closing thought related to rootworm injury. Observations in the Hughes portion of our territory indicate that some fields managed to still suffer rootworm injury this season. While the risk of rootworm pressure will be reduced in the central portion of the Burrus footprint, we do not believe the risk has been equally reduced north of that region. Because margins are more important than ever before, growers should make sure they also tap Burrus' Force rebate program (a program held in cooperation with Syngenta) and our program with AmVac that provides rebates on insecticides.

GREENE

Ben Gilmore
Roodhouse, IL

Planted: April 30 in 30" rows. **Planting Population:** 31,000. **Harvested:** September 28. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: VRT, K: VRT. **Herbicide:** Corvus. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.
BURRUS 6Q60	**141.0**	**16.1**	**100**	**58.0**
POWER PLUS 6C40™*	**137.0**	**16.2**	**100**	**57.4**
POWER PLUS 7H20™*	**131.0**	**13.0**	**100**	**55.0**
POWER PLUS 5N48™*	**128.0**	**14.7**	**100**	**60.4**
POWER PLUS 4J90™*	**108.0**	**15.8**	**100**	**59.1**
Average	129.0	15.2	100	58.0

HANCOCK

Tim Bolton
Nauvoo, IL

Planted: April 15 in 30" rows. **Planting Population:** 27,700. **Harvested:** September 26. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 90, K: 120. **Herbicide:** Capreno, Atrazine. **Insecticide:** None. **Corn Borer Rating:** Moderate. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 6T54 3000GT	**206.8**	**18.7**	**100**	**58.6**	**27**
POWER PLUS 6F74AMX™*	**199.0**	**17.0**	**100**	**62.3**	**26**
POWER PLUS 6C40™*	**186.5**	**17.7**	**100**	**60.4**	**27**
POWER PLUS 7H20™*	**183.6**	**13.0**	**100**	**57.0**	**27**
POWER PLUS 4J90™*	**180.6**	**14.7**	**100**	**58.0**	**27**
POWER PLUS 5N48™*	**145.1**	**17.7**	**100**	**61.4**	**26**
Average	183.6	16.5	100	59.6	27

Optimum® AQUAmax® Products — designed to make the most out of every drop!

- In non-irrigated trials 5.4 bu/a yield advantage
- Irrigated conditions 3.4 bu/a yield advantage
- Tough from tassel to root
- Advance stoma control to be more efficient with water
- Aggressive silking for improved kernel set
- Better stay green to lengthen the window for growth
- Deeper kernels maintain yield under late season stress
- Efficient root system penetrates deeper in the soil to capture moisture
- Uses less water per bushel
- 70% win ratio on NON-irrigated growing conditions
- 61% win ratio on irrigated growing conditions

For 2016, we offer seven products that carry the Optimum AQUAmax logo and offer improved yield stability under heat and drought stress.

Optimum AQUAmax products from PROaccess Genetics were grown in 404 non-irrigated research plots, on-farm strip test and on-farm side-by-sides with a win ratio of 70 percent across IA, SD, NE, KS, CO, MO and OK. Cumulative claim includes all 2011 and 2012 research plots against competitive hybrids (+/- 5 CRM), on-farm strip plot (+/- 10 CRM) and on-farm side-by-side comparisons against one similar CRM commercial product. These same products demonstrated a 3.4 bushel advantage with a win ratio of 61 percent in 210 irrigated comparisons. Product performance in non-irrigated environments is variable and depends on many factors such as the severity and timing of moisture deficiency, heat stress, soil type, management practices and environmental stress as well as disease and pest pressures. All hybrids may exhibit reduced yield under water and heat stress. Individual results may vary.

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Burrus 6T54 3000GT first at 235 bu/a

CORN ON CORN
Michael McDowell
Dallas City, IL

Planted: May 1 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 20. **Previous Crop:** Corn. **Fertilizer:** N: 200, P: 70, K: 90. **Herbicide:** Corvis, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal. **Remarks:** 8 years corn on corn.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 6T54 3000GT	**235.3**	**20.7**	**85**	**56.8**	**35**
BURRUS 5Z44 3122	**231.6**	**21.0**	**85**	**58.7**	**34**
POWER PLUS 4J95 AMX™*	**229.7**	**19.2**	**92**	**59.0**	**36**
POWER PLUS 6N83AM™*	**223.6**	**18.8**	**55**	**58.7**	**36**
POWER PLUS 6F74AMX™*	**223.1**	**19.5**	**90**	**61.3**	**34**
POWER PLUS 6P75AMX™*	**209.6**	**19.2**	**95**	**58.4**	**35**
POWER PLUS 7H23 S™*	**206.5**	**17.6**	**30**	**58.9**	**34**
CATALYST 7577 3010	**202.1**	**22.1**	**85**	**57.4**	**33**
POWER PLUS 5C17AMXT™*	**200.1**	**18.4**	**75**	**60.1**	**35**
Average	218.0	19.6	77	58.8	35

Think BURRUS

JO DAVIESS

COMPARE!
Marcel Bourquin
Apple River, IL

Planted: April 30 in 3" rows. **Harvested:** October 5. **Previous Crop:** Soybeans. **✓Check Hybrid:** AgriGold A6416STXRIB

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	239.2		22.9
Agrigold A6257	219.7	16	19.5
POWER PLUS 1S26AMXT™*	**233.7**	**11**	**18.5**
Agrigold A6267	232.2	12	19.4
POWER PLUS 2F91AMXT™*	**249.2**	**1**	**20.5**
Agrigold A6355	248.7	2	21.1
POWER PLUS 2N82AM™*	**245.7**	**3**	**22.4**
POWER PLUS 2V56AMX™*	**231.6**	**10**	**24.5**
Agrigold A6376	232.6	8	22.9
✓Check	233.5		24.3
POWER PLUS 3H85AMX™*	**212.3**	**15**	**24.1**
Agrigold A6422	197.7	17	20.6
POWER PLUS 4J95AMX™*	**228.7**	**6**	**28.1**
Agrigold A6441	227.2	7	27.5
POWER PLUS 5C17AMXT™*	**223.0**	**9**	**25.0**
Agrigold A6472VT3P	204.4	14	22.3
Agrigold A6462	229.8	5	24.6
POWER PLUS 6F74AMX™*	**231.9**	**4**	**26.0**
Agrigold A6283	215.0	13	17.5
✓Check	217.4		23.8
Average	227.7		22.8
Check Average	230.0		23.7

Is Northern Corn Leaf Blight becoming more of a threat to corn?

By Stephanie Porter

Northern Corn Leaf Blight (NCLB) is caused by the fungus *Exserhilum turcicumand* is one of the most important foliar fungal corn diseases, next to Gray leaf spot. Both of these corn diseases can cause major leaf loss if disease develops before or during corn tassel or silk. Most are familiar with the "cigar shaped" or long, oblong lesions of NCLB. The lesions will vary in length (1-7 inches), depending on hybrid susceptibility. Lesions can grow together on a leaf, which causes large areas of dead tissue on leaves or blight. Lesions can also develop on leaf sheaths and husks of susceptible hybrids.

What are the reasons for an increase in incidence of NCLB over the last several years?

1. Cropping Practices

The NCLB fungus survives through the winter on infected corn residue on the soil surface. When environmental conditions become favorable during the growing season, the fungus will produce spores on residue, which are splashed or wind-blown onto corn leaves. Therefore, the more residue you have in a field, such as no-till, minimum till, or continuous corn will create a higher disease risk. Rotation away from corn or practices to reduce residue does help to prevent disease development. Later planting can also cause corn to be more vulnerable to NCLB because the earlier the hybrid is infected (before or at silking) during favorable conditions, a higher risk of yield loss can occur.

One reason we could be seeing more NCLB could be because of a higher amount of corn residue in fields because of higher yields. A 200 bu/a corn crop can leave around 5 tons or 12,000-16,000 lb/a of residue on the soil surface. Corn produces over twice the amount of residue in comparison to other crops and more than twice the residue necessary to provide 100% soil cover. There are other factors that have occurred over the past several years that have caused higher levels of corn residue such as higher plant populations, foliar fungicides, Bt traited products with higher stalk quality, reduced tillage, high fertility or productive soils, corn-on-corn rotation, as well as favorable environmental conditions affecting the rate of microbe decomposition.

2. Weather

NCLB is found wherever corn is grown and has thought to have spread in recent years due to major weather events such as hurricanes that can spread disease inoculum from south to north in North America. Spores can be carried very long distances by the wind. Infection can occur if free water is present on the leaf surface for 6-18 hours and the temperatures are 65-80° F.

Lesions can develop every 7-12 days in a favorable environment. NCLB causes larger lesions and can spread a bit quicker when compared to Gray leaf spot. Therefore, we become a bit more concerned about this disease in growing seasons that are favorable for Northern Corn Leaf Blight spread and infection. The last several years, we have had cooler than normal temperatures, which have been favorable for NCLB development and, thus, the increase of disease inoculum on residue.

3. Hybrid Susceptibility

Corn hybrids will show different degrees of resistance to NCLB. This is why Burrus and other seed companies have disease ratings for each of their corn hybrids. Generally, the higher the disease rating, the higher the resistance to the disease. Corn hybrids with partial resistance to NCLB usually produce fewer and smaller lesions with fewer fungal spores. There are also corn hybrids with race specific genes such as the commonly used, "Ht1 gene" that produces a "resistant reaction" or small, yellow lesions with no spore production if it comes into contact with a particular NCLB race, such as Race O. However, if the NCLB Race 1 comes into contact with a hybrid with the Ht1 gene, a necrotic lesion will develop because there is no resistant reaction. These race specific genes were named "Ht genes" because of the previous NCLB fungal name, *Helminthosporium turcicum*. Thus far, many corn breeders have utilized Ht genes, especially the Ht1 gene, for resistance to various key races of NCLB.

There are multiple races of Northern Corn Leaf Blight documented in the United States: Race 0, Race 1, and Race 23N are the most prevalent. After a disease survey in 2007, Ferguson and Carson reported that Race 0 isolates had decreased and Race 1 had increased between 1974 and the 1990's. Generally, Race 23 and 23N were present in low levels throughout these 20 plus years. These authors suspected that the decrease in Race 0 was due to the use of the Ht1 gene within the corn industry because the Ht1 gene controlled Race 0, but not Race 1.

If multiple NCLB races are present, 2 or more Ht genes might be needed to provide disease resistance. Some breeding programs are incorporating additional Ht genes in their hybrid programs as a "multigenic" approach to combat multiple NCLB races.

Photo by Ross Brockhouse, Burrus Seed

Table 1. Common sources of resistance Ht genes.

Pathogen	Host (Ht) reaction to each race			
Et Race Designation	Ht1 gene	Ht2 gene	Ht3 gene	HtN gene
0	R	R	R	R
1	S	R	R	R
2	R	S	R	R
12	S	S	R	R
23	R	S	S	R
23N	R	S	S	S
123N	S	S	S	S

https://www.pioneer.com/home/site/us/agronomy/library/managing-nclb

Once incorporated into the hybrid, each of the Ht genes will cause different resistant or susceptible plant responses that are dependent on the NCLB race present:

1. The Ht1, Ht2, and Ht3 genes cause slower development of lesions, less spore per lesion, and development of lesions that have a yellow hue.
2. The Ht4 gene causes fewer, smaller, lesions with yellow/chlorotic "halo" around them. This halo restricts lesion development.
3. The Htm1 and NN have minimal lesions and provide complete resistance.

There is a fear of a NCLB race shift from one race, such as Race 0, to another, such as Race 1, that was not so prevalent in an area. If you suspect you are seeing a significant amount of NCLB on a hybrid that is supposed to be resistant (higher disease rating), then please let us know. There has been recent research done in the Dr. Carl Bradley lab at the University of Illinois which revealed that many of the NCLB isolates (samples of disease) found throughout Illinois are virulent (cause disease) against the Ht gene. Therefore, it was concluded that there has been a shift to mostly the NCLB Race 1 in Illinois. Without resistance, management practices to limit the yield loss that can be caused by NCLB are applying foliar fungicides, rotating to non-host crops, and tillage to speed up the affected residue decomposition.

Based on disease scouting during pollination, disease pressure, and forecasted wet weather, the grower can make the decision if a foliar fungicide application is needed. Foliar fungicides that contain the active ingredient from the triazole class of fungicides have been found to provide better protection against the NCLB fungus.

"I am a firm believer in placement – putting the right hybrid in the right field. This fall I used COP to help select my hybrids for 2016."
Ron Woodworth, Lafayette County, WI

New Qrome™ technology – coming soon

By Olivia Rahe

Coming soon from DuPont Pioneer, is an exciting new product line called Qrome™. Qrome features proprietary technology that will provide proven above and below ground insect protection. Compatible with a broad range of DuPont Pioneer's germplasm, the stack of multiple insect protection traits will provide a new selection of products for growers. Qrome products will allow growers to achieve higher productivity on each acre through a combination of top-tier genetics, traits and seed treatments.

Unlock yield potential

Through efficient breeding, Qrome offers a wide selection of high-performance products in a range of maturities. In addition, Qrome will provide enhanced yield performance, and therefore value, for growers across a broad range of genetic platforms. Growers can take advantage of this evolution of existing insect protection technologies to bring improved yields through pyramided corn rootworm protection.

Compatible across a wide range of industry-leading genetics

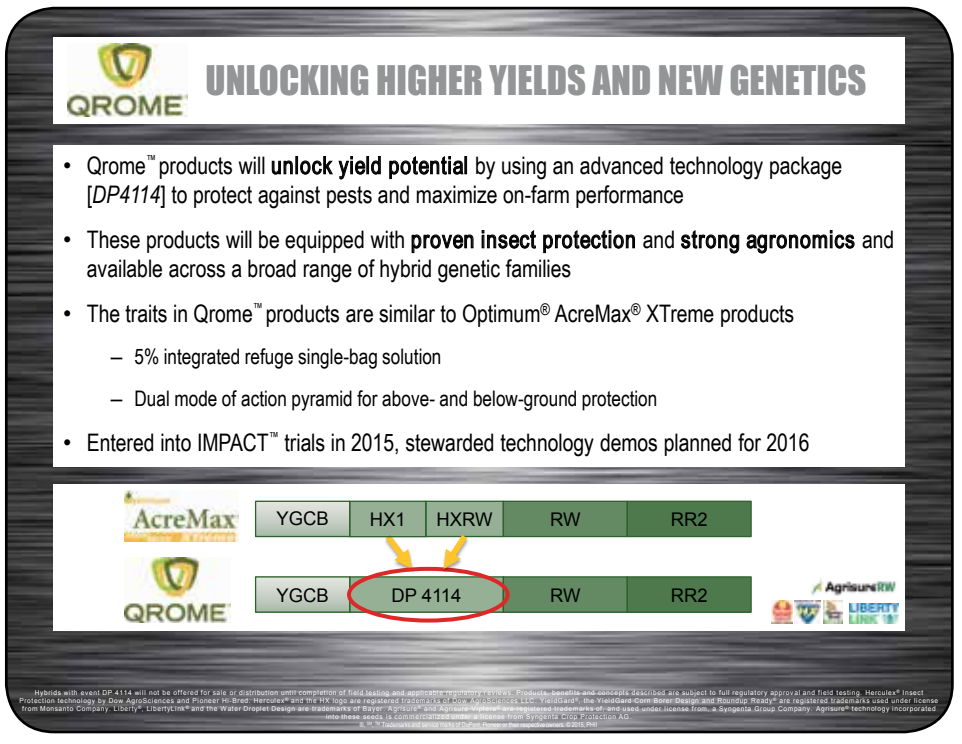
Qrome products utilize advanced technology to provide a more effective breeding process, enabling researchers to provide new and better products to growers, faster. Through proprietary molecular stack technology, Qrome offers improved integration across a range of DuPont Pioneer germplasm, which will allow growers more high-performance, pyramided triple stack product options.

Proven insect protection

Growers will achieve superior insect control through Qrome's molecular stack of proven Bt proteins from the Herculex® I and Herculex RW traits. Qrome products contain the most advanced technology for both above and below ground insect protection, including two modes of action against corn rootworm. In multi-year testing, Qrome exhibited insect efficacy similar to products containing the original high-performance Herculex XTRA technology.

Extensive local testing

Consistent with the Burrus/Hughes standard, Qrome has been extensively tested across a range of geographies and growing conditions. In 2015, over 100 Qrome platforms were tested in small plot research and IMPACT™ trials. These were conducted under a variety of conditions and environments to ensure consistent, leading performance. DuPont Pioneer will build upon their research with additional IMPACT trials and locations in 2016, to provide growers with insights and localized solutions for their operations. At Burrus/Hughes, we are quite excited to have this technology on the near horizon. "What we have seen has been impressive and a definite step up in plant appearance," says Todd Burrus.



KANKAKEE

Dick Moran
Manteno, IL

Planted: May 22 in 30" rows. **Harvested:** October 20. **Previous Crop:** Corn. **✓Check Hybrid:** Burrus 6T54 3000GT

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	167.3		26.7	97	29
CATALYST 7893 3111	**173.6**	**3**	**26.1**	**100**	**30**
POWER PLUS 6C41 S™*	**138.7**	**22**	**27.7**	**100**	**29**
BURRUS 5Z44 3122	**136.8**	**12**	**24.8**	**100**	**27**
BURRUS 631644	**117.1**	**25**	**31.9**	**100**	**28**
✓Check	139.7		29.6	100	29
POWER PLUS 2V56AMXT™*	**129.0**	**11**	**24.0**	**100**	**30**
BURRUS 941589	**114.1**	**24**	**26.1**	**100**	**28**
BURRUS 587204	**118.8**	**19**	**21.9**	**100**	**30**
POWER PLUS 4J95AMX™*	**157.5**	**1**	**25.6**	**100**	**30**
✓Check	135.6		28.5	100	30
POWER PLUS 6F74AMX™*	**118.0**	**21**	**25.7**	**100**	**29**
POWER PLUS 7H23 S™*	**119.4**	**18**	**21.5**	**100**	**31**
POWER PLUS 6F71 R™*	**152.6**	**4**	**22.7**	**100**	**28**
POWER PLUS 6N83AM™*	**151.2**	**5**	**23.8**	**100**	**29**
✓Check	141.4		26.3	100	31
POWER PLUS 6P75AMX™*	**168.8**	**2**	**24.3**	**100**	**32**
POWER PLUS 6L45AMT™*	**150.1**	**7**	**23.8**	**100**	**29**
BURRUS 187233	**172.9**	**6**	**32.4**	**100**	**34**
POWER PLUS 7A18 Q™*	**153.0**	**15**	**26.6**	**100**	**32**
✓Check	174.3		28.8	100	31
BURRUS 638535	**168.8**	**10**	**27.1**	**100**	**29**
BURRUS 945935	**173.4**	**9**	**23.3**	**100**	**27**
POWER PLUS 5C17AMX™*	**183.9**	**8**	**22.8**	**100**	**29**
BURRUS 768449	**171.8**	**14**	**23.6**	**100**	**30**
✓Check	188.0		26.5	100	29
CATALYST 4685 3111	**163.5**	**17**	**25.5**	**100**	**26**
BURRUS 543117	**164.3**	**16**	**23.2**	**100**	**29**
BURRUS 967547	**155.3**	**20**	**27.0**	**100**	**31**
BURRUS 743294	**142.8**	**23**	**23.8**	**100**	**32**
CATALYST 7577 3010	**156.2**	**13**	**28.1**	**100**	**34**
✓Check	159.9		27.1	100	34
Average	151.8		25.8	100	30
Check Average	158.0		27.6	99.6	30.

Power Plus® is first & third

Jason Zimmer
Reddick, IL

Planted: May 2 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 29. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 18, K: 6. **Herbicide:** Verdict, Status, Durango. **Insecticide:** Aztec. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–wet, August–normal. **✓Check Hybrid:** Beck's XL 5939AMXT

Brand/Product	Bu. Per Acre	Rank	% Moisture
✓Check	199.6		19.6
POWER PLUS 4J95AMX™*	**239.3**	**3**	**19.2**
POWER PLUS 5C17AMXT™*	**246.8**	**1**	**19.6**
Channel 209-53 STX RIB	239.4	2	17.8
Channel 211-35 STX RIB	228.6	11	19.2
Wyffels W7108RIB	225.3	13	18.0
Wyffels W7888RIB	226.3	12	19.8
✓Check	218.1		18.4
Pioneer P1197AMXT	211.7	15	18.0
Pioneer P1257AMXT	206.8	16	17.5
Beck's XL 5828AMX	204.6	17	18.4
Beck's XL 6365AMX	202.4	9	19.0
Dekalb DKC61-54RIB	204.7	6	18.9
Dekalb DKC64-87RIB	204.2	8	18.3
✓Check	172.2		19.0
FS 60ZX1 RIB	198.4	7	18.7
FS 61SX1 RIB	202.1	5	17.5
Pfister 2447	195.8	10	15.5
Pfister 2545	215.0	4	17.5
Steyer 11304SS	180.3	18	16.5
Steyer 11304SS	196.9	14	18.5
✓Check	193.1		18.4
Average	209.6		18.3
Check Average	195.8		18.8

KNOX

Tim Carlson
Galesburg, IL

Planted: April 16 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 21. **Previous Crop:** Corn. **Fertilizer:** N: 204, P: 48, K: 60. **Herbicide:** Callisto, Roundup. **Insecticide:** None. **Corn Borer Rating:** Moderate. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–normal, August–dry. **✓Check Hybrid:** Burrus 5Z44 3122

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	249.5		20.7	10	33
POWER PLUS 4J95AMX™*	**264.3**	**2**	**18.8**	**100**	**34**
POWER PLUS 5C17AMXT™*	**251.6**	**5**	**18.9**	**50**	**36**
✓Check	251.4		20.9	90	34
BURRUS 6T54 3000GT	**254.5**	**3**	**20.2**	**100**	**32**
POWER PLUS 6F71 R™*	**243.9**	**6**	**18.5**	**100**	**35**
✓Check	240.7		19.8	90	34
POWER PLUS 6F74AMX™*	**247.1**	**4**	**19.0**	**100**	**36**
POWER PLUS 6P75AMX™*	**279.6**	**1**	**19.5**	**90**	**34**
✓Check	244.6		21.5	80	33
Average	252.7		19.8	90	34
Check Average	246.6		20.7	90	34

Overcome glyphosate resistant weed escapes

By Josh Gunther

With the pressure of glyphosate resistant weeds, many farmers are beginning to look for other chemical formulations to help combat these problem areas. When selecting different herbicide tolerant crops there are a few things to keep in mind. Most people first look at the elephant in the room – how much does the chemical cost?

The second thought on a grower's mind is how effective will that chemical be? One of the most commonly overlooked elements when selecting a new herbicide package is what are the restrictions on spraying conditions to avoid damage to neighboring crops?

The third question is as important as the first two and all three should be taken into account when selecting a herbicide package. As farmers know, time is money. We need to figure out if the restrictions on weather conditions are a deal breaker for the herbicide.

One very good option for farmers in the near future will be RoundUp Ready 2 Xtend® soybeans. They appear to be effective in controlling weed escapes from glyphosate resistant weeds. The use of dicamba in addition to glyphosate will be able to help farmers manage those tough fields. Some farmers tend to be a little wary when talking about using dicamba, because it has been known, in the past, to be prone to volatilization. However, there is a new formulation of dicamba that comes premixed with glyphosate that has a new low-volatility formulation. Called vapor grip, this new formulation has not passed through all of the regulatory approvals as of this publication, so there isn't currently a label stating the spraying restrictions. However, the proposed spraying restrictions on the label state that optimum spraying conditions are with a wind from 3-10 mph and up to 10-15 mph when not blowing toward a sensitive crop. It also states to avoid times of temperature inversion, which means not to spray until 1-2 hours after sunrise and to stop spraying 1-2 hours before sunset.

All of the stipulations seem to be quite restricting when only looking at one herbicide. But when compared to RoundUp PowerMax® or Liberty®, they aren't much different. The Burrus research team has analyzed the last three years' weather condition data from three different locations within our footprint to see if these restrictions add up to a significant difference for the applicator.

Over the three years, and the three locations looked at, there were about 25% fewer hours to spray RoundUp Xtend when compared to RoundUp PowerMax and Liberty. This may sound like a lot of time wasted, to wait on weather conditions while an applicator is trying to spray their soybeans, but when you look at the weather data taken from Jacksonville, IL between May 1 and July 1, 2015, there were still 361 hours when it was fit to spray RoundUp Xtend.

For most farmers, there shouldn't be much hesitation for switching a portion of their soybeans over to RoundUp Ready 2 Xtend soybeans. If placed correctly, RoundUp Ready 2 Yield soybeans can give that farmer the upper hand needed to help control some previously unmanageable fields.

KNOX

Tim Carlson
Galesburg, IL

Planted: April 16 in 30" rows. **Planting Population:** 35,600. **Harvested:** September 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 48, K: 60. **Herbicide:** Lexar EZ, Callisto Xtra, Roundup Weather Max. **Insecticide:** None. **Corn Borer Rating:** Heavy. **Weather:** May–normal, June–normal, July–normal, August–dry..

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.
POWER PLUS 4J95AMX™*	283.9	20.6	100	39
BURRUS 874551	282.4	22.4	100	36
BURRUS 187233	280.1	22.3	92	36
BURRUS 771570	279.9	21.6	92	34
POWER PLUS 6P75AMX™*	276.1	23.7	100	33
POWER PLUS 4J95AMX™*	275.2	19.5	100	36
POWER PLUS 5C17AMXT™*	273.4	18.2	88	36
BURRUS 638535	267.0	22.5	80	34
POWER PLUS 4J95AMX™*	262.7	19.3	100	17
BURRUS 945935	262.2	14.9	52	32
BURRUS 642749	262.2	20.8	68	32
BURRUS 6T54 3000GT	261.9	21.1	96	34
BURRUS 743294	259.7	19.9	84	34
BURRUS 502792	258.3	17.6	100	36
BURRUS 995336	257.9	24.3	100	35
BURRUS 543117	255.9	19.0	100	35
BURRUS 6T54 3000GT	255.6	21.5	88	35
BURRUS 941589	252.3	18.8	100	34
BURRUS 967547	250.6	17.7	80	35
POWER PLUS 6N83AM™*	250.5	19.9	68	34
BURRUS 499913	249.9	23.0	96	33
BURRUS 276488	249.3	18.3	56	31
BURRUS 239881	248.6	18.5	100	36
POWER PLUS 6F74AMX™*	247.6	20.7	100	35
BURRUS 836363	246.6	20.4	76	34
BURRUS 6T54 3000GT	246.6	21.8	100	36
BURRUS 5Z41 GT	245.7	18.1	100	31
BURRUS 5Z41 GT	244.8	18.6	92	31
POWER PLUS 7A18 Q™*	244.1	21.1	48	35
BURRUS 130796	238.8	22.6	96	36
BURRUS 5Z44 3122	238.4	22.5	96	31
BURRUS 631644	237.0	20.5	88	34
BURRUS 5Z44 3122	236.3	21.5	100	31
POWER PLUS 4V45AM™*	234.5	19.0	76	34
CATALYST 7893 3111	233.6	24.8	96	35
BURRUS 993245	232.3	19.0	96	34
POWER PLUS 7H23 S™*	226.0	18.6	88	32
BURRUS 134146	221.6	22.3	100	35
BURRUS 587204	221.5	14.2	100	34
CATALYST 7577 3010	220.5	22.0	96	35
POWER PLUS 6L45AMT™*	207.0	19.2	100	37
BURRUS 768449	178.3	16.5	88	34
Average	249.0	20.2	90	34

Peyton Schmalshof, granddaughter of Burrus Dealer Andy & Tammy Schmalshof, is always willing to help.

ILLINOIS

LASALLE

Power Plus® 5C17AMXT™* brand wins at 261 bu/a

COMPARE!

Jeff Busch
Tonica, IL

Planted: April 24 in 30" rows. **Planting Population:** 34,200. **Harvested:** September 29. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 200, K: 200. **Herbicide:** Corvus, Roundup. **Insecticide:** Stratego. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Jennifer, Tim & Mark Ruschhaupt saw the old standbys excel on medium loam soil in Macoupin Co.

Burrus Account Manager Clayton Cook uses his drone to capture this view of Scott Olson harvesting his plot in Mercer Co.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 5C17AMXT™*	261.6	20.5	99	58.2	32
BURRUS 6T54 3000GT	248.1	24.0	100	55.0	33
POWER PLUS 6P75AMX™*	244.5	24.2	100	57.0	31
POWER PLUS 6F74AMX™*	236.8	20.6	100	55.2	33
POWER PLUS 4J95AMX™*	221.2	21.4	100	59.3	34
BURRUS 5Z44 3122	218.8	24.0	100	57.0	29
Average	238.5	22.5	100	57.0	32

LIVINGSTON

Power Plus® 5C17AMXT™* brand takes first

COMPARE!

Flanagan FFA
Flanagan, IL

Planted: April 23 in 30" rows. **Planting Population:** 34,000. **Harvested:** October 5. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 200, K: 180. **Herbicide:** Lexar, Roundup. **Insecticide:** Force. **Soil Type:** Clay loam. **Weather:** May–wet, June–wet, July–wet, August–normal. ✓**Check Hybrid:** Roeschley Rx436SS RIB

Brand-Variety	Bu. Per Acre	Rank	% Moisture
Sun Prairie SP-2412 GSS RIB	220.7	28	15.0
Dairyland Seed DS-9409RA	214.4	30	14.8
Roeschley Rx275SS RIB	190.8	33	14.6
Pfister Hybrids 2565RASS	185.8	35	14.8
POWER PLUS 4J95AMX™*	258.0	5	16.5
LG Seeds LG55548STX RIB	257.7	6	15.5
Moews 3606GenSSR	243.6	15	15.5
POWER PLUS 5C17AMXT™*	274.5	1	16.8
Agrigold A6462STXRIB	235.8	22	15.8
Beck's XL 5828AMX	255.7	7	16.8
✓Check	243.3		15.7
Dekalb DKC61-54RIB	244.9	16	16.6
Great Lakes 6185STX	265.3	2	16.3
InVision FS 61SX1 RIB	250.1	10	16.7
Wyffels W7108RIB	250.1	11	15.6
Wyffels W7158RIB	264.1	3	16.4
Stone 6158RIB	244.1	17	16.4
Moews 3729GenSSR	210.9	32	16.3
Pro Harvest 8244SSTX-RIB	239.4	24	16.4
Sun Prairie SP-2708 GSS RIB	251.4	14	16.3
Stone 6258RIB	217.0	31	14.7
Dekalb DKC62-77RIB	246.6	19	15.5
Agrigold A6499STX	259.5	8	16.2
LG Seeds LG5618STX-RIB	267.1	4	17.7
✓Check	252.1		16.6
Pfister Hybrids 2874 RR2	248.9	20	17.1
Pro Harvest 8330 StaxRIB	243.7	23	17.0
Pro Harvest 8388SSTX-RIB	247.1	21	18.2
Stone 6378RIB	236.3	27	16.5
Beck's XL 6365AMX	240.1	26	17.2
Dairyland Seed DS-9713RA	196.3	34	16.5
Roeschley Rx720SS RIB	241.8	25	15.6
LG Seeds LG5622 STXRIB	225.1	29	15.5
Dekalb DKC64-87RIB	250.3	18	16.2
Great Lakes 6462STXRIB	255.4	13	16.8

Marie Denzer helps Gillian Farley harvest a 6 hybrid plot for her 4-H project.

"Burrus is constantly investing in the newest technology to provide better products for our customers. I look forward to working every day."
Heath Fullerton, Burrus Production crew – 1 year

Areas of corn not growing well? Could it be corn nematodes?

By Stephanie Porter

During early June, I was called to investigate a few fields that appeared to be showing signs of corn nematode injury. Most of these were corn-after-corn fields within northern Illinois. During cool, wet weather, nematode injury might be more easily seen in the early growth stages of corn (before V6). Yield loss can occur with no visible symptoms within corn.

Several parasitic corn nematodes can feed on corn roots for 28 days to a year, depending on the species. Any field can be infested with corn nematodes, but the fields most at risk are those that are planted into corn-on-corn, minimum or no-till, or had no exposure to a nematicide. The only way you can confirm nematode injury is by testing the soil for corn nematodes. Most of our test results confirmed that either low, moderate, or high lesion nematode populations were affecting grower's corn production.

Corn nematodes should be diagnosed before the V6 growth stage of corn. Soil (not overly wet) and root zone should be sampled randomly throughout the field. Different labs recommend different amounts of soil cores (12 to 25) and soil depths (6 to 12 inches) from the root zone (this is because you want to get a sample of roots to test for endoparasitic nematodes such as lesion nematode). Do not try to break up the soil cores or drop the soil samples, because this could kill corn nematodes before they reach the lab, which could result in inaccurate lab results. If you think you have corn nematode "hotspots" in the field, you may want to sample from that area as well as a healthy area to compare results. If you are still in doubt, it might be wise to call the lab before sending a sample so you can provide the lab with an adequate sample. For example, some labs do not recommend that you sample after the R3 corn growth stage.

Depending on the corn nematode species, management might include: rotation of crops to soybeans or alfalfa, tillage, and control of grassy weeds. These options might help keep nematode populations in check or below damaging thresholds.

There are limited choices of soil applied nematicides. One common example of a soil applied nematicide is Counter insecticide, which has been known to reduce nematode populations in season. However, application of this product occurs early in the season and it will need to be used every year until the nematode populations decrease to non-threatening populations. Also, a caution is that Counter is an organophosphate (OP) insecticide, that can interact with ALS herbicides.

An opportunity you might want to take advantage of is the AMVAC Rebate offer for $2/acre or $5/unit, available for growers who purchase corn hybrids from the Burrus family of products and utilize qualifying insecticides like Counter, Aztec, and Force in Smart Boxes and meet minimal qualifications.

Corn nematicide seed treatments include Avicta® available on our Catalyst® brand products and VOTiVO® available on Burrus, Hughes, or Power Plus® brand products. Again, each of these need to be used each year and only provide early season control. Nematode numbers could again resurge in mid or late season.

Avicta's active ingredient is abamectin, which is a natural fermentation product of *Streptomyces avermitiles*. It can inhibit the nematode's nervous system and is recommended for moderate to high corn nematode infestations. This nematicide seed treatment is not systemic or taken up by the roots and can be considered mobile or eventually lost within the soil profile.

VOTiVO's active ingredient is *Bacillus firmis*. It acts as a repellant or physical/chemical barrier. It is not systemic or taken up by the roots and does not kill nematodes, so it is recommended for low corn nematode infestations.

When you plant any of our brands, you are covered with either Avicta® or VOTiVO®, which reduces your concern for corn nematodes in early season.

Evaluate the effectiveness of corn nematode management by monitoring the populations. Continually resample and retest within "hot spots" by marking them with GPS coordinates within a field.

Burrus Dealer Jason Zimmer and Burrus Intern Austin Kocher, testing for corn nematodes.

Burrus 6T54 3000GT bring home top honors for Tim & Brian Bolton & Tim Dickerson of Hancock Co.

The streets were filled with FFA students wearing our yellow Think Burrus "Stalk Us" t-shirts at the Farm Progress Show.

Power Plus® 6P75AMX™* took top honors in Sangamon Co. against 5 competitors for Kevin & Tom Foran.

For more information on the "halo effect" and PS SDS seed treatment see article on page 30.

FS 64MX1	257.9	9	15.6
Wyffels W7888RIB	257.1	12	17.4
✓**Check**	252.9		16.3
Average	242.0		16.2
Check Average	249.4		16.2

Jason Zimmer
Reddick, IL

Planted: May 2 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 30. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 18, K: 6. **Herbicide:** Verdict, Status, Durango. **Insecticide:** Aztec. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–wet, August–normal. **Remarks:** A portion of the plot was under water for a time in June and July.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 5C17AMXT™*	**219.5**	**18.3**	**100**	**31**
POWER PLUS 6P75AMX™*	**215.9**	**21.1**	**100**	**32**
BURRUS 6T54 3000GT	**213.2**	**20.3**	**100**	**31**
POWER PLUS 4J95AMX™*	**202.1**	**19.3**	**100**	**37**
BURRUS 5Z44 3122	**193.8**	**18.3**	**100**	**29**
POWER PLUS 6F74AMX™*	**190.4**	**18.6**	**100**	**34**
BURRUS XP4173-3111	**187.1**	**20.2**	**96**	**34**
Average	203.1	19.4	99	33

LOGAN

Dan Folkes
Elkhart, IL

Planted: April 15 in 30" rows. **Planting Population:** 35,100. **Harvested:** September 16. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 90, K: 120. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
Agrigold A6472VT3P	225.4	15.7	58.1	34
Agrigold A6533	223.1	17.1	58.7	34
POWER PLUS 6P75AMX™*	**210.4**	**15.5**	**58.1**	**34**
BURRUS 6T54 3000GT	**208.0**	**15.9**	**57.7**	**34**
Dekalb DKC62-08RIB	204.8	15.5	57.2	34
Agrigold A6499STX	204.6	15.6	59.6	34
POWER PLUS 4J95AMX™*	**204.4**	**13.9**	**58.6**	**34**
Becks 5828 RIB	204.3	15.1	58.0	34
POWER PLUS 5C17AMXT™*	**202.0**	**14.9**	**59.8**	**34**
POWER PLUS 6F74AMX™*	**201.7**	**14.9**	**61.3**	**34**
BURRUS 5Z44 3122	**192.6**	**16.5**	**60.3**	**34**
HUGHES 2428 GTA	**186.9**	**13.3**	**59.2**	**34**
Becks 5828 RIB	184.2	13.9	59.2	34
Average	204.0	15.2	58.9	34

New COP feature puts your yield data to work

By Troy Horton

A new Burrus Crop Optimization Planner (COP) feature converts your yield data from any monitor into a standard format. Then, work with your Burrus Account Manager to make strategic 2016 cropping plans using the COP to maximize profitability.

Why yield data used to be tricky

With dozens of yield monitors available and no common data standard, precision agriculture is like the Wild West. As a result, growers and seed companies find it difficult to use yield data to improve cropping decisions. MyFarms℠ solves this problem by converting yield data from all monitors into a standard format. This enables you to use any monitor, then quickly convert the yield data it generates into smarter business decisions.

Five easy steps

Here are five steps to bring yield data into MyFarms:

1. Export yield files from your monitor to a USB thumb drive or PCMCIA card
2. Login to your MyFarms profile and upload your yield files
3. Sit back while MyFarms automatically converts your data into a standard format
4. Confirm year, crop, and product information
5. View, download, and put your new yield maps to work!

How it helps

Yield maps have far more productivity information than soil type maps. Next time you meet with your Burrus Account Manager to create a cropping plan, the COP will categorize each zone in your yield map as a high, medium, or low yield environment to drive the recommendation. This positions offensive products on your most productive land and defensive products on your least productive land.

If you use variable rate or multi-hybrid seeding technology, you can use the COP to create management zones based upon yield data. Then, calculate the best planting rate for each acre and product combination.

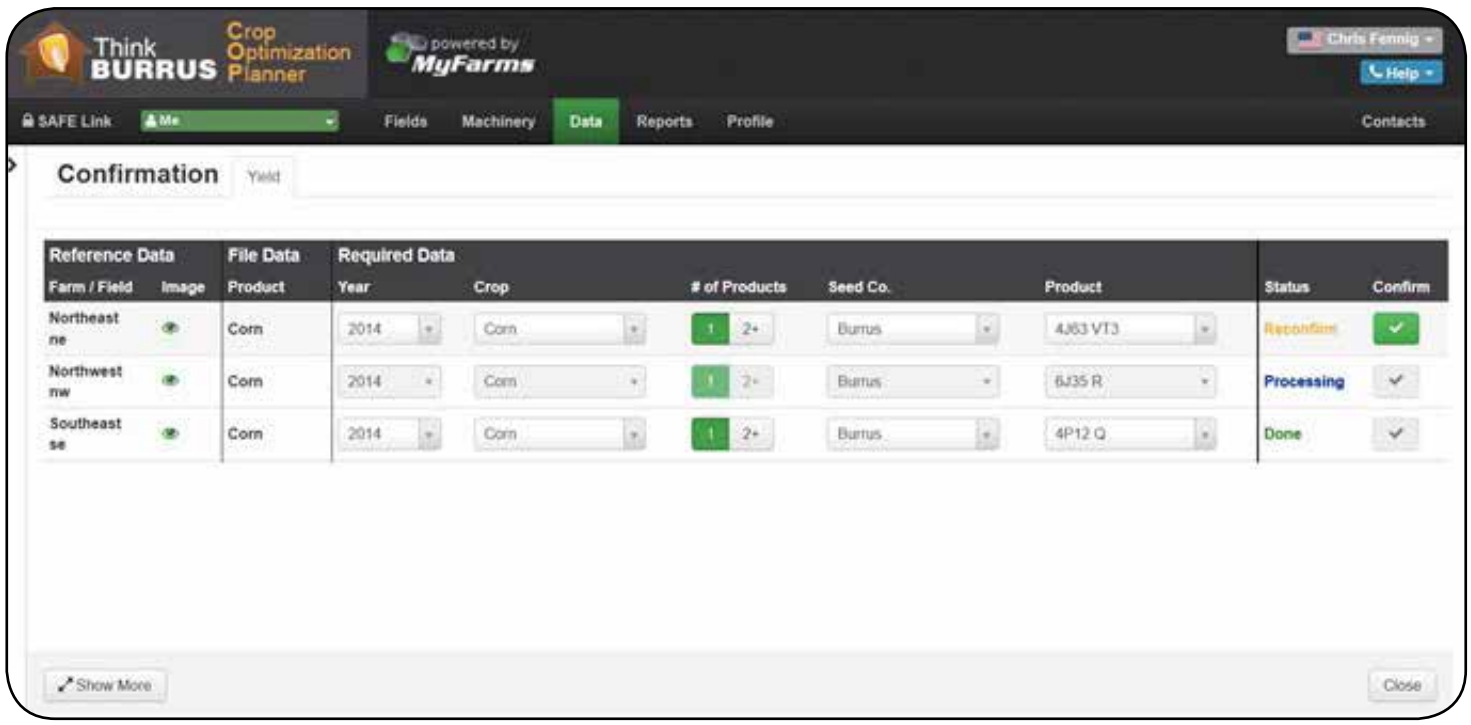
Finally, these tools help analyze the previous year as you plan to improve the next one:

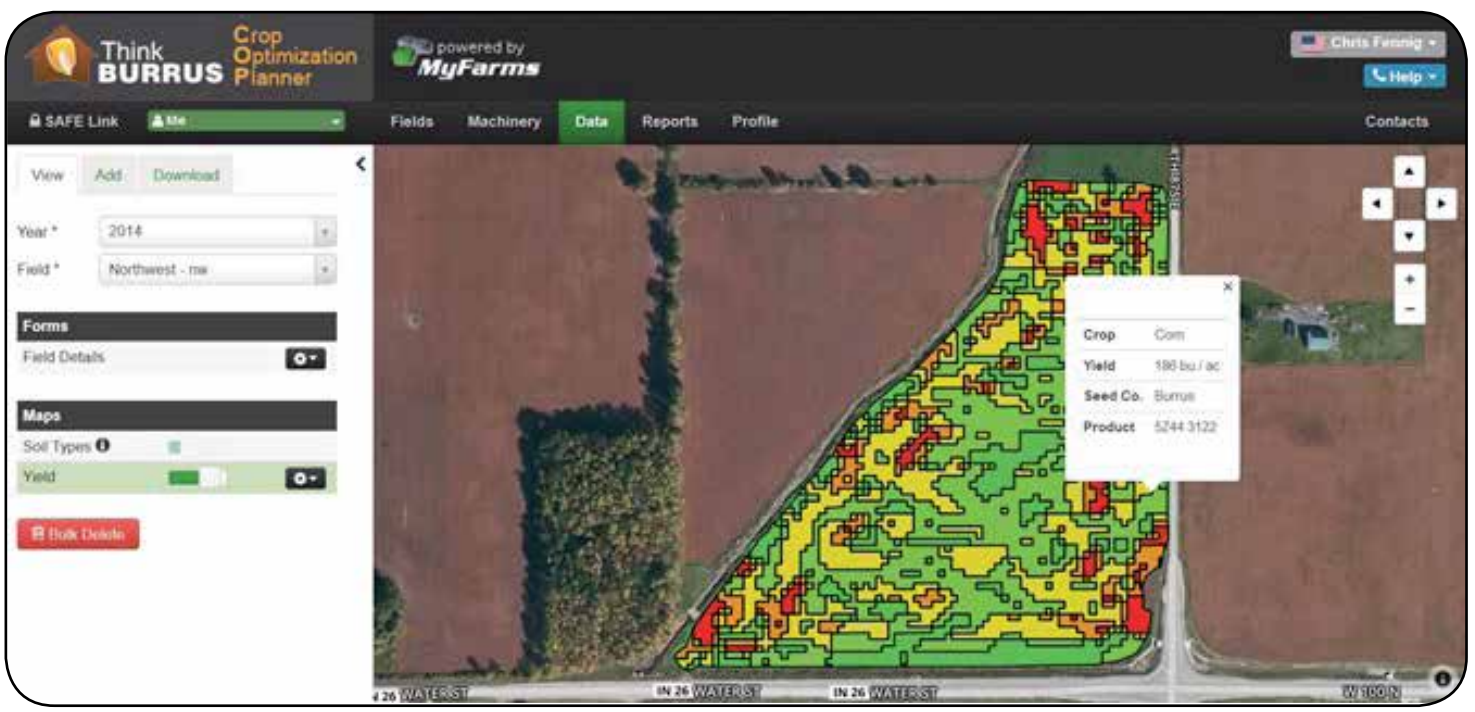
1. Yield x Product analysis: compare seed product performance by field and across your operation
2. Yield x Soil Type analysis: break down seed product performance on each soil type
3. Yield x Planting Rate analysis: see the return on investment of your fixed and variable rate seeding strategies

Why our approach matters

Burrus values your independence, privacy, and partnership, which is why your data will be securely stored by a trusted third party, MyFarms LLC. Their legally-binding privacy policy ensures your yield data will never leave their system unless you intentionally grant permission to a third party to receive it. That enables Burrus to reference your data when finding the best genetic, trait, treatment, and population combination for each field, without requiring you to sacrifice data control.

This approach contrasts the recent trend of input suppliers entering the software business. Many companies are eager to control as much yield data as possible, while making many growers nervous. From our point of view, yield data reflects the top line revenue on each parcel of land you manage. And just as Burrus wouldn't feel comfortable asking for your private medical records, we think it's equally unnecessary to seek direct control of your yield data. We encourage caution when dealing with those who seek to manage your yield data one year and then price your inputs the next.





"After doing business with Burrus for over 40 years, I am still proud to do business with them because they have a good product line and good people to work with."
Terry Leary, Warren County, IL

Make the new Burrus/Hughes website your homepage

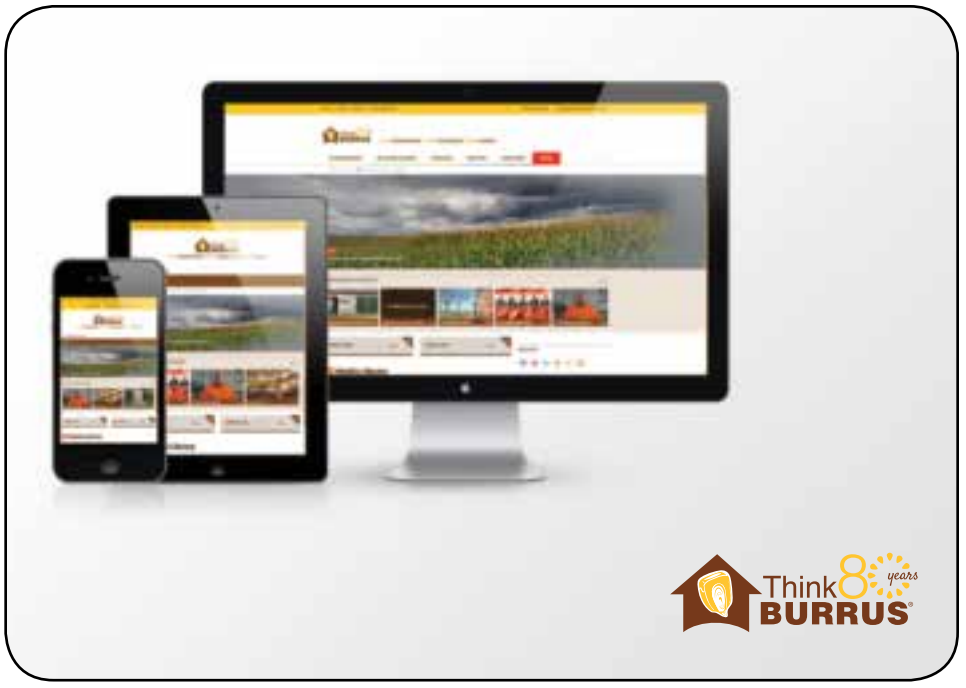
The Burrus/Hughes website is now device responsive and designed to work on your desktop, mobile and tablet devices. The updated sitewide navigation is more user-friendly. You will want to make it your homepage to stay up to date with all the news, including the current commodity markets and weather, based on your zip code and/or geolocation. You will be able to find your Account Manager with the same handy tool.

The site has the capacity to click and view additional article streams with a live feed from the Think Burrus Blog. The news ticker also rotates with ever-changing information. Find the Burrus Buzz newsletter and if you are not currently receiving the Buzz, sign up using the online registration.

A new resources section will deliver easy access to *The Harvest Report*, *Product Selection Guide*, and other printed brochures. The new media section encompasses the many Burrus audio and video initiatives. Site wide search functionality is icing on the cake! It is designed to help you find answers quickly and easily.

Each month, a different Sales Manager will be highlighted. This new site includes a live Burrus Twitter account feed as well as other social sharing of new stories. The always popular historical photo library has been redesigned for easier navigation.

Check out www.burrusseed.com and explore the new, responsive website designed for customers and future customers. Then, make it your homepage!



LOGAN

Kent Kleinschmidt
Emden, IL

Planted: May 1 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 19. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 120, K: 120. **Herbicide:** Harness 2,4-D, Roundup. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–-wet, July–wet, August–dry. ✓**Check Hybrid:** Burrus 6T54 3000GT

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	165.3		20.7	100	33
BURRUS 587204	152.7	22	18.0	100	33
POWER PLUS 4J95AMX™*	178.9	3	19.7	100	35
BURRUS 941589	165.5	13	21.2	100	33
POWER PLUS 2V56AMX™*	156.0	19	21.6	100	34
✓Check	168.8		23.7	100	35
BURRUS 945935	179.4	5	19.5	100	32
BURRUS 768449	178.4	8	20.5	100	32
POWER PLUS 5C17AMXT™*	191.6	2	20.8	100	33
✓Check	176.3		23.6	100	32
✓Check	177.8		24.5	100	31
POWER PLUS 6C41 S™*	167.4	21	23.8	100	30
CATALYST 7893 3111	175.5	14	25.5	100	35
BURRUS 5Z44 3122	183.1	12	27.2	100	33
BURRUS 631644	179.4	16	26.8	100	35
✓Check	186.3		23.5	100	35
POWER PLUS 7A18 Q™*	194.9	4	22.0	100	33
POWER PLUS 6L45AMT™*	175.6	17	21.2	100	32
POWER PLUS 6P75AMX™*	180.2	15	24.0	100	32
BURRUS 187233	209.5	1	25.2	100	32
✓Check	184.5		22.7	100	33
BURRUS 743294	185.6	11	21.2	100	33
BURRUS 967547	191.2	7	19.9	100	33
CATALYST 4685 3111	168.7	24	23.2	100	34
BURRUS 543117	168.6	9	23.8	100	34
✓Check	184.6		23.2	100	32
POWER PLUS 6F74AMX™*	186.0	10	24.6	100	32
POWER PLUS 6N83AM™*	190.6	6	21.2	100	32
POWER PLUS 7H23 S™*	171.6	18	18.3	60	35
POWER PLUS 6F71 R™*	170.0	20	20.9	100	33
BURRUS 543117	188.2	23	22.7	100	30
✓Check	181.6		21.3	100	34
Average	178.6		22.4	99	33
Check Average	178.1		22.9	100	33

MACON

Ellis Buth
Warrensburg, IL

Planted: April 24 in 30" rows. **Planting Population:** 33,000. **Harvested:** September 30. **Previous Crop:** Corn. **Fertilizer:** N: 192, P: 69, K: 90. **Herbicide:** Atrazine. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
BURRUS 836363	249.2	15.1	100	33
POWER PLUS 4J95AMX™*	244.7	15.6	96	33
BURRUS 6T54 3000GT	243.2	15.6	100	34
POWER PLUS 4J95AMX™*	235.8	14.7	100	34
POWER PLUS 4J95AMX™*	223.1	13.0	100	32
BURRUS 6T54 3000GT	222.3	17.7	100	33
BURRUS 543117	219.8	14.6	100	33
POWER PLUS 6P75AMX™*	216.0	14.0	100	34
BURRUS 874551	214.3	16.4	100	33
BURRUS 638535	214.0	16.2	80	34
BURRUS 5Z44 3122	210.7	17.2	100	30
CATALYST 7577 3010	210.3	17.5	100	32
BURRUS 5Z41 GT	208.8	15.9	88	28
BURRUS 130796	208.6	15.4	84	35
BURRUS 771570	208.1	15.7	88	33
BURRUS 768449	207.6	16.4	96	35
POWER PLUS 6L45AMT™*	205.4	15.4	96	35
BURRUS 187233	204.4	18.8	84	32
BURRUS 995336	203.1	18.4	100	36
BURRUS 642749	201.4	14.5	100	35
BURRUS 993245	199.7	14.2	96	32
BURRUS 945935	199.1	14.0	96	29
BURRUS 967547	199.1	15.3	100	34
POWER PLUS 6F74AMX™*	197.2	15.5	100	35
BURRUS 5Z41 GT	196.9	15.6	100	29
BURRUS 134146	195.6	16.0	96	27
BURRUS 499913	194.9	18.2	100	32
BURRUS 5Z44 3122	194.8	16.9	96	31
BURRUS 502792	189.9	14.5	100	32
BURRUS 941589	188.4	14.7	100	34
POWER PLUS 4V45AM™*	183.0	14.7	100	32
POWER PLUS 6F74AMX™*	182.7	15.4	100	31
POWER PLUS 5C17AMXT™*	180.4	14.5	100	35
POWER PLUS 7A18 Q™*	179.7	16.6	96	35
CATALYST 7893 3111	178.2	18.3	100	33
BURRUS 5Z44 3122	174.3	17.5	92	30
POWER PLUS 6N83AM™*	169.2	14.0	92	32
BURRUS 631644	164.8	19.1	100	33
BURRUS 587204	163.7	13.7	100	35
BURRUS 743294	160.3	17.1	100	33
Average	201.1	15.8	97	33


Power Plus® 4J95AMX™* rolls out 244.7 bu/a in Macon Co. for Karen & Ellis Buth.

Buth Farms
Warrensburg, IL

Planted: April 24 in 30" rows. **Planting Population:** 33,000. **Harvested:** October 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 192, P: 69, K: 90. **Herbicide:** Atrazine, Armezon. **Insecticide:** Aztec. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J95AMX™*	235.0	10.5
POWER PLUS 6P75AMX™*	228.2	11.7
Pfister 3366RA	224.6	13.1
Pfister 2770RA	224.0	11.9
POWER PLUS 6F74AMX™*	221.6	12.1
POWER PLUS 6L45AMT™*	218.8	11.0
BURRUS XP5325-3000GT	214.8	12.6
POWER PLUS 5C17AMXT™*	214.3	11.3
BURRUS 5Z44 3122	212.5	10.5
BURRUS 6T54 3000GT	208.6	12.9
BURRUS XP4173-3111	204.5	12.3
Average	218.8	11.8


A beautiful view of harvest, God bless the U.S.A.

MACOUPIN

Tim & Mark Ruschhaupt
Staunton, IL

Planted: June 6 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 21. **Previous Crop:** Soybeans. **Fertilizer:** N: 165, P: 150, K: 150. **Herbicide:** Lexar. **Insecticide:** Warrior. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6F74AMX™*	164.4	15.1	100	61.0	28
POWER PLUS 6C41 S™*	164.4	19.5	100	61.9	31
BURRUS 6T54 3000GT	162.7	16.4	100	59.0	27
CATALYST 7577 3010	159.6	16.2	100	60.0	30
POWER PLUS 6N83AM™*	155.0	13.8	100	59.0	30
CATALYST 7893 3111	154.3	16.2	100	60.0	28
BURRUS 5D30	152.6	13.6	100	59.0	29
POWER PLUS 7H23 S™*	152.5	15.2	100	60.0	30
BURRUS 5D30	119.0	14.8	100	58.0	29
POWER PLUS 4J93AM™*	112.1	15.9	100	59.0	30
Average	149.7	15.7	100	59.7	29


Tessa & Wyatt Link, children of Burrus Sales Manager Seth & Laurie Link, love the farm life! Our next generation of agriculture is bright!

Historical perceptions help you make key decisions

The field just west of the Burrus production plant has been planted to a corn test plot every year since 1976. For 39 years, the farm has been continuous corn and 38 of those years have been spent studying the results if you had tried to select products using the previous year's information.

The most obvious item is the yield increase over time. The next most obvious is the impact adverse weather can have on crop yields. Tough growing seasons included 1983, 1988, and 2012. The yield gain over time continues to encourage growers to identify new products to improve their profitability.

A closer look at the information helps us note some fun facts. Realize only twice in 38 years has the same product produced the winning yields and this happened when consecutive growing seasons were similar. It is interesting to note that twice the poorest performing product came back the following year to be the winner. Realize a deep product portfolio will be a contributor to this fact.

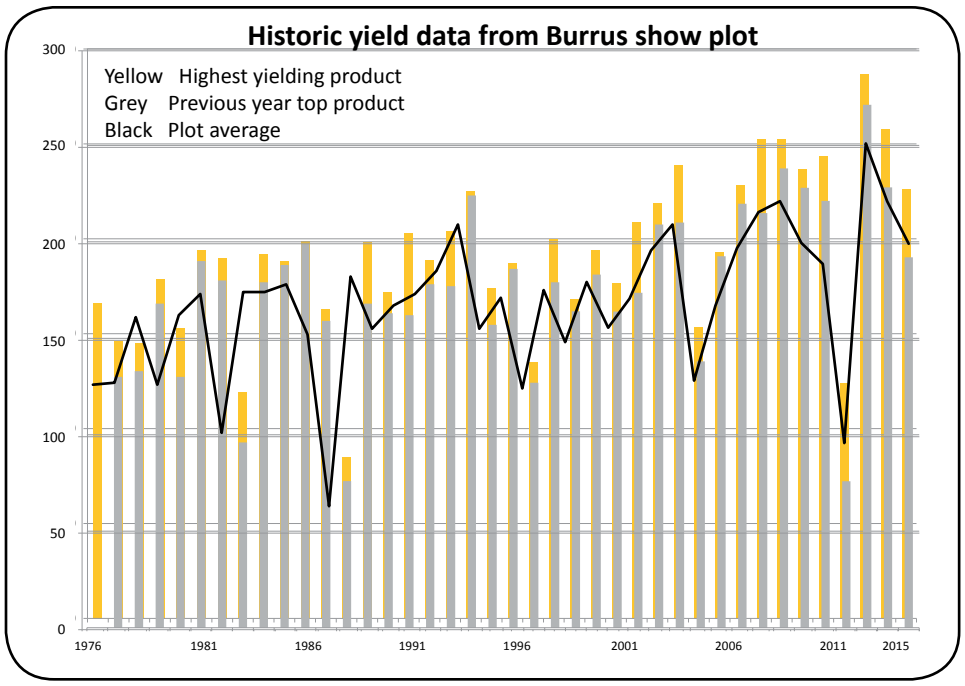
The yield difference from the highest yield to the lowest yield each year now exhibits about a 45 bu/a difference. This demonstrates the importance of a sound approach to product selection.

Following the unique 2015 growing season, how can we truly evaluate product performance? At Burrus, we strongly suggest you identify your mean yield for all fields. Make a list of the performance on a field by field basis and identify the field on a percent of the mean basis. This step is crucial to identifying the real difference. It also allows the grower to see with a positive view those fields providing extra bushels rather than a view of "I lost X bushels on every field but my best."

Next, note the key items that you believe contributed to that yield. For instance, record differences in drainage, previous crop, nutrient management, planting date, soil type, fungicide application, and hybrid. These categories help find the real causes. Then, formulate a plan to improve yield for next year.

Use the product selection tools available today to help streamline the process from research to your farm on a field by field basis. These include the MyFarms℠ Crop Optimization Planner, the Burrus website product selection tool, and the advice of your Burrus/Hughes Account Manager.

Planting a package of Burrus/Hughes Hybrids has never been easier or more precise. Take advantage of the deep product lineup to bring stability with genetic diversity.



MACOUPIN

Mike Cole
Palmyra, IL

Planted: April 25 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 16. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 36, K: 120. **Herbicide:** Bicep, Roundup. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
POWER PLUS 4V45AM™*	**244.6**	**17.3**	**100**	**34**
POWER PLUS 6F74AMX™*	**237.1**	**18.1**	**98**	**33**
POWER PLUS 4J95AMX™*	**231.6**	**17.3**	**100**	**34**
POWER PLUS 4J93AM™*	**229.4**	**18.0**	**100**	**34**
POWER PLUS 6P75AMX™*	**228.2**	**18.2**	**100**	**34**
Average	234.2	17.8	100	34

MARION

Steven Brummel
Salem, IL

Planted: May 7 in 30" rows. **Planting Population:** 30,000. **Harvested:** October 12. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: 150, K: 150. **Herbicide:** Lexar, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–normal, August–dry. **✓Check Hybrid:** Power Plus 7U15AM-R™*

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	144.7		15.8
POWER PLUS 4V45AM™*	**116.2**	**13**	**14.9**
✓Check	121.0		15.5
POWER PLUS 4J93AM™*	**105.5**	**15**	**14.6**
✓Check	127.2		16.2
Mycogen X14677S1	133.5	5	14.8
✓Check	144.0		16.2
POWER PLUS 6F74AMX™*	**119.8**	**16**	**15.2**
✓Check	148.8		16.1
Mycogen 2V717	140.2	11	14.1
✓Check	155.9		16.1
Mycogen D52VC91RIB	135.6	14	14.5
✓Check	149.9		16.2
POWER PLUS 6C41 S™*	**141.4**	**10**	**15.0**
✓Check	153.0		16.6
POWER PLUS 6N83AM™*	**145.7**	**9**	**14.9**
✓Check	157.8		16.1
Mycogen 2Y744	147.5	3	14.0
✓Check	138.9		15.7
Mycogen 2Y767	131.1	8	14.7
✓Check	140.1		16.1
CATALYST 7577 3010	**132.0**	**12**	**16.3**
✓Check	156.9		15.0
Mycogen 2C799	159.5	1	14.4
✓Check	149.5		16.2
Mycogen 2C788	143.4	6	15.6
✓Check	142.2		16.4
POWER PLUS 7H23 S™*	**144.3**	**4**	**14.9**
✓Check	148.2		16.6
CATALYST 7893 3111	**142.8**	**7**	**15.5**
✓Check	147.6		16.2
Mycogen 2D849	138.7	2	17.9
✓Check	119.5		16.2
Average	140.1		15.6
Check Average	143.8		16.1

The crowd starts to arrive at the annual Carmody field day held by the Tim Carmody family in Calhoun County.

Aaron Rice demonstrates the capabilities of our MyFarms™ Crop Optimization Planner for Chad Ottens.

Good people offering good products. That describes Burrus dealers Sherrill & Larry Tjaden of Woodford Co.

Burrus/Hughes Agronomist Stephanie Porter, provides growers with product information at W.W. Ag Seed's field day. Our Agronomists are trusted advisors and add tremendous value to our team.

Mike Cole saw Power Plus® 4V45AM™* win in Macoupin Co. at 244.6 bu/a.

"I began detasseling for Burrus when I was 13. Now 21 years later I still enjoy detasseling season because I get to work with local kids teaching them a valuable work ethic."
Kevin Leahr, Burrus Production crew – 21 years


Power Plus® 6F74AMX™* cranked out the yield in central Missouri!


Austin Kocher studies a side-by-side comparison of corn with & without starter fertilizer on the farm of Burrus Dealer Jason Zimmer.


Seed pick up day at Hughes Dealer Ed & Adam Bettner of Ogle Co.


Power Plus® 5C17AMXT™* & Power Plus® 4J95AMX™* team up to top the Marshall Co. plot for Mark Monier.


Burrus & Hughes Research Lead Jim Hughes, along with Burrus Agronomist Stephanie Porter discuss plot characteristics with Burrus/Hughes AM's, Justin Parks & Bryce Sandahl.

MARSHALL

Gill Seed Sales
Camp Grove, IL

Planted: May 18 in 30" rows. **Planting Population:** 34,000. **Harvested:** October 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 46, K: 90. **Herbicide:** Corvus, Laudis. **Insecticide:** Aztec. **Corn Borer Rating:** Moderate. **Weather:** May–normal, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
BURRUS 945935	**260.1**	**14.4**	**72**	**32**
POWER PLUS 6P75AMX™*	**248.7**	**15.5**	**80**	**36**
POWER PLUS 6F74AMX™*	**246.7**	**15.5**	**92**	**32**
BURRUS 993245	**242.8**	**14.3**	**68**	**33**
BURRUS 276488	**236.5**	**14.6**	**44**	**32**
BURRUS 642749	**233.4**	**15.7**	**96**	**31**
BURRUS 750364	**232.0**	**13.9**	**80**	**33**
POWER PLUS 7H23 S™*	**230.8**	**12.8**	**72**	**31**
BURRUS 5Z44 3122	**227.3**	**16.9**	**88**	**31**
BURRUS 543117	**223.3**	**13.5**	**72**	**31**
BURRUS 768449	**222.4**	**14.4**	**88**	**32**
BURRUS 836363	**220.4**	**14.8**	**56**	**38**
BURRUS 130796	**218.8**	**17.0**	**44**	**32**
POWER PLUS 4J95AMX™*	**218.6**	**15.1**	**88**	**33**
BURRUS 874551	**217.2**	**16.3**	**60**	**30**
BURRUS 587204	**216.0**	**13.7**	**96**	**31**
BURRUS 638535	**215.1**	**14.1**	**84**	**33**
BURRUS 941589	**212.9**	**14.0**	**88**	**35**
BURRUS 499913	**212.1**	**13.9**	**72**	**34**
BURRUS 6T54 3000GT	**211.5**	**16.6**	**76**	**33**
BURRUS 6T54 3000GT	**211.4**	**15.7**	**64**	**32**
POWER PLUS 7A18 Q™*	**209.9**	**14.4**	**96**	**35**
BURRUS 995336	**209.9**	**19.0**	**100**	**35**
BURRUS 5Z41 GT	**207.3**	**15.2**	**72**	**27**
POWER PLUS 5C17AMXT™*	**204.3**	**14.8**	**100**	**35**
BURRUS 771570	**204.2**	**18.4**	**72**	**32**
BURRUS 6T54 3000GT	**201.1**	**16.0**	**24**	**33**
BURRUS 998341	**193.7**	**17.2**	**52**	**32**
BURRUS 631644	**191.6**	**17.8**	**88**	**32**
BURRUS 785787	**191.2**	**14.1**	**68**	**36**
BURRUS 900208	**185.6**	**13.3**	**40**	**38**
BURRUS 5Z41 GT	**178.1**	**15.3**	**88**	**26**
BURRUS 407276	**172.2**	**14.2**	**100**	**32**
BURRUS 5Z44 3122	**163.0**	**16.6**	**100**	**29**
BURRUS 5Z44 3122	**160.9**	**16.5**	**88**	**29**
CATALYST 7577 3010	**144.6**	**16.5**	**88**	**28**
Average	210.4	15.3	77	32

Mark Monier
Sparland, IL

Planted: May 1 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 28. **Previous Crop:** Soybeans. **Herbicide:** Authority. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 5C17AMXT™*	**227.8**	**19.2**	**100**	**57.7**	**34**
POWER PLUS 4J95AMX™*	**222.4**	**19.5**	**100**	**55.9**	**34**
BURRUS XP4173-3111	**209.4**	**21.4**	**92**	**56.3**	**35**
POWER PLUS 2V56AMX™*	**207.1**	**17.5**	**100**	**58.4**	**32**
BURRUS 5Z44 3122	**205.3**	**20.0**	**100**	**57.0**	**34**
POWER PLUS 6P75AMX™*	**204.8**	**20.2**	**100**	**56.0**	**35**
Dekalb DKC60-67RIB	204.7	16.6	100	56.2	35
BURRUS 6T54 3000GT	**204.1**	**20.9**	**100**	**56.2**	**34**
Dekalb DKC62-77RIB	199.9	17.6	100	56.4	35
POWER PLUS 6F74AMX™*	**198.5**	**19.6**	**96**	**58.9**	**32**
Average	208.4	19.2	99	56.9	34

Lance Brillon

Join us in welcoming Lance Brillon as a Burrus Account Manager. Lance lives in Naperville, IL and services Kane, Kendall, Dekalb, LaSalle, Will, and Grundy counties.

Lance has more than 24 years of experience in agricultural sales, including positions at Novartis Crop Protection, Cargill Wholesale, Nachurs Alpine Solutions, and most recently with Instagro Liquid Plant Food as the Wisconsin state manager.

He grew up on a farm in southern Saskatchewan. Lance received his bachelor's degree from the University of Saskatchewan in crop science. He relocated to Naperville in 2003 where he met his wife, Lidia.

Lance's hobbies include golf, hunting, and NFL football.

He enjoys meeting new people and selling new customers who have never benefited from Burrus/Hughes products. Lance has a goal of becoming the highest selling Account Manager in the Hughes section. Help Lance reach his goal by calling him at 630-310-4449 or drop him an e-mail at lance.brillon@hugheshybrids.com.

MASON

Craig Gathmann
Manito, IL

Planted: May 8 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 19. **Previous Crop:** Corn. **Fertilizer:** N: 250, P: 46, K: 90. **Herbicide:** Bicep II Magnum, Roundup, Banvel. **Insecticide:** None. **Corn Borer Rating:** Heavy. **Soil Type:** Medium loam. **Weather:** May–normal, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
BURRUS 499913	**200.6**	**12.2**	**80**	**31**
CATALYST 7577 3010	**178.6**	**11.5**	**96**	**29**
POWER POLUS 5C17AMXT	**177.0**	**11.3**	**100**	**33**
BURRUS 502792	**176.8**	**11.6**	**100**	**31**
BURRUS 941589	**176.6**	**11.3**	**100**	**31**
POWER PLUS 7H23 S™*	**172.4**	**11.2**	**100**	**31**
POWER PLUS 4J95AMX™*	**172.0**	**11.5**	**96**	**32**
POWER PLUS 6N83AM™*	**169.7**	**11.6**	**92**	**30**
BURRUS 945935	**169.3**	**11.7**	**100**	**27**
BURRUS 631644	**167.1**	**11.9**	**100**	**31**
BURRUS 993245	**166.3**	**11.3**	**100**	**30**
BURRUS 967547	**162.2**	**11.3**	**100**	**32**
BURRUS 6T54 3000GT	**161.3**	**11.9**	**92**	**31**
BURRUS 276488	**160.9**	**11.5**	**100**	**29**
BURRUS 543117	**160.9**	**11.2**	**100**	**31**
BURRUS 836363	**158.1**	**11.2**	**100**	**32**
BURRUS 995336	**156.7**	**12.4**	**100**	**32**
BURRUS 5Z44 3122	**155.3**	**11.8**	**100**	**27**
BURRUS 187233	**154.7**	**12.0**	**96**	**31**
BURRUS 5Z44 3122	**154.5**	**12.0**	**100**	**28**
BURRUS 874551	**153.7**	**11.6**	**100**	**32**
POWER PLUS 4J95AMX™*	**153.4**	**11.3**	**100**	**31**
POWER PLUS 7A18 Q™*	**149.2**	**11.7**	**96**	**31**
BURRUS 5Z41 GT	**147.8**	**11.2**	**100**	**24**
POWER PLUS 6P75AMX™*	**145.5**	**11.2**	**100**	**31**
POWER PLUS 6F74AMX™*	**144.4**	**11.7**	**100**	**30**
BURRUS 6T54 3000GT	**142.7**	**11.5**	**100**	**32**
CATALYST 7893 3111	**142.6**	**11.8**	**100**	**28**
BURRUS 6T54 3000GT	**139.4**	**11.7**	**100**	**31**
BURRUS 743294	**139.0**	**11.0**	**100**	**31**
BURRUS 768449	**136.1**	**11.5**	**100**	**29**
POWER PLUS 6L45AMT™*	**134.8**	**11.4**	**100**	**32**
BURRUS 771570	**133.7**	**11.3**	**100**	**30**
BURRUS 642749	**132.2**	**12.1**	**80**	**30**
BURRUS 5Z44 3122	**124.1**	**11.4**	**100**	**27**
POWER PLUS 4V45AM™*	**120.2**	**11.6**	**100**	**31**
BURRUS 134146	**113.5**	**11.5**	**88**	**24**
BURRUS 5Z41 GT	**111.4**	**11.3**	**96**	**28**
POWER PLUS 4J95AMX™*	**107.7**	**11.8**	**92**	**33**
BURRUS 587204	**106.6**	**11.5**	**96**	**29**
Average	150.7	11.6	98	30

Power Plus® 6P75AMX™ brand* takes first

Midwest Central FFA
Manito, IL

Planted: April 23 in 30" rows. **Planting Population:** 35,000. **Harvested:** October 7. **Previous Crop:** Corn. **Soil Type:** Silt loam.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 6P75AMX™*	**274.0**	**15.1**
Becks XL 6365AMX	272.9	14.9
Pioneer P1197AMXT	262.0	14.4
LG Seeds LG5618VT2RIB	260.0	14.9
NK Brand N79Z-3111	256.8	16.9
Pioneer P1417AMX	253.3	15.2
Golden Harvest G15Z99-3111	249.4	17.0
Moews 3649VT3P	245.7	14.8
Channel 214-45STXRIB	244.4	15.1
Dekalb DKC64-87RIB	244.1	14.9
POWER PLUS 5C17AMXT™*	**243.4**	**15.3**
Agrigold A6573VT3PRIB	242.4	14.9
LG Seeds LG2636VT3PRIB	241.2	15.2
Moews 3662VT3P	240.3	14.9
Dekalb DKC62-77RIB	239.8	14.7
Channel 215-05STXRIB	235.5	14.3
Golden Harvest G12J11-3011A	233.8	15.4
Agrigold A6488VT2RIB	233.1	14.4
NK Brand N70J-3011A	226.2	15.2
Becks XL 5939AMXT	221.8	14.9
Average	246.0	15.1

Liberty herbicide control of grasses

By Stephanie Porter

Glufosinate herbicide (Liberty® and future generics) can be an effective tool to control a wide array of weeds, especially annuals within LibertyLink® corn and soybean cropping systems. The popularity and the use of this product has grown because it allows a grower to break the cycle of continuous glyphosate use. It is also an option to combat weeds that are resistant to other herbicide groups, such as waterhemp, marestail, and giant ragweed. By introducing glufosinate into a herbicide program, you can expose weeds to a different chemistry (Group 10) site of action, which provides a unique mode of action to kill weeds and continue the fight against weed resistance.

The Burrus/Hughes family of products has a very strong line-up of LibertyLink® soybeans: Hughes 236LL, Hughes 266LL, Hughes 285LL, Hoblit 355LL, Hoblit 384LL, Hoblit 405LL, Hoblit 426LL, and Hoblit 456LL. Many discussions have continued on proper use of glufosinate herbicide, especially within soybeans. It may offer convenience, but only if used correctly.

Another excellent resource on the use of glufosinate herbicide within soybeans can be found at: https://www.btny.purdue.edu/WeedScience/2010/LibertyLink10.pdf. It provides guidelines on the successful management of LibertyLink soybeans:

1. Use tillage or burndown herbicide to ensure a weed-free start at planting.
2. Use residuals to reduce weed populations, slow weed growth, and provide flexibility…in the post emergence application window.
3. Apply glufosinate at the proper time according to weed size.
4. Proper sprayer setup will ensure successful results.
5. Use the correct adjuvant. This means only use AMS to improve weed control. It can overcome hard water antagonism.
6. Do not spray at night, 2 hours before sunset or in adverse conditions such as high temperatures or cloudiness.

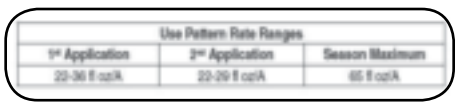
Many questions were asked during this season about what herbicide and insecticide tank-mix partners could be used with LibertyLink corn and soybeans. These answers can be found by looking at the Liberty 280 SL herbicide label found at: https://www.bayercropscience.us/products/herbicides/liberty/label-msds.

Tank-mix partners for Liberty 280 SL Herbicide in Corn – taken from the Liberty 280 SL Herbicide Label.

If the name of the hybrid is printed in red and blue on the bag, it consists of both glyphosate (RR) and glufosinate (LL) traits.

If the name of the hybrid is printed in red, it contains only the glyphosate (RR) trait.

If the name of the hybrid is printed in black, it does not contain any herbicide traits. Only conventional herbicides can be used.



Tank mix partners for Liberty 280 SL Herbicide in Soybeans – taken from the Liberty® 280 SL Herbicide Label.

With the wet weather in 2015, another issue that became apparent is the performance of soil applied herbicides on grasses. Residuals might have washed away and herbicide performance might have been less than optimal in order to control grasses and other weeds. It is important that we control grasses early in the season, especially in corn, to minimize competition and yield loss. There are many post-emergence grass herbicides that are effective on large weeds, but they must be applied before the grass is 4 inches tall (except for shattercane and johnsongrass) to assure the most effective control. One of the many options for post herbicide grass control is glufosinate herbicide. It can be applied as a broadcast spray on LibertyLink corn up to 24 inches tall or has up to 7 exposed leaf collars, or it can be used as a directed spray on LL corn that is 24 to 26 inches tall. Liberty is very effective on large foxtails up to 10 inches, but it can be weak on barnyard grass and yellow foxtail if they are more than 4 inches tall at application. If applying glufosinate to shattercane and seedling johnsongrass, it should be applied at 6 inches or below in height.

We realize that every missed weed can impact yield; therefore we continue to strive for you to have success with glufosinate herbicide within your corn or soybean operation. With the LibertyLink system, weeds are exposed to a different chemistry with a unique mode of action, letting you handle your toughest weeds while protecting your yield, your profits, and the long-term success of your operation. Key benefits such as weed control and convenience can only be obtained if you are successful in the management of glufosinate within the elite genetics offered by the Burrus/Hughes corn and soybean LibertyLink lineup.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON SOYBEANS

- **DO NOT** apply LIBERTY 280 SL HERBICIDE within 70 days of harvesting soybean seed.
- **DO NOT** apply more than 65 fl oz/A of LIBERTY 280 SL HERBICIDE on soybeans per growing season.
- **DO NOT** apply more than 36 fl oz/A of LIBERTY 280 SL HERBICIDE in a single application.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- **DO NOT** apply LIBERTY 280 SL HERBICIDE if soybeans show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the ***"Rotational Crop Restrictions"*** section under the **"Product Information"** heading of this label for the appropriate rotational crop plant back intervals.
- Sequential applications should be at least 5 days apart.

SOYBEAN TANK MIX INSTRUCTIONS

Certain herbicide tank mixes may complement LIBERTY 280 SL HERBICIDE. No additional surfactant is needed with any tank mix partner. LIBERTY 280 SL HERBICIDE may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the soybean to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LIBERTY 280 SL HERBICIDE cannot be mixed with any product containing a label prohibition against such mixing.

TANKMIX PARTNERS FOR LIBERTY 280 SL HERBICIDE IN LIBERTYLINK SOYBEANS

Assure® II	Fierce	Fusion®	Phoenix™	Raptor™	Sharpen
Classic®	FirstRate®	Harmony® GT	Poast Plus®	Reflex®	Synchrony® XP
clethodim	Flexstar®	Optill	Prefix	Resource®	Ultra Blazer®
Cobra®	Fusilade® DX	metolachlor	Pursuit®	Select Max®	

SPRAY ADDITIVES

For corn, LIBERTY 280 SL HERBICIDE must be applied with ammonium sulfate (AMS). It is recommended to use only fine feed grade or spray grade AMS at 3 lbs per acre (17 lbs/100 gallons). When temperatures exceed 85° F, the rate of AMS can be reduced to 1.5 lbs per acre (8.5 lbs/100 gallons) to reduce potential leaf burn.

Use of additional surfactants or crop oils may increase risk of crop response.

CORN TANK MIX INSTRUCTIONS

Certain herbicide tank mixes may aid in the performance of LIBERTY 280 SL HERBICIDE. No additional surfactant is needed with any tank mix partner. LIBERTY 280 SL HERBICIDE may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the corn to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LIBERTY 280 SL HERBICIDE cannot be mixed with any product containing a label prohibition against such mixing.

TANKMIX PARTNERS FOR LIBERTY 280 SL HERBICIDE ON LIBERTY LINK CORN:

2,4-D	Capreno®	Laudis®	Pendimethalin[1]	Yukon®
acetochlor	Distinct™	Lexar®[2]	Permit®	Zemax
Aim™[2]	Guardsman Max®	Lumax®[2]	Python® WDG	
Atrazine	Halex GT	Metolachlor[2]	s-metolachlor[2]	
Callisto™	Hornet® WDG	nicosulfuron	Spirit®	
Camix®[2]	Impact®	NorthStar™	Status®	

[1] Tankmixing with pendimethalin may result in reduced control of barnyardgrass, fall panicum, field sandbur, yellow foxtail, and volunteer corn.

[2] It is recommended that these products are tankmixed at half the use rate with LIBERTY 280 SL HERBICIDE to reduce risk of crop response.

CORN INSECTICIDE TANK MIX PARTNERS FOR LIBERTY 280 SL HERBICIDE:

To provide weed and insect control in corn, LIBERTY 280 SL HERBICIDE may be mixed with the following insecticides:

Ambush® Insecticide	Tombstone™ Helios®	Pounce® 3.2EC Insecticide
Asana® XL Insecticide	Lorsban® 4E Insecticide	Warrior™ Insecticide
Baythroid® XL Insecticide	Tombstone™	

Burrus 6T54 offers protection against corn borer and corn rootworm damage but it also yields! This hybrid is dynamite.

Larry Hill saw Power Plus® 6P75AMX™* go 269.7 bu/a in Mason Co.

"My family has been with Burrus for over 48 years. We know we can depend on them."
Mark Monier, Marshall County, IL

MASON

Larry Hill
Mason City, IL

Planted: April 16 in 30" rows. **Planting Population:** 33,500. **Harvested:** September 14. **Previous Crop:** Soybeans. **Corn Borer Rating:** Heavy. **Soil Type:** Loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	1000 Plants Acre
NK N79Z-3111	272.7	22.8	34
POWER PLUS 6P75AMX™*	**269.7**	**22.0**	**34**
Dekalb DKC66-40RIB	264.7	25.6	34
Dekalb DKC63-33RIB	260.0	21.0	34
Dekalb DKC62-77RIB	260.0	20.6	34
BURRUS 5Z44 3122	**258.4**	**21.1**	**34**
Wyffels W7888RIB	255.9	22.0	34
Dekalb DKC64-87RIB	247.3	21.9	34
POWER PLUS 5C17AMXT™*	**245.3**	**20.0**	**34**
POWER PLUS 6F74AMX™*	**241.7**	**21.3**	**34**
POWER PLUS 4J95AMX™*	**238.7**	**21.1**	**34**
CATALYST 7893 3111	**236.2**	**24.3**	**34**
Average	254.2	22.0	34

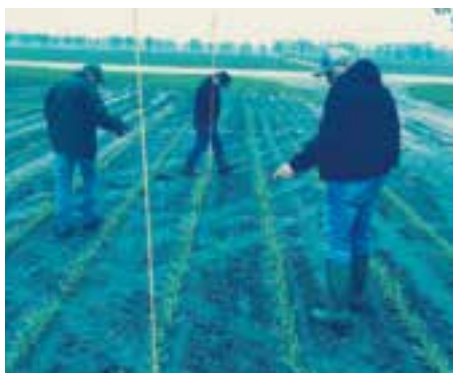
MASSAC

Power Plus® 4J93AM™* brand is first

COMPARE!

Bremer Bros.
Metropolis, IL

Planted: May 5 in 30" rows. **Planting Population:** 30,000. **Harvested:** September 24. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 250, K: 250. **Herbicide:** Lexar, TD, Precept, 2,4-D, Halex. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–wet, August–normal. **✓Check Hybrid:** Power Plus 6F74AMX™*



Research team and interns take stand counts in another saturated plot.

Noreen & Jay Frye of Mason Co. know what to expect when they plant the Burrus family of products…great quality, excellent service & people you can count on.

High performance alfalfa forage solutions

388HY HYBRID ALFALFA represents a recent improvement in Hybrid Alfalfa using the patented msSunstra Hybrid Alfalfa Technology! This new product has familiar hybrid characteristics like dense stands with fine-stemmed herbage and fast recovery, but it comes with an exceptional boost in yield. This fine stem characteristic makes a dense, attractive alfalfa bale. For the highest forage yields of high quality forage, 388HY is the variety of choice.

214FY BRAND ALFALFA is a high forage yielding, persistent alfalfa with excellent forage quality potential. It expresses quick re-growth after cutting to maximize the growing season. 214FY performs best in high producing, well-drained soils. It has a solid disease, insect and nematode resistance package that helps defend itself in adverse environments. 214FY is an alfalfa variety for the dairy or beef producer that demands high tonnages of dairy quality forage.

Features

- Consistent high forage yield
- Rapid recovery after harvest
- Excellent disease resistance
- Very dense, persistent stands
- Fine stems
- Uniform growth habit

Benefits

- Dependability of forage supply
- Better use of growing season
- Broad adaptability
- Better weed control
- Attractive forage bales
- Easier to manage consentient forage quality

Brand-Variety	Bu. Per Acre	Rank	% Moisture
Pioneer 32B16	144.2	20	14.9
✓Check	177.7		14.4
Dekalb DKC64-69	177.1	16	14.7
Dekalb DKC63-25RIB	164.8	19	14.8
Dekalb DKC67-58RIB	181.8	13	14.2
POWER PLUS 7H23 S™*	**186.2**	**11**	**12.7**
CATALYST 7893 3111	**194.9**	**7**	**14.3**
POWER PLUS 6F71 R™*	**197.5**	**4**	**14.2**
BURRUS 6T54 3000GT	**188.2**	**9**	**16.2**
✓Check	176.7		14.3
Pioneer P1431 WR	173.5	18	14.1
Pioneer P1479AM*	201.1	6	14.2
Pioneer P1197AM*	189.8	12	13.3
Pioneer P1257AMX	201.3	5	13.6
POWER PLUS 4V45AM™*	**185.3**	**14**	**13.7**
✓Check	189.5		14.0
POWER PLUS 4J93AM™*	**215.5**	**1**	**13.8**
✓Check	176.3		14.5
POWER PLUS 7U15AM-R™*	**173.1**	**15**	14.3
POWER PLUS 6C41 S™*	**186.3**	**8**	**16.5**
POWER PLUS 6N83AM™*	**166.4**	**17**	**14.0**
✓Check	169.0		14.5
Northrup King N70J-3011A	188.3	2	14.0
FS 60ZV1 RIB	175.9	10	12.9
FS 63SV1 RIB	186.5	3	13.1
✓Check	161.4		14.7
Average	181.9		14.2
Check Average	175.1		14.4

Agronomic Summary	214FY
Bacterial Wilt	HR
Fusarium Wilt	HR
Phytophthora Root Rot	HR
Verticillium Wilt	HR
Anthracnose (Race 1)	HR
Aphanomyces Root Rot (Race 1)	HR
Aphanomyces Root Rot (Race 2)	R
DRI	34/35
Stem Nematode	R
Northern Root-knot Nematode	HR
Pea Aphid	R
Blue Alfalfa Aphid	MR
Winter Survival	1.9
Root Type	Tap
Fall Dormancy	4.1
Cutting Recovery	8.0*
Forage Yield Level	8.4*
Forage Quality	8.0*
Wheel Traffic	7.5*
*10 is best, 1 is poorest	

Agronomic Summary	388HY
Bacterial Wilt	HR
Fusarium Wilt	HR
Phytophthora Root Rot	HR
Verticillium Wilt	HR
Anthracnose (Race 1)	HR
Aphanomyces Root Rot (Race 1)	HR
Aphanomyces Root Rot (Race 2)	MR
DRI	33/35
Stem Nematode	HR
Northern Root-knot Nematode	HR
Winter Survival	1.8*
Fall Dormancy	4.0*
Root Type	TAP
Crown Depth	Average
Fitness of Stem	Fine

HR = High resistance
MR = Medium resistance
R = Resistant

This tool can help you manage your gray leaf spot action plan

MyFarms℠ Gray leaf spot tool

By Josh Gunther

Burrus is continuing to use the Data-Driven Farming System® by MyFarms℠ that combines proprietary product knowledge collected by the Burrus research team with the data compiled by farmers to help manage and improve crop production. One tool that Burrus and MyFarms continues to improve is our Gray leaf spot Alert System. This tool is designed to alert a grower to scout for Grey leaf spot when it would be most beneficial. By using this tool farmers can best manage their time by scouting fields that are the most crucial to scout.

The Gray leaf spot Alert System categorizes every field into three different groups green, orange, and red. Every field starts the growing season in the green category which means there is a low level of concern for the development of Gray leaf spot. A field will move into the orange category when there is a moderate level of concern for the development of Gray leaf spot. If there is a high level of concern for the development of Gray leaf spot, the field will move into the red category.

Once a field moves from the orange category to the red category the grower will receive an email that is intended to alert him that he should be scouting for Gray leaf spot pressure in those fields. Burrus recommends that farmers scout fields in the orange category at least once a week and if that field moves into the red category, farmers should scout those fields at least twice a week.

The MyFarms Gray leaf spot Alert System works by using the basic disease triangle. For a disease to thrive it needs three things, a host, a pathogen, and an environment. The Alert System is designed to look at all three of these key elements to predict where and when growers will be seeing Gray leaf spot.

For the host element of the disease triangle, MyFarms looks at the Gray leaf spot rating assessed by the Burrus research team and how susceptible that hybrid is to the disease. It will also take into account the expected growth stage estimated by Growing Degree Days since planting.

For the pathogen component, MyFarms takes into account the previous year's crop and the volume of residue to be expected since the fungus over-winters in corn residue.

In relation to the environmental factor, the program takes into account rainfall totals, humidity levels, and temperatures for the field in question. Because the environmental factor is constantly changing from day to day, it might cause a field to change back and forth between the orange and red categories resulting in multiple emails to the farmer about the same field.

To maximize the rate of return on fungicides, a farmer needs to decide if and when he will apply fungicides. The timing of fungicide application becomes very important to stop the spread of Gray leaf spot and minimize yield loss, but at the same time, no one wants to increase his input cost unless it is truly merited. The only way to determine if and when to spray fungicides is to scout your fields. There is no substitution for time spent in fields looking for disease pressure on crops. The Gray leaf spot Alert System is not intended to provide recommendations for fungicide applications. It is merely intended to help optimize a grower's time scouting fields.

When scouting for Gray leaf spot, keep in mind that the fungus does over-winter in residue. You will see the disease starting from the lower leaves on the plant. The fungal pathogen prefers wet weather and temperatures around 75-85 degrees. It can take 1-2 weeks for the symptoms to become evident on the leaves after fungal spores infect the underside of the leaves. Gray leaf spot appears as rectangular tan to grey lesions starting on the lower leaves and spreading up the plant.

If the disease is present in the field in question it is imperative to assess the pressure and continue to monitor the spread of the disease. If 50% of the corn plants in the field are showing symptoms of the disease on the third leaf below the ear or higher for a period of time before or after corn tassel, you might consider a fungicide application. If you are unsure if a fungicide application is necessary, please contact a Burrus agronomist.

With a top yield at 262.3 bu/a, Burrus 6T54 3000GT wins in McDonough Co. for Jim Lutz, Dylan, Clayton & John Cook.

Gray leaf spot on corn leaf.

Probability of Fungicide Application

Probability of yield response to fungicide application by brand

High	Moderate	Low
Catalyst® 4685 3111 5009 3220	**Burrus** 6T51 GT 6T54 3000GT 6Q60	**Burrus** 5Z44 3122
Power Plus® 2V56 AMX™* 4J90™* 4J99 R™* 4J93 AM™* 4J95 AMX™* 5N48™* 6L45AMT™* 7A18 Q™* 7H20™* 7H23 S™* 7U15 AM-R™*	**Catalyst®** 7893 3111 7577 3010	**Hughes** 3442
	Hughes 1286 3000GT 2428 GTA 5124 GT	**Power Plus®** 2R67™* 2R63 R™* 2F91 AMXT™* 4V45 AM™* 6C40™* 6C41 S™* 6F71 R™* 6F74 AMX™*
	Power Plus® 1K08 AMXT™* 1S26 AMXT™* 2N82 AM™* 3H85 AMX™* 5C17 AMXT™* 6P75 AMX™* 6N83 AM™*	

Burrus has ranked various products, noting their potential responsiveness to fungicide. Should a blind application of fungicide be required, this chart should allow the grower to apply fungicide to those products more likely to provide a return (high probability ranking). However, Burrus reminds growers that a fungicide return on investment is best assured by scouting fields for economically significant levels of disease (wide spread lesions within proximity of or above the ear leaf). Repeatedly applying fungicides from the same class can increase the likelihood of resistance development and regulation.

"I like the performance I get from the products. The family business is a plus and the knowledge of the Account Manager is outstanding. I like that the hybrids are grown for my area."
Dale Brown, Winnebago County, IL

Burrus takes social media by storm

By Stephanie Porter

The goal of the Burrus social media endeavor is to provide a platform for our company, dealers, and customers by using avenues such as Facebook, Twitter, and YouTube. We are also excited to host the "Think Burrus" blog on the Burrus website, www.burrusseed.com. By utilizing all of the various social media outlets, the hope is to provide a network within the Burrus social media community, as well as have immediate access to information that can benefit your farming operation.

By joining the "Burrus Seed" or #Burrusseed Facebook page, you and your personal network of friends will have access to Burrus updates, pictures, and links to relevant information. Thanks to the current Burrus Seed Facebook followers and an advertising campaign, the Burrus Seed Facebook page audience is now at 2,331 followers.

Burrus can be found on Twitter by going to "@BurrusSeed" or #Burrusseed. There, you will find "140" character updates, links, pictures, as well as favorited or retweeted posts from the Burrus family, agronomists, Sales and Account Managers, as well as customers. Remember that you can get Twitter updates on your smartphone. Since its launch on May 21, 2014, the @BurrusSeed Twitter account has gained 554 followers, which include agricultural media reporters and agricultural organizations, in addition to individual Twitter users.

The "Think Burrus" blog, is brought to you via Blogger, which is a publishing tool that allows Burrus to share text, pictures, and video relating to updates that pertain to education, research, or Burrus products from either Burrus agronomists or Tom Burrus. You can check out the latest blog posts on the Burrus website, www.burrusseed.com. Other Burrus blogs can be found at blog.thinkburrus.com. To date, we have 153 blog posts that have been published on the Think Burrus Blog since April 24, 2014. We have had 27,447 total views.

The top viewed blogs are:

1. ILeVO® Soybean Seed Treatment Evaluated by Burrus Agronomist and Growers in 2015 – May 4, 2015
2. Burrus Coon's Choice Sweet Corn is Now Available – March 21, 2015
3. Burrus Demos Bayer Fluency Lubricant Agent in 2014: Here are the Results – January 17, 2015
4. Burrus Agronomic Meeting March 3rd and 4th, 2015 – February 5, 2015
5. Have you Seen the New John Deere 1775NT Exact Emerge™ High Speed Planter Yet? – April 25, 2015
6. Corn Fields Callin' it Quits: Check for Stalk Rot – August 22, 2015
7. Improved Bayer LinkUp™ Program from Burrus – January 16, 2015
8. New Burrus Jacksonville, IL Facility – February 18, 2015
9. Burrus has Corn Hybrids with Flex, Intermediate and Fixed Ear Types – April 13, 2015
10. A Day in the Life of a Burrus Agronomist – May 1, 2015

For readers interested in using social media more as a marketing tool, a Burrus specific social media kit is in development that will serve as a quick and handy reference source.

MCDONOUGH

Burrus 6T54 3000GT is best

John and Dylan Cook
Sciota, IL

Planted: April 10 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 15. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 70, K: 140. **Herbicide:** Harness Xtra/Roundup. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 6T54 3000GT	219.1	21.7	100	57.4	34
POWER PLUS 6N83AM™*	210.7	19.8	100	56.9	34
POWER PLUS 4J95AMX™*	209.6	20.0	100	59.0	34
POWER PLUS 6P75AMX™*	209.3	20.2	100	57.0	34
POWER PLUS 6L45AMT™*	205.2	20.5	100	58.2	34
POWER PLUS 7H23 S™*	204.5	17.1	80	56.3	33
POWER PLUS 5C17AMXT™*	203.9	20.1	100	61.0	34
CATALYST 7893 3111	198.9	20.1	100	54.0	33
BURRUS 5Z44 3122	198.0	20.7	100	57.2	34
POWER PLUS 6F74AMX™*	194.1	20.5	100	61.2	33
POWER PLUS 2V56AMX™*	188.3	18.8	100	59.7	34
POWER PLUS 4V45AM™*	184.7	19.8	95	59.9	32
Average	202.2	19.9	98	58.2	34

John Cook
Sciota, IL

Planted: April 18 in 30" rows. **Planting Population:** 35,000. **Harvested:** October 15. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 70, K: 140. **Herbicide:** Harness Xtra, Roundup. **Insecticide:** None. **Corn Borer Rating:** Heavy. **Soil Type:** Silty clay loam.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
BURRUS 6T54 3000GT	262.3	12.8	92	32
POWER PLUS 4J95AMX™*	247.1	12.5	96	36
BURRUS 874551	245.1	12.4	40	36
BURRUS 945935	240.4	12.3	88	32
BURRUS 6T54 3000GT	238.3	12.5	92	34
BURRUS 276488	238.1	12.5	88	34
POWER PLUS 5C17AMXT™*	237.0	12.7	100	36
BURRUS 771570	235.2	12.6	72	37
BURRUS 743294	235.1	12.4	92	36
POWER PLUS 4J95AMX™*	234.4	12.9	96	38
BURRUS 187233	234.1	14.4	84	36
POWER PLUS 6F74AMX™*	233.3	12.9	88	38
BURRUS 836363	232.7	06.5	80	34
BURRUS 130796	232.7	13.5	80	38
POWER PLUS 7H23 S™*	230.5	11.9	-8	34
POWER PLUS 6F74AMX™*	230.2	13.2	100	32
BURRUS 5Z44 3122	228.3	13.0	68	32
BURRUS 642749	226.4	12.9	36	34
BURRUS 967547	225.2	12.1	96	34
BURRUS 499913	225.2	14.0	80	34
BURRUS 768449	225.1	12.5	100	36
BURRUS 134146	224.0	12.7	88	35
BURRUS 5Z41 GT	223.4	11.6	80	33
BURRUS 6T54 3000GT	223.3	13.0	100	34
BURRUS 543117	223.0	12.1	100	36
POWER PLUS 6P75AMX™*	222.7	12.6	96	36
POWER PLUS 6L45AMT™*	221.6	11.5	72	34
POWER PLUS 7A18 Q™*	221.1	13.2	40	35
POWER PLUS 4J95AMX™*	220.1	12.2	84	37
POWER PLUS 6N83AM™*	218.7	12.5	96	35
BURRUS 995336	217.4	13.7	92	35
POWER PLUS 4V45AM™*	217.3	12.5	76	34
CATALYST 7893 3111	217.0	12.9	100	32
BURRUS 6J36 3000GT	216.0	12.5	100	36
BURRUS 631644	214.4	13.1	100	36
BURRUS 587204	212.5	12.3	96	36
BURRUS 5Z44 3122	210.2	12.3	100	32
BURRUS 941589	210.0	13.1	100	34
BURRUS 993245	206.2	12.4	88	34
BURRUS 5Z44 3122	202.8	12.8	96	34
BURRUS 5Z41 GT	200.3	12.2	100	31
CATALYST 7577 3010	196.0	12.7	32	32
BURRUS 638535	172.2	13.1	20	34
Average	223.9	12.5	82	35

Burrus/Hughes agronomists and customers evaluate PS SDS (ILeVO®)

In 2016, Burrus/Hughes will offer ILeVO® combined with our base soybean PowerShield® treatment on soybeans. ILeVO is a unique compound from Bayer CropScience that impacts Sudden Death Syndrome (SDS) disease symptoms above and below the soil. It also has a broad spectrum activity against all nematodes near the seed, but as the root (tips) move away from the seed zone, protection is no longer available later in the growing season.

This new Burrus soybean seed treatment package will consist of the high (.15mg) rate of ILeVO, and will be called PS SDS, which stands for PowerShield for Sudden Death Syndrome and will be available on Hughes 201 and 285LL, PowerPlus® 25A5™*, 26Z5™*, 30B5™*, 35Z6™*, 36J3™*, 39R5™*, 41M4™*, as well as Hoblit 355LL, 384LL, 405LL. These soybean varieties have been specifically chosen based on lower SDS disease rating, no known herbicide sensitivity, or higher volume sales. Please be aware that other companies might offer the lower (.075) rate of ILeVO. Research shows that the higher rate of ILeVO is more effective in alleviating yield loss from Sudden Death Syndrome.

What was the SDS disease pressure like in 2015?

The 2014 season will be remembered as one of the worst for Sudden Death Syndrome (SDS). This fungal pathogen survives in soybean residue and infects soybean seedlings in the spring. If environmental conditions are conducive, it can colonize the root cortex during vegetative growth stages. Then, during reproductive stages, if the fungus continues to grow into the vascular tissue of the root, a toxin can be released that disrupts water and nutrient flow of the plant, which can result in yield reducing foliar symptoms of the soybean.

Those hardest hit by the disease in 2014 appeared to have planted soybeans between May 6 and 10, 2014, and unfortunately, many growers planted at this time. The pathogen that causes SDS favors early season temperatures around 60 degrees. If you refer to map 1, you can see that SDS was present in areas outlined that consisted of cool early season temperatures. When comparing 2015 and 2014, the biggest difference appears to be that most of central Illinois had warmer temperatures during the same early planting dates in 2015 and this can be seen on map 2. Warmer early season temperatures and later planting are some reasons that we saw less SDS in 2015. Along with early season cool temperatures, heavy rains can cause SDS to intensify. You can see the areas with the heaviest rainfall in 2014 and 2015 on map 3 and 4, respectively.

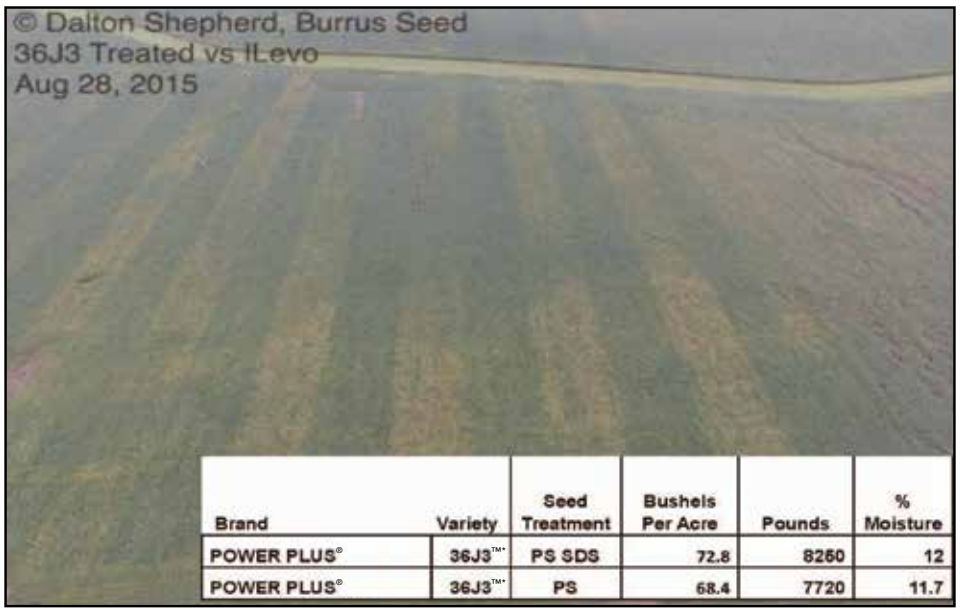
In 2015, Burrus/Hughes and customers were given the opportunity to evaluate the new PS SDS (ILeVO) seed treatment. As many of you know, the heavy rainfall during 2015 proved to be a very, challenging year for soybean planting and evaluation. Because of rain in 2015, planting dates varied greatly from late April to mid-June. Many factors such as flooding, heavy residue, herbicide injury, and cooler temperatures could have caused higher variability within the PS SDS (ILeVO) side-by-side comparisons.

The ILeVO halo effect

ILeVO has a unique mode of action that causes the seed treatment to concentrate mainly in the soybean cotyledons, which are the first leaves on the plant at emergence. A halo effect (Picture 5) or necrosis at margins of the cotyledons might occur as a result of a photo-sensitive reaction to this concentration of ILeVO. Later, a drawstring effect or yellowing could occur on the unifoliate leaves. These symptoms, which occur during the VE (emergence) and V2 soybean growth stages, are more frequently seen under slow growing conditions, when the soil or air temperatures are cool. Seeing the halo effect means the plant has absorbed the ILeVO is working in the root zone, too. After the V2 soybean growth stage or as the trifoliate leaves appear, the plant will appear normal. This is exactly what we observed this year. Soybeans planted within cool, wet conditions did experience this halo effect, but later grew out of these symptoms. There was little halo effect on soybean planted within warmer conditions.

Were there interactions with PS SDS and pre emergence residual herbicides?

Burrus/Hughes did not observe any major issues or interactions with PS SDS (ILeVO) and pre emergence residual herbicides. There will be ongoing research into this issue, but for now Burrus/Hughes has chosen to not pair PS SDS seed treatment with a soybean variety that could have possible herbicide sensitivity. University research on this subject has revealed that last year, when environmental conditions were cool and wet (same conditions that favor SDS), there was some herbicide interaction with ILeVO. However, this did not significantly have an impact on yield; therefore the benefits of ILeVO seed treatment outweigh the effects of possible cosmetic herbicide necrosis early in the growing season.



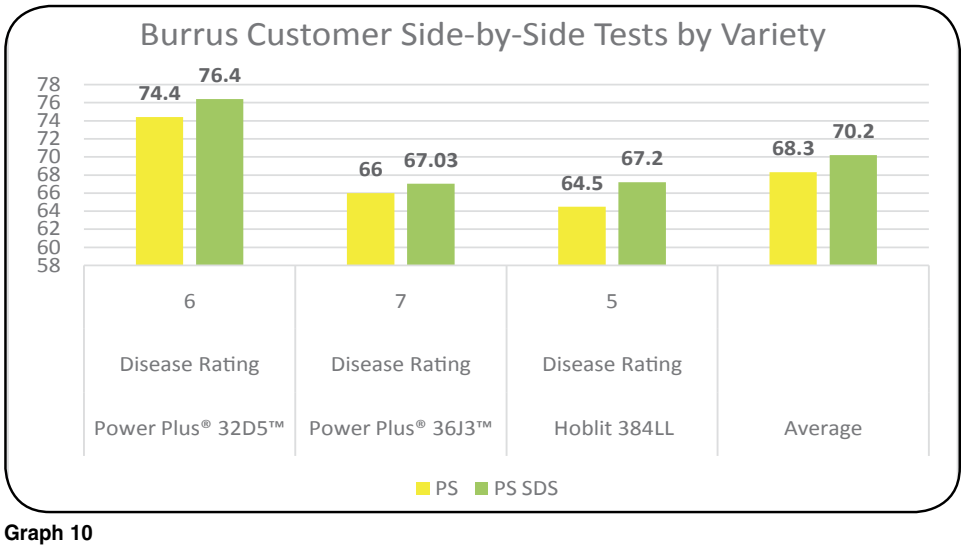
Brand	Variety	Seed Treatment	Bushels Per Acre	Pounds	% Moisture
POWER PLUS®	36J3™*	PS SDS	72.8	8260	12
POWER PLUS®	36J3™*	PS	68.4	7720	11.7

Picture 11
Burrus customer side-by-side near Dallas City, IL.

Burrus/Hughes PS SDS Research Plots

Locations	Planting Date	Varieties	Seed Treatment
Atlanta, IL	5/7/2015	Power Plus® 36J3™* and Hoblit 384LL	Gaucho® 600/ Evergol® Energy/Allegiance® /ILeVO®
Hillview, IL	5/23/2015	Power Plus® 36J3™* and Hoblit 384LL	Gaucho® 600/ Evergol® Energy/Allegiance® /ILeVO®
Jacksonville, IL	5/13/2015	Power Plus® 36J3™* and Hoblit 384LL	Gaucho® 600/ Evergol® Energy/Allegiance® /ILeVO®
Meredosia, IL	5/6/2015	Power Plus® 36J3™* and Hoblit 384LL	Gaucho® 600/ Evergol® Energy/Allegiance® /ILeVO®
Sigel, IL	Data N/A	Power Plus® 36J3™* and Hoblit 384LL	Gaucho® 600/ Evergol® Energy/Allegiance® /ILeVO®
Craig, MO	6/24/2015	Power Plus® 36J3™* and Hoblit 384LL	Gaucho® 600/ Evergol® Energy/Allegiance® /ILeVO®
Rockford, IL	5/23/2015	Hughes 555RR	CruiserMaxx® Vibrance™ /ILeVO®
Woodstock, IL	5/22/2015	Hughes 555RR	CruiserMaxx® Vibrance™ /ILeVO®
Janesville, WI	5/14/2015	Hughes 555RR	CruiserMaxx® Vibrance™ /ILeVO®
All locations had 3 replications - Highlighted plots had high CV (Variability) and were not included in chart results			

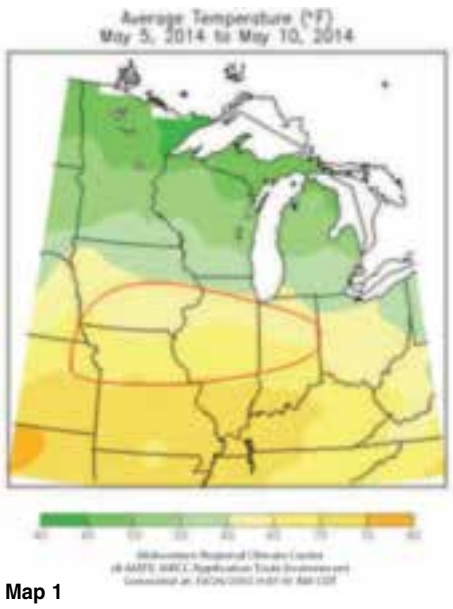
Graph 6



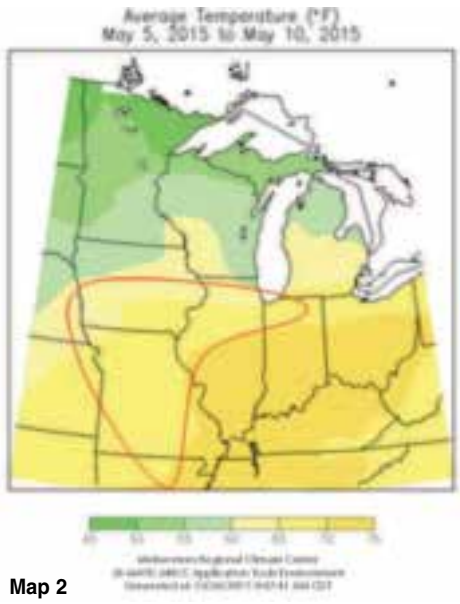
Graph 10

Did PS SDS seed treatment affect soybean stand?

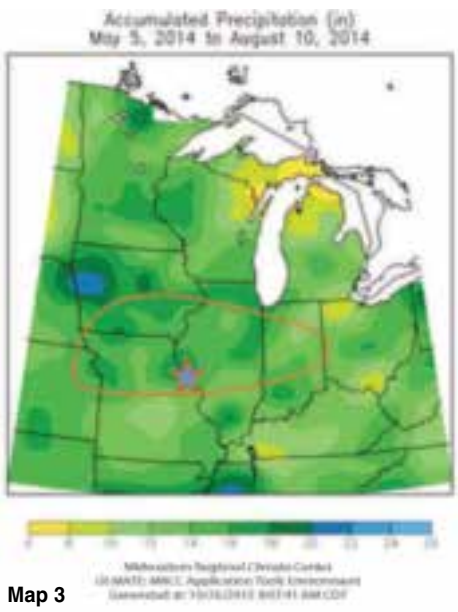
Keep in mind that many things can cause a decrease in soybean stand, so it was important, especially in a year like 2015 that we tried to separate out soybean stand reduction possibilities. Burrus/Hughes conducted their own PS



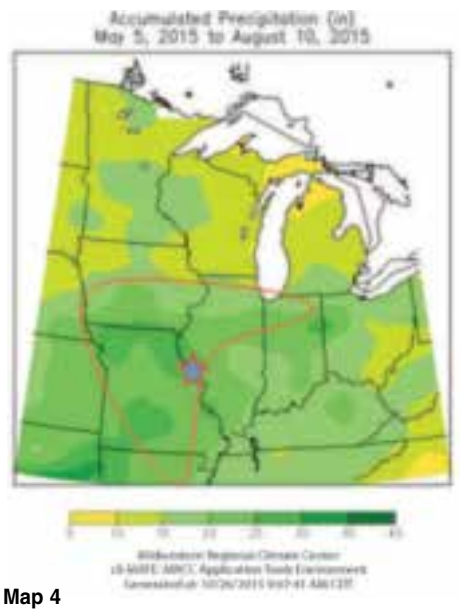
Map 1



Map 2

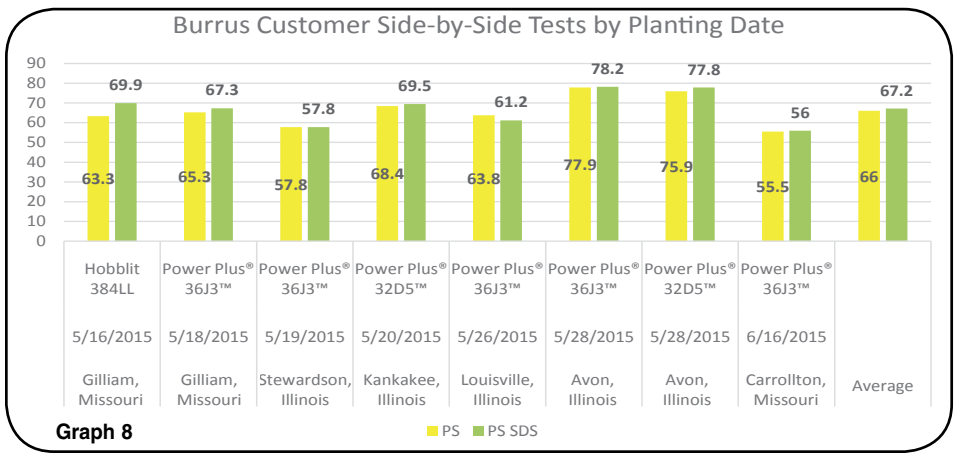


Map 3

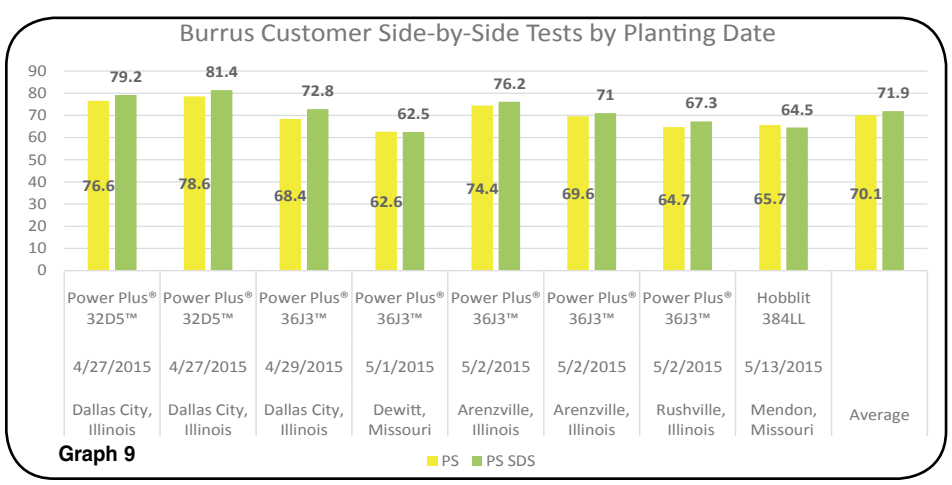


Map 4

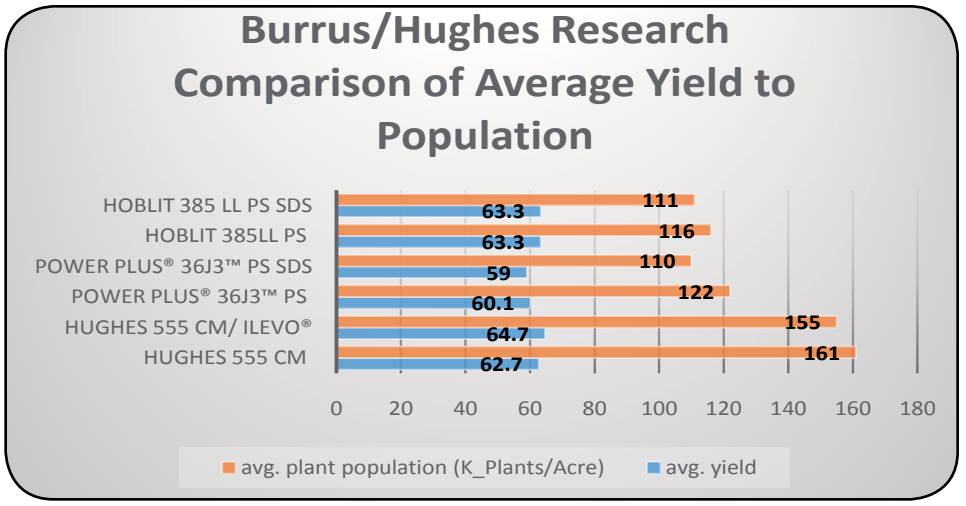
Map 1, 2, 3, 4
Suspected areas of favorable environmental conditions for SDS within the Burrus/Hughes footprint.



Graph 8



Graph 9



Graph 7
Results from the Burrus and Hughes 2015 PS SDS research at Jacksonville, Meredosia, Atlanta, IL (Power Plus® 36J3™ and Hoblit 385LL) and Woodstock, and Rockford, IL (Hughes 555)

Halo Effect on Soybeans. When you see this, it means it is working on the roots, too!

SDS (ILeVO) research within soybean plots found in chart 6 and found that some soybean varieties treated with PS SDS (ILeVO) did have a stand reduction (Power Plus® 36J3™, while other specific varieties (Hughes 555 and Hoblit 384LL) with ILeVO did not appear to have a significant stand reduction when compared to the base treatment. The stand and yield averages for each soybean variety tested at the specified plot locations can be found on graph 7. When looking at the average yield data of these plots, we found that even though there was a significant average stand reduction of Power Plus® 36J3™ compared to those treated with PowerShield (PS), PS SDS (ILeVO) still increased soybean yield. The Hughes 555 with ILeVO most likely had a higher yield advantage when compared to just the base treatment because plots were suspected to consist of heavier disease pressure.

Was there a difference in SDS visual symptoms?

In 2015, Burrus customers were given the opportunity to plant side-by-sides within fields or plots. Agronomists, Account Managers, Dealers, customers, and interns were able to evaluate SDS disease pressure as well as the ILeVO halo effect, stand counts, response to herbicides, visual disease symptoms, yield (graphs 8,9,10), and thus return on investment on individual farms. One of the customer side-by-sides planted near Dallas City, IL was one of the first fields to show visual symptoms of SDS seen in Picture 11. This made sense because it was located in the starred area of map 4, which indicated the plot was planted into cool conditions and had the highest amount of rainfall within the Burrus footprint. The strips within the field showing visual SDS symptoms are the Power Plus® 36J3™* soybeans treated with PowerShield (PS) and the green strips in the field consists of Power Plus® 36J3™* treated with PS SDS (ILeVO). It is important to note Power Plus® 36J3™* soybean is rated a 7, one of the highest ratings for SDS. This is a reminder that no soybean is immune to SDS and the addition of PS SDS increased yield and gave a return on investment.

In general, visual symptoms did not always determine the success of PS SDS. There were customer soybean side-by-side tests that did not show visual SDS symptoms, but still showed a yield advantage by using PS SDS.

Please note that the Burrus PS SDS research and customer side-by-side tests are only one year's data. We will continue to evaluate PS SDS seed treatment in the future. PS SDS seed treatment is not a cure for SDS or SCN, but is one of the tools in the toolbox to combat SDS in addition to reducing compaction, increasing field drainage, planting in warmer temperatures, or relying on higher soybean disease ratings. We continue to believe that soybeans treated with PS SDS are the insurance grower need to plant into fields with a history of SDS or during cool, wet conditions that favor SDS infection.

Because many growers use corn and soybean rotation, when planning for 2016, think back to the fields in 2014 that experienced the most yield loss due to SDS which meant the SDS inoculum is already present. Consider conducting your own test on some of your earliest planted or normally your wettest fields.

Did you lose yield due to foliar disease this year?

By Stephanie Porter

In 2015, it was critical that we scouted for fungal disease such as Gray leaf spot and Northern corn leaf blight at tassel due to environmental conditions that consisted of rain, humidity, and specific temperature ranges that were conducive for disease development. A fungicide application may have been warranted on susceptible hybrids between the corn growth stages of tassel and brown silk (sometimes before dent if warranted) to try to preserve corn yield.

Burrus Hybrids and Hughes Hybrids provide a fungicide response chart to help determine which corn hybrids could be most at risk for disease development. By no means does this chart mean that you absolutely need to make a fungicide application to hybrids that are more likely to "respond to fungicides." The hybrids in the chart "High" category of the "Probability of yield response to fungicide application by brand" chart may be more susceptible to foliar diseases and may be the hybrids that could have a higher probability for a yield response to a fungicide. If you would like to avoid using fungicides, you may want to choose hybrids listed in the "Low" category.

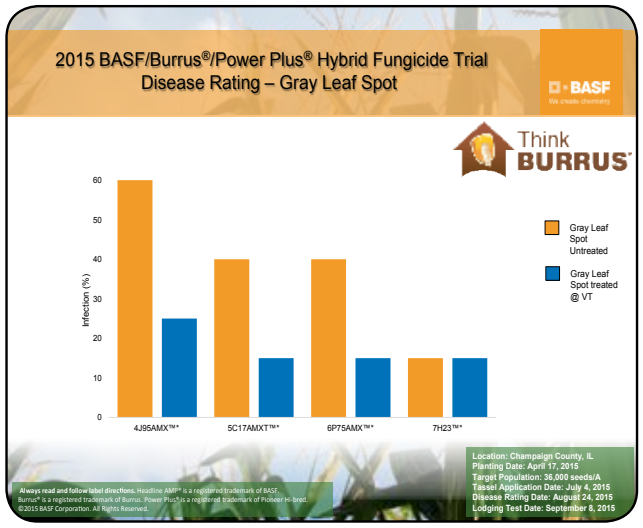
The MyFarms℠ Gray leaf spot alert system was developed to predict and address Gray leaf spot disease concerns in corn. The goal of this system is not only to alert Burrus growers about the potential for disease, but to also be an aid for timely disease scouting. **This feature will only be available to those who have transferred their uploaded fields to planting records within MyFarms.** The Gray leaf spot alert system within MyFarms will revolve around the basic disease triangle and focus on three key elements: corn susceptibility, favorable environmental conditions, and the presence of disease inoculum. Based on these factors, fields within MyFarms will either remain green, if there is a low level of concern for the development of Gray leaf spot, turn to orange if there is a moderate level, or become red if there is a high level of concern.

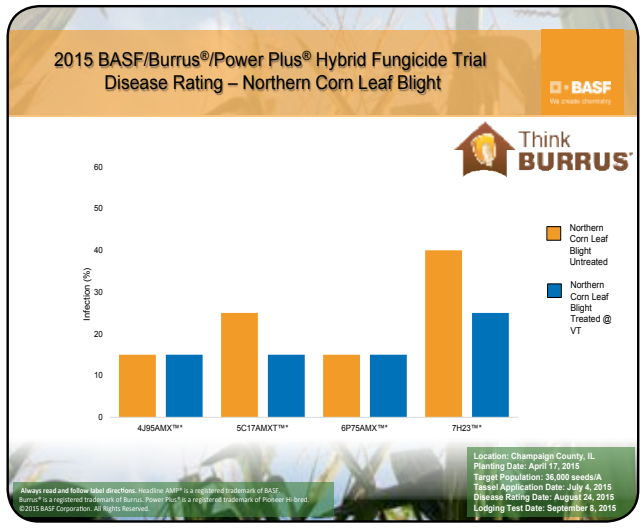
A grower will receive an email notice when a field crosses into the red zone. Keep in mind that factors such as corn hybrid selection, corn growth stage, crop rotation, or environmental conditions could cause the field to move back and forth between an orange or red color that could trigger multiple email notices for the same field. Based on scouting, disease pressure, and forecasted wet weather, the grower can make the decision if a fungicide application is needed.

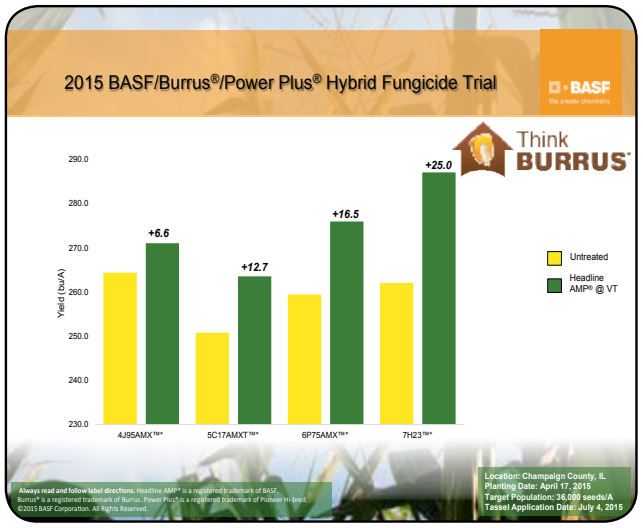
After pollination, the corn yield potential is set. We can't add to the corn yield potential, but we sure can try to preserve that yield potential! Think of the corn leaves (especially the top leaves) as factories for photosynthesis. Their job is to make sugars for plant growth, development, and grain yield. If there is loss of those leaves due to disease between tassel or during grain-fill, the corn plant may have a reduction in yield potential. It has been well documented, that the higher percentage disease on the plant, the greater the yield loss.

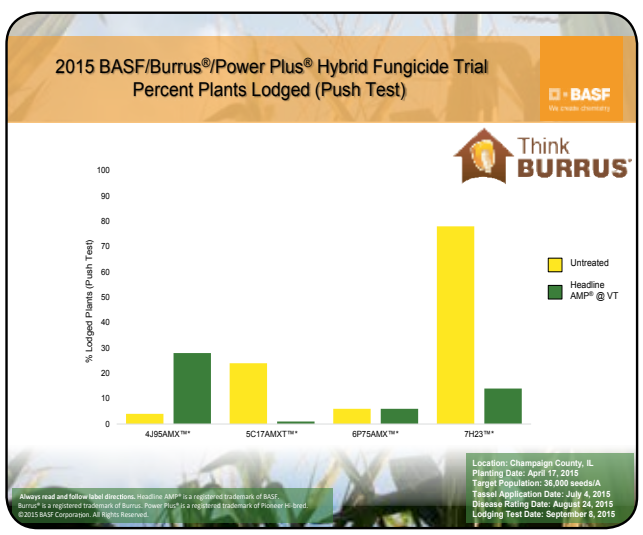
Research has also shown that if fungicides are applied at the right time (after tassel), the higher the disease pressure present will increase your potential for a yield response from a fungicide, which can increase your return on investment.

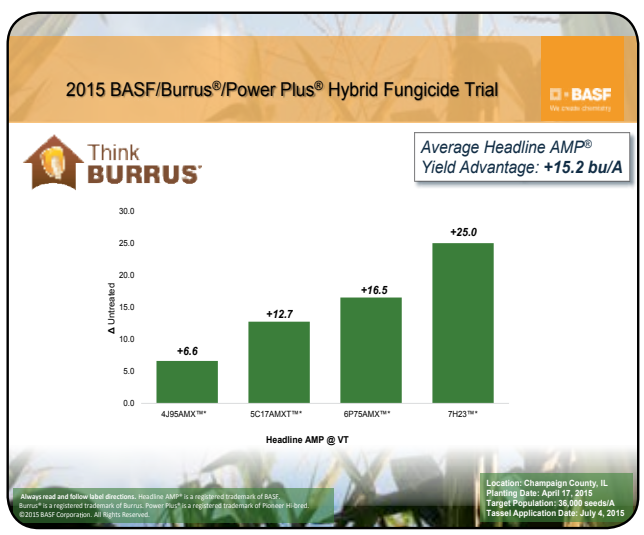
With lower grain prices in 2015, the question if a fungicide will "pay" or give a return on investment was on the mind of many. Depending on the fungicide application price, many required a yield response of around 8 bushels per acre to break even or pay for the fungicide application. Many have reported, after attempting with and without fungicide side-by- side applications, a yield response as great as 15 to 20 bu/a depending on hybrid disease susceptibility, environmental conditions, and disease pressure. In turn, improved plant health improves corn standability by decreasing the risk of stalk rot.











Corn price ($/bu)	Application cost ($/acre)			
	$20	$24	$28	$32
$2.00	10.0[x]	12.0	14.0	16.0
$3.00	6.7	8.0	9.3	10.7
$4.00	5.0	6.0	7.0	8.0
$5.00	4.0	4.8	5.6	6.4
$6.00	3.3	4.0	4.7	5.3
$7.00	2.9	3.4	4.0	4.6
$8.00	2.5	3.0	3.5	4.0

[x] Bushels per acre required to "break even" at the given corn price and total fungicide cost.

Examples of break-even corn yield increases (bu/acre) needed to pay for the cost of a fungicide application, based on market price and application cost. "Application cost" includes cost for fungicide product and application method. Taken from https://www.apsnet.org/publications/apsnetfeatures/Pages/fungicide.aspxhart 4

Probability of Fungicide Application

Probability of yield response to fungicide application by brand

High	Moderate	Low
Catalyst® 4685 3111 5009 3220	**Burrus** 6T51 GT 6T54 3000GT 6Q60	**Burrus** 5Z44 3122
Power Plus® 2V56 AMX™* 4J90™* 4J99 R™* 4J93 AM™* 4J95 AMX™* 5N48™* 6L45AMT™* 7A18 Q™* 7H20™* 7H23 S™* 7U15 AM-R™*	**Catalyst®** 7893 3111 7577 3010	**Hughes** 3442
	Hughes 1286 3000GT 2428 GTA 5124 GT	**Power Plus®** 2R67™* 2R63 R™* 2F91 AMXT™* 4V45 AM™* 6C40™* 6C41 S™* 6F71 R™* 6F74 AMX™*
	Power Plus® 1K08 AMXT™* 1S26 AMXT™* 2N82 AM™* 3H85 AMX™* 5C17 AMXT™* 6P75 AMX™* 6N83 AM™*	

Burrus has ranked various products, noting their potential responsiveness to fungicide. Should a blind application of fungicide be required, this chart should allow the grower to apply fungicide to those products more likely to provide a return (high probability ranking). However, Burrus reminds growers that a fungicide return on investment is best assured by scouting fields for economically significant levels of disease (wide spread lesions within proximity of or above the ear leaf). Repeatedly applying fungicides from the same class can increase the likelihood of resistance development and regulation.

Chart 1

Percentage of leaf area affected by early dent stage (R5)	Approximate yield loss
less than 5%	0-2%
6 to 25%	2-10%
26 to 75%	5-20%
76% dead leaf	15-50%

Chart 2
Predicted yield losses resulting from Gray leaf spot. Hybrids vary greatly in their response to this disease and these values should be viewed as guidelines only. (Source: Dr. Pat Lipps (ret.) The Ohio State University Department of Plant Pathology)

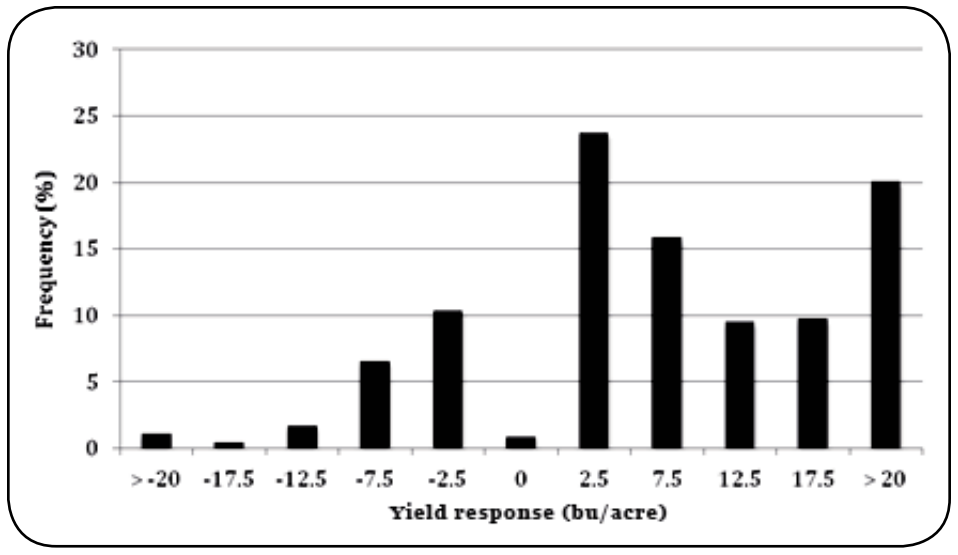


Chart 3
Frequency distribution of corn yield response to fungicide. Data represent 472 treatment comparisons from trials published from 2000 to 2010 in Fungicide &Nematicide Tests or PlantDisease Management Reports. Yield response is calculated as the yield from the untreated control in a trial, subtracted from the yield of each fungicide treatment in that trial. Values on the X-axis represent the midpoint of each category. Taken from https://www.apsnet.org/publications/apsnetfeatures/Pages/fungicide.aspx

MCHENRY

Hughes Seed Farm
Woodstock, IL

Planted: April 29 in 30" rows. **Harvested:** October 18. **Previous Crop:** Soybeans.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J90™*	271.0	22.7
POWER PLUS 6L45AMT™*	267.5	24.9
POWER PLUS 3H85AMX™*	257.4	22.4
POWER PLUS 5N48™*	256.2	21.3
POWER PLUS 6P75AMX™*	255.9	23.3
POWER PLUS 6F74AMX™*	254.3	22.6
POWER PLUS 4J95AMX™*	254.0	21.8
POWER PLUS 5C17AMXT™*	252.8	21.0
CATALYST 7577 3010	249.9	27.4
POWER PLUS 2R67™*	244.1	18.8
POWER PLUS 6C40™*	242.2	25.3
POWER PLUS 1K08AMXT™*	240.9	18.9
POWER PLUS 2N82AM™*	239.8	20.0
CATALYST 4685 3111	239.3	25.9
POWER PLUS 7H20™*	238.8	24.5
POWER PLUS 2F91AMXT™*	238.2	18.7
POWER PLUS 1S26AMXT™*	237.3	17.1
POWER PLUS 2V56AMX™*	235.5	20.8
CATALYST 7893 3111	226.5	27.1
BURRUS 5Z44 3122	225.5	27.1
HUGHES 1286 3000GT	219.0	16.9
HUGHES 3442	214.1	18.1
HUGHES 2428 GTA	211.3	17.0
HUGHES 5124 GT	206.6	19.6
Average	240.8	21.8

Power Plus® 4J95AMX™* brand wins at 257 bu/a

COMPARE!

Tom Hansen
Woodstock, IL

CORN ON CORN

Previous Crop: Corn.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J95AMX™*	**257.0**	**21.8**
Agrigold A6499STX	254.0	22.4
Pioneer P0157AMX	253.0	17.6
Wyffels W3358RIB	251.0	17.4
Pioneer P0496AMX	251.0	17.9
Dyna-Gro D48SS76RIB	251.0	18.6
Dyna-Gro D46SS62RIB	249.0	18.5
Channel 209-53 STX RIB	246.0	21.8
Dekalb DKC49-29RIB	246.0	15.3
Agrigold A6416	239.0	18.2
Wyffels W4968	239.0	18.3
Golden Harvest G01P52-3011A	238.0	15.7
Pioneer P0636AMX	238.0	19.1
Channel 205-19STX	237.0	17.9
POWER PLUS 1S26AMXT™*	**236.0**	**17.2**
Agrigold A6462STXRIB	233.0	20.7
Agrigold A6499STX	232.0	22.7
Golden Harvest G07B39-3111A	231.0	21.2
Beck's XL 5131AMXT	212.0	18.8
Beck's XL 5939AMXT	196.0	19.8
Average	239.4	19.0

Adam Adler

Adam Adler serves Burrus customers in White, Wayne, Jefferson, Hamilton, Jasper, Clay, Richland, Wabash, Pope, Saline, Crawford, Edwards, Lawrence, Gallatin, Hardin, Hamilton, and Franklin counties in southeastern Illinois along with Gibson, Vanderburgh, Warrick, Pike, Sullivan, Posey, Knox, and Daviess in southwest Indiana.

He is a graduate of the University of Southern Indiana and has nearly a decade in sales. While with Sherwin-Williams Co. last year, one of his most notable sales was the paint for Wrigley Field renovation. Adam enjoys working with growers, learning more about their operation and building relationships. Ultimately he wants to become a trusted partner in their business.

He and his wife, Abby, reside in Haubstadt, Indiana with their children, Jackson, age 6, Eden, age 4, and Camden, age 1. Their young family likes sports, camping, and being outdoors.

Put Adam to work to bring more profitability to your farming operation.

Contact him at (812) 568-0500 to learn more about our multi-brand strategy and how Burrus brings more choices to growers.

Does it pay to use a soybean seed treatment?

By Stephanie Porter

The popularity of soybean seed treatments did not come into play until around 2008. According to (Munkvold 2009), only about 8% of soybeans were treated in 2009. Today, we don't have a good grasp on how many soybeans are treated, but we know it's greater than 50%. Currently, around 92% of Burrus soybeans sold this year have seed treatment. Many attribute earlier soybean planting, increased seed costs, and higher commodity prices for the rise in soybean seed treatments.

Today, much of my educational outreach covers broad pest and disease control, as well as product combinations and comparisons of seed treatments. It is estimated that the seed treatment market will reach $4.45 billion by 2018, with a focus on multi-compound products that have a complete spectrum of pest and disease control with an emphasis on seed vitality, stress tolerance, nutrition, higher treatment quality, and improved application. Burrus/Hughes wants to remain the leader in providing the best seed treatments that give a return on investment.

Early planting

University research has taught us that earlier planted soybeans is one way to get to higher yields and thus more value. But, earlier planting does not come without consequences. Those planting earlier in the season have a greater chance of soybean seeds or seedlings being exposed to cool, wet conditions, which increases the chance for exposure to disease and pests.

Seed treatment is a way to protect your seed investment or "give insurance" that soybeans will be better equipped to endure harsher conditions. The new seed treatment on the market that is offered by Burrus/Hughes, called PS SDS (ILeVO®), now allows growers to protect against Sudden Death Syndrome (SDS), which is more severe when conditions are cool and wet during early soybean growth stages. Although soybean varieties vary in foliar SDS symptomology, no soybean is immune to SDS, and some were forced to plant later to help combat this disease. Now, for the first time, PS SDS (ILeVO®) allows growers "insurance" against this yield robbing disease and allows them to plant into cool, wet conditions.

Soybean stand establishment

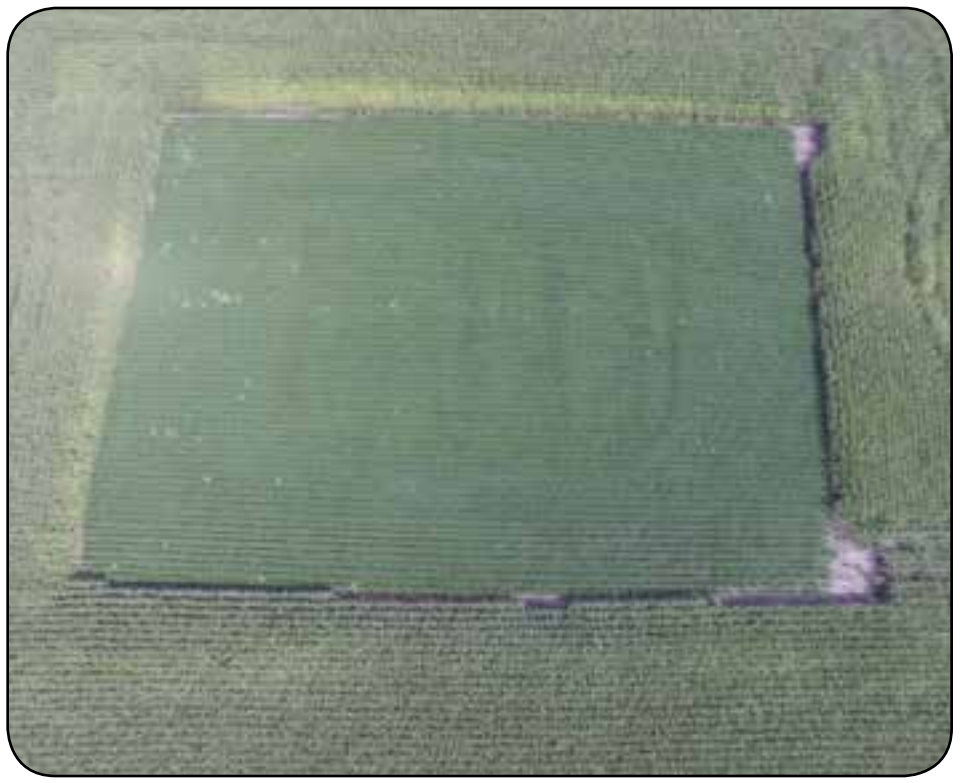
Once soybeans are planted, stand is important. If stands are reduced, there is a chance of reduced yield potential. Many things such as crusting, compaction, flooding, planting depth, cold stress, residue, dry soils, herbicide injury, sidewall compaction, as well as low germination can affect stand. The main thing to impact stand, however, is seed rot and seedling disease. The greatest soybean yield robbers are pests such as soybean cyst nematode and Phytophthora, charcoal rot, Sudden Death Syndrome, along with many other seedling rots lurking in the soil. Annual yield loss from pests and diseases will vary year to year based on environment, but the one thing we do know is that seed treatments can protect your soybean seed stand.

What diseases are affecting soybeans?

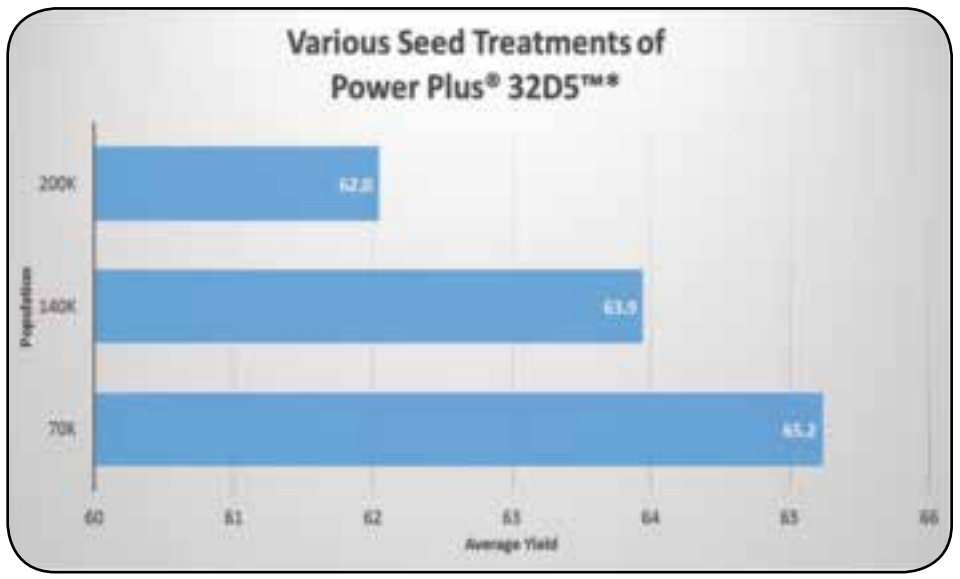
We assume there are soil borne diseases lurking out in our fields, but do we really know what is out there? A recent joint University survey conducted in the Midwest actually showed that pythium was the greatest threat to soybean seedlings; 43 different species to be exact. This is interesting because many think that Phytophthora, a fungal like oomycete, is the main soybean soilborne disease. They also found that there appeared to be less Rhizoctonia disease pressure affecting soybeans. Another facet of this survey revealed that many of the pythium species had adapted to their location. So, the Wisconsin pythium species were able to survive in cooler soils, the Iowa and northern half of Illinois pythium species thrived in intermediate temperatures, and the Missouri and the southern Illinois pythium species adapted to warmer soil temperatures.

One key to combat early season soybean disease is to use high quality seed when compared to the competition which is offered by Burrus and Hughes. Other ways to help reduce seedling rot are crop rotation, drainage, and avoiding stressful soil conditions such as compaction, or disease resistance. We have sources of soybean resistance (genes) available for Phytophthora, but no primary sources of soybean resistance available for pythium. **Our only chance of protection against pythium, an oomycete, is fungicide soybean seed treatment that contains a fungicide component that has activity against soil borne oomycete fungi.**

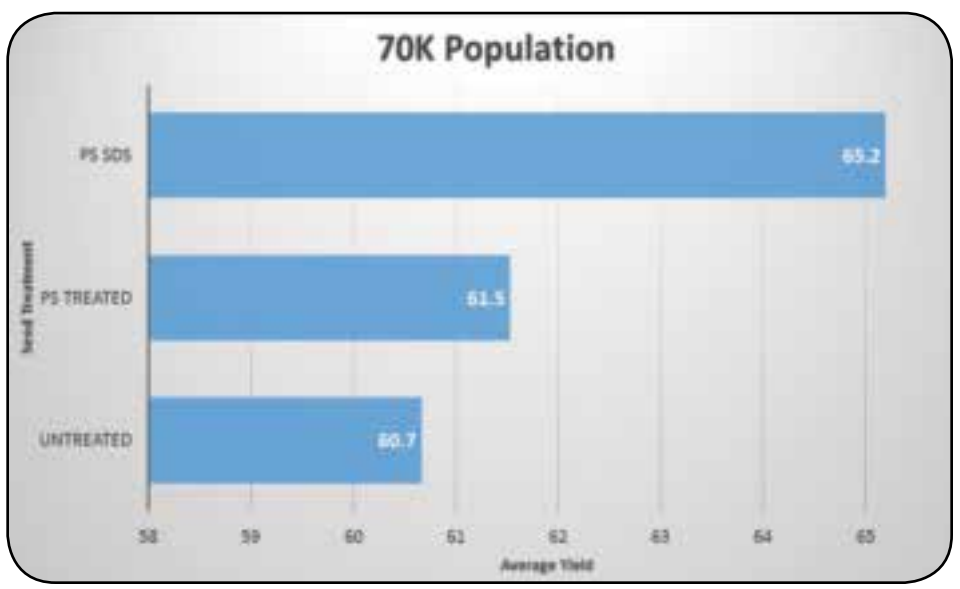
A common misconception is that all fungicide seed treatments are alike, but in reality a grower needs to make sure



140,000 seeds/acre plot. Photo taken by Burrus Account Manager Dalton Shepherd.



Please note that this replicated trial only took place in one general location within one year.

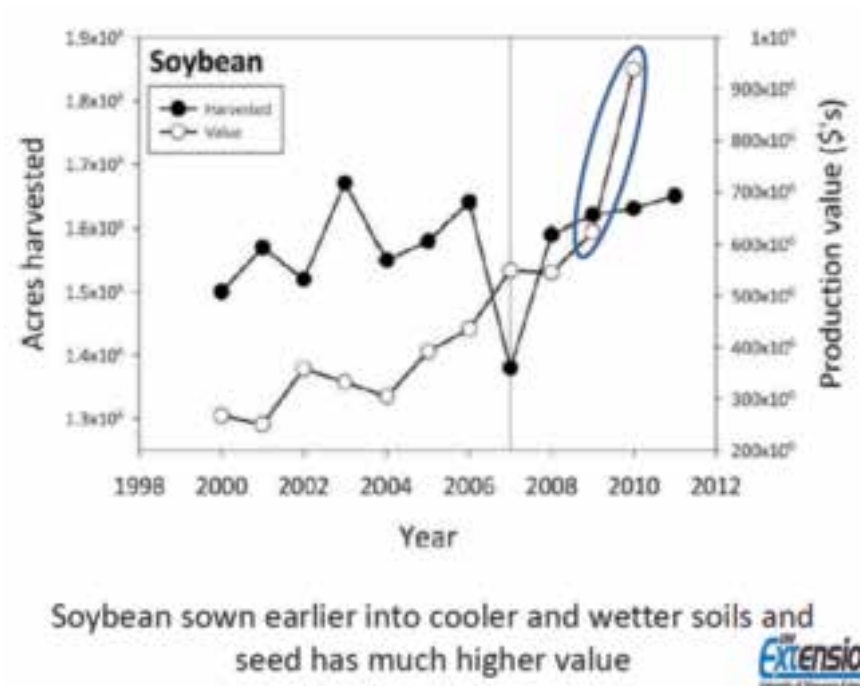


Stand count is important

Reduced stands = reduced yield potential

	Plant population (30-inch rows)		
	140k (8 plants/ft)	105k (6 plants/ft)	70k (4 plants/ft)
Stand reduction (%)	Percent of yield potential		
0 (full stand)	100	97	95
10	98	96	93
20	96	93	91
30	93	90	88
40	89	86	83
50	84	81	78
60	78	75	73

The reduction in stand was achieved by random placement of 12-inch gaps within rows 2 to 4 weeks after planting (Source: University of Illinois)



Soybean sown earlier into cooler and wetter soils and seed has much higher value

that their seed treatment consists of two or more active ingredients of fungicides, such as those in PowerShield® to combat the many different seed and soilborne pathogens.

Do I need an insecticide/nematicide in my seed treatment?

Nearly all soybean seed treatments consist of insecticides such as clothianidin (Poncho®), imidacloprid (Gaucho®) or thiamethozam (Cruiser®) in order to target soybean aphid, bean leaf beetle, grape colapsis, white grubs, wireworms, and three cornered alfalfa hopper. The University of Tennessee observed that between 2005-2014, Neonicotinoids (Gaucho or Cruiser) gave an average of 1 bu/a response.

Gaucho® 600 was the insecticide included in PowerShield on soybeans because it can provide greater early season protection of soybean aphids when compared to other insecticidal seed treatments while protecting against many other early season insects. When glancing at all the research done by Iowa State, there were times when there was not much response from a nematicide included within the seed treatment package. In some instances, it was thought that soybean cyst nematode pressure was not high enough to see a yield response. To date, we don't feel that the addition of a nematicide, which adds additional cost to our seed treatment, is worth the investment because our soybeans contain sources of soybean cyst nematode resistance.

Andrew Stuckey saw the plot average 216 bu/a in Fulton Co.

Seed treatment = insurance

To be honest, over the past several years, it has been extremely difficult to economically test and access the presence of seed and seedling disease as well as pests. Therefore, it is difficult to predict yield loss at planting and prove the worth of seed treatment. To add to the chaos, we also have learned that the interaction of the seed treatment can vary based on different soybean varieties. However, it has become evident that the decision to use a seed treatment is more important than what soybean product is used. Because there are so many environmental variables, we need to have a mindset that a soybean seed treatment can be "insurance" for growers by increasing stands and yields around 75% of the time.

Reducing soybean populations and increasing your return on investment

The other area of focus that we turn to is soybean economics. By investing in soybean seed treatment, we can now start to reduce soybean seedling rates, especially now that we have had an increase use of pre-residual herbicides across the Burrus/Hughes footprint. Recent University of Wisconsin research was able to show that by using a soybean seed treatment and then lowering soybean seedling rate, you can begin to increase return on investment.

This year, Burrus Dealer Pete Gill, offered Burrus the use of 3 soybean plots to evaluate seed treatments and plant populations. The project was overseen by Burrus Account Manager, Dalton Shepherd, Burrus Intern Austin Kocher, and Burrus Sales Agronomist Stephanie Porter. Each of the small plots were around 200 x 300 feet and located within cornfields, so the planting date remained the same on May 18th, 2015 and they only received a post application of glyphosate.

Each of plots were planted with 3 replications (6 row strips) of 3 different seed treatment mixes as well as untreated of the soybean variety Power Plus® 32D5™*. Each plot consisted of a different soybean population: 70,000, 140,000, and 200,000 seeds/acre. There was light weed pressure and possible residue issues that could increase variability within the plots.

MCHENRY

Power Plus® takes 2nd, 3rd & 6th!

COMPARE!

DJ Farms
Marengo, IL

CORN ON CORN

Planted: April 30 in 30" rows. **Planting Population:** 30,000. **Harvested:** October 15. **Previous Crop:** Corn. **Herbicide:** Callisto Guardian.

Brand/Product	Bu. Per Acre	% Moisture
Wyffels W6480	242.8	19.9
POWER PLUS 4J93AM™*	**241.0**	**20.4**
POWER PLUS 2R67™*	**240.2**	**17.5**
Channel 209-53 STX RIB	236.1	22.4
Agrigold A6462 STXRIB	234.9	21.7
POWER PLUS 5N48™*	**234.3**	**19.1**
Agrigold XA41413STX	234.1	19.8
Pioneer P1257AMXT	233.7	21.0
Yield Direct 4L59	232.1	19.1
Agrigold A6267	230.7	16.3
Wyffels W7108RIB	229.4	22.4
Agrigold A6267	229.3	17.1
Pioneer P1197AMXT	226.4	24.0
Wyffels W4968	223.7	18.0
Wyffels W4790	223.0	16.8
Channel 205-19STX	222.1	17.8
Agrigold A6488VT2RIB	222.0	20.4
Agrigold A6416	220.1	16.1
Yield Direct 5L33	219.0	19.5
Wyffels W5130	217.6	17.3
Yield Direct 5M83	217.1	18.0
OMG 5X62	215.3	20.0
Agrigold A6472VT3P	213.5	20.4
Agrigold A6300	213.4	16.1
Channel 206-78	213.3	18.9
Agrigold A6376 FB	211.1	18.0
OMG 4X10	201.3	17.4
Average	225.1	19.1

Simons Farms
Marengo, IL

Planted: April 30 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 21. **Previous Crop:** Soybeans. **Herbicide:** Volley, Roundup. **Soil Type:** Medium loam. **Weather:** May–≠wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J95AMX™*	**229.8**	**20.6**
POWER PLUS 3H85AMX™*	**218.6**	**19.4**
POWER PLUS 5C17AMXT™*	**216.1**	**20.1**
POWER PLUS 2V56AMX™*	**216.0**	**19.3**
POWER PLUS 1K08AMXT™*	**211.2**	**17.3**
POWER PLUS 2F91AMXT™*	**209.9**	**19.4**
POWER PLUS 1S26AMXT™*	**201.1**	**18.1**
POWER PLUS 2V56AMX™*	**178.5**	**19.1**
Average	210.2	19.2

Burrus soybeans win big again this year

Place	Hybrid/Brand	Yield	Entries	Sponsor	Cooperator	County
			Beans			
1st**	38K6™*	93.8	24	Univ of IL	Belleville RR early trial	St. Clair
1st**	266LL	84.3	9	Univ of IL	Erie LL trial	Whiteside
1st**	266LL	68.2	9	Univ of IL	Mt. Morris LL trial	Ogle
1st	41M4™*	67.1	23	Univ of MO	Craig Group 4 trial	Holt, MO
1st**	39R5™*	66.1	29	Univ of IL	Elkville RR early trial	Jackson
2nd**	36J3™*	79.4	58	Univ of IL	Dwight RR late trial	Grundy
2nd**	355LL	79.2	11	Univ of IL	New Berlin LL early trial	Sangamon
2nd**	24P4™*	78.5	59	Univ of IL	Mt. Morris RR early trial	Ogle
2nd**	46A5™*	77.8	39	Univ of IL	Harrisburg RR late trial	Saline
2nd**	355LL	72.6	14	Univ of IL	Dwight LL trial	Grundy
2nd	25A5™*	71.4	12	Individual	DJ Farms	McHenry
2nd**	405LL	65.7	16	Univ of IL	St. Peter LL late trial	Fayette
2nd	21R6™*	64.6	22	Individual	Rowntree Farms, Inc.	Racine, WI
3rd**	36J3™*	88.7	58	Univ of IL	Monmouth RR late trial	Warren
3rd**	285LL	88.1	14	Univ of IL	Monmouth LL trial	Warren
3rd**	355LL	85.9	11	Univ of IL	Urbana LL early trial	Champaign
3rd**	355LL	83.3	11	Univ of IL	Perry LL early trial	Pike
3rd	35Z6™*	71.8	12	Individual	Ron Downs	Schuyler
3rd**	266LL	69.8	9	Univ of IL	Dekalb trial	Dekalb
3rd	201	69.4	12	Individual	DJ Farms	McHenry
3rd	38K6™*	67.4	81	Univ of MO	Craig Group 3 trial	Holt, MO
3rd**	355LL	65.9	7	Univ of IL	St. Peter LL early trial	Fayette
3rd	384LL	62.5	81	Univ of MO	Canton Group 3 trial	Lewis, MO
3rd**	426LL	61.4	11	Univ of IL	Elkville LL early trial	Jackson
4th**	28H5™*	86.0	24	Univ of IL	Monmouth RR early trial	Warren
4th**	405LL	84.2	13	Univ of IL	Urbana LL late trial	Champaign
4th**	355LL	77.8	14	Univ of IL	Goodfield LL trial	Woodford
4th**	405LL	74.4	16	Univ of IL	Belleville LL late trial	St. Clair
4th	38K6™*	69.8	12	Individual	Ron Downs	Schuyler
4th**	285LL	66.4	9	Univ of IL	Mt. Morris LL trial	Ogle
4th	25A5™*	65.3	22	Individual	Rowntree Farms, Inc.	Racine, WI
4th**	405LL	60.4	11	Univ of IL	Elkville LL early trial	Jackson
4th	41M4™*	54.7	23	Univ of MO	Canton Group 4 trial	Lewis, MO
5th	26Z5™*	84.7	31	Individual	Schlachter Farms	Stephenson
5th**	38K6™*	77.9	29	Univ of IL	Harrisburg RR early trial	Saline
5th**	38K6™*	64.5	29	Univ of IL	Elkville RR early trial	Jackson
5th**	426LL	63.6	16	Univ of IL	St. Peter LL late trial	Fayette

**See the official University of Illinois, Department of Crop Sciences bulletin 'Corn/Soybean Variety Test Results in Illinois – 2015' for details. Endorsement or recommendation by the University of Illinois is not implied.

MCHENRY

Power Plus® 5th & 6th

COMPARE!

Gary Aavang
Woodstock, IL

Planted: April 28 in 30" rows. **Harvested:** October 17. **Previous Crop:** Soybeans. **✓Check Hybrid:** Pioneer P0636AM

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	236.7		19.8
Curry 920-79 TM AMXT	215.9	25	17.8
POWER PLUS 1S26AMXT™*	**200.9**	**28**	**17.1**
Golden Harvest G01P52-3011A	221.6	22	17.5
Pioneer P0157AMX	230.1	16	18.2
Wyffels W3358RIB	222.8	21	18.1
Curry 824-37AMX	245.1	11	18.7
Beck's XL 5131AMXT	219.5	23	19.7
Channel 205-19STX	212.1	27	19.0
Dyna-Gro D46SS62RIB	257.1	3	20.1
✓Check	237.8		19.6
Golden Harvest G07B39-3111A	250.3	7	21.4
Wyffels W4968	236.2	15	21.1
Agrigold A6416	244.6	13	20.6
Pioneer P0825AMXT	286.9	1	22.0
Dyna-Gro D48SS76RIB	250.7	9	20.9
Channel 209-53 STX RIB	279.4	2	22.5
Agrigold A6462 STXRIB	251.8	8	21.4
Beck's XL 5939AMXT	232.0	18	21.5
POWER PLUS 5C17AMXT™*	**257.0**	**5**	**20.5**
✓Check	241.1		19.5
Agrigold A6267	227.8	20	18.4
Pioneer P0339AMXT	245.0	14	19.8
Dyna-Gro D48SS76RIB	259.5	4	19.7
Dyna-Gro D43VC50	231.5	19	17.9
Channel 206-78	250.4	10	19.5
Golden Harvest G06N80-3111	196.4	30	18.4
POWER PLUS 3H85AMX™*	**252.1**	**6**	**20.1**
Wyffels 5168RIB	200.3	29	18.0
Curry 830-39AMX	245.8	12	20.3
✓Check	238.8		19.6
Agrigold A6499STX	217.1	26	21.6
Dekalb DKC54-38RIB	231.8	17	19.2
Dekalb DKC57-75RIB	218.9	24	19.9
Average	236.6	—	19.7
Check Average	238.6		19.6

Wayne Duncan & Wade Johnson saw the traited products show an advantage over non-GM conventionals in Mercer Co.

Brant, Hannah & Staci Sell saw Power Plus® 6P75AMX™* take top honors in Mercer Co.

MERCER

Power Plus® 6P75AMX™* brand wins at 253 bu/a!

COMPARE!

Brant Sell
New Boston, IL

CORN ON CORN

Planted: April 17 in 30" rows. **Planting Population:** 33,600. **Harvested:** October 3. **Previous Crop:** Corn. **Fertilizer:** N: 200, P: 51, K: 40. **Herbicide:** Lexar, Glyphosate, 2,4-D. **Insecticide:** None. **Corn Borer Rating:** Moderate. **Soil Type:** Medium clay. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6P75AMX™*	**253.9**	**17.5**	**100**	**59.4**	**35**
POWER PLUS 4J95AMX™*	**242.0**	**17.2**	**100**	**58.3**	**34**
POWER PLUS 5C17AMXT™*	**231.3**	**16.3**	**60**	**59.0**	**29**
Pioneer P0993HR	229.7	15.8	100	57.0	33
POWER PLUS 6F74AMX™*	**224.2**	**17.2**	**100**	**61.3**	**30**
BURRUS 6T54 3000GT	**212.2**	**18.5**	**100**	**57.6**	**31**
BURRUS 5Z44 3122	**202.4**	**18.0**	**100**	**59.5**	**31**
Average	228.0	17.2	94	58.9	32

Power Plus® 6F71 R™* brand and 6P75AMX™* brand above 250 bu/a

Scott Olson
Joy, IL

Planted: April 24 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 30. **Previous Crop:** Corn/Soybeans. **Insecticide:** None. **Corn Borer Rating:** Moderate. **Soil Type:** Medium loam. **Weather:** May–dry, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6F71 R™*	**252.6**	**16.0**	**90**	**60.0**	**30**
POWER PLUS 6P75AMX™*	**251.4**	**18.1**	**100**	**58.5**	**35**
POWER PLUS 6N83AM™*	**249.3**	**17.4**	**100**	**58.3**	**32**
POWER PLUS 4J93AM™*	**248.2**	**17.0**	**100**	**58.3**	**33**
POWER PLUS 4J93AM™*	**246.7**	**16.6**	**100**	**58.2**	**33**
POWER PLUS 4J95AMX™*	**245.5**	**17.2**	**100**	**59.3**	**34**
POWER PLUS 5C17AMXT™*	**244.2**	**17.7**	**100**	**58.4**	**35**
BURRUS 6T54 3000GT	**242.9**	**18.8**	**100**	**57.7**	**32**
POWER PLUS 6N83AM™*	**242.7**	**16.8**	**100**	**57.2**	**30**
BURRUS XP4173-3111	**237.6**	**17.7**	**80**	**57.4**	**32**
BURRUS 5Z44 3122	**236.6**	**18.9**	**100**	**58.7**	**32**
BURRUS 5Z44 3122	**235.7**	**19.0**	**100**	**58.7**	**31**
BURRUS 6T54 3000GT	**232.1**	**18.6**	**100**	**58.6**	**31**
POWER PLUS 7H23 S™*	**216.3**	**14.4**	**60**	**58.0**	**32**
POWER PLUS 7H23 S™*	**215.8**	**14.5**	**60**	**58.0**	**31**
POWER PLUS 6L45AMT™*	**206.4**	**17.1**	**80**	**59.3**	**34**
Average	237.8	17.2	92	58.4	32

Larry Carlson
Alexis, IL

Planted: April 28 in 30" rows. **Planting Population:** 35,200. **Harvested:** September 25. **Previous Crop:** Soybeans. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–-wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
Dyna-Gro D52SS91RIB	257.4	22.0
Dekalb DKC62-77RIB	254.5	20.9
Dekalb DKC64-87	254.1	20.8
Dekalb DKC60-67RIB	252.5	19.2

ILLINOIS

Burrus corn wins big again this year

Corn

Place	Hybrid/Brand	Yield	Entries	Sponsor	Cooperator	County
1st	5C17AMXT™*	274.5	35	Individual	Flanagan FFA	Livingston
1st	6P75AMX™*	274.0	20	Individual	Midwest Central FFA	Mason
1st	7H23 S™*	272.7	14	Individual	Gary Ferree	Sullivan, IN
1st	4J95AMX™*	265.9	14	Individual	Tom Sutter	Dane, WI
1st	5C17AMXT™*	263.4	12	Individual	Richard Knight	Champaign
1st	4J95AMX™*	260.4	39	Individual	Warner Farming	Ogle
1st**	4J95AMX™*	260.0	38	Univ of IL	Monmouth c/c trial	Warren
1st	4J95AMX™*	257.0	20	Individual	Tom Hansen	McHenry
1st	4J95AMX™*	251.5	39	Individual	Gill Farms	Lafayette, MO
1st	6P75AMX™*	247.5	24	Individual	Cooper/Foran	Sangamon
1st	5C1AMXT™*	246.8	18	Individual	Jason Zimmer	Kankakee
1st	2F91AMXT™*	245.3	25	Individual	Josh Schwantes	Grant, WI
1st	6F74AMX™*	236.4	26	Individual	WW Agseeds Inc.	Winnebago
1st	6P75AMX™*	233.3	25	Individual	Tazewell Co. Corn Growers	Tazewell
1st	6C41 S™*	226.8	28	Individual	McCormick Farms	Chariton, MO
1st	4J93AM™*	217.6	34	Individual	Mon-Clair Corn Growers	Monroe
1st	4J93AM™*	215.5	20	Individual	Bremer Bros.	Massac
1st	6T54 3000GT	206.6	12	Individual	Janson Nesbo	Scott
1st	6C40 S™*	193.3	16	Individual	John Cramer	Livingston, MO
2nd**	6P75AMX™*	289.0	102	Univ of IL	Erie trial	Whiteside
2nd	6P75AMX™*	269.7	12	Individual	Larry Hill	Mason
2nd	6L45AMT™*	262.3	12	Individual	Richard Knight	Champaign
2nd	7U15AM-R™*	261.4	14	Individual	Gary Ferree	Sullivan, IN
2nd**	6P75AMX™*	259.0	38	Univ of IL	Monmouth c/c trial	Warren
2nd	5C17AMXT™*	258.0	14	Individual	Tom Sutter	Dane, WI
2nd**	4J95AMX™*	257.0	102	Univ of IL	Mt. Morris trial	Ogle
2nd**	6C41 S™*	246.0	81	Univ of IL	Belleville trial	St. Clair
2nd	4J93AM™*	241.0	27	Individual	DJ Farms	McHenry
2nd	6C41 S™*	234.0	24	Individual	Santa Fe Ag Leaders	Lafayette, MO
2nd	3H85AMX™*	230.7	26	Individual	WW Agseeds Inc.	Winnebago
2nd	4J95AMX™*	215.7	13	Individual	Tom Novak	Iowa, WI
2nd	4J93AM™*	209.6	28	Individual	McCormick Farms	Chariton, MO
3rd**	5C17AMXT™*	285.0	102	Univ of IL	Erie trial	Whiteside
3rd**	6P75AMX™*	275.0	109	Univ of IL	Monmouth conv. trial	Warren
3rd	6C41 S™*	260.5	14	Individual	Gary Ferree	Sullivan, IN
3rd**	6P75AMX™*	259.0	30	Univ of IL	Urbana c/c trial	Champaign
3rd	3H85AMX™*	253.2	14	Individual	Tom Sutter	Dane, WI
3rd	2R67™*	240.2	27	Individual	DJ Farms	McHenry
3rd	4J95AMX™*	239.3	18	Individual	Jason Zimmer	Kankakee
3rd	5C17AMXT™*	233.4	26	Individual	WW Agseeds Inc.	Winnebago
3rd	4J93AM™*	224.2	14	Individual	Green Hills Feeders	Grundy, MO
3rd	6P75AMX™*	210.4	13	Individual	Dan Folkes	Logan
3rd	4J93AM™*	185.1	33	Individual	Mon-Clair Corn Growers	Monroe
4th**	4J95AMX™*	284.0	102	Univ of IL	Erie trial	Whiteside
4th	6P75AMX™*	265.5	16	Individual	Spangler Grain Co.	Fulton
4th	6F74AMX™*	259.0	12	Individual	Richard Knight	Champaign
4th	6P75AMX™*	229.7	26	Individual	WW Agseeds Inc.	Winnebago
4th	6F74AMX™*	224.7	12	Individual	Gifford State Bank	Champaign
4th	6C41 S™*	210.7	14	Individual	Green Hills Feeders	Grundy, MO
4th	6T54 3000GT	208.0	13	Individual	Dan Folkes	Logan
4th	6N83AM™*	207.1	28	Individual	McCormick Farms	Chariton, MO
4th	1S26AMXT™*	202.5	13	Individual	Tom Novak	Iowa, WI
4th	6F71 R™*	197.5	20	Individual	Bremer Bros.	Massac
5th**	6P75AMX™*	277.0	110	Univ of IL	Goodfield trial	Woodford
5th	7H23 S™*	263.0	16	Individual	Spangler Grain Co.	Fulton
5th	4J95AMX™*	258.0	35	Individual	Flanagan FFA	Livingston
5th	7A18AMI™*	257.9	12	Individual	Richard Knight	Champaign
5th	5C17AMXT™*	257.0	30	Individual	Gary Aavang	McHenry
5th	5C17AMXT™*	247.6	39	Individual	Gill Farms	Lafayette, MO
5th	2F91AMXT™*	224.2	26	Individual	WW Agseeds Inc.	Winnebago
5th	6T54 3000GT	203.2	28	Individual	McCormick Farms	Chariton, MO
5th	6T54 3000GT	195.7	14	Individual	John Salrin	Brown

**See the official University of Illinois, Department of Crop Sciences bulletin 'Corn/Soybean Variety Test Results in Illinois – 2015' for details. Endorsement or recommendation by the University of Illinois is not implied.

Dyna-Gro D51SS54RIB	250.2	19.7
Dyna-Gro D50SS43	245.5	20.1
Channel 209-53	244.6	21.0
Channel 211-35 STX RIB	243.7	20.7
Channel 213-59 STX RIB	241.3	20.2
Pioneer P1417AMX	241.1	21.4
Dyna-Gro D51SS54RIB	241.0	19.5
BURRUS 6T54 3000GT	**235.5**	**21.4**
Pioneer P1197AM*	235.3	21.1
POWER PLUS 4J95AMX™*	**229.0**	**19.4**
Pioneer P1257AMX	223.5	19.3
POWER PLUS 5C17AMXT™*	**222.7**	**20.0**
Pioneer P0945AMX	195.9	18.5
Average	239.3	20.3

Wayne Duncan
Alexis, IL

Planted: April 28 in 20" rows. **Planting Population:** 35,000. **Harvested:** October 2. **Previous Crop:** Soybeans. **Herbicide:** Capreno, Atrazine. **Insecticide:** None. **Corn Borer Rating:** Moderate. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–dry.
✓**Check Hybrid:** Agrigold 6499

Brand/Product	Bu. Per Acre	Rank	% Moisture	Adj. Test Wt.
✓**Check**	233.6		16.8	59.2
Agrigold A6257	209.1	14	13.4	57.0
Agrigold A6267	214.6	11	13.6	58.0
Agrigold A6416	220.0	6	15.0	57.0
Agrigold A6458	201.4	24	15.4	55.0
Agrigold A6517VT3	208.8	15	17.1	55.3
Agrigold A6533	206.2	7	17.0	57.3
Agrigold A6559STXRIB	232.6	1	16.8	58.2
Agrigold A6573	184.6	27	17.2	56.3
Agrigold A6574VT2PRIB	196.4	17	17.1	60.3
Agrigold A6472VT3P	208.9	5	16.3	59.0
✓**Check**	210.6		16.0	58.0
Wyffels W4790	189.8	22	14.9	55.0
Wyffels W5130	203.7	8	14.4	57.0
Wyffels W6480	209.4	4	15.7	57.0
Wyffels W6910	223.0	3	16.8	58.2
Wyffels W7730	230.4	2	17.6	59.4
Wyffels W7800	201.9	16	16.8	60.2
Wyffels W8550	209.7	9	17.5	58.4
✓**Check**	225.3		15.6	59.0
FS 58J00	203.5	19	14.9	58.0
FS 60C00	202.1	20	15.1	58.0
POWER PLUS 2R67™*	**203.7**	**18**	**14.4**	**57.0**
BURRUS 5D30	**197.6**	**25**	**14.5**	**60.0**
POWER PLUS 5N48™*	**199.8**	**21**	**14.8**	**60.0**
POWER PLUS 6C40™*	**210.8**	**10**	**16.7**	**60.2**
BURRUS 6G64	**162.8**	**28**	**56.0**	**57.4**
POWER PLUS 7H20™*	**208.2**	**12**	**15.0**	**57.0**
Beck's 5246	191.5	26	15.0	60.0
Beck's XL 5828XL	196.8	23	14.4	57.0
Beck's XL 5939AMXT	207.5	13	15.7	59.0
✓**Check**	221.1		15.7	58.0
Average	207		17.0	58.0
Check Average	222.6		16.0	58.6

Lexi, Kenzie, Chase, Jennifer & Scott Olson saw the Mercer Co. plot average 237.8 bu/a.

Insect damage to ears

Insect damage to corn ears, particularly larva damage to corn ears, continues to be a significant issue in the Burrus footprint. The western portion of our footprint and river bottom ground has traditionally been most prone to such injury.

Injury to the ear does not just cause an unsettling appearance (gnawed kernels accompanied by insect manure). It also tends to increase the likelihood of ear rots and sometimes can increase the likelihood of ear drop. This has led to some management questions. While the management question is pretty straight-forward, the answer to that question is not quite so simple.

A management answer is not very easy to provide because there is not just one species that tends to damage ears. There are actually four different insects. Figure 1 provides a brief description of the type of ear damage caused by each of the four species. It then notes which fields tend to be most at risk while noting when each of these larvae tend to appear. The final column describes the chemical/trait-related management options available for each of those pests.

Figure 1

Ear Feeding Larvae

Insect Species	Type of Ear Feeding	Lifecycle	Management (Traits/ Insecticide)
European Corn Borer	**Damages sides of ear, in-between kernels, cob & shank (ear drop)** **Risk:** Late plantings	**Larvae Appear:** June – Sept 2-3 generations/year	**Insecticide** (Pre-stalk boring) **Trait Management:** **All current insect traited** products in Burrus family
Corn Earworm	**Ear tip feeding.** **Risk:** Late plantings	**Larvae Appear:** July – Sept 2-3 generations/year	**Insecticide Impractical** **Trait Management:** **3111 products (Catalyst 4685 & 7893)** in Burrus family
Fall Armyworm	**Damages sides of ear.** **Risk:** Late plantings	**Larvae Appear:** July – Sept 2-3 generations/year	**Insecticide** (Pre-ear feeding) **Trait Management:** **All current insect traited** products in Burrus family **except 3000 GT & 3010 products**
Western Bean Cutworm	**Ear tip feeding & damages sides of ear.** **Risk:** Late plantings	**Larvae Appear:** July – Sept 1 generation/year	**Insecticide** (Pre-ear feeding) **Trait Management:** **All current insect traited** products in Burrus family **except 3000 GT & 3010 products**

Adam and Mason Krohe enjoy helping Pa, Todd Burrus, as part of the "Get 'er done gang" doing chores together on Saturdays.

Kent, Jessica, Chad, Cooper & Kensi Kleinschmidt saw an experimental hybrid win in Logan Co.

Power Plus® 4J93AM™ brand* is third

COMPARE!

Mon-Clair Corn Growers
Waterloo, IL

Planted: May 7 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 28. **Previous Crop:** Soybeans. **Herbicide:** Aatrex, Halex GT. **✓Check Hybrid:** Wyffels 7506DGRIB

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	148.0		16.2
Agventure RL7577AM	129.8	33	15.4
Pfister 2565RASS	159.9	18	15.9
✓Check	156.1		16.2
POWER PLUS 4J93AM™*	**185.1**	**3**	**15.7**
LG Seeds LG5548STX	184.1	4	15.7
VPMaxx RL7844AM	196.8	5	15.8
FS 60ZX1 RIB	178.1	28	16.2
✓Check	185.6		16.0
Beck's XL 5828AMX	198.0	15	16.4
Wyffels W7246RIB	199.7	12	16.1
InVision FS 61SX1 RIB	199.9	21	16.0
Beck's XL 6158	199.1	25	15.6
✓Check	200.8		15.4
Pfister 2672RA	213.0	14	16.7
Pfister 2674RA	210.8	16	16.3
Pfister 3366RA	212.5	22	17.1
LG Seeds LG5618VT2RIB	219.3	13	15.7
✓Check	212.6		16.0
✓Check	208.6		15.5
Phoenix 5832A3	222.5	8	17.1
Agventure RL8537AM	223.8	6	16.6
Beck`s XL 6365AMX	231.8	2	17.5
✓Check	203.1		16.0
Pfister 2770RA	221.4	7	17.7
Phoenix 6347VR	218.4	10	16.3
FS 63SX1 RIB	215.7	17	15.9
Agventure RL8430AMX	245.3	1	17.6
✓Check	211.3		16.2
Wyffels W7736RIB	214.2	19	15.7
Wyffels W7806RIB	199.8	32	16.2
POWER PLUS 6N83AM™*	**203.6**	**29**	**16.4**
Pfister 3488HR	219.2	9	19.0
✓Check	204.0		15.9
LG Seeds LG2636VT3PRIB	191.2	30	16.9
AgVenture RL8767HB	199.1	20	15.3
AgVenture AV8714AM	182.2	24	17.2

MONROE

Power Plus® 4J93AM™ brand* wins

COMPARE!

Mon-Clair Corn Growers
Waterloo, IL

Planted: April 27 in 30" rows. **Planting Population:** 33,500. **Harvested:** September 18. **Previous Crop:** Soybeans. **Fertilizer:** N: 240, P: 200, K: 200. **Herbicide:** PowerMax, Parallel Plus. **✓Check Hybrid:** Wyffels 7736RIB

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	210.7		16.5
Pioneer P2089AM	232.7	3	19.1
AgVenture RL9583YHB	197.8	29	19.4
AgVenture RL8899YHB	221.0	6	18.6
Beck's 6542A4	201.4	24	19.0
POWER PLUS 7U15AM-R™*	**214.9**	**15**	**18.6**
✓Check	205.2		17.6
Pioneer P1479AM*	204.9	23	17.8
Wyffels W7888RIB	219.0	14	16.9
AgVenture AV8714AM	246.8	2	17.5
Pfister 3488HR	202.0	33	20.2
LG Seeds LG5638 RIB	221.4	18	16.2
Wyffels W7506DGRIB	212.5	25	16.5
✓Check	222.5		15.7
AgVenture RL8430AMX	232.7	13	17.2
Wyffels W7806RIB	208.7	30	16.7
Beck's 6347VR	219.2	22	16.8
LG Seeds LG2620VT2P-RIB	222.0	21	17.1
POWER PLUS 6N83AM™*	**202.0**	**34**	**16.8**
Pfister 2770RA	216.5	26	17.3
✓Check	225.3		15.8
Wyffels W7769RIB	231.4	11	16.0
AgVenture AV8357AM	210.8	28	18.1
Beck's XL 6365AMX	237.8	4	17.3
Pfister 3366RA	203.2	27	18.4
Wyffels W7456RIB	212.3	20	17.1
Pfister 2674RA	197.5	32	16.7
✓Check	208.6		16.5
Beck's 5832A3	193.7	31	17.0
LG Seeds LG5618VT2RIB	218.8	12	15.1
Pfister 2672RA	208.9	19	17.6
Wyffels W7246RIB	221.7	9	15.8
LG Seeds LG5607 RIB	213.2	17	15.3
Beck's 6158	214.3	16	15.2
✓Check	209.0		15.9
AgVenture RL7844AM	209.3	7	15.3
Beck's XL 5828AMX	207.7	10	15.8
LG Seeds LG55548STX RIB	199.0	5	15.7
POWER PLUS 4J93AM™*	**217.6**	**1**	**16.0**
Pfister 2565VT3P	183.7	8	16.0
✓Check	158.1		17.0
Average	212.1		17.0
Check Average	205.6		16.4

ILLINOIS

"Burrus Seed Farms has been flexible and supportive while I served in the Illinois Army National Guard over the past 20 years."
Tony McCormick, Burrus Production crew – 20 years

Elliott, David & Mark Bremer saw Power Plus® 6J93AM™* excel in Massac Co.

Hughes Dealer Dale Olson of Dane Co., WI is pleased with what he sees with his Hughes products.

Wyffels W7888RIB	192.5	11	17.0
✓**Check**	172.1		16.3
POWER PLUS 7U15AM-R™*	**174.7**	**26**	**16.8**
AgVenture GL8749AB	165.6	31	19.7
AgVenture RL8899YHB	173.9	27	16.7
Beck's 6542A4	176.2	23	19.0
✓**Check**	174.5		16.4
Average	196.2		16.5
Check Average	188.8		16.0

Chris Howell
Columbia, IL

Planted: April 25 in 30" rows. **Planting Population:** 32,500. **Harvested:** September 27. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 75, K: 60. **Herbicide:** Degree Xtra, Princep, Roundup. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4J93AM™*	**207.2**	**14.2**	**100**	**58.0**	**29**
POWER PLUS 6C41 S™*	**204.5**	**16.2**	**100**	**60.0**	**30**
POWER PLUS 7U15AM-R™*	**199.9**	**15.0**	**100**	**58.0**	**29**
BURRUS 6T54 3000GT	**191.2**	**15.5**	**100**	**58.0**	**29**

POWER PLUS 6N83AM™*	**189.7**	**15.2**	**100**	**59.0**	**30**
POWER PLUS 7H23 S™*	**188.9**	**14.1**	**100**	**57.0**	**28**
BURRUS 5Z44 3122	**185.6**	**15.1**	**100**	**57.0**	**28**
POWER PLUS 6F74AMX™*	**181.0**	**14.2**	**100**	**60.0**	**27**
CATALYST 7893 3111	**170.0**	**16.9**	**100**	**57.2**	**26**
POWER PLUS 4V45AM™*	**169.8**	**13.8**	**100**	**57.0**	**27**
CATALYST 7577 3010	**168.6**	**15.5**	**100**	**57.0**	**27**
POWER PLUS 2N82AM™*	**157.4**	**14.6**	**100**	**54.0**	**26**
Average	184.5	15	100	57.7	28

MORGAN

Bruce Thompson
Jacksonville, IL

Planted: April 20 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 30. **Previous Crop:** Soybeans. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 6C41 S™*	**209.6**	**16.4**
Dekalb DKC61-54RIB	191.3	15.4
Average	200.4	15.9

Corn callin' it quits: stalk rot

By Stephanie Porter

The corn yield potential is set after pollination. We can't add to the corn yield potential, but we sure can try to preserve that yield potential! Think of the corn leaves (especially the top leaves) as factories for photosynthesis and their job is to make sugars for plant growth, development, and grain yield. If there is leaf loss or stress at tassel or during grain fill, the corn plant may have a reduction in yield potential.

There are many stresses that can occur during ear development causing plants to make less sugars such as lack of sunlight (cloudy days), disease, drought, high plant populations (competition for light/reduced stalk), wind, hail, corn rootworm, corn borer (second generation), nematodes, corn planted after corn (higher disease), compromised roots from lack of oxygen (flooding) or root rot, nutrient deficiency (low N/ or high N with low K), high ear placement, or poor hybrid stalk strength.

Unfortunately, corn could have undergone many of these stresses during the recent growing season at corn kernel development. In general, the developing ears take priority with the amount of sugars required depended on the kernel number. Root and stalk tissue have lower priority, and if under stress, they will receive less sugar and weaken.

Hence, in their weakened state, root and stalk rot pathogens lurking in the soil/residue can infect and cause disease. Stalk rot can cause the plant to die within 7-10 days, which in turn, causes poor ear fill or finished ears, increased ear rots in wet weather, yield reduction between 5 – 20%, as well as harvest losses of up to 20 bu/acre. Remember that different soil types, soil drainage patterns, hybrids, and fertility can all be factors that could affect stalk quality.

Scout the entire field for stalk quality. Check 10 plants by pinching the second or third internode of the stalk above ground level. Then, push the stalks and if they collapse easily, cut open the stalk to check for disease or insects. Stalk rot could be lurking in just one area of the field or could affect an entire field. If more than 10% of stalks appear to have stalk rot, harvest these areas as soon as grain is physically mature with a slow combine speed.

Other hybrid factors to consider when scouting for stalk rot that come into play might be stalk rind strength or ear placement. A hybrid with a strong rind and lower ear combination most likely does not demand immediate harvest at physiological maturity compared to a hybrid with a thin rind and high ear hybrid. A hybrid with a lower ear placement will place less stress on the stalk. If the rind is in great shape, the ear can finish at full maximization.

In a year such as this, in some instances, disease and lack of nitrogen led to stalk rot. Therefore, plant health was sometimes key to maintaining yield. Depending on the hybrid or management, stalk rot early in the season could lead to early death before grainfill was complete.

In some areas, ideal conditions through pollination led to high kernel numbers. If conditions turn to stress, plants can't maintain the carbohydrates per kernel each day until black layer. Every hybrid reacts to stress at grainfill differently. Some hybrids will sacrifice grainfill to maintain stalk and root health while others are all about grainfill causing the stalk to suffer, and some compromise.

These are two different competitor's corn hybrids. The hybrid on the left had experienced early plant death. The cob and shank are wet, brown, and rotted. The ear has significantly less grainfill. The hybrid on the right comes from a healthy plant and will continue to add yield until the black layer growth stage.

This competitor's corn hybrid shut down early in the season. Many of the stalks were rotted and infected with anthracnose stalk rot.

These ears are the result of a competitor's (not Burrus/Hughes) shutting down early with stalk rot.

This photo shows corn that is infected with anthracnose stalk rot.

OGLE

Power Plus® 5C17AMXT™ brand* at 240 bu/a

COMPARE! **David Baker**
Polo, IL

CORN ON CORN

Planted: May 2 in 30" rows. **Planting Population:** 35,000. **Harvested:** October 17. **Previous Crop:** Corn. **Soil Type:** Medium Clay. **Weather:** May–wet, June–wet, July–dry, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 5C17AMXT™*	240.2	17.3
POWER PLUS 4J95AMX™*	225.2	19.4
POWER PLUS 4J95AMX™*	224.3	16.9
POWER PLUS 2V56AMX™*	212.2	17.0
POWER PLUS 6P75AMX™*	210.7	20.1
POWER PLUS 2F91AMXT™*	200.4	16.9
POWER PLUS 1S26AMXT™*	199.5	16.6
Average	216.1	17.7

CORN ON CORN **Bettner Farms**
Oregon, IL

Previous Crop: Corn. **Fertilizer:** N: 190, P: 125, K: 125. **Soil Type:** Light clay. **Weather:** May–wet, June–wet, July–dry, August–normal.
✓**Check Hybrid:** Power Plus 4Y27AMX™*

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	191.1		23.5
POWER PLUS 2F91AMXT™*	193.6	5	22.5
POWER PLUS 2V56AMX™*	189.3	6	24.0
POWER PLUS 4J95AMX™*	196.0	2	24.0
✓Check	179.1		24.5
POWER PLUS 5C17AMXT™*	193.4	3	25.0
POWER PLUS 6P75AMX™*	197.7	1	29.0
POWER PLUS 6F74AMX™*	194.7	4	24.7
✓Check	185.5		23.5
Average	191.2		24.5
Check Average	185.2		23.8

Think BURRUS

"I have worked for Burrus full-time for 22 years and spent 10 seasons as summer help. I'm grateful to work with the people at Burrus."
Paul Mueller, Burrus Production crew – 22 years

Power Plus® 4J95AMX™ brand* first at 264 bu/a

Warner Farming
Stillman Valley, IL

Planted: April 27 in 30" rows. **Planting Population:** 36,000. **Harvested:** October 14. **Previous Crop:** Soybeans. **Soil Type:** Silt loam. **✓Check Hybrid:** Agrigold 6499

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	253.0		18.9
Agrigold A6267	233.1	26	15.6
Agrigold A6351	229.1	29	17.1
POWER PLUS 2F91AMXT™*	**246.1**	**8**	**16.5**
Dekalb DKC52-84RIB	235.8	18	15.2
Dekalb DKC54-38RIB	248.8	5	15.7
POWER PLUS 2V56AMX™*	**244.2**	**9**	**15.6**
Agrigold A6355	237.1	14	15.6
Agrigold A6376	226.9	32	16.7
✓Check	253.1		18.9
POWER PLUS 4J95AMX™*	**260.4**	**1**	**18.7**
Agrigold XA41503STX	238.9	23	17.7
Agrigold A6416	237.9	25	16.7
Agrigold XA41413STX	227.5	36	17.2
Agrigold A6442	250.1	11	18.2
Dekalb DKC60-67RIB	243.9	28	17.6
POWER PLUS 5C17AMXT™*	**249.4**	**19**	**18.7**
Agrigold A6441	262.0	7	17.2
Agrigold A6462 STXRIB	262.1	6	19.3
✓Check	271.8		21.8
Dekalb DKC62-77RIB	256.6	20	19.6
Pioneer P1142AMX	228.7	39	17.7
Pioneer P1197AMXT	274.9	2	22.1
Agrigold A6492SSRIB	250.4	30	17.9
Agrigold A6472VT3P	243.1	38	18.5
Agrigold A6488VT2RIB	257.9	16	18.4
Agrigold XA31410STX	245.2	34	19.7
POWER PLUS 6F74AMX™*	**250.6**	**33**	**19.6**
POWER PLUS 6P75AMX™*	**264.6**	**13**	**19.7**
Dekalb DKC63-71RIB	254.0	31	20.0
Dekalb DKC64-87RIB	249.4	37	18.9
Pioneer P1257AMXT	250.0	35	18.8
Pioneer P1311AMXT	260.8	24	19.1
Pioneer P1417AMX	262.8	17	20.5
✓Check	282.4		20.0
Agrigold A6499	273.3	4	20.2
✓Check	270.5		20.7
✓Check	267.9		21.1
✓Check	274.5		19.9
Agrigold A6496SSRIB	260.9	12	18.3
Agrigold A6538STXRIB	263.9	10	19.2
Agrigold A6533VT3PRIB	256.5	22	20.2
Agrigold A6573VT3P	259.9	15	21.1
Agrigold A6542	256.7	27	19.5
Agrigold A6559STXRIB	258.8	21	17.8
Agrigold A6579	275.7	3	20.0
Average	253.5		18.6
Check Average	267.6		20.2

PEORIA

Power Plus® 5C17AMXT™ brand* goes 252 bu/a

Peoria County
Corn/Soy Promoters
Peoria, IL

Planted: May 1 in 30" rows. **Planting Population:** 34,600. **Harvested:** September 23. **Previous Crop:** Soybeans. **Herbicide:** Roundup. **Soil Type:** Medium loam. **✓Check Hybrid:** NK Brand N70J-3011A

Brand/Product	Bu. Per Acre	Rank	% Moisture
✓Check	248.8		22.1
Great Lakes Hybrids 5755STXRIB	221.3	23	18.2
NuTech 5F308AMX	233.6	20	19.3
Beck's XL 5939AMXT	229.9	21	18.9
POWER PLUS 4J95AMX™*	**245.6**	**13**	**20.4**
Lg Seeds LG5548STX	238.5	16	19.3
Agrigold A6472VT3P	243.8	12	19.4
POWER PLUS 5C17AMXT™*	**252.0**	**8**	**20.2**
Munson 7130VT2P RIB	233.8	18	18.9
✓Check	244.7		20.5
Stone 6158RIB	229.0	19	19.9
Wyffels W7108RIB	240.5	11	19.3
Agrigold A6499STX	211.2	24	22.5
Dekalb DKC62-77RIB	253.9	6	19.6
Pioneer P1257AMX	240.7	9	19.9
Beck's XL 6365AMX	262.1	1	20.4
Great Lakes Hybrids 6399STXRIB	235.6	10	20.4
Lg Seeds LG5622 STXRIB	227.8	15	20.3
✓Check	231.4		21.4
NuTech 5F713AMX	256.9	2	20.5
Pioneer P1311AMXT	256.6	3	20.7
Dekalb DKC64-87	227.1	17	19.2
Golden Harvest G14R38-30000GT	255.5	5	22.3
Stone 6448RIB	266.6	4	21.9
Wyffels W7888RIB	221.0	22	21.6
Golden Harvest G15Z99-3111	260.8	7	23.7
Munson 7523VT2P RIB	240.2	14	20.6
✓Check	251.7		20.5
Average	241.4		20.4
Check Average	244.2		21.1

PIKE

Farmers State Bank
Pittsfield, IL

Planted: April 22 in 30" rows. **Planting Population:** 30,500. **Harvested:** October 1. **Previous Crop:** Corn. **Fertilizer:** N: 240, P: 200, K: 150. **Herbicide:** Lexar, Atrazine. **Insecticide:** Force. **Soil Type:** Silty clay loam. **Weather:** May–wet, June–wet, July–wet, August–normal. **✓Check Hybrid:** LG Seeds 2620

Randy McCaskill

Burrus Hybrids warmly welcomes Randy McCaskill to our sales team. He is an Account Manager for Adams and Pike counties in Illinois and Pike County in Missouri. His past experiences include sales, credit, and research with ADM. Randy looks forward to providing the excellent service that Burrus growers have come to expect.

Randy was raised on a family farm that was very active in the Polled Hereford business as well as row crop and hay near Timewell, IL. He is a graduate of Western Illinois University. He and his wife, Kris raised two children, Matt and Megan, on a farm in Adams County. They have four grandchildren – Tait, Paige, Peyton, and Cody who love helping their grandpa on the farm.

Growers can reach out to Randy at 217-242-1262 or at randy.mccaskill@burrusseed.com. He has a sincere desire to bring growers more profitability with better performance, quality information, and exceptional value so let Randy put together a complete program matching hybrids, technologies, and seed treatments for your farm.

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	186.1		14.2
LG Seeds LG2620VT3	172.2	20	13.8
Beck's XL 5828AMX	165.9	29	14.2
Beck's XL 5828	173.3	18	14.1
Mycogen 2C799	189.4	2	13.6
Mycogen 2C788	160.4	32	14.7
Lewis R1311SS	159.9	31	13.9
Lewis 1315	155.1	33	14.1
POWER PLUS 6C40™*	**159.9**	**30**	**13.5**
POWER PLUS 6P75AMX™*	**164.2**	**28**	13.0
LG Seeds LG5618STX-RIB	155.1	34	13.8
LG Seeds 5618SSRIB	164.8	25	13.9
✓Check	180.5		13.3
LG Seeds LG2620VT3	178.4	8	14.1
Pfister X13751S3	164.4	24	13.8
Pfister 2874	182.5	3	13.8
Agrigold A6499	178.9	7	13.7
Agrigold A6462 STXRIB	174.8	9	13.4
Agventure RL8430AMX	173.4	11	13.5
Agventure 8950	181.0	6	14.3
InVision FS 63S00	170.9	14	13.9
FS 63SX1 RIB	172.8	12	13.8
Dekalb DKC62-77RIB	181.6	4	13.6
Dekalb DKC62-06	188.6	1	13.3
✓Check	179.3		13.1
LG Seeds LG2620VT3	170.5	17	14.1
G2 Genetics 5F-709AM	163.2	27	13.6
G2 Genetics 0A-709	163.5	26	13.6
Pioneer P0993	168.9	19	12.8
Pioneer P0993AM1	145.9	36	13.7
Great Heart HT-6912SS	165.4	23	13.3
Great Heart HT-7261	171.0	15	14.1
Dyna-Gro D51CC32	185.4	5	13.8
Dyna-Gro D52SS91RIB	178.3	10	14.4
Steyer Seeds 11103SSRIB	173.8	16	14.1
Steyer Seeds 11208	156.6	35	14.6
Channel 214-12	176.2	13	13.8
Channel 214-14VT3PRIB	170.3	22	13.8
LG Seeds LG2620VT3	171.1	21	13.6
✓Check	185.4		13.8
Average	171.5		13.8
Check Average	182.8		13.6

Tina & Jeff Busch saw their plot average 238 bu/a in LaSalle Co.

With no visible signs of SDS, our PowerShield® SDS treatment added 2.7 bu/a for Todd, Jack & Trey Bartlett of Hancock Co.

As with many plots, the check varied 20-25 bu/a on either side of a product in Marion Co. for Steve Brummel.

Burrus 6T54 cranked out the yield across our market footprint again this year. Ask your local dealer or Account Manager how a structured refuge can help you save.

Our Hoblit & Hughes branded LibertyLink® soybeans are filling an ever-expanding role by helping growers combat glyphosate-tolerant weeds to maintain top yields.

Which Burrus Hybrids are right for your farm?

	General characteristics						Planting information			Response to environmental conditions			Protection from pests				
	Days to maturity	Roundup Ready®	Liberty Link®	Plant height	Ear height	Ear type	Speed of emergence	Corn on corn	Refuge requirement	Drought tolerance	Water optimization	Greensnap	Nematode	Corn borer	Corn rootworm	Western bean cutworm	Wire worm
Above & Below ground insect control																	
Hughes 1286 3000GT	94	■	■	7	7	Fixed	7	Suitable	20% structured refuge	7	None	8	Yes	Yes	Yes	No	Yes
Power Plus® 1K08AMXT™*	100	■	■	5	6	Fixed	8	Good	Integrated refuge	8	None	7	Yes	Yes	Yes	Yes	Yes
Power Plus® 1S26AMXT™*	101	■	■	8	6	Flex	8	Good	Integrated refuge	7	None	8	Yes	Yes	Yes	Yes	Yes
Power Plus® 2F91AMXT™*	103	■	■	6	5	Fixed	8	Good	Integrated refuge	8	None	9	Yes	Yes	Yes	Yes	Yes
Power Plus® 2V56AMX™*	105	■	■	6	6	Intermediate	6	Excellent	Integrated refuge	10	AQUAmax®	5	Yes	Yes	Yes	Yes	Yes
Power Plus® 3H85AMX™*	107	■	■	7	7	Flex	8	Suitable	Integrated refuge	7	None	9	Yes	Yes	Yes	Yes	Yes
Catalyst 4685 3111	109S/112N	■	■	5	5	Flex	7	Good	20% structured refuge	8	None	8	Yes	Yes	Yes	Yes	Yes
Power Plus® 4J95AMX™*	109	■	■	6	6	Intermediate	7	Good	Integrated refuge	10	AQUAmax®	8	Yes	Yes	Yes	Yes	Yes
Power Plus® 5C17AMXT™*	110	■	■	7	6	Intermediate	7	Good	Integrated refuge	7	None	8	Yes	Yes	Yes	Yes	Yes
Burrus 5Z44 3122	111	■		6	5	Intermediate	7	Excellent	Integrated refuge	8	None	6	Yes	Yes	Yes	Yes	Yes
Power Plus® 6L45AMT™*	112	■	■	7	6	Intermediate	7	Suitable	Integrated refuge	8	None	7	Yes	Yes	Yes	Yes	Yes
Burrus 6T54 3000GT	113	■	■	8	6	Intermediate	8	Good	20% structured refuge	8	None	8	Yes	Yes	Yes	No	Yes
Power Plus® 6F74AMX™*	113	■	■	7	7	Intermediate	8	Excellent	Integrated refuge	9	None	8	Yes	Yes	Yes	Yes	Yes
Power Plus® 6P75AMX™*	113	■	■	8	8	Intermediate	7	Good	Integrated refuge	7	None	7	Yes	Yes	Yes	Yes	Yes
Power Plus® 7A18 Q™*	114	■	■	8	8	Intermediate	8	Excellent	20% structured refuge	8	None	7	Yes	Yes	Yes	Yes	Yes
Catalyst 7893 3111	115	■	■	7	6	Flex	8	Good	20% structured refuge	8	None	8	Yes	Yes	Yes	Yes	Yes
Above ground insect control																	
Power Plus® 2N82AM™*	105	■	■	5	5	Intermediate	7	Good	Integrated refuge	10	AQUAmax®	8	Yes	Yes	No	Yes	Yes
Power Plus® 4V45AM™*	108	■	■	6	6	Intermediate	8	Good	Integrated refuge	9	None	5	Yes	Yes	No	Yes	Yes
Power Plus® 4J93AM™*	109	■	■	6	6	Intermediate	7	Good	Integrated refuge	10	AQUAmax®	8	Yes	Yes	No	Yes	Yes
Catalyst 5009 3220	110	■		6	5	Flex	8	Good	Integrated refuge	9	None	8	Yes	Yes	No	Yes	Yes
Power Plus® 6C41 S™*	112	■	■	9	8	Flex	9	Good	20% structured refuge	8	None	7	Yes	Yes	No	Yes	Yes
Power Plus® 6N83AM™*	113	■	■	7	6	Intermediate	7	Good	Integrated refuge	10	AQUAmax®	7	Yes	Yes	No	Yes	Yes
Power Plus® 7U15AM-R™*	114	■		8	8	Intermediate	8	Excellent	Integrated refuge	8	None	7	Yes	Yes	No	Yes	Yes
Catalyst 7577 3010	114	■	■	8	7	Flex	8	Good	20% structured refuge	9	None	8	Yes	Yes	No	No	Yes
Power Plus® 7H23 S™*	114	■	■	7	6	Intermediate	7	Excellent	20% structured refuge	8	None	8	Yes	Yes	No	Yes	Yes

	Days to maturity	Roundup Ready®	Liberty Link®	Plant height	Ear height	Ear type	Speed of emergence	Corn on corn	Refuge requirement	Drought tolerance	Water optimization	Greensnap	Nematode	Corn borer	Corn rootworm	Western bean cutworm	Wire worm
Glyphosate tolerance																	
Hughes 2428 GTA	100	■		7	7	Flex	8	Good	None needed	10	Artesian™	8	Yes	No	No	No	Yes
Power Plus® 2R63	104	■		7	7	Intermediate	8	Excellent	None needed	9	None	7	Yes	No	No	No	Yes
Hughes 5124 GT	107	■		8	7	Flex	9	Excellent	None needed	8	None	6	Yes	No	No	No	Yes
Power Plus® 4J99 R™*	109	■		6	6	Intermediate	7	Good	None needed	10	AQUAmax®	8	Yes	No	No	Yes	Yes
Burrus 6T51 GT	113	■		8	6	Intermediate	8	Good	None needed	8	None	8	Yes	No	No	No	Yes
Power Plus® 6F71 R™*	113	■		7	7	Intermediate	8	Excellent	None needed	9	None	8	Yes	No	No	No	Yes
Non-GM conventional																	
Hughes 3442	102			7	6	Fixed	8	Good	None needed	8	None	7	Yes	No	No	No	Yes
Power Plus® 2R67™*	105			7	7	Intermediate	8	Excellent	None needed	9	None	7	Yes	No	No	No	Yes
Power Plus® 4J90™*	109			6	6	Intermediate	7	Good	None needed	10	AQUAmax®	8	Yes	No	No	Yes	Yes
Power Plus® 5N48™*	110S/108N			6	6	Intermediate	8	Suitable	None needed	9	None	7	Yes	No	No	No	Yes
Power Plus® 6C40™*	112			7	7	Flex	9	Good	None needed	8	None	7	Yes	No	No	No	Yes
Burrus 6Q60	113			8	6	Intermediate	7	Good	None needed	8	None	8	Yes	No	No	No	Yes
Power Plus® 7H20™*	114			7	6	Intermediate	7	Excellent	None needed	8	None	8	Yes	No	No	No	Yes

General rating scale: 10 = Outstanding 5 = Average 1 = Poor
(1)–Besides their insecticidal properties, hybrids treated with Poncho Xtra, Poncho 500 or High rate Poncho emerge more rapidly and establish more stand.

R is Roundup Ready Corn 2 (NK603) or Glyphosate tolerance, Agrisure GT
S is Herculex I/RR2
B is Herculex I Corn Borer Bt & Liberty resistance

AMRW-R is Optimum® AcreMax® Rootworm
AM is Optimum® AcreMax®
AMX is Optimum® AcreMax® Xtra
AMX-R is Optimum® AcreMax® Extra

AMT is Optimum® AcreMax® TRIsect
BL is Agrisure CB/LL & Liberty resistance
Q is Herculex XTRA and Roundup
3000GT is Agrisure CB/LL, RW and GA21 Glyphosate tolerance

"What I like about Burrus is that they are a family business that is not afraid to do what it takes to be successful. They move ahead and not out of the way."
Larry Meyer, Greene County, IL

Adaptability						Protection from diseases					Harvest description								
High organic soils	Timber soils	Clay and varied soils	Wet soils	Sand irrigated	Sand dryland	Northern leaf blight	Anthracnose	Gray leaf spot	Goss's wilt	Diplodia ear rot	Stalks	Roots	Drydown	Ear retention	Grain quality	Test weight	High tonnage silage	Harvest residue	
																			Above & Below ground insect control
10	8	7	7	9	7	6	NR	7	8	NR	9	7	9	8	7	6	8	7	Hughes 1286 3000GT
8	9	9	8	9	8	7	NR	5	7	NR	8	8	7	8	7	6	6	7	Power Plus® 1K08AMXT™*
9	8	7	7	8	7	6	5	5	7	6	8	6	9	8	8	7	9	8	Power Plus® 1S26AMXT™*
9	9	9	8	9	8	7	6	7	9	NR	8	7	8	8	8	8	6	7	Power Plus® 2F91AMXT™*
7	8	9	6	8	8	6	6	5	7	NR	8	7	7	7	7	8	8	5	Power Plus® 2V56AMX™*
10	8	7	6	8	6	7	6	7	8	6	7	8	8	8	7	7	9	6	Power Plus® 3H85AMX™*
10	9	8	6	10	9	7	7	4	7	NR	8	9	7	8	7	6	5	5	Catalyst 4685 3111
9	9	9	8	9	6	8	NR	5	8	5	8	8	8	9	8	7	5	NR	Power Plus® 4J95AMX™*
10	7	7	7	9	6	7	7	7	8	7	8	7	6	8	8	8	10	8	Power Plus® 5C17AMXT™*
9	9	9	8	9	8	7	NR	7	6	NR	8	8	7	9	8	7	9	9	Burrus 5Z44 3122
8	9	9	NR	7	8	5	NR	6	5	7	8	7	8	8	7	7	8	8	Power Plus® 6L45AMT™*
10	8	8	6	9	7	7	8	6	7	7	9	7	7	8	7	7	9	9	Burrus 6T54 3000GT
8	9	9	6	7	9	7	8	7	8	7	9	8	8	9	8*	8	9	9	Power Plus® 6F74AMX™*
10	7	7	8	10	6	8	7	7	8	7	8	7	7	7	7	7	10	8	Power Plus® 6P75AMX™*
10	9	9	8	10	9	5	5	6	NR	8	7	6	7	9	9*	8	10	10	Power Plus® 7A18 Q™*
8	9	9	8	9	9	7	7	6	8	NR	9	6	6	9	7	8	10	10	Catalyst 7893 3111
																			Above ground insect control
7	9	9	8	6	9	6	5	7	9	7	9	8	8	9	7	7	5	NR	Power Plus® 2N82AM™*
10	9	9	8	9	8	7	7	7	8	7	8	6	8	9	7	7	7	7	Power Plus® 4V45AM™*
9	9	9	8	9	6	8	NR	5	8	5	8	8	8	9	8	7	5	NR	Power Plus® 4J93AM™*
7	9	9	6	9	9	7	7	5	7	6	8	9	7	8	7	7	6	5	Catalyst 5009 3220
9	9	8	8	9	8	6	NR	7	8	NR	8	6	8	8	10*	8	8	7	Power Plus® 6C41 S™*
8	9	9	7	8	8	7	6	7	8	5	8	7	9	8	6	6	6	7	Power Plus® 6N83AM™*
10	9	9	8	10	9	5	5	6	NR	8	7	6	7	9	9*	8	10	10	Power Plus® 7U15AM-R™*
7	9	9	7	9	9	7	NR	6	8	NR	8	7	7	8	7	8	8	8	Catalyst 7577 3010
10	9	9	8	9	8	5	6	7	8	7	6	6	9	9	7	7	8	8	Power Plus® 7H23 S™*

High organic soils	Timber soils	Clay and varied soils	Wet soils	Sand irrigated	Sand dryland	Northern leaf blight	Anthracnose	Gray leaf spot	Goss's wilt	Diplodia ear rot	Stalks	Roots	Drydown	Ear retention	Grain quality	Test weight	High tonnage silage	Harvest residue	
																			Glyphosate tolerance
9	9	9	8	9	8	6	7	7	8	6	9	8	9	8	7	6	8	8	Hughes 2428 GTA
9	9	9	9	9	.9	9	7	8	9	6	9	9	8	7	7	7	8	7	Power Plus® 2R63
10	9	9	8	9	8	6	6	8	7	6	9	8	8	7	7	6	10	9	Hughes 5124 GT
9	9	9	8	9	6	8	NR	5	8	5	8	8	8	9	8	7	5	NR	Power Plus® 4J99 R™*
10	8	8	6	9	7	7	8	6	7	7	9	7	7	8	7	7	9	9	Burrus 6T51 GT
8	9	9	7	7	9	7	8	7	8	7	9	8	8	9	8*	8	9	9	Power Plus® 6F71 R™*
																			Non-GM conventional
9	9	8	9	9	7	7	8	7	7	NR	8	9	8	9	7*	7	7	7	Hughes 3442
9	9	8	8	8	7	9	7	8	9	6	8	8	8	7	7	7	8	7	Power Plus® 2R67™*
9	9	9	8	9	6	8	NR	5	8	5	8	8	8	9	8	7	5	NR	Power Plus® 4J90™*
10	8	8	9	8	7	7	5	5	NR	7	8	6	9	8	9*	8	8	9	Power Plus® 5N48™*
9	9	8	8	9	8	6	NR	8	8	NR	8	6	8	8	10*	10	8	7	Power Plus® 6C40™*
8	8	9	8	9	8	8	NR	6	8	7	8	8	7	8	6	6	9	6	Burrus 6Q60
10	9	9	8	9	8	5	6	7	8	7	5	6	9	9	7	7	8	8	Power Plus® 7H20™*

The information and recommendations contained in this chart are produced for comparison purposes only and are not guarantees as to the results, since those results may vary. They are provided to assist in the selection of the hybrid which will best suit your needs. No warranties either expressed or implied are intended by this chart.

*Grain quality – possible food grade in some markets

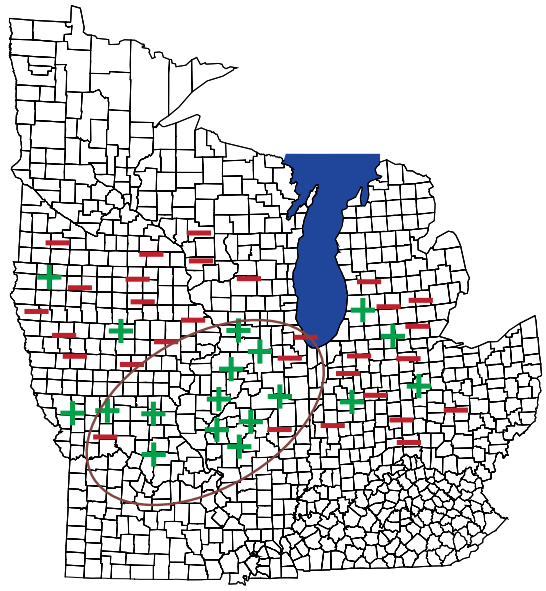
Selecting product for our market footprint means testing on all soils.

National companies look for products that can be used over wide geography rather than a best product for a smaller or regional area. They tend to focus on company profit and efficiency of scale. We are interested in bringing you the best whole farm performance by maximizing the yield on every acre you farm.

Burrus has an extensive testing program that is used to identify the best products for our footprint. We have areas with high organic soils and areas that have more stress prone soils. We test on all soils, while competitors focus on black soils so they can have low coefficient of variation numbers. We routinely utilize the best techniques to analyze data and are expanding our plant density studies to fine tune our Crop Optimization Planner.

You'll find, too, that Burrus production techniques are more meticulous than those of competitors. Quality is not something you stamp on the bag when you apply seed treatment. Studies have demonstrated up to 18 bu/a more performance out of the highest quality seed.

That is why we meticulously grow our own seed. Whether it is spraying Liberty® or Roundup® with our hooded sprayer to remove any plants that are carrying the desired trait, or double graviting and color sorting every unit, Burrus cuts no corners. Then, we apply our PowerShield® seed treatment package for optimum stand establishment — and it adds yield.



+ Test hybrid above mean. National focus 18 Local 11
− Test hybrid below mean. National focus 30 Local 4

The map illustrates 48 plot locations across the Midwest. Those plot locations with a green plus sign show the test hybrid above the mean. Those plot locations with red minus signs show that the test hybrid was below the mean.

At Burrus/Hughes we focus on hybrids providing exceptional performance in our footprint (signified by the circle). Burrus provides exceptional products in areas where national companies can only offer an average product.

SANGAMON

Power Plus® 6P75AMX™* brand wins!

COMPARE! Cooper/Foran, Williamsville, IL — CORN ON CORN

Planted: April 30 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 14. **Previous Crop:** Corn. **Fertilizer:** N: 256, P: 200, K: 100. **Herbicide:** Halex. **Insecticide:** Force 3G. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry. ✓**Check Hybrid:** DeKalb 62-97.

Brand/Product	Bu. Per Acre	Rank	% Moisture	1000 Plants /Acre
✓**Check**	225.1		23.7	33
BURRUS 5Z44 3122	**234.8**	**10**	**26.7**	**33**
POWER PLUS 5C17AMXT™*	**225.2**	**21**	**23.9**	**33**
POWER PLUS 6P75AMX™*	**247.5**	**1**	**26.1**	**33**
POWER PLUS 6L45AMT™*	**228.7**	**20**	**25.9**	**33**
✓**Check**	234.1		20.9	33
Agrigold A6499STX	252.8	3	25.6	33
Agrigold A6573	251.6	4	27.2	33
Agrigold XA41413	235.5	19	24.4	33
Agrigold XA41413	238.3	14	20.8	33
✓**Check**	238.6		21.2	33
Wyffels W7888RIB	253.3	2	24.8	33
Wyffels W7456RIB	241.9	9	24.7	33
Wyffels W7246RIB	212.6	24	20.6	33
Wyffels W7736RIB	227.3	23	23.7	33
✓**Check**	233.5		20.3	33
Pioneer P1197AM*	236.0	16	28.7	33
Pioneer P1257AMX	235.1	17	25.0	33
Pioneer P1417AMX	249.1	5	27.3	33
Dekalb DKC60-67RIB	228.3	22	22.1	33
✓**Check**	236.4		20.9	33
Dekalb DKC62-08RIB	236.7	13	23.3	33
Dekalb DKC61-54RIB	239.5	11	24.3	33
Dekalb DKC61-54RIB	238.4	12	25.1	33
Dekalb DKC62-77RIB	234.2	18	24.1	33
✓**Check**	232.9		20.8	33
Dekalb DKC63-71RIB	233.0	15	25.2	33
Dekalb DKC64-87	245.0	7	23.5	33
Dekalb DKC66-40RIB	239.3	8	27.7	33
Dekalb DKC67-57RIB	245.1	6	26.4	33
✓**Check**	229.7		21.6	33
Average	236.8		24.1	33
Check Average	232.9		21.3	33

Curtis Biesenthal
New Berlin, IL

Planted: April 23 in 30" rows. **Harvested:** September 18. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 92, K: 120. **Herbicide:** Degree Xtra-Callisto, Touchdown Total. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 6F74AMX™*	**209.0**	**17.8**
POWER PLUS 6C41 S™*	**203.6**	**17.5**
POWER PLUS 6P75AMX™*	**201.2**	**17.1**
POWER PLUS 5C17AMXT™*	**197.0**	**16.2**
BURRUS 6T54 3000GT	**195.2**	**17.7**
BURRUS 5Z44 3122	**195.0**	**17.3**
POWER PLUS 6F71 R™*	**188.9**	**18.3**
POWER PLUS 6N83AM™*	**186.1**	**16.7**
POWER PLUS 7H23 S™*	**173.0**	**15.8**
POWER PLUS 4J95AMX™*	**172.6**	**16.0**
POWER PLUS 4J93AM™*	**162.8**	**15.5**
POWER PLUS 4V45AM™*	**120.1**	**16.5**
Average	183.7	16.9

SCHUYLER

Power Plus® 4J93AM™* brand is best

John Ross
Rushville, IL

Planted: April 20 in 30" rows. **Planting Population:** 30,000. **Harvested:** September 22. **Previous Crop:** Soybeans. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J93AM™*	**211.3**	**17.0**
POWER PLUS 4J93AM™*	**209.4**	**17.4**
Channel 209-53 STX RIB	190.0	17.4
Channel 209-53 STX RIB	178.0	18.0
Average	197.2	17.4

Jim Hughes (not shown) conducts product training for the northern sales team of Lance Brillon, Justin Parks, Brad Kufalk, Bob Wagner & Gary Ott.

Growers appreciate the "easy-to-use" ratings on each product in our Product Selection Guide. At Burrus we strive to bring you solid, non-biased information. Think Burrus!

Dale Olson prepares his drone to fly over a test plot.

Molly & Michael McDowell saw Burrus 6T54 3000GT win corn-on-corn in Hancock Co.

ILLINOIS

SCOTT

Janson Nesbo
Winchester, IL

Planted: April 12 in 30" rows. **Planting Population:** 39,000. **Harvested:** September 19. **Previous Crop:** Soybeans. **Soil Type:** Silt loam.

Brand/Product	Bu. Per Acre	% Moisture
BURRUS 6T54 3000GT	**206.6**	**17.6**
Dekalb DKC61-54RIB	203.0	17.4
Dekalb DKC63-60RIB	202.3	18.6
Dekalb DKC63-71RIB	200.9	17.3
Dekalb DKC58-06RIB	197.5	16.6
Dekalb DKC60-67RIB	195.5	16.5
Dekalb DKC62-77RIB	195.4	17.8
Dekalb DKC64-87RIB	195.2	17.5
CATALYST 4685 3111	**185.4**	**16.9**
POWER PLUS 7H23 S™*	**177.8**	**16.0**
POWER PLUS 6F71 R™*	**177.5**	**16.7**
Dekalb DKC66-40RIB	170.0	18.1
Average	192.3	17.2

SHELBY

Schultz Farms – Ron Stewardson, IL

Planted: May 3 in 30" rows. **Planting Population:** 33,400. **Harvested:** October 6. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: 150, K: 150. **Herbicide:** Roundup. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–dry, August–dry. **✓Check Hybrid:** Power Plus 4V45AM™*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	147.2		15.1	95	36
POWER PLUS 6N83AM™*	**154.5**	**3**	**16.0**	**100**	**34**
✓Check	178.0		15.1	100	31
POWER PLUS 4J93AM™*	**173.2**	**1**	**15.7**	**100**	**31**
POWER PLUS 6L45AMT™*	**147.6**	**6**	**14.9**	**80**	**35**
POWER PLUS 6F74AMX™*	**142.9**	**5**	**16.4**	**100**	**34**
✓Check	153.1		15.9	95	35
POWER PLUS 7H23 S™*	**146.9**	**4**	**14.4**	**85**	**28**
CATALYST 7893 3111	**152.6**	**2**	**15.6**	**100**	**33**
BURRUS 6T54 3000GT	**132.5**	**7**	**16.8**	**85**	**27**
POWER PLUS 7U15AM-R™*	**134.4**	**8**	**16.3**	**95**	**30**
CATALYST 7577 3010	**124.4**	**11**	**16.1**	**100**	**35**
POWER PLUS 6C41 S™*	**129.3**	**9**	**17.2**	**95**	**34**
POWER PLUS 6F71 R™*	**124.9**	**10**	**21.0**	**90**	**28**
✓Check	170.2		16.4	100	35
Average	147.4		16.2	95	32
Check Average	162.1		15.6	97.5	34

Population test

Schultz Farms – Ron Stewardson, IL

Planted: May 3 in 30" rows. **Harvested:** October 6. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: 150, K: 150. **Herbicide:** Roundup. **Soil Type:** Medium loam. **Remarks:** Population study.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4V45AM™*	**153.2**	**16.7**	**100**	**58.2**	**30**
POWER PLUS 4V45AM™*	**152.6**	**17.3**	**100**	**59.3**	**36**
POWER PLUS 4V45AM™*	**150.7**	**16.1**	**100**	**60.0**	**41**
POWER PLUS 4V45AM™*	**146.7**	**17.2**	**100**	**57.3**	**26**
POWER PLUS 4V45AM™*	**145.7**	**16.0**	**100**	**59.0**	**33**
Average	149.8	16.7	100	58.8	33

The check, Power Plus® 4J95AMX™*, averaged 2nd in yield for Kent Wagner, Pete Wetzel and Hughes Account Manager Bryce Sandahl of Winnebago Co., WI.

Todd Burrus was the keynote speaker at a Calhoun High School FFA meeting. Todd enjoys promoting agriculture and working with today's youth to help them succeed.

Derrick, Collin, Terry, Anthony, Dillon & Chuck Leary saw their plot average 260 bu/a in Warren Co.

ST. CLAIR

237 bu/a in St. Clair County

Chris Howell
Columbia, IL

Planted: April 30 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 17. **Previous Crop:** Wheat. **Fertilizer:** N: 175, P: 80, K: 70. **Herbicide:** Degree Xtra, Roundup, Simazine, Atrazine. **Corn Borer Rating:** Light. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.
BURRUS 878207	237.3	21.9	100	31
BURRUS 743294	235.9	22.1	100	28
BURRUS 516227	233.2	21.0	92	28
POWER PLUS 6P75AMX™*	230.9	20.0	100	29
BURRUS 276488	229.2	19.9	100	28
BURRUS 255137	228.9	19.9	100	30
POWER PLUS 4J93AM™*	226.9	19.2	100	31
BURRUS 967547	225.1	19.8	100	30
POWER PLUS 7U15AM-R™*	224.2	21.1	100	30
BURRUS 502792	221.1	20.5	100	29
BURRUS 642749	219.5	19.8	92	27
BURRUS 6T54 3000GT	216.6	19.8	100	29
POWER PLUS 4J95AMX™*	215.3	19.8	100	29
BURRUS 187233	214.5	21.2	80	27
POWER PLUS 6C41 S™*	213.7	21.6	84	30
BURRUS 6T54 3000GT	213.2	22.4	100	29
BURRUS 995336	213.0	21.7	100	29
BURRUS 941589	212.6	19.6	100	31
BURRUS 735025	211.9	21.0	92	23
BURRUS 575278	211.7	20.9	100	31
BURRUS 456116	210.4	17.4	100	30
BURRUS 638535	210.3	19.6	100	29
POWER PLUS 6L45AMT™*	207.9	24.5	100	32
CATALYST 7893 3111	206.9	23.3	100	27
BURRUS 880174	206.7	18.1	100	30
BURRUS 130796	203.9	22.0	100	29
BURRUS 362660	199.5	19.6	100	30
POWER PLUS 4V45AM™*	199.0	19.2	100	29
BURRUS 223549	196.6	19.3	100	30
POWER PLUS 6N83AM™*	194.0	21.8	88	28
BURRUS 5Z44 3122	193.0	21.5	100	25
POWER PLUS 7H23 S™*	192.6	19.7	96	28
CATALYST 7577 3010	191.1	25.2	100	29
BURRUS 631644	190.8	22.2	100	31
BURRUS 5Z41 GT	187.7	18.5	100	25
POWER PLUS 6F74AMX™*	187.4	19.3	100	29
BURRUS 5Z41 GT	186.8	21.5	100	24
BURRUS 5Z44 3122	185.9	20.7	100	27
BURRUS 499913	185.8	23.0	100	31
BURRUS 5Z44 3122	184.8	22.0	100	29
POWER PLUS 4J95AMX™*	184.5	18.5	100	29
Average	208.3	20.7	98	29

Justin Breese

Justin Breese has recently joined the Burrus Account Manager team led by Craig Patty. He will be providing first-rate customer service in central Illinois covering McLean and Ford counties.

Justin has a farm background. He was raised in the farming community of Lexington, IL. After serving in the United States Army, he received his bachelor's degree in business administration from Chattahoochee Technical College in Marietta, GA.

He and his daughter Zoey reside in Downs, IL. Zoey is in the second grade at Tri-Valley Grade School. She is a sports fanatic along with her father. Justin is a Chicago Bears and Miami Hurricanes fan. In his spare time, Justin and Zoey enjoy lake adventures that include camping, boating, and water-sports.

Justin is a proven sales professional with a successful background in sales and relationship building. Use his resources

to help make your operation more successful. Contact him at 309-262-9695 or justin.breese@burrusseed.com.

TAZEWELL

Power Plus® 6P75AMX™ brand* wins!

COMPARE! **Tazewell County Corn Growers**
Tremont, IL

Planted: April 17 in 30" rows. **Planting Population:** 36,000. **Harvested:** September 25. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 75, K: 75. **Herbicide:** Keystone, Roundup. **✓Check Hybrid:** LG Seeds 5618VT2RIB

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	175.0		20.4
Stine R9635SS	151.6	23	18.2
LG Seeds LG5548STX	175.5	6	18.2
✓Check	157.4		20.3
Steyer 10904SSRIBC	173.3	8	17.2
Dekalb DKC60-67RIB	180.0	14	17.0
✓Check	183.4		19.5
Beck's XL 5828AMX	173.4	21	18.5
Agrigold A6462 STXRIB	178.7	12	18.3
✓Check	171.5		20.1
Wyffels W7108RIB	176.1	15	17.8
Pioneer P1197AM*	196.3	3	19.5
✓Check	181.6		20.5
Stone 6158RIB	159.8	25	19.3
POWER PLUS 5C17AMXT™*	196.9	10	17.6
✓Check	190.2		21.2
LG Seeds LG5622 STXRIB	188.9	18	18.9
Roeschley Rx650SS RIB	183.2	22	22.4
✓Check	190.8		20.1
FS 63SX1 RIB	186.6	16	21.5
Beck's XL 6365AMX	187.9	5	19.4
✓Check	168.4		19.9
Croplan 6594SS RIB	164.9	17	18.5
Roeschley Rx760SS	132.2	24	20.6
✓Check	149.7		20.1
Stine R9734VT3P	185.1	2	20.9
Stone 6378RIB	208.6	9	18.9
✓Check	216.0		20.0
POWER PLUS 6P75AMX™*	233.3	1	17.8
Pioneer P1417AMX	212.5	13	19.3
✓Check	206.4		20.0
Dekalb DKC64-87	217.7	4	19.0
Wyffels W7888RIB	205.2	11	19.7
✓Check	195.8		20.0
Agrigold A6559STXRIB	215.5	7	18.6
Steyer 11504SSRIBC	215.3	20	19.0
✓Check	226.1		19.6
FS 66JV4 RIB	223.4	19	20.8
Average	187.7	—	19.4
Check Average	185.6		20.1

WARREN

Winner at 275 bu/a is Power Plus® 6P75AMX™ brand*

COMPARE! **Leary Farms**
Little York, IL
CORN ON CORN

Planted: April 21 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 22. **Previous Crop:** Corn. **Herbicide:** Surestart, Atrazine, Roundup, Impact. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–normal, August–dry. **✓Check Hybrid:** Burrus 6T54 3000GT

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	265.2		18.0	100	33
✓Check	262.8		17.5	90	32
POWER PLUS 4J95AMX™*	260.7	4	16.8	100	36
POWER PLUS 5C17AMXT™*	262.8	2	16.6	80	35
BURRUS 5Z44 3122	253.5	5	17.7	90	34
✓Check	257.8		18.1	90	33
POWER PLUS 6P75AMX™*	275.0	1	16.5	100	35
✓Check	256.2		18.5	80	34
POWER PLUS 6F74AMX™*	256.9	3	16.6	100	35
✓Check	254.8		17.6	100	34
Average	260.6	—	17.4	93	34
Check Average	259.4		17.9	92	33

WHITESIDE

Power Plus® 6P75AMX™ brand* goes 273.5 bu/a

CORN ON CORN **Jeff Merema**
Fulton, IL

Planted: April 29 in 30" rows. **Planting Population:** 34,000. **Harvested:** October 12. **Previous Crop:** Corn.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 6P75AMX™*	273.5	17.7
POWER PLUS 4J95AMX™*	264.0	16.0
POWER PLUS 6F74AMX™*	250.0	17.0
BURRUS 5Z44 3122	248.2	17.6
POWER PLUS 5C17AMXT™*	243.2	16.7
POWER PLUS 2F91AMXT™*	238.4	14.7
POWER PLUS 3H85AMX™*	228.1	16.1
POWER PLUS 2V56AMX™*	217.9	14.9
Average	245.4	16.3

CORN ON CORN **Russell Ottens**
Lyndon, IL

Planted: May 3 in 30" rows. **Planting Population:** 33,000. **Harvested:** September 28. **Previous Crop:** Corn.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J95AMX™*	266.0	23.5
POWER PLUS 6P75AMX™*	262.4	26.0
POWER PLUS 3H85AMX™*	244.5	21.9
POWER PLUS 1S26AMXT™*	238.7	20.2
Pioneer P1197AM*	235.4	26.0
POWER PLUS 5C17AMXT™*	229.4	22.5
POWER PLUS 2V56AMX™*	222.0	22.8
Average	242.6	23.3

Think BURRUS

"My neighbor has been asking me about the Burrus 100% Free Replant because the competition's isn't exactly 100%."
Keith Kautz, Jasper County, IL

WINNEBAGO

Four Power Plus® hybrids were above 260 bu/a

COMPARE!

TNT Farms
Winnebago, IL

CORN ON CORN

Planted: April 30 in 30" rows. **Planting Population:** 33,600. **Harvested:** October 14. **Previous Crop:** Corn. **Insecticide:** Force. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–dry, August–normal. **✓Check Hybrid:** Hughes 3953 3000GT

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	240.9		16.6	100	36
POWER PLUS 1S26AMXT™*	**237.8**	**11**	**16.0**	**94**	**34**
POWER PLUS 2F91AMXT™*	**248.5**	**8**	**16.2**	**100**	**34**
POWER PLUS 2N82AM™*	**238.1**	**10**	**18.7**	**98**	**30**
POWER PLUS 2V56AMX™*	**244.3**	**9**	**19.1**	**100**	**33**
✓Check	245.5		16.5	88	34
POWER PLUS 3H85AMX™*	**253.0**	**6**	**16.9**	**100**	**34**
POWER PLUS 4J95AMX™*	**264.8**	**3**	**18.5**	**100**	**35**
POWER PLUS 5C17AMXT™*	**266.7**	**1**	**21.3**	**100**	**36**
POWER PLUS 6F74AMX™*	**248.9**	**7**	**21.4**	**98**	**35**
POWER PLUS 6P75AMX™*	**260.2**	**4**	**24.7**	**100**	**38**
POWER PLUS 4J95AMX™*	**255.2**	**5**	**19.0**	**100**	**38**
POWER PLUS 5C17AMXT™*	**265.6**	**2**	**21.7**	**100**	**35**
✓Check	239.6		16.2	100	34
Average	250.6		18.8	98	35
Check Average	242.0		16.4	96	35

Power Plus® takes top 6 places!

CORN ON CORN

WW Agseeds Inc.
Rockford, IL

Planted: April 29 in 30" rows. **Planting Population:** 36,000. **Harvested:** October 15. **Previous Crop:** Corn. **Fertilizer:** N: 200, P: 104, K: 124. **Herbicide:** Corvus, Atrazine, Roundup. **Soil Type:** Clay. **Weather:** May–wet, June–wet, July–dry, August–normal. **✓Check Hybrid:** Power Plus 4J95 AMX™*

Brand/Product	Bu. Per Acre	Rank	% Moisture	Adj. Test Wt.
✓Check	244.7		18.3	59.0
Agrigold A6257	201.1	24	14.9	56.0
POWER PLUS 1S26AMXT™*	**210.0**	**18**	**15.1**	**58.0**
Pioneer P0157AMX	198.2	25	15.3	58.0
Agrigold A6267	209.0	19	15.5	56.0
POWER PLUS 2F91AMXT™*	**224.2**	**5**	**15.8**	**58.0**
Dekalb DKC54-38RIB	207.6	10	15.7	58.0
POWER PLUS 2V56AMX™*	**223.9**	**6**	**15.9**	**58.0**
Agrigold A6351	205.5	12	15.4	58.0
✓Check	226.5		17.0	58.3
Agrigold XA51404STX	199.7	17	15.1	57.0
Agrigold A6355	191.9	22	15.2	56.0
Pioneer P0636AMX	206.2	11	15.5	56.5
Agrigold A6376	191.7	23	15.3	57.0
Agrigold XA41404STX	206.9	16	15.6	58.0
Agrigold A6416	191.5	26	15.8	56.0
Agrigold XA41413	203.1	20	16.0	58.0
Dekalb DKC58-87RIB	201.4	21	17.1	59.3
✓Check	239.4		17.0	58.8
Agrigold XA41503STX	210.1	14	16.2	58.0
Agrigold A6441	229.2	7	16.0	58.0
Dekalb DKC60-67RIB	211.7	13	16.3	58.0
POWER PLUS 5C17AMXT™*	**233.4**	**3**	**16.5**	**59.2**
Agrigold A6462 STXRIB	215.6	9	16.6	57.2
Agrigold A6492SSRIB	205.8	15	16.8	57.2
POWER PLUS 6P75AMX™*	**229.7**	**4**	**17.5**	**56.4**
Agrigold A6499STX	223.0	8	17.6	58.4
POWER PLUS 6F74AMX™*	**236.4**	**1**	**17.4**	**59.3**
POWER PLUS 3H85AMX™*	**230.7**	**2**	**16.8**	**57.7**
✓Check	232.8		16.7	57.2
Average	214.7		16.2	57.7
Check Average	235.8		17.2	58.3


Glyphosate Resistant Giant Ragweed (*Ambrosia trifida*) infesting Roundup Ready Corn. Photo: Dr. Bill Johnson

Overcoming giant ragweed in corn

Giant ragweed has become one of the most competitive weeds in parts of the Burrus footprint within soybean and corn cropping systems. This native, annual plant species is difficult to control because of an extended emergence pattern in some areas, aggressive growth, competitiveness, and adaption to a wide range of habitats. An increase of giant ragweed has been found in fields because of crop rotation, tillage, stem-boring insects affecting herbicide efficacy, and herbicide resistance. It is now clear that giant ragweed has found a way to survive current agronomic practices such as earlier planting, mainly by earlier and later emergence (April to July). This extended emergence is one of the main obstacles when it comes to management. For example, a late season Illinois survey found that 16% of corn and soybeans had giant ragweed escapes.

Giant ragweed has the ability to germinate at considerable depths, often after tillage and can escape pre-emergence herbicides. A single plant can produce up to 3,500 seeds per square yard when growing within a corn cropping system. Its large seed provides a great amount of energy reserves for seedlings, which enhances their endurance. If ragweed is left unmanaged, it can rapidly grow up to 17 feet tall, creating a massive canopy with large leaves up to 5 feet above plants and compete for sunlight, water, and nutrients. We know that giant ragweed is even more competitive in soybeans when compared to corn when just 1 plant per 110 square feet can reduce yields by as much as 50%. But when looking at corn, the University of Illinois reported that season long competition from a population of 2 plants per square meter can reduce corn yield by 37% and 2 giant ragweed per 110 square feet can reduce corn yield by 13%.

When it comes to management of giant ragweed, another major obstacle is herbicide resistance. Herbicide resistance, as well as emergence of giant ragweed, will depend greatly on management history. We first experienced herbicide resistance in giant ragweed with the ALS-inhibitors (Group 2) herbicides in the Midwest, in the late 1990's and early 2000's. Later came glyphosate (Group 9) herbicide resistance. Glyphosate resistance can be spread to other giant ragweed in pollen, so controlling "receptor" plants is critical for weed resistance management. Giant ragweed resistant to both ALS-inhibitors (Group 2) and glyphosate (Group 9) resistance has been documented in a few cases in Ohio, Minnesota, Missouri, and Indiana. The loss of these 2 groups of herbicides is detrimental, because these were the most effective herbicide groups for the control of giant ragweed.

When managing ALS (Group 2) and glyphosate (Group 9) ragweed resistance in soybeans, there are not many herbicides left to turn to for control. Missouri's research has indicated that successful management of glyphosate resistant giant ragweed resulted from the use of an effective preplant burndown herbicide, which might include products such as 2, 4-D or dicamba (Group 4), in combination with glyphosate (Group 9) or paraquat (Group 22). Another option would be to use products containing saflufenacil (Group 14) instead of 2, 4-D, in combination with glyphosate (Group 9) or Liberty® (Group 9).

However, the use of Liberty® in a burndown program can restrict the use of post emergence applications. Tillage is also a way to control early emerging ragweed populations prior to planting. The use of a pre-residual herbicide with a burndown or at planting in a tilled seedbed (chlorimuron or cloransulam) at full rates will help to suppress later emerging giant ragweed plants by alieving competition and selection pressure placed by post herbicides. Follow the pre-herbicide application with a TIMELY post option such as PPO (Group 14) herbicides or glufosinate (Group 10) in LibertyLink® soybeans.

Be sure to remove any escapes and mow fencelines, so that seed is not spread by combine. For more herbicide details for controlling giant ragweed in soybeans, please refer to *Management of Herbicide-Resistant Giant Ragweed* https://ag.purdue.edu/btny/weedscience/Documents/50737_12_TA_FactSheet_GiantRagweed_V3_LR.pdf

Just like soybeans, if there are heavy to moderate populations of giant ragweed in corn, a pre-plant burndown such as atrazine with dicamba, 2, 4-D ester, glyphosate, or GramoxoneInteon®; combine 2, 4-D ester or dicamba with either glyphosate or GramoxoneInteon®; Lumax® or Lexar®) or tillage, along with a post-herbicide application provides the most effective control of giant ragweed. A pre (residual) herbicide such as atrazine containing products with Hornet®, Balance®, or Callisto® can be used before weeds reach 6 inches. By using a pre-emergence herbicide with activity against giant ragweed, you can reduce competition with crops and provide flexibility in the timing of a post herbicide. When applying a post herbicide in corn, do it before ragweed reaches 6 to 10 inches in height.

There are many post herbicides that effectively control emerged giant ragweed in corn such as: Dicamba, Distinct®, Status®; 2, 4-D amine, Hornet®, Stinger®, WideMatch®; Atrazine plus Callisto®, Buctril®, or Impact®; Steadfast ATZ® or Equip® plus Distinct®, Status®, dicamba or Callisto®; Beacon® or Spirit® (not in ALS/group 2 resistant populations), Liberty® or Liberty plus atrazine® (in LibertyLink corn); Glyphosate (in Roundup Ready® corn – not in glyphosate/ group 9 resistant populations). Controlling any escapes that emerge after the post herbicide application is important, and in some cases, a second post application may be needed 3-4 weeks after the first post application before giant ragweed can grow too large and can't be controlled by chemical applications. Some examples of herbicide programs for corn can be found at Biology and Management of Giant Ragweed: https://www.extension.purdue.edu/extmedia/BP/GWC-12.pdf

Looking for Non-GM corn hybrids? You've come to the right place!

Are you looking for conventional, non-GM corn hybrids? Burrus is recognized as a leader in the non-GM market offering maturities of 102-114 days. Burrus has maintained its commitment to this segment of the market while some companies have drifted away from conventional hybrids for fully traited product offerings.

Conventional hybrids are gathering more steam as growers look to capture grain premium opportunities and reduce input costs. While the grain premium opportunities aren't as prevalent as they once were, many growers still prefer to use non-GM hybrids in case an opportunity in their area arises.

Burrus continues with the tradition of industry-leading hybrid choices for the 2016 growing season with the addition of new Power Plus® 2R67™*, new Power Plus® 4J90™* (with Optimum® AQUAmax®) and new Burrus 6Q60. The remaining portion of our stable of powerful non-GM hybrids includes Hughes 3442 along with Power Plus® 5N48™*, Power Plus® 6C40™* and Power Plus® 7H20™*. Offering a slate of top non-GM hybrids is not an afterthought to us.

At Burrus, we recognize a significant part of our marketing footprint has demand for non-GM hybrids. Our research team continues to look for new, high yielding, non-GM products that can attract grain premiums too. We are interested in your success on every acre and deliver our very best products in a non-GM version whenever possible.

Our lineup of non-GM hybrids works on a variety of soil types and offers a range in maturity for growers.

Entomologists are recommending the use of non-GM hybrids with granular insecticide as a way to break up the cycle of using the same rootworm trait year after year. If you are in an area where the corn rootworm event Cry3Bb1 continues to struggle with rootworm control, consider planting a conventional hybrid with soil insecticide in 2016.

Growers looking to capture premium opportunities with non-GM grain should visit with their grain marketing representative for availability in their area. We always encourage you to have a signed contract with your grain buyer if you are planning to capture a premium. If you have the capability, it is always a plus to identity preserve your non-GM grain. This will give you the flexibility if an opportunity comes up at the last minute.

Many market factors complicate the premium issue for grain buyers. We understand non-GM premiums are constantly moving and that some end-users of grain are hesitant to commit to premiums for the grain coming off the 2015 growing season. The current state of the ag economy has increased some grower's interest levels of high performing, non-GM hybrids. As mentioned, some see this as a way to control seed input cost but it also lessens the premium opportunities for the longtime, non-GM producer.

Burrus is committed to the non-GM customer and we will continue this commitment into the future non-GM grain market as long as there is consistent demand from growers. If you are considering utilizing non-GM corn hybrids from the Burrus family of products, talk to your local Burrus dealer or Account Manager for the best recommendations for your operation and management style.

John & Zach Lorentzen are proud Burrus dealers from Boone Co., MO. They appreciate their Account Manager Jordan Watson, and the excellent service he provides.

BOONE

John Lorentzen
Sturgeon, MO

Planted: April 30 in 30" rows. **Planting Population:** 28,500. **Harvested:** September 24. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 60, K: 60. **Herbicide:** Corvus. **Insecticide:** None. **Corn Borer Rating:** Heavy. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
BURRUS 516227	198.2	17.3	100	25
POWER PLUS 4J93AM™*	191.8	15.1	100	27
BURRUS 362660	187.1	18.5	100	29
POWER PLUS 6C41 S™*	186.8	16.9	96	27
POWER PLUS 6N83AM™*	186.5	17.0	100	25
POWER PLUS 7H23 S™*	186.2	16.4	100	29
BURRUS 223549	185.6	17.3	100	25
BURRUS 154860	185.1	16.1	100	28
POWER PLUS 6C41 S™*	184.7	17.4	100	25
POWER PLUS 7U15AM-R™*	183.7	16.3	100	25
BURRUS 187233	179.5	17.1	96	26
BURRUS 743294	178.9	15.5	100	27
POWER PLUS 4V45AM™*	178.4	14.5	100	27
CATALYST 7577 3010	177.8	17.3	100	28
BURRUS 255137	177.4	17.8	100	28
BURRUS 346782	176.3	15.5	100	29
BURRUS 6T54 3000GT	176.1	17.5	100	27
BURRUS 502792	175.1	15.6	100	30
BURRUS 642749	174.2	16.4	100	25
BURRUS 575278	173.4	17.3	100	27
BURRUS 735025	172.7	15.4	100	26
BURRUS 456116	170.9	16.4	100	26
BURRUS 638535	169.2	16.6	100	26
BURRUS 644188	167.1	20.2	100	26
POWER PLUS 4V45AM™*	166.3	15.1	100	29
CATALYST 7893 3111	165.9	17.7	100	26
BURRUS 836363	165.5	14.2	92	27
BURRUS 276488	165.3	16.5	100	25
BURRUS 878207	164.9	18.2	100	28
BURRUS 130796	163.7	16.8	96	26
POWER PLUS 6L45AMT™*	162.1	16.9	100	25
POWER PLUS 6F74AMX™*	160.6	16.3	100	28
POWER PLUS 7H23 S™*	159.3	14.6	92	26
BURRUS 993245	156.9	20.4	100	27
BURRUS 5Z44 3122	156.1	17.2	100	23
POWER PLUS 2N82AM™*	155.1	16.2	100	29
POWER PLUS 6N83AM™*	153.3	15.0	100	28
BURRUS 6T54 3000GT	150.8	16.2	100	25
CATALYST 7893 3111	144.8	15.7	100	27
POWER PLUS 4J93AM™*	135.8	14.8	92	28
BURRUS 880174	129.2	15.6	100	26
POWER PLUS 6F71 R™*	128.4	16.4	92	24
Average	169.2	16.6	99	27

Brent Angelo

Burrus is pleased to welcome Brent Angelo to our sales staff as an Account Manager in northwest-central Illinois that includes Stark, Marshall, Bureau, Knox and Henry counties. Brent brings strong communication skills and a desire to build relationships with growers to better inform them about new and exciting Burrus hybrids.

He has a bachelor's degree from Eastern Illinois University and a master's degree from Illinois State University. He and his wife, Cortney have three sons. They are Braden, age 12, Graysen, age 8 and Kalen, age 6. The Angelo family resides in Chillicothe, IL and enjoys camping, going to concerts, grilling, and playing in the yard. Brent also likes running 5K races.

Brent strives to be the guy that growers call on for all of their seed needs. He can be reached at (309)370-3387 or brent.angelo@burrusseed.com. Let him help place the right hybrids on your farm for greater profitability.

BOONE

John and Zach Lorentzen
Sturgeon, MO

Planted: April 27 in 30" rows. **Planting Population:** 28,500. **Harvested:** October 1. **Previous Crop:** Soybeans. **Herbicide:** Corvus, Capreno. **Corn Borer Rating:** Heavy. **Soil Type:** Loam. **Weather:** May–wet, June–wet, July–wet, Augus–wet. **Remarks:** Power Plus® 6F71 R™* and Catalyst 7893 3111 had large wet holes.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6C41 S™*	168.4	17.7	100	60.9	28
CATALYST 7577 3010	160.5	19.1	100	58.7	28
POWER PLUS 4J93AM™*	160.3	15.3	100	58.5	26
POWER PLUS 7H23 S™*	157.9	15.0	10	58.0	28
CATALYST 4685 3111	157.3	15.3	100	56.0	30
POWER PLUS 6N83AM™*	156.9	15.0	100	59.0	27
POWER PLUS 6F74AMX™*	154.6	16.6	100	62.2	30
POWER PLUS 6F71 R™*	149.0	15.4	100	61.0	29
POWER PLUS 4V45AM™*	149.0	15.4	100	60.0	27
CATALYST 7893 3111	147.8	15.0	100	55.0	29
POWER PLUS 2N82AM™*	142.7	15.3	100	58.5	28
Average	154.9	15.9	92	58.9	28

100% Free Replant on Seed Corn and PowerShield® treated Soybeans

The entire Burrus family of products, including Burrus, Power Plus®, Hughes, Catalyst® and Hoblit brands qualify for the replant guarantee of free seed, free seed treatment if available, and free tech fees of equal or less value, if from the same technology family. Ask your local dealer or Account Manager for complete details.

"I am proud to grow Burrus because they provide me with a product that is "top shelf" coupled with service that is top notch."
Brant Sell, Mercer County, MO

Jerry & James Downing of Nodaway Co., MO have been long-time, loyal supporters of the Burrus brand. They appreciate our honest approach in the seed industry.

Burrus showed their commitment to the future of agriculture by providing yellow Think Burrus t-shirts and making a donation to each FFA chapter that participated by wearing them to the Farm Progress Show.


Bruce & Renee Wiederholt of Nodaway Co., MO are long-time Burrus dealers who represent our family and products well.


Power Plus® 46A5™* leads the soybean pack at 61.1 bu/a in Carroll Co., MO for Rachel & Adam Casner.


Maddy Walkup, Clinton Co., MO enjoyed showing her Berkshire barrow from Burrus which brought a lot of quality family time.


Many parts of Missouri received an over abundance of rain during planting season. Growers looked at all options when managing their farms. Many growers sent notes of thanks or called expressing their gratitude for the Burrus 100% Free Replant policy.

Power Plus® 6C41 S™* brand best at 238 bu/a

Jenkins Farms
Dewitt, MO

Planted: April 22 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 23. **Previous Crop:** Soybeans. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal. ✓**Check Hybrid:** Burrus 6T54 3000GT

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	218.9		19.4	59.7	32
POWER PLUS 7U15AM-R™*	226.3	2	18.0	62.5	32
POWER PLUS 6C41 S™*	238.5	1	20.0	62.0	32
CATALYST 7893 3111	219.3	4	19.3	58.7	32
✓Check	224.1		19.2	58.7	32
BURRUS 6T54 3000GT	217.0	5	18.5	58.6	32
POWER PLUS 7H23 S™*	209.7	6	15.5	60.0	32
POWER PLUS 6F71 R™*	204.5	7	16.2	61.0	32
POWER PLUS 6N83AM™*	201.6	8	16.9	59.2	32
POWER PLUS 4V45AM™*	196.8	9	15.5	59.0	32
POWER PLUS 4J93AM™*	222.2	3	15.2	59.0	32
✓Check	220.5		17.6	58.4	32
Average	216.6		17.6	59.7	32
Check Average	221.2		18.7	58.9	32

CARROLL

Casner Farms
Carrollton, MO

Planted: April 24 in 30" rows. **Planting Population:** 31,000. **Harvested:** September 17. **Previous Crop:** Soybeans. **Herbicide:** Status, Atrazine. **Corn Borer Rating:** Moderate. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal. ✓**Check Hybrid:** Burrus 6T54 3000GT

Brand/Product	Bu. Per Acre	Rank	% Moisture	Adj. Test Qt.	1000 Plants /Acre
✓Check	190.4		14.0	45.0	27
POWER PLUS 7U15AM-R™*	174.5	21	18.3	56.5	31
POWER PLUS 6P75AMX™*	196.1	10	18.3	56.5	30
BURRUS 187233	215.5	2	21.4	59.3	29
BURRUS 130796	180.6	16	18.6	56.6	30
✓Check	158.9		18.0	54.5	29
BURRUS 642789	181.5	13	18.2	57.0	29
BURRUS 179401	165.9	19	17.7	58.9	30
BURRUS 6T54 3000GT	198.2	6	15.7	53.0	29
BURRUS 6T54 3000GT	168.8	17	15.3	53.0	30
✓Check	169.5		16.1	53.0	30
POWER PLUS 4J95AMX™*	199.5	8	16.9	59.2	30
BURRUS 836363	205.8	4	15.8	56.0	29
POWER PLUS 4V45AM™*	187.8	11	16.8	60.2	30
POWER PLUS 4J93AM™*	186.9	12	16.4	60.0	30
✓Check	167.3		17.0	55.3	30
BURRUS 743294	189.8	14	15.5	55.0	30
BURRUS 967547	173.7	24	17.4	57.3	30
CATALYST 4685 3111	176.4	22	15.0	52.0	30
POWER PLUS 2N82AM™*	177.8	20	15.0	58.0	30
✓Check	186.9		16.6	56.2	29
CATALYST 7893 3111	171.5	23	18.9	54.7	30
POWER PLUS 6C41 S™*	182.7	15	21.2	59.3	30
BURRUS 456116	164.9	25	18.6	58.6	29
BURRUS 638535	195.4	9	16.1	57.0	30
✓Check	160.1		18.3	55.5	30
POWER PLUS 6F74AMX™*	191.0	7	17.8	61.5	29
POWER PLUS 6N83AM™*	193.8	5	16.2	59.0	29
POWER PLUS 6F71 R™*	199.3	1	18.2	61.5	29
POWER PLUS 7H23 S™*	197.9	3	16.8	59.2	30
CATALYST 7577 3010	160.8	18	21.5	59.4	30
✓Check	154.4		18.0	55.5	30
Average	182		17.4	56.7	30
Check Average	169.6		16.9	53.6	29

CHARITON

Burrus wins 5 of top 6 places

COMPARE!

McCormick Farms
Sumner, MO

Planted: May 5 in 30" rows. **Planting Population:** 30,000. **Harvested:** September 23. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: VRT, K: VRT. **Herbicide:** Degree, Atrazine. **Insecticide:** Mustang Maxx. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 6C41 S™*	226.8	19.4	60.7
POWER PLUS 4J93AM™*	209.6	16.5	59.2
Dekalb DKC62-98	209.1	15.9	59.0
POWER PLUS 6N83AM™*	207.1	17.1	58.5
BURRUS 6T54 3000GT	203.2	19.4	57.7
CATALYST 7893 3111	203.1	17.7	56.4
Morcorn XP-4178	202.5	16.1	59.7
Dekalb DKC61-88	202.3	14.8	58.0
Dekalb DKC63-72RIB	201.6	15.1	60.0
Dekalb DKC63-55RIB	201.4	14.5	60.0
Morcorn XP-1504	200.5	15.6	59.3
Dekalb DKC65-81RIB	199.7	17.0	59.4
POWER PLUS 7H23 S™*	199.3	16.5	59.2
POWER PLUS 6F71 R™*	199.3	18.7	60.6
Dekalb DKC60-55RIB	198.6	15.3	59.0
Dekalb DKC61-55RIB	197.9	15.0	60.0
Dekalb DKC62-78RIB	197.4	14.5	59.0
Morcorn XP-1406	193.9	15.9	58.3
Morcorn XP-1411	190.2	17.7	58.5
POWER PLUS 7U15AM-R™*	189.1	16.7	61.2
Morcorn XP-1509	188.4	15.5	60.0
POWER PLUS 4V45AM™*	186.8	17.0	60.3
Morcorn XP-3544	186.2	15.6	57.5
Morcorn XP-4334	184.3	15.7	59.6
Dekalb DKC63-60RIB	184.0	15.5	58.6
Morcorn XP-4377	182.6	15.3	56.5
Morcorn XP-1508	176.8	14.5	57.5
Morcorn XP-3966	152.6	15.4	57.6
Average	195.5	16.2	59.0

Corn-on-corn strategies, you must work the equation

By Matt Montgomery

My dad taught math. Math is a daunting subject for many. Just that word, math, can raise the blood pressure. Dad taught me a few simple rules about math that have helped me out though.

"Matt," he told me, "math requires that you not panic, that you figure out where you are, that you think through the problem step by step by step (never skip a step), and at the end – what you do has to make sense."

Today, I try to pass that on to my son as we struggle through Algebra and Geometry. As I prepared to write this year's corn-on-corn article, I was reminded of those old math rules Dad taught me. Discussing corn-on-corn requires that we:

1. Not panic – despite how daunting it sometimes is to make corn-on-corn work.
2. Assess where we are and what unique challenges corn-on-corn brings to the table.
3. Work the problem logically step by step by step – never skipping a step – never trying to skip to the solution at the end without working the corn-on-corn problem first.
4. Always make sure the solution makes sense/always make sure that our corn-on-corn solution "smells right."

Panic – no way – not allowed

Let's start talking corn-on-corn. Panic is a dangerous thing. My math tests went the worst when I panicked the most. Once the fear and adrenaline kicked in, the brain shut off and I made really bad mistakes. Right now, in agriculture, it is really easy to panic. If you succumb to panic because of what the financial environment might do to you, then the brain will shutoff. You will run a good chance of making really bad mistakes. Just as in math, you will do your worst, when you panic the most. Get the panic in check, then move on to the other steps.

Assessment, the real challenges associated with corn-on-corn

We will call it as it is. Corn-on-corn is just at a competitive disadvantage when compared to rotated corn. For various reasons, corn-on-corn has always yielded about 10-25% less than rotated corn. Rotated corn has the home court advantage while continuous corn does not. It is just really hard to net as many dollars in corn-on-corn as it is to net in rotated corn. We will have to work the problem from several different angles to make corn-on-corn competitive.

Working the problem step by step – thinking through the net return formula

The solution to making corn-on-corn work is playing the net income equation. It really comes down to my dad's favorite subject – math. Remember, the net income formula looks like this:

NET INCOME (the margin that a grower lives on/ how well corn-on-corn does per acre) = GROSS INCOME – EXPENSES

This really is not rocket science. We just have to work the problem step by step, never skipping a step. To improve the net income competitiveness of corn-on-corn, we need to make sure that gross income remains solid and we need to manipulate expenses so they move down (Note – we reference this same formula in our per acre income article. It is just that important).

Working the gross

Working continuous corn gross income requires a few things. First, we must make potential income per acre work for us. Second, we must maintain potential income per acre early on. Third, we must maintain potential income per acre all season long. Finally, we must collect as much of that potential income as we can.

1. Firm up the interaction between genetics and location. We said that corn-on-corn starts at a competitive disadvantage compared to rotated corn. This means better ground has first dibs for continuous corn.
2. Geography is critical. We separate the map for each hybrid into dark green, light green, and white colored portions of our footprint. Dark green means go for that product in that geography. If you are going corn-on-corn, you have to give that system a chance to compete. You have to place that product in a geography that will work. For corn-on- corn, you have to go green.
3. Match the product to the soil. Complete steps 1 and 2, then you can work on this one. You can consider if a product fits your soil type. There must be a good fit between your soil (productivity, drainage, etc.) and the potential hybrid. Miss this point/skip this point and you will never get corn-on-corn to work.
4. Shoot for resiliency. Do all the above, then aim for resiliency. Consider drought technology (such as Optimum® AQUAMax®) to decrease yield variation. If you can't do that, choose a hybrid that is versatile across soil types and productivity levels. You may even want to choose those hybrids with stronger early season growth (grow out) scores because they may shade the ground and muffle the yield-reducing impact of lighter soil.
5. Only after you have completed steps 1 through 4 can you take this step. Consider historic yield data and select an appropriate hybrid. If you skip all the other steps and jump to this point, you have skipped a step and have decreased the chances that corn-on-corn will work.

Here is the good news. If you use MyFarms℠ and its' Crop Optimization Planner, that system will guide you through all these steps. It will force you to not skip a step. Furthermore, it will make the above process much simpler. Another thought when selecting products, plant a package. Spread out silking dates to reduce your exposure to environmental stress.

Maintaining corn-on-corn potential income at the beginning of the season is pretty clear cut. However, you can't forget about or skip such maintenance. Here are some ideas:

1. Go with the right seeding rate. Before you even choose a hybrid, figure out if you are willing to plant it at its recommended population. If not, you must use a different hybrid.
2. Make sure you have good, consistent seeding depth. Stop the tractor periodically and dig behind the planter. Monitor seeding depth throughout the planting season. Make sure it is doing what you want it to.
3. Make sure you have good, consistent seed placement. This and the above require that calibration be conducted up front.
4. Consider the use of row cleaners which allow the soil to warm up better in proximity to the seed thus improving final stand.
5. Keep on top of weeds, insects, and diseases. Visit every field, at least once a week, to make sure those pests are not trimming down yield potential. Remember those two weeks before and after tasseling are especially critical.

Collecting as much corn-on-corn potential income as one can requires three things. Two of those deal with harvest-related issues. One of those deals with post-harvest related issues. Again, these are simple concepts. However, many skip these steps and pay for it.

1. Harvest must be done with excellence. Some growers monitor their planting to make sure it is working well, but few monitor the chaff spread behind their combine to make sure they have their concaves, etc. set correctly. We are not in the business of leaving grain for wildlife. We are in the business of getting grain into the bin. Make sure you are not leaving grain in the field.
2. Store those corn-on-corn bushels well. Make sure the bin is clean, make sure grain is dry, make sure the temperature is maintained, etc.
3. Market that continuous corn grain very well. Get as many corn-on-corn bushels out of the field as you can, but then make sure you get more for those bushels. This may require a visit with a grain marketing consultant.

Manipulating the expense line

Trimming down the expense line is critical to improving net income in corn on corn. More efficiency and less unnecessary (luxury) expense is the order of the day.

Trimming back luxury expense really comes down to asking some probing questions. Here are some examples:

1. Do you really need a new piece of equipment or does your old equipment do the job?
2. Do you really need to apply fungicide or insecticide prophylactically (minus evidence of need) or is scouting just one of those nasty things you don't like about the job (don't worry you are not alone)?
3. We must be careful with this one because you cannot cut needed fertilizer, but is the amount of fertilizer you are applying really needed? Are you getting a little extravagant rather than sticking with what is necessary? Are you dumping on N instead of using the MRTN calculator? You need about 30-50 pounds more N than normal in continuous corn. Are you moving well beyond that? Are you getting pH right? If so, you probably (in the majority of cases) do not need to mess with all those micronutrients.

Improving the efficiency in necessary expenses is also critical to improving corn-on-corn return. You have to spend those dollars, but you may be able to make those dollars count more.

1. Do you really need a fully traited, RIB product or does it just make life more convenient? Structured refuge products can achieve the same yield using fewer dollars per bag of seed. Using structured refuge can improve efficiency.
2. Are you fully tapping the financing options available to you? Early payment options and direct financing options can reduce the per acre cost of seed. Your local Burrus/Hughes

Account Manager can discuss those options with you. You can improve efficiency through the programs we offer.

3. Consider the efficiency associated with getting weed control right. Is your current herbicide program really working? Are you going back in to clean things up? A few more dollars spent on the right program might actually increase weed control, decrease passes over the field, and in the process – improve the efficiency of your herbicide program.
4. Consider the efficiency associated with getting disease management right. Has a specific disease been such an occasional issue, that the dollars are better spent on a fungicide rescue program? Has disease been such a consistent issue, that the dollars are better spent on that solid disease package?
5. Consider the efficiency associated with getting insect management right. Has a specific insect only been an occasional issue, such that efficiency will improve based on a rescue treatment? Has that insect so often been a problem that the dollars are better spent on a Bt product?

Make sure your corn-on-corn solution makes sense

We have laid out some strategies, some ways to think about and work the corn-on-corn income problem step by step. We have stressed that you cannot bypass these steps. Before you pull the trigger on your plan to make continuous corn work, stop and think about your plan. Does it make sense? If you had to repeat that plan to a neighbor, what would be the response? Does it pass the smell test? That is perhaps the most important step of all.

CHARITON

Big Red Farms
Salisbiry, MO

Planted: May 1 in 30" rows. **Planting Population:** 31,000. **Harvested:** September 17. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 80, K: 80. **Herbicide:** Corvus, Atrazine. **Corn Borer Rating:** Heavy. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal. **✓Check Hybrid:** Burrus 6T54 3000GT

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	189.9		22.6	95	28
BURRUS 836363	**194.4**	**2**	**19.0**	**95**	**30**
POWER PLUS 4J93AM™*	**198.3**	**1**	**18.8**	**100**	**28**
POWER PLUS 4V45AM™*	**171.2**	**15**	**18.1**	**70**	**28**
POWER PLUS 4J95AMX™*	**178.3**	**7**	**20.0**	**100**	**30**
✓Check	172.5		23.0	100	29
POWER PLUS 6N83AM™*	**163.1**	**18**	**19.5**	**100**	**30**
POWER PLUS 7H23 S™*	**175.3**	**4**	**17.8**	**85**	**29**
POWER PLUS 6F71 R™*	**148.0**	**25**	**19.3**	**90**	**29**
POWER PLUS 6F74AMX™*	**160.0**	**21**	**19.8**	**96**	**30**
✓Check	175.4		22.8	100	30
CATALYST 7893 3111	**165.2**	**16**	**23.3**	**100**	**30**
BURRUS 456116	**162.0**	**20**	**20.5**	**100**	**29**
POWER PLUS 6C41 S™*	**166.6**	**12**	**21.9**	**100**	**29**
BURRUS 638535	**171.0**	**9**	**21.0**	**100**	**30**
✓Check	175.6		22.7	100	30
BURRUS 642789	**154.2**	**24**	**19.7**	**100**	**29**
BURRUS 5Z44 3122	**154.7**	**23**	**22.0**	**100**	**29**
BURRUS 6T51 GT	**149.9**	**26**	**20.6**	**100**	**29**
BURRUS 6T54 3000GT	**177.8**	**6**	**23.2**	**100**	**30**
✓Check	180.7		23.0	100	30
POWER PLUS 7A18AM1™*	**169.8**	**17**	**20.4**	**100**	**30**
POWER PLUS 6L45AMT™*	**171.1**	**13**	**20.6**	**100**	**30**
POWER PLUS 6P75AMX™*	**172.8**	**11**	**20.2**	**100**	**29**
BURRUS 187233	**183.3**	**3**	**23.6**	**100**	**30**
✓Check	179.7		22.7	100	29
BURRUS 590519	**180.1**	**5**	**22.2**	**100**	**30**
BURRUS 967547	**175.4**	**8**	**19.0**	**100**	**28**
CATALYST 4685 3111	**162.4**	**22**	**19.0**	**100**	**28**
POWER PLUS 2N82AM™*	**169.5**	**14**	**18.1**	**100**	**29**
CATALYST 7577 3010	**168.2**	**19**	**24.2**	**100**	**30**
✓Check	179.1		22.6	100	30
POWER PLUS 6C40™*	**173.2**	**10**	**19.2**	**100**	**30**
Average	171.8	—	20.9	98	29
Check Average	179.0		22.8	99	29

CLINTON

Jeff D Gibson
Gower, MO

Planted: May 29 in 30" rows. **Planting Population:** 28,500. **Harvested:** September 25. **Previous Crop:** Soybeans. **Herbicide:** Valor, Roundup. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal. **✓Check Hybrid:** Power Plus 4J93AM™*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	154.7		16.7	100	27
POWER PLUS 4V45AM™*	**152.0**	**4**	**17.7**	**100**	**26**
POWER PLUS 6C41 S™*	**148.8**	**5**	**18.2**	**100**	**30**
BURRUS 6T54 3000GT	**141.8**	**8**	**19.1**	**100**	**30**
POWER PLUS 6N83AM™*	**155.1**	**6**	**16.9**	**100**	**26**
✓Check	167.4		16.7	100	26
POWER PLUS 6F74AMX™*	**144.9**	**9**	**17.8**	**100**	**26**
POWER PLUS 7U15AM-R™*	**154.2**	**7**	**17.1**	**100**	**29**
CATALYST 7893 3111	**164.3**	**3**	**20.4**	**100**	**29**
CATALYST 7577 3010	**166.3**	**2**	**22.3**	**100**	**27**
POWER PLUS 7H23 S™*	**173.0**	**1**	**17.0**	**100**	**26**
✓Check	170.3	—	16.8	100	30
Average	157.7	—	18.1	100	28
Check Average	164.1		16.7	100	28

GRUNDY

Power Plus® 4J93AM™* brand wins at 250 bu/a

Gary and Aaron Bunnell
Spickard, MO

Planted: April 28 in 30" rows. **Planting Population:** 31,000. **Harvested:** September 21. **Previous Crop: Soybeans. Fertilizer:** N: 150, P: VRT, K: VRT. **Herbicide:** Atrazene, Halex GT. **Insecticide:** Mustang. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–wet, August–normal. **✓Check Hybrid:** Power Plus 6F74AMX™*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	206.5		21.6	100	29
POWER PLUS 6C41 S™*	**230.4**	**3**	**26.9**	**100**	**30**
CATALYST 7577 3010	**207.0**	**8**	**23.4**	**100**	**29**
POWER PLUS 7U15AM-R™*	**239.8**	**2**	**19.7**	**100**	**32**
BURRUS 6T54 3000GT	**213.0**	**6**	**23.2**	**100**	**31**
✓Check	219.8		19.7	96	29
CATALYST 7893 3111	**219.6**	**5**	**20.8**	**92**	**31**
POWER PLUS 7H23 S™*	**210.2**	**7**	**17.9**	**100**	**29**
POWER PLUS 4J93AM™*	**250.3**	**1**	**19.0**	**96**	**30**
POWER PLUS 4V45AM™*	**208.8**	**9**	**18.9**	**96**	**28**
POWER PLUS 6N83AM™*	**227.0**	**4**	**19.3**	**96**	**28**
✓Check	211.5	—	20.3	100	30
Average	220.3	—	20.9	98	30
Check Average	212.6		20.5	99	29

Green Hills Feeders
Trenton, MO

Planted: April 24 in 30" rows. **Planting Population:** 28,000. **Harvested:** October 8. **Previous Crop:** Soybeans. **Fertilizer:** N: 165, P: 50, K: 60. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal. **✓Check Hybrid:** Burrus 6T54 3000GT

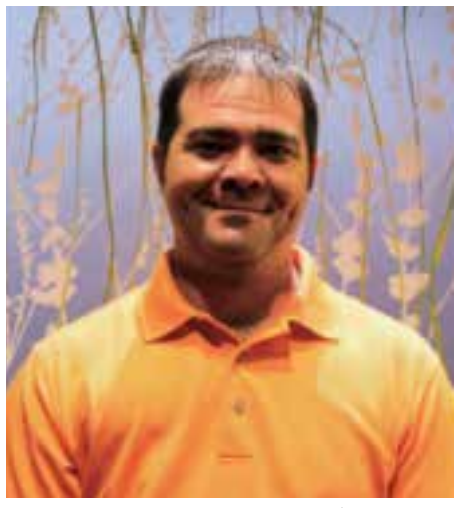
Meghan Meyer is a valuable member of our logistics department. Meghan works to ensure growers get efficient and timely delivery of their Burrus Seed.

Charlie, Matthew, Mark & Ronnie Jenkins saw Power Plus® 6C41 S™* & Power Plus® 7U15AM-R™* go one-two in Carroll Co., MO.

Power Plus® 4J93AM™* won in Chariton Co., MO for David & Susie Emmerich of Big Red Farms at 198.3 bu/a.

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	223.1		16.1
G2 Genetics 5F709AMX	220.6	5	15.2
POWER PLUS 4J93AM™*	**224.2**	**3**	**15.0**
Producers 7014VT3PRIB	196.3	14	14.7
POWER PLUS 6N83AM™*	**209.8**	**8**	**15.0**
Producers 7268STXRIB	215.7	2	15.1
POWER PLUS 6F74AMX™*	**200.5**	**11**	15.0
G2 Genetics 5F113AMX	205.9	7	15.3
✓Check	204.0		16.1
POWER PLUS 6C41 S™*	**210.7**	**4**	**16.7**
G2 Genetics 5F713AMX	225.5	1	15.9
Producers 7414VT3PRIB	190.1	13	15.3
CATALYST 7577 3010	**203.2**	**10**	**16.4**
POWER PLUS 7U15AM-R™*	**211.6**	**6**	**15.1**
POWER PLUS 7H23 S™*	**195.8**	**12**	**14.5**
CATALYST 7893 3111	**206.7**	**9**	**15.9**
✓Check	215.4	—	16.5
Average	209.4	—	15.5
Check Average	214.2		16.2

At 230 bu/a Jim & Shelley Hoene saw Power Plus® 6C41S ™* win in St. Louis Co., MO.



Scott Rutledge saw Power Plus® soybeans 41M4™* & 38D2™* at 64 bu/a in Lewis Co., MO.

Power Plus® 4J93AM™* won in Grundy Co., MO for Aaron & Gary Bunnell.

Krista Lottinville

Krista Lottinville has recently been hired as a new Burrus Account Manager in the northeastern Illinois region. She will be providing top-notch service for growers in the Kankakee, Livingston, Will, and Grundy counties. She has a background in crop insurance and remains a licensed crop insurance agent. Krista brings a desire to help farmers stay profitable and an eagerness to learn more about the agriculture industry as a whole.

A graduate of the University of Illinois, she earned a degree in agri-business. Krista's education, coupled with her experience of growing up on a corn and soybean farm near Sheldon, IL, provide her with a solid foundation of helping match growers' needs with the right product for increased profitability.

She enjoys outdoor activities such as hunting and boating. In her spare time she also likes to craft and quilt with her mom. Krista said, "I'm excited for this new journey in the seed industry. I love meeting new people, traveling around the area and talking agriculture!" Put Krista's education and knowledge to work for your farming operation. Call her at 815-383-3725 or connect at krista.lottinville@burrusseed.com.

What growers will see: AgrisureDuracade® 5222 E-Z Refuge®

[Agrisure] [Duracade] [5] [2 2 2] [E-Z Refuge]

Agrisure — Master Brand
Duracade — Suffix
5 — Technology Series
2 — Broad Lepidopteran Trait
2 — Corn Borer Trait
2 — Corn Rootworm Trait
E-Z Refuge — Integrated, Single-bag Refuge

Does Corn Rootworm (CRW) pressure have you scratching your head? Corn rootworms are irritating pests to corn growers. It is estimated that this pest costs U.S. corn growers more than $1 billion annually in yield losses and treatment costs.

Today, there are growers on both sides of the dreaded CRW issue. Some growers feel that they haven't experienced tremendous CRW pressure, while others are seeing that some rootworm traits (Cry1 3ab) are failing in field scenarios in many different areas. But, both sides know that corn rootworm can be both an unpredictable and devastating pest, so they need to find ways to manage around it. Preservation of traits and rootworm technology, in general, is a key focus for new products entering the market.

One new face in the fight against rootworms that you will begin to hear a lot more about is Agrisure Duracade®. This new proprietary piece of rootworm technology features a unique mode of action as it protects against Western, Northern and Mexican CRW.

Agrisure Duracade is claiming to be the first corn rootworm trait launched with insect resistance management in mind. It will only be available stacked with a second corn rootworm trait Agrisure RW (MIR604). The most comprehensive stack will be Agrisure Duracade 5222 E-Z Refuge®. This trait package will include the Agrisure Duracade trait along with the Agrisure® RW, Agrisure CB/LL, Herculex® I, Agrisure Viptera® and Agrisure GT traits. Growers will have two control measures for both rootworm and corn borer along with glyphosate tolerance and the Agrisure Viptera trait for protection against the most destructive lepidopteran corn pests. Agrisure Duracade trait stack provides a convenient 5% integrated, single bag refuge option for corn growers.

Agrisure Duracade is an essential tool for CRW management. Agrisure Duracade expresses a protein that binds differently in the gut of the rootworm, making it unique among other available traits. In a USDA study, Agrisure Duracade showed 99.79% reduction in adult beetle emergence, higher than any current CRW product on the market.

Burrus and Hughes have viewed the Agrisure Duracade technology in plot locations and are excited to run this encouraging technology through our battery of tests. Agrisure Duracade has cultivation approval in the U.S. and Canada, as well as import approval in Australia, Columbia, Japan, Korea, Mexico, New Zealand, Russia, and Taiwan. Syngenta has submitted and is working to gain approval in China and the European Union.

Contact your Burrus/Hughes Account Manager for Agrisure Duracade stewardship information. We will keep you updated on all of the latest developments.

* Mortality Impact of Bt Transgenic Maize Roots Expressing eCry3.1Ab, mCry3A and eCry3.1Ab plus mCry3A on Western Corn Rootworm Larvae in the Field. Bruce E. Hibbard, Daniel L. Frank, Ryan Kurtz, Eric Boudreau, Mark R. Ellersieck, and J. Frederick Odhiambo. Journal of Economic Entomology. 2011, 104 (5). 1584-1591.

LAFAYETTE

Big yields!

Owen Bender
Maitland, MO

Planted: April 28 in 30" rows. **Harvested:** September 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 70, K: 70. **Herbicide:** Roundup, Atrazine. **Insecticide:** None. **Corn Borer Rating:** Moderate. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
BURRUS 575278	267.8	12.3	80	31
POWER PLUS 6C41 S™*	264.5	13.0	100	32
POWER PLUS 6F74AMX™*	252.6	12.7	80	31
BURRUS 362660	246.8	13.0	88	31
BURRUS 516227	246.7	13.2	92	32
BURRUS 223549	246.4	12.8	16	26
CATALYST 7577 3010	245.3	13.3	88	26
BURRUS 456116	238.8	15.2	92	33
POWER PLUS 6F71 R™*	237.9	12.0	92	31
BURRUS 878207	234.1	13.3	96	30
CATALYST 7893 3111	233.7	13.0	96	30
BURRUS 836363	233.2	12.6	72	31
BURRUS 276488	232.4	13.0	88	31
BURRUS 502792	231.8	12.5	46	34
BURRUS 5Z44 3122	231.3	13.1	100	29
BURRUS 644188	231.2	13.0	100	30
POWER PLUS 4V45AM™*	230.5	12.4	76	26
POWER PLUS 7H23 S™*	230.4	12.7	96	31
POWER PLUS 6C41 S™*	230.2	13.9	100	27
CATALYST 7893 3111	230.1	12.8	84	30
BURRUS 187233	229.9	15.3	32	33
POWER PLUS 7U15AM-R™*	224.9	12.7	92	30
POWER PLUS 7H23 S™*	223.4	12.5	88	35
BURRUS 346782	223.1	12.9	96	29
BURRUS 154860	222.3	11.8	96	30
POWER PLUS 6L45AMT™*	221.4	12.5	96	31
BURRUS 130796	221.4	13.2	72	32
POWER PLUS 6N83AM™*	221.0	10.5	100	32
BURRUS 6T54 3000GT	221.0	13.1	100	30
POWER PLUS 2N82AM™*	217.7	12.2	72	31
BURRUS 638535	214.5	12.7	88	30
BURRUS 743294	214.4	12.2	88	32
POWER PLUS 6N83AM™*	214.3	12.3	72	28
BURRUS 6T54 3000GT	213.5	12.9	80	26
BURRUS 735025	212.7	13.1	80	28
POWER PLUS 4J93AM™*	211.6	12.5	96	31
BURRUS 642749	211.3	13.5	92	27
BURRUS 993245	207.4	12.5	96	31
POWER PLUS 4J93AM™*	207.3	12.7	64	30
POWER PLUS 4V45AM™*	195.8	12.6	80	31
BURRUS 255137	195.5	12.6	96	30
BURRUS 880174	195.5	12.4	92	31
Average	226.6	12.8	85	30

HOLT

Power Plus®6C41 S™* brand the winner

David Dobson
Lexington, MO

Planted: May 1 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 30. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: VRT, K: VRT. **Herbicide:** Realm-Q. **Insecticide:** None. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal. ✓**Check Hybrid:** Burrus 6T54 3000GT

Brand/Product	Bu. Per Acre	Rank	% Moisture	Adj. Test Wt.	1000 Plants /Acre
✓Check	216.5		19.7	60.9	31
POWER PLUS 4J93AM™*	220.7	8	16.9	61.2	31
POWER PLUS 4V45AM™*	211.1	10	16.0	60.5	32
POWER PLUS 6N83AM™*	229.7	5	17.3	59.3	32
✓Check	209.1		19.4	58.7	32
POWER PLUS 6L45AMT™*	231.4	2	19.1	58.7	32
✓Check	194.2		20.1	58.5	31
POWER PLUS 6F71 R™*	216.5	6	19.1	61.7	32
CATALYST 7577 3010	214.6	7	20.4	59.0	32
POWER PLUS 7H23 S™*	224.7	3	19.1	59.7	32
CATALYST 7893 3111	213.0	9	19.8	56.9	32
POWER PLUS 6C41 S™*	247.0	1	19.4	60.7	32
POWER PLUS 7U15AM-R™*	229.7	4	18.5	61.6	32
✓Check	214.6		19.2	60.7	32
Average	219.5		18.9	59.9	32
Check Average	208.6		19.6	59.7	32

Power Plus® 6C41 S™* brand takes second

Santa Fe Agleaders
Alma, MO

Planted: May 5 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 29. **Previous Crop:** Soybeans. **Corn Borer Rating:** Moderate. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Pioneer P1197AM*	236.0	15.8	58.5
POWER PLUS 6C41 S™*	234.0	16.2	60.5
MorCorn MC4319VT2PRIB	220.8	16.5	59.5
Pioneer P1479AM*	218.5	16.0	59.9
Dekalb DKC66-40	216.8	16.8	59.2
MorCorn MC4377 VT2PDGRI	214.8	16.5	56.9
LG LG5618STX-RIB	213.6	15.4	58.9
Pioneer P1257AMX	212.7	15.5	58.7
POWER PLUS 7H23 S™*	212.2	16.1	59.4
Golden Harvest G14V04-3000GT	210.7	16.5	57.3
Dekalb DKC63-55RIB	210.5	15.3	54.5
Dekalb DKC64-89	204.3	14.8	58.7
Mycogen 2C799	202.9	16.9	57.2
Morcorn MC3966 VT2PRIB	202.9	14.5	57.6
Pro Harvest 8388SSTX-RIB	198.8	15.7	54.5
Mycogen 2C788	196.6	16.6	58.1
POWER PLUS 4J93AM™*	195.6	14.7	59.5
Golden Harvest G10S30	195.5	15.0	57.7
Pro Harvest 8330 StaxRIB	194.6	16.2	60.5
LG LG5548STX	194.4	15.1	57.6
Golden Harvest G16K01-3111	194.1	16.6	56.6
Mycogen 2V709	192.1	15.7	56.6
Stine R9739VT3P	185.7	17.6	55.1
Stine R9740VT3PRO	181.1	15.8	55.7
Average	205.8	15.9	57.9

"We are family first and farmers second and both are important to us! It's nice to finally find a seed company that feels the same way. It is a great pleasure working with Burrus."
Matt Hess, Nodaway County, MO

John & Garrett Cramer saw Burrus excel against several competitors in Livingston Co., MO.

Kendall Link, daughter of Burrus Sales Manager Seth & Laurie Link exhibits her excellent showmanship skills with her pig she purchased from Todd Burrus.

David Dobson of Carroll Co., MO is all smiles after looking at the yield potential of the Burrus family of products.

LINN

Rex Wood
Meadville, MO

Planted: May 4 in 30" rows. **Planting Population:** 29,500. **Harvested:** October 8. **Previous Crop:** Soybeans. **Fertilizer:** N: 120, P: 60, K: 80. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect.	1000 Plants /Acre
POWER PLUS 6C41 S™*	196.2	18.2	100	30
POWER PLUS 7U15AM-R™*	188.0	15.0	100	29
BURRUS 6T54 3000GT	187.6	17.7	100	28
CATALYST 7893 3111	186.7	16.0	100	27
POWER PLUS 4J93AM™*	184.4	16.2	92	30
POWER PLUS 6L45AMT™*	183.2	17.2	100	30
CATALYST 7577 3010	182.9	18.0	100	28
POWER PLUS 6N83AM™*	177.9	14.5	100	27
POWER PLUS 4V45AM™*	171.5	16.1	96	30
POWER PLUS 7H23 S™*	164.1	13.9	84	27
Average	182.2	16.3	97	29

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Optimum® AQUAmax® product performance in water-limited environments is variable and depends on many factors such as the severity and timing of moisture deficiency, heat stress, soil type, management practices and environmental stress as well as disease and pest pressures. All hybrids may exhibit reduced yield under water and heat stress. Individual results may vary.

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Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

Pioneer is a member of Excellence Through Stewardship® (ETS). Pioneer products are commercialized in accordance with ETS Product Launch Stewardship Guidance and in compliance with the Pioneer policies regarding stewardship of those products. Crops and materials containing biotech traits may only be exported to or used, processed, or sold in jurisdictions where all necessary regulatory approvals have been granted for those crops and materials. It is a violation of national and international laws to move materials containing biotech traits across borders into jurisdictions where their import is not permitted. Growers should discuss these issues with their purchaser or grain handler to confirm the purchaser or handler's position on products being purchased. Excellence Through Stewardship® is a registered trademark of the Biotechnology Industry Organization.

Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, including applicable refuge requirements for insect resistance management, for the biotechnology traits expressed in the seed as set forth in the technology agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with the most recent stewardship requirements.

Power Plus® 4J93AM™* stole the show in Boone Co., MO for Becky & John Lorentzen.

Power Plus® 6F71 R™* ranked number one in Carroll Co., MO for Gayle & Kevin Casner.

Scott & Al Jacob saw Catalyst 7893 3111 take honors in Warren Co., MO.

Drones

It's no secret that drones (Unmanned Aerial Vehicles or UAVs) are becoming increasingly popular in America's heartland. As demand for drone data rises, so do the number of companies that can provide it. Despite the FAA's restriction on the use of agricultural drones, the market is attracting more dollars and getting more crowded every day.

If you are looking to fly on the farm, it is important to identify exactly what your goal is before you buy so you can find the platform that best aligns with your needs. After all, these drones require a significant investment of both time and money.

Potential spring uses might include scouting for drowned out areas for potential replant and pre-plant scouting to look for weed patches or field debris. Summer uses could include scouting for down/damaged corn after weather events, scouting for wildlife damage to the crop, observing visual differences in hybrids, fungicide application zones or nutrient management zones, noting visual differences between soil types and herbicide injury or sprayer skips/overlaps and evaluating canopy.

Fall uses might potentially include observing different hybrids/varieties as they approach maturity, pre-harvest scouting for field debris, observing combine chaff spreading patterns, scouting replant areas for maturity, and evaluating stalk lodging. Account Managers Dalton Shepherd and Clayton Cook have drones. They have found them easy to operate and helpful in many ways.

We believe we will see specialized cameras for crop scouting come into the marketplace once commercial UAV's are deregulated by the FAA. Other things to watch for will be aerial tissue sampling, insurance field scouting, and a feature that ties your flight information, videos, and photos to your recorded planting and yield monitor data.

Our Account Managers would recommend considering an extra battery, a car charger if no 110v outlet will be readily available, a second micro SD card for image storage, prop guards or extra propeller sets because these can break or chip easily, a case to house all the equipment, and an iPad or tablet to attach to the controller to operate the drone.

Several photos in this publication were shot using a drone. This technology could provide a major benefit for your operation as the technology surrounding it continues to improve. If you have questions about drones, do not hesitate to contact Clayton or Dalton. Either would be happy to help you.

Clayton Cook shot this photo of his father John and brother Dylan harvesting soybeans in McDonough County,

WARREN

Catalyst 7893 3111 wins at 246 bu/a

CORN ON CORN

Al Jacobs
Marthasville, MO

Planted: April 18 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 16. **Previous Crop:** Corn. **Herbicide:** Corvus, Atrazine, Roundup. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
CATALYST 7893 3111	**246.4**	**18.1**	**57.5**	**30**
POWER PLUS 4J93AM™*	**241.3**	**16.5**	**60.2**	**31**
CATALYST 7577 3010	**237.6**	**19.2**	**58.7**	**32**
POWER PLUS 6C41 S™*	**223.0**	**18.0**	**59.5**	**31**
POWER PLUS 7U15AM-R™*	**222.2**	**17.0**	**61.3**	**31**
POWER PLUS 7H23 S™*	**220.2**	**16.7**	**60.2**	**32**
BURRUS 5Z44 3122	**207.5**	**17.0**	**58.3**	**30**
POWER PLUS 6N83AM™*	**200.2**	**17.4**	**58.3**	**30**
BURRUS 6T54 3000GT	**197.1**	**17.8**	**59.5**	**32**
POWER PLUS 6F74AMX™*	**192.5**	**17.4**	**60.3**	**31**
POWER PLUS 4V45AM™*	**191.0**	**16.2**	**59.5**	**30**
POWER PLUS 2N82AM™*	**173.7**	**16.0**	**60.0**	**30**
Average	212.7	17.3	59.4	31

Power Plus® 4J95AMX™* beat Beck's at 276 bu/a in Clinton Co, IA for Wayne & Stan Harmsen.

LIVINGSTON

Power Plus® 6C40™* brand is first

COMPARE!

John Cramer
Ludlow, MO

Planted: April 22 in 30" rows. **Planting Population:** 30,000. **Harvested:** September 21. **Previous Crop:** Soybeans. **Soil Type:** Clay loam.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 6C40™*	**193.3**	**18.9**
Lewis R1414	191.3	15.2
Dekalb DKC63-11RIB	190.2	15.7
Dekalb DKC62-98RIB	189.5	14.8
POWER PLUS 6C41 S™*	**186.7**	**19.5**
BURRUS 6T54 3000GT	**184.9**	**19.2**
Pioneer P1018EHR	183.0	15.3
Dekalb DKC63-55RIB	182.7	14.2
POWER PLUS 7H20™*	**179.9**	**15.5**
Dekalb DKC63-40RIB	177.6	15.3
Pioneer P0636EHR	174.9	14.0
Lewis RD113VT2P	168.6	14.4
Lewis RWX1614VT3P	165.2	17.5
Lewis RWX1120VT2P	163.6	15.6
Lewis WX1130VT3P	163.3	17.1
Lewis RWX1611VT2P	162.6	16.1
Average	178.6	16.1

MACON

Power Plus® 4J93AM™* brand tops plot

Lee Bixenman Farms
Callao, MO

Planted: May 1 in 30" rows. **Planting Population:** 29,900. **Harvested:** September 21. **Previous Crop:** Soybeans. **Fertilizer:** N: 185, P: 100, K: 150. **Herbicide:** Atrazine, Medal II. **Insecticide:** Paradigm. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4J93AM™*	**195.3**	**16.5**	**88**	**58.2**	**29**
POWER PLUS 6N83AM™*	**177.0**	**17.8**	**100**	**59.5**	**29**
POWER PLUS 7H23 S™*	**173.2**	**15.9**	**96**	**57.0**	**28**
BURRUS 6T54 3000GT	**172.7**	**20.2**	**88**	**57.0**	**30**
POWER PLUS 4V45AM™*	**171.7**	**17.1**	**100**	**59.3**	**29**
POWER PLUS 6F74AMX™*	**167.5**	**18.3**	**100**	**59.5**	**31**
CATALYST 7893 3111	**162.0**	**21.1**	**100**	**56.3**	**29**
POWER PLUS 7U15AM-R™*	**157.8**	**18.5**	**100**	**58.6**	**31**
POWER PLUS 6C41 S™*	**155.2**	**21.3**	**100**	**59.3**	**29**
CATALYST 7577 3010	**154.6**	**21.6**	**88**	**56.4**	**30**
Average	168.7	18.8	96	58.1	30

ST. LOUIS

Jim Hoene
Eureka, MO

Planted: May 7 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 24. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 50, K: 60. **Herbicide:** Roundup, Parallel, Atrazine, Impact. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.
POWER PLUS 6C41 S™*	**230.1**	**17.1**	**100**	**60.3**
POWER PLUS 7U15AM-R™*	**213.7**	**13.9**	**100**	**59.0**
POWER PLUS 4J93AM™*	**201.6**	**14.5**	**100**	**59.0**
POWER PLUS 6N83AM™*	**201.0**	**14.6**	**100**	**58.0**
POWER PLUS 6F74AMX™*	**199.8**	**15.6**	**100**	**60.0**
POWER PLUS 7H23 S™*	**197.5**	**14.4**	**100**	**58.0**
BURRUS 6T54 3000GT	**193.8**	**16.0**	**100**	**58.0**
CATALYST 7577 3010	**193.0**	**16.6**	**100**	**59.2**
POWER PLUS 4V45AM™*	**191.4**	**15.1**	**100**	**58.0**
CATALYST 7893 3111	**187.4**	**15.3**	**100**	**56.0**
BURRUS 5Z44 3122	**180.4**	**15.5**	**100**	**57.0**
POWER PLUS 2N82AM™*	**166.7**	**13.5**	**100**	**57.5**
Average	196.4	15.2	100	58.3

CLINTON

Power Plus® 4J95AMX™* brand first at 276 bu/a

COMPARE!

Harmsen Farms Inc.
Clinton, IA

CORN ON CORN

Planted: April 29 in 30" rows. **Harvested:** October 2. **Previous Crop:** Corn.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J95AMX™*	**276.0**	**21.5**
Beck's XL 5828AMX	274.5	22.2
POWER PLUS 6P75AMX™*	**272.6**	**26.5**
POWER PLUS 4J90™*	**271.2**	**21.8**
POWER PLUS 3H85AMX™*	**269.9**	**22.3**
POWER PLUS 5C17AMXT™*	**269.7**	**22.9**
POWER PLUS 5N48™*	**266.4**	**20.7**
BURRUS 5Z44 3122	**261.2**	**27.8**
BURRUS 6Q60	**255.9**	**26.6**
POWER PLUS 2F91AMXT™*	**252.9**	**18.8**
POWER PLUS 2R67™*	**242.0**	**21.2**
POWER PLUS 2V56AMX™*	**233.1**	**20.0**
Average	262.1	22.7

Guide to accurate seed corn planting

John Deere Finger Pickup	
Kinze Finger Pickup *1	Reduce speed 10% 35-39#, Reduce speed by 33% below 35#
John Deere Vacuum Pickup	A50617 40-88#, A43215 25-50#, H136478 25-35#
Case IH & IHC Early Riser	Corn Drum 30-80#, Popcorn Drum less than 35#, New E pocket drum for problem sizes
Case IHC 1200	4855 Disc for 30-70#, 4845 disc below 50#
New Holland SP Series	
Ford or White Air 5400	247396B 57-73#, 247454B 42-62# 247535B 28-50#
White Air 5100	247917B 57-73#, 247707B 42-62#, 248505B 28-50#, 247957B 22-33#
White Air 6000	852434 57-73#, 852435 42-62#, 852436 25-50#, 852437 22-33#
New Idea 9000	
Deutz Allis	Seed Disc X Large (585805) 59# & over, Large (586141) 45-60#, Medium (585807) 39-52#, Sm/Medium (1501872) 30-39#, Small (587485) 30# & less

For the PowerShield® Round sizes (PSR) or the Burrus Xtra Round (BXR).
Use the chart above for setting your planter.

Brandon, Kelby, Kinley, Sally & David Palmer represent Burrus in Andrew Co., MO.

FOR PLATELESS PLANTERS

Seed Size / Weight per 80,000 kernel unit		SureDrop 2 Under 30#	SureDrop 3 30-39#	SureDrop 4 40-49#	SureDrop 5 50-59#	SureDrop 6 60# and over	SureDrop 7 70# and over
Burrus Xtra seed treatment (Poncho® 500)**		BX2	BX3	BX4	BX5	BX6	BX7
Burrus Xtra seed treatment (Poncho® 500)**		PS2	PS3	PS4	PS5	PS6	PS7
High rate Poncho (Poncho 1250)**		HP2	HP3	HP4	HP5	HP6	HP7
John Deere/Kinze Finger Pickup *1*7	Max. Speed *2	66% *3	66-90% *3 *5	100%	100%	100%	100%
John Deere Vacuum Pickup *6	Disc Size	A43215	A43215	A43215 | A50617	A50617	A50617	A50617
	Vacuum Inches	7-13	7-12	10-13 | 7-10	9-13	10-13	13-15
Kinze Edge Vac *7	Disc Size	Regular Corn	Regular Corn	Regular Corn	Regular Corn	Regular Corn	Regular Corn
	Vacuum Inches *8	not recommended	20	20	20	20	20
	Singulator *8	not recommended	8	8	8	8	5
Case IH	Drum	Popcorn or Corn *5	Popcorn Corn *5	Corn	Corn	Corn	Corn
and IHC Early Riser	Hopper Pres. *4	8-9 oz.	10 oz. 8-9 oz.	9-10 oz.	10-12 oz.	12 oz. max	12 oz. max
	Brush Setting	1/2 down	Wire down up	Lt. Contact	Down	Remove	Remove
Case IHC 1200 *7	Disc Size	4845 4855	4845 4855	4855	4855	4855	4855
New Holland SP Series	Vacuum	20 18	22 18	20	20	20	20
	Singulator	1.5 1.75	1.75 1.75	1.75	1.75	1.75	1.75
White Air 6000	Disc Size	852436	852436	852436	852435	852434	852434
New Idea 9000			or 852437	or 852437	or 852435		

*1. Also for Black Machine, Great Plains, Buffalo Finger Pickup, JD1535 drill.
*2. For maximum planter speed, multiply the percentage shown times recommended speed range in operator's manual.
*3. Worn ripples on the carrier plate can increase overdrop drastically.
*4. For IHC Cyclo Air models, deduct 1 ounce of air pressure.
*5. Recommendation does not fit every weight in this SureDrop size. Consult recommended weight range above or on your operator's manual.
*6. Consult operator's manual for talc recommendation. Double recommendation for Poncho treated seed.
*7. Consult operator's manual for graphite recommendation.
*8. Check field performance for specific settings
For other plate planter recommendations, call our office toll free at (877) 4 BURRUS.
PS6's and PS7's will be packaged in 40,000 kernel bags, sold as 80,000 units so two bags equal one unit when they weigh above 65 lbs/80M
**Always use talc or graphite liberally for lubricant to avoid bridging in the planter box.

SeedWare
Growing Your Business

At Burrus we are always looking to improve and so a prime example of that is our software called SeedWare℠. You might have noticed your Burrus/Hughes seed invoice had a new look. You might also have noticed our new plot results map at www.burrusseed.com, as well as a customizable product selection tool for corn and soybeans. All of these improvements are the result of implementing SeedWare.

As before, Burrus/Hughes Account Managers and dealers can access customer information such as orders and statements online at any time. Now orders can be edited even during off-hours.

SeedWare works on traditional computers as well as a wide variety of mobile devices, such as tablets and smart phones. Information is updated instantaneously between the office, the online system, and even the production staff. We continue our long-standing practice of only accepting orders for product/treatment/seed size combinations we expect to be able to fill. Seed availability estimates are now up to the minute with SeedWare.

The search that ultimately led us to SeedWare involved analysis of existing bottlenecks and a thorough investigation of all viable alternatives. SeedWare was the most progressive and user-friendly option we could find. The primary developers have seed experience and understand the intricacies of the industry.

The move to SeedWare demonstrates the Burrus/Hughes continued commitment to bring more accurate information faster, and easier to our customers.

WASHINGTON

Darrel Steele
Washington, IA

Planted: May 24 in 30" rows. **Planting Population:** 35,000. **Harvested:** October 6. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 60, K: 80. **Herbicide:** Harness Xtra, Impact. **Insecticide:** None. **Corn Borer Rating:** Moderate. **Soil Type:** Medium loam. **Weather:** May–wet, June–normal, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	1000 Plants /Acre
BURRUS 874551	261.6	21.7	100	35
POWER PLUS 4J95AMX™*	254.4	21.1	92	33
BURRUS 642749	252.5	19.3	68	31
BURRUS 771570	252.3	21.7	100	35
BURRUS 6T54 3000GT	250.8	21.7	96	33
BURRUS 276488	249.7	18.6	96	32
BURRUS 5Z44 3122	246.3	23.5	100	30
BURRUS 130796	246.2	25.3	96	33
BURRUS 5Z41 GT	245.9	21.5	96	30
POWER PLUS 6F74AMX™*	243.2	19.7	96	31
POWER PLUS 7H23 S™*	241.9	17.7	12	32
POWER PLUS 6P75AMX™*	239.9	22.7	100	34
BURRUS 6T54 3000GT	238.7	23.9	96	32
BURRUS 543117	237.3	18.6	100	36
BURRUS 941589	236.9	18.8	84	32
CATALYST 7577 3010	236.6	21.9	96	31
BURRUS 5Z41 GT	236.4	22.0	100	29
BURRUS 995336	236.0	21.8	96	34
POWER PLUS 4J95AMX™*	235.4	20.3	100	32
POWER PLUS 7A18 Q™*	235.0	19.9	100	29
BURRUS 499913	234.9	24.1	96	33
BURRUS 945935	234.5	19.5	100	31
BURRUS 558772	233.1	19.3	100	34
BURRUS 967547	233.1	20.0	92	31
BURRUS 5Z44 3122	230.2	25.9	100	26
BURRUS 998341	230.0	23.6	100	31
BURRUS 836363	229.2	19.0	92	33
BURRUS 250709	227.8	19.6	72	33
BURRUS 993245	226.5	20.0	80	29
BURRUS 407276	223.0	19.0	88	36
BURRUS 750364	222.8	18.8	96	32
BURRUS 768449	222.8	19.0	96	34
BURRUS 502792	219.8	20.7	92	30
BURRUS 785787	219.4	21.5	88	34
BURRUS 5Z44 3122	218.6	26.9	100	29
BURRUS 900208	217.7	18.0	96	30
BURRUS 6T54 3000GT	213.0	22.1	100	31
BURRUS 587204	204.0	17.4	96	33
BURRUS 631644	203.7	22.3	100	33
BURRUS 638535	197.9	23.3	100	29
POWER PLUS 6L45AMT™*	195.2	18.2	96	33
Average	232.1	21.0	93	32

Variable Rate Planting – some thoughts from those who are utilizing the technology

By Stephanie Porter and Matt Montgomery

Burrus is serious about getting population right. For decades, we have conducted population studies and we know that getting the population right allows a hybrid to do bigger and better things. Most hybrids perform best within a specific population range and that population varies based upon soil type. We also know a great hybrid can suffer yield loss when that seeding rate is ignored.

Our seeding rate chart is the product of our population studies and the importance of right seeding rate continues to show itself in our data. It should therefore not be a surprise when we say that we believe variable rate planting has lots of potential. Our research tells us variable rate planting (shifting the seeding rate around based upon soil type) can push productivity further.

What do growers say though? What does their variable rate story look like? Do they have any pointers that can help you as you contemplate this practice? We recently asked five variable rate growers to share their thoughts.

A little background on our grower sample

The growers surveyed for this article have been using variable rate planting for about 3 growing seasons. One of our interviewees had experimented with variable rate planting for about a half decade while another was in his second year.

The majority first tapped into variable rate as they were purchasing or testing a new planter. While most had an eye on profitability and variability in their soils and while at least one learned about the concept from their Burrus Account Manager, the majority put their toe in the water when a new equipment purchase allowed them to do so.

How they tested this system

None of our surveyed growers jumped completely into variable rate on year one. Every single grower conducted some kind of experiment or established some kind of comparison. For many, testing consisted of reference strips (fixed population strips within the field to which variable rate was compared). These growers established at least two reference strips for the purpose of comparison. At least one individual compared past yield history to variable rate yield history, using that as their signal that variable rate had merit.

The mechanics of variable rate and the results of variable rate

Every surveyed grower began their variable rate journey by using soil type to vary population. The majority of those interviewed continued to use USDA soil productivity maps to provide variable rate guidance. Only one grower had taken the next variable rate step, overlaying yield maps with soil maps and using that interaction to guide seeding rate. Most claimed to vary population by about 6000 plants per acre as they moved from the most to the least productive ground. Some kept the population swing at about 2000 plants per acre and a couple pushed that swing to about 9000 plants per acre. Not everyone had fully examined the yield benefits of variable rate (the results of this work). However, for those that had, the perceived yield benefit was about 7- 9 bushels per acre. That was pretty impressive for almost every grower we visited with. In other words, the results were much better than they had expected.

Would they try it again and would they recommend it to others?

We asked growers if they would try it out again. To the person, surveyed growers answered yes. Not one grower expressed qualms about continuing to use the system. All said that if they could go back in time and try it out again, they would. As far as recommending that others explore the practice once again, all answered yes. However, most also expressed this qualifying statement, "I would recommend it for those with varied soils. I'm not sure I would on flat, black, consistent soils."

Some testimony – a specific story

This past spring, Clayton Cook, Burrus Account Manager who covers northwestern Illinois and southeast Iowa, helped a grower explore the potential of variable rate using MyFarms℠. MyFarms was used to both develop a planting plan and to develop population prescriptions. Clayton and the grower held a conference call with our Burrus Precision Farming consultant. In 2014, the grower had experimented with variable rate planting. A Power Plus® hybrid had been selected for the test and the consultation examined the results of that study.

Two check strips (16 rows wide and 2000 feet long) were used. One test strip was planted at a constant population of 32,000 while the second was planted at a constant population of 36,000. Variable rate strips were planted and harvested on either side. The yield results were:

Pass 1 Variable Rate avg. yield	211 bu/a
Check 1 36,000 fixed pop. avg. yield	202 bu/a
Check 2 32,000 fixed pop. avg. yield	208 bu/a
Pass 4 Variable Rare avg. yield	216 bu/a

Two points were especially interesting in this example. First, while the soil maps claimed the two soils were virtually identical from a soil productivity rating standpoint, the grower knew that one soil tended to do better than the other historically. Using MyFarms℠, the grower manually adjusted his corn plant populations to account for this observation. In other words, the grower was able to incorporate his own experience into the prescription. Secondly, these yield benefits were yield benefits observed in 2014. This is remarkable given how productive last year was and would seem to imply that yield should benefit further in a less than ideal year.

Some pointers and thoughts from those who are using variable rate technology

Here are some very important comments from Burrus customers about variable rate planting. You might call these variable rate pointers and/or testimonials from those with real variable rate experience.

Adam Casner, Carrollton, Missouri

"I would encourage growers to try out variable rate. Remember, though information is critical to making this work. If it is garbage in, it will be garbage out. Creating the maps in MyFarms is pretty easy. Once those maps are in the monitor, it is just drive and go."

Pete Gill, Princeville, Illinois

"We have spent a lot of time and money (as an industry) on making pretty maps. We need to figure out a way to take the information we have been building and put it to good use. We need to find the margin in there. Variable rate can help us do that. Make sure you allocate time to do this though. Do your research ahead of time, conduct a pre-test. Go in realizing you will need as much time setting up variable rate as you take selecting seed."

Brian Burrus, Arenzville, Illinois

"If you do variable rate, give it time. Don't set your expectations too high and remember that each year is very different. If variable rate doesn't work for you, it might just be the year. It might not be variable rate that is the problem. This is a learning process. Also, make sure you stick with your plan. If you switch out your plan in the middle of the battle and just grab a hybrid, you will probably get the population wrong and will get bad results."

Brian Six, Chapin, Illinois

"This helps you get more out of each acre, by pulling the population back on tough ground and pushing it higher on better ground. Be patient. If you do variable rate and you hit an electronics glitch, don't just throw up your hands, forget variable rate, and start planting. Take 15 minutes to figure out what is wrong and make the system work for you."

Scott Olson, Joy, Illinois

"Variable rate showed a positive result last year (2014). With as good a growing season as we had last year, it should be a really good tool to have in a not so good growing season. It has been helpful to have an Account Manager with the knowledge that mine has about hybrids when it comes to making the maps for this. You must know the hybrids you will be using if you do variable rate."

DANE

Power Plus® top 6 of 8 places

COMPARE!

Tom Sutter
Blue Mounds, WI

Planted: May 25 in 30" rows. **Planting Population:** 35,000. **Harvested:** October 20. **Previous Crop:** Soybeans. **Herbicide:** Sure Start, Confidence (Surpass), Roundup. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–normal, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J95AMX™*	**265.9**	**23.6**
POWER PLUS 5C17AMXT™*	**258.0**	**24.0**
POWER PLUS 3H85AMX™*	**253.2**	**21.5**
NK Brand N60F-3111	250.9	23.0
Mycogen X1352052	249.6	22.6
POWER PLUS 2F91AMXT™*	**244.3**	**21.3**
POWER PLUS 1S26AMXT™*	**243.2**	**19.3**
POWER PLUS 2V56AMX™*	**239.8**	**22.0**
Dekalb DKC53-68	235.7	20.7
Mycogen X1352611	233.6	21.0
Dekalb DKC57-75RIB	230.2	21.7
POWER PLUS 4Y27AMX™*	**229.6**	**21.0**
NK Brand N49W-3000GT	223.1	20.0
POWER PLUS 1K08AMXT™*	**220.4**	**20.0**
Average	241.2	21.6

"Dale and I have been with Hughes/Burrus since 1976.
We've always been pleased with the seed quality and consistent yields."
Dave Olson, Dane County, WI

GRANT

Power Plus® 2F91AMXT™* brand wins at 245 bu/a

COMPARE! **Josh Schwantes**
Lancaster, WI
CORN ON CORN

Planted: April 30 in 30" rows. **Harvested:** October 6. **Previous Crop:** Corn. **Herbicide:** Sure Start. **Soil Type:** Loam.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 2F91AMXT™*	**245.3**	**24.0**
Dekalb DKC53-56RIB	243.6	22.0
Croplan 5146SS	243.4	23.0
Mycogen 2A627	243.3	29.0
Channel 199-29STX	234.5	19.0
Wyffels W4968	234.0	24.0
Agventure RL6786	233.0	23.0
POWER PLUS 4J95AMX™*	**231.4**	**32.0**
Pioneer P0496AMX	228.8	23.0
Golden Harvest G02W74-3000GT	228.3	21.0
Tracy Seeds T102-14	228.0	22.0
Kussmaul SS-1008	224.9	25.0
Agventure RL7497	224.6	25.0
Kussmaul SS-1002RIB	224.5	22.0
Golden Harvest G07V88	224.0	28.0
Dairyland Seed DS-9409RA	223.2	29.0
Channel 202-52	222.0	21.0
Dekalb DKC60-67RIB	221.4	27.0
Wyffels W3358RIB	219.7	22.0
Renk RK699SSTX	218.4	25.0
Renk RK712	212.6	23.0
Tracy Seeds T104-14	211.9	25.0
Renk RK791RR	206.8	29.0
Pioneer P1197AM*	202.7	39.0
Dairyland Seed DS-9307RA	199.3	27.0
Average	225.2	25.2

GREENE

CORN ON CORN **Mike Wenger**
Brodhead, WI

Planted: May 7 in 30" rows. **Harvested:** October 20. **Previous Crop:** Corn.

Brand/Product	Bu. Per Acre	% Moisture
LG Seeds LG5548STX	216.5	21.7
Federal 6050	209.0	25.9
LG Seeds LG5618STX-RIB	200.1	24.7
Renk RK754	197.4	17.9
LG Seeds LG5499	196.1	17.2
Nutech 5X806	195.3	19.1
LG Seeds LG5565	193.3	19.9
POWER PLUS 5C17AMXT™*	**190.7**	**21.2**
Nutech 5Y504	189.1	20.5
Nutech 5X905	188.8	22.6
Federal 5640	185.9	21.0
Nutech 5N-914	185.8	23.8
POWER PLUS 4J95AMX™*	**183.2**	**23.3**
Nutech 5Z-906	182.9	27.6
Pfister 2545	182.8	22.2
Pfister 1780	180.1	19.4
LG Seeds LG5523	178.7	17.2
POWER PLUS 3H85AMX™*	**177.4**	**22.3**
Nutech 5R502	175.8	22.2
Federal 5940	170.8	23.0
Latham 5834	170.5	25.3
Pioneer P0993	170.0	22.1
Pfister 1821SS	169.1	17.1
POWER PLUS 2V56AMX™*	**166.7**	**24.3**
Nutech 5L200	166.2	18.8
Federal 5440 SSTAX RIB	159.7	19.8
Pfister 2313	152.9	21.0
Pfister X13663	151.9	22.9
Latham LH 5495 3122 EZ	147.9	21.1
Nutech 3A-306	82.3	22.2
Average	177.2	21.6

Agronomy U for updates and news

Tune in to Agronomy U for all the latest topics from Burrus/Hughes. And the best news is there is no reading necessary. Just sit back and listen to Dr. Matt Montgomery on YouTube explain what is happening in your world. Go to www.burrusseed.com and click on the Agronomy U icon. It is updated on a regular basis. Be sure to register, so when the updates are posted, you won't miss information that could make your farming operation more profitable.

BURRUS® AGRONOMY U

Fuller season products prevail in Ogle Co. for Ed Bettner.


Against 5 competitors, Power Plus® took 2nd & 4th in Iowa Co., WI for Tom Novak.

Save big $$$ on your seed

Wise seed selection choices might be the difference between profit and loss for the next couple of years. Buying seed based on value rather than price is the first step in the process towards success. Realize that higher value seed might actually save money on other expenses like chemicals or application fees to protect against insect damage. Those same products might also improve yields by protecting the crop from losses due to insect damage. Using seed traits to protect against yield loss can be a great investment.

Obviously, more yield is the key to buying seed with greater value. Once the proper product is selected, consideration should be given to lowering the seed cost. There are 4 ways to earn significant seed cost savings.

1. Cash discounts can reduce seed costs by as much as $35/unit. Requesting a monthly statement acts as a reminder to take full advantage of discounts and savings. Also, when you return from your tax advisor, having a statement in hand to pre-pay a seed bill minimizes your tax load.
2. Sign all technology-use agreements promptly. This easy step can reduce seed costs by $10/unit for corn and $4/unit for soybeans. Sign your agreements when you place your order.
3. Seed size choices can also reduce seed costs up to $20/unit. The smaller BX3s and the larger BX6s and BX7s are the best choices. Ask about availability.
4. Utilize programs to reduce seed costs. Special discounts can be earned by being 100% loyal to Burrus, by increasing your Burrus order, and by doing more volume of business with Burrus.

The savings captured from each of these sources can easily be identified on your statement. Buy Burrus and save big dollars.


Chris & Alan Ottens of Whiteside Co. are proud dealers for Burrus representing Burrus, Hughes, Power Plus® & Catalyst®.

IOWA

Power Plus® beats Pfister

COMPARE! **Bruce Novak**
Highland, WI
CORN ON CORN

Planted: May 5 in 30" rows. **Planting Population:** 32,500. **Harvested:** October 19. **Previous Crop:** Corn. **Soil Type:** Medium loam. **Weather:** May–normal, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J95AMX™*	**203.5**	**17.9**
POWER PLUS 2V56AMX™*	**179.8**	**16.8**
POWER PLUS X1K08™*	**173.8**	**17.3**
POWER PLUS 1S26AMXT™*	**169.8**	**16.6**
Pfister 2447	158.7	16.3
Pfister X13572	158.4	16.2
Pfister 1740SS	154.4	15.8
Pfister X13617	152.9	17.9
Pfister 1785	145.1	16.0
Average	166.3	16.8

Power Plus® second & fourth!

COMPARE! **Tom Novak**
Highland, WI

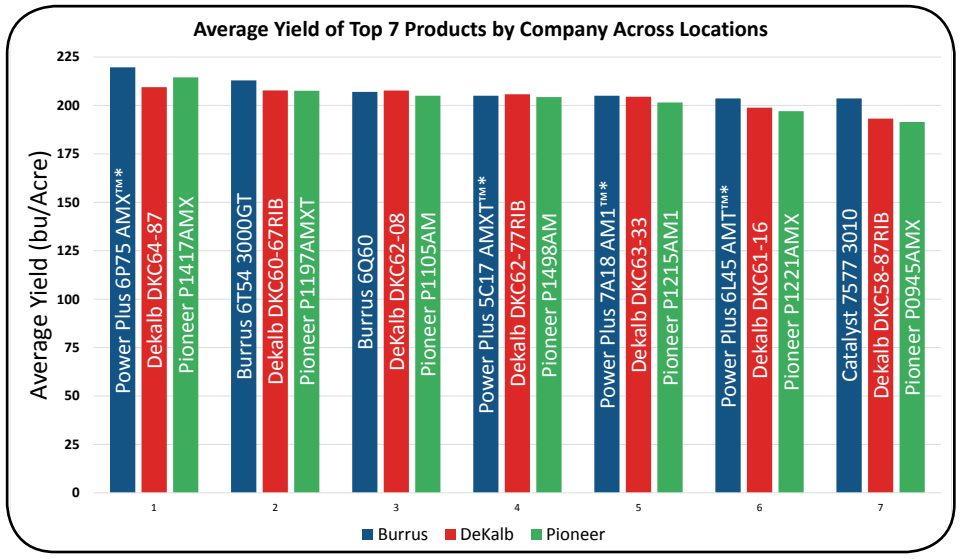
Planted: May 1 in 30" rows. **Planting Population:** 28,100. **Harvested:** October 6. **Previous Crop:** Soybeans. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–dry.

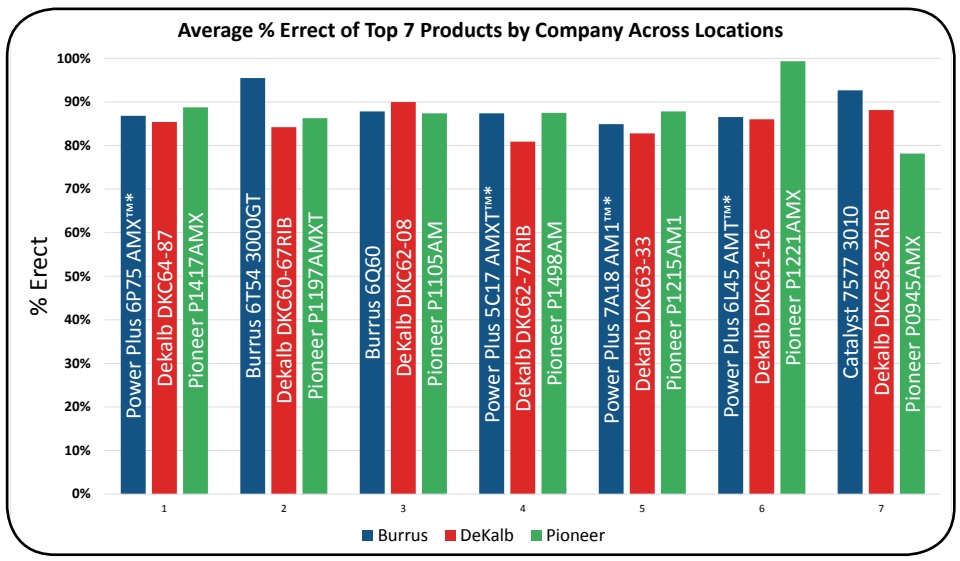
Brand-Variety	Bu. Per Acre	% Moisture	Adj. Test Wt.
Masters MCT 5661 GT	216.6	22.7	56.7
POWER PLUS 4J95AMX™*	**215.7**	**27.3**	**57.6**
Federal 5550 SSTAX RIB	210.2	22.6	59.3
POWER PLUS 1S26AMXT™*	**202.5**	**24.2**	**57.8**
Pfister 2447	202.0	24.9	58.0
Channel 202-64STXRIB	189.9	20.8	60.0
Pfister X13512	189.8	25.1	56.9
Latham LH 5495 3122 EZ	188.4	23.8	58.1
Latham LH 4955 VT2 PRO	187.6	20.6	59.4
Pfister 1740SS	184.6	21.3	58.5
Federal 5140RIB	178.1	21.0	56.4
Pfister 1821SS	177.9	20.0	58.6
Latham LH-5534-3000GT	170.4	24.3	57.4
Average	193.4	23	58.1

Burrus/Hughes hybrids stack up!

Seven hybrids deep! We summarized 14 locations of data comparing the Burrus number one hybrid to the number one from both Pioneer and Dekalb, then summarized the second best compared to the second best of our two largest competitors. We like how we stack up in yield and standability – seven hybrids deep!

Why is Burrus better? We have more meticulous production techniques that mean higher quality seed. We test on all soils so our "laddered approach" to testing is paying off. Our multi-brand strategy brings Burrus more genetic access as well as more diverse trait packages. Last and certainly not least, our PowerShield® seed treatment is better. Poncho® 500 VOTiVO® adds 5.4 bu/a compared to their standard treatment. Add it all up … and Burrus is a winner! Put these products to work on your farm and reap the benefits of higher yield, better standability, and 100% Free Replant.





LAFAYETTE

Power Plus® 4J95AMX™* brand number one!

Gill Farms
Gratiot, WI

Planted: May 1 in 30" rows. **Harvested:** October 21. **Previous Crop:** Corn.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4J95AMX™*	**251.5**	**19.8**
Pioneer P1257AMX	250.3	21.1
Nutech 5K308	248.4	19.3
Wyffels W7108RIB	247.8	19.5
POWER PLUS 5C17AMXT™*	**247.6**	**20.3**
LG Seeds LG5488	245.1	18.8
Dekalb DKC61-54RIB	244.9	19.2
Dekalb DKC63-60RIB	244.8	20.5
Channel 209-51VT2PRIB	244.7	18.5
Nutech 5H806	242.3	18.0
Dekalb DKC63-71RIB	241.3	21.6
Dekalb DKC62-77RIB	237.8	20.6
FS 63SX1 RIB	234.6	22.5
Wyffels W5448	234.4	18.2
Pioneer P0496AMX	232.1	17.6
InVision FS 61SX1 RIB	232.0	19.2
POWER PLUS 3H85AMX™*	**230.0**	**19.7**
Dekalb DKC54-38RIB	228.8	16.7
Wyffels W4968	228.7	17.6
InVision E6502X1	228.5	20.1
Pioneer P0969AMXT	226.7	18.7
Pioneer P0636AMX	225.1	18.5
Dekalb DKC58-06RIB	224.1	17.7
Pioneer P0157AMX	222.8	17.6
Wyffels W3358RIB	222.5	17.3
LG Seeds LG5499	222.3	18.0
Dekalb DKC55-20RIB	222.1	16.2
Dekalb DKC63-33RIB	222.0	18.4
Dekalb DKC53-56RIB	221.2	16.5
POWER PLUS 2F91AMXT™*	**220.7**	**18.3**
POWER PLUS 1K08AMXT™*	**220.6**	**17.9**
Dekalb DKC62-08RIB	215.8	20.8
POWER PLUS 1S26AMXT™*	**214.2**	**17.4**
Channel 202-52	210.1	16.8
FS 56VX1 RIB	210.0	17.5
Dekalb DKC60-67RIB	209.4	17.8
InVision 58QX1 RIB	208.7	18.1
Dekalb 53-68	206.8	17.0
Dekalb DKC57-75RIB	204.2	17.1
Average	228.8	18.6

Power Plus® 4J95AMX™* brand at 253 bu/a!

Ron Woodworth
Shullsburg, WI

Planted: April 17 in 30" rows. **Planting Population:** 35,000. **Harvested:** October 7. **Previous Crop:** Soybeans. **Fertilizer:** N: 188, P: 29, K: 39. **Soil Type:** Medium loam. **Weather:** May–normal, June–wet, July–normal, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 4J95AMX™*	**253.0**	**23.4**	**54.0**
POWER PLUS 5C17AMXT™*	**241.2**	**21.7**	**55.0**
POWER PLUS X3H85™*	**238.4**	**21.3**	**56.0**
POWER PLUS 2F91AMXT™*	**224.4**	**19.5**	**56.0**
POWER PLUS 2V56AMX™*	**221.4**	**19.7**	**56.0**
POWER PLUS X1K08™*	**215.5**	**15.9**	**55.0**
HUGHES 2428 GTA	**213.7**	**15.8**	**56.0**
POWER PLUS 1S26AMXT™*	**208.8**	**16.0**	**54.0**
Average	227.0	19.2	55.2

RACINE

Rowntree Farms Inc.
Kansasville, WI

Previous Crop: Soybeans. **✓Check Hybrid:** Pioneer P0636AMX

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	249.2		20.2
Curry 920-79 TM AMXT	228.6	17	16.7
POWER PLUS 1S26AMXT™*	**222.4**	**19**	**16.4**
Golden Harvest G01P52-3011A	227.5	18	16.7
Pioneer P0157AMX	244.1	4	17.8
Curry 824-37AMX	238.6	6	18.0
Channel 205-19STX	232.8	11	17.6
Dyna-Gro D46SS62RIB	226.3	14	19.6
✓Check	240.7		20.1
Golden Harvest G07B39-3111A	225.1	15	21.6
Agrigold A6416	237.3	7	19.7
Pioneer P0825AMXT	239.4	5	21.0
Dyna-Gro D48SS76RIB	245.1	3	19.8
Channel 209-53 STX RIB	250.5	2	22.6
Agrigold A6462	256.1	1	20.8
POWER PLUS 5C17AMXT™*	**234.9**	**10**	**20.0**
✓Check	244.8		19.9
POWER PLUS 2F91AMXT™*	**226.9**	**16**	**19.0**
Pioneer P0339AMXT	232.2	13	17.1
Dyna-Gro D43VC50	212.6	20	16.6
Channel 206-78	238.5	9	19.6
Golden Harvest G06N80-3111	200.1	21	18.5
POWER PLUS X3H85™*	**232.7**	**12**	**19.2**
Curry 830-39AMX	238.9	8	20.9
Average	234.4	—	19.1
Check Average	244.9		20.1

WALWORTH

Power Plus® 2F91AMXT™* brand & Power Plus® 3H85AMX™* brand go 1 & 2

Robert Condon
East Troy, WI

Planted: May 4 in 30" rows. **Planting Population:** 31,000. **Harvested:** October 23. **Previous Crop:** Soybeans. **Herbicide:** Roundup, Capreno, Trizmet II. **Insecticide:** Force. **Soil Type:** Medium loam.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 2F91AMXT™*	**222.6**	**21.8**	**56.5**
POWER PLUS 3H85AMX™*	**219.1**	**25.7**	**55.5**
Miller Hybrids RX03-53	215.4	23.8	57.5
HUGHES 2987 3011A	**208.2**	**19.7**	**56.0**
POWER PLUS 2V56AMX™*	**200.9**	**27.1**	**56.5**
Dairyland Seeds DS-9707SSX	199.6	24.5	54.3
POWER PLUS 1S26AMXT™*	**198.8**	**20.2**	**56.5**
HUGHES 3953 3000GT	**198.2**	**21.4**	**54.5**
Dairyland Seeds DS-9604SSX	197.0	23.1	53.5
HUGHES 2987 3011A	**194.6**	**19.6**	**54.5**
POWER PLUS 1K08AMXT™*	**85.2**	**22.5**	**53.5**
Average	203.6	22.7	55.3

Ben Leedle
Lake Geneva, WI

Planted: April 29 in 30" rows. **Planting Population:** 31,000. **Harvested:** October 10. **Previous Crop:** Corn. **Soil Type:** Medium loam.

Brand/Product	Bu. Per Acre	% Moisture
Dekalb DKC61-54RIB	248.3	32.4
Dekalb DKC58-06RIB	245.1	31.8
Dekalb DKC54-38RIB	242.4	27.5
Dyna-Gro Seed D46SS62RIB	237.3	32.1
Dekalb DKC57-75RIB	235.5	30.9
LG Seeds LG5523	234.9	28.8
POWER PLUS 1S26AMXT™*	**234.5**	**25.7**
LG Seeds LG5499	233.4	28.9
LG Seeds LG5507	232.5	29.9
Dekalb DKC53-56RIB	229.7	28.4
POWER PLUS 2F91AMXT™*	**229.7**	**27.6**
Golden Harvest G01P52-3011A	229.4	27.0
Dekalb DKC52-84RIB	225.5	25.2
Dekalb DKC49-72RIB	224.0	25.5
Dekalb DKC52-61	221.6	22.8
Golden Harvest G07B39-3111A	218.9	33.7
Dyna-Gro Seed D40SS48RIB	217.8	25.7
Golden Harvest G07F23-3111	214.3	34.3
Golden Harvest G12J11-3011A	213.7	36.2
Golden Harvest G06N80-3111	213.0	34.0
Golden Harvest G10T63-3000GT	209.5	33.7
Golden Harvest G02W74-3000GT	202.0	31.7
Average	227.0	29.7

Sherry & Ron Woodworth saw three Power Plus® hybrids above 238 bu/a in Lafayette Co., WI.

WISCONSIN/INDIANA

“Burrus corn will make ears the size of a 24 oz. Mountain Dew bottle.”
Gary Ferree, Sullivan County, IN

Congratulations to Jeff & Kelsey Gibson of Buchanan Co., MO.


Triston, Belinda, Grayson, Jerrica & Matt Hess are all smiles as they harvest their Burrus test plot in Nodaway Co., MO.

Jeff Merema saw Power Plus® 6P75AMX™* win at 273.5 bu/a in Whiteside Co.

RECOMMENDED PLANTING RATES FOR HYBRID SEED CORN

Soil Type	A	B				C
High organic soils	34-40,000	31-37,000				28-34,000
Timber soils	31-37,000	27-33,000				26-32,000
Clay & varied soils	31-37,000	27-33,000				26-32,000
Sand (dryland)	26-32,000	23-29,000				21-27,000
Sand (irrigated)	34-40,000	31-37,000				28-34,000
Brand Products	1K08AMXT™*	1286 3000GT	4J90™*	6L45AMT™*	6N83AM™*	4685 3111
	2428 GTA	1S26AMXT™*	4J93AM™*	6T51 GT	7H20 ™*	5009 3220
	2V56AM™*	2R67™*	4J95AMX™*	6T54 3000GT	7H23 S™*	5Z44 3122
	2N82AM™*	2R63 R™*	4J99 R™*	6Q60	7U15AM-R™*	6C40™*
	2F91AMXT™*	3442	5C17AMXT™*	6F71 R™*	7A18 Q™*	6C41 S™*
		3H85AMX™*	5124 GT	6F74AMX™*		7577 3010
		4V45AM™*	5N48™*	6P75AMX™*		7893 3111

+ Plant 5C17AMXT™* and 6P75AMX™* at the mid-range for your soil type, e.g. drop 34,000 on high organic soils rather than 31-37,000.

Best standability is normally achieved at the lowest recommended rates **Allows for a 10% stand loss.**

Soybean Planting Rates (1,000 seeds per acre)

Row Width	7.5 inch	15 inch	30 inch
Untreated	190-200	165-175	150-160
PowerShield™ (fully treated)	160-170	135-145	125-135

Use higher end of range in less than ideal conditions.

SULLIVAN

Power Plus® 7H23 S™* brand first at 272 bu/a

COMPARE!

Gary Ferree
Sullivan, IN

Planted: May 6 in 30" rows. **Planting Population:** 33,000. **Harvested:** October 8. **Previous Crop:** Soybeans. **Soil Type:** Sandy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	1000 Plants Acre
POWER PLUS 7H23 S™*	**272.7**	**17.0**	**32**
POWER PLUS 7U15AM-R™*	**261.4**	**17.6**	**39**
Channel 215-05STXRIB	260.5	18.1	38
POWER PLUS 6C41 S™*	**260.5**	**17.4**	**37**
Channel 214-45DGVT2PRIB	253.6	16.2	38
POWER PLUS 4J93AM™*	**250.9**	**16.8**	**33**
POWER PLUS 6N83AM™*	**249.2**	**17.3**	**36**
Channel 214-00DGVT2PRIB	246.2	18.3	34
CATALYST 7893 3111	**245.0**	**19.3**	**37**
Channel 209-44VT2PRIB	244.0	15.8	34
Channel 211-33VT2PRIB	242.7	15.2	38
Channel 209-51VT2PRIB	241.0	16.3	41
Channel 217-41DGVT2PRIB	238.5	17.8	40
Channel 213-26VT2PRIB	233.0	16.4	37
Average	249.9	17.1	37

Reduce your risk and salvage future yields with LibertyLink® beans

Are you or some of your close neighbors battling Roundup® or glyphosate resistant weeds? That's a question many growers face throughout the Midwest. Weed resistance to the popular glyphosate herbicide Roundup is a huge problem for many growers. Growers looking to tackle those tough to control weeds are looking to Liberty® herbicide for a helping hand.

Liberty herbicide offers a different chemistry and a unique mode of action to help soybean growers control weeds and in turn achieve full yield potential on their soybean acres. Whether a grower is battling resistant waterhemp, giant ragweed, marestail, or the dreaded Palmer amaranth, Liberty herbicide provides growers with an attractive alternative.

Liberty is a group 10 site of action herbicide so it works differently than glyphosate to control resistant weeds. Here is a not so fun fact: Palmer amaranth can reduce yields by as much as 79% and missed waterhemp can reduce yields by as much as 44%. Additionally, they can drop 250,000 seeds per acre. Those seeds are viable for 4 years, impacting land value, according to *Take Action Herbicide Resistance Management*.

The LibertyLink® system is so convenient that it causes some growers to think the LibertyLink system can be managed like the old Roundup system. Some of the reasoning is in part because some growers incorrectly assume they are both systemic herbicides. That's not quite true, the systems need to be managed differently. As with all weed management systems, effective control begins by starting clean with a burndown, using residuals and applying post emergent applications timely. Timely means before 4" tall. Growers need to take that into account. There are other key differences too.

There is talk of many new weed management systems coming to market in the next few years for soybeans. Now is the time, however, to start thinking about a change. The LibertyLink system can be that change for your operation. Out of control weeds cost growers valuable bushels every year and if you are ignoring them, the problem is only going to get worse. Don't let continued low productivity, because of uncontrolled weeds, wreck your bottom line while you wait for future technologies. Reduce the costliness of weeds right now! Remember, better weed control leads to better yield potential while inconsistent weed control leads to lower yields. Ask your Burrus or Hughes Account Manager about how the LibertyLink system can raise the profitability of your farm in the future.

Sara Runyon

New to the Burrus office in Jacksonville is Sara Runyon. She joins our team as a Customer Service Representative and she works closely with Burrus Account Managers Ross Brockhouse, Quinn Moeller, Brian Six, and Jon Kent. Her cheerful voice may greet you when you call our office.

Sara earned a degree from Robert Morris University in health information systems and has previously worked for Memorial Health Systems and Blue Cross and Blue Shield. She brings a desire to build good rapport with the Account Managers that she works closely with in addition to our customers. Her people-oriented nature and caring attitude are a welcomed addition to our office staff.

She and her husband Jeff have two children, Faith and Brock. Their family enjoys their fur family members including a dog, a cat, and two rabbits. With a busy, young family there isn't a lot of spare time, but Sara's hobbies are reading, music, playing volleyball, and being involved in their children's activities.

When asked what she enjoys about working at Burrus, Sara replied, "I love working for a family-oriented company. There is a lot of heart and soul here." Call Sara at 1-877-4BURRUS (428-7787) and let her assist you.

CASS

David Virgin
Arenzville, IL

Planted: May 2 in 30" rows. **Planting Population:** 136,000. **Harvested:** September 23. **Previous Crop:** Corn. **Herbicide:** Treflan, Roundup. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–dry.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
POWER PLUS 36J3™*	**PS SDS**	**76.2**	**10.7**
POWER PLUS 36J3™*	**PS**	**74.4**	**10.5**
POWER PLUS 36J3™*	**PS SDS**	**71.0**	**10.6**
POWER PLUS 36J3™*	**PS**	**69.6**	**10.6**
Average		72.8	10.6

Ronald Smith
Ashland, IL

Planted: April 29 in 30" rows. **Harvested:** September 21. **Previous Crop:** Corn. **Weather:** May–wet, June–wet, July–normal, August–dry. **✓Check Hybrid:** Power Plus 32D5™*

Brand-Variety	Seed Treatment	Bu. Per Acre	Rank	% Moisture
POWER PLUS 32D5	**Untreated**	**73.1**	**2**	**11.2**
✓Check	PS	73.5		10.7
POWER PLUS 32D5	**PS SDS**	**72.3**	**3**	**11.0**
POWER PLUS 34T3	**PS**	**68.7**	**4**	**11.1**
✓Check	PS	72.6		11.8
POWER PLUS 39R5 PS		**77.5**	**1**	**12.4**
✓Check	PS	73.5	—	11.3
Average		73.0		11.4

CHAMPAIGN

Gifford State Bank
Gifford, IL

Planted: May 22 in 30" rows. **Planting Population:** 147,500. **Harvested:** October 15. **Previous Crop:** Corn. **✓Check Hybrid:** NK Brand S39-U2

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	64.0		9.9
Stone 2R2915	63.4	16	9.7
Stone 2R3401	63.0	17	9.9
Asgrow AG3832	64.3	11	9.7
Asgrow AG4135	70.0	1	9.5
Beck's XL Brand 384R2	61.7	23	9.6
Beck's 368NR	58.0	26	9.5
✓Check	63.5		9.9
NK Brand S38-W4	62.7	14	9.6
NK Brand S35-A5	57.1	27	9.8
Great Lakes GL 3729R2	66.0	4	9.5
Great Lakes GL 3429R2	60.3	22	9.7
Pioneer P33T72R	64.3	8	9.5
Pioneer P34T07R2	64.6	6	9.3
✓Check	61.2		9.4
POWER PLUS 36J3™*	**61.4**	**15**	**9.5**
POWER PLUS 35Z6™*	**60.6**	**19**	**9.2**
Hisoy HS 34A50	64.3	7	9.6
Hisoy HS 38A50	64.6	10	9.3
Pfister 35R25	62.6	13	9.3
Pfister 30R25	61.4	20	9.6
✓Check	63.2		9.6
LG Seeds C3989R2	65.4	5	9.3
LG Seeds C3647R2	66.9	2	9.5
Dairyland Seeds DSR-3313R2Y	57.6	25	9.8
Dairyland Seeds DSR-3232/R2Y	61.4	12	9.6
Channel 3408R2	59.8	21	9.3
Channel 3707R2	65.4	3	9.0
✓Check	60.5		9.4
U.S. Seeds 363R2R	58.2	24	9.2
U.S. Seeds 343R2R	60.0	18	9.6
Credenz CZ 3560 RY	63.6	9	9.4
✓Check	61.4	—	9.5
Average	62.5	—	9.5
Check Average	62.3		9.6

Gifford State Bank
Gifford, IL

Planted: May 14 in 30" rows. **Planting Population:** 147,500. **Harvested:** September 30. **Previous Crop:** Corn. **✓Check Hybrid:** NK S39-U2

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	74.8		12.3
Stone 2R2915	73.5	13	11.9
Stone 2R3401	71.1	22	12.0
Asgrow AG3832	76.8	7	12.1
Asgrow AG4135	79.0	1	12.3
Beck's 384NR	70.1	8	12.0
Beck's 368NR	66.9	15	12.3
✓Check	62.3		12.3
NK Brand S38-W4	74.7	3	12.4
NK Brand S35-A5	71.2	5	12.4
Great Lakes GL 3729R2	76.9	2	12.5
Great Lakes GL 3429R2	74.1	9	12.2
Pioneer P33T72R	79.0	4	11.9
Pioneer P34T07R2	75.5	6	12.4
✓Check	72.3		12.4
POWER PLUS 36J3™*	**72.6**	**18**	**12.1**
POWER PLUS 35Z6™*	**71.9**	**20**	**12.0**
Hisoy HS 34A50	74.8	11	12.3
Hisoy HS 38A50	76.1	10	12.2
Pfister 35R25	68.9	27	12.1
Pfister 30R25	72.3	19	12.4
✓Check	72.2		12.6
LG Seeds C3989R2	73.9	14	12.4
LG Seeds C3647R2	70.7	25	12.4
Dairyland DSR-3313R2Y	70.1	26	12.2
Dairyland DSR-3232R2Y	74.2	12	12.2
Channel 3408R2	71.5	23	12.1
Channel 3707R2	71.8	21	12.5
✓Check	72.2		12.7
U.S. Seeds 363R2R	72.9	17	12.3
U.S. Seeds 343R2R	70.5	24	12.7
Credenz CZ 3560 RY	72.5	16	12.7
✓Check	71.4	—	13.0
Average	72.7	—	12.3
Check Average	70.9		12.5

Zach's Ag Supply in Shelby Co., MO continues to grow their dealership through hard work & dedication. Kudos to Havyn, Tracy & Matt Zachariah for all you do!

ILLINOIS

Farm Family of the Year

Again this year, Burrus worked with the Illinois *AgriNews* to present the Farm Family of the Year.

Burrus Hybrids partnered once again with Illinois AgriNews to sponsor the 2015 Illinois Farm Family of the Year award. Lamoreux Farms from Carroll County was chosen as the worthy recipient. The award was presented at the University of Illinois’ Salute to Agriculture celebration recently.

Lou Lamoreux and his brother, John, are the fourth generation on the family farm that still includes the 160 acres purchased in 1867 by their great, great grandfather, a Pennsylvania native. The Lamoreux family raises corn, soybeans, wheat, and alfalfa. They also have a 1400-head cattle feeding operation that includes the nearly-completed 58-foot-by-120-foot 500-head cattle finishing barn.

Their operation includes Lou and his wife, Sue, and their son, Nathan, and wife, Stephanie. Also involved are John, and his wife, Marilyn, and their sons Andrew and Daniel, along with their wives. Each member is happy to lend a hand to any part of the operation although they have developed specialized areas of responsibility.

John feeds the cattle in the feedlot and oversees the feed rations to balance nutritional needs while minimizing costs. Lou is responsible for machinery maintenance and enjoys running the combine and doing the spraying. Dan handles the planting and crop selection and Nathan oversees the beef cow herd. The key to their success is everyone’s willingness to do whatever is needed. It’s the very definition of a true family farm.

The family remains committed to being good stewards of the land and count it a blessing to care for part of God’s creation. They have established waterways where needed to save topsoil, incorporated tillage operations to maximize residue cover and minimize run-off, applied manure to limit the need for commercial fertilizers, and have included oats and hay in crop rotations to limit the need for pesticides. The areas with steep slopes have remained in pasture and are utilized in the cow/calf enterprise.

The Lamoreux family believes in giving back to their community, which they’ve proven in their commitment to church, school and Carroll County Farm Bureau. Lou is a member and past chairman of the Illinois Corn Marketing Board and a former director of the Illinois Corn Growers Association.

Their commitment to agriculture and community has been and continues to be exemplary for five generations in Carroll County with the sixth generation being raised to love the farm.

Remarking about the day the Lamoreux family was awarded the honor, John said, “We will always remember the day with the greatest joy.”

Guide to Accurate Soybean Planting

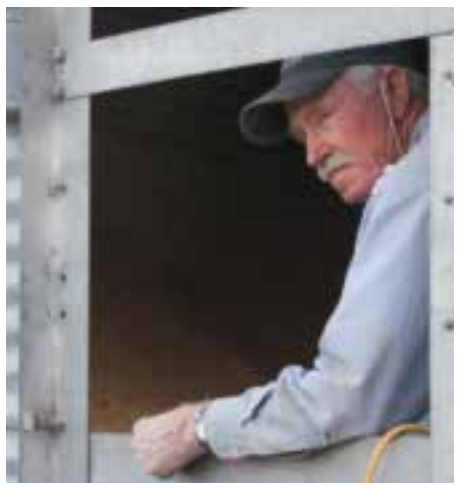
	Small to Normal Seed Size 2500 seeds per pound or greater; 56 lbs. or less per 140k unit	Large Seed Size 2500 seeds per pound or less (1800 to 2500) 56lbs. Per 140K unit or more
John Deere Non-Vac (Finger Pickup Type Corn Planters) *1 *4 *5	Using Kinze Brush Meters - (2500 seeds/lb or More) Black Brush Type 60 Cell Seed Metering Plate Using Radial Metering Bean Plate - (3700 - 4500 seeds/lb) setting "A"; (2800 - 3700 seeds/lb) setting "B"	Using Kinze Brush Meters - (2500 seeds/lb or Less) Blue Brush Type 48 Cell Seed Metering Plate Using Radial Metering Bean Plate - (2000 - 2800 seeds/lb) setting "C"
Kinze Non-Vac	(2500 seeds/lb or More) Black Brush Type 60 Cell Seed Metering Plate	(2500 seeds/lb or Less) Blue Brush Type 48 Cell Seed Metering Plate
John Deere Vac Planters *3 *1 *5	Only one disk option - Vacuum setting at 8	Only one disk option - Vacuum setting at 9 (test and adjust accordingly) If feeding problems persist - remove the elbow from the hose feeding the hopper
Kinze Vac Planters *2 *1 *5	Use 60 cell plate - Singular setting of 5 - Vacuum setting at 10	Use 60 cell plate - Singular setting of 5 - Start vacuum setting at 10 (test and adjust accordingly)
Case IH Vac Planters *6 *1 *5	(2600 - 3500 seeds/lb) 193017A1 disc - Singulator setting at 8 - Vacuum at 15-17" (3500 - 4500 seeds/lb) 87420630 disc or comparable - Singulator setting at 8 - Vacuum at 15-17" (2500 - 3500 seeds/lb) 87698875 disc or comparable - Singulator setting at 8 - Vacuum at 15-17"	(2000 - 3500 seeds/lb) 87698875 disc or comparable - Singulator setting at 8 - Vacuum at 15-17"
White Vac Planters *7 *1 *5	(3000 - 4500 seeds/lb) Use 7000722513 (120 cell) disc - Air pressure at 1 - 3" (2000 - 3500 seeds/lb) Use 852432 (120 cell) disc for 30 " rows - Air pressure at 2 - 2.5" (2000 - 3500 seeds/lb) Use 852433 (60 cell) disc for 15" rows - Air pressure at 2 - 2.5"	(2000 - 3500 seeds/lb) Use 852432 (120 cell) disc for 30 " rows - Air pressure at 2 - 2.5" (2000-3500 seeds/lb) Use 852433 (60 cell) disc for 15" rows - Air pressure at 2 - 2.5" (test and adjust accordingl y)

*1 Consult the operator's manual for additional talc/graphite recommendations
*2 One TBSP of graphite per hopper for a standard 2 bu hopper, and 1-1.5 lbs of graphite per 50 unit container
*3 For central fill planters use a 1/2 rate of talc for untreated beans and a full rate (corn rate) of talc with treated beans
*4 Add 3/8 TBSP of graphite per hopper
*5 Adjust speed as directed in the operator's manual
*6 Consult the operator's manual for seed disc RPM recommendations
*7 Do not exceed 35 RPM on seed disc
Always check the operator's manual

Rowan Cassidy & Scott Dean saw Power Plus® 4J93AM™* win in Fulton Co. by nearly 35 bu/a and their smiles are the evidence.

Marcel Bourquin saw the Power Plus® products take 3 of the top 4 slots in Jo Daviess Co.

PowerShield® SDS outperformed straight PowerShield twice in Cass Co. for Maddox Reedy & David Virgin.



Rex Wood saw the Linn Co., MO plot average 182 bu/a.

Worried about your data?

Your information is safe with the Burrus COP

Burrus and Hughes Hybrids work directly with MyFarms℠, the leader in on-farm data management, developed the exciting Crop Optimization Planner (COP). The COP serves as a data driven, electronic crop planning system that captures the power of the Burrus/Hughes research system and couples it with the grower's unique management plan.

The COP system is different than many of the other types of electronic recommendation systems on the market because the data entered, generated, and collected within the system are maintained as the sole property of the grower. Most growers use a cropping plan as part of their management strategy. The COP system allows the grower to participate in a step-by-step process to develop recommendations for their cropping plan. A list of specific questions about maturities, herbicide programs, insect pressure, previous crop as well as management techniques like planting and harvest strategies are often considered with products prescribed for each particular environment. The managerial questions are aimed to help growers design a package to fit their specific needs. The COP then leverages that data from the grower and Burrus and automatically retrieves soil type and agronomic information to produce powerful, field-specific hybrid recommendations.

The convenient Crop Optimization Planner allows growers to place both corn and soybeans with our system. Our research team worked tirelessly to develop the protocol for the COP and worked closely with the MyFarms team to implement the tool. The goal was to incorporate the MyFarms approach that integrates an easy, automated tool designed to help meet all of the critical points of interest in a cropping plan. When the COP was updated with the new products for 2016, we tested on 1000 different scenarios using various geography, soils and management practices. On the first draft it got 985 product selection correctly placed. We then went back to the various ratings and weightings to adjust the results so the COP is now batting 1,000!

The cropping plan tool comes with some great benefits, too! The variable rate planting feature is an added bonus. This feature is available to all growers who plant the Burrus family of hybrids. Another benefit of our system is its universal nature, working with virtually all of the planter monitors on the market today. The grower is not required to have a specific monitor to use our system.

The COP system is based on specific hybrid selection and placement. The MyFarms state-of-the-art database is designed to be the most scientific, site-specific program in the industry. Grower information about field attributes, yield potential, fertility program, machinery, and management practices are blended with the Burrus and Hughes knowledge from genetic research, test plots, traits, agronomics, and population studies. The software will analyze this vast amount of information and generate a plan for optimal hybrid placement for each field.

The challenges and opportunities of tomorrow can be tackled through innovative information technology. The COP tool is designed to help meet some of those challenges and obstacles head-on! Growers who use MyFarms can also use it to strengthen their management plan by encompassing data from other suppliers like their fertilizer company and chemical supplier then implementing it into the crop production plan to get a full picture view.

The valuable COP tool is available for all Burrus and Hughes growers. It is convenient, efficient, and easy to use. Many growers have already signed up to help unlock the value of their acres. If you are interested in learning more about or utilizing this value-added technology for your farming operation, contact your local Burrus or Hughes dealer or Account Manager today.

Power Plus® 7H23 S™* wins on light loam for Brian, Bruce & Levi Garrison of Clay Co.


Nettie & Kyle Embry saw their Jo Daviess Co. soybean plot average 65 bu/a.


Tammy & Andy Schmalshof saw Power Plus® 5C17AMXT™* win at 231 bu/a in Fulton Co.

Jason & Ed Zimmer saw two varieties – Power Plus® 26Z5™* & Power Plus® 28H5™*, go above 70 bu/a in Kankakee Co.

CHRISTIAN

Power Plus® 36J3™ brand* takes second

Cameron Farms Inc.
Danny, Pana, IL

Planted: June 4 in 30" rows. **Planting Population:** 145,000. **Harvested:** October 15. **Previous Crop:** Corn. **Herbicide:** Authority, Ultra Blazer, Select. **Weather:** May–wet, June–wet, July–dry, August–dry. **✓Check Hybrid:** Asgrow AG3832

Brand-Variety	Bu. Per Acre	Rank	% Moisture
Hisoy HS 39C42	51.1	1	10.3
✓Check	46.2		10.0
POWER PLUS 36J3™*	**49.1**	**2**	**9.5**
Asgrow AG3634	49.0	3	9.9
eMerge 389F.YC	36.6	17	9.5
POWER PLUS 34T3™*	**36.1**	**18**	**10.1**
✓Check	52.4		9.3
POWER PLUS 32D5™*	**39.3**	**15**	**10.2**
POWER PLUS 32D5™*	**38.6**	**16**	**9.3**
POWER PLUS 36J3™*	**46.1**	**13**	**9.6**
POWER PLUS 36J3™*	**53.7**	**4**	**9.3**
HOBLIT 355LL	**51.9**	**6**	**9.6**
POWER PLUS 35Z6™*	**41.5**	**14**	**9.1**
HOBLIT 384LL	**48.6**	**11**	**9.0**
HOBLIT 384LL	**51.4**	**8**	**9.1**
✓Check	53.1		9.1
POWER PLUS 37N5™*	**47.8**	**12**	**9.2**
POWER PLUS 38D2™*	**52.0**	**5**	**9.7**
POWER PLUS 38K6™*	**49.1**	**7**	**8.8**
POWER PLUS 39R5™*	**46.7**	**9**	**10.1**
✓Check	49.5		9.0
HOBLIT 405LL	**45.3**	**10**	**9.7**
Average	47.1		9.5
Check Average	50.3		9.4

ILLINOIS

CLAY

Brian Garrison
Louisville, IL

Planted: May 26 in 30" rows. **Planting Population:** 130,000. **Harvested:** October 5. **Previous Crop:** Corn. **Herbicide:** Touchdown, Flexstar. **Soil Type:** Medium loam. **Weather:** May–normal, June–wet, July–wet, August–dry.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
POWER PLUS 46A5™*		**66.8**	**12.5**
POWER PLUS 38K6™*		**65.7**	**12.4**
POWER PLUS 42V6™*		**64.3**	**12.4**
POWER PLUS 36J3™*		**63.8**	**13.7**
POWER PLUS 41M4™*		**63.1**	**12.7**
POWER PLUS 39R5™*		**62.3**	**13.5**
POWER PLUS 37N5™*		**62.2**	**13.3**
POWER PLUS 36J3™*	**PS SDS**	**61.2**	**13.8**
POWER PLUS 38D2™*		**59.9**	**13.3**
Average		63.3	13.1

FULTON

Power Plus® SDS wins the plot

COMPARE!

Andy Schmalshof
Avon, IL

Planted: May 28 in 30" rows. **Harvested:** October 21. **Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–wet, August–normal.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
POWER PLUS 36J3™*	**PS SDS**	**78.2**	**8.1**
POWER PLUS 36J3™*		**77.9**	**7.9**
POWER PLUS 32D5™*	**PS SDS**	**77.8**	**8.0**
POWER PLUS 37N5™*		**76.3**	**8.0**
POWER PLUS 32D5™*		**75.9**	**7.2**
POWER PLUS 37N5™*		**75.5**	**8.3**
POWER PLUS 32D5™*		**75.3**	**7.9**
POWER PLUS 28H5™*		**73.7**	**8.1**
POWER PLUS 30B5™*		**69.5**	**8.2**
Average		75.6	8.0

"I have worked at Burrus for 39 years and appreciate being a part of a business owned by a family that cares about their employees."
Jerry Hunter, Burrus Production crew – 39 years

HANCOCK

PowerShield® SDS wins!

Bartlett Farms
Dallas City, IL

Planted: April 27 in 30" rows. **Planting Population:** 140,000. **Harvested:** September 15. **Previous Crop:** Corn. **Fertilizer:** N: 18, P: 46, K: 60. **Herbicide:** Roundup. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
POWER PLUS 32D5™*	PS SDS	81.4	10.7
POWER PLUS 32D5™*	PS	79.2	10.7
POWER PLUS 32D5™*	PS SDS	78.6	10.7
POWER PLUS 32D5™*	PS	76.6	10.7
Average		79.0	10.7

Richard Douglas
Dallas City, IL

Planted: April 29 in 30" rows. **Planting Population:** 140,000. **Harvested:** September 21. **Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
POWER PLUS 36J3™*	PS SDS	72.8	12.0
POWER PLUS 36J3™*	PS	68.4	11.7
Average		70.6	11.8

JO DAVIESS

Power Plus® 24P4™* brand at 70 bu/a

Kyle Embry
Hanover, IL

Planted: May 1 in 30" rows. **Harvested:** October 16. **Previous Crop:** Corn. **Soil Type:** Clay loam. **✓Check Hybrid:** Hughes 555

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	60.7		09.9
POWER PLUS 21R6™*	63.0	2	09.9
POWER PLUS 24P4™*	70.0	1	10.0
✓Check	66.1		10.0
POWER PLUS 25A5™*	60.1	5	09.7
POWER PLUS 26Z5™*	65.1	4	10.3
POWER PLUS 28V2™*	68.5	3	09.9
✓Check	68.6		09.8
Average	65.3		9.9
Check Average	65.1		9.9

KANKAKEE

COMPARE!

Jason Zimmer
Reddick, IL

Planted: May 20 in 30" rows. **Planting Population:** 160,000. **Harvested:** October 9. **Previous Crop:** Corn. **Herbicide:** Durango, 2,4-D, Authority First. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 26Z5™*	70.8	13.6
POWER PLUS 28H5™*	70.6	13.8
POWER PLUS 32D5™*	69.5	13.4

Tom Burrus congratulates Matthew Jenkins of Chariton Co., MO for helping Burrus Agronomist Matt Montgomery, with data collection during the summer.

POWER PLUS 30B5™*	69.4	13.5	POWER PLUS 34T3™*	67.4	13.4
POWER PLUS 28V2™*	68.6	13.7	POWER PLUS 25X6™*	67.2	13.7
POWER PLUS 32D5™*	68.4	13.9	HUGHES 555	64.4	13.7
POWER PLUS 22X6™*	64.0	14.2			
POWER PLUS 24P4™*	63.9	14.3			
POWER PLUS 25H4™*	63.5	13.9			
Average	67.3	13.8			

MACON

Power Shield® SDS performs

COMPARE!

Buth Farms
Warrensburg, IL

Planted: June 1 in 30" rows. **Harvested:** October 7. **Previous Crop:** Corn. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–dry.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
HOBLIT 426LL	PS SDS	74.5	11.6
HOBLIT 355LL	Treated	73.2	11.7
HOBLIT 384LL	PS SDS	70.1	11.7
HOBLIT 405LL	Treated	68.1	11.9
HOBLIT 384LL	Treated	68.1	11.9
HUGHES 285LL	Treated	66.1	12.2
Average		70.0	11.8

Roundup Ready® 2 Xtend, Enlist and Balance GT bullet points

Plant growth regulator resistance will become the new herbicide resistance trait in the countryside during the 2016 growing season (starting with the launch of Roundup Ready® 2 Xtend beans followed within a season or two by the launch of Enlist beans). Within another few growing seasons, Balance GT soybeans will enter the marketplace as well. It seems appropriate for Burrus to provide bullet points on these herbicide tolerant systems, providing our growers with a quick reference to these new technologies.

Roundup Ready 2 Xtend
Herbicide resistance trait:
Glyphosate and dicamba (plant growth regulator herbicide)
(Note – This product will not be resistant to 2,4-D and only certain dicamba products will be allowed.)
Accepted dicamba formulations:
Roundup Xtend with Vaporgrip Technology
Xtendimax with Vaporgrip Technology
Engenia
(Note – AMS will not be recommended due to a negative interaction with Vaporgrip that decreases the effectiveness of that drift retardant technology)
Likely weed height restrictions:
4 inches
Likely boom height restrictions:
20-24 inches
Likely buffer zone:
Uncertain. In the southern U.S. some buffer zones have been as much as 400 feet.
A buffer zone, yet unspecified, will be required between Roundup Ready 2 Xtend and non-Roundup Ready Xtend crops.
Nozzle restrictions:
Specified nozzles will be noted on the herbicide label. TTI nozzles which tend to produce droplets up to several hundred nanometers VMD will be recommended.
Likely wind speed restrictions:
3-10 miles per hour
10-15 miles per hour (as long as winds are not blowing toward sensitive areas)
Spraying when wind is less than 3 miles per hour is prohibited

Enlist soybeans
Herbicide resistance trait:
Glyphosate and 2,4-D (plant growth regulator herbicide)
(Note – This product will not be resistant to dicamba and only certain 2,4-D products will be allowed)
Accepted 2,4-D formulations:
Enlist Duo applied with Colex-D technology
Likely weed height restrictions:
3-6 inches (lower rate)
Plus 6 inches (higher rate)
Likely boom height restrictions:
24 inches
Likely buffer zone:
Must be 30 feet from sensitive areas
No buffer zone between Enlist beans and non-Enlist crops
Nozzle restrictions:
A variety of nozzle types, prone to coarser droplet sizes will be recommended on the label
Likely wind speed restrictions:
3-10 miles per hour
Future options:
Enlist E3 soybeans will bring a new glyphosate trait, along with 2,4-D resistance, plus glufosinate resistance (Note – glufosinate applications will need to be made separately)

Balance GT soybeans
Herbicide resistance trait:
glyphosate and isoxaflutole (bleacher herbicide)
Accepted isoxaflutole formulations:
Balance Bean
Application information:
Approved isoxaflutole/glyphosate formulations will be used as a burndown product or as a residual product.
Enhanced pre-emerge performance will be encouraged via tank mixing this product with crop oil and metribuzin.
Likely application restrictions, nozzle restrictions, buffer zones, etc.:
Application restrictions on coarse soil types will be likely due to elevated leaching potential associated with this active ingredient.
No buffer zones. Application restrictions will likely resemble those associated with Balance Flexx use in corn.
Burndown application restrictions are likely to require that weeds be less than 3 inches, as is the case with Balance Flexx in corn.
Nozzles capable of producing coarse droplet sizes will be recommended consistent with a soil applied herbicide.

With a top yield of 266.7 bu/a Tom & Tami Moore saw Power Plus® 5C17AMXT™* win in Winnebago Co.

Pete, Jo Ann & Gene Gill saw the new Power Plus® 27X6™* win in Peoria Co.

Phil & Carrie Henke saw their Saline Co., MO soybean plot average 66.8 bu/a.

New herbicide traits – time to flag them

Two decades have passed since a small phrase "Roundup Ready®" changed the farming world. Twenty years ago all beans were conventional. While there were some differences in sensitivity, growers could be relatively sure that a post-soybean herbicide was fair game for all beans in the marketplace. The variety didn't really matter. It might matter what stage of growth that bean was at, whether the bean was within herbicide label restrictions, but there was little else to consider.

Glyphosate resistant soybean technology changed that and for a brief period agriculture struggled to adjust. It was not uncommon for a technical representative or agronomist to be called to the field where they made an unsettling discovery. Roundup® had been applied to beans that were not Roundup Ready and the field was terminal.

However, such misapplications became less frequent as one season marched on to the next. This happened, not because the industry became more adept at keeping track of Roundup vs. conventional fields. This happened because glyphosate tolerance soon dominated the marketplace. Within several growing seasons, it was the weed management norm and misapplications thus became pretty rare. Today, we find ourselves at another interesting point in soybean weed management.

We have become used to a "one size fits all" herbicide regiment where the majority of beans are resistant to Roundup/glyphosate. Within the next few growing seasons though, we will see a drastic increase in the number of LibertyLink® soybean acres, the launch of dicamba resistant Xtend™ soybeans, and the launch of 2,4-D resistant Enlist™ soybeans. If we had trouble learning to avoid misapplications when one herbicide tolerant trait began to take up market- share, imagine what will happen when three new technologies suddenly take up increasing market-share. There is one difference though. It is very unlikely that one of those technologies will dominate. It is very likely that they will share the marketplace. If we can't hope for market place dominance to solve the misapplication problem, what can we do? The answer is to flag it.

Suggesting that the industry must "flag it" is a direct reference to a concept that is sweeping across the southern U.S., a concept first developed at the University of Arkansas. Instead of developing some kind of technology-intense system that tracks every individual field's herbicide tolerance, the creators of this system decided that the simplest solution is the best one. Yes, the grower is supposed to inform their chemical company where certain traits are located. However, in the interest of providing a failsafe, growers also flag the primary entrance or entrances into the field. A color coding system is associated with each herbicide trait.

Check out the following web sites to order flags.
http://www.expressflags.com/bicycle-safety-flags
http://www.parkerflags.com/Bicycle-Flags-Prodview.html

Should a mistake be made, should the applicator show up with the wrong product for the wrong field, the applicator then has a visual reminder that just might keep a misapplication from occurring. By utilizing the flagging system, the applicator can double check that the product in the tank matches the trait in the field.

It's a great system that Burrus encourages growers to use in the field. We really wish it had been in place when we began this learning curve 20 years ago.

Here is a fairly complete list of the herbicide trait associated with each flag courtesy of the University of Arkansas:

Red – Conventional/ no herbicide tolerance

White – Roundup Ready/ glyphosate tolerance

Green – LibertyLink/ glufosinate tolerance

Checkered – Xtend/dicamba tolerance

Teal and white – Enlist/2,4-D tolerance

Yellow – STS/ALS Tolerance

MCHENRY

DJ Farms
Marengo, IL

Planted: May 14 in 30" rows. **Planting Population:** 145,000. **Harvested:** September 27. **Previous Crop:** Corn.

Brand/Product	Bu. Per Acre
Pioneer P25T51R	71.5
POWER PLUS 25A5™*	**71.4**
HUGHES 201	**69.4**
Walters 2713	68.3
Walters 2413	67.3
Channel 2108R2	66.8
Pioneer P27T47R	65.6
HUGHES 201	**64.7**
Channel 2508R2	62.3
POWER PLUS 25H4™*	**61.6**
Pioneer P28T08R	60.9
POWER PLUS 26Z5™*	**56.3**
Average	65.5

ILLINOIS

Hughes Seed Farms Inc.
Woodstock, IL

Planted: May 23 in 30" rows. **Planting Population:** 150,000. **Harvested:** October 8. **Previous Crop:** Corn. **Soil Type:** Silt loam. **Weather:** May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 22X6™*	**63.0**	**14.3**
HUGHES 236LL	**61.0**	**14.5**
POWER PLUS 25X6™*	**57.0**	**13.9**
POWER PLUS 28H5™*	**56.0**	**15.2**
HUGHES 266LL	**56.0**	**17.2**
POWER PLUS 27X6™*	**54.0**	**13.9**
POWER PLUS 28V2™*	**53.0**	**16.1**
POWER PLUS 24P4™*	**53.0**	**14.4**
POWER PLUS 21R6™*	**52.0**	**14.3**
POWER PLUS 25A5™*	**50.0**	**14.2**
POWER PLUS 26Z5™*	**49.0**	**14.4**
POWER PLUS 29X6™*	**47.0**	**13.2**
HUGHES 555	**45.0**	**13.3**
HUGHES 201	**41.0**	**13.8**
HUGHES 285LL	**41.0**	**16.6**
Average	51.9	14.6

PEORIA

Power Plus® 27X6™ brand* makes 74.7 bu/a

COMPARE!

Pete Gill
Princeville, IL

Planted: May 18 in 30" rows. **Harvested:** October 14. **Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Heavy loam. **Weather:** May–normal, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 27X6™*	**74.7**	**11.6**
POWER PLUS 26Z5™*	**66.1**	**10.2**
POWER PLUS 28V2™*	**66.0**	**10.3**
HUGHES 555	**66.0**	**10.4**
POWER PLUS 29X6™*	**64.7**	**12.1**
POWER PLUS 28H5™*	**63.6**	**10.3**
POWER PLUS 30B5™*	**62.7**	**11.6**
POWER PLUS 34T3™*	**61.4**	**10.0**
POWER PLUS 24P4™*	**55.8**	**11.0**
POWER PLUS 25H4™*	**53.5**	**10.8**
POWER PLUS 25A5™*	**52.7**	**10.5**
Average	62.5	10.8

SCHUYLER

Ron Downs
Rushville, IL

Planted: May 2 in 30" rows. **Harvested:** October 15. **Previous Crop:** Corn. **Herbicide:** Glyphosate. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
ProHarvest 3971CR2Y	75.0	10.7

ProHarvest 3884CR2Y	72.3	10.5
POWER PLUS 35Z6™*	**71.8**	**10.2**
POWER PLUS 38K6™*	**69.8**	**10.0**
Stine 38REO2	69.4	10.6
ProHarvest 3844CR2Y	68.5	10.9
POWER PLUS 36J3™*	**67.3**	**09.5**
POWER PLUS 37N5™*	**65.8**	**10.2**
POWER PLUS 34T3™*	**64.9**	**10.8**
ProHarvest 3952CR2Y	64.8	11.0
POWER PLUS 36J3™*	**64.7**	**11.0**
ProHarvest 3684CR2Y	57.8	10.7
Average	67.7	10.5

SHELBY

Schultz Farms – Ron Stewardson, IL

Planted: May 19 in 30" rows. **Planting Population:** 177,700. **Harvested:** September 26. **Previous Crop:** Corn. **Fertilizer:** N: 150, P: 150, K: 150. **Herbicide:** Roundup. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–dry, August–dry.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
POWER PLUS 35Z6™*	**Treated**	**62.7**	**10.5**
POWER PLUS 36J3™*	**Untreated**	**60.1**	**10.8**
POWER PLUS 38D2™*	**Treated**	**58.4**	**10.4**
POWER PLUS 36J3™*	**Untreated**	**58.1**	**11.2**
POWER PLUS 38K6™*	**Treated**	**58.1**	**10.2**
POWER PLUS 36J3™*	**Treated**	**57.8**	**11.0**
POWER PLUS 36J3™*	**PS SDS**	**57.8**	**10.9**
POWER PLUS 39R5™*	**Treated**	**57.5**	**10.8**
POWER PLUS 42V6™*	**Treated**	**56.6**	**10.8**
POWER PLUS 37N5™*	**Treated**	**56.0**	**10.3**
POWER PLUS 41M4™*	**Treated**	**54.9**	**11.0**
Average		58.0	10.7

STEPHENSON

Schlachter Farms Lena, IL

Planted: May 13 in 30" rows. **Harvested:** October 9. **Previous Crop:** Corn. **Herbicide:** Sonic.

Brand/Product	Bu. Per Acre	% Moisture
NK Brand S25-L9	87.0	13.6
Hisoy HS 27A50	86.8	14.7
Asgrow AG2636	85.4	14.0
NK Brand 20-T6	84.9	14.1
POWER PLUS 26Z5™*	**84.7**	**13.7**
POWER PLUS 25A5™*	**84.2**	**13.4**
POWER PLUS 28H5™*	**84.1**	**14.3**
Asgrow AG2336	84.1	13.8
Hisoy HS 26A50	83.9	13.7
Hisoy HS 19A50	83.4	12.7
POWER PLUS 28V2™*	**83.4**	**14.3**
Hisoy HS 23A42	83.1	13.1
NK Brand 20-T6	82.8	13.6
Asgrow AG2035	82.6	13.9
NK Brand 20-T6	82.4	12.7
NK Brand S26-P3	81.7	13.6
Hisoy HS 21A50	81.4	12.9
Asgrow AG2535	81.4	14.4
Hisoy HS 23A42	81.2	13.0
HUGHES 201	**81.1**	**13.2**
Hisoy HS 23A42	81.1	13.4
POWER PLUS 21R6™*	**80.5**	**13.3**
Hisoy HS 23A42	79.8	13.4
HUGHES 555	**79.7**	**13.1**
Asgrow AG2433	78.8	13.7
Pioneer P24T05R	78.2	13.9
Asgrow AG2632	77.6	14.1
Hisoy HS 28A42	77.5	14.7
Asgrow AG2836	77.1	14.5
Hisoy HS 24A50	76.4	13.1
NK Brand S28-A2	75.1	14.4
Average	81.7	13.7

Craig Patty

Craig Patty has joined Burrus as Sales Manager covering west central Illinois. Craig resides in Chillicothe, IL and has the pleasure of working with eight Account Managers serving customers in 20 counties. Craig has had the opportunity to be involved in agriculture his entire life. As a young man Craig gained his love for agriculture by being involved in his grandparents farming operation in Henry County. He received his degree from Illinois State University in agribusiness. Craig also maintains his Series 3 brokerage license and has spent the majority of his 24-year career in the grain business.

Craig has been in all facets of the grain business starting his career with Gene & Pete Gill at Gill Grain immediately after college. He was with Cargill for 18 years spending 13 of those years as sales leader for northern Illinois. Before joining Burrus in March, Craig was briefly with DuPont Pioneer as a services manager with their Encirca Services Group. Craig's passion is helping growers be successful by assisting them in making good decisions about their business. Craig is proud to be a member of the Burrus team.

Craig's wife, Ann, is a physical education teacher at IVC High School.

Their family includes daughter Lexi, age 20, who attends Illinois State University and son Luke, age 18, who is a senior at IVC High School. Craig's favorite hobby has always been coaching and watching their kids' sporting events as they have grown up. Born in Colorado, Craig is a die-hard Denver Broncos fan. He also enjoys golfing and spending time with family and friends.

Soybean selection

By Stephanie Porter

First, let's focus on soybean maturity. There are 13 soybean maturity groups available from Group 000 (Canada) to Group X (tropics). Within the Burrus/Hughes footprint, we focus on groups II – V. Choosing the right maturity group is one of the most important decisions because soybeans are photoperiod sensitive and some varieties have a sweet spot in certain areas and may be better suited to your area's soil types or diseases. This is why Burrus/Hughes only chooses soybean varieties that have been tested and proven to yield in multiple soil types in multiple environments yet streamlined to the Burrus/Hughes footprint.

If a variety is chosen north of its adaption, maturity could be delayed, seedfill might occur in cool, short days of fall, and frost could occur before maturity. If you choose a variety south of its adaptability, maturity could occur faster than normal and seedfill could occur in a hot, dry July. Pod formation and seed filling are critical for high yields in soybeans. The goal would be to choose varieties that reach physical maturity just prior to the date when there is a 20% chance of a killing frost in the fall. If you are unsure, yield performance will tell you which varieties are too early or too late. The earliest and latest maturity in each group may differ as much as two weeks! In some years, choosing a 5 – 7 day range between maturities could help spread risk. We have seen short season varieties escape late season disease and fuller season varieties maximize use of the growing season for yield.

Disease resistance or tolerance should be on your mind when choosing a soybean variety because soybean diseases and soybean cyst nematodes are YIELD robbers! Resistance or tolerance has been bred into soybeans for phytophthora root rot, Sudden Death Syndrome, brown stem rot, white mold, soybean cyst nematode, root knot nematode, and some leaf diseases. Use of resistant or tolerant varieties is the best method of disease control. Each of the Burrus/Hughes soybean varieties should have disease ratings to aid in soybean selection. And, yes, we are believers in seed treatments such as PowerShield® to help reduce your risk of infection of soil borne diseases and more recently, PowerShield® SDS® (ILeVO®), to aid against Sudden Death Syndrome and soybean cyst nematode.

Soybean varieties with good emergence and vigor is key, but remember that seed quality and seed treatment offered by Burrus/Hughes can also aid soybean stand establishment, especially when planting early during cool, wet springs. Remember, not all seed treatments are created equal and return on your investment is key. The standability of soybeans can be genetic, but other factors such as environment and seeding rate can come into play. Choose varieties that have good standability scores if you continue to have lodging issues. Overall plant type or fuller season with a bushy growth habit might be beneficial for wider row spacing. As herbicide weed resistance increases, soybeans with various herbicide traits such as LibertyLink® as well as others that could be in the Burrus/Hughes soybean lineup in the future will be a dominating factor for successful weed management.

Many growers fail to place emphasis on accurate product selection of soybeans. This along with environment, field placement, fertility, disease, soybean cyst nematodes, insects, and weed management can all be contributing factors for determining potential yield loss. No one knows your fields better than you; therefore by pinpointing the correct maturity range, pest control, agronomic traits, weed program, or other management practices needed for your operation, you will have the recipe for success that you can put to use during soybean variety selection.

WINNEBAGO

TNT Farms Winnebago, IL

Planted: May 20 in 30" rows. **Planting Population:** 155,000. Harvested: October 12. **Previous Crop:** Corn. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–normal, August–normal. **✓Check Hybrid:** Power Plus 28V2™*

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	78.4		10.6
HUGHES 201	**74.5**	**14**	**10.4**
POWER PLUS 21R6™*	**76.8**	**8**	**10.4**
Hisoy HS 22A21	77.4	7	10.3
POWER PLUS 22X6™*	**74.0**	**15**	**10.3**
Pioneer P24T05R	76.4	11	10.4
Asgrow AG2433	76.1	13	10.5
POWER PLUS 24P4™*	**76.3**	**12**	**10.4**
HUGHES 555	**71.7**	**17**	**10.3**
✓Check	81.1		10.5
POWER PLUS 25X6™*	**72.4**	**16**	**10.8**
Pioneer P25T51R	78.8	4	11.0
POWER PLUS 25A5™*	**78.1**	**6**	**10.5**
POWER PLUS 26Z5™*	**78.7**	**5**	**10.2**
Asgrow AG2632	75.1	10	10.3
POWER PLUS 27X6™*	**80.1**	**1**	**10.4**
POWER PLUS 28H5™*	**79.0**	**2**	**10.5**
POWER PLUS 29X6™*	**73.6**	**9**	**10.2**
POWER PLUS 30B5™*	**75.9**	**3**	**10.6**
✓Check	74.8		10.6
Average	76.5		10.5
Check Average	78.1		10.6

CARROLL

Liberty Link® is glufosinate tolerant

Jenkins Farm
DeWitt, MO

Planted: May 1 in 8" rows. **Planting Population:** 150,000. **Harvested:** October 1. **Previous Crop:** Corn. **Herbicide:** Cobra. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 42V6™*	69.6	11.2
POWER PLUS 46A5™*	66.4	13.7
HOBLIT 426LL	65.4	11.2
HOBLIT 456LL	65.0	14.8
POWER PLUS 39R5™*	63.3	11.2
POWER PLUS 36J3™*	62.6	10.9
POWER PLUS 36J3™*	62.5	11.1
POWER PLUS 37N5™*	53.5	11.2
Average	63.5	11.9

Casner Farms
Carrollton, MO

Planted: June 16 in 30" rows. **Planting Population:** 150,000. **Harvested:** October 20. **Previous Crop:** Corn. **Herbicide:** Authority Maxx, Roundup, 2,4-D, Marvel. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 46A5™*	61.1	9.5
POWER PLUS 39R5™*	60.3	8.1
POWER PLUS 41M4™*	60.1	8.4
HOBLIT 456LL	59.4	9.5
POWER PLUS 38D2™*	58.0	7.7
HOBLIT 426LL	57.8	8.0
POWER PLUS 36J3™*	56.0	7.7
POWER PLUS 36J3™*	55.5	8.0
HOBLIT 384LL	55.3	7.7
HOBLIT 405LL	55.2	7.9
HOBLIT 355LL	54.6	7.5
POWER PLUS 37N5™*	53.5	7.7
HOBLIT 405LL	53.4	8.0
HOBLIT 384LL	52.8	7.6
POWER PLUS 38K6™*	52.5	7.8
POWER PLUS 42V6™*	51.6	8.8
Average	56.1	8.1

CHARITON

Mike Spencer
Mendon, MO

Planted: May 13 in 15" rows. **Planting Population:** 173,000. **Harvested:** October 3. **Previous Crop:** Corn. **Herbicide:** Liberty. **Soil Type:** Light loam. **Weather:** May–wet, June–wet, July–wet, August–normal.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
HOBLIT 384LL	PS	65.7	12.0
HOBLIT 384LL	PS SDS	64.5	12.1
HOBLIT 355LL	PS	62.0	12.3
HOBLIT 405LL	PS SDS	61.8	12.2
HOBLIT 426LL	PS SDS	55.6	12.2
HOBLIT 456LL	PS SDS	55.6	14.2
HOBLIT 355LL	PS	52.9	12.6
Average		59.7	12.5

LEWIS

Scott Rutledge
Monticello, MO

Planted: May 13 in 30" rows. **Planting Population:** 150,000. **Harvested:** October 17. **Previous Crop:** Corn. **Herbicide:** Roundup, Resource. **Weather:** May–wet, June–wet, July–wet, August–wet.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 41M4™*	64.1	8.8
POWER PLUS 38D2™*	64.0	8.9
POWER PLUS 39R5™*	61.2	10.7
POWER PLUS 38K6™*	58.5	8.8
POWER PLUS 35Z6™*	57.0	8.7
Average	61.0	9.2

RANDOLPH

Donald Ross
Clark, MO

Planted: May 13 in 30" rows. **Planting Population:** 165,000. **Harvested:** October 1. **Previous Crop:** Soybeans. **Fertilizer:** N: 11, P: 50, K: 70. **Herbicide:** Liberty, Authority Maxx. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–wet, August–wet. **Remarks:** Power Shield Seed Treatment Comparison.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
HOBLIT 384LL	PS	53.6	11.4
HOBLIT 384LL	PS SDS	49.2	11.3
Average		51.4	11.4

SALINE

A 6.6 bu/a gain with PS SDS

Phil Henke
Gilliam, MO

Planted: May 16 in 30" rows. **Planting Population:** 150,000. **Harvested:** October 13. **Previous Crop:** Corn. **Herbicide:** Sonic, Liberty. **Soil Type:** Light loam. **Weather:** May–normal, June–wet, July–wet, August–normal.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
HOBLIT 384LL	PS SDS	69.9	09.0
HOBLIT 384LL	PS	63.3	09.6
HOBLIT 426LL	PS	61.9	09.4
HOBLIT 405LL	PS	61.2	09.4
HOBLIT 405LL	PS	60.8	10.0
HOBLIT 456LL	PS	54.3	10.1
Average		61.9	9.6

Phillip & Carrie Henke
Gilliam, MO

Planted: May 16 in 30" rows. **Planting Population:** 150,000. **Harvested:** October 13. **Previous Crop:** Corn. **Herbicide:** Sonic, Roundup, Cobra. **Soil Type:** Light loam. **Weather:** May–normal, June–wet, July–wet, August–normal.

Brand-Variety	Seed Treatment	Bu. Per Acre	% Moisture
POWER PLUS 41M4™*	PS	68.2	11.5
POWER PLUS 38K6™*	PS	68.0	10.0
POWER PLUS 36J3™*	PS SDS	67.3	10.0
POWER PLUS 42V6™*	PS	67.0	11.4
POWER PLUS 39R5™*	PS	66.5	10.7
POWER PLUS 37N5™*	PS	65.3	10.0
POWER PLUS 36J3™*	PS	65.3	10.0
Average		66.8	10.5

Olivia Rahe

Olivia Rahe has recently joined the Burrus office staff as the Communications Associate. She was previously employed by the National Western Stock Show in Denver, CO, one of the country's largest livestock shows and rodeo. She was responsible for managing the sponsorship accounts of corporate partners as well as coordinating the organization's education programs.

Olivia is a central Illinois local, growing up on a small farm in Bluffs, IL and was raised spending summers showing Angus cattle with her sister and father. She graduated from Triopia High School and has a Bachelor of Science degree in communications & rhetorical studies from Illinois College, Jacksonville, IL.

She enjoys spending time outdoors and with family and friends. Her hobbies include shopping, antiquing, and trying out new recipes.

Olivia is excited to join the Burrus team working on marketing and promotional literature pieces. In addition, she will be helping with the training and education of our software programs.

"I've seen a lot of change over my years at Burrus. From the equipment we use to condition and treat the seed to the way we package and deliver. Without fail, the change is better."
Mark "Sparky" Parks, Burrus Production crew – 34 years

LibertyLink® income – is it competitive?

Each year, Burrus is asked the same question. Does LibertyLink® yield compete with that of Roundup®/glyphosate tolerant products? We will not spend much time on the subject of yield because the focus has really changed to income. While potential yield was the question in 2015, potential income associated with our Hoblit and Hughes LibertyLink beans is the question for 2016. Can our LibertyLink program keep up with competing systems?

Addressing the subject of yield in passing

The fact that LibertyLink yields comparable to Roundup systems is an established fact at this point. This is well documented across millions of acres grown to LibertyLink soybeans. We have attached some 2015 data to demonstrate this point (see Figure 1), and our university trials show the same results, time and time again. Our LibertyLink beans compete and often surpass the yield of competing Roundup varieties. To the bean, Hoblit and Hughes LibertyLink beans deliver a versatile high yielding product with great disease packages.

What about income though?

Income per acre is (rightfully) the grower's focus in 2016. Yield is one thing. The rubber really hits the road when you roll in the price of seed and the price of chemicals along with yield. Burrus recently did so, and the results should make growers feel very comfortable with an investment in LibertyLink.

The data used to generate this graph (Figure 2) came from university crop budgets. Line items were adjusted based on the price associated with various herbicide programs, our own seed cost information, and competitor seed cost information. We should note that because RR Xtend had not officially entered the marketplace as of press time, we were forced to estimate the cost of that herbicide program. We estimated a herbicide program that would run cheaper than Roundup and dicamba tank-mixed. The boxes on the graph represent likely income for various products. The arrows up and down represent the likely best and worst case scenarios for income. We did include a cheap Roundup/glyphosate tolerant program in which plants are forced to compete against exceptional resistant weed pressure.

The graphs show that where resistance is not a concern, glyphosate programs can provide a stable, very positive source of income. Growers should note the financial benefits of a glyphosate system in such cases and make sure they maintain those benefits. Periodically incorporate LibertyLink into the rotation, and pair both Roundup and Liberty programs with residual products to maintain those benefits as long as possible.

Remember, maximizing net return is the goal from season to season. Weed resistance dramatically decreases net return in a Roundup system. Growers should note that Liberty is a very competitive system in relation to other herbicide tolerant soybean programs.

Our LibertyLink beans, and programs associated with those beans, provide a better projected net return than Roundup Ready Xtend and competitor LibertyLink programs. Liberty tends to compete well against our own, and competitor Roundup Ready 2 programs, where resistance is less of a concern. It dramatically out-competes those systems where resistance is of extreme concern.

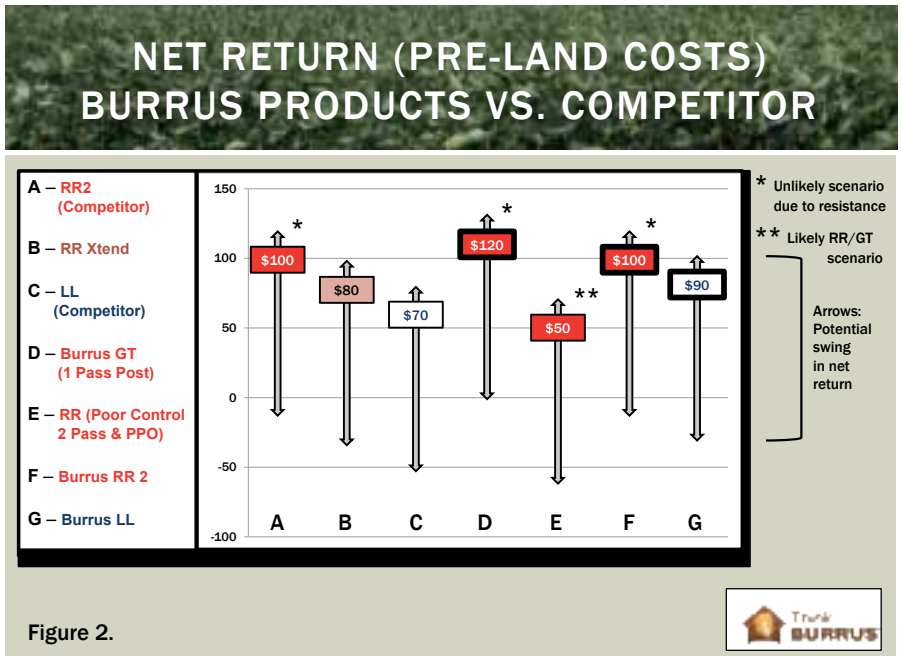


Figure 2.

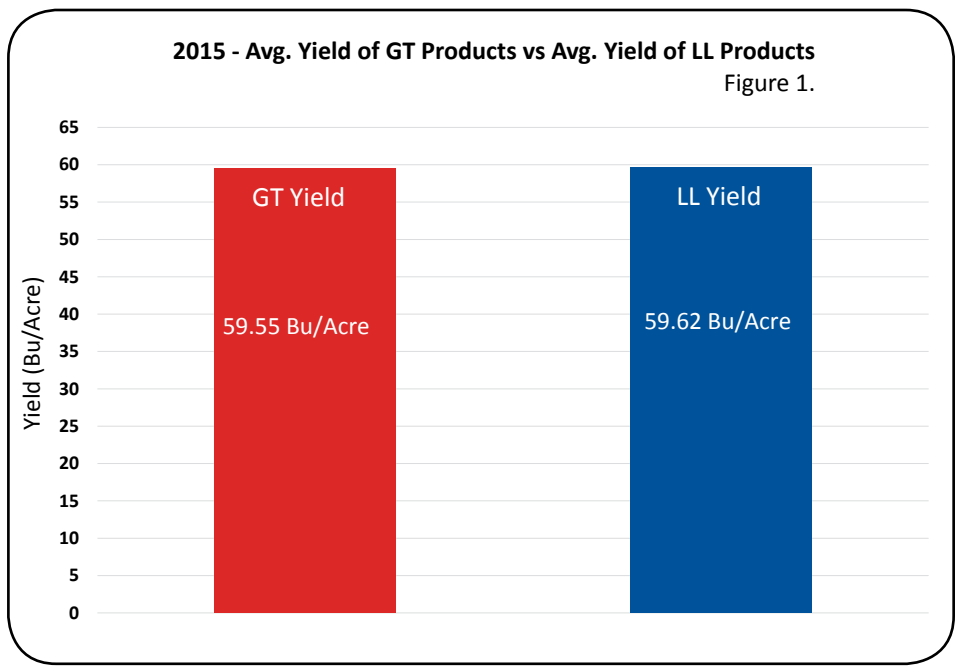


Figure 1.

Collin, Dillon, Jeff & Mason Bixenman saw the Macon Co., MO plot winner Power Plus® 4J93AM™* at 195 bu/a.

Ryan Radley & Owen Bender saw the Holt Co., MO plot average 226 bu/a.

Sydonia Bogner works diligently in our logistics department. She might be one of the cheerful folks customers talk with while arranging delivery of their Burrus Seed.

Power Plus® 4J39AM™* went 224 bu/a in Grundy Co., MO for Alan Tolle of Green Hills Feeders.

The war on resistant waterhemp

By Stephanie Porter

Dr. Mark Bernards, assistant professor at Western Illinois University, teaches a unit on pesticide resistance to his Integrated Pest Management class during which he runs through a series of comparisons with students and asks them which they would choose.

- A weed management program with residual herbicides (and potential carryover) vs. no herbicide residues in the soil?
- A weed management program with herbicides that consistently cause crop injury vs. no crop response from the herbicide?
- A herbicide program where control is good (90% or better) vs. a herbicide program where control is excellent (usually 99%)?
- A herbicide program where the cost is usually $30/acre or more vs. a program (at its least expensive cost) where weeds could be managed for less than $20/acre?

The students always choose the latter option of each of the comparisons above. Which would you choose? In actuality, these were the choices offered to growers with the introduction of Roundup Ready® soybeans in the late 1990's and, as history has it, most farmers made the choice to go with glyphosate within their soybean cropping system.

Why wouldn't they? With Roundup, you gained: easy herbicide for no-till, more acres without more labor, flexible weed control, no pre- herbicides, no more walking soybeans, and weed-free fields at planting. "In short, farmers made a rational and reasonable choice based on economics and cropping management flexibility, which was based on the information they had 15 years ago," stated Dr. Berhards. "Applying the same herbicide an average of two times per year to more than 70 million acres across the U.S. was massive selection pressure. It was inevitable that a few individuals of the hundreds of billions of weeds treated each year with glyphosate would carry a mutation that would allow them to survive the glyphosate application and pass that gene to their offspring."

During the last two years, waterhemp has exploded in soybean fields. Are they herbicide resistant? Were they too tall to be controlled by a post herbicide application? Did they receive their post-herbicide application or was it too wet? Had herbicide residual leached away? Was the waterhemp mostly late emerging weed populations?

We can't be sure of herbicide resistance without testing, but in the last few years, we have to assume that more and more waterhemp (and other weeds) are resistant to glyphosate. As of last year, it was estimated by Dr. Aaron Hager, University of Illinois Crop Science Weed Specialist, that around 20% of waterhemp in Illinois is resistant to glyphosate alone.

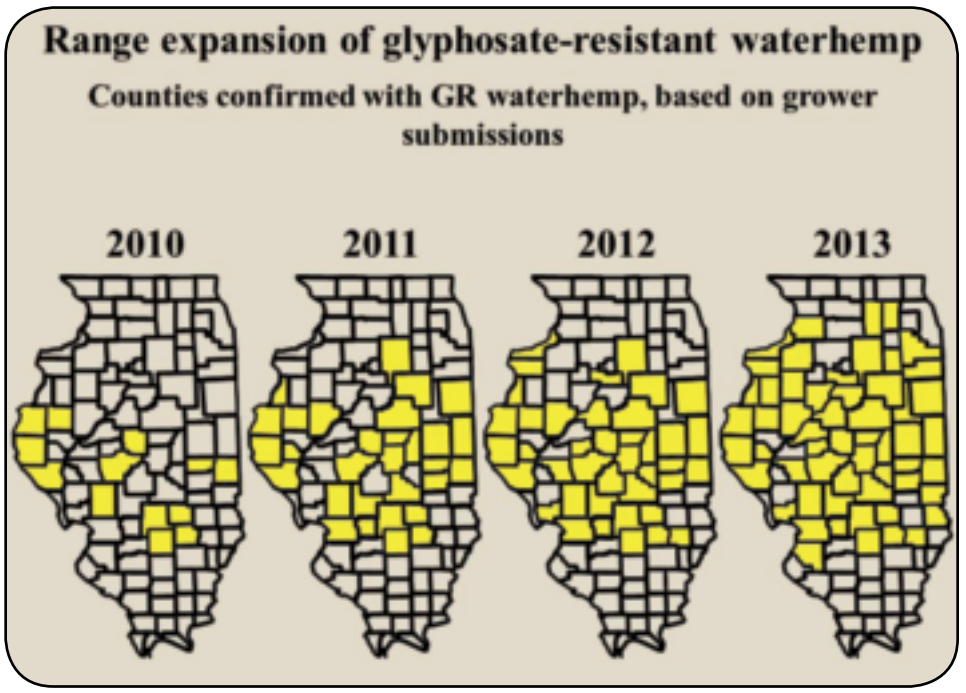
Since 2013, it has become evident to growers that glyphosate was not working anymore so they have turned to conventional herbicides for weed control in soybeans. They turned to a group of herbicides that seem to have the next best activity on waterhemp, the group 14 herbicides, that are referred to as PPO's or burners.

Often times, in the worst case scenarios, growers were applying up to a 3 pass herbicide program that consisted of pre and post herbicides of PPO residuals to combat amaranths (waterhemp, pigweed, and Palmer amaranth) that continue to emerge throughout the season. Again we began using the same herbicide mode of action (group 14) within the same growing season. What has happened? As you can see in Map 2, Missouri and other states are now realizing that not only is the waterhemp resistant to glyphosate (group 9), but also resistant to PPO herbicides (group 14).

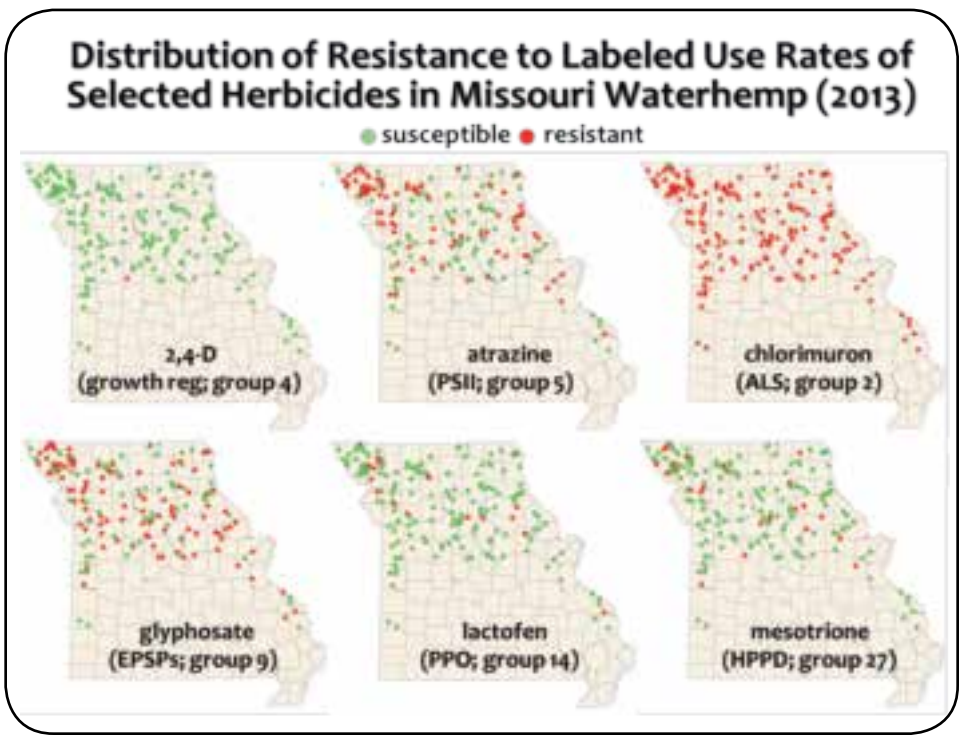
Last year, Dr. Aaron Hager estimated that 15% of the waterhemp in Illinois was resistant to PPO herbicides alone and 52% of Illinois waterhemp was resistant to both glyphosate and PPO herbicides. Illinois was found to have the worst case of waterhemp resistance in the Midwest. In Missouri, waterhemp is being discovered to not only be resistant to glyphosate and PPO herbicides, but also ALS (Group 2) and HPPD (Group 14) herbicides.

What can we do now for amaranth (waterhemp, pigweed, or Palmer amaranth) control in soybeans?

- **Start clean: Use burndown herbicides or tillage.**
- **Must have a pre-residual herbicide (ex. PPO's (Group 14 herbicides). Many are available as premixes and consist of multiple sites of action) – be sure to apply a full rate of herbicide.**
- **Scout two weeks after crop emergence – Apply a post/foliar herbicide (include a residual if needed). Make an attempt at a different site of action than the pre-residual herbicide application (ex. If planting herbicide traited soybeans: Liberty (Group 10 herbicide), Dicamba or 2, 4 – D (Group 4 herbicides). Apply herbicides according to their label before weeds are too tall. The key is coverage because of thick and varied emergence.**
- **Scout one to two weeks after post-herbicide application to make sure weeds are being controlled. Palmer amaranth may require another post foliar herbicide application before it is 4 inches tall.**
- **If all else fails, chopping crews will be needed before weeds reach the reproduction stage to deter the spread of the millions of seeds.**



Map 1: taken from HYPERLINK "http://bulletin.ipm.illinois.edu/?p=2299"



Map 2: taken from http://ipm.missouri.edu/IPCM/2014/4/The-Situation-with-Herbicide-Resistance-in-Missouri-Waterhemp/

The key to curtail waterhemp resistance on your farm is to rotate herbicide sites of action (different herbicide groups) within each season, not just every year! Rotating different herbicide groups within a corn cropping system is easy, but when it comes to good waterhemp control, rotating herbicide sites of action within soybeans is not as easy.

We now know there are no new herbicides with different sites of action in the pipeline, so many growers await the approval of the introduction of soybean varieties with various herbicide traits. For now, we are fortunate to have LibertyLink® soybeans. In recent years, their sales have skyrocketed. The Burrus/Hughes lineup of LibertyLink soybeans is: (Hughes 236LL, Hughes 266LL, Hughes 285LL, Hoblit 355LL, Hoblit 384LL, Hoblit 405LL, Hoblit 423LL, and Hoblit 456LL). The use of Liberty® or glufonsinate, a contact herbicide, along with the Burrus LibertyLink

soybeans lineup, can be an effective tool to combat weeds like waterhemp, that can be resistant to other herbicide groups. Burrus LibertyLink soybeans also offer yield.

We continue to teach our growers how they can achieve successful weed control with a LibertyLink system:

- **Before purchasing LibertyLink soybeans, check with your ag chemical supplier to make sure there will be an adequate supply of Liberty herbicide available.**
- **Start weed free – Fall/spring burndown or tillage might be needed to rid fields of weeds before planting. "Never plant into a stand of weeds, hoping for the best."**
- **The use of a full-rate of a preplant residual herbicide product will help to reduce weed populations, slow weed growth, and offer more flexibility on when the post application of Liberty can be applied.**
- **Thorough weed coverage is key, when it comes to the application of Liberty because it is a contact herbicide.** Better coverage with Liberty can be accomplished by particular nozzles (flat fan or others) that provide medium spray droplets (250 to 350 microns), with higher pressures (40 to 60 psi), at slower application speeds (12 mph or less), with the addition of lots of water – 20 GPA), along with adjuvants such as 2.5 to 3 lbs AMS per acre.
- **Liberty is rainfast within 4 hours.** Be sure not to spray Liberty at night or under adverse conditions (fog, heavy dew, rain or stress such as drought, cool temperatures, and extended periods of cloudiness). Spray Liberty after dawn and 2 hours before sunset to avoid the possibility of reduced weed control.
- **Apply the first post Liberty application (rate of 22-29 fl oz/A) 22 days after crop emergence or up to V3 soybean growth stage, before weeds reach a height above 3-4 inches.** The higher rate (up to 36 fl oz/acre) of Liberty might be needed if environmental conditions prevent timely application and weeds are 6 - 10 inches tall. However, an application of more than 22 oz. of Liberty is not recommended past V4 soybean growth stage.
- **A second post Liberty application (rate of 22 to 29 fl oz/acre) can be applied if needed, but keep in mind that your total use rate of Liberty cannot exceed 65 fl oz/acre.**
- The first and second applications of Liberty should be at least 5 days apart.
- **Use a full rate of a post residual herbicide with your post Liberty application if needed for harder to control weeds such as amaranths.**

Power Plus® 21R6™ brand* is second

Rowntree Farms Inc.
Kansasville, WI

Planted: May 14 in 30" rows. **Harvested:** October 13. ✓**Check Hybrid:** Dyna-Gro 24RY65

Brand-Variety	Bu. Per Acre	Rank	% Moisture
Pioneer P22T69R	66.2	1	11.2
✓**Check**	61.5		11.5
NK Brand S19-B2	63.4	6	11.2
Channel 2108R2	62.8	7	10.9
POWER PLUS 21R6™*	**64.6**	**2**	**11.1**
NK Brand S22-S1	60.2	16	11.0
Dyna-Gro S23RY85	58.8	21	11.2
Pioneer P24T93R	63.2	12	11.1
POWER PLUS 25A5™*	**65.3**	**4**	**10.8**
Curry 1225	65.4	3	11.0
✓**Check**	64.4		11.0
NK Brand S25-L9	64.1	5	11.2
Channel 2508R2	59.9	19	10.8
Dyna-Gro 25RY44	61.2	14	11.0
Pioneer P25T51R	62.9	9	11.5
NK Brand S26-P3	58.1	13	11.4
POWER PLUS 26Z5™*	**57.8**	**15**	**10.8**
Curry 1279	59.3	11	11.3
Pioneer P28T08R	57.5	18	11.1
✓**Check**	58.2		11.2
NK Brand S21-M7	52.9	22	11.3
Curry 1252	58.7	8	11.3
LG Seeds C2441R2	57.9	10	11.1
LG Seeds C2534R2	54.4	20	11.2
LG Seeds C2744R2	56.1	17	11.1
Average	60.6		11.1
Check Average	61.4		11.2

Tom Burrus stands back and enjoys being the "official taste tester" at the Kevin & Adam Casner field day in Carroll Co., MO.

WALWORTH

Duart Farm Inc.
Elkhorn, WI

Previous Crop: Corn. ✓**Check Hybrid:** Dyna-Gro 24RY65.

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓**Check**	60.2		8.7
Dyna-Gro S19-B2	65.7	3	8.9
NK Brand 2108R2	65.3	5	8.6
POWER PLUS 21R6™*	**64.4**	**7**	**8.5**
NK Brand S22-S1	60.1	13	8.5
Dyna-Gro S23RY85	70.4	2	8.5
Pioneer P24T93R	64.5	11	8.4
POWER PLUS 25A5™*	**60.9**	**16**	**8.5**
Curry 1225	62.8	14	8.6
✓**Check**	65.8		8.6
NK Brand S25-L9	67.2	8	8.8
Channel 2508R2	69.3	4	8.6
Dyna-Gro 25RY44	64.0	12	8.6
Pioneer P25T51R	66.1	10	8.5
NK Brand S26-P3	62.0	15	8.8
POWER PLUS 26Z5™*	**67.3**	**6**	**8.8**
Curry 1279	65.8	9	8.9
Pioneer P28T08R	70.7	1	9.3
✓**Check**	63.8		8.8
Average	65.1		8.7
Check Average	63.3		8.7

FAYETTE

Power Plus® 25X6™ brand* makes 76 bu/a

Ron Woodworth
Shullsburg, WI

Planted: May 12 in 30" rows. **Planting Population:** 35,000. **Harvested:** October 5. **Previous Crop:** Corn. **Soil Type:** Medium loam.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 25X6™*	**76.4**	**13.5**
POWER PLUS 27X6™*	**74.8**	**14.1**
POWER PLUS 26Z5™*	**74.6**	**13.9**
POWER PLUS 25A5™*	**73.8**	**13.4**
POWER PLUS 28H5™*	**72.0**	**17.3**
HUGHES 555	**69.5**	**13.3**
HUGHES 201	**69.1**	**13.8**
POWER PLUS 24P4™*	**66.4**	**13.7**
POWER PLUS 22X6™*	**63.5**	**13.8**
POWER PLUS 21R6™*	**61.6**	**14.0**
Average	70.2	14.1

Think BURRUS

RACINE

Power Plus® 28H5™ brand* at 70.6 bu/a

Performance Planting
Franksville, WI

Planted: May 22 in 30" rows. **Planting Population:** 150,000. **Harvested:** October 20. **Previous Crop:** Corn. **Herbicide:** Roundup Plus. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–dry, August–normal. ✓**Check Hybrid:** Power Plus 26Z5™*

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓**Check**	66.9		9.5
HUGHES 201	**62.6**	**8**	**9.5**
POWER PLUS 21R6™*	**62.0**	**9**	**9.6**
POWER PLUS 22X6™*	**64.7**	**7**	**9.5**
POWER PLUS 24P4™*	**64.7**	**6**	**9.6**
POWER PLUS 25A5™*	**59.4**	**11**	**9.4**
POWER PLUS 25X6™*	**65.9**	**4**	**9.4**
✓**Check**	65.9		9.4
HUGHES 555	**67.0**	**3**	**9.3**
POWER PLUS 27X6™*	**69.6**	**2**	**9.5**
POWER PLUS 28H5™*	**70.6**	**1**	**9.6**
POWER PLUS 28V2™*	**67.0**	**5**	**9.4**
POWER PLUS 29X6™*	**62.6**	**10**	**9.4**
✓**Check**	68.7		9.3
Average	65.5		9.5
Check Average	67.2		9.4

Angie Knapp

Angie Knapp joined the Burrus team on a full time basis this spring. She had previously worked nine years for Burrus during harvest seasons. Angie felt there was much pride in the quality product Burrus strives to deliver to their customers, especially exhibited during harvest. Angie grew up in a farming family so she appreciates the dedication of Burrus employees to produce excellent seed.

Angie is a Customer Service Representative and helps Account Managers in southern Illinois, Indiana and a small portion of Missouri. She assists Luke Turner, John Howell, Joe Fletcher, Ryne Brewer, Mandy Warwick, and Adam Adler. One of her professional goals is to build honest, trustworthy relationships with Account Managers and customers to improve customer satisfaction.

Angie has been married to her husband Bruce for 27 years. They have four children, Heather 26, Damian 25, Emily 22, and Brooklyn 18. Heather blessed their family with the first grandchild, Liam on March 26, 2015. Now six months old, he has quickly become one of the family's biggest joys. Angie's hobbies include reading, cooking, quilting, and playing board games with the family on weekends. She is an avid St. Louis Cardinals fan.

When you call the Burrus office, you might hear the friendly voice of Angie. She is ready and willing to help you be more successful.

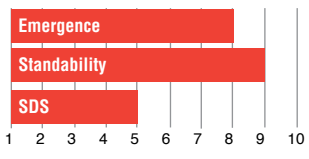
SOYBEAN UPDATE

201 Brand
Maturity 2.1

Hughes Glyphosate

- Comes from a good family
- Early yield power
- Very good white mold score
- Brown Stem Rot (BSR) resistant
- Widely adapted
- Avoid fields with history of severe SCN

PowerShield SDS

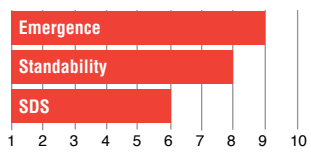


NEW

21R6™* Brand
Maturity 2.1

POWER PLUS Glyphosate

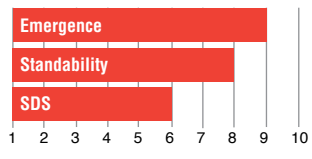
- Early line with well-rounded stats
- Excellent emergence
- Medium height with thin plant type
- Protect yield potential with PowerShield® Treatment
- Excellent early performance zones 5, 4, and 3
- Solid White Mold score



24P4™* Brand
Maturity 2.4

POWER PLUS Glyphosate

- Outstanding Peking SCN resistance
- Excellent Phytophthora resistance & field tolerance
- Exceptional emergence and standability
- Above average plant height and canopy
- Excellent Frogeye package with reduced shattering potential
- Good broad disease package



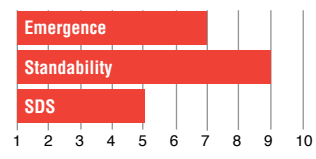
NEW

25A5™* Brand
Maturity 2.5

POWER PLUS Glyphosate

- Mid-season workhorse
- Versatile 2.5 line
- Widely adapted
- Medium plant type with good branching
- Consider PowerShield® SDS for fields with history of severe disease
- High tolerance to Brown Stem Rot

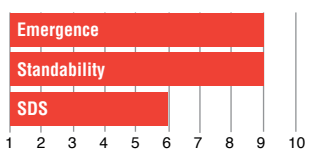
PowerShield SDS



555 Brand
Maturity 2.5

Hughes Glyphosate

- Very showy appearance
- Tremendous performance
- Cyst resistance is very good
- Excellent agronomics
- Best choice for stress-prone areas
- Plant in narrow rows



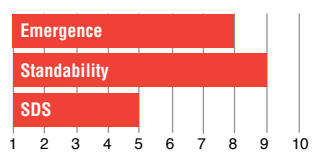
NEW

26Z5™* Brand
Maturity 2.6

POWER PLUS Glyphosate

- Great all-around performance potential
- Plant in all environments
- Good white mold rating
- Consider ILeVO® treatment for enhanced SDS tolerance
- Brown stem rot tolerance is high
- Tall plant type handles light soils

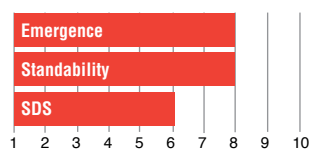
PowerShield SDS



28H5™* Brand
Maturity 2.8

POWER PLUS Glyphosate

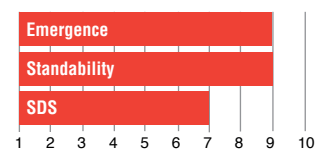
- Game changing yield potential in Group 2
- Works well on better soils
- Compact plants with wide canopy
- Excellent shattering and Frogeye scores
- Great emergence and standablility ratings
- Good Phytophthora multi-race scores



28V2™* Brand
Maturity 2.8

POWER PLUS Glyphosate

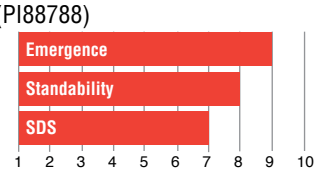
- “Good as gold!”
- Tremendous yield punch with above average plant height
- Very good SCN races 3 and 14 resistance
- Multi-race Phytophthora resistance (Rps1k)
- Average charcoal rot ratings
- Outstanding Brown Stem Rot ratings
- Above average tolerance to aphids
- Excellent harvest standability



GLYPHOSATE TOLERANT SOYBEANS

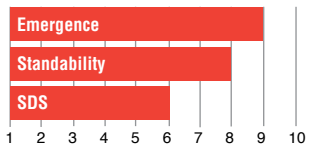
30B5™* Brand
Maturity 3.0

- Impressive yield statistics
- Best on your most productive, less drought prone soils
- If you have a history of SDS, use this bean
- Average plant height and canopy width
- Shattering and standabililty ratings, simply amazing
- Sturdy hypocotyl and fantastic emergence
- Great Downy mildew scores
- Great SCN protection for race 3 and 14 (PI88788)



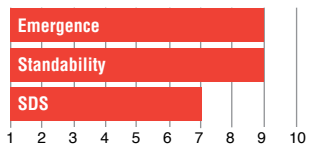
32D5™* Brand
Maturity 3.2

- Durable bean, well suited for moderate to highly productive soils
- Excellent emergence, great standability
- Good Frogeye protection
- Great SCN race 3 resistance (PI88788)
- Broad disease package



34T3™* Brand
Maturity 3.4

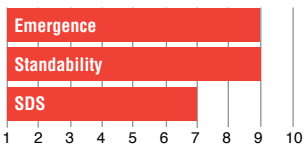
- Exceptional field emergence scores
- Great harvest standability
- SCN resistance with PI88788 (Race 3)
- Multi-race Phytophthora resistance (Rps1K)
- Great tolerance to SDS
- Impressive BSR package
- Performs best on good soils but will work everywhere



NEW

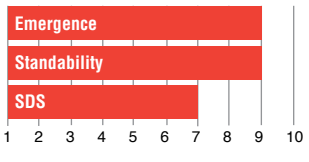
35Z6™* Brand
Maturity 3.5

- Prefers medium to high productivity soils
- Incredible yield potential
- Holds back phytophthora
- Good standability
- Our first RR2 Yield bean



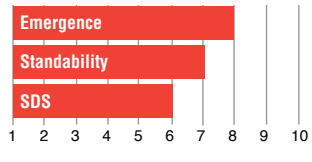
36J3™* Brand
Maturity 3.6

- Landlady eye appeal
- Very good SCN resistance
- Ultra high yield potential on all soil types
- Good Phytophthora and SDS resistance
- Works on all environments
- A new leader for this maturity
- Available with PowerShield® SDS treatment



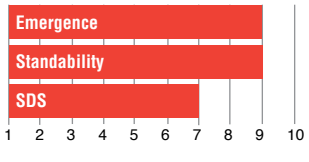
37N5™* Brand
Maturity 3.7

- Brings incredible yield potential
- Well suited for less productive, well drained soils
- Expands the yield envelope in minimum and conventional till fields
- Great emergence scores with a stout hypocotyl
- Consider scouting as it responds to fungicides
- Average plant height and canopy width
- Race 3 & 14 SCN resistance (PI88788)



38D2™* Brand
Maturity 3.8

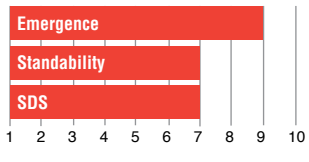
- Very stable performance across locations
- Excellent field emergence scores
- Slightly above average plant height and canopy width
- Outstanding SCN race 3 resistance
- Multi-race Phytophthora resistance (Rps1k)
- Very good shattering resistance
- Excellent harvest standability
- Works on all environments



NEW

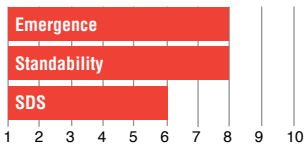
38K6™* Brand
Maturity 3.8

- Prefers better drained soils
- Yield, yield, yield potential
- A Missouri bean
- Grows off rapidly after quick emergence
- 5 bushels better than Power Plus® 38D2™*
- Very good SDS tolerance



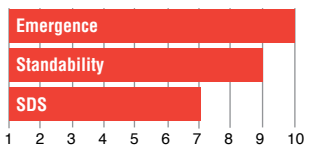
39R5™* Brand
Maturity 3.9

- Expect a yellow flash
- Exceptional yield potential across all yield environments
- Incredible Frogeye scores
- If you struggled with stem canker in the past, this bean is for you!
- Good Downy mildew tolerance
- Great emergence and good standability



41M4™* Brand
Maturity 4.1

- Really strong field emergence scores
- Great harvest standability
- Great SCN resistance with PI88788
- Really good phytophthora tolerance
- Very good tolerance to SDS
- Performs best on better soil types/higher yielding environments
- A possible “kink in the armor” with Frogeye leaf spot
- Available with PowerShield® SDS



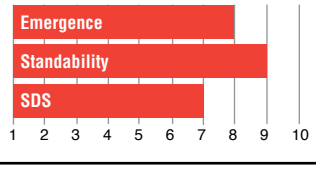
NEW

42V6™* Brand
Maturity 4.2

- Good defensive traits across all soils
- Specifically good on Phyophthora, SCN, stem canker (Frogeye)
- Great yield potential
- Low shattering
- Very good standability
- Fast emergence

46A5™* Brand
Maturity 4.6

- Pummels the competition with remarkable yield potential
- Great on low yield environments
- Great in high yield situations, too
- May yellow flash when sprayed with Roundup®
- Tall with exceptionally wide canopy for early row closure
- Stands well and holds shattering back
- A great bean if you fought stem canker in the past



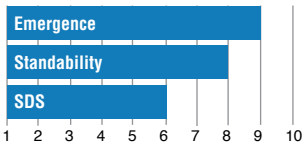
SOYBEAN UPDATE

LIBERTYLINK® SOYBEANS

NEW

236LL Brand
Maturity 2.3

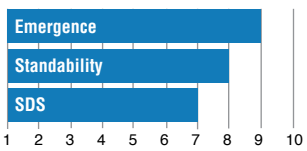
- Versatile early LL line
- Plant on any soil type
- Yield performance is excellent
- Medium tall plant type that branches well
- Very good broad-spectrum disease package



NEW

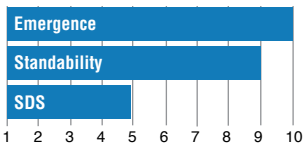
266LL Brand
Maturity 2.6

- Plant anywhere
- Big yields, versatile agronomic package
- Medium-tall plant type, widely adapted
- Mid season LibertyLink® option that performs
- Good ratings for a variety of diseases
- Adds diversity to your genetic package



285LL Brand
Maturity 2.8

- Works well across all soil types
- Great bean for your lighter soils
- Average plant height with wide canopy
- Emerges quickly and shatters little
- Exceptional disease resistance, Phytophthora, and Brown Stem Rot protection
- Great against white mold and SCN (PI88788)
- Great lodging score, too

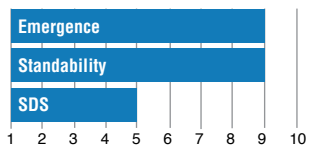


Hoblit 355LL Brand
Maturity 3.5

- Performs well across environments
- Excels on light soils
- Average plant height and wider than average canopy width
- Exceptional disease package so you can rest easy
- Good Phytophthora (Rsp 1k), BSR and SDS protection
- Outstanding scores on charcoal and Frogeye
- Some of the best emergence, shattering and lodging scores

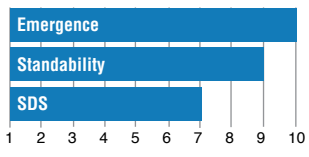
Hoblit 384LL Brand
Maturity 3.8

- Exceptional emergence
- Average bean height but good score on light soils
- Nice bean for those a little "shattering shy"
- Great standability
- Good Phytophthora scores
- Available with PowerShield® SDS



Hoblit 405LL Brand
Maturity 4.0

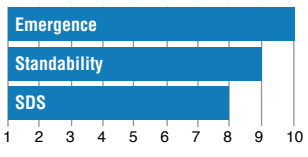
- Exceptional emergence with average height and width
- Works well across all soils
- Exceptional on lighter soils
- Great bean for the shatter shy
- Exceptional standability
- Great Phytophthora tolerance (Rps 1c) so don't worry about resistance
- Very good Frogeye as well as Root Knot tolerance
- SCN resistance (PI88788)



NEW

Hoblit 426LL Brand
Maturity 4.2

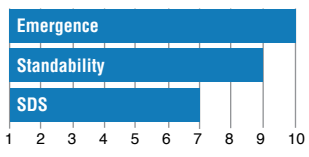
- Stands well with average plant height
- Fast emergence
- Great disease package
- Higher yields
- Works across soil types



NEW

Hoblit 456LL Brand
Maturity 4.5

- Very versatile
- Great scores for lodging and Sudden Death Syndrome
- More yield
- Great start with fast emergence
- Taller than average, short for a group 4



LibertyLink® Soybeans

LibertyLink® soybeans with Liberty® herbicide is the most reliable management solution for weeds resistant to glyphosate and multiple herbicide classes.

LibertyLink soybean varieties combine elite genetics and excellent crop safety with built-in tolerance to the powerful, postemergence weed control of Liberty. High-yielding LibertyLink soybean varieties are available in a range of maturities.

Liberty herbicide, applied over the top of LibertyLink soybean varieties, provides powerful control of broadleaf and grass weeds, protecting grower's yield, profit and the long-term success of their operation.

LibertyLink® Patent Statement

Soybean seeds containing LibertyLink® are protected under multiple U.S. patents and may be planted only to produce one (1) commercial crop, and only after signing a Bayer Grower Technology Agreement. It is illegal to save or catch soybean seeds containing the LibertyLink trait for use as planting seed or for transfer to others for use as planting seed.

Liberty® Herbicide

Every missed weed can impact yield. With Liberty, your toughest weeds are better controlled with a different chemistry and unique mode of action. Spraying Liberty herbicide in-crop provides nonselective postemergence control of even the toughest weeds, including Palmer amaranth, giant ragweed, waterhemp and marestail.

Respect the Rotation™ Statement

Respect the Rotation™ is an initiative to elevate the importance and grower adoption of herbicide diversity to prevent or manage weed resistance. Glyphosate weed resistance is a dominating threat throughout the United States that affects land values, rental agreements, conservation tillage and can greatly reduce yields. The use of Integrated Weed Management practices, such as use of residuals, pre-emergence herbicides and rotation of crops, traits and herbicides, is critical as no one method is likely to be completely successful.

Soybean Ratings and Characteristics

Soybeans with glyphosate tolerant gene	Maturity	Soybean Cyst Nematode	Herbicide Tolerance	Emergence	Standability	Shattering Score	Phytophthora (PRR)	Brown Stem Rot (BSR)	Sudden Death (SDS) Tolerance	Frogeye Leaf Spot Tolerance	White Mold	Iron Chlorosis	Canopy Width	Plant Height	Light Soils	Pubescence
Hughes Brand 201	2.1	None	GT	8	9	9	6	10	5	NR	7	5	7	8	7	L. Tawny
Power Plus® Brand 21R6™* NEW	2.1	PI88788	GT	9	8	NR	5	7	6	NR	6	3	5	6	6	L. Tawny
Power Plus® Brand 24P4™*	2.4	Peking	GT	9	8	7	6	7	6	9	5	6	6	7	6	L. Tawny
Hughes Brand 555	2.5	PI88788	GT	9	9	9	6	7	6	NR	6	3	6	7	7	L. Tawny
Power Plus® Brand 25A5™* NEW	2.5	PI88788	GT	7	9	NR	5	9	5	7	6	6	6	7	8	L. Tawny
Power Plus® Brand 26Z5™* NEW	2.6	PI88788	GT	8	9	NR	5	9	5	7	7	6	6	8	8	L. Tawny
Power Plus® Brand 28V2™*	2.8	PI88788	GT	9	9	7	5	8	7	9	6	4	6	8	8	L. Tawny
Power Plus® Brand 28H5™*	2.8	PI88788	GT	8	8	8	7	5	6	9	5	5	8	6	7	Gray
Power Plus® Brand 30B5™*	3.0	PI88788	GT	9	8	9	6	7	7	NR	5	3	7	6	5	L. Tawny
Power Plus® Brand 32D5™*	3.2	PI88788	GT	9	8	NR	7	NR	6	7	5	5	8	6	5	L. Tawny
Power Plus® Brand 34T3™*	3.4	PI88788	GT	9	9	6	6	9	7	6	6	5	6	6	7	L. Tawny
Power Plus® Brand 35Z6™* NEW	3.5	PI88788	RR2 Yield	9	9	NR	7	9	7	4	5	4	6	6	5	Gray
Power Plus® Brand 36J3™*	3.6	PI88788	GT	9	9	8	7	6	7	6	5	4	7	7	7	L. Tawny
Power Plus® Brand 37N5™*	3.7	PI88788	GT	8	7	NR	4	9	6	5	5	4	7	7	8	Gray
Power Plus® Brand 38D2™*	3.8	PI88788	GT	9	9	7	6	6	7	5	NR	5	7	7	8	L. Tawny
Power Plus® Brand 38K6™* NEW	3.8	PI88788	GT	9	7	NR	5	9	7	5	5	5	7	8	9	L. Tawny
Power Plus® Brand 39R5™*	3.9	PI88788	GT	8	8	NR	6	NR	6	9	5	5	8	7	8	Tawny
Power Plus® Brand 41M4™*	4.1	PI88788	GT	10	9	8	7	7	7	5	4	4	7	6	7	L. Tawny
Power Plus® Brand 42V6™* NEW	4.2	PI88788	GT	9	9	9	7	6	7	7	5	4	7	8	8	L. Tawny
Power Plus® Brand 46A5™*	4.6	PI88788	GT	8	9	9	6	6	7	7	NR	4	8	9	9	Tawny

Soybeans with LibertyLink® gene	Maturity	Soybean Cyst Nematode	Herbicide Tolerance	Emergence	Standability	Shattering Score	Phytopthera (PRR)	Brown Stem Rot (BSR)	Sudden Death (SDS) Tolerance	Frogeye Leaf Spot Tolerance	White Mold	Iron Chlorosis	Canopy Width	Plant Height	Light Soils	Pubescence
Hughes Brand 236LL NEW	2.3	PI88788	LL	9	8	9	6	7	6	NR	6	8	7	7	7	L. Tawny
Hughes Brand 266LL NEW	2.6	PI88788	LL	9	8	9	6	8	7	NR	6	6	7	7	7	L. Tawny
Hughes Brand 285LL	2.8	PI88788	LL	10	9	9	8	8	5	NR	7	7	7	6	8	Gray
Hoblit Brand 355LL	3.5	PI88788	LL	10	9	9	8	8	7	7	7	8	8	7	8	L. Tawny
Hoblit Brand 384LL	3.8	PI88788	LL	9	9	9	8	NR	5	7	NR	7	8	7	7	L. Tawny
Hoblit Brand 405LL	4.0	PI88788	LL	10	9	9	8	8	7	8	7	7	6	7	8	L. Tawny
Hoblit Brand 426LL NEW	4.2	PI88788	LL	10	9	9	8	8	8	8	7	NR	7	8	8	L. Tawny
Hoblit Brand 456LL NEW	4.5	PI88788	LL	10	9	9	8	7	7	6	NR	NR	7	7	8	L. Tawny

Ratings: 10 = Best, 1 = Poorest, NR = Not Rated

*Power Plus® brand seed is distributed by Burrus. ®Power Plus is a registered trademark of Pioneer Hi-Bred.

PROTECTION OF INTELLECTUAL PROPERTY: PVPA AND PATENTS

"Buyer represents he is purchasing the Seed solely for purposes of producing a grain crop, and the Seed, and any product from the Seed, shall not be resold or used as Seed."

The purchase of this seed does not, and shall not be construed to, transfer ownership of any Plant Variety Protection Act rights, patent rights and other intellectual property rights associated with a Soybean Product. Burrus and Hughes shall take all measures requested by our suppliers (e.g., labeling, requiring contractual agreement with its customers, etc.) to protect the PVP and/or intellectual property rights relating to a Soybean Product.

Burrus and Hughes shall print on all bags, tags, brochures and order forms for each Soybean Product which is subject to protection under the Plant Variety Protection Act and/or Patent Act, as applicable:

For Soybean Product on which a PVP certificate has issued or for which such a certificate has been applied: will be labeled as such. Unauthorized Sales for Reproductive Purposes Prohibited.

For Soybean Product on which a U.S. patent has issued or for which a patent has been applied will be labeled as such.

"By contract, use or sale as seed of the product derived from this seed is prohibited."

Always follow grain marketing, stewardship practices and pesticide label directions. Varieties that are glyphosate tolerant (including those designated by the letter "R" in the product number) contain genes that confer tolerance to glyphosate herbicides. Glyphosate herbicides will kill crops that are not tolerant to glyphosate.

CORN UPDATE

ABOVE / BELOW-GROUND INSECT CONTROL

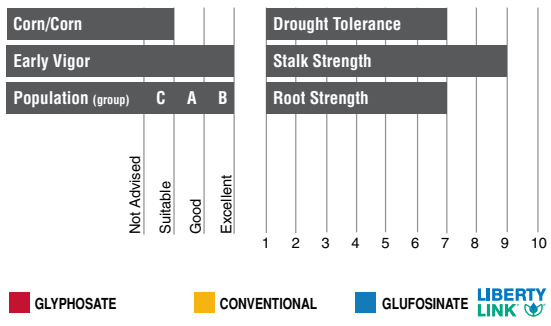
1286 3000GT
Brand

94 Day Maturity

Hughes

Agrisure 3000GT | Agrisure 3000GT

- Responds to high management practices
- Fixed ear requires population bump
- Husks open up for rapid dry down



The problem solver. 1

NEW

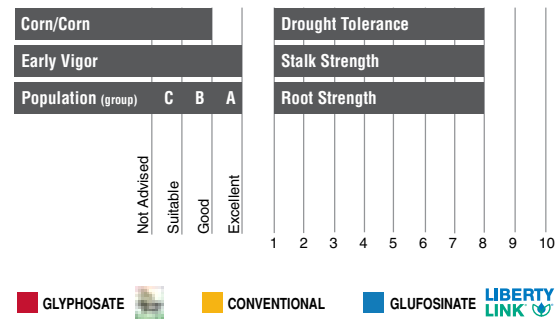
1K08AMXT™*
Brand

100 Day Maturity

POWER PLUS

AcreMax Xtreme | AcreMax Xtreme

- Shorter stature with low ear-line
- Excellent standability
- Good NCLB score
- Fixed ear with decent length
- Strong emergence



Early and tough. 2

NEW

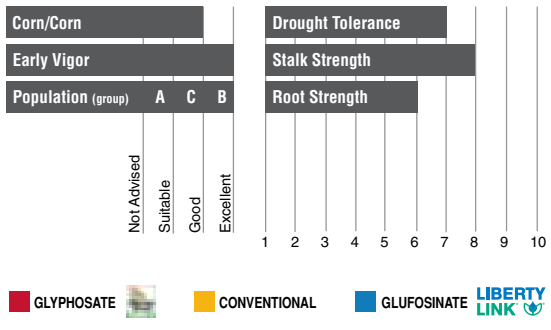
1S26AMXT™*
Brand

101 Day Maturity

POWER PLUS

AcreMax Xtreme | AcreMax Xtreme

- Very high yield potential
- Very good grain quality
- Good ear size and flex
- Spray candidate in high disease years
- Silage utility



Rewards aggressive management. 3

NEW

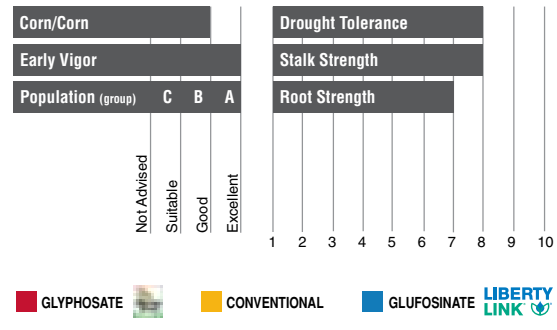
2F91AMXT™*
Brand

103 Day Maturity

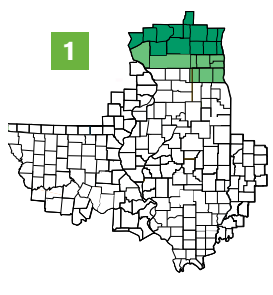
POWER PLUS

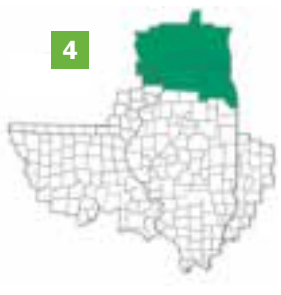
AcreMax Xtreme | AcreMax Xtreme

- Good health and agronomic package
- Fixed ears with good test weight
- Very early flowering
- High pops needed for high yields
- Strong emergence



Dependable early performance. 4





Let the Burrus multi-brand strategy help you get the most profit from all of your acres.

2V56AMX™* Brand — POWER PLUS® — CORN ON CORN

105 Day Maturity

Optimum® AcreMax® Xtra · Optimum® AQUAmax® (Glyphosate) — Conventional — Optimum® AcreMax® Xtra · Optimum® AQUAmax® (Glufosinate)

- High test weight grain
- Good top-end yield potential leads to grower's smiles
- No refuge needed
- Will benefit from fungicide applications under GLS pressure

Corn/Corn · Early Vigor · Population (group) C B A — Not Advised / Suitable / Good / Excellent

Drought Tolerance (Optimum® AQUAmax®) · Stalk Strength · Root Strength — 1 2 3 4 5 6 7 8 9 10

GLYPHOSATE · CONVENTIONAL · GLUFOSINATE LIBERTY LINK®

Convenience, drought protection and yield.

5

NEW — 3H85AMX™* Brand — POWER PLUS®

107 Day Maturity

Optimum® AcreMax® Xtra (Glyphosate) — Conventional — Optimum® AcreMax® Xtra (Glufosinate)

- Tremendous top end yield potential
- Compliments Power Plus® 2V56 AMX™*
- Great roots
- Fits best in northern IL
- Performs well at moderate pops

Corn/Corn · Early Vigor · Population (group) A C B — Not Advised / Suitable / Good / Excellent

Drought Tolerance · Stalk Strength · Root Strength — 1 2 3 4 5 6 7 8 9 10

GLYPHOSATE · CONVENTIONAL · GLUFOSINATE LIBERTY LINK®

High yield potential flex hybrid.

6

4685 3111 Brand — Catalyst®

109 Day Maturity

Agrisure Viptera 3111 (Glyphosate) — Conventional — Agrisure Viptera 3111 (Glufosinate)

- Favorable drought tolerance scores
- Excellent plant integrity allows for harvest flexibility
- May respond to fungicide application management

Corn/Corn · Early Vigor · Population (group) A B C — Not Advised / Suitable / Good / Excellent

Drought Tolerance · Stalk Strength · Root Strength — 1 2 3 4 5 6 7 8 9 10

GLYPHOSATE · CONVENTIONAL · GLUFOSINATE LIBERTY LINK®

Wide adaptation on all soils.

7

4J95AMX™* Brand — POWER PLUS®

109 Day Maturity

Optimum® AcreMax® Xtra · Optimum® AQUAmax® (Glyphosate) — Conventional — Optimum® AcreMax® Xtra · Optimum® AQUAmax® (Glufosinate)

- Will adapt very well across geography and soil types
- Good agronomics and responds favorably to fungicide management
- Optimum® AQUAmax® hybrid with great drought tolerance

Corn/Corn · Early Vigor · Population (group) C A B — Not Advised / Suitable / Good / Excellent

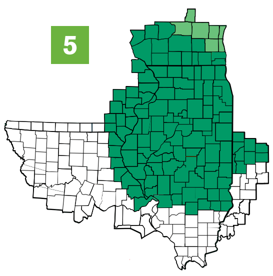
Drought Tolerance (Optimum® AQUAmax®) · Stalk Strength · Root Strength — 1 2 3 4 5 6 7 8 9 10

GLYPHOSATE · CONVENTIONAL · GLUFOSINATE LIBERTY LINK®

The new standard for yield with no refuge needed.

8

5



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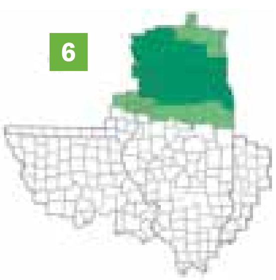

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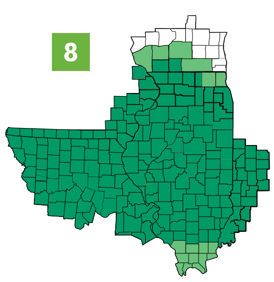


CORN UPDATE

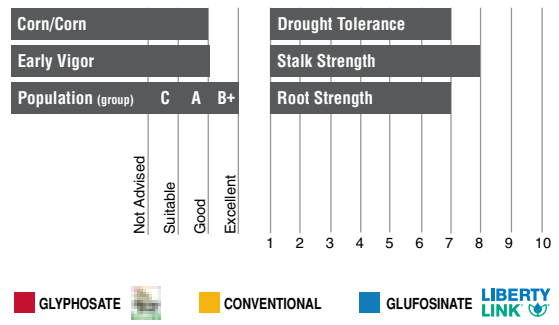
ABOVE / BELOW-GROUND INSECT CONTROL

5C17AMXT™*
Brand

POWER PLUS

110 Day Maturity

- Plant it thick
- Enjoy its hard, heavy test weight grain
- 2 modes of action for both above and below ground insect control
- Responds to fungicides
- Husks that flair and thrives on prairie soils



A new meaning for top end yield potential.

9

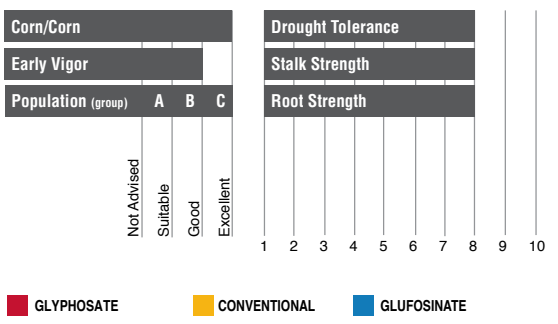
5Z44 3122
Brand

CORN ON CORN

Think BURRUS

111 Day Maturity

- Excellent in corn-on-corn situations
- Big ears with deep kernels to make you proud
- Prefers low plant population densities
- Prefers the better soils
- Single bag refuge



Long spiky kernels on a girthy ear spells yield.

10

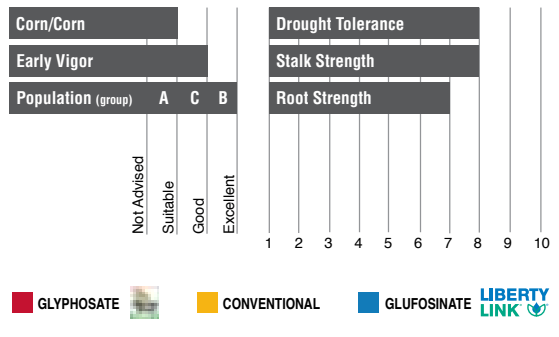
NEW

6L45AMT™*
Brand

POWER PLUS

112 Day Maturity

- Fits well in the areas needing above ground insect control
- Add granular insecticide for a dual mode of action on CRW
- Lots of top end yield potential at medium plant densities
- Very good stalks and roots
- Fast dry down at this maturity



Corn borer pyramid and one CRW trait.

11

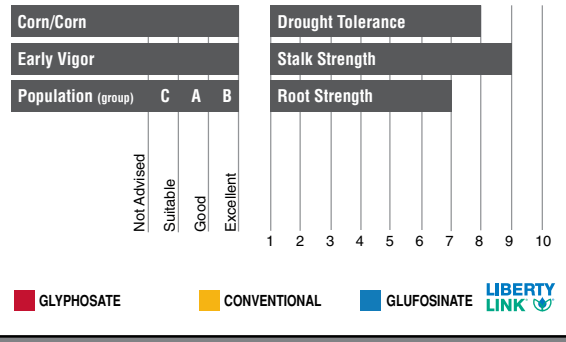
6T54 3000GT
Brand

CORN ON CORN

Think BURRUS

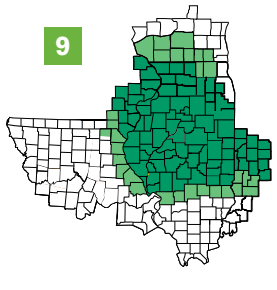
113 Day Maturity

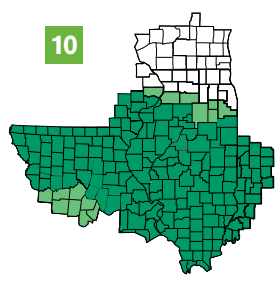
- Great early planting choice because of excellent emergence ratings
- Use soil insecticide or add Poncho® 1250 VOTiVO® for second mode of rootworm control
- Excellent silage option north
- Avoid wet feet
- Responds well to sidedressing

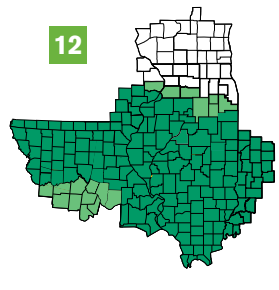


It will fool you with more corn than it looks.

12







We understand that we have to offer better products and provide more information and better service than the national brands. SO WE DO.

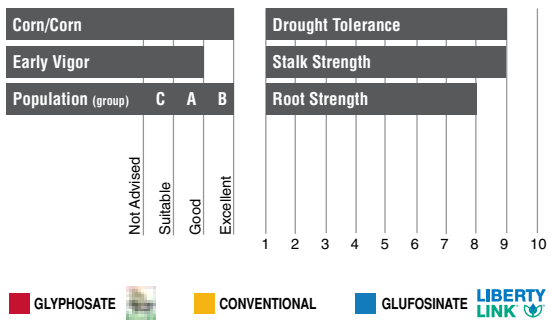
6F74AMX™*
Brand

CORN ON CORN

POWER PLUS

113 Day Maturity

- No separate refuge needed in the corn belt
- Good drought tolerance as it prefers well drained soils
- Very good leaf disease and ear rot tolerances



Strongest performance in tough situations.

13

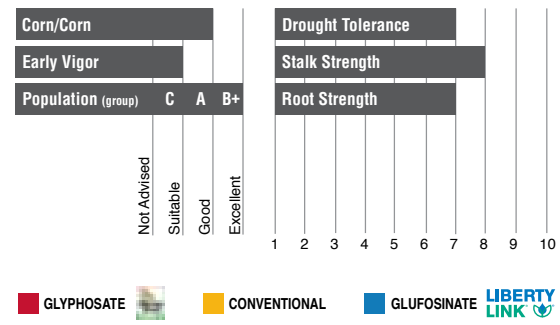
NEW

6P75AMX™*
Brand

POWER PLUS

113 Day Maturity

- Performs best on high productivity soils
- Responds to fungicides
- Tall plants with high ear placement
- Great in zones 6, 7, & 8



The yield dynamo.

14

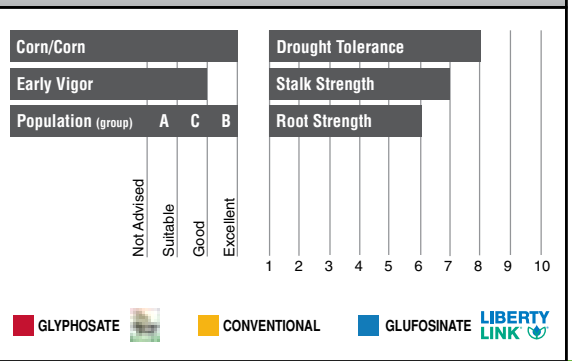
7A18 Q™*
Brand

CORN ON CORN

POWER PLUS

114 Day Maturity

- Great choice for the corn rootworm areas
- Exceptional drought tolerance
- Nice stay green with good stalks and roots



Off the chart performance.

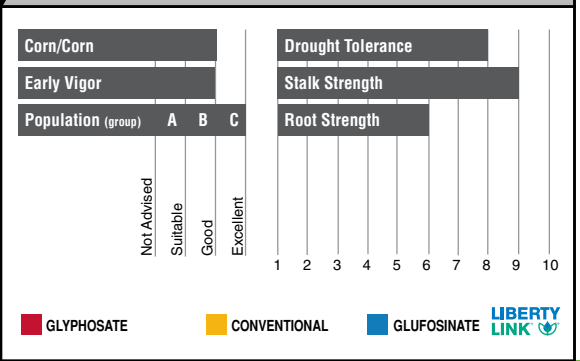
15

7893 3111
Brand

Catalyst

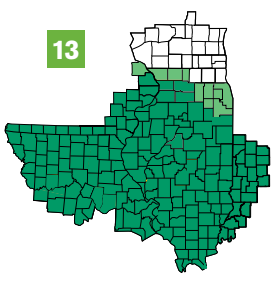
115 Day Maturity

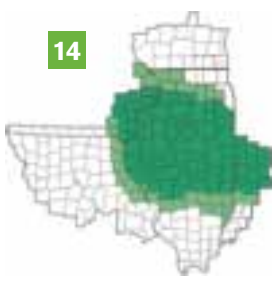
- Great choice for sand irrigated acres
- Harness the top end yield potential
- Best performance at lower plant density

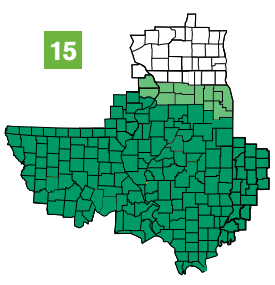


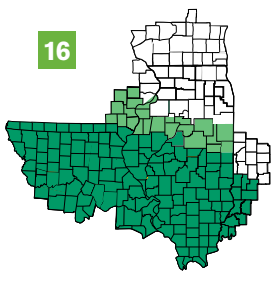
The Banker's corn, plant it along the road.

16









CORN UPDATE

ABOVE-GROUND INSECT CONTROL

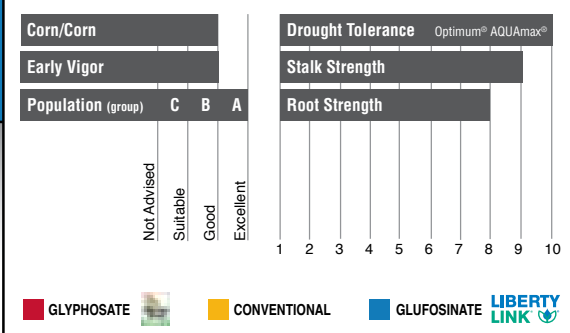
2N82AM™*
Brand

105 Day Maturity

AcreMax ABOVE | AcreMax ABOVE | AQUAmax | AQUAmax

- No additional (or separate) refuge required in the corn belt
- Optimum® AQUAmax® hybrid with great drought tolerance
- The ideal early season product for light soils
- Plant it early

POWER PLUS®



The ideal early product for light soils.

17

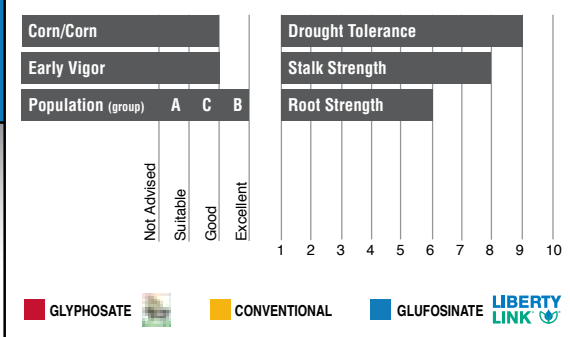
4V45AM™*
Brand

108 Day Maturity

AcreMax ABOVE | AcreMax ABOVE

- Well suited for clay, timber and varied soils
- Heavy test weight
- A strong disease package
- Slightly taller plant with higher ear placement

POWER PLUS®



The ideal product for southern IL and MO.

18

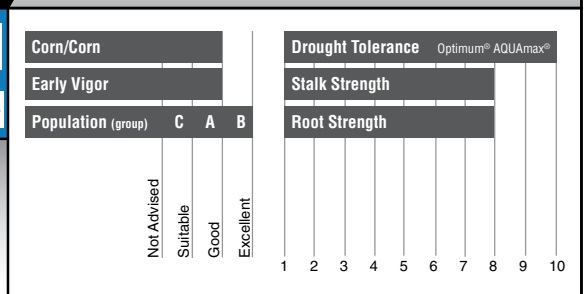
4J93AM™*
Brand

109 Day Maturity

AcreMax ABOVE | AcreMax ABOVE | AQUAmax | AQUAmax

- Short, low ear with excellent ear retention
- Will work across geography and soil types
- Optimum® AQUAmax® hybrid with great drought tolerance
- No refuge needed

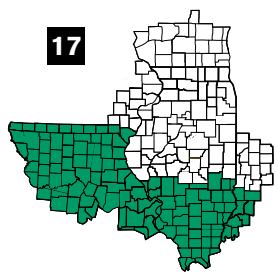
POWER PLUS®



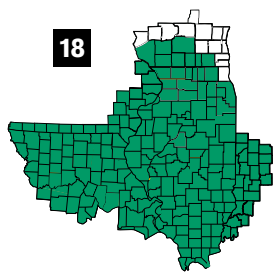
Setting a new performance standard at 109 days.

19

17



18



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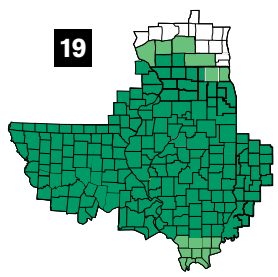


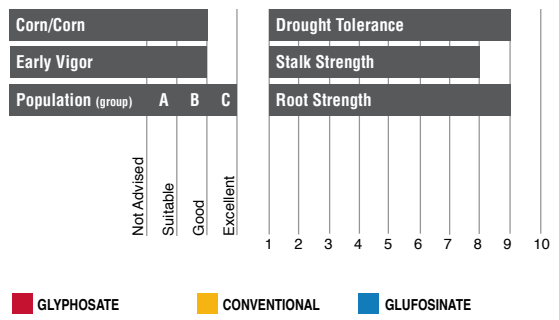
5009 3220
Brand

Catalyst

110 Day Maturity

Agrisure Viptera 3220 E-Z Refuge

- Position it like you do Power Plus® 6F74AMX™*
- It is for the area outside of the corn rootworm variant
- Stands extremely well, leave it for late harvest
- Great drydown scores
- Handles lighter soils like a dream



Old reliable.

20

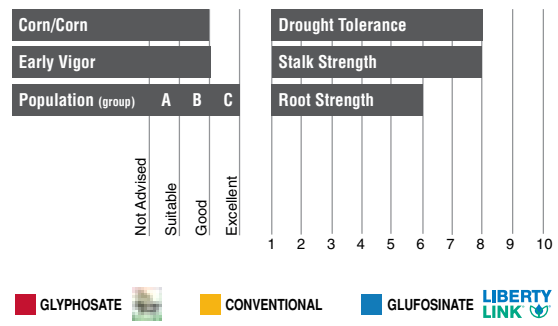
6C41 S™*
Brand

POWER PLUS

112 Day Maturity

HERCULEX I HX

- Taller plant type with excellent stalks
- Designed for southern Illinois and Missouri
- Heavy test weight grain
- Squeezes extra grain out of a great year



Hard endo premium candidate.

21

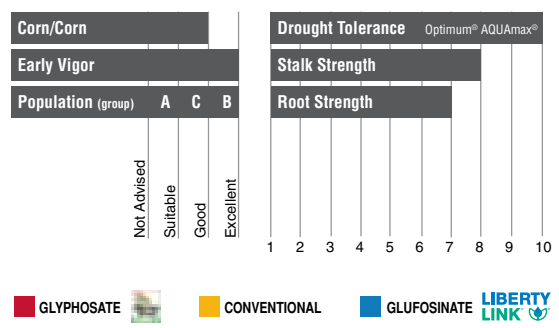
6N83AM™*
Brand

POWER PLUS

113 Day Maturity

AcreMax AcreMax AQUAmax AQUAmax

- Girthy big ears
- Strong stalks with reduced risk of greensnap
- Short plant with a low ear
- Responds to fungicides



For tough soils – Optimum® AQUAmax® rated.

22

7U15AM-R™*
Brand

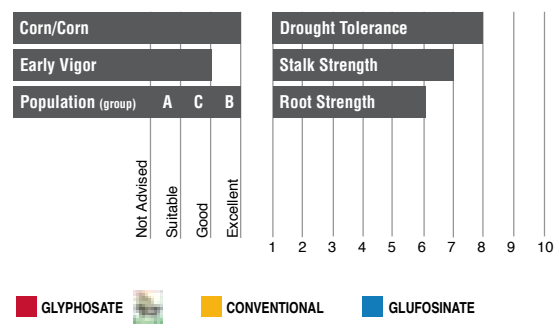
CORN ON CORN

POWER PLUS

114 Day Maturity

AcreMax

- Excellent agronomic characteristics
- Good drought tolerance
- Growers will appreciate this high yield potential
- Do not spray with Liberty®



Off the chart performance.

23

NEW

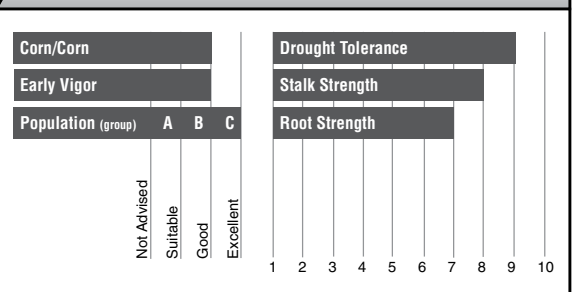
7577 3010
Brand

Catalyst

114 Day Maturity

Agrisure3010 Agrisure3010

- Ears out big, plant it thin and win
- Great top end yield potential
- Great stalks and roots
- Beautiful appearance



Provides guts for southern IL and MO.

24

7H23 S™*
Brand

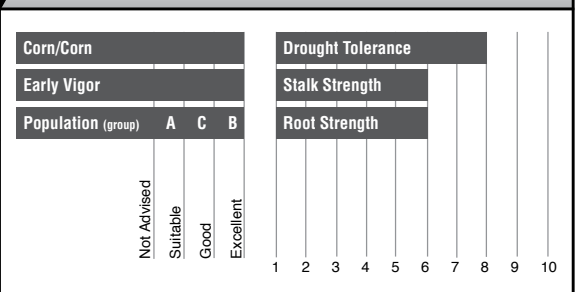
CORN ON CORN

POWER PLUS

114 Day Maturity

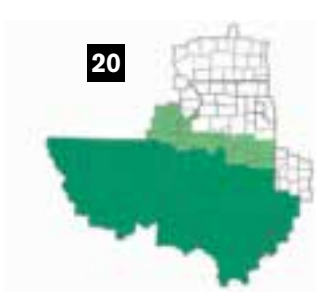
HERCULEX I HX

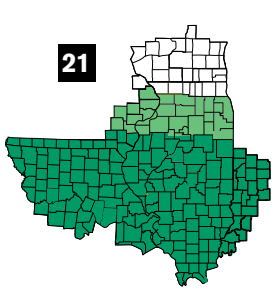
- Great drought tolerance allows for wide adaptability
- Silks early for maturity
- Responds well to sidedressing
- Consider fungicide appplication

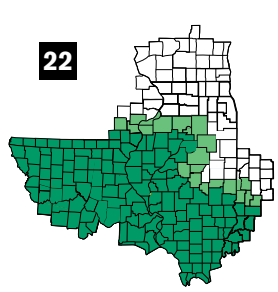


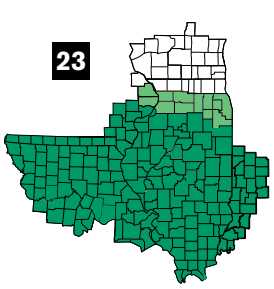
Might have the most raw yield potential of any product.

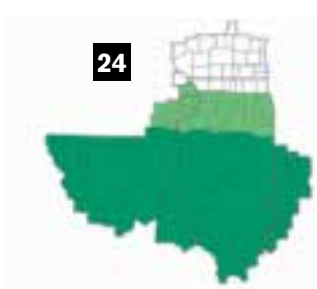
25

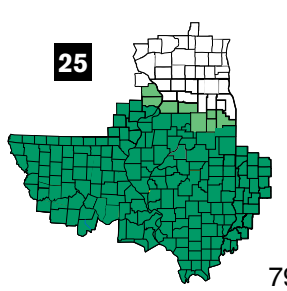












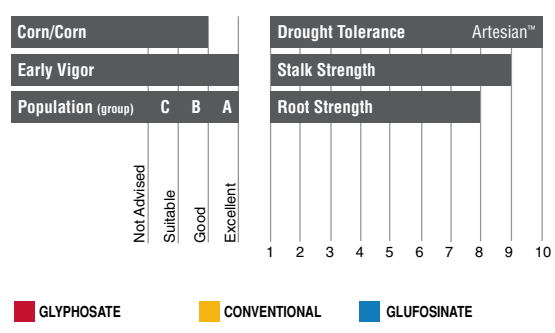
CORN UPDATE

GLYPHOSATE-RESISTANT

2428 GTA
Brand

100 Day Maturity

- Excellent performance across soil types
- Very good agronomics in early season product



Early and tough.

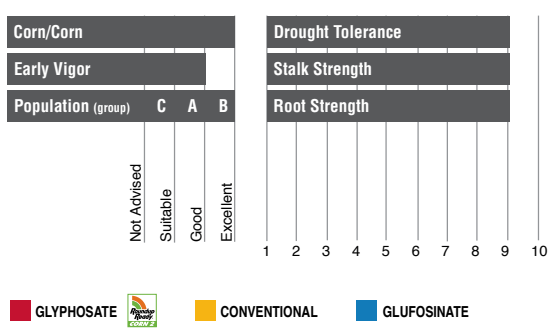
26

NEW

2R63 R™*
Brand

104 Day Maturity

- Strong across soil types
- Excellent stalk and root package
- Very good against Goss's Wilt and Northern leaf blight



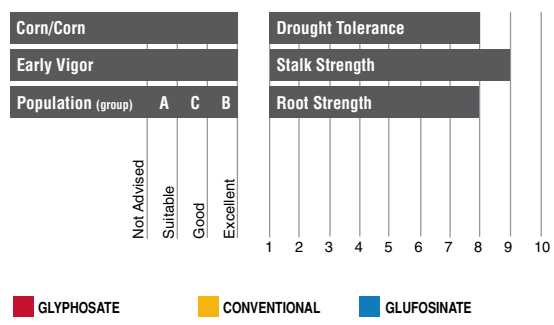
Developed for the stateline area.

27

5124 GT
Brand

107 Day Maturity

- Nice roots to anchor the plant
- Gain incremental yield improvement
- Very good ear-flex supports medium populations



Fits all operations.

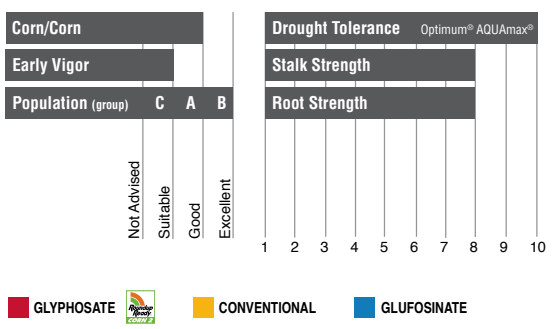
28

NEW

4J99 R™*
Brand

109 Day Maturity

- Works across all soils
- High yield potential but won't look it, as the cob is small
- The kernels are very deep
- Optimum® AQUAmax® technology protects against drought damage
- It can benefit from fungicide appliction



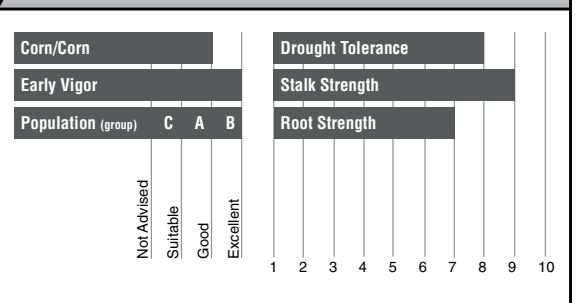
A new Roundup® Ready refuge option.

29

6T51 GT
Brand

113 Day Maturity

- Very high top end yield potential
- Grithy ear with deep kernels
- Great on irrigated sand
- Fits well across soils and environments
- Same family as Burrus 6T54 3000GT



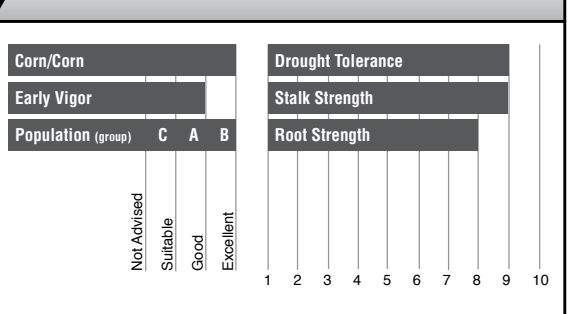
High performance, proven refuge product.

30

6F71 R™*
Brand

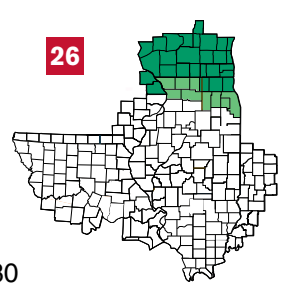
113 Day Maturity

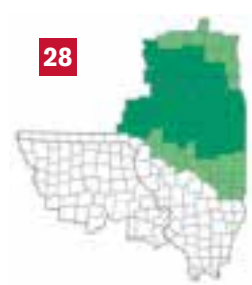
- Excellent stalks and very good roots
- Good drought tolerance
- Superb refuge choice

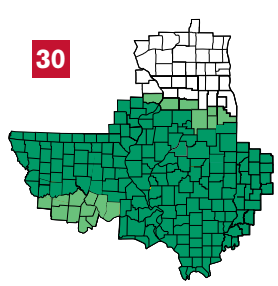


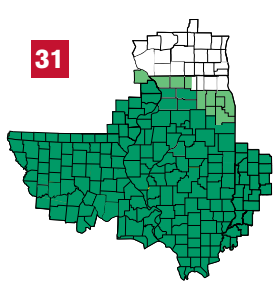
Plant it with confidence.

31









Are there Chemicals to Avoid?

Group		ALS Sulfonylureas	Plant Growth Regulators	HPPD Inhibitors	Glyphosate	Glufosinate	PPO Inhibitors
Above/ Below-Ground Insect Control	Hughes 1286 3000GT	⬢	▽	●	●	●	●
	Power Plus® 1K08AMXT™*	⬢	▽	▽	●	●	●
	Power Plus® 1S26AMXT™*	▽	▽	●	●	●	▽
	Power Plus® 2F91AMXT*	⬢	▽	●	●	●	▽
	Power Plus® 2V56AMX™*	▽	⬢	●	●	●	NA*
	Power Plus® 3H85AMX™*	NA*	NA*	NA*	●	●	NA*
	Catalyst 4685 3111	⬢	▽	●	●	●	●
	Power Plus® 4J95AMX™*	⬢	▽	●	●	●	●
	Power Plus® 5C17AMXT™*	▽	▽	●	●	●	NA*
	Burrus 5Z44 3122	▽	⬢	●	●	⬢	⬢
	Power Plus® 6L45AMT™*	⬢	▽	▽	●	●	●
	Burrus 6T54 3000GT	▽	●	▽	●	●	●
	Power Plus® 6F74AMX™*	▽	▽	●	●	●	NA*
	Power Plus® 6P75AMX™*	⬢	⬢	▽	●	●	●
	Power Plus® 7A18 Q™*	▽	▽	●	●	●	●
Above-Ground Insect Control	Catalyst 7893 3111	▽	▽	▽	●	●	NA*
	Power Plus® 2N82AM™*	▽	▽	●	●	●	NA*
	Power Plus® 4J93AM™*	⬢	▽	●	●	●	●
	Power Plus® 4V45AM™*	▽	▽	●	●	●	▽
	Catalyst 5009 3220	▽	▽	▽	●	⬢	NA*
	Power Plus® 6C41 S™*	▽	▽	●	●	●	●
	Power Plus® 6N83AM™*	▽	▽	●	●	●	NA*
	Catalyst 7U15AM-R™*	▽	▽	●	●	⬢	NA*
	Burrus 7577 3010	▽	▽	▽	●	●	⬢
	Power Plus® 7H23 S™*	▽	⬢	●	●	●	NA*
Glyphosate-Resistant	Hughes 2428 GTA	▽	▽	●	●	⬢	⬢
	Power Plus® 2R63 R™*	▽	⬢	●	●	⬢	▽
	Hughes 5124 GT	▽	▽	●	●	⬢	▽
	Power Plus® 4J99 R™*	⬢	▽	●	●	⬢	●
	Burrus 6T51 GT	▽	●	▽	●	⬢	●
	Power Plus® 6F71 R™*	▽	▽	●	●	⬢	NA*
Non-GM	Hughes 3442	⬢	▽	●	⬢	⬢	NA*
	Power Plus® 2R67™*	▽	⬢	●	⬢	⬢	NA*
	Power Plus® 4J90™*	⬢	▽	●	⬢	⬢	●
	Power Plus® 5N48™*	▽	●	●	⬢	⬢	●
	Power Plus® 6C40™*	▽	●	●	⬢	⬢	●
	Burrus 6Q60	▽	▽	●	⬢	⬢	▽
	Power Plus® 7H20™*	▽	⬢	●	⬢	⬢	NA*

● Use
▽ Use with Caution
⬢ Do No Use

Group Number - Tradename

2 - Accent®
2 - Resolve Q®
2 - Steadfast®
2 - Permit®
2 - Basis®

4 - 2,4-D
4 - Banvel®
4, 19 - Status®
4 - Clarity®
4 - Distinct®
4, 5 - Marksman®
4 - Stinger®

27 - Balance Flexx®
27 - Callisto®
27 - Impact®
27 - Laudis®

9 - Roundup®
9 - Touchdown®
9 - Generic glyphosate

10 - Liberty®

14 - Aim®
14, 15 - Verdict®
14 - Sharpen®

Herbicide classification by Group Number and Site of Action

Group No.	Site of Action (mode of action)	Group No.	Site of Action (mode of action)
1	ACC-ase (lipid synthesis)	10	Glutamine synthetase (photosynthesis inhibition)
2	ALS (amino acid synthesis)	13	DPX synthase (carotene synthesis)
3	Tubulin (cell division)	14	PPO (chlorophyll synthesis)
4	Auxin binding site (synthetix auxin)	15	Unknown (LC fatty acid synthesis)
5	D1 Protein (Photosystem II inhibition)	19	Unknown (Auxin transport)
6 and 7	D1 Protein (Photosystem II inhibition)	22	Unkown (Photosystem I inhibition)
9	EPSPS (shikimic acid pathway inhibition)	27	HPPD (carotene synthesis)

*Consult with you Account Manager when choosing a herbicide program

On Farm Assessments

To assess compliance, Burrus will use a third–party to conduct IRM compliance assessments for a randomly selected set of customers who purchased Bt hybrids as well as Glyphosate Tolerant soybeans. Following each on-farm assessment, it will be determined if the grower is in compliance. If a grower is found to be out of compliance Burrus will contact the grower prior to the next growing season to provide compliance assistance. Anyone found to be out of compliance will be checked the following two years. Repeated non compliance can result in loss of access to these technologies.

CORN UPDATE

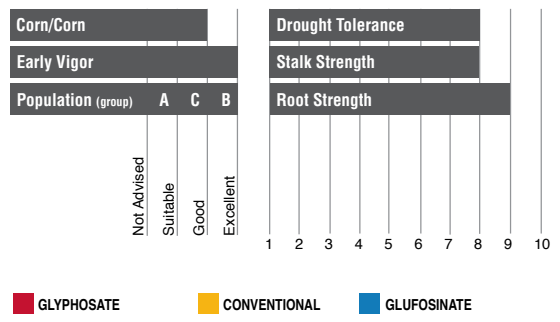
NON-GMO

3442
Brand

102 Day Maturity

3442

- Good health package
- Not recommended for drought-prone soil
- Very good stalk and roots
- Medium plant size adds stability



High yield with non-GM freedom. **32**

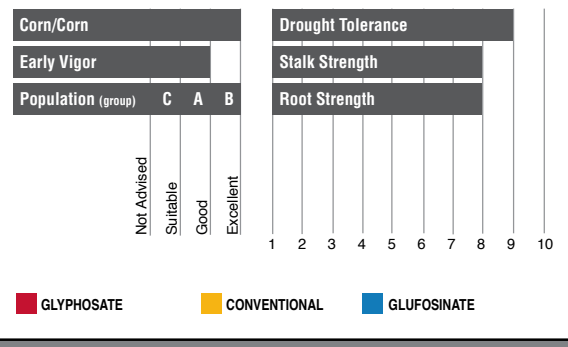
NEW

2R67™*
Brand

105 Day Maturity

2R67™*

- Versatile high-yielder
- Excellent disease package
- Great roots and stalk



Developed for the stateline area. **33**

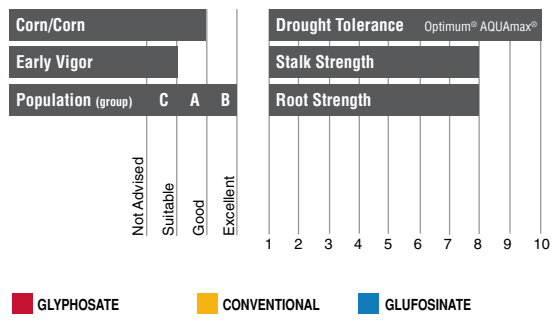
NEW

4J90™*
Brand

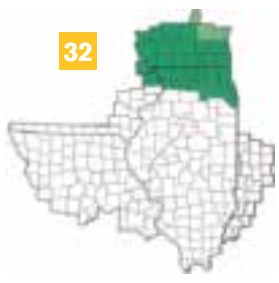
109 Day Maturity

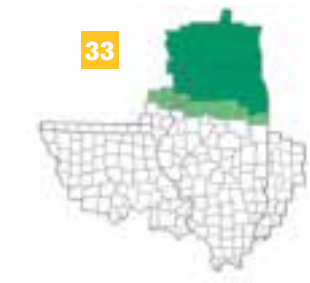
4J90™*

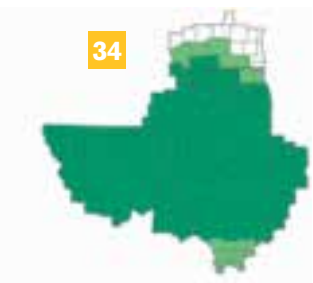
- High yield potential with dry grain
- It yields more than it looks
- The kernels are very deep
- Deep kernels sit on small cobs
- Will respond to fungicide application



Our first conventional Optimum® AQUAmax® product. **34**







PLANT NAKED. Many seed companies that develop traits push to sell high-dollar seed. We sell what works best for each grower.

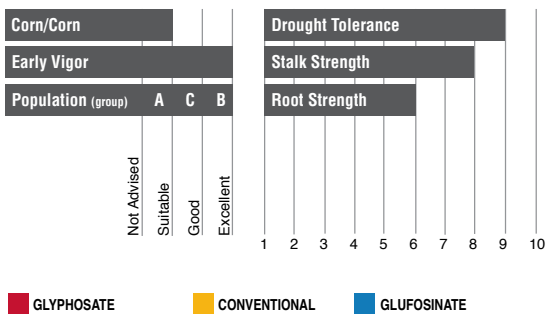
5N48™* Brand

POWER PLUS®

110 Day Maturity

5N48™*

- Good stalks
- Excels under higher management practices like fungicide applications
- Avoid corn after corn and dryland sand



Super yield potential, fast drying.

35

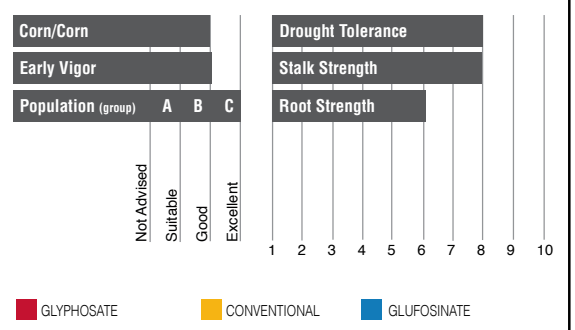
6C40™* Brand

POWER PLUS®

112 Day Maturity

6C40™*

- Marked by its high end potential yield response and consistency
- Taller plant type with excellent stalks
- Heavy test weight grain is the foundation
- Does not respond to higher density



Hard endo premium candidate.

36

NEW

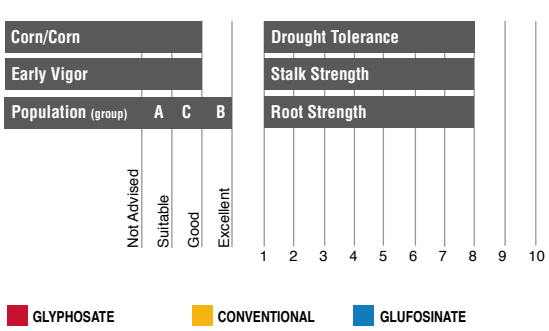
6Q60 Brand

Think BURRUS®

113 Day Maturity

6Q60

- Cranks out big yield potential on the good soils
- It has the guts to perform on light and varied soils
- Solid stalks
- Good root ratings
- Mid population will optimize its performance



Wide adaptation on all soils.

37

NEW

7H20™* Brand

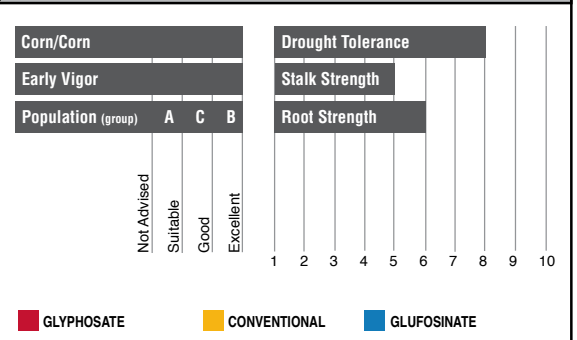
CORN ON CORN

POWER PLUS®

114 Day Maturity

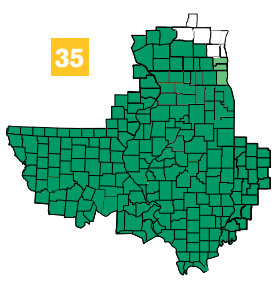
7H20™*

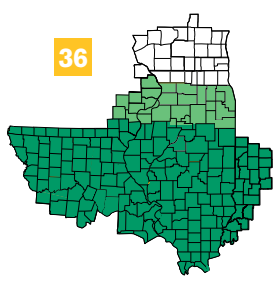
- Same genetics as Power Plus® 7H23 S™*
- Designed for central & southern IL and MO
- Works well across soils and various yield environments
- Great on irrigated sand

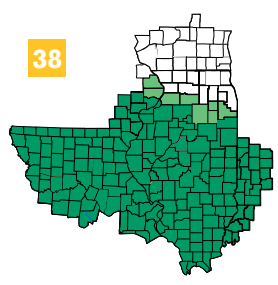


Exceptional yield potential.

38







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