



# More grain in the tank, more money in the bank.



## 2011 HARVEST REPORT





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## We don't answer to Wall Street. We answer to our customers.

Dear Grower,

Making your decisions about seed is all about a judgment of performance value. Choosing the package of seed, traits, treatment, and support will bring the greatest return on your investment dollars. Study this *Harvest Report*, analyze the results and ensure you will be experiencing the same success on your farm by increasing your order or trying any of the Burrus family of products for the first time. Put the Burrus and Hughes team to work and improve your profitability.

**Performance at Burrus and Hughes is at an all time high!** Full-season products have excelled in the difficult weather pattern of 2011. Planning for next year is the task at hand. As with every year, staying diversified is essential. Resist the temptation to err and just plant the best performers from 2011 in 2012. While drought and Goss' wilt filled the coffee shop talk this year, much has been said, too, about our products performing well, despite these pressures. We are committed to providing continuous innovation, differentiated portfolio, and relentless productivity.

**We have experienced tremendous growth** in soybean seed sales for three reasons – performance, performance, and performance. We are winning because our beans don't disappoint. Secondly, we provide the convenience of E-Z Load boxes in addition to the PowerShield™ treatment advantage.

**We have upgraded our soybean seed treatment every year, so in 2012 we have minimized the need for inoculants when planting PowerShield™ treated beans.** They carry the 100% free replant guarantee just like our seed corn. Our soybean products include strong agronomic and disease packages. They were developed using advanced breeding techniques to isolate and develop germplasm and native trait combinations, that will best respond to the challenge of the local environment.

**At Burrus we view our customers and dealers as partners and we treat them as such.** We willingly share ways to make life easier, more convenient, and to improve bottom-line profitability. In this hustle and bustle world we are streamlining the need for

refuge with our Optimum® AcreMax® and Optimum® AcreMax® Xtra single bag refuge options for part of your acres in 2012. These are the solutions of choice and these products protecting the environment and guaranteeing refuge compliance.

**We have a vested interest in your success to achieve the best stand possible.** Consequently when we select new corn treatment components our focus is on stand establishment under cool wet conditions and adding yield. Period. This is different than the motivation of some of our competitors who base their choice on what will make them a handsome profit using material they can buy exclusively and cheaply.

Kevin Burrus reviews the 2011 growing season by saying, "Irrigation did not save us this year. In the past we have seen the day when even with high temperatures we were able to raise a normal seed corn crop. Not in 2011. The high nighttime temperatures reduced seed set, despite pouring on irrigation water." Accordingly, we are raising additional seed in South America, in Argentina and Chile to

shore up supplies and meet customer needs. We have the commitment and the people to get the job done.

Our customers appreciate that at Burrus we don't settle to just be a supplier of sacks of seed. Rather we provide the full support package. **We are a trusted information source, making our customers more successful, making custom-fit recommendations, and delivering profitability through genetics, traits, seed treatments, and knowledge.**

**The bottom line at Burrus is our customers' satisfaction. Plain and simple. We have built our business on square shooting and fair dealing. We intend to stay this course.**

**We appreciate the business you send our way; we take it seriously and will do our utmost to exceed your expectation. Call us today.**

Successfully,

*Tom Burrus Dave Hughes*

Tom and Dave



Tom Burrus exchanges ideas with growers on how to make their farming operations more profitable.





## Agronomic “Corn Talk” Meeting Schedule for 2011\*

Town	Day/Date/Starting Time	Restaurant	Phone # to call for reservations	
Paloma, IL	Mon., Nov. 14 at 11:30 a.m.	Paloma Community Center	877-324-1565 - Jason Buss	RSVP by: Nov. 8
Burlington, IA	Tues., Nov. 22 at 11:30 a.m.	Catfish Bend	877-927-9674 - Jeff Hyde	RSVP by: Nov. 15
Virginia, IL	Wed., Nov. 23 at 11:30 a.m.	Fairway Hills	877-4 BURRUS - Burrus office	RSVP by: Nov. 17
Peoria, IL	Tues., Nov. 29 at 7 a.m.	Rhythm Kitchen	800-529-7480 - Dick Burns	RSVP by: Nov. 22
St. Joseph, MO	Tues., Nov. 29 at 6:30 p.m.	Stoney Creek Inn	800-529-7475 - Brad Veale	RSVP by: Nov. 22
Odessa, MO	Wed., Nov. 30 at 11:30 a.m.	To be announced	866-621-1352 - Donny Marnin	RSVP by: Nov. 23
Marshall, MO	Thurs., Dec. 1 at 11:30 a.m.	FCS Financial Building	866-621-1352 - Donny Marnin	RSVP by: Nov. 23
Chillicothe, MO	Thurs., Dec. 1 at 6:30 p.m.	Chillicothe Country Club	800-284-8490 - Seth Link	RSVP by: Nov. 24
Macon, MO	Fri., Dec. 2 at 11:30 a.m.	Comfort Inn	800-284-8490 - Seth Link	RSVP by: Nov. 25
Effingham, IL	Mon., Dec. 5 at 11:30 a.m.	K of C Hall	618-869-2329 - Doug Johnstone	RSVP by: Nov. 28
Germantown, IL	Tues., Dec. 6 at 11:30 a.m.	American Legion	800-838-7930 - Larry Strohbeck	RSVP by: Nov. 29
Sherman, IL	Thurs., Dec. 8 at 11:30 a.m.	Poe's Catering	309-241-7564 - John Williams	RSVP by: Dec. 5
Memphis, MO	Mon., Dec. 12 at 11:30 a.m.	Keith's Café	800-284-8490 - Seth Link	RSVP by: Dec. 6
Dwight, IL	Tues., Dec. 13 at 11:30 a.m.	Dwight Country Club	800-491-1747 - Dennis Mueller	RSVP by: Dec. 6

\*Please plan to join us for the “Corn Talk” meeting nearest you. RSVP by the date listed and we will reserve a spot for you.

## Your bags will be tagged!

Growers will again see color coded technology tags on your Burrus® family of product units for 2012 planting. Recently we instituted a new bag tag system on our Burrus, Hughes and Hoblit bags because growers indicated they are no longer buying a few units of a Roundup® or Ignite® herbicide system for a problem field. Most use one herbicide system for all of their acres. If not, they are rotating their herbicide program and seed technology to protect against weed resistance. The new “fail safe” approach helps provide growers with another option to be sure the seed they are loading in planters carries the herbicide resistance desired.

**We haven’t forgotten about the concern of a grower inadvertently grabbing a bag without the same herbicide technology as the rest of the planter. We are addressing that concern by adding colored ink to the bag flap that indicates a specific technology.** For instance, the color red will indicate Roundup® or glyphosate tolerance and blue lettering will indicate resistance to Ignite® or glufosinate. If a hybrid carries both traits, both the red and blue colors will be used.

**In addition, the tags on the back of each bag have a color-coded warning strip on the bottom of the outside tag.** Red means Roundup®. It says “Roundup® or glyphosate herbicide” right in the middle of the strip. On the Roundup® products we also will use a red thread to sew the bag shut. Blue is for Ignite® and Orange is for conventional herbicides only. A second tag appears under the first when that bag has a technology or multiple stacked traits. The tag dedicated to the correct technology included in that bag will have all the notices for IRM (insect resistance management), as well as the complete patent numbers and logos for herbicide and/or insect protection.

**Yes, it is a complex world, and that means opportunity for more choices.** That can potentially mean more mistakes too. Hopefully our tag system on both the front and back of each bag will provide reminders for growers to see. Our labeling of seed treatment and seed sizes has changed in the past year. If you have selected PS4, that will stand for PowerShield™ seed treatment on the SureDrop 4 seed size (meaning the unit weighs in the 40 to 49 pound range). It lists the words “Poncho® 250” just

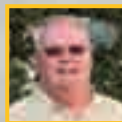
above the PS label as an added reminder. HP, which is High rate Poncho® (1250), is still labeled as in the past. All Power Plus® products with the exception of the Optimum® AcreMax®1 and Optimum® AcreMax® Xtra products will be treated with Poncho® 500 seed treatment and labeled as BX4 for Burrus Xtra (Poncho® 500) unless indicated as a HP product (Poncho® 1250 with VOTiVO™). The Optimum® AcreMax®1 and Optimum® AcreMax® Xtra products will be treated with Poncho® 500 and the refuge portion will be treated with Poncho® 1250 plus VOTiVO™.



Color coded print on Burrus bag, red is Roundup, blue is Ignite resistance.

**Our goal is to be easy to do business with and hopefully this improved bag labeling system is just another step in that process.**

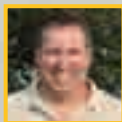




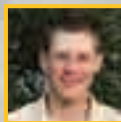
**Tom Burrus**  
(217) 997-5876 (H)  
(217) 248-5511 (C)  
tom@burrusseed.com



**Tim Greene**  
(217) 457-2326 (H)  
(217) 370-1987 (C)  
greene@burrusseed.com



**Mike Langan** Sales Manager  
(217) 783-6542 (H)  
(217) 294-3055 (C)  
mlangan@burrusseed.com



**Bryan Young, C.C.A.** Agronomist  
Home Site Testing Coordinator  
Certified Crop Advisor  
(217) 778-7958 (C)  
byoung@burrusseed.com



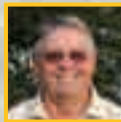
**Todd Burrus**  
(217) 997-5920 (H)  
(217) 248-0214 (C)  
todd@burrusseed.com



**Kevin Burrus**  
(217) 491-3355 (H)  
(217) 491-3355 (C)  
kevin@burrusseed.com



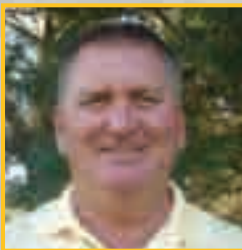
**Craig Kilby, C.C.A.** Sales Agronomist  
Certified Crop Advisor  
(800) 840-0934 (H) (309) 256-3887 (C)  
craig.kilby@burrusseed.com



**Don Rhoads, C.C.A.**  
Sales Agronomist, Certified Crop Advisor  
(217) 997-2318 (H) (217) 370-1947 (C)  
corndr@burrusseed.com

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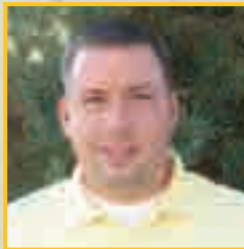
**Jeff Hyde, C.C.A. [1]**  
Certified Crop Advisor  
(877) 927-9674 (H)  
(309) 299-3850 (C)  
340 West Breckenridge  
Blandinsville, IL 61420  
jhyde@burrusseed.com



**John Williams [8]**  
**C.P.Ag/C.C.A.**  
Certified Crop Advisor  
(888) 747-2783 (H)  
(309) 241-7564 (C)  
17356 Red Shale Hill Rd.  
Pekin, IL 61554



**Richard Burns [2]**  
(800) 529-7480 (H)  
(309) 208-9049 (C)  
9318 N. Old Towerline Rd.  
Kickapoo, IL 61528  
dick@burrusseed.com



**Luke Turner [9]**  
(866) 649-4920 (H)  
(217) 825-9594 (C)  
2709 Essex Ave.  
Mattoon, IL 61938  
lturner@burrusseed.com



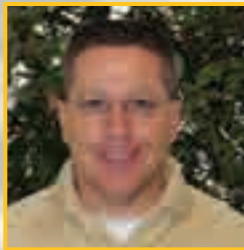
**Dennis Mueller [3]**  
**C.C.A.**  
Certified Crop Advisor  
(800) 491-1747 (H)  
(815) 791-4141 (C)  
14940 W. Kennedy Rd.  
Manhattan, IL 60442  
dmueller@burrusseed.com



**Larry Strohbeck [10]**  
(800) 838-7930 (H)  
(217) 248-3775 (C)  
4234 Titchenal Rd.  
Brighton, IL 62012  
larry@burrusseed.com



**Brad Veale [4]**  
(800) 529-7475 (H)  
(309) 335-4175 (C)  
12325 NW Stewart Rd.  
Union Star, MO 64494  
brad.veale@burrusseed.com



**Tim Carmody [11]**  
(800) 529-7477 (H)  
(618) 556-8400 (C)  
RR #2 Box 88A  
Hardin, IL 62047  
tcarmody@burrusseed.com



**Seth Link [5]**  
(660) 895-5292 (H)  
(800) 284-8490 (C)  
23895 Dayton Dr.  
Meadville, MO 64659  
seth.link@burrusseed.com



**Donny Marnin, C.C.A. [12]**  
Certified Crop Advisor  
866-621-1352 (H)  
660-247-1388 (C)  
18456 Elkspring Rd.  
Rothville, MO 64676  
dmarnin@burrusseed.com



**Jason Buss [6]**  
(877) 324-1565 (H)  
(217) 248-6660 (C)  
429 East Washington Street  
P.O. Box 261  
Pittsfield, IL 62363  
jasonbuss@burrusseed.com



**Ken Johnson [15]**  
Southern Illinois Seed Specialist  
(618) 995-9191 (H)  
(618) 922-2236 (C)  
2395 Lake Shore Drive South  
Goreville, IL 62939  
kjohnson@burrusseed.com



**Gary Wenger, C.C.A. [7]**  
Certified Crop Advisor  
(800) 284-8495 (H)  
(217) 248-9440 (C)  
R.R. #2 Box 170D  
Rushville, IL 62681  
garywenger@burrusseed.com

**Sales Specialists**

**Hoblit**



**Jack McKown [A]**  
(217) 648-2392 (O)  
(309) 261-3837 (C)  
P.O. Box 487  
Atlanta, IL 61723  
hoblit@abelink.com



**John Hamilton [B]**  
(217) 936-2265 (H)  
(573) 822-7744 (C)  
218 E. Mill St., Apt. 1  
Mendon, IL 62351  
jhamilton@burrusseed.com



**Matt McKown [D]**  
(309) 671-0135 (H)  
(309) 696-1976 (C)  
14913 West Winchester Drive  
Brimfield, IL 61517  
matt@burrusseed.com



**Gil Turner [E]**  
(309) 826-2444 (C)  
1556 US Hwy 136  
Atlanta, IL 61723  
gturner@burrusseed.com



**Doug Johnstone, C.C.A. [F] [14]**  
Certified Crop Advisor  
(618) 869-2329 (H)  
(618) 843-4859 (C)  
3066 N. Crest Haven Rd.  
Claremont, IL 62421  
djohnstone@burrusseed.com

*The Burrus commitment to excellence is unmatched in the seed industry today.*





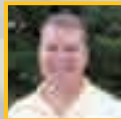
**Dave Hughes**  
(815) 338-1141 (O)  
dave@hugheshybrids.com




**Jim Hughes**  
(815) 338-1141 (O)  
jim@hugheshybrids.com



**Jerad Ropp**  
Precision Farming Consultant  
(319) 656-3894 (H)  
jropp@burrusseed.com



**Clayton Cook**  
Dealer Services Manager  
(309) 333-8883 (C)  
ccook@burrusseed.com



**Don Hughes**  
(815) 482-1256 (H)  
don@hugheshybrids.com




**Brian Maxwell**  
Sales Manager  
(815) 338-1141 (O)  
maxwell@hugheshybrids.com

District Sales Managers & Territories  
*Hughes*




**Gary Ott, C.C.A. [15]**  
Certified Crop Advisor  
(608) 370-3848 (C)  
1628 Hemlock St.  
Sauk City, WI 53583  
ott@hugheshybrids.com



**Robert Wagner [18]**  
(608) 444-1708 (C)  
7686 Westman Way Road  
Middleton, WI 53562  
wagner@hugheshybrids.com



**Gary Hinds [20]**  
(708) 542-2444 (C)  
1607 Holiday Drive  
Sandwich, IL 60548  
hinds@hugheshybrids.com



**Drew Hendricker [16]**  
(815) 289-4321 (C)  
4494 Hilltop Dr.  
Loves Park, IL 61111  
hendricker@hugheshybrids.com



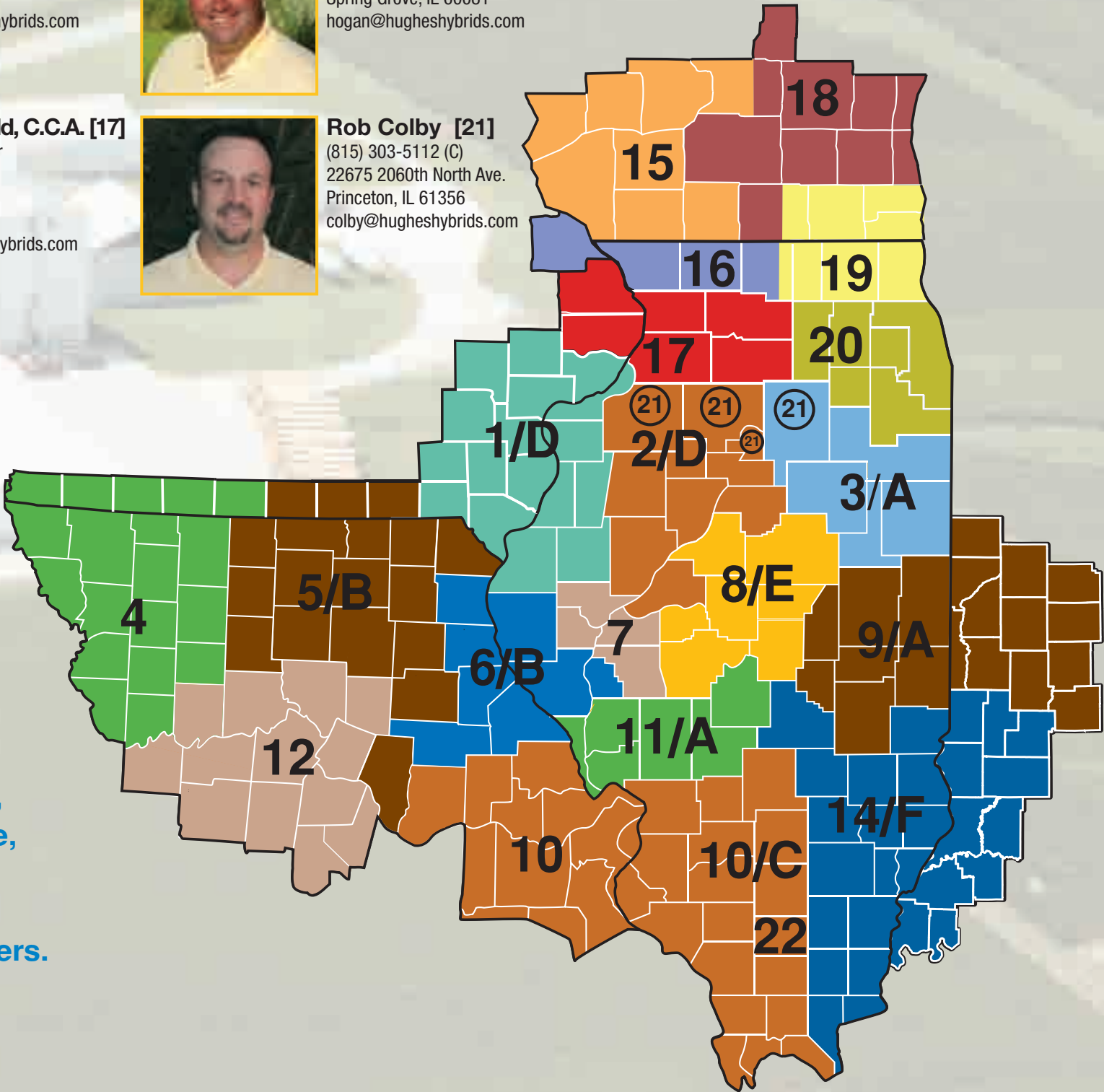
**Jason Hogan [19]**  
(866) 790-2278 (C)  
7307 Hawthorn Lane  
Spring Grove, IL 60081  
hogan@hugheshybrids.com



**Kerry Greenwald, C.C.A. [17]**  
Certified Crop Advisor  
(815) 499-9506 (C)  
314 Plummer Ave.  
Chadwick, IL 61014  
greenwald@hugheshybrids.com



**Rob Colby [21]**  
(815) 303-5112 (C)  
22675 2060th North Ave.  
Princeton, IL 61356  
colby@hugheshybrids.com



The Burrus mission is  
to provide quality seed,  
consistent performance,  
and exceptional value  
ensuring the ongoing  
success of our customers.



At Burrus & Hughes, we measure success by customer satisfaction.



Russ Nieders, Jr saw Power Plus® 7A18AM1™\* roll out 174 bu/a in Adams Co.



Brian & Jennifer Ingram of Brown Co. appreciate the support they receive from their Burrus RSM Gary Wenger.



Kent Shriver saw Power Plus® products smoke the competition in Adams Co.



Phil & Jeff Freesemeyer appreciate the consistency of the Burrus family of products in Calhoun Co.

The brown marmorated stink bug:  
**Getting ready for a potentially serious pest**

Midwest farmers are faced with another harmful pest from Asia, the brown marmorated stink bug (BMSB). Its name describes its color pattern (marmorated, meaning marble-like or speckled) on its shield-like back, and what it smells like if it's threatened or squished. However, its name does not tell the story of how this new pest is devastating parts of North America.

Over the past decade, the BMSB has moved into homes, fields, and orchards in 33 states. It has a wide host range similar to the Japanese beetle, including corn, soybean, fruits and vegetables. The BMSB is a serious threat to agriculture and is widespread in the Eastern United States with additional known populations in California and Oregon. Because of the BMSB's recent detection in the Midwest, a thorough survey for this pest has not been conducted. One thing is for certain though: BMSB can take a toll on soybeans, although so far yield loss has been limited to the East coast.

The insect, which is distinguished by white banding on the antennae and legs, a striped abdomen and a pale underside, tends to feed on soybean seeds through the pod, damaging the yield potential. During seed formation, BMSB can puncture tissue and cause deformations. The seed coat can be damaged, and overall the seeds are smaller and shriveled. While BMSB feeding appears to slow or delay development of soybeans, the insect's appetite goes far afield. Corn is on its menu as well as fruits and vegetables. In fact, there's little it doesn't attack with vigor, piercing and sucking leaves, stems, fruits, and seeds.

This outbreak is especially important to Burrus because 25 years ago when Don Rhoads joined us as an agronomist, he identified green stink bug quite often as the culprit when ear development was



From left: adult brown marmorated stink bug (pest); green stink bug nymph (pest); adult brown stink bug (pest); and adult spined soldier bug (beneficial).



Brown marmorated stink bug

impaired. Don was not known as the Corn Doctor at that time, but some of us wondered if he was just using the green stink bug damage as the scapegoat when he was stumped about the real reason the corn was damaged. With the onset of new BMSB, the current thinking is that Don has a potential new scapegoat, if he is ever stumped.

Scouting will reveal the presence of many species of stink bugs. While most stink bugs are herbivores, one sticks out as beneficial that is, the BMSB's cousin, the spined soldier bug, commonly found

in Midwest soybean fields. Immature and adult stink bugs of this species are predators and will kill many soybean pests. The entire agricultural sector is on a steep learning curve, working towards an integrated pest management program to control the BMSB. That's a real challenge, because it's different on so many levels.

Accurate identification of the multicolored Asian lady beetle is essential. Here are some guidelines:

- 1. Like another invasive pest, the multi-colored Asian lady beetle, the BMSB isn't limited to the field. It survives the winter as an adult by entering houses and structures, and becoming a noxious pest.
- 2. The immature stage (nymphs) and adults feed on host plants.
- 3. Generations overlap and can feed throughout most of the summer.
- 4. Treatment thresholds have not been developed.

It's unlikely that BMSB will show up in great numbers in soybean fields across the Midwest next summer. It usually takes two to three years to become problematic once it is introduced. They usually become problematic first in fruit trees and vegetables. It is possible that in the Midwest they may target corn and soybean early in the summer because of the low abundance of other hosts. Scouting will prove or disprove that prediction.

**ADAMS**

Russell Nieders Jr.  
Liberty, IL

Planted: May 4 in 30" rows. Planting Population: 29,500. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 160, P: 150, K: 150. Herbicide: Bicep II. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-wet, June-

wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7A18 AM1™*	174.0	16.8	61.2	27
POWER PLUS 6A12 AM1™*	152.6	16.3	60.1	29
POWER PLUS 4N49 Q™*	150.8	14.8	60.3	28
POWER PLUS 5A45 AM1™*	150.3	15.1	62.8	25
POWER PLUS 7D51 Q™*	142.6	15.6	61.0	27
BURRUS X6J36	141.7	14.8	59.3	27
POWER PLUS 5R68 Q™*	141.7	14.8	59.8	27
POWER PLUS 4A30 AM1™*	137.7	15.1	60.8	26
POWER PLUS 6B52 S™*	122.8	14.4	58.7	26
Average	146	15.3	60.4	27

**Power Plus® 7D51 Q™\***  
wins at 219 bu/a

**COMPARE!** Kent Shriver  
Quincy, IL

Planted: April 10 in 30" rows. Harvested: September 12. Previous Crop: Soybeans. Fertilizer: N: 160, P: 90, K: 120. Herbicide: Guardsman Max. Corn Borer Rating: Light. Soil





Type: Medium loam. Weather: May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7D51 Q™	219.0	23.5	76	59.9	27
POWER PLUS 7A18 AM1™	217.7	25.0	83	60.3	27
POWER PLUS 5A45 AM1™	216.3	22.2	66	62.1	28
Lewis 1216VT3P	213.7	23.7	79	58.4	28
POWER PLUS 4V43 S™	209.0	18.4	100	58.6	29
POWER PLUS 6A12 AM1™	198.5	20.8	92	59.2	28
POWER PLUS 4A30 AM1™	197.1	19.8	60	60.0	26
POWER PLUS 6B52 S™	195.5	18.2	72	58.6	27
Lewis 1009SS	194.6	24.0	74	60.0	27
Average	206.8	21.7	78	59.7	27.

Dan Terstriep  
Liberty, IL

Planted: May 5 in 30'' rows. Planting Population: 30,000. Harvested: September 20. Previous Crop: Soybeans. Fertilizer: N: 150, P: 200, K: 200. Herbicide: Harness Xtra. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
Pioneer 32D79	158.9	18.8	100	58.8	30
Dyna Gro 57V40	156.2	18.3	100	57.0	30
POWER PLUS 7A18 AM1™	156.1	18.8	100	61.9	30
Dekalb 63-84VT3P	151.5	16.8	100	58.8	30
Dekalb 64-69VT3P	150.3	16.9	100	60.3	30
Pioneer P1018YHR	147.6	17.4	100	60.9	30
Pioneer 33T57	145.4	17.6	100	60.1	30
Dekalb 62-58VT2P	142.8	18.5	100	58.7	30
POWER PLUS 6A12 AM1™	142.8	18.7	100	62.2	30
Dekalb 62-58VT2P	140.6	15.9	100	59.7	30
Pioneer P1184YHR	139.8	16.6	70	61.4	30
POWER PLUS 5A45 AM1™	120.5	18.0	60	61.5	30
Average	146.0	17.7	94	60.1	30

## BUREAU

Burrus X6J36 & Power Plus® 4C58 Q™  
go one & two!

Jim Madsen/Lester Behrends  
Tiskilwa, IL

Planted: May 10 in 30'' rows. Planting Population: 32,500. Harvested: September 21. Previous Crop: Corn. Fertilizer: N: 210, P: 0, K: 0. Herbicide: Roundup. Soil Type: Medium loam. Weather: May–wet, June–normal, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS X6J36	175.9	26.4	57.6	33	
POWER PLUS 4C58 Q™	170.9	24.9	59.2	33	
POWER PLUS 7A18 AM1™	167.9	28.3	59.1	33	
POWER PLUS 6A12 AM1™	167.8	29.2	58.3	33	
POWER PLUS 5A45 AM1™	166.8	27.5	60.9	33	
POWER PLUS 7D51 Q™	166.6	30.0	58.5	33	
HUGHES 5456 GT3	140.1	26.0	56.5	33	
POWER PLUS 4A30 AM1™	123.9	24.0	58.0	33	
POWER PLUS 6B52 S™	110.8	30.2	55.5	33	
HUGHES 7383 GT3	110.0	24.7	36.2	33	
Average	150.1	27.1	56	33	

Greg Steele  
Princeton, IL

Planted: May 12 in 30'' rows. Planting Population: 38,500. Harvested: September 30. Herbicide: Round Up. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May–wet, June–normal, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
Wyffels W6871	263.4	26.9	57.7	38	
FS 61BX1 RBI	255.9	26.8	58.8	38	
Pioneer P0832 AM1	251.7	25.2	59.5	38	
LG 2620	251.6	28.7	58.3	38	
LG 2602	251.2	29.1	58.0	38	
Dekalb 62-97	249.6	27.1	58.1	38	
Agrigold A6533	248.8	27.8	57.2	38	
POWER PLUS 7A18 AM1™	248.0	27.8	59.7	38	
LG 2549	247.4	26.8	56.6	38	
Champion CSX1099SS	245.5	26.7	59.1	38	
Dekalb 57-50	239.7	24.6	59.1	38	
POWER PLUS 4C58 Q™	234.3	25.9	59.1	38	
FS 58MV4	232.6	25.4	59.1	38	
Pioneer P1184AM1	230.4	26.6	59.8	38	
Pioneer P1292AM1	229.6	26.4	59.3	38	
Wyffels W7147	228.6	27.6	58.0	38	
Dekalb 63-84	227.7	26.8	57.2	38	
Dekalb 61-21RIB	227.6	27.2	59.0	38	
Pioneer P0533XR	226.8	23.9	59.7	38	
Dekalb 61-06	225.9	24.4	60.2	38	
Dekalb 64-69	224.0	26.3	56.9	38	

## Insect Efficacy Chart

	Product	Wireworm	Black Cutworm	White Grub	Corn Rootworm Northern & Western	Seed Corn Maggot	Flea Beetle	Grape Colaspis	Billbug	Aphids	Southern Corn Leaf Beetle	Southern Green Stink Bug	Nematodes
Soil Applied Insecticides	Aztec® 4.67G	++	++	+++	++++	++	NL	NL	NL	NL	NL	NL	NL
	Force® 3G	++***	++	++***	++++	+	NL	NL	S	NL	NL	NL	NL
	Mustang® Max (PPI or Pre)	NL	+++	NL	NL	ND	ND	NL	ND	NL	ND	ND	ND
	Warrior® T (PPI or Pre)	NL	+++	NL	NL	ND	ND	NL	ND	NL	ND	ND	ND
Seed Treatments	PowerShield™ PS (Poncho® 250*)	++	+++	+++	NL	++	+++	+++	NL	+++	++++	+++	NL
	Burrus® Xtra BX (Poncho 500*)	+++	++++	+++	NL	++	+++	++++	NL	+++	++++	+++	NL
	High rate Poncho HP (Poncho 1250) Votivo™	++++	++++	++++	+++	++	++++	++++	++++	++++	++++	++++	+++
	Avicta® Duo complete corn (Cruiser® 500)	+++	+++	+++	NL	++	++	+++	NL	+++	++++	+++	+++
	Cruiser Extreme Pak AG (Cruiser 250)	++	++	+++	NL	++	++	+++	NL	+++	++++	+++	ND
Transgenic Control	Cruiser Extreme Pak BB/CRW (Cruiser 1250)	++++	+++	++++	++	++	++++	++++	++++	++++	++++	++++	ND
	Agrisure® CB/LL+ PS (Poncho 250)	+++	++++	+++	NL	++	+++	++++	NL	+++	++++	+++	NL
	Optimum® AcreMax® & Herculex I + Burrus Xtra (Poncho 500)	+++	++++	+++	NL	++	+++	++++	NL	+++	++++	+++	NL
	Herculex I + High rate Poncho (Poncho1250)	++++	++++	++++	+++	++	++++	++++	++++	++++	++++	++++	NL
	Agrisure 3000GT + PS (Poncho 250)	+++	++++	+++	++++	++	+++	++++	NL	+++	++++	+++	NL
	YieldGard® VT3 + (Cruiser 250)	++	++	+++	++++	++	++	+++	NL	+++	++++	+++	NL
	YieldGard VT3 + PS (Poncho 250)	++	+++	+++	++++	++	+++	+++	NL	+++	++++	+++	NL
	Genuity® SmartStax® (Acceleron)	++	++++	+++	++++	++	+++	+++	NL	+++	++++	+++	NL
	Optimum®AcreMax Xtra & Optimum® AcreMax 1 & Herculex Xtra + Burrus Xtra (Poncho 500)	+++	++++	+++	++++	++	+++	++++	NL	+++	++++	+++	NL

### Key

- S Suppression
- + Some activity
- ++++ Best activity
- ND No data
- NL Not labeled
- \*\*\* Highest label rate, in furrow

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## CASS

Roy R. Smith  
Ashland, IL

Planted: April 13 in 30'' rows. Planting Population: 32,000. Harvested: September 17. Previous Crop: Soybeans. Fertilizer: N: 200, P: 200, K: 200. Herbicide: Halex. Corn Borer Rating: Light. Soil Type: Heavy loam. Weather: May–wet, June–wet, July–normal, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS X6J36	207.2	17.8	84	61.5	27
POWER PLUS 7A18 AM1™	206.9	21.6	88	61.4	26
HOB LIT 5566 GT3	198.5	18.8	100	56.7	25
HOB LIT 5566 GT3	191.3	18.8	100	57.7	22
POWER PLUS 6F72 AM™	190.6	17.5	80	63.4	22
HOB LIT 5566 GT3	181.6	17.9	100	58.5	26
POWER PLUS 7D51 Q™	175.3	19.2	68	61.8	23
POWER PLUS 4V43 S™	166.1	16.7	52	61.7	17
POWER PLUS 6A12 AM1™	147.9	18.5	32	64.7	13
POWER PLUS 6B52 S™	142.7	15.5	72	61.9	20
POWER PLUS 4A30 AM1™	134.6	17.3	36	63.4	13
POWER PLUS 5A45 AM1™	133.7	19.2	40	65.8	11
Average	173	18.2	71	61.6	20

Wyffels W7071	220.9	24.7	57.6	38
Dekalb 58-83	212.1	24.3	58.7	38
Golden Harvest H-9138	211.1	28.0	57.9	38
Golden Harvest H-8211	207.7	22.7	57.2	38
Golden Harvest H-8940	204.3	27.4	58.5	38
HUGHES 7383 GT3	202.8	28.1	56.4	38
Golden Harvest H-9208	163.8	27.6	57.1	38
Average	230.8	26.5	58.3	38

## CALHOUN

Tim Carmody  
Hardin, IL

Previous Crop: Soybeans. Herbicide: Lexar. Corn Borer Rating: Light. Soil Type: Light loam. Weather: May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4V43 S™	183.0	17.5	97	59.4	30
POWER PLUS 4A30 AM1™	180.5	18.8	90	57.7	29
POWER PLUS 7A18 AM1™	177.5	21.1	97	60.3	30
POWER PLUS 6B52 S™	177.2	18.6	90	57.7	35
BURRUS X6J36	165.1	17.8	100	58.5	33
POWER PLUS X6F72™	136.8	17.5	100	58.4	31
POWER PLUS 7D51 Q™	116.6	19.4	70	62.9	27
POWER PLUS 6A12 AM1™	93.9	18.1	80	59.6	31
POWER PLUS 5A45 AM1™	68.6	18.9	40	61.8	30
Average	144.3	18.6	85	59.6	31



We sell solutions for your farm.

CASS



Esther Farms  
Beardstown, IL

**Planted:** April 13 in 30" rows. **Harvested:** September 6. **Previous Crop:** Corn. **Fertilizer:** N: 303, P: 92, K: 120. **Herbicide:** Degree Xtra, Impact, Aatrex, Prowl, Accent. **Weather:** May-normal, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 955898	157.9	17.6	31	60.0	36
BURRUS 710321	151.5	16.1	38	58.5	34
POWER PLUS 6B52 S™*	151.1	13.6	3	59.4	36
BURRUS 873843	151.0	18.1	25	58.1	33
POWER PLUS 4A30 AM1™*	150.6	14.4	2	60.7	35
POWER PLUS 6A12 AM1™*	150.2	16.7	15	59.4	35
POWER PLUS X6F73™*	149.8	14.0	40	60.5	36
BURRUS 680038	148.6	14.4	45	58.7	35
POWER PLUS 7A18 AM1™*	148.2	15.9	26	59.5	34
POWER PLUS 5A45 AM1™*	147.7	15.7	45	61.9	34
BURRUS 974498	146.2	15.0	13	60.6	34
BURRUS 484759	145.9	14.5	21	59.0	35
POWER PLUS 4V43 S™*	145.9	13.2	0	60.3	35
BURRUS 101413	145.8	13.4	16	59.7	35
POWER PLUS 7D51 Q™*	144.7	17.2	46	60.2	34
BURRUS 471516	144.6	15.4	1	60.4	36
POWER PLUS X6J36™*	144.3	12.9	58	59.0	36
BURRUS 990102	144.2	17.5	2	60.2	35
BURRUS 943018	142.6	15.0	6	59.7	34
BURRUS 803599	139.7	14.0	0	59.8	35
POWER PLUS 5R68 Q™*	138.7	15.1	57	59.7	34
BURRUS 483952	135.9	13.2	34	60.4	35
BURRUS 355951	135.4	13.6	19	57.7	35
POWER PLUS X6F72™*	135.0	13.4	12	60.5	35
BURRUS 359718	133.9	12.6	1	58.9	35
BURRUS 260667	133.3	13.5	18	58.1	35
BURRUS 100363	130.7	12.9	12	61.0	34
HOBLOT 5566GT	130.6	12.6	6	58.7	36
BURRUS 781296	130.6	12.5	2	60.0	35
BURRUS 341332	129.8	16.0	16	59.1	34
BURRUS 498109	129.2	13.2	73	57.6	35
BURRUS 388920	92.9	15.9	86	58.8	35
Average	140.8	14.7	24	59.6	35



David Wankel  
Beardstown, IL



**Planted:** May 3 in 30" rows. **Planting Population:** 36,000. **Harvested:** September 28. **Previous Crop:** Corn. **Herbicide:** Lumax, Roundup. **Corn Borer Rating:** Light. **Soil Type:** Sand.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
Pioneer P1395	236.1	18.7	100	63.6	32
POWER PLUS 7D51 Q™*	235.8	23.3	100	62.2	35
Pioneer P1018AM1	229.7	18.5	100	61.6	31
Dekalb 63-84	229.2	18.7	100	61.6	30
POWER PLUS 7A18 AM1™*	225.0	21.2	100	63.3	31
POWER PLUS 5A45 AM1™*	224.4	19.7	100	64.4	32
Dekalb 66-96	223.9	18.8	88	62.7	31
Pioneer P1567XR	217.8	20.3	100	63.0	32
Pioneer P1319	216.0	19.9	100	63.9	33
BURRUS X6J36 with Force	214.6	19.7	100	61.9	32
Dekalb 62-97	213.8	20.0	100	62.5	35
Pioneer P1184	208.1	18.0	92	63.5	35
Pioneer P0832YXR	208.1	18.4	100	63.5	32
Pioneer 35K09	206.1	17.2	100	66.3	31
Pioneer P1567XR	201.4	21.4	100	65.3	32
Pioneer P1292	199.9	18.5	100	63.6	35
POWER PLUS 4A30 AM1™*	196.9	19.3	100	64.7	32
Pioneer P1162AM1	191.5	19.1	100	61.7	33
Dekalb 64-69	189.2	18.8	92	60.7	31
Dekalb 62-13 with Force	173.0	19.0	92	61.7	35
Average	212.0	19.4	98	63.1	32

ILLINOIS

Ear diseases less prevalent in 2011

By Clayton Cook

Over the last several years diplodia ear rot has become very familiar. Diplodia is the grayish-white colored mold that tends to start at the butt of the ear and work its way toward the tip. It can cause infected kernels to weigh less than half of what a healthy kernel weighs.

Diplodia is a disease that prefers cool, wet weather around silking time because the cool damp weather causes the silks to stay moist longer and allows a larger window of time for infection to occur. This year most of us experienced the opposite of cool and wet during not only silking, but most of the summer. Although there was still diplodia in 2011, it was measurably less severe than 2010.

Other diseases like diplodia that thrive in cool and damp conditions were also less prominent. Diseases like penicillium which is a dark green colored ear mold, and gibberella, a whitish-pink colored mold were also less of an issue in 2011. Gibberella, unlike diplodia and penicillium, does create mycotoxins that can be toxic to humans, cattle, and swine. There are other diseases that enjoy hot and dry conditions, and also create mycotoxins that can cause significant problems.

Aspergillus ear rot is a greenish ear rot that can look similar to penicillium, but is generally a lighter shade of green. Aspergillus ear rot also tends to start at the top of the ear and work its way down, but typically does not encompass the entire ear. Damage to the top of the ear from insects, hail, birds, etc. is a common starting point for this disease. Aspergillus ear rot can create aflatoxin and cause loads of grain to be rejected at the elevator. Aspergillus is more prominent in drought years and can still grow on the ear, even down to 15% moisture.

Fusarium ear rot is another disease that favors hot conditions. Fusarium rot is a cottony white rot that can be scattered over the ear. Infected kernels often tend to show a "starburst" type pattern on the pericarp. Fusarium rot also produces a mycotoxin that is toxic to livestock, horses in particular.

One common term used in the agro-nomic field when talking about ear diseases is the "disease triangle." The triangle consists of the right host, the right environment, and the right disease inoculum. All have to be present for a disease to manifest and cause problems. This year we drastically changed the 'environment' side of the triangle from 2010, from cool and damp to hot and dry. This creates the possibility of more diseases like fusarium rot and asper-



Most of the kernels on this diplodia ravaged ear will go right out of the back of the combine.

gillus rot versus diplodia or penicillium. During my travels this year I personally saw more of the benign rots like diplodia than the more dangerous ones. Going back to the triangle, the host (corn) was there, but it's possible the inoculum was not as prominent due to the cooler previous years, or possibly the humidity did not stay high enough to see rots like aspergillus and fusarium. Whatever the reason, even though we had more drought type conditions in 2011, from what I saw, it was not a big year for any of the ear diseases.

Will we see diplodia ear rot in 2012?

The environment side of the disease triangle will dictate the magnitude or absence of ear diseases. If we should have a wet July similar to 2010 it is not out of the question. The inoculum for these diseases can stay in the residue on the ground for years. The inoculum left after the 2010 season could still be there to cause problems for us in 2012. There are a few things to consider to lower your chances of ear rot issues in 2012.

- Make sure fertility levels are balanced. Some research suggests fertility stress can increase ear diseases.
- Plant a package of genetically diverse hybrids from Burrus®, Power Plus®, Hoblit®, and Hughes®. Jim Dodd, widely recognized as an expert in corn pathology says "Probably the most important thing to do is plant several hybrids to minimize the risks of ear infections. I'm convinced it's a timing issue, so having different flowering dates is good management."
- If following corn, plant a different hybrid from the previous year and one that is recommended for corn following corn.



This dark green colored ear mold is penicillium. This disease is enabled by cool, damp weather around silking time.

- Hard endo type corn such as Power Plus® brand: 4A30™\*, 4V43™\*, 5A45™\*, 7D51™\*, and 7A18™\* have above average ratings for diplodia.
- Tillage will help bury some of the residue, but until all is plowed under, enough inoculum will be present for infection if weather permits.
- Most fungicides are not labeled for diplodia ear rot. At this writing Quilt® Xcel is the only corn fungicide that lists diplodia ear rot as a "target disease." University testing has been inconclusive. Seed production fields receive an application of Quadris® at 50% silk to help control diplodia and improve seed quality.

Whether we will have widespread diplodia problems in 2012 will depend mostly on the weather conditions of the summer. We got off a little easier in 2011 than we did in 2010. However that's no reason to expect the same next year. Going back to those fields that were beans this year but corn in 2010, and considering there may still be corn residue left over; diplodia only needs the right environment to cause plenty of problems again.



Bob Johnson  
Ashland, IL

**Planted:** April 6 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 8. **Previous Crop:** Corn. **Corn Borer Rating:** Light. **Soil Type:** Heavy 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 5A45 AM1™*	216.9	16.8	88	64.7	29
Stone 681-76VT3	195.9	16.2	100	59.6	35
Stine 9371RR	184.6	16.8	100	60.2	35
Average	199.1	16.6	96	61.5	33





## Power Plus® 7D51 Q<sup>TM</sup>\* wins!



**Ron Kuhlmann**  
Beardstown, IL

**Planted:** May 4 in 30'' rows. **Planting Population:** 32,500. **Harvested:** September 20. **Previous Crop:** Corn. **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 7D51 Q <sup>TM</sup> *	232.0	23.5	100	59.9	33
FS 62MV4	230.3	23.3	100	59.8	34
POWER PLUS 7A18 AM1 <sup>TM</sup> *	229.1	25.2	100	61.3	34
Croplan 6525	228.8	19.5	100	58.9	31
FS 65BV3	223.9	22.2	100	59.6	32
POWER PLUS 6F72 AM <sup>TM</sup> *	222.3	22.9	100	59.7	30
POWER PLUS 4V43 S <sup>TM</sup> *	220.3	21.5	100	59.4	29
FS 64JV3	213.1	25.0	100	59.3	34
FS 63MV4	211.9	23.5	100	58.9	33
POWER PLUS 5A45 AM1 <sup>TM</sup> *	211.4	22.0	100	62.5	30
POWER PLUS 4A30 AM1 <sup>TM</sup> *	207.4	21.6	92	61.4	30
POWER PLUS 6B52 S <sup>TM</sup> *	206.8	22.0	100	59.5	31
BURRUS X6J36	206.2	21.0	100	59.3	33
POWER PLUS 6A12 AM1 <sup>TM</sup> *	205.0	22.5	100	59.6	33
Croplan 6631	193.8	23.3	100	59.8	30
Average	216.1	22.6	99	59.9	32

## CHAMPAIGN

### Power Plus® wins!



**Bill, Steve, & Tim Wood**  
Sadorus, IL

**Planted:** April 18 in 30'' rows. **Harvested:** September 16. **Previous Crop:** Soybeans.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4V43 S <sup>TM</sup> *	183.8	19.9
Dekalb 61-13	180.2	20.2
POWER PLUS 7A18 AM1 <sup>TM</sup> *	176.5	22.6
POWER PLUS 6A12 AM1 <sup>TM</sup> *	166.9	22.4
Kruger K-6010VT3	165.6	17.6
Dekalb 62-13	165.0	20.1
Kruger K-7614	164.7	20.5
POWER PLUS 7D51 Q <sup>TM</sup> *	160.3	22.1
Dekalb 83-84	160.3	19.7
Kruger K4R-9513	158.8	19.9
Kruger K-7312	157.7	19.2
Kruger K4R-9209	157.5	20.1
Kruger K-6010VT3	155.5	18.9
Kruger K-7611	153.3	19.6
Kruger K4R-9710	150.8	19.8
Pioneer P1184	147.5	19.4
Average	162.8	20.1

**Jerry Christian**  
Tolono, IL

**Planted:** May 13 in 30'' rows. **Planting Population:** 34,000. **Harvested:** October 17. **Previous Crop:** Soybeans. **Herbicide:** Roundup (burndown). **Corn Borer Rating:** Moderate. **Soil Type:** Drummer. **Weather:** May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 101413	190.1	13.6	100	61.0	34
BURRUS 422145	188.1	13.6	95	60.8	39
BURRUS 784713	185.3	13.1	94	58.4	34
BURRUS 359718	183.7	14.1	80	59.2	38

BURRUS 4J63 T	182.9	14.8	94	58.4	35
BURRUS 798157	181.4	14.0	100	59.5	37
BURRUS 312320	181.2	16.7	83	59.2	38
POWER PLUS 4V43 S <sup>TM</sup> *	176.7	14.7	97	60.6	37
BURRUS 710321	174.2	16.6	97	58.5	37
BURRUS 443903	173.9	13.9	100	58.4	38
BURRUS 471516	173.5	15.0	95	60.1	37
POWER PLUS 7A18 AM1 <sup>TM</sup> *	171.7	16.8	87	58.3	38
BURRUS 413622	171.1	14.7	100	57.8	32
BURRUS 341332	170.9	16.1	100	59.4	37
BURRUS 484759	170.6	13.2	100	60.3	36
BURRUS 803599	170.0	14.0	88	60.9	35
POWER PLUS 6B52 S <sup>TM</sup> *	169.5	14.9	81	58.1	37
BURRUS 974498	168.1	14.5	97	60.0	38
BURRUS 829583	167.1	15.2	95	59.9	38
BURRUS 943018	166.6	16.1	96	60.0	35
POWER PLUS X6F72 <sup>TM</sup> *	166.4	14.7	100	60.4	35
BURRUS 585774	164.9	14.8	97	55.7	35
POWER PLUS X6F73 <sup>TM</sup> *	161.8	15.2	100	59.2	35
BURRUS X6J36	161.8	14.0	100	55.7	35
BURRUS 388920	161.6	14.1	40	57.1	44
POWER PLUS 6A12 AM1 <sup>TM</sup> *	160.3	15.6	95	63.7	37
BURRUS 431445	158.7	14.5	97	61.2	30
BURRUS 494048	156.1	13.9	97	58.1	36
BURRUS 680038	155.9	14.8	100	59.8	37
BURRUS 592252	153.2	13.8	97	59.4	36
HOB LIT 5566 GT3	152.8	14.5	93	59.0	38
BURRUS 781296	152.1	13.3	75	58.3	33
BURRUS 629459	150.9	16.0	90	59.4	37
POWER PLUS 4C58 Q <sup>TM</sup> *	147.7	13.0	82	58.4	28
POWER PLUS 4B32 AMX <sup>TM</sup> *	144.1	15.3	75	60.9	40
BURRUS 873843	140.2	16.6	97	58.2	35
BURRUS 990102	139.6	15.7	97	63.1	37
POWER PLUS 7D51QR <sup>TM</sup> *	134.6	15.3	90	61.5	38
BURRUS 498109	133.9	15.3	40	55.1	38
POWER PLUS 4A30 AM1 <sup>TM</sup> *	133.8	13.1	100	58.9	34
BURRUS 483952	129.4	15.0	42	60.5	33
BURRUS 512852	125.6	13.4	100	59.1	35
POWER PLUS 7D51 Q <sup>TM</sup> *	118.1	16.5	100	59.8	39
BURRUS 355951	117.5	14.4	11	56.1	38
BURRUS 833714	113.7	14.6	71	57.8	39
POWER PLUS 5A45 AM1 <sup>TM</sup> *	111.1	14.3	100	60.6	31
Average	157.9	14.7	88	59.2	36

## CHRISTIAN

**Paul Rochkes**  
Pana, IL

**Planted:** May 20 in 30'' rows. **Harvested:** October 17. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 200, K: 200. **Herbicide:** Capreno. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–dry, August–dry. **✓Check Hybrid:** Power Plus 4A30 AM1<sup>TM</sup>\*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	182.6		12.3	100	32
BURRUS 512852	170.1	21	14.3	100	32
BURRUS 833316	193.6	2	14.3	95	30
POWER PLUS 5N48 <sup>TM</sup> *	191.3	5	14.0	100	31
POWER PLUS 4V43 S <sup>TM</sup> *	185.6	9	13.7	97	32
POWER PLUS 5A45 AM1 <sup>TM</sup> *	174.3	17	14.9	92	30
POWER PLUS 6B51 R <sup>TM</sup> *	185.1	10	14.4	90	30
✓Check	176.4		14.8	100	31
BURRUS 100363	184.6	16	13.7	85	30
BURRUS 388920	187.1	12	13.9	20	29
BURRUS X6J36 <sup>TM</sup> *	192.2	7	13.6	85	31
BURRUS 471516	196.6	3	14.5	95	31
BURRUS 803599	195.0	6	15.8	95	30
✓Check	191.5		14.8	98	32
BURRUS 943018	177.9	22	15.7	97	31
BURRUS 341332	183.9	20	16.5	98	30
BURRUS 680038	198.6	11	14.9	100	30
POWER PLUS 6A12 AM1 <sup>TM</sup> *	205.4	4	15.3	95	30
POWER PLUS X6F72 <sup>TM</sup> *	200.8	8	16.2	97	31
✓Check	194.6		14.3	100	29

## Clayton Cook

Clayton Cook is a Burrus man through and through. His Dad, John, has been a Burrus Dealer since 1988 and as Clayton learned at an early age, Burrus was the seed of choice on the Cook farm.

Clayton was born and raised on his family's farm near Sciota, IL. He graduated from West Prairie High School and went on to graduate from Southern Illinois University Carbondale in May 2011. He has a degree in agribusiness economics and a minor in plant and soil science.

Clayton began his career with Burrus putting up signs in 2005. He was the first intern in the Burrus intern program in 2010. He set the bar high for future interns with outstanding organizational skills and time management. His duties now include troubleshooting, intern management, hybrid evaluation, and sales calls. Clayton has a wealth of practical "on the farm" experience.



Dealer Services Manager Clayton Cook

In his spare time, Clayton enjoys hunting, fishing, just tinkering, and spending time with his friends and family. Whenever you see Clayton, he will be wearing a big smile.

Put Clayton's passion for Burrus to work on your farm. He will help you improve your bottom line.

BURRUS 778098	191.0	14	14.6	85	32
BURRUS 498109	190.9	15	14.4	90	31
BURRUS 260667	182.6	19	15.3	97	30
POWER PLUS 7A18 AM1 <sup>TM</sup> *	211.8	1	16.2	95	30
POWER PLUS 7D51 Q <sup>TM</sup> *	192.4	13	15.7	80	28
BURRUS 483952	184.5	18	13.5	15	30
✓Check	186.1		14.6	90	31
Average	189.1		14.7	89	31
Check Average	186.2		14.2	98	31

## CLAY

### Power Plus® 4V43 S<sup>TM</sup>\* ranks #1

**Bruce and Brian Garrison**  
Louisville, IL

**Planted:** May 12 in 30'' rows. **Planting Population:** 28,000. **Harvested:** September 29. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: 69, K: 90. **Herbicide:** Lexar, Aatrex. **Corn Borer Rating:** Moderate. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–dry, August–dry. **✓Check Hybrid:** Power Plus 6B51 R<sup>TM</sup>\*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	167.5		20.9	100	26
POWER PLUS 5A45 AM1 <sup>TM</sup> *	169.8	5	20.5	100	25
POWER PLUS 7D51 Q <sup>TM</sup> *	173.7	4	21.9	100	27
POWER PLUS X6F72 <sup>TM</sup> *	167.9	6	20.9	100	25
POWER PLUS 6A12 AM1 <sup>TM</sup> *	163.9	7	19.6	100	27
✓Check	151.5		19.7	100	27
POWER PLUS 6A12 AM1 <sup>TM</sup> *	162.3	8	21.9	100	27
POWER PLUS 7A18 AM1 <sup>TM</sup> *	179.9	2	22.0	100	26
POWER PLUS 4A30 AM1 <sup>TM</sup> *	174.1	3	19.9	100	26
POWER PLUS 4V43 S <sup>TM</sup> *	184.2	1	19.6	100	27
✓Check	165.1		19.3	100	27
Average	169.1		20.6	100	26
Check Average	161.4		20	100	27



Don Rhoads, Burrus sales agronomist shares the strengths and weaknesses of each product so the grower fully understands how to manage effectively to get the most out of every acre you grow. Honesty and integrity still have value at Burrus.



Darrell & Esther Kanallakan of Calhoun Co. enjoyed Cancun, Mexico with the Burrus group.



Burrus® 4J63 T was the top commercial number in Champaign Co. for Jerry Christian.





Burrus & Hughes delivers a value package of outstanding performance, superb quality, and exceptional service.

DEWITT

Terry Deavers  
Clinton, IL

**Planted:** May 9 in 30'' rows. **Planting Population:** 33,674. **Harvested:** September 12. **Previous Crop:** Soybeans. **Fertilizer:** N: 190, P: 250, K: 170. **Herbicide:** Roundup. **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
Dekalb 63-84	224.6	29.7	59.4	33
Dekalb 62-67	224.2	28.6	58.1	33
POWER PLUS 7A18 AM1™*	217.4	31.7	60.9	33
POWER PLUS 7D51 Q™*	217.0	28.7	59.2	33
POWER PLUS 5A45 AM1™*	216.9	34.1	60.5	33
Dekalb 62-54	215.0	27.4	57.9	33
HUGHES 5456 GT3	213.6	24.0	58.0	33
POWER PLUS 6A12 AM1™*	213.2	30.1	61.5	33
POWER PLUS 4A30 AM1™*	208.7	25.0	58.3	33
POWER PLUS 6B51 R™*	204.6	27.4	57.9	33
HUGHES 4125 GT3	191.6	22.7	54.7	33
Average	213.4	28.1	58.8	33

EFFINGHAM

Lagerhausen Farms  
Shumway, IL

**Planted:** May 14 in 30'' rows. **Planting Population:** 27,700. **Harvested:** September 16. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: 200, K: 200. **Herbicide:** Touchdown, Callisto Xtra, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May—wet, June—wet, July—dry, August—dry. ✓**Check Hybrid:** Power Plus 5R68 Q™\*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
POWER PLUS 5R65 R™*	164.5	1	19.4	100	28
POWER PLUS 5A45 AM1™*	154.0	4	21.7	100	27
✓Check	150.9		20.6	100	28
POWER PLUS 7D51 Q™*	144.0	10	24.6	100	28
POWER PLUS X6F72™*	151.3	6	22.7	100	28
✓Check	145.4		20.4	100	27
POWER PLUS 6B52 S™*	150.0	7	21.1	90	27
POWER PLUS 6A12 AM1™*	146.1	9	23.9	96	28
✓Check	141.0		19.1	100	28
POWER PLUS 7A18 AM1™*	155.9	3	22.9	100	28
BURRUS X6J36	152.0	5	20.8	100	28
✓Check	147.6		19.2	100	27
POWER PLUS 4A30 AM1™*	134.8	11	20.1	100	28
POWER PLUS 4V43 S™*	158.7	2	20.4	96	28
✓Check	134.3		20.4	100	28
HOBLIT 5827 VT3 w Avicta	147.8	8	24.5	100	28
Average	148.6		21.4	99	28
Check Average	143.8		19.9	100	28

Goss' wilt in corn update

By Craig Kilby

Areas of central and northern Illinois experienced severe outbreaks of Goss' wilt in 2011. Normally limited to the western corn belt, Goss' wilt has moved into central corn growing areas via wind-blown infected plant debris. Yield losses have reached over 50%, or over 100 bushels/acre on susceptible hybrids. Many top-yielding Burrus®, Power Plus®, Hughes®, and Hoblit® Hybrids carry extremely high resistance to Goss' wilt. See Goss' Wilt ratings chart in this article.

**Background:** Goss' wilt over-winters on corn residue and enters corn through plant wounds. Entrance wounds can be the result of wind, hail,

insects, or even other diseases After the disease is present and established it will persist in subsequent years requiring future control management. As with all plant pathogens it is dependent on proper environment to thrive. Therefore it will depend on growing season weather in 2012 as to Goss' wilt severity. **Goss' wilt is a bacterial rather than fungal disease and as a result does not respond to foliar fungicide applications.** No control is available on post-infected corn.

**Symptoms:** Goss' wilt symptoms can be confused with several other foliar diseases, nitrogen deficiency, or severe drought stress. Lesions are usually rather large with wavy edges that rapidly move up the plant following pollination. Within leaf tissue lesions are black freckles that assist in identifying Goss' wilt.

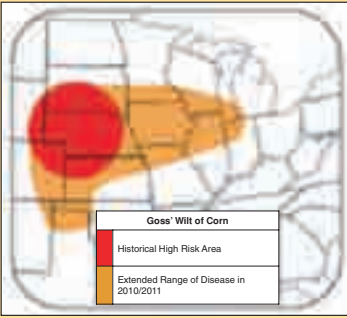
Control:

1. First line of defense is to select



Goss' wilt yellow lesions

- strongly resistant rated Burrus, Power Plus®, Hughes, or Hoblit hybrids.
2. Develop a cropping plan with your Burrus, Hughes, or Hoblit dealer to lower your crop risk to Goss' wilt as well as other profit limiting factors.
  3. Rotate infected fields out of corn into soybeans to reduce corn residue levels that harbor the disease over-winter.
  4. Bury infected corn residue soon following harvest to reduce over-wintering survivability.



Goss' wilt freckles

Goss' wilt rating chart

Hybrid	Goss' ratings
Hughes® 4431GTV	Resistant
Hughes® 4125GT3, 3928GT, 4373	Resistant
Hughes® 5456GT3, 5124GT	Resistant
Burrus® 4J63 T	Resistant
Power Plus® 5N48™*	Resistant
Hoblit® 5566GT3, Hughes 7383GT3, Burrus 591L	Resistant
Power Plus® 5968 Q™*, 5R65 R™*	Resistant
Power Plus® 6B52 S™*, 6B51 R™*, 6B50™*	Resistant
Hughes® 1285GCL	Moderately resistant
Power Plus® 1H37 Q™*	Moderately resistant
Power Plus® 2A16AM1™*, 2M17AMRW™*	Moderately resistant
Power Plus® 4A30AM1™*, 4M31AMRW™*, 4B32AMX™*	Moderately resistant
Power Plus® 4C58 Q™*	Moderately resistant
Power Plus® 5A45AM1™*, 5M46AMRW™*, 5G42™*	Moderately resistant
Power Plus® 6A12AM1™*, 6Y10 R™*	Moderately resistant
Burrus® 6J36GT3, 6J35GT, 6J34	Moderately resistant
Power Plus® 6F73AMX™*, 6F72AM™*, 6F71 R™*, 6F70™*	Moderately resistant
Power Plus® 7D51 Q™*, 7A52AM1™*, 7M53AMRW™*, 7D49 S™*, 750™*	Moderately resistant
Hughes® 2240GT3	Tolerant
Hughes® 2795GT3, 2450GT, 2691	Tolerant
Hughes® 3309GT3, 3310GT	Tolerant
Hughes® 6435GT3	Tolerant
Power Plus® 3C98 R™*	NA
Hughes® 5874, Power Plus® 4K74 S™*	NA
Power Plus® 4V43 S™*	NA
Hoblit® 5557VT3	NA
Power Plus® 6A25AM1™*, 6K24 Q™*	NA
Power Plus® 7A18AM1™*, 7U17 S™*	NA
Power Plus® 7P44AM™*, 7P43 R™*	NA

Scale used :      Resistant      Tolerant      Susceptible  
                         Moderately resistant      Moderately susceptible      NA Not available



At Burrus, we measure success by customer satisfaction. We sell solutions for your farm.



Bruce & Brian Garrison saw some fancy yields for the weather they experienced in Clay Co.



Mya Sievers, daughter of Shawn & Kristine Sievers & granddaughter of Ray & Cindy Sievers of Calhoun Co. loved the Burrus Coon's Choice sweet corn.





# Northern corn leaf blight

By Bryan D. Young

If Burrus were to poll our customers and ask "What corn disease are you most concerned about?" we would expect most customers to respond "gray leaf spot." The disease that should be on our customers' watch list is Northern corn leaf blight. This year as the research group toured research locations through our marketing area, we saw more Northern corn leaf blight occurring in the northern 1/3 of Illinois, southern Wisconsin, and into northern Indiana than past years. In the locations that were severely affected, all hybrids had some lesions, while some hybrids died prematurely.

Northern corn leaf blight occurrence is not limited to northern growing regions and can be found in the tropics and throughout the Midwest. The disease overwinters on corn debris and has increased with conservation tillage and continuous corn. The disease is identified by large grayish lesions on the leaf that are cigar shaped that can be up to 7 inches in length and 3/4 of an inch wide. The disease is favored by warm moist weather and prefers temperatures 65 – 85°F with several hours of free moisture on the leaves. Northern corn leaf blight can still grow and infect the leaf at temperatures above 85°F. On a susceptible hybrid, a spore can infect the plant, form a lesion within 10 days, and have spore production in two weeks after infection. In favorable weather, a single lesion can produce 200,000 spores a night. Reinfection occurs with the new spores with rain and wind events splashing and blowing the spores to unaffected areas of the field.

The earlier in the season Northern corn leaf blight infects the plant, the more yield loss will occur. Yield losses with the disease can approach 50% when infection occurs around pollination and weather remains favorable for disease development. Northern corn leaf blight infection at pollination will reduce kernel size, number, and test weight. Infection later in grain fill can reduce test weight and predispose the plant to stalk rot leading to potential stalk lodging issues at harvest. Yield losses are minimal when infection occurs 6 weeks after pollination or later.

Crop rotation with tillage to bury the old crop residue will help reduce the amount of inoculum in the field, but will not eliminate the pathogen. The best way to manage the disease is by combining crop rotation, tillage, and planting a tolerant or resistant hybrid.

There are two forms of hybrid resistance, polygenic and single gene resistance. Polygenic resistance can use 12 to 14 genes for resistance to Northern corn leaf blight, but most hybrids usually contain 3 to 4 genes for resistance. Polygenic resistance will reduce the size of the lesion, spore production, and increase the time between infection and spore production. Single gene resistance is done through four single dominate genes called *Ht1*, *Ht2*, *Ht3*, and *HtN*. Hybrids containing single genes *Ht1*, *Ht2*, or *Ht3* will have chlorotic lesions with limited spore production. Resistance in hybrids with *HtN* is expressed with fewer lesions per plant with a longer period between infection and spore production.

Single gene resistance has lead to the development of races of northern corn leaf blight. The naming of the different races is based on the single genes that the race has overcome. Race 0 is controlled by all *Ht* genes. Hybrids with the *Ht1* gene are susceptible to race 1, but are resistance to race 0, race 2, and race 3. Hybrids with *Ht2*, are susceptible to race 2, but resistant to race 0, race 1, and race 3. *Ht1* has widely been used in the seed industry and there is concern among corn breeders and plant pathologists that race 1 is becoming more prevalent than race 0.

If a Northern corn leaf blight outbreak occurs in a grower's field close to pollination, foliar fungicides can be used to help control the disease. Several of the popular fungicides are labeled for control of northern corn leaf blight. Growers should scout their fields for Northern corn leaf blight at pollination in the same manner they look for gray leaf spot. If Northern corn leaf blight is found, consider the amount of leaf area affected and choose a fungicide that is preventative and curative. Also plan on a fall tillage operation to bury the infected residue and consider rotating the affected field to soybeans the following year.

It is important to know that hybrids differ in their susceptibility to northern corn leaf blight and the lesions can still be present on a resistant hybrid. Rating for tolerance to northern corn leaf blight for Burrus®, Hughes®, Hoblit®, and Power Plus® hybrids are located in *Which hybrids are right for your farm?*. Combining crop rotation, tillage, planting a resistant hybrid, and scouting for the disease will help reduce the likelihood of having yield loss due to Northern corn leaf blight.



Single lesion of Northern corn leaf blight.



A leaf totally engulfed with NCLB lesions.

## FAYETTE

Gary and Jason Berg  
Vandalia, IL

**Planted:** May 16 in 30" rows. **Planting Population:** 29,500. **Harvested:** September 30. **Previous Crop:** Soybeans. **Fertilizer:** N: 187, P: 69, K: 90. **Herbicide:** Aatrex, Princep, Roundup. **Soil Type:** Silt loam. **Weather:** May–wet, June–wet, July–wet, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 4V43 S™*	181.5	16.1
POWER PLUS 6B50™*	178.6	17.9
POWER PLUS 4A30 AM1™*	177.2	16.9
POWER PLUS 6B52 S™*	173.6	17.5
POWER PLUS X6F72™*	173.6	17.5
POWER PLUS 6A12 AM1™*	171.3	18.9
POWER PLUS 7A18 AM1™*	168.1	18.3
POWER PLUS 5N48™*	162.1	14.3
POWER PLUS 5A45 AM1™*	158.8	16.4
BURRUS X6J36	149.8	14.4
BURRUS 750	146.2	18.8
POWER PLUS 5G42™*	141.2	15.1
Average	165.2	16.8

## FRANKLIN

Andy Jackanicz  
West Frankfort, IL

**Planted:** May 22 in 30" rows. **Planting Population:** 27,500. **Harvested:** October 3. **Fertilizer:** N: 200, P: 96, K: 120. **Herbicide:** Atrazine and Corvus. **Soil Type:** Medium loam. **Weather:** May–wet, June–normal, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4K74 S™*	182.9	18.2	98	61.1	30
BURRUS 571 R	159.8	18.4	98	60.1	28
POWER PLUS 7U17 S™*	155.1	17.9	99	60.5	29
Average	165.9	18.2	98	60.6	29

### Estimated Bushels to Cover the Cost of Foliar Fungicide Applications, 2011

Application Cost (\$/AC)	Product Cost (\$/AC)	Bushels Needed to Cover the Cost of Application at Different Commodity Prices										
		3	4	5	6	7	8	9	10	11	12	13
5	8	4.3	3.3	2.6	2.2	1.9	1.6	1.4	1.3	1.2	1.1	1.0
5	10	5.0	3.8	3.0	2.5	2.1	1.9	1.7	1.5	1.4	1.3	1.2
5	12	5.7	4.3	3.4	2.8	2.4	2.1	1.9	1.7	1.5	1.4	1.3
5	14	6.3	4.8	3.8	3.2	2.7	2.4	2.1	1.9	1.7	1.6	1.5
5	16	7.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1	1.9	1.8	1.6
5	18	7.7	5.8	4.6	3.8	3.3	2.9	2.6	2.3	2.1	1.9	1.8
7	8	5.0	3.8	3.0	2.5	2.1	1.9	1.7	1.5	1.4	1.3	1.2
7	10	5.7	4.3	3.4	2.8	2.4	2.1	1.9	1.7	1.5	1.4	1.3
7	12	6.3	4.8	3.8	3.2	2.7	2.4	2.1	1.9	1.7	1.6	1.5
7	14	7.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1	1.9	1.8	1.6
7	16	7.7	5.8	4.6	3.8	3.3	2.9	2.6	2.3	2.1	1.9	1.8
7	18	8.3	6.3	5.0	4.2	3.6	3.1	2.8	2.5	2.3	2.1	1.9
9	8	5.7	4.3	3.4	2.8	2.4	2.1	1.9	1.7	1.5	1.4	1.3
9	10	6.3	4.8	3.8	3.2	2.7	2.4	2.1	1.9	1.7	1.6	1.5
9	12	7.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1	1.9	1.8	1.6
9	14	7.7	5.8	4.6	3.8	3.3	2.9	2.6	2.3	2.1	1.9	1.8
9	16	8.3	6.3	5.0	4.2	3.6	3.1	2.8	2.5	2.3	2.1	1.9
9	18	9.0	6.8	5.4	4.5	3.9	3.4	3.0	2.7	2.5	2.3	2.1

2011 PRODUCT COSTS REPRESENT A RANGE BASED ON DISCUSSIONS WITH INDUSTRY PARTNERS

Paul Esker, University of Wisconsin-Madison





We are farmers just like you and are proud to be in our third and fourth generation of family ownership.

FULTON

Power Plus® 7P44™\*  
wins at 215 bu/a

Andy Schmalshof  
Avon, IL

Planted: May 5 in 30'' rows. Planting Population: 35,000. Harvested: October 4. Previous Crop: Fallow. Fertilizer: N: 180, P: 40, K: 60. Herbicide: Laudis. Corn Borer Rating: Light. Soil Type: Heavy loam. Weather: May–wet, June–dry, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants /Acre
POWER PLUS 7P44™*	215.9	30.8	90	64.0	37
BURRUS 443903	215.8	18.3	97	58.3	38
POWER PLUS 7A18 AM1™*	210.1	26.6	100	61.4	35
POWER PLUS 5N48™*	209.3	18.9	100	58.2	36
POWER PLUS X6F73™*	207.7	21.9	100	60.8	33
POWER PLUS 4V43 S™*	206.5	20.5	88	64.6	35
POWER PLUS 6B52 S™*	203.4	20.4	100	61.3	34
BURRUS 463227	203.4	17.8	88	58.8	34
BURRUS 220968	203.1	18.6	94	55.8	33
POWER PLUS 6A12 AM1™*	201.9	22.8	96	60.7	36
BURRUS 943018	201.9	24.8	100	60.6	35
BURRUS 974498	201.6	21.9	92	60.8	34
BURRUS 803599	201.0	22.4	100	61.0	35
BURRUS 680038	200.1	21.7	100	57.7	37
BURRUS 778098	199.6	23.9	92	60.1	36
POWER PLUS X6F72™*	199.2	21.8	96	59.5	34
BURRUS 227562	196.7	23.3	88	61.7	35
BURRUS 498109	195.1	25.4	88	57.9	34
BURRUS 471516	194.3	21.3	84	60.7	37
HUGHES 5456 GT3	194.2	19.0	98	57.5	31
POWER PLUS 7D51QR™*	193.9	25.3	96	59.8	35
HUGHES 4125 GT3	193.6	18.1	96	59.6	34
BURRUS 431445	191.3	19.3	100	59.2	33
BURRUS 784713	191.1	18.6	100	58.0	34
POWER PLUS 4A30 AM1™*	191.1	21.5	100	62.9	38
BURRUS 829583	190.6	21.7	92	59.0	36
BURRUS 100363	189.7	19.2	76	55.9	33
BURRUS 986709	188.7	23.3	96	62.4	36
BURRUS 341332	188.3	25.3	92	60.4	36
BURRUS 483952	188.3	24.8	64	58.1	36
BURRUS 629459	187.9	26.2	100	62.8	36
POWER PLUS 7D51 Q™*	186.5	27.7	96	59.6	36
BURRUS 484759	186.2	22.4	96	60.2	34
BURRUS 990102	186.0	26.2	88	61.6	37
BURRUS 6J36 GT3	185.5	20.7	80	63.1	37
POWER PLUS 4B32 AMX™*	185.3	19.6	99	57.0	36
BURRUS 355951	184.2	27.4	88	59.3	34
BURRUS 4J63 T	184.0	21.5	84	57.8	37
BURRUS 585774	184.0	22.2	100	56.4	36
HUGHES 6435 GT3	183.7	20.3	94	57.2	32
POWER PLUS 4C58 Q™*	183.5	19.2	78	58.2	32
BURRUS 833162	183.3	19.9	98	57.2	37
BURRUS 512852	183.0	22.5	100	58.7	38
BURRUS 260667	173.6	29.6	81	61.1	35
POWER PLUS 5A45 AM1™*	170.3	21.4	96	59.4	33
HOBLIT 5566 GT3	168.7	24.7	80	59.6	36
BURRUS 388920	167.9	20.6	84	57.7	36
Average	192.6	22.4	92	59.6	35

Aaron Jacobus  
Lewistown, IL

Planted: May 5 in 30'' rows. Harvested: September 16.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre
Channel 216-96VT3P	236.6	19.1	90	59.8

Dekalb 61-88	214.4	19.0	60	58.8
Pioneer P1395	194.1	20.9	70	61.3
Golden Harvest H-9208	192.4	22.4	65	58.6
Wyffels 7147	191.7	20.3	50	58.1
Channel 214-14VT3P	191.5	19.8	90	59.0
Dekalb 62-97	187.7	20.2	95	58.1
POWER PLUS 6A12 AM1™*	186.5	21.9	99	60.5
POWER PLUS X6F72™*	185.7	20.4	99	60.1
Channel 212-08	182.5	18.6	96	57.7
Wyffels 7477	180.0	20.6	95	58.2
Pioneer P1018XR	179.5	20.3	97	60.1
Golden Harvest H-9138	179.5	21.8	90	58.5
Dekalb 63-84	179.5	18.2	20	59.6
Golden Harvest H-8969	177.9	21.2	80	58.3
BURRUS X6J36	177.6	18.9	97	60.8
Pioneer P1162AM1	176.2	21.1	100	58.3
Pioneer P1184AM1	175.3	19.6	95	61.9
Wyffels 6871	173.8	21.1	95	57.3
Wyffels 7997	173.6	20.9	97	58.3
Golden Harvest H-8940	173.1	20.6	20	56.2
POWER PLUS 5A45 AM1™*	170.8	21.6	97	60.4
Dekalb 63-07	168.7	20.1	60	60.1
Average	184.7	20.4	81	59.1

Kent Lock  
Avon, IL

Planted: May 5 in 30'' rows. Planting Population: 32,000. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 160, P: 80, K: 60. Herbicide: Dual II Magnum, Callisto. Corn Borer Rating: Light. Soil Type: Light loam. Weather: May–wet, June–dry, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants /Acre
BURRUS 750	190.2	17.7	90	62.5	29
POWER PLUS 5P55™*	160.8	14.1	68	59.6	30
Dekalb 63-43	140.4	15.6	70	59.0	31
Average	163.8	15.8	76	60.3	30

GREENE

Power Plus® X6F72™\*  
tops plot



Doug Thornton  
Carrollton, IL

Planted: May 6 in 30'' rows. Planting Population: 35,077. Harvested: September 27. Previous Crop: Soybeans. Fertilizer: N: 200, P: 92, K: 120. Herbicide: Guardsman Max, Atrazine. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May–normal, June–normal, July–dry, August–dry. ✓Check Hybrid: Power Plus 7D51 Q™\*. Remarks: This plot weathered a major storm on July 12.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	184.7		20.0	37	33
POWER PLUS 5A45 AM1™*	158.9	6	19.6	27	34
POWER PLUS 7D51 Q™*	179.8	3	19.9	50	28
POWER PLUS X6F72™*	193.7	1	19.0	60	34
POWER PLUS 6B52 S™*	166.1	5	17.0	45	28
✓Check	162.5		20.4	65	29
POWER PLUS 6A12 AM1™*	154.9	7	18.9	52	29
POWER PLUS 7A18 AM1™*	171.8	4	20.0	40	34
POWER PLUS 4A30 AM1™*	184.3	2	18.8	70	33
POWER PLUS 4V43 S™*	127.8	10	16.9	30	30
✓Check	185.1		19.3	69	31
Krueger K-7614	116.6	11	17.6	-10	20
Krueger K-6010VT3	145.7	9	17.1	50	26
Krueger K-1113RR	91.0	12	17.1	55	18
✓Check	194.3		20.4	60	27
POWER PLUS 6B51 R™*	173.4	8	17.4	78	29
Average	161.9		18.7	49	29
Check Average	181.6		20	57.8	30

Power Plus® 7D51 Q™\*  
goes 220 bu/a

Doug Stuart  
Greenfield, IL

Planted: April 18 in 30'' rows. Planting Population: 30,000. Harvested: September 28. Previous Crop: Soybeans. Fertilizer: N: 166, P: 92, K: 120. Herbicide: Halex GT. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants /Acre
ChannelBio 214-14 VT3P	222.0	17.7	96	57.9	27
POWER PLUS 7D51 Q™*	220.5	21.7	100	60.2	27
Dekalb 62-97	220.5	17.3	100	58.4	31
POWER PLUS 7A18 AM1™*	218.5	21.1	100	59.1	29
Agrigold 6632 VT3	211.3	21.7	100	58.9	28
Pioneer P1615XR	210.7	22.6	100	60.4	23
BURRUS X6J36	203.9	16.9	100	56.8	30
BURRUS 388920	202.3	17.8	100	57.6	30
BURRUS 829583	200.0	16.9	100	57.3	29
BURRUS 803599	199.2	17.2	100	57.3	23
ChannelBio 216-63 VT3	198.9	19.7	92	58.5	27
BURRUS 778098	197.7	17.3	100	59.0	31
Pioneer P1567XR	197.2	19.9	100	58.9	27
BURRUS 483952	196.8	18.2	100	57.9	23
Pioneer P1184XR	194.8	17.7	100	59.4	29
BURRUS 680038	194.1	16.3	100	57.1	29
BURRUS 943018	193.6	18.2	100	58.4	26
POWER PLUS X6F72™*	192.5	17.0	100	58.3	30
BURRUS 471516	192.1	16.6	100	56.4	23
BURRUS 498109	190.9	20.4	80	58.1	28
Agrigold 6533VT3	188.7	18.1	100	57.9	30
POWER PLUS X6F73™*	187.3	18.4	100	58.7	29
Dekalb 58-83	186.9	14.8	100	59.8	25
BURRUS 4J63 T	185.3	17.0	100	58.3	30
POWER PLUS 4V43 S™*	184.7	17.0	96	59.0	28
POWER PLUS 6A12 AM1™*	180.4	18.6	100	57.8	27
POWER PLUS 6B52 S™*	180.1	17.0	100	57.8	26
Dekalb 63-84	179.9	20.0	100	58.1	25
Dekalb 61-69	178.7	16.7	100	58.2	27
Agrigold 6476VT3P	177.9	18.0	100	58.8	24
POWER PLUS 4A30 AM1™*	173.2	16.5	96	58.3	27
Pioneer P1018XR	167.1	16.6	100	57.7	27
Average	188.8	18.3	99	58.2	27

Power Plus 7D51 Q™\*  
goes 219 bu/a

Rob and Sandy Hall  
Carrollton, IL

Planted: April 18 in 30'' rows. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 170, P: 150, K: 200. Herbicide: Corvus followed by Touchdown Total. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt. /Acre	1000 Plants /Acre
POWER PLUS 7D51 Q™*	219.8	16.1	63.1	31
POWER PLUS 6B52 S™*	215.3	12.8	60.3	32
POWER PLUS 7A18 AM1™*	214.3	16.5	63.2	34
POWER PLUS 4V43 S™*	205.6	13.6	60.5	32
POWER PLUS 6A12 AM1™*	205.3	15.6	63.0	30
POWER PLUS X6F72™*	196.1	16.4	63.1	27
BURRUS X6J36	189.5	12.1	59.1	30
POWER PLUS 4A30 AM1™*	185.6	14.1	61.6	33
Average	204	14.6	61.7	31



Marty Crane of Greene Co. appreciates the efforts of his Burrus RSM Tim Carmody.



David & Brad Schutz saw Burrus® 750 excel in their non-GM plot in Greene Co.



Power Plus® 4V43™\* was tops in Fayette Co. for Jason, Julianna, Sara & Stephen Berg.



Kent Lock saw Burrus® 750 & Power Plus® 5P55™\* handle Dekalb in Fulton Co.



Mary, Andy & Chelsea Jackanicz saw outstanding yields in Franklin Co. from Power Plus® 4K74 S™\*.





# VOTiVO™ – Plant it and the protection grows

By Tim Greene

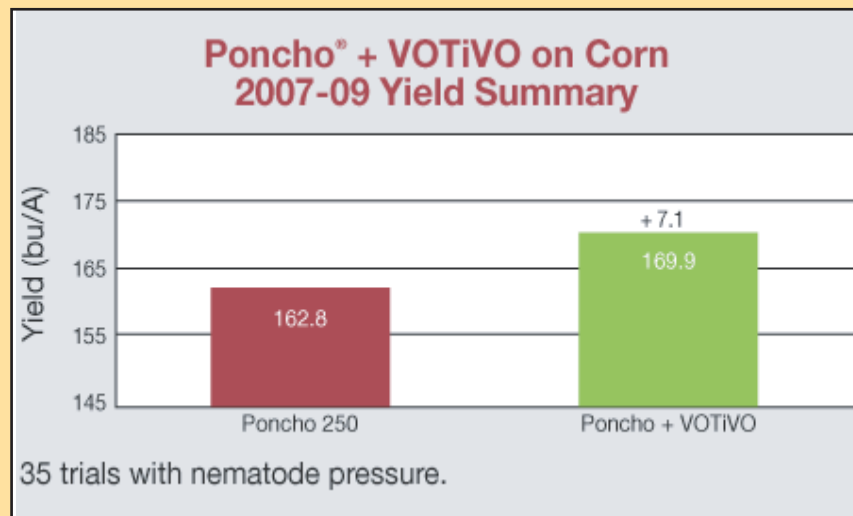
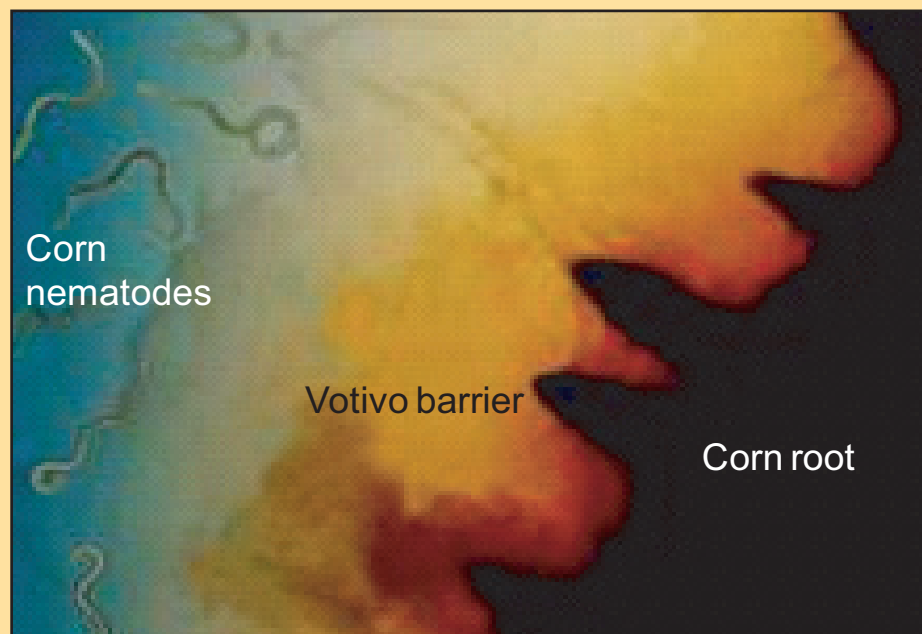
Obviously today's genetics and traits have raised the potential yield bar dramatically from just a few years ago. To safeguard that potential, seed applied insecticide treatments play an important role with early season protection against insects and disease. Poncho® is in the nicotinoid family of seed applied insecticides and has proven its value in early season control of soil insects. Our tests have shown there to be yield enhancement even in non-insect environments.

VOTiVO™, a product from Bayer Crop Sciences, is an additional level of seed protection available to fight corn nematodes. Corn nematodes are microscopic, thread-like round worms that inhabit prairie soils and feed on corn root systems and other grass species. Most corn nematode damage appears to be in sandy soils, but damage can occur in all soil types. Symptoms can include chlorosis, stunting, and root damage which eventually can result in yield loss. Nematode injury can be misdiagnosed as herbicide injury, disease, micronutrient deficiencies, nitrogen loss or water damage. Even with no visual symptoms yield loss can occur.

VOTiVO (active ingredient bacillus firmus), as the active ingredient implies, is a biological product rather than a true chemical. It also lists activity on all the major nematode species. VOTiVO contains a unique strain of bacteria that lives and grows on the corn roots. The colonization of bacteria creates a protective barrier from invading nematodes. VOTiVO is packaged with High rate Poncho (Poncho 1250) and can be ordered as HP4 or HP5 seed sizes.

For 2012 you can choose a hybrid available with High rate Poncho/ VOTiVO for added soil insect protection and also capture some protection benefit from corn nematodes. The VOTiVO system adds another layer of yield potential protection to your bottom line.

Poncho® and VOTiVO® are trademarks of Bayer CropScience.



## Rob Colby

Rob Colby joined as a District Sales Manager this past winter. He covers a territory south of the I-80 corridor.

Rob was born and raised in the small farming community of Tiskilwa, IL. His extended family has always been involved with agriculture. Rob graduated from Kishwaukee Community College and previously worked in ag sales.

Rob and his wife Trudi reside in Princeton, IL. Trudi is a nurse. They enjoy two girls, Miranda, age 10 and Erika, age 8. Their activities of soccer, softball, and golf keep their household very busy. Miranda has just joined the band and is playing the trombone while Erika just got involved with the Girl Scouts.

When Rob is not advising growers, he enjoys hunting, fishing, and golf. He likes



Rob Colby serves dealers and customers in northern Illinois.

sports and cheers for his favorite teams, the Chicago Cubs and Bears.

Let Rob use his work ethic and dedication to help you be more successful on your farm.

David and Brad Schutz  
Hartwell Ranch  
Hillview, IL

**Planted:** May 10 in 30" rows. **Planting Population:** 33,000. **Harvested:** October 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 150, K: 100. **Herbicide:** Corvus. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.
Nu Tech 0A210	159.6	14.2	95	31
Nu Tech 0A212	158.7	13.6	97	32
<b>BURRUS 750</b>	<b>158.4</b>	<b>14.6</b>	<b>95</b>	<b>28</b>
<b>POWER PLUS 5N48™*</b>	<b>157.4</b>	<b>14.8</b>	<b>100</b>	<b>30</b>
<b>POWER PLUS 6B50™*</b>	<b>138.8</b>	<b>15.1</b>	<b>97</b>	<b>31</b>
Average	154.6	14.5	97	30

Rob and Sandy Hall  
Carrollton, IL

**Planted:** April 18 in 30" rows. **Planting Population:** 33,000. **Harvested:** October 3. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 150, K: 200. **Herbicide:** Corvus followed by Touchdown Total. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	1000 Plants /Acre
<b>POWER PLUS 6B52 S™*</b>	<b>210.3</b>	<b>12.8</b>	<b>61.3</b>	<b>32</b>
<b>POWER PLUS 4V43 S™*</b>	<b>206.4</b>	<b>13.1</b>	<b>58.3</b>	<b>32</b>
<b>POWER PLUS 4A30 AM1™*</b>	<b>188.6</b>	<b>13.5</b>	<b>62.4</b>	<b>33</b>
<b>POWER PLUS 6A12 AM1™*</b>	<b>176.6</b>	<b>15.6</b>	<b>62.0</b>	<b>30</b>
<b>POWER PLUS 7A18 AM1™*</b>	<b>167.1</b>	<b>14.1</b>	<b>60.6</b>	<b>34</b>
<b>POWER PLUS X6F72™*</b>	<b>167.1</b>	<b>11.4</b>	<b>60.9</b>	<b>27</b>
<b>BURRUS X6J36</b>	<b>162.5</b>	<b>10.8</b>	<b>54.8</b>	<b>30</b>
<b>POWER PLUS 7D51 Q™*</b>	<b>136.2</b>	<b>12.9</b>	<b>59.3</b>	<b>31</b>
Average	176.8	13	59.9	31

## HANCOCK

Power Plus® X6F72™\*  
first at 222 bu/a

**COMPARE!** Richard Douglas  
Dallas City, IL

**Planted:** May 7 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 29. **Previous Crop:** Soybeans. **Fertilizer:** N: 215, P: 92, K: 150. **Soil Type:** Medium loam. **Weather:** May-wet, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	195.3		23.8	100	34
<b>POWER PLUS 5A45 AM1™*</b>	<b>198.9</b>	<b>5</b>	<b>23.7</b>	<b>70</b>	<b>35</b>
<b>POWER PLUS 7D51 Q™*</b>	<b>207.2</b>	<b>4</b>	<b>25.1</b>	<b>90</b>	<b>35</b>
<b>POWER PLUS X6F72™*</b>	<b>222.2</b>	<b>1</b>	<b>22.8</b>	<b>90</b>	<b>34</b>
<b>POWER PLUS X4C58™*</b>	<b>189.1</b>	<b>7</b>	<b>20.5</b>	<b>90</b>	<b>34</b>
<b>POWER PLUS 6B52 S™*</b>	<b>195.2</b>	<b>6</b>	<b>20.8</b>	<b>100</b>	<b>34</b>
✓Check	208.6		22.2	100	35
<b>POWER PLUS 7A18 AM1™*</b>	<b>227.5</b>	<b>2</b>	<b>24.8</b>	<b>100</b>	<b>34</b>
<b>POWER PLUS 4A30 AM1™*</b>	<b>194.2</b>	<b>8</b>	<b>20.0</b>	<b>90</b>	<b>34</b>
<b>BURRUS X6J36</b>	<b>221.9</b>	<b>3</b>	<b>18.9</b>	<b>80</b>	<b>35</b>
✓Check	216.0		19.6	90	35
Average	206.9		22	91	34
Check Average	206.6		21	96	34



## Understanding green snap

By John Williams, C.P.Ag/C.C.A.

Fast growing corn plants have an increased probability for stalk breakage at lower nodes. This is known as green snap. Green snap occurs in the western to central Corn Belt where high winds are more prevalent. Rapidly growing corn in the late vegetative stages near tasseling is the most vulnerable to green snap. Understanding the factors that lead to green snap will aid growers with crop management.

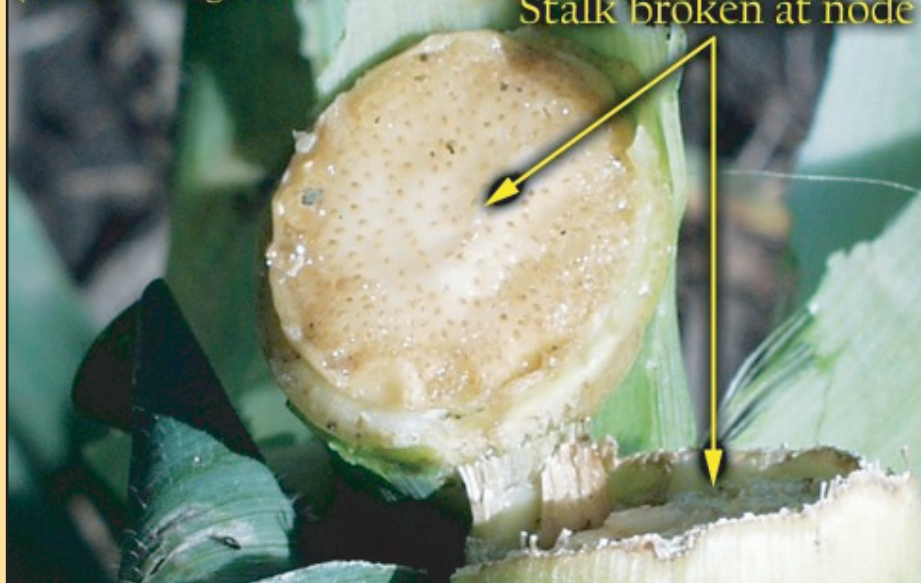
What is the probability of green snap? During rapid growth cell walls are extremely fragile and the stalk tissue will be at a greater risk of brittleness compared to other growth stages. Favorable growing conditions during the early growth stage will increase the corn plant's vulnerability to green snap. Some of the conditions that contribute to green snap are:

1. A favorable environment for corn growth such as adequate moisture, high available nitrogen, and warm temperatures.
2. High fertility rates of N, P, and K, and spring-applied nitrogen will increase early season growth.
3. Plant densities and leaf orientation will also have an effect. High plant densities cause the plant leaves to tend to be perpendicular to the rows. Strong winds perpendicular to the row can increase chances of stalk breakage.
4. Time of day or night can affect green snap. Windy conditions during the night and early morning when plants are full of water increase stalk breakage.
5. Using plant growth regulators such as 2,4-D, dicamba, and clopyralid will stimulate rapid growth. Late applications of these products during hot humid conditions may increase risk even more.

When is the corn plant most susceptible to green snap? There are 2 stages that are most susceptible to green snap. The first is V5 – V8. This is when the growing point is emerging from the soil line and is in a period of rapid change. The nodal root system is beginning to expand rapidly, so the ability to take up water and nutrients is increased dramatically. This causes faster leaf and plant growth. The fast growth causes cell walls to become thin and thus more fragile.

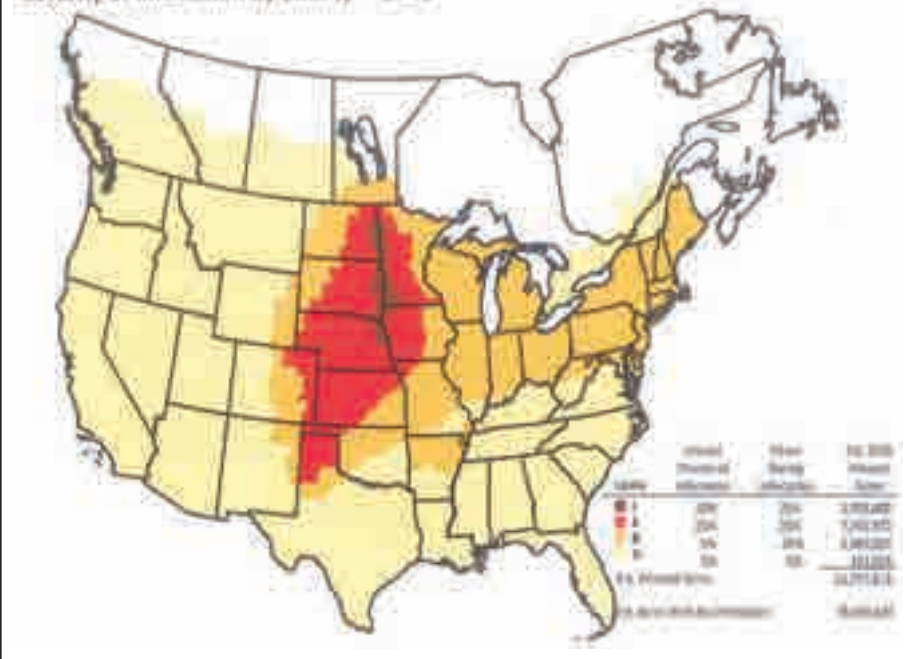
### Green Snap Syndrome

(Growth Stage V13)



Green snap is primarily a timing issue and June 23 was the wrong time in central Illinois.

### NAS Corn – Brittle Snap Severity of Infestation by County – 2010



While nowhere is immune to green snap, the red and brown areas have greater exposure than the tan areas.

At this stage of growth, the many nodes and internodes are bunched together in a small area. This causes the plant to be less flexible and more susceptible to breakage. Green snap at this stage usually occurs below the growing point. These plants usually do not recover.

The second stage of vulnerability is

when the corn plant is in the 21 – 28 day period of V12 – tasseling. The corn plant increases in size from 3 feet to its mature height and its leaf surface increases. It is the increase in leaf surface and plant height that causes wind resistance during high winds and thunderstorms. As soon as the corn plant reaches its mature height,

the risk of green snap decreases because cell walls strengthen with lignin and other structural material. This “cement” lignin allows the corn plant to become less brittle and more flexible.

How to manage green snap:

1. Some products have a wider window of exposure to green snap while others have a much shorter vulnerability.
2. Plant a package of Burrus®, Hoblit®, Hughes®, and Power Plus® corn hybrids every year to spread out the green snap risk. Plant hybrids with a 10-day range of maturity. A good breakdown would be 50% of your corn hybrids selection should be in the mid-maturity range for your area. The remaining hybrid selections should be 20% early-maturity range and 30% full-season range.
3. Take care in applying growth regulator herbicides. Understand the additives being used too. This might increase weed control but could increase risk of crop injury. Always follow label directions. Do not apply these herbicides after the V3 stage.
4. Plant corn at least 2 inches deep. Plants with shallow or restricted roots might have less tolerance to growth regulator herbicides.
5. Earlier planted corn could have less green snap potential at the V5 – V8 stage because the early growing conditions are cooler so the corn usually does not grow as fast.
6. Conventional tilled fields warm up faster, which causes the corn plant to grow more rapidly than no-till fields, leading to a higher risk of green snap.
7. High organic soils seem to have more incidences of green snap than low organic soils.
8. The best managed fields seem to be the biggest victims of green snap.
9. Crop insurance programs specifically for green snap or wind events are a good management tool.



Power Plus® 5R65 R™\* was best in Effingham Co. for Emil & Dan Lagerhausen.





# GM vs. non-GM which is right for you?

The debate rages for many growers, non-GM corn or fully traited? Some growers prefer the most advanced technology corn while others put their faith in non-GM hybrids. It is really up to the grower and how he chooses to manage his acres. One thing is certain, growers continue to look for ways to increase profits. Many growers focus on either lowering costs or marketing a more valuable product. Planting a conventional (non-genetically modified), lower-priced hybrid seed and capturing a premium per bushel for the grain is an attractive option for some growers. Other growers might be in heavy insect areas so they choose fully traited products to help limit their exposure to damaging insects.

Several of the Burrus customers have participated in non-GM premium programs for years. Many Hughes and Hoblit customers have also enjoyed planting non-GM products. Premiums are set by the grain buyers and are directly related to the needs of the grain buyer's end users. The premium range has varied with the corn price and end users demand. In the past, a good rule of thumb was that a grain premium would run in the neighborhood of 5-10% of the cash grain price.

Realize that most premium opportunities are limited particularly by area. Look

for contract opportunities or double check with grain buyers before you empty that bin of non-GM corn. If you have the potential for specific premium opportunities in your area contact Burrus Sales Manager Mike Langan and share the contact information of your grain buyer.

When utilizing non-GM premium opportunities, each grower needs to assess his ability to segregate grain, the extra cost and effort involved with identity preservation such as handling and storage. Also consider the risks involved with not planting technologies for insect and/or herbicide protection.

Most growers know their storage capabilities and costs, but defining extra costs involved without having certain insect and herbicide protection can be very uncertain. There are risks involved if rootworm and/or European corn borer populations explode in certain areas. Hidden yield loss from herbicide injury can also erode the gained premium. Talk with one of our RSMs or DSMs for complete details. They can help talk through what options are best for you, your operation and management style.

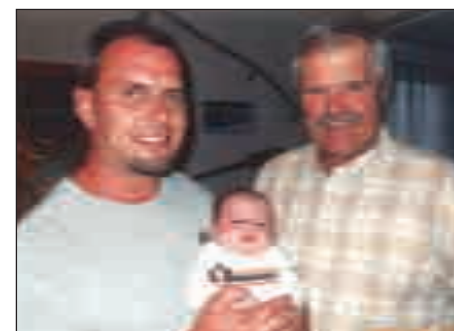
Some seed companies have dropped their entire non-GM lineup. At Burrus we still have a growing demand for our

non-GM products. Our ultimate goal is to have the highest yields regardless. Place your trust in Burrus. Some of the seed companies owned by the trait developers will only introduce old genetics or mediocre performers as conventionals to ensure their "high margin" seed wins. This handicapping does not occur at Burrus. We have no motive to manipulate the performance of any product. We won't push the highest traited package if it is not in your best interest.

At Burrus, Hoblit and Hughes, we believe there is an important segment of end users wanting a dependable supply of quality non-GM corn. We have a large market share close to the river terminals and food processing plants that are offering premium opportunities. We are among the few companies still introducing new non-GM hybrids. For 2012, new Burrus 6J34 and Power Plus® 6F70™ will join the team with the proven Burrus® 750, Power Plus® 5G42™, 5N48™, and 6B50™. Hughes® also promotes a strong lineup of non-GM choices for our northern marketing area: 2691, 4373, and 5874. If you choose to play in the non-GM premium game, your chances of winning are the greatest with any of those Burrus family of products.



Bruce & John Spangler of Fulton Co. experienced excellent yields with Power Plus® 7D51™.



Power Plus® 6A12AM1™ & X6F72™ stood out in Iroquois Co. for Jeremy, Spencer & Stephen Chandler representing 3 generations of Burrus fans.



Power Plus® 7U17™ was best in Hancock Co. for Brian & Tim Bolton.



Wyatt Link of Linn Co., MO smiles as the Burrus family of products crank out big yields for his grandpa Rex Wood.

## HANCOCK

Tim Bolton  
Nauvoo, IL

Planted: May 4 in 36" rows. Planting Population: 27,000. Harvested: September 29. Previous Crop: Soybeans. Fertilizer: N: 160, P: 80, K: 120. Herbicide: Corvus & Atrazine. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7U17 S™	193.2	21.0	100	61.8	26
POWER PLUS 4V43 S™	182.0	17.5	100	60.4	26
BURRUS 750	181.2	20.8	85	62.2	26
POWER PLUS 5G42™	175.5	19.0	100	63.8	26
BURRUS X6F72	171.1	18.9	100	60.8	26
POWER PLUS 5N48™	170.1	16.1	90	61.6	26
POWER PLUS 4A30 AM1™	163.1	18.1	100	61.6	26
POWER PLUS 6B52 S™	157.3	18.0	90	59.5	26
Average	174.2	18.7	96	61.5	26

Population: 33,600. Harvested: September 17. Previous Crop: Corn. Fertilizer: N: 210, P: 70, K: 120. Herbicide: Bicep II Magnum, Roundup, Impact. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-wet, June-normal, July-dry, August-dry. ✓Check Hybrid: Power Plus 6A12 AM1™.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	226.6		23.8	100	32
BURRUS X6J36	207.3	9	19.0	90	30
POWER PLUS 4V43 S™	233.7	2	20.8	100	32
POWER PLUS 4A30 AM1™	215.9	8	21.5	100	31
POWER PLUS 7A18 AM1™	241.0	1	25.9	100	32
✓Check	223.7		24.1	100	32
POWER PLUS 6A12 AM1™	220.9	4	24.0	100	32
POWER PLUS 6B52 S™	219.8	5	23.4	100	33
POWER PLUS X6F73™	219.7	6	24.2	100	33
POWER PLUS 7D51 Q™	227.0	3	25.6	100	33
POWER PLUS 5A45 AM1™	218.9	7	23.0	100	32
✓Check	214.1		24.0	90	32
Average	222.4		23.3	98	32
Check Average	221.5		24.0	97	32

Glyphosate. Corn Borer Rating: Light. Soil Type: Medium. Weather: May-wet, June-wet, July-dry, August-dry. Remarks: Results were better than expected in light of extreme weather.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6A12 AM1™	142.4	20.8	97	63.2	33
POWER PLUS X6F72™	140.6	20.5	97	63.7	33
HUGHES 5456 GT3	137.4	14.1	97	59.1	29
POWER PLUS 6B52 S™	135.8	20.1	97	63.6	31
POWER PLUS 7A18 AM1™	134.9	21.5	97	64.4	29
BURRUS X6J36	132.3	19.8	97	62.0	26
POWER PLUS 4C58 Q™	122.1	20.2	83	64.1	27
POWER PLUS 4A30 AM1™	117.1	23.5	97	62.9	27
POWER PLUS 2A16 AM1™	115.3	18.3	97	60.6	26
POWER PLUS 5A45 AM1™	110.6	23.2	97	65.3	26
POWER PLUS 7D51 Q™	109.5	25.0	97	62.3	26
HUGHES 6435 GT3	96.6	21.6	97	58.4	27
Average	124.6	20.7	96	62.5	28



Terry, Derrick, Collin, Anthony & Chuck Leary saw their Henderson Co. plot average 222 bu/a!

## HENDERSON

Power Plus®  
7A18 AM1™ at 241 bu/a

Leary Farms  
Little York, IL



Planted: May 1 in 30" rows. Planting

## IROQUOIS

Steve Chandler  
Loda, IL

Planted: May 21 in 30" rows. Planting Population: 32,000. Harvested: October 15. Previous Crop: Soybeans. Fertilizer: N: 176, P: 92, K: 120. Herbicide: Dual II Magnum &





When profitability is your focus, Burrus & Hughes beats the “big boys” with better performance, quality information, and exceptional value.



Two Hughes numbers were above 200 bu/a in Kane Co. to win for Bob & Allison Klotz.



Adam and Mason Krohe, grandsons of Todd & Deb Burrus, are cuteness times two!



Dick Moran saw Power Plus® 7A18AM1™\* perform best in Kankakee Co.



Full season products prevailed in Will Co. for Verna & Adam Clark.



Don Rhoads, Burrus Sales Agronomist scored roots in Ford Co.

## Warm nights

By Don Rhoads

The growing season of 2011 is now in the record books. While memorable, many of us may want to erase it from our memory banks. The planting season started early for some. In the April 18th issue of the *Burrus Buzz*, we reported the earliest planted corn had emerged and had enjoyed excellent growing conditions the first half of April. The second half of April was not as conducive to good growth. Cold, heavy rains crossed much of the Midwest, resulting in slow emergence for corn planted in the 15th through the 20th dates. Some growers reported emergence occurring up to 3 weeks after planting, with good to nearly perfect stands. Some growers were not as fortunate with poorly drained fields robbing seedlings of necessary oxygen for survival. The Burrus 100% replant helped growers in those situations.

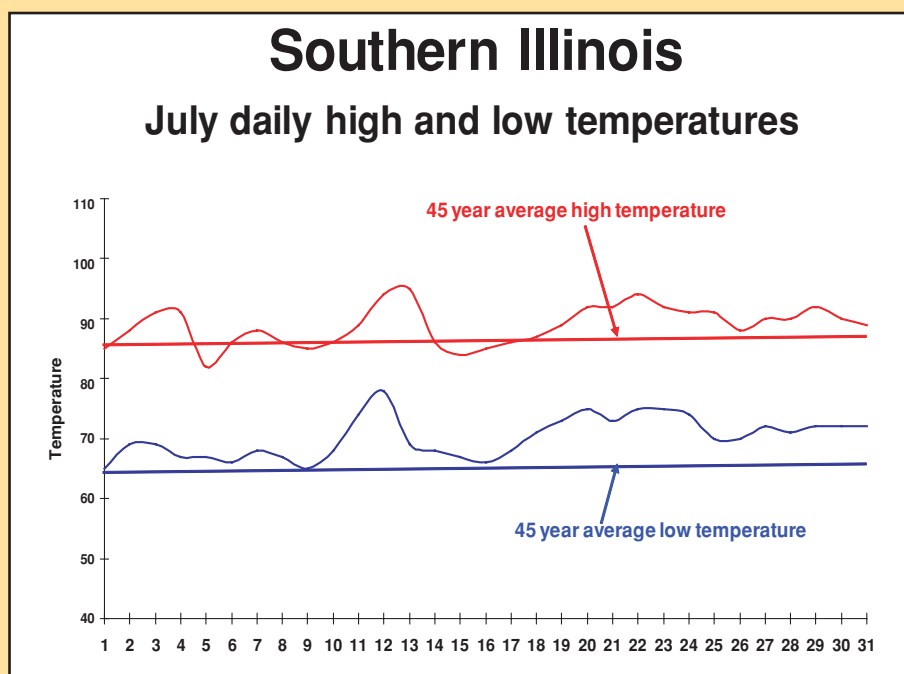
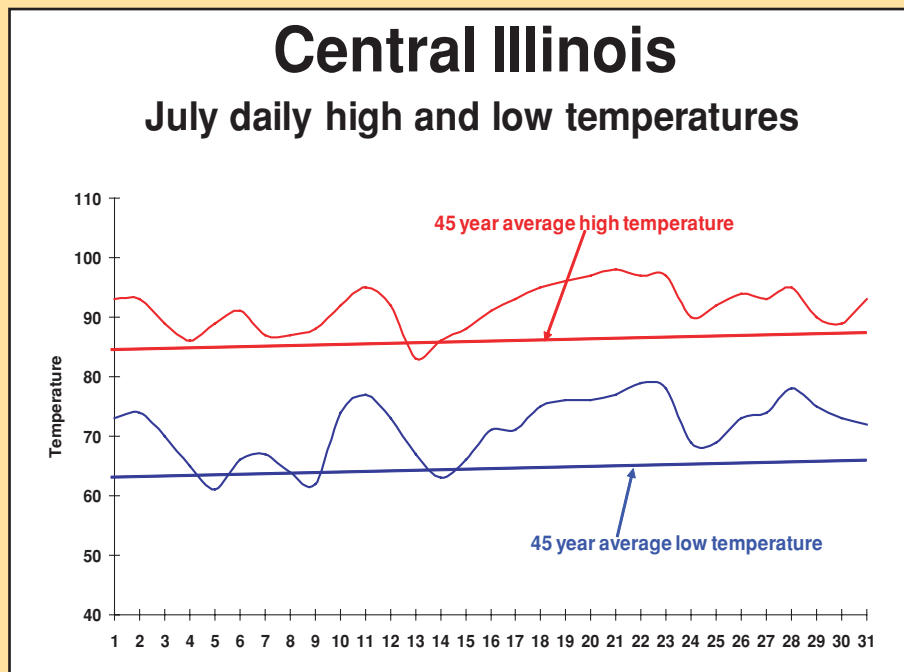
After the cool snap in late April, we were hoping for a warming trend in May. On May 4th many of us who wake early were greeted with a beautiful frost landscape. (I'm not sure my wife got to see the frost). Fortunately there was very little permanent damage to the new crop, only cosmetic injury.

Finally Mother Nature settled into a period conducive for rapid growth. Some growers told us they had never seen corn grow so fast. This rapid growth widened the window for green snap susceptibility, which is addressed in a separate article.

Then came the July from hell. In the July 21st *Burrus Buzz* we called it “the sweltering heat wave.” Not only were day time temperatures high, but night time temperatures remained well above average. The graphs show the high and low temperatures for several regions. It's interesting that Southern Illinois was cooler in July than Central Illinois, but all areas were above the long-term averages for high and low temperatures. The night time lows ranged from 3.9°F above the average in Southern Illinois, slightly over 5°F in Central and Northern Illinois and a whopping 7.1°F in North-Central Missouri. These are huge deviations from the long-term averages.

Humidity was fairly high during July, which helped reduce some water demand on the crop. On the other hand, high humidity increased the thermal mass of air, allowing an insulating barrier at night, keeping temperatures higher in the interior of fields. Also during the hottest part of July there was very little wind movement, also decreasing heat dissipation.

Why are night time temperatures so



important? Corn originated in the high elevation areas of Mexico about 7400 feet above sea level. Granted, corn breeders have altered many characteristics over the years, but it's still important to understand the history of the crop we depend on for our livelihood. Even today, corn prefers tropical conditions, warm days and cool nights. Some of the highest yields in the world come from central Chile and the west slope of Colorado. These areas have intense sunlight, warm days and cool nights. (Also ideal for a vacation spot).

Maximum growth rate for corn is 86°F. Anything hotter can induce some level of stress, depending on moisture availability. The process called respiration starts with

photosynthesis during the day which produces energy or sugars. During both day and night these manufactured sugars are used to maintain the plant and growth for the immature ear. High yield environments require cool nights to lower respiration rates to preserve the sugars for growth and reproduction.

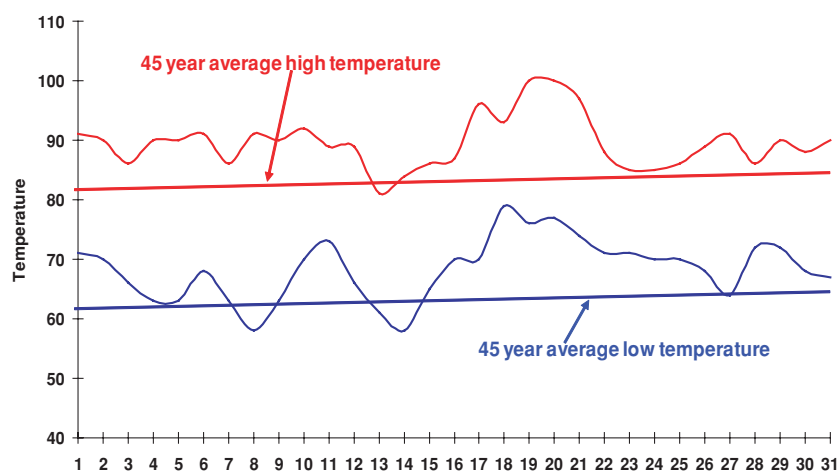
Corn is typically an extremely efficient light capturing, sugar producing machine. Anytime this machine experiences high day time temperatures, photosynthesis decreases resulting in lower sugar manufacture to use or store. High night time temperatures increase resting respiration rates, increasing the amount of sugar needed from a smaller than adequate supply. Bad things are going to happen.





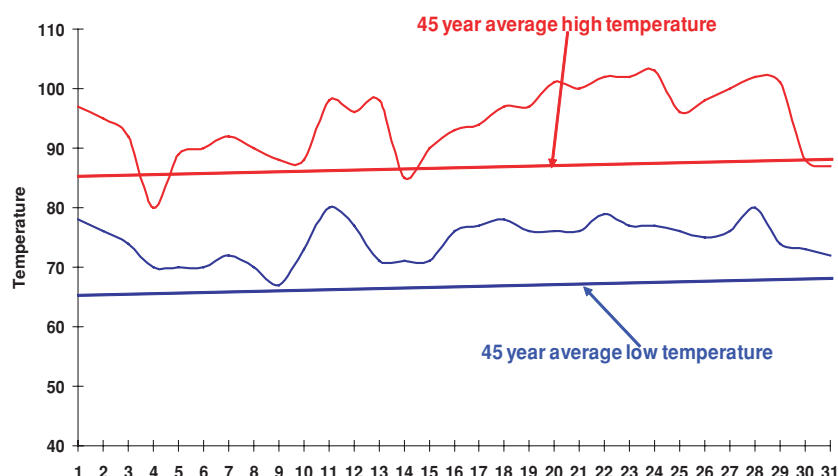
## Northern Illinois

### July daily high and low temperatures



## North-Central Missouri

### July daily high and low temperatures



Sugars are very mobile in corn plants, and can be transported to the developing ear from leaf tissue and stalk. This "cannibalization" can result in weakened stalks and premature death to the plant in severe cases. The developing ear size inside the plant from about the 8th leaf stage can be compromised if sufficient sugars not are available for proper growth.

What happens at pollination with extreme heat? Heat, especially with some moisture stress, can dramatically affect silking and pollination. Just a few decades ago, many hybrids were slow to silk in heat and drought situations resulting in pollen shed before silk emergence. Corn breeders over the years have improved the ability of modern day hybrids to shorten the period between mid-pollen shed and mid-silk in stressed environments.

Heat can also affect the amount of pollen produced and pollen viability.

Several days of temperatures in the mid 90s before and during pollen shed can lower the amount of pollen formed, probably because of lower sugar availability. Excessive heat can also reduce the length of time pollen remains viable, perhaps less than two hours per day. Even though there is usually a huge abundance of pollen, excessive heat can greatly diminish the viable supply. In areas of moisture stress, heat stress was magnified. Even with good moisture reserves in the soil, excessive heat can lower yield potential. One day of 95° to 98°F has little impact on yield, but several consecutive days can take their toll.

Why were some hybrids or fields impacted more than others? As with many factors in corn production, timing of stress is crucial. Just a day or two difference in planting dates, flowering, and grain fill can

make a large difference in kernel set, ear size, and kernel development. Stress hitting at just the wrong time, especially during pollination, can result in shorter ears, increased tip back, and fewer and smaller kernels per ear.

In general, later plantings and replanted fields have experienced lower yields. The graphs show a few spikes of high temperatures the first half of July, while the entire second half was well above average. Most fields pollinated during these hot periods experienced lower yields.

With all the growing season adversities, high yields were attained by many growers. Many were pleasantly surprised they were able to raise such good corn in what seemed a very harsh environment. If roots were not damaged from the early season rains, plants were able to draw from the moisture reserves when the heat and dry period arrived.

The growing season of 2011 reemphasizes the importance of planting a package of hybrids. The type of stress or the timing Mother Nature decides to throw at us is impossible to predict, but being armed with a genetically diverse package of hybrids will greatly improve your odds for success.

## KANE

Bob Klotz  
Maple Park, IL

**Planted:** May 10 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 18. **Previous Crop:** Soybeans. **Fertilizer:** N: 157, P: 50, K: 60. **Herbicide:** Harness Extra & Roundup Status. **Soil Type:** Heavy. **Weather:** May-wet, June-wet, July-wet, August-wet.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
HUGHES 4125 GT3	206.8	19.6	77	57.9	34
HUGHES 7383 GT3	200.7	27.7	94	56.9	34
Yield Direct 4M57	197.6	17.9	97	59.5	34
BURRUS X6J36	195.3	23.5	100	57.9	32
Yield Direct 4M59VT3	194.3	21.1	97	60.3	35
POWER PLUS 5A45 AM1™*	193.9	22.1	100	60.5	28
Yield Direct 4M81	193.7	20.9	100	56.3	34
Yield Direct 4L48Genasis	193.1	22.7	97	57.7	32
Yield Direct 5L24VT3	191.5	23.5	97	58.9	33
HUGHES 5456 GT3	190.6	23.9	56	58.0	29
HUGHES 5594 GT3	188.8	20.3	100	57.1	30
POWER PLUS 6A12 AM1™*	186.6	23.9	32	59.0	31
POWER PLUS 6B52 S™*	184.9	20.2	87	58.1	30
DeRaedt 566GT3000	184.9	21.2	80	55.3	34
POWER PLUS 4C58 Q™*	180.2	20.7	88	56.2	32
HUGHES 4431 GTV	179.1	18.7	76	56.7	33
Yield Direct 6M15VT3	177.3	22.6	57	57.7	32
POWER PLUS 2A16 AM1™*	166.1	20.3	93	57.1	28
POWER PLUS 4A30 AM1™*	161.4	21.2	94	59.3	33
HUGHES 3309 GT3	161.0	17.4	100	57.4	34
HUGHES 6435 GT3	156.4	23.5	94	54.9	32
Average	185	21.6	86	57.8	32

## KANKAKEE

Dick Moran  
Manteno, IL

**Planted:** May 18 in 30" rows. **Planting Population:** 31,000. **Harvested:** October 18. **Previous Crop:** Soybeans. **Fertilizer:** N: 177, P: 69, K: 90. **Herbicide:** Corvus, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Loam. **Weather:** May-wet, June-wet, July-dry, August-dry. **✓Check Hybrid:** Power Plus 4A30 AM1™\*

Brand/Product	Bu. Per Acre	% Moisture	% Erect	1000 Plants /Acre
✓Check	169.9	23.4	97	27
BURRUS 512852	144.8	23	24.9	97 28
BURRUS 833162	169.3	17	21.0	97 28
POWER PLUS 4C58 Q™*	159.4	21	25.6	48 24
POWER PLUS 5N48™*	172.5	11	22.7	87 27
POWER PLUS 4V43 S™*	172.2	12	28.1	76 27
✓Check	168.8	23.9	97	29
POWER PLUS 5A45 AM1™*	157.2	22	25.3	87 26
POWER PLUS 6B51 R™*	182.5	5	23.4	97 26
BURRUS 100363	172.2	13	23.7	97 28
BURRUS 388920	170.5	15	26.5	91 29
POWER PLUS X6J36™*	167.0	18	24.3	97 29
✓Check	166.6	24.9	57	29
BURRUS 471516	171.2	14	27.0	97 28
BURRUS 803599	175.7	10	23.0	91 30
BURRUS 943018	179.7	6	28.7	80 27
BURRUS 341332	177.9	8	28.0	88 29
BURRUS 680038	191.7	1	28.6	97 28
✓Check	163.9	26.1	97	28
POWER PLUS 6A12 AM1™*	178.4	7	25.9	88 31
POWER PLUS X6F72™*	176.2	9	26.8	30 29
BURRUS 778092	184.4	4	24.6	83 27
BURRUS 498109	185.6	3	26.0	97 30
BURRUS 260667	164.5	20	30.6	97 30
POWER PLUS 7A18 AM1™*	187.3	2	27.5	97 28
POWER PLUS 7D51 Q™*	164.9	19	28.5	97 30
BURRUS 483592	169.5	16	28.1	97 27
✓Check	162.2	25.6	97	26
Average	171.6	25.8	88	28
Check Average	166.3	24.8	89	28

## Insecticide test

Jason Zimmer  
Reddick, IL

**Planted:** May 12 in 30" rows. **Planting Population:** 36,000. **Harvested:** October 18. **Previous Crop:** Soybeans. **Fertilizer:** N: 260, P: VRT, K: VRT. **Herbicide:** Harness Xtra & Roundup. **Corn Borer Rating:** Light. **Soil Type:** Clay. **Weather:** May-wet, June-wet, July-dry, August-dry. **Remarks:** Entry 1w/ insecticide, Entry 2 & 3w/o insecticide, Entry 4 & 5w/ insecticide, Entry 6w/o insecticide, Entry 7w/ insecticide, Entry 8w/o insecticide.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6A12 AM1™*	190.2	28.5	68	61.1	33
POWER PLUS 6A12 AM1™*	181.1	28.8	28	61.2	33
POWER PLUS 2A16 AM1™*	174.4	22.2	78	59.6	33
POWER PLUS 2A16 AM1™*	173.1	22.2	97	59.6	33
POWER PLUS 3C98 R™*	169.6	23.2	68	60.8	33
POWER PLUS 3C98 R™*	169.4	24.6	38	59.7	33
POWER PLUS 4V43 S™*	148.3	30.4	58	61.1	33
POWER PLUS 4V43 S™*	134.0	28.2	18	61.0	33
Average	167.5	26.0	57	60.5	33



Burrus & Hughes are big enough to win yet small enough to care.

# Why did corn dry fast early, then nearly stop?

Corn harvest started much earlier than normal for many growers in 2011. A few combines started rolling in central and southern Illinois and some Missouri areas in late August and by the first week of September many anxious growers were diving into corn harvest. Corn matured rapidly through the extreme summer heat and continued on a fast dry down pace into early September. For readers in northern Illinois and Wisconsin these harvest dates might sound fictitious, but if you look at the Growing Degree Data from the warm nights article, Northern Illinois experienced a cooler growing season than the rest of Illinois and Missouri.

The Burrus dry down study near Azenzville planted May 3rd consisted of 13 hybrids ranging in maturity from 108 to 115 days. Ear samples were pulled each week to measure moisture. The average moisture lost from the 13 hybrids from August 22nd to August 29th was 7.8%. Within two weeks, however, moisture loss slowed to only 2.1% for the week.

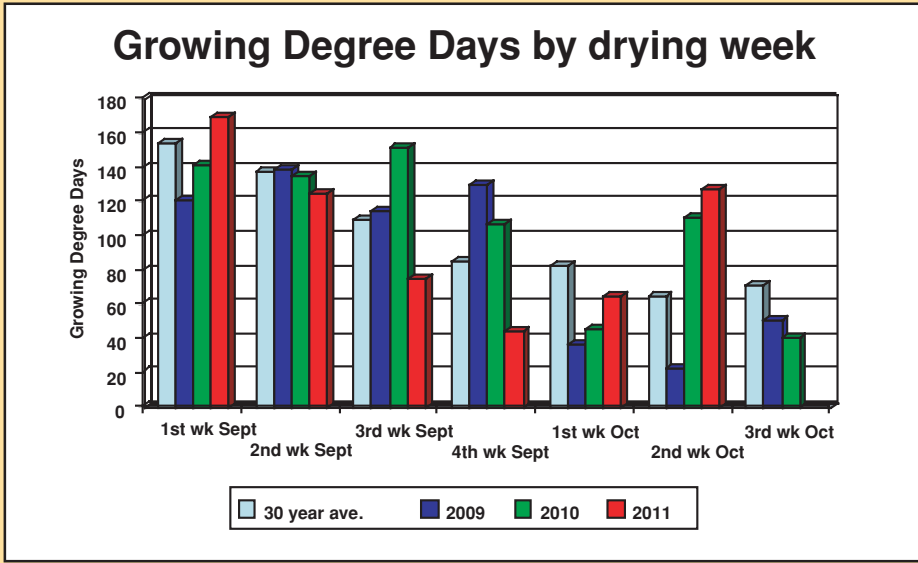
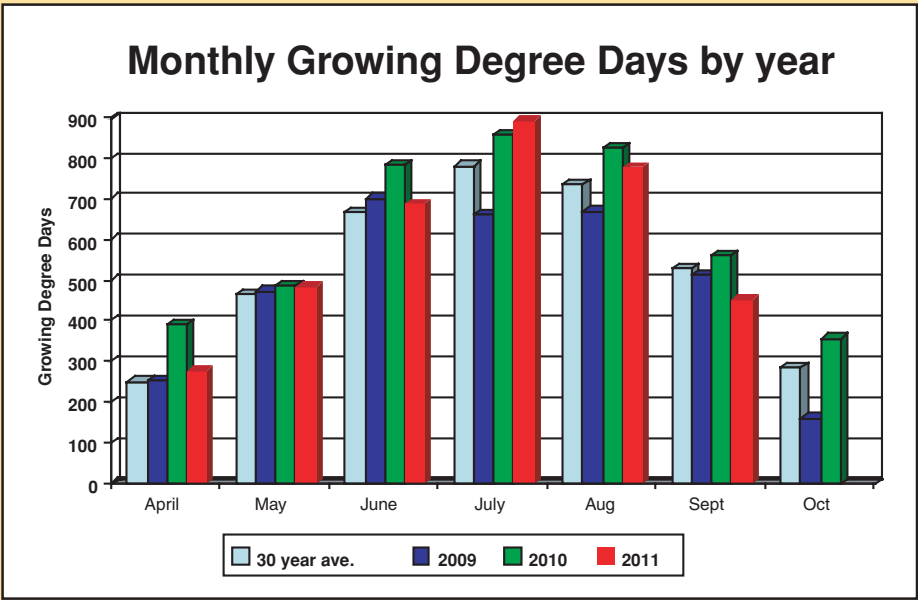
Why did the drying process slow so much within such a short period of time? To answer this question, we need to understand the basics of corn dry down. There are key points to know:

- 1. Corn dry down in the field is primarily dependent on weather, especially temperature, humidity, and wind.
- 2. Hybrid characteristics can influence dry down rates.
- 3. Weather conditions conducive to rapid growth and maturation leads to faster field dry down.
- 4. Weather conditions resulting in slower growth and maturation leads to slower field dry down.

Temperature and humidity along with wind are the driving forces for moisture escaping from kernels. This moisture loss is a simple process of evaporation. The warmer the temperature, the lower the humidity, and some wind to stir the air all lead to faster drying. The thought that somehow moisture can escape back through the kernel tip into the cob is a myth. Once black layer forms (32% to 34%) the moisture and nutritional connection is broken between the kernel and the cob.

There are several hybrid characteristics that can influence dry down rates.

- 1. Because moisture must leave through the kernel pericarp (outside layer), thinner pericarps allow for faster drying rates.
- 2. Years ago corn breeders recognized that husks can play an important role



in dry down characteristics. Breeders started selecting for husk traits that would speed dry down. Originally corn had the same number of husk leaves as number of rows on the ear. Over time breeders diminished husk leaf numbers and selected for thinner husk leaves that allow for more rapid opening at the tip. Many hybrids today also allow husk leaves to senesce (die) before the rest of the plant, initiating earlier dry down. Power Plus® 6B52™\* is a perfect example of fast dry down resulting from husk characteristics. That's why Power Plus® 6B52™\* is a good choice further north where typically 113-day hybrids are not placed.

3. Overall plant health of hybrids can slow or hasten dry down. Healthy hybrids tend to retain kernel moisture slightly longer, while premature death from disease or drought stress causes corn plants to shut down nutrient and moisture flow

into the kernels. Some hybrids recognized for their fast dry down characteristics may be dying prematurely. The term "die down" might be more appropriate than dry down.

The three graphs help explain dry down patterns the last three years compared to the 30-year average. The line graph shows the data from the dry down study for 2009, 2010 and 2011. Growers have enjoyed fast dry down the last two years in these areas. Look what happened in 2009! Harvest moistures were lagging 30 days behind 2010 and 2011. The monthly GDD chart shows that in 2009, April, May, and June were near normal, while July and August were much cooler than normal. July and August were actually cooler than June, 2009. This slowed crop development, especially with the heavy precipitation during that time. The 2010 and 2011 GDD accumulations during the same months were well ahead of the 30-year average and allowed for rapid crop development.

The weekly Growing Degree Day chart

for drying also has some interesting data. In 2009, even though the crop had been delayed during the growing season, the dry down rate for September was aided by warmer than average temperatures for most of the month. Drying virtually stopped as October arrived because temperatures plummeted to well below average. This is also shown on the weekly dry down line graph for 2009 as it flattens in October.

To answer the question "Why did drying slow as we progressed through September?" again the weekly dry down bar graphs explain it clearly. After the first week of September, GDD accumulation was below average for the remainder of the month. The last two weeks were well below normal and temperatures did not rebound to above average until the second week of October. These lower temperatures resulted in slower drying.

Sometimes it's hard to explain the idiosyncrasies of hybrid by environmental interactions, but if we have time to analyze and study the data available, some logical conclusions can be derived. We cannot become complacent in thinking that early harvest and rapid dry down are guaranteed for 2012. We need to manage for an "average" growing season with a package of recommended hybrids that will minimize the risks of adverse circumstances. Hope for the best and prepare for the worst.

## LASALLE

COMPARE!

Jeff and Tina Busch  
Tonica, IL

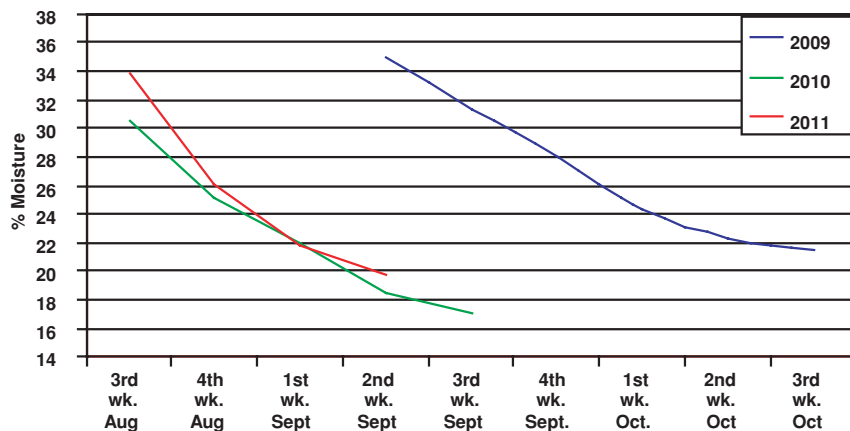
Planted: May 21 in 30" rows. Planting Population: 32,000. Harvested: October 17. Previous Crop: Soybeans. Fertilizer: N: 177, P: 69, K: 90. Herbicide: Roundup. Soil Type: Loam. Weather: May-wet, June-wet, July-dry, August-dry. Remarks: Very nice plot.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants
HUGHES 5456 GT3	263.2	18.3	97	58.6	34
BURRUS X6J36	250.3	20.1	97	61.1	33
BURRUS 4J63 T	230.7	20.7	97	63.2	34
POWER PLUS 7A18 AM1™*	227.1	23.7	97	62.9	32
POWER PLUS 6A12 AM1™*	223.7	21.9	97	62.5	33
POWER PLUS 6B52 S™*	222.1	20.6	97	62.2	31
POWER PLUS 4A30 AM1™*	220.0	20.7	97	63.2	34
POWER PLUS X6F72™*	216.4	22.0	97	61.5	28
HUGHES 6435 GT3	211.8	19.0	97	57.8	33
POWER PLUS 7D51 Q™*	206.8	23.6	97	62.9	31
POWER PLUS 5A45 AM1™*	193.4	20.7	97	64.2	31
POWER PLUS 2A16 AM1™*	149.9	18.3	97	58.6	29
Average	224.9	20.6	97	61.5	32





### Weekly grain dry down by year



#### LaSalle County Farm Bureau Ottawa, IL

**Planted:** May 11 in 30" rows. **Planting Population:** 34,000. **Harvested:** October 4. **Remarks:** With Headline Fungicide.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Pioneer P1184AM1	202.9	24.8	57.7
Becks 5442VT3	199.1	24.8	55.6
Stone 6128	198.2	24.2	56.8
Dekalb 62-97	194.9	25.4	57.1
Croplan 6463SS	194.6	25.3	57.2
Kruger K4-9710	194.6	23.0	55.1
NK N68A	193.6	28.5	56.2
Renk RK880SSTX	187.4	23.0	56.1
Channel 209-85VT3 Pro	186.3	23.1	54.9
Mycogen 2V702	185.7	23.8	55.1
<b>POWER PLUS 5A45 AM1™*</b>	<b>183.7</b>	<b>22.8</b>	<b>58.3</b>
Steyer 10901SS	182.6	23.5	55.3
Great Lakes 5354G3VT3	179.4	25.4	54.4
Moews 3618GENSS	173.6	23.5	55.6
Dairyland 9313SSX	171.9	28.3	55.8
Golden Harvest H-9138	171.6	28.5	55.8
Asgrow A6395	171.3	21.8	57.7
AgriGold 6E33	169.0	24.6	55.2
Garst 83F08	168.7	25.3	54.2
Average	184.7	24.7	56.0

#### LaSalle County Farm Bureau Ottawa, IL

**Planted:** May 11 in 30" rows. **Planting Population:** 34,000. **Harvested:** October 4. **Remarks:** No fungicide

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Dekalb 57-50	203.0	25.2	56.9
Great Lakes 5643VT3PRO	197.2	25.1	52.2
Steyer 10603	185.5	26.9	55.3
Garst 85V88	183.7	24.1	53.7
<b>POWER PLUS 4A30 AM1™*</b>	<b>179.0</b>	<b>23.2</b>	<b>58.3</b>
NK N61P	175.5	23.7	54.4
Moews 2640VT3	175.3	24.3	56.8
Renk RK744VT3PRO	174.3	22.9	56.1
Becks 2640VT3	171.5	26.4	57.2
Mycogen 2P616	171.4	24.5	56.8
Stone 5508GSS	165.7	21.1	56.3
Croplan 5891VT3	163.1	21.5	56.2
Pioneer P0533xr	162.6	22.6	56.9
Asgrow A6395	162.0	25.5	54.4
Kruger K4-9205	157.0	20.6	57.6
Golden Harvest H8239	152.6	20.7	56.7
AgriGold 5389VT3P	151.5	21.6	56.8
Dairyland 9206SSx	135.3	21.7	56.8
Channel 205-99STX	97.7	20.7	57.8
Average	166.5	23.3	56.2

#### LaSalle County Farm Bureau Ottawa, IL

**Planted:** May 11 in 30" rows. **Planting Population:** 34,000. **Harvested:** October 4. **Remarks:** No Fungicide.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Becks 5442VT3	212.7	24.4	55.7
Moews 3618GENSS	205.8	23.9	56.8
Steyer 10901SS	204.0	23.0	56.6
Dekalb 62-97	202.2	24.0	55.6
AgriGold 6E33	198.1	27.9	54.7
Croplan 6463SS	197.4	26.9	56.8
Great Lakes 5354G3VT3	195.5	26.8	54.6
Golden Harvest H-9138	194.3	26.8	55.6

Renk RK880SSTX	188.1	25.6	56.3
Mycogen 2V702	186.8	28.8	55.6
Kruger K4-9710	186.6	24.1	55.3
Garst 83F08	180.2	29.5	55.2
NK N68A	179.8	24.9	56.2
Channel 209-85VT3 Pro	178.3	23.2	55.0
Pioneer P1184AM1	170.6	24.5	58.0
<b>POWER PLUS 5A45 AM1™*</b>	<b>170.4</b>	<b>23.0</b>	<b>60.4</b>
Stone 6128	167.3	25.5	57.4
Dairyland 9313SSX	163.7	27.5	56.3
Asgrow A6395	153.9	21.5	56.9
Average	186.1	25.4	56.3

#### LaSalle County Farm Bureau Ottawa, IL

**Planted:** May 11 in 30" rows. **Planting Population:** 34,000. **Harvested:** October 4. **Remarks:** With Headline Fungicide.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Dekalb 57-50	205.2	23.5	55.4
Becks 2640VT3	194.2	27.8	57.1
Renk RK44VT3PRO	179.7	20.8	55.9
Great Lakes 5643VT3PRO	176.8	23.7	55.2
AgriGold 5389VT3P	173.3	22.3	55.9
Garst 8EV88	172.7	23.5	54.8
Stone 5508GSS	169.5	21.4	56.2
<b>POWER PLUS 4A30 AM1™*</b>	<b>168.0</b>	<b>23.3</b>	<b>57.9</b>
Mycogen 2P616	163.0	22.4	56.5
Asgrow A639E	162.3	27.9	55.3
Moews 2640VT3	160.7	23.4	56.9
Steyer 10603	160.3	25.3	55.6
Croplan 5891VT3	158.8	21.7	55.4
Pioneer P0E33xr	155.4	22.1	57.5
NK N61P	145.8	24.0	53.9
Kruger K4-9205	144.0	21.7	56.6
Golden Harvest H8239	124.0	20.1	56.3
Dairyland 9205SSX	114.9	22.5	55.9
Channel 205-99STX	85.4	20.2	57.5
Average	158.6	23	56.1



Jeff, Derrick & Ken Busch of LaSalle Co. witnessed both Burrus and Hughes hybrids topping 250 bu/a.



Kent Reed saw Hughes 7383 GT3 win at 226 bu/a in Lee Co.

A reward can be yours

## Get your picture in the paper

Would you like to earn an extra \$25? Carlton Rahmel of Springfield had his photo published in the *Jacksonville Journal Courier* wearing his Burrus cap. He won first place in the Cutest Little Farmer contest at the Illinois State Fair this summer. Carlton is the great-grandson of Carlton Schumacher who was the first Burrus salesman/employee. Carlton worked 34 years (1942-1976) for Burrus and saw the growth of the company go from one acre of seed distributed to neighbors to a large, regional seed company.

If a photo of you wearing the Burrus®, Hoblit®, Hughes® or Power Plus® logo on a cap, jacket, or shirt is published in a magazine, newspaper or appears on television, Burrus will send you a check. That's right, all you have to do is wear your favorite seed supplier's name proudly! Simply send us the clipping explaining when and where it was published and we will issue you a check for \$25 as our way of saying "thank you." (Sorry, if your photo appears in a Burrus, Hoblit, or Hughes publication, it does not qualify for the reward.)

As you attend farm shows this win-



Carlton Rahmel won first place in the cutest little farmer contest at the Illinois State Fair.

ter, don't forget to wear your Burrus, Hoblit, Hughes or Power Plus® cap, jacket, hoodie, or other wear. Burrus routinely offers rewards at shows for those who wear our logo. Just stop by our exhibit to learn about the latest

news and collect your reward. To make sure you never miss an opportunity, wear your Burrus, Hoblit, Hughes or Power Plus® logo every day.

Remember, Carlton got a reward and you can, too.



# Understanding stalk rot in corn

By John Williams, C.P.Ag/C.C.A.

Stalk rot is one of the most common corn diseases in the Midwest. It has been estimated that these diseases reduce annual yields by a minimum of 5%. In some years losses can be as much as 20% or more of the expected yield. Losses are primarily due to premature plant death, which result in poor filling of ears or light-weight and poorly finished ears. There are also harvest losses associated with stalk breakage and lodging.

Stalk rot of corn tends to be a complex of several disease-causing fungi. It is common for multiple causal organisms to be isolated from a single disease sample. Plants with a rotted stalk often have a diseased crown and/or roots. Usually, the same casual organism is involved. Fields where stalk rot is developing should be identified and targeted for early harvest.

Several fungi and bacteria can cause stalk rot by attacking plants approaching physiological maturity. Identification of a specific organism causing stalk rot can be very difficult. Some of the more common stalk rot diseases caused by fungi are gibberella stalk rot, anthracnose, fusarium stalk rot, and Diplodia stalk rot. In dry years charcoal stalk rot can also be a problem. Bacterial stalk rot is usually not. If it does occur, it will be before tassel and on random corn plants following heavy rains.

Stalk rot caused by gibberella, fusarium, and diplodia fungi are not usually apparent until several weeks after pollination. Diseased plants might die suddenly in various areas within the field, with the leaves first turning a dull grayish-green. Death of the entire plant follows within 7 – 10 days in susceptible hybrids. The lower internodes turn from green to tan, are spongy and easily crushed. When the stalks are split length wise, only the vascular strands are intact and the pith tissue is decayed.

Stalks infected with the gibberella fungus have a characteristic pink to reddish discoloration of the pith and vascular strands. The breakdown of pith tissues starts at the nodes soon after pollination and becomes more severe as the plant matures. Rotting also commonly affects the roots and crown as well as the lower internodes. An additional identifying feature is the presence of small, round, bluish-black perithecia that form on the surface of gibberella-infected stalks in the fall or the following spring. These black

speckles can be easily scraped off with a thumbnail. Fusarium stalk rot looks similar to gibberella but can be distinguished by a whitish-pink to salmon discoloration.

Diplodia stalk rot can be identified from other stalk rot diseases by the numerous, small, black dots that the fungus produces at or near the lower nodes of the infected stalks. Unlike the perithecia formed by the gibberella fungus, the pycnidia of diplodia are embedded in the rind and cannot be scraped off with a fingernail.

Corn anthracnose has become much more prevalent since the early 70s. In addition to rotting the lower stalk, the anthracnose fungus is capable of attacking the stalk above the ears, causing dieback and breakage of the plant tops. The fungus also commonly causes leaf blight. Although the lower stalk rot phase of anthracnose may cause very susceptible hybrids to be killed before pollination, most hybrids are killed in a week or two before normal maturity. A shiny black or dark brown discoloration of the rind late in the season is a typical symptom of anthracnose on the stalk. This black discoloration usually extends up the stalk for several internodes and may uniformly discolor the rind or give it a blotchy or speckled appearance. The pith tissue beneath these lesions becomes brown or black especially around the nodes. When lodging occurs, it is usually higher on the plant than with other stalk rot diseases.

Charcoal rot is most abundant in hot, dry seasons. As infected plants approach maturity, stalks are killed and the interior of the lower internodes disintegrates. The disease is readily distinguished by the presence of numerous, small, round to irregular, black fungal bodies which are present in large numbers along the vascu-

lar strands in the interior of rotted stalks. The disease derives its common name from the presence of the black fungal bodies, that resembles specks of black dust.

Development of stalk rot is generally favored by an early environment that encourages kernel set and by a stressful late environment. Post flowering stresses may include:

1. An excess or lack of moisture
  2. Nutrient deficiency or imbalance
  3. Excessive cloudiness
  4. Insect, nematode, hail, or other mechanical injury to the leaves, stalks, or roots
  5. Loss of effective leaf area due to foliar diseases or excessive plant population
- Extended periods of very dry or wet weather prior to pollination, followed by an abrupt change for several weeks after silking also encourages the development of stalk rot.

High yields are often associated with stalk rot problems. The plant might over-commit to yield in an ideal environment from kernel set through pollination period, and stress occurs afterwards. The large number of kernels places a high demand on the plant sugars and if the photosynthesis is subsequently reduced because of stress, most of the plant's available sugars will go to the kernels. This deprives the stalk and root tissues of adequate nutrients making them more susceptible to infection by stalk rot organisms.

High nitrogen levels combined with a low level of potassium may increase stalk rot. However, high rates of nitrogen when balanced with adequate to high levels of potash do not increase the potential for stalk rot. Adequate to high levels of nitrogen that stimulate early growth followed by a loss of available nitrogen due to denitrification or leaching might dramatically increase the incidence of stalk rot.

Injury to roots, stalks, or leaves by diseases, insects, nematodes, hail, or equipment can increase the incidence of stalk rot. Injuries created by European corn borer, corn rootworm, and other insects provide avenues of entry for the stalk rot pathogens. Observations indicate the incidence of stalk rot is increased

by nematode damage. High population of root lesion and spiral nematodes have been associated with increased stalk rot. Hail injury may predispose plants to stalk rot, primarily because the effective leaf area is reduced. The loss of photosynthetic leaf tissue because of diseases such as Northern corn leaf blight, Southern corn leaf blight, anthracnose leaf blight, Stewart's leaf blight, and yellow leaf blight may increase the incidence and severity of stalk rot.

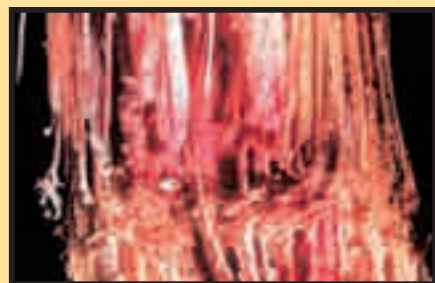
**Stalk rot cannot be entirely controlled. However, the damage can be reduced through the conscientious use of an integrated control program. Use the following practices to reduce harvest losses:**

**Plant well-adapted disease-resistant hybrids** — Corn growers should select high yield potential hybrids that have stalk rot resistance, leaf disease resistance, and good standability. Full-season hybrids are generally more resistant than those that mature early in a given year. Resistance to the fungi that cause stalk rot helps prevent losses from premature plant death and lodging. Hybrid standability is another factor that should be considered. Hybrids with a thick rind or other characteristics that increase standability often remain standing even after the interior of the stalk is thoroughly decayed. Corn producers should check out such characteristics before selecting a particular hybrid.

**Follow a balanced soil fertility program** — Balanced soil fertility, particularly with respect to potassium, is important. Fertilizer should be applied based on the results of soil tests. Research has shown the importance of an adequate supply of nitrogen throughout the season in reducing the severity of stalk rot. In areas where leaching or denitrification is expected, the use of a nitrification inhibitor might help reduce stalk rot.

**Control insects** — Control of insects such as the European corn borer and the Northern and Western corn rootworm is important in reducing stalk rot.

**Plant at the proper rate** — Corn growers should plant at populations suggested for a particular hybrid, soil type, fertility level, available soil moisture and productivity potential in a given field. Planting at excessive rates can result in spindly stalks with reduced standability.



Gibberella stalk rot



Fusarium stalk rot



Anthracnose stalk rot



Diplodia stalk rot

Photos courtesy of Dr. Don White





**Avoid stress through proper irrigation, soil management, and foliar disease and weed control** — Timely irrigation, weed and nematode control, and other stress reducing practices are important for controlling stalk rot damage.

**Practice regular field scouting** — Take time to scout fields to identify different types of stalk rots and fields with the potential to have stalk lodging. Do not assume that late planted fields can be harvested late. When scouting, different hybrids and fields with different management practices should be evaluated separately. About 40 – 50 days after pollination, scout fields for visual symptoms of stalk rot, such as, discoloration on stalks or early dry down.

Walk a zig-zag pattern through the field and test stalk firmness by squeezing or pinching each stalk a couple of nodes above ground level. Healthy stalks are firm and cannot be compressed. If a stalk feels soft, it is rotted and likely prone to lodging. Check at least 100 plants per field. If more than 10-15% of the stalks in a field are rotted, significant lodging is possible.



Charcoal stalk rot

# LEE



**Kent Reed  
Steward, IL**

**Planted:** May 10 in 30" rows. **Planting Population:** 31,000. **Harvested:** October 17. **Previous Crop:** Soybeans. **Soil Type:** Medium loam. ✓**Check Hybrid:** Hughes 4592 VT3

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	219.6		18.5	100	28
HUGHES 4431 GTV	207.1	8	17.7	100	28
HUGHES 4125 GT3	215.4	5	18.2	100	28
POWER PLUS 2A16 AM1™*	196.4	10	18.9	100	28
POWER PLUS 3C98 R™*	218.3	3	17.2	100	28
HUGHES 5456 GT3	207.9	7	18.5	100	28
HUGHES 5594 GT3	208.2	6	18.2	100	28
✓Check	207.6		18.6	100	28
HUGHES 6435 GT3	197.4	9	18.2	100	28
BURRUS 4C58 Q	193.7	12	20.2	100	28
POWER PLUS 6A12 AM1™*	178.0	13	20.3	95	28
POWER PLUS 4A30 AM1™*	216.4	4	19.5	100	28
HUGHES 7383 GT3	226.9	1	22.3	100	28
POWER PLUS 5A45 AM1™*	194.0	11	20.1	90	28
POWER PLUS 6B52 S™*	224.8	2	20.1	100	28
✓Check	215.7		18.1	100	28
Average	208		19	99	28
Check Average	214.3		18.4	100	28

# LIVINGSTON

## Burrus 6J36 GT3 is best

**Andy Zehr  
Flanagan, IL**

**Planted:** May 9 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 125, P: 92, K: 120. **Herbicide:** Roundup. **Corn Borer Rating:** Moderate. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–normal, August–wet.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 101413	255.2	18.1	97	61.3	32
BURRUS 6J36 GT3	242.3	18.3	100	61.9	35
POWER PLUS 6A12 AM1™*	231.5	21.6	98	62.1	31
BURRUS 388920	227.6	18.6	85	62.6	33
BURRUS 798157	227.2	18.8	100	61.7	31
POWER PLUS 6B52 S™*	225.3	18.2	97	61.5	32
POWER PLUS 7A18 AM1™*	223.5	20.6	100	59.6	28
BURRUS 803599	222.5	19.3	94	62.4	30
BURRUS 422145	222.3	16.7	100	62.5	33
BURRUS 483952	221.7	19.6	100	60.3	31
POWER PLUS 4A30 AM1™*	219.1	18.3	100	63.4	30
BURRUS 781296	216.8	17.2	94	59.4	32
POWER PLUS 4B32™*	216.7	18.2	77	62.8	35
BURRUS 260667	216.6	23.7	100	57.6	31
POWER PLUS X6F73™*	215.3	17.8	100	62.1	30
BURRUS 629459	213.5	19.5	100	60.5	29
BURRUS 498109	212.8	21.2	100	56.8	33
BURRUS 829583	211.8	18.9	98	62.1	32
BURRUS 778098	211.2	18.1	97	61.3	30
POWER PLUS 7D51 Q™*	209.0	20.2	99	62.7	32
BURRUS 585774	208.8	18.5	100	61.2	31
BURRUS 471516	207.2	19.9	99	59.4	32
BURRUS 833162	207.0	17.4	100	62.2	28
HOBLOIT 5566 GT3	206.1	19.3	100	57.6	35
BURRUS 494048	206.1	17.7	100	61.2	30
BURRUS 833714	205.9	18.6	100	61.9	29
POWER PLUS X6F72™*	205.1	21.2	86	61.8	33
BURRUS 990102	202.4	22.0	98	62.5	30
BURRUS 974498	198.4	18.4	100	59.3	32
BURRUS 784713	196.6	16.9	100	59.7	32
POWER PLUS 4C58 Q™*	194.1	17.7	100	62.4	29
BURRUS 680038	192.6	19.2	100	59.8	34
BURRUS 4J63 T	192.5	17.2	94	59.6	34
BURRUS 463227	191.4	15.6	100	58.0	31
BURRUS 443903	189.3	18.0	100	60.2	32
BURRUS 194722	188.4	16.3	100	60.6	32
BURRUS 943018	187.0	18.5	100	61.6	30
BURRUS 341332	186.5	18.7	100	60.6	31
BURRUS 431445	185.9	16.8	100	63.4	27
BURRUS 592252	181.2	18.5	100	61.7	28
BURRUS 355951	181.2	21.0	99	57.0	33
POWER PLUS 5A45 AM1™*	175.9	18.9	97	63.1	32
BURRUS 220968	173.8	16.0	100	58.6	33



Jamie & Tim Carlson enjoy representing Burrus in Knox Co.

# Dennis Mueller

Dennis Mueller covers a territory in northeastern Illinois for Burrus. He brings with him over 20 years in the retail fertilizer business. Dennis and family reside on a farm outside Manhattan, IL.

Dennis got a degree in ag production and management from Joliet Junior College. He went on to earn his CCA and enjoys keeping up-to-date on information through continuing education. He also has hands-on experience as he assists with the family farm in Will County.

Dennis and his wife, Kristen, are the proud parents of two active boys. Nolan, age 5, and Hayden, age 3, keep the household hopping. They enjoy their yellow lab named Copper and riding their bikes.

The family enjoys cheering for the Chicago Cubs baseball team and collecting John Deere tractors. Dennis has a collection of farm toys that dates back



Kristen and RSM Dennis Mueller help customers and dealers in northeastern Illinois.

to his childhood. The family enjoyed Coon's Choice sweet corn from their garden this summer. It was hand planted by Nolan pushing the kernels into the garden.

Dennis has a wealth of knowledge and excellent customer service skills. Give him a call.

BURRUS 484759	167.4	18.7	100	60.7	31
BURRUS 202623	150.5	17.0	100	62.2	30
HUGHES 5456 GT3	149.2	18.5	100	60.6	25
BURRUS 512852	143.7	17.4	97	61.3	35
Average	202.5	18.7	98	60.9	31

**Louis Zabel  
Dwight, IL**

**Planted:** May 11 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 200, K: 200. **Herbicide:** Roundup. **Corn Borer Rating:** Moderate. **Soil Type:** Silty clay loam. **Weather:** May–normal, June–normal, July–dry, August–normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 784713	186.5	16.2	100	58.1	31
BURRUS 592252	169.5	15.7	100	57.7	31
BURRUS 4J63 T	165.2	15.7	95	56.1	32
BURRUS 463227	161.1	14.8	82	56.5	28
BURRUS 202623	160.9	15.8	98	60.6	31
BURRUS 413622	155.5	18.1	99	56.3	30
BURRUS 833162	153.9	15.1	95	56.2	31
BURRUS 220968	152.3	15.6	100	59.9	32
BURRUS 431445	147.0	15.7	92	61.9	32
BURRUS 494048	146.9	15.8	100	58.7	30
BURRUS 680038	145.6	17.1	85	60.3	33
POWER PLUS 4A30 AM1™*	145.2	17.2	97	58.9	32

BURRUS 585774	144.7	16.8	98	59.3	30
BURRUS 483952	138.4	17.9	58	56.6	33
HUGHES 5456 GT3	137.2	16.2	97	56.2	29
BURRUS 943018	134.9	19.1	19		32
BURRUS 194722	132.6	14.4	82	56.7	32
BURRUS 443903	129.7	15.2	97	57.7	29
BURRUS 778098	129.7	19.3	98	57.1	25
BURRUS 803599	128.5	16.2	82	58.7	29
BURRUS 341332	127.4	20.3	100	58.2	30
BURRUS X6J36	126.2	15.3	100		34
POWER PLUS X6F73™*	124.3	18.7	98	57.1	28
BURRUS 498109	124.0	18.0	99	56.3	30
HUGHES 4125 GT3	124.0	15.6	99	58.9	31
BURRUS 388920	122.3	17.5	92	55.4	32
BURRUS 471516	122.0	17.8	98	58.9	31
BURRUS 512852	118.6	17.9	99	61.8	30
POWER PLUS 4C58 Q™*	118.0	17.8	73	59.8	25
POWER PLUS 5A45 AM1™*	117.1	17.6	100	59.5	29
BURRUS 355951	116.2	20.0	100	56.4	30
POWER PLUS 4B32™*	110.7	20.1	92	57.9	32
BURRUS 829583	105.2	18.2	82	57.1	31
BURRUS 260667	103.1	19.7	100	57.8	30
BURRUS 629459	101.2	19.2	19	61.4	32
HUGHES 6435 GT3	99.2	16.5	46	54.8	32
POWER PLUS 7D51 Q™*	98.7	21.2	90	53.8	30
POWER PLUS 7A18 AM1™*	98.3	21.5	71	60.7	28
POWER PLUS 6A12 AM1™*	89.7	17.8	44	61.7	28
BURRUS 484759	84.9	17.3	80	59.8	31
BURRUS 990102	66.4	21.2	20	58.8	30
POWER PLUS X6F72™*	61.4	17.9	18	59.5	29
Average	126.8	17.5	83	58.2	30



Burrus performed well in Jasper Co. for Terri Kautz, Samantha & Mallory Jenness, Keith & Ray Kautz.



We are dedicated to delivering the best quality and best product imaginable

LOGAN

Five hybrids  
above 200 bu/a

 **Dan Folkes**  
**Elkhart, IL**

**Planted:** April 14 in 30'' rows. **Planting Population:** 32,200. **Harvested:** September 13. **Previous Crop:** Corn. **Fertilizer:** N: 190, P: 125, K: 125. **Herbicide:** Roundup. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000. Plants /Acre
POWER PLUS 7A18 AM1™*	217.8	22.3	57.6	30
POWER PLUS 7D51 Q™*	208.0	20.6	58.2	33
POWER PLUS 6A12 AM1™*	205.9	18.9	59.8	31
POWER PLUS 6B51 R™*	205.0	16.6	57.2	26
POWER PLUS 7D51 Q™*	203.6	21.2	58.3	27
POWER PLUS 6B52 S™*	199.9	18.7	58.7	27
HUGHES 7383 GT3	199.8	19.9	59.0	24
POWER PLUS 7D51Q™*	199.2	22.1	57.5	25
POWER PLUS X6F72™*	197.2	18.6	58.7	26
BURRUS X6J36	181.6	17.4	56.4	29
POWER PLUS 5A45 AM1™*	178.9	21.5	60.4	27
POWER PLUS 6Y10 R™*	174.8	18.8	58.7	32
POWER PLUS 4A30 AM1™*	171.8	19.2	58.8	23
HUGHES 4125 GT3	156.4	15.4	56.9	28
Average	192.8	19.4	58.3	28

**Larry Huelskoetter**  
**Beason, IL**

**Planted:** May 9 in 30'' rows. **Planting Population:** 34,000. **Harvested:** September 26. **Previous Crop:** Soybeans. **Herbicide:** Harness Xtra, Impact.

Brand/Product	Bu. Per Acre	% Moisture
Dekalb 67-57	224.8	24.3
Dekalb 66-96	217.2	23.7
Dekalb 62-09	214.9	18.7
Dekalb 63-84	214.7	20.2
Merschmen 1212K-15	213.9	22.1
Dekalb 65-19	213.6	23.1
Pioneer P1395XR	213.6	23.1
Dekalb 62-54	213.1	21.3
Merschmen 1213F-10	212.9	22.6
Pioneer P1184AM1	212.8	20.9
Stine 9731VT3PRO	212.6	23.3
POWER PLUS 7D51 Q™*	212.4	26.3
Dekalb 61-88	211.1	18.9
Dekalb 62-97	209.0	21.3
Dekalb 55-09	207.5	19.2
Dekalb 57-50	204.2	17.5
Dekalb 64-69	201.6	19.3
POWER PLUS 5A45 AM1™*	200.5	23.3
Dekalb 58-83	200.1	17.8
Pioneer P1184AMRW	198.0	20.4
Dekalb 61-21	197.2	20.7
Stine 11090D-10	196.4	23.1
POWER PLUS 4A30 AM1™*	195.1	21.9
Average	208.6	21.4

Refuge simplified, seriously!

Refuge – help protect the technology

Today’s technologies provide excellent opportunities for corn growers. Increased yields, more efficiency and reduced exposure personally and environmentally from herbicides and insecticides are key attributes. That ease and efficiency also dictate increased responsibility from the grower’s standpoint. The seed industry, universities and the National Corn Growers Association (NCGA) agree that there must be a unified commitment to responsible stewardship of technologies.

Proper stewardship will preserve the technologies as important management tools for corn growers of the future. The principal objective to appropriate stewardship of technology is to minimize the potential for insect resistance development. The Environmental Protection Agency has set forth mandatory guidelines through an Insect Resistance Management (IRM) program. An IRM program has been specifically designed to help corn growers meet the key refuge requirement for each technology.

We encourage growers to follow all refuge guidelines. Growers across the Corn Belt who fail to follow the IRM requirements for planting refuge acres are at risk of losing access to Bt corn technology entirely. Insects will become resistant.

There are several refuge style options that corn growers can utilize in their management plan. Corn growers can use separate field, perimeter, and block or split planter styles. Refuge simplified is the beauty of the new Optimum® AcreMax® and Optimum® AcreMax® Xtra insect protection systems available in the Power Plus® brand. You get corn rootworm, corn borer or protection from both across all of your acres by utilizing these systems. With Optimum® AcreMax® products you get protection from corn borer and Optimum® AcreMax® Xtra products provide protec-

tion from both above and below ground insects, namely corn borer and corn rootworm. Optimum® AcreMax® insect protection is the one bag solution above ground insects, namely corn borer. These single bag choices are blended in the bag; just dump it in the planter and go!

The Optimum® AcreMax® 1 insect protection system, also available in the Power Plus® brand, is our biggest seller. This system is planted exactly like the old 80/20 system except that you get corn rootworm protection on all your acres. You need the traditional 20% refuge but it is for corn borer only. It can also be up to 1/2 mile away thanks to the simplification of the Optimum® AcreMax® 1 system. You can fill that separate refuge need with Optimum® AcreMax RW® products, while still getting complete corn rootworm protection. Or you can use a hybrid with the Roundup Ready® gene or a GT Glyphosate Tolerant hybrid plus granular insecticide for your refuge as another option.

Do Optimum® AcreMax® insect protection systems use a 5% or 10% refuge blend?

The Optimum® AcreMax® insect protection (above ground only) single bag system uses a 5% refuge blend, while the Optimum® AcreMax® Xtra insect protection (above and below ground) system uses a 10% refuge blend. Both systems also use Poncho® 1250 with VOTiVO™ on the blended refuge seed, which provides a nice yield enhancement. Studies have shown that there is no statistical difference between a 5% blended or a 10% blended system. Refer to the technology supplier’s information or log on to the National Corn Growers Association website at [www.ncga.com](http://www.ncga.com) for more details on an IRM plan. As always, if you have questions, contact your local Burrus, Hoblit or Hughes dealer or our office toll free at 1-877-4BURRUS.



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Poncho® and VOTiVO are trademarks of Bayer.

Optimum®  
AcreMax® insect  
protection sets



Entry	Name	Technology Segment	Seed Treatment
1	90/10	90% HX1/YGCB/LL/RR2 + 10% RR2	Cruiser 250
2	95/5	95% HX1/YGCB/LL/RR2 + 5% RR2	Cruiser 250
3	Check	RR2	Cruiser 250

Optimum®  
AcreMax® Xtra  
Insect Protection



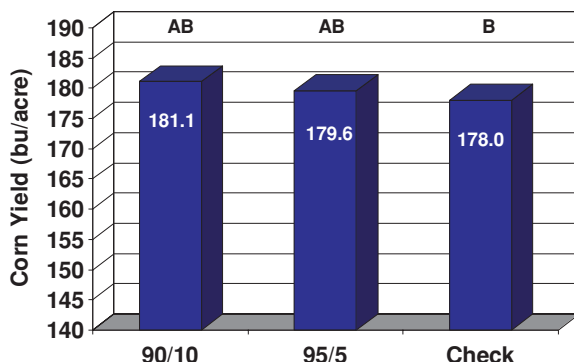
Entry	Technology Segment	Seed Treatment
1	90/10	90% HXX/YGCB/LL/RR2 + 10% RR2 Cruiser 250 (HXX/YGCB/LL/RR2), Poncho 1250 (RR2)
2	95/5	95% HXX/YGCB/LL/RR2 + 5% RR2 Cruiser 250 (HXX/YGCB/LL/RR2), Poncho 1250 (RR2)
3	Check	RR2 Cruiser 250





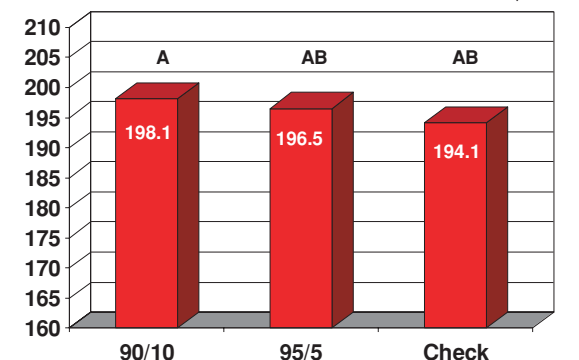
## Yield Results

AcreMax Sets-All (n=27)



## Yield Results

Optimum® AcreMax® Xtra Sets-All (n=36)



Today's technologies provide excellent opportunities for corn growers. Increased yields, more efficiency, and reduced exposure personally and environmentally from herbicides and insecticides are key attributes. But, some of the new technology also brings increased responsibility from the grower's standpoint.

The seed industry, universities and the National Corn Growers Association (NCGA) all agree that there must be a unified commitment to responsible stewardship of technologies that control corn borer and corn rootworm.

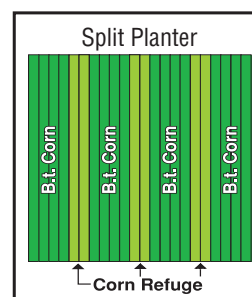
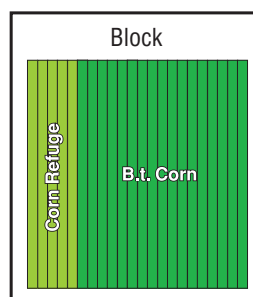
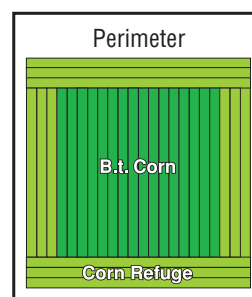
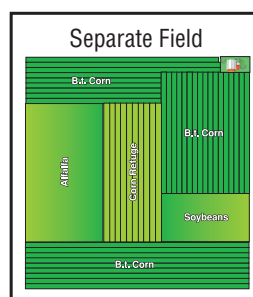
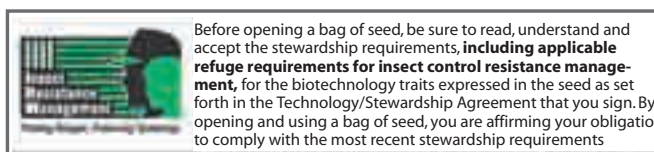
Proper stewardship will preserve these technologies as important management tools for corn growers of the future.

The principal objective to appropriate stewardship of technology is to minimize the potential for insect resistance development. The Environmental Protection Agency (EPA) has set forth mandatory guidelines through an Insect Resistance Management (IRM) program. An IRM program has been specifically designed to help corn growers meet the key refuge requirement for each technology.

Utilizing a multiple phase approach to IRM is highly recommended because adding a refuge to your production program is just one part of resistance management. Researchers advise that the multiple phase approach produces the most effective results. What is a multiple phase approach? Four components combine to form a good program:

- First, when you decide to plant a technology that targets a specific pest, choose one that will give your crop an "effective dose" so you can control nearly all of the susceptible insects targeted by the specific technology.
- Second, plant a corn refuge block following the specific guidelines mandated by the EPA for your chosen technology. For instance, when trying to control European Corn Borer, use a hybrid with corn borer protection from Burrus and plant 20% of the acreage to a non – corn borer Bt hybrid. The configuration you choose to achieve your 20% refuge could be a separate field (within a 1/2 mile with 1/4 mile being preferred), block perimeter or split planter method. There are guidelines spelled out in similar type details for other technologies that control corn rootworm. Refuge for corn rootworm products that require a 20% refuge must be planted in the same field or directly adjacent to it.
- Third, to carry on your multi-phase approach, practice Integrated Pest Management (IPM) to preserve the natural enemies of the targeted pests.
- Fourth and finally, growers should monitor their fields and contact their seed dealers or the technology provider if performance problems are observed.

Growers who fail to follow the IRM requirements (planting refuge acres) are at risk of losing access to Bt corn technology. If you have questions, contact your local Burrus dealer, Hoblit dealer, Hughes dealer or our office toll free at 1-877-4BURRUS (1-877-428-7787). Corn growers can also



log on to the National Corn Growers Association's website at [www.ncga.com](http://www.ncga.com) for more details on an IRM plan.

New 6F73 AMX™\* and 4B32 AMX™\* are refuge in the bag products with above and below ground insect protection. No additional refuge is required.

New 6F72 AM™\* and 7P44 AM™\* are refuge in the bag products with above ground insect protection. No additional refuge is required.



Three Power Plus® entries were above 200 bu/a in Logan Co. for Alex, Frank & John Hoblit.



Top honors go to the Power Plus® line up in Champaign Co. for Bill Wood.



Power Plus® 7A18AM1™\* & 7D51 Q™\* were tops in Logan Co. for Dan & Alex Folkes.



Brad & Brent Ferree of Greene Co., IN enjoyed the Burrus dealer kickoff meeting in Springfield, IL.



Kendall & Tessa Link enjoy a harvest time picnic. They are the daughters of Seth & Laurie Link of Linn Co., MO.



Plant all Burrus/Hughes/Hoblit & Power Plus® products for the best return on your seed investment dollar.

LOGAN

Ellis Buth  
Latham, IL

Planted: May 20 in 30" rows. Planting Population: 32,000. Harvested: October 7. Previous Crop: Soybeans. Fertilizer: N: 196, P: 92, K: 120. Herbicide: Roundup, Verdict. Corn Borer Rating: Moderate. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 873843	208.8	22.0	97	60.8	32
BURRUS 463227	198.5	15.8	100	61.9	29
BURRUS 6J36 GT3	196.3	16.8	97	61.1	31
BURRUS 422145	195.7	15.3	91	59.3	33
BURRUS 833714	191.5	17.5	97	62.3	29
BURRUS 943018	191.1	17.3	97	60.9	31
BURRUS 494048	190.9	16.4	100	58.7	32
BURRUS 4J63 T	190.7	17.7	90	58.6	30
BURRUS 803599	190.4	16.4	94	58.8	34
POWER PLUS X6F72™*	189.6	17.7	97	61.5	33
BURRUS 784713	189.2	17.6	97	61.6	33
BURRUS 101413	187.7	16.7	97	61.2	32
BURRUS 829583	187.7	17.3	94	62.0	33
BURRUS 629459	186.8	17.1	100	60.8	31
POWER PLUS 6A12 AM1™*	186.0	19.0	91	60.5	33
BURRUS 833162	185.6	15.7	100	60.7	28
POWER PLUS 7D51 Q™*	185.3	20.2	94	63.2	31
BURRUS 680038	185.0	17.6	100	59.4	31
BURRUS 585774	184.9	15.5	87	61.2	31
BURRUS 484759	184.0	16.4	100	59.0	33
BURRUS 483952	183.2	15.9	41	58.3	32
BURRUS 592252	183.2	17.4	90	60.4	29
HOBLOIT 5566 GT3	183.0	16.5	100	57.2	32
BURRUS 778098	182.6	17.3	100	61.9	33
BURRUS 431445	182.5	18.3	97	60.2	30
POWER PLUS X6F73™*	181.7	17.7	100	60.8	34
POWER PLUS 4C58 Q™*	181.6	17.2	94	54.6	31
BURRUS 260667	180.3	18.5	74	61.3	32
BURRUS 974498	179.6	16.2	94	62.4	33
BURRUS 388920	179.3	16.8	78	58.9	32
POWER PLUS 7A18 AM1™*	179.2	18.1	100	61.8	35
BURRUS 359718	179.2	16.1	88	58.8	33
BURRUS 355951	177.2	18.4	87	59.0	31
POWER PLUS 4B32™*	176.2	17.8	97	60.2	32
BURRUS 990102	175.2	18.1	100	59.7	32
POWER PLUS 4V43 S™*	174.6	17.9	97	59.1	33
POWER PLUS 7P44™*	174.4	20.4	100	63.7	33
POWER PLUS 4A30 AM1™*	173.6	15.1	94	61.3	33
BURRUS 471516	172.9	16.0	86	61.6	35
BURRUS 498109	172.5	16.5	78	60.2	33
POWER PLUS 7D51QR™*	169.7	19.5	91	62.2	34
BURRUS 359718	168.8	14.6	64	57.2	32
BURRUS 781296	168.2	14.5	84	58.3	30
BURRUS 341332	167.9	18.4	97	59.6	30
POWER PLUS 6B52 S™*	161.4	14.8	97	61.9	32
BURRUS 512852	153.5	16.9	100	60.3	33
POWER PLUS 5A45 AM1™*	133.3	15.7	100	61.0	32
Average	180.9	17.2	93	60.3	32



Ellis Buth planted his Logan Co. plot on May 20th. Burrus® 6J63 GT3 was the top commercial hybrid.

ILLINOIS

Corn rootworm resistance to Monsanto VT3 technology is a concern

By Don Rhoads

In the on-going war between man versus weeds and insects, man might win some battles, but weeds and insects continue to win most of the battles. Articles have been written about weed resistance, that has occurred for many years. We have correlated weed resistance to insect resistance by stressing the importance of using different herbicide families as well as proper refuge management for insects to reduce the possibility of resistance in the weed and insect worlds.

In the summer of 2011 our fears were confirmed with rootworm resistance. Dr. Aaron Gassmann at Iowa State University published research stating that some Iowa corn rootworm populations had lower susceptibility to the Cry3Bb1 Bt protein. This Bt is used in the Monsanto brands of YieldGard® RW, YieldGard® VT RW, YieldGard VT Triple®, Genuity® VT Triple PRO®, and half of the Genuity® SmartStax® system.

Dr. Gassmann collected rootworm adults from fields where greater than expected injury had occurred. In the lab, larvae from these adult beetles were fed a diet from the YieldGard VT3 plants. The suspected resistant larvae survived while larvae from other parts of the state without suspected resistance were controlled by the Monsanto Bt. Dr. Gassmann also reported there was no cross resistance to the Cry34/35Ab1 toxin which is present in Herculex® RW, and Herculex® Xtra hybrids. The Cry34/35Ab1 Bt was effective in controlling the population. All

Alex Hoblit  
Atlanta, IL

Planted: May 17 in 30" rows. Planting Population: 32,000. Harvested: October 18. Previous Crop: Soybeans. Soil Type: Heavy loam.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.
POWER PLUS 7A18 AM1™*	212.7	18.5	100	60.7
POWER PLUS 6A12 AM1™*	202.8	18.6	100	59.7
POWER PLUS 6F72 AM1™*	201.6	16.7	100	60.2
POWER PLUS 4C58 Q™*	196.5	14.1	95	59.6
POWER PLUS 3C98 R™*	194.9	14.6	75	59.7
POWER PLUS 6B52 S™*	192.9	16.2	100	60.1
POWER PLUS 4A30 AM1™*	191.8	15.3	100	61.9
POWER PLUS 7D51 Q™*	191.6	17.7	100	59.5
POWER PLUS 5A45 AM1™*	182.2	15.3	90	59.9
BURRUS X6J36	181.1	14.3	80	57.6
HUGHES 4125 GT3	179.2	13.2	100	57.4
POWER PLUS 2A16 AM1™*	178.5	14.1	80	59.6
HUGHES 5456 GT3	177.7	13.7	90	57.5
Average	191	15.6	93	59.5

Power Plus® corn rootworm hybrids from Burrus contain the Cry34/35Ab1 Bt trait (Herculex® RW and Herculex® Xtra).

The fields identified in Iowa with resistant rootworm were continuous corn and had been planted to YieldGard VT3 hybrids over several years. The research paper does not address what type, if any, refuge system was utilized.

Dr. Mike Gray, University of Illinois entomologist, examined fields in mid August with severe root pruning in Henry and Whiteside counties in Illinois. The fields had been in continuous corn for many years using hybrids expressing the Monsanto YieldGard VT3 protein for corn rootworm. Dr. Gray reported numerous rootworm beetles present and two to three nodes of roots destroyed. Dr. Gray has not yet completed studies to confirm resistance of the Illinois corn rootworm population to the YieldGard VT3 protein.

Several locations in Nebraska had higher than expected corn rootworm injury also. All fields were planted to YieldGard VT Triple hybrids. Nebraska is also testing the rootworm populations to confirm resistance.

Monsanto issued a press release in August acknowledging that unexpected damage to Bt corn hybrids expressing the YieldGard VT3 protein was being reported in Nebraska and Iowa. The area was estimated to be about 100,000 acres at that time. This did not include any potential acres from Illinois.

This statement leads to several questions:

- 1. How many acres actually had rootworm resistance to the YieldGard VT3 technology in 2010?
- 2. If none, did the problem grow from 0 to 100,000 acres in one year?
- 3. How many acres will have rootworm resistance to the YieldGard VT3 hybrids in 2012?
- 4. Should soil insecticides be used when planting YieldGard VT3 technologies?
- 5. How soon will rootworm resistance become evident in other CRY technology?
- 6. How can I help protect the rootworm Bt technology?

It will be interesting to see how scientists and the EPA address the question of refuge requirements for SmartStax® products. SmartStax® utilize both YieldGard® VT3 and Herculex RW for their 5% refuge in the bag for refuge compliance. What



Severe root pruning by western corn rootworm larvae to YieldGard (Cry3Bb1) hybrid from north-western Illinois.

will happen now that half of the Bt's in the bag are potentially ineffective at controlling some corn rootworm?

What options do you have if you experience higher than expected injury from corn rootworms and suspect you have rootworm resistance to YieldGard® VT3 hybrids?

- 1. Plant hybrids with different Bt proteins – Power Plus® products containing Herculex® RW and Herculex® Xtra have been found to still be effective in the problem areas. Hybrids expressing the Agrisure® 3000GT corn rootworm Bt (mCry3A) also have no confirmed cases of rootworm resistance today.
- 2. Plant soybeans – This will work in the non-variant areas, but in the variant areas corn following soybeans is still at risk the following year when rotated back to corn.
- 3. Soil insecticides – The addition of soil insecticides can provide another level of protection in heavy rootworm areas.
- 4. Seed applied insecticides – Poncho® 1250/VOTiVO™ can offer some protection in light to moderate rootworm populations.

The most important step for a long term management strategy is to utilize the prescribed refuge for the hybrid products being grown. Today we still have choices with Herculex® and Agrisure® technologies to fight corn rootworm. It's also very naïve if we think these technologies will never have the same resistance issues. YieldGard® VT3 has today. Herculex® and Agrisure® technologies are too good to lose. Our goal must be to do everything possible to maintain their efficacies for many years. Respecting the refuge is a big step toward that goal. Ultimately man will win the war.





Eliminate confusion on which traits carry which proteins

Current April 2011	Bt protein(s)		Insects controlled (bold) or suppressed (italics) - Above-ground---in soil			Herbicide tolerance	Refuge % location in the MIDWEST					
Agrisure products												
Agrisure CB/LL	Cry1Ab		ECB	CEW	FAW	SB	LL	20% - 1/2 mile				
Agrisure GT/CB/LL	Cry1Ab		ECB	CEW	FAW	SB	GT LL	20% - 1/2 mile				
Agrisure RW	mCry3A						CRW	20% - adjacent				
Agrisure GT/RW	mCry3A						CRW	20% - adjacent				
Agrisure CB/LL/RW	Cry1Ab	mCry3A	ECB	CEW	FAW	SB	CRW	LL	20% - adjacent			
Agrisure 3000GT	Cry1Ab	mCry3A	ECB	CEW	FAW	SB	CRW	GT LL	20% - adjacent			
Agrisure Viptera 3110	Cry1Ab	Vip3A	BCW	CEW	ECB	FAW	WBC	SB	GT LL	20% - 1/2 mile		
Agrisure Viptera 3111	Cry1Ab	mCry3A	Vip3A	BCW	CEW	ECB	FAW	WBC	SB	CRW	GT LL	20% - adjacent
Agrisure 3220	Cry1Ab	Cry1F	Vip3A	BCW	CEW	ECB	FAW	WBC	SB	GT LL	5%-1/2 mile	
Herculex products												
Herculex 1 (HX1)	Cry1F		BCW	ECB	FAW	WBC	CEW	LL RR2 (some)	20% - 1/2 mile			
Herculex RW (HXRW)	Cry34/35Ab1						CRW	LL	20% - adjacent			
Herculex Xtra (HXX)	Cry1F	Cry34/35Ab1	BCW	ECB	FAW	WBC	CEW	CRW	LL RR2 (some)	20% - adjacent		
Optimum products												
Optimum AcreMax (AM)	Cry1F	Cry1Ab	BCW	ECB	FAW	WBC	CEW	RR2	5% in the bag			
Optimum AcreMaxRW (AMRW)	Cry34/35Ab1						CRW	RR2	10% in the bag			
Optimum AcreMax1 (AM1)	Cry1F	Cry34/35Ab1	BCW	ECB	FAW	WBC	CEW	CRW	LL RR2	10% in the bag & (CRW)		
									20%-1/2 mile (ECB)			
Optimum AcreMax Xtra (AMX)	Cry1F	Cry34/35Ab1	BCW	ECB	FAW	WBC	CEW	CRW	RR2	10% in the bag		
YieldGard products												
YGCB	Cry1Ab		ECB	CEW	FAW	SB		RR2 (some)	20% - 1/2 mile			
YGRW	Cry3Bb1						CRW	RR2 (some)	20% - adjacent			
YieldGard Plus	Cry1Ab	Cry3Bb1	ECB	CEW	FAW	SB	CRW	RR2 (some)	20% - adjacent			
YieldGard VTRW	Cry3Bb1						CRW	RR2	20% - adjacent			
YieldGard VT Triple	Cry1Ab	Cry3Bb1	ECB	CEW	FAW	SB	CRW	RR2	20% - adjacent			
Genuity/SmartStax products												
Genuity VT Double Pro (VT2P)	Cry1A.105	Cry2Ab2	CEW	ECB	FAW			RR2	5%-1/2 mile			
Genuity VT Triple Pro (VT3P)	Cry1A.105	Cry2Ab2	Cry3Bb1	CEW	ECB	FAW	CRW	RR2	20%-adjacent			
SmartStax (Dow) or Genuity SmartStax (Monsanto) (GENSS)	Cry1A.105	Cry2Ab2	Cry1F									
	Cry3Bb1	Cry34/35Ab1	BCW	CEW	ECB	FAW	WBC	CRW	LL RR2	5%-adjacent		
Genuity SmartStax RIB Complete (Mon)	Same as GENSS		Same as GENSS				Same as GENSS	LL RR2	For 2012 5% in the bag			
REFUGE ADVANCED Powered by SmartStax (Dow)	Same as GENSS		Same as GENSS				Same as GENSS	LL RR2	For 2012 5% in the bag structured 5% refuge option will be available			
Key												
Insect targets		Herbicide traits			Control in bold							
BCW black cutworm	FAW fall armyworm	GT glyphosate tolerant			Suppression only in italic							
CEW corn earworm	SB stalk borer	LL Liberty Link or glufosinate tolerant										
CRW corn rootworm	WBC western bean cutworm	RR2 Roundup Ready 2 (glyphosate tolerant)										
ECB European corn borer												



Paul Rochkes saw the best two commercial hybrids in Christian Co. be Power Plus® 7A18AM1™\* & 6A12AM1™\*.



ChaRae Cole & Sharail Aeschliman enjoyed the sights and sounds of Lincoln's New Salem.



Roger & Justin Cooper & Kevin & Tom Foran saw Burrus® take the top five places in Sangamon Co.

MACON

Burrus X6J36 wins!

Tom Barker  
Oreana, IL

**Planted:** May 9 in 30'' rows. **Planting Population:** 32,000. **Harvested:** September 16. **Previous Crop:** Soybeans. **Fertilizer:** N: 160, P: 40, K: 120. **Herbicide:** Roundup, Atrazine. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants
BURRUS X6J36	194.2	22.0	100	58.5	30
POWER PLUS 7A18 AM1™*	185.5	24.0	100	61.0	30
POWER PLUS 3C98 R™*	177.7	18.2	100	58.6	31
BURRUS X6J36	177.6	23.0	100	59.8	30
POWER PLUS 4A30 AM1™*	174.7	22.6	100	59.7	31
POWER PLUS 6A12 AM1™*	170.7	24.4	100	60.1	31
POWER PLUS 6B52 S™*	166.0	22.7	100	59.7	31
POWER PLUS 7D51 Q™*	163.2	25.7	100	60.4	30
POWER PLUS 5A45 AM1™*	150.2	22.1	100	58.5	30
Average	173.3	22.7	100	59.6	30

MACOUPIN

Lynn and Don Etter  
Carllinville, IL

**Planted:** May 7 in 30'' rows. **Planting Population:** 32,000. **Harvested:** October 13. **Previous Crop:** Soybeans. **Soil Type:** Heavy loam.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants
POWER PLUS 7A18 AM1™*	185.4	14.2	100	59.6	
BURRUS 4J63 T	176.8	12.7	90	56.2	
POWER PLUS 7D51 Q™*	175.3	13.4	100	59.4	
POWER PLUS 4A30 AM1™*	173.8	13.1	100	61.3	
POWER PLUS 7D51 Q™*	173.6	13.6	100	60.5	
POWER PLUS 5A45 AM1™*	167.0	13.0	100	62.3	
POWER PLUS 5A45 AM1™*	164.5	13.5	100	63.4	
POWER PLUS 6A12 AM1™*	164.1	13.1	100	59.3	
POWER PLUS 6B52 S™*	135.8	11.9	100	57.0	
Average	168.5	13.2	99	59.9	

MADISON

Bierbaum Farms  
Alton, IL

**Planted:** May 13 in 36'' rows. **Planting Population:** 30,000. **Harvested:** September 23. **Previous Crop:** Soybeans/clover. **Fertilizer:** N: 106, P: 30, K: 40. **Herbicide:** Bicep II Magnum. **Corn Borer Rating:** Light. **Soil Type:** Loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants
POWER PLUS 4K74 S™*	131.3	18.9	96	60.8	27
POWER PLUS 4V43 S™*	123.1	19.5	92	58.9	27
POWER PLUS 6A12 AM1™*	119.3	22.0	76	59.0	25
POWER PLUS 4A30 AM1™*	109.4	19.9	98	59.0	29
POWER PLUS 6B52 S™*	107.3	20.5	88	57.7	27
POWER PLUS X6F72™*	103.1	20.7	96	58.7	24
POWER PLUS 7D51 Q™*	79.8	23.0	92	58.3	27
POWER PLUS 7A18 AM1™*	70.4	23.4	96	57.9	28
Average	105.5	21.0	92	58.8	27



Unmatched quality – Open a bag of Burrus or Hughes Hybrids and see for yourself.

MARSHALL

Don Lippold  
Rutland, IL

Planted: April 28 in 30" rows. Harvested: October 17. Previous Crop: Soybeans.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 5R68 Q™*	188.2	15.3	59.9
Lewis 910 VT3	175.8	15.5	57.4
Wyffels 5159	173.7	14.3	56.6
POWER PLUS 4A30 AM1™*	170.3	15.4	61.9
Average	177	15.1	59.0

Monier Seed and Service  
Sparland, IL

Planted: May 11 in 30" rows. Planting Population: 33,000. Harvested: October 14. Previous Crop: Soybeans. Herbicide: Glyphosate, Atrazine. Corn Borer Rating: Moderate. Soil Type: Medium loam. Weather: May–wet, June–normal, July–dry, August–dry. Remarks: P and K were VRT applied.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 4J63 T	186.8	17.9	60	58.5	29
POWER PLUS 7A18 AM1™*	176.8	17.8	84	56.5	31
BURRUS X6J36	175.2	16.1	64	58.1	30
POWER PLUS 4A30 AM1™*	169.3	16.9	90	59.3	32
POWER PLUS 5A45 AM1™*	169.3	16.9	20	60.3	30
POWER PLUS 6A12 AM1™*	163.9	16.5	38	57.2	31
POWER PLUS 6A12 AM1™*	161.5	16.1	60	57.1	30
POWER PLUS 6B52 S™*	159.0	16.9	66	57.3	31
POWER PLUS 7D51 Q™*	155.2	20.4	55	59.1	30
Average	168.6	17.3	60	58.1	30

MASON

Power Plus® 7D51 Q™\*  
at 212 bu/a

Larry Hill  
Mason City, IL

Planted: May 3 in 30" rows. Planting Population: 31,000. Harvested: September 23. Previous Crop: Soybeans. Fertilizer: N: 140, P: 200, K: 150. Herbicide: Roundup. Corn Borer Rating: Moderate. Soil Type: Medium clay. Weather: May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7D51 Q™*	212.5	21.9	100	57.5	30
POWER PLUS 7A18 AM1™*	209.0	20.7	100	58.2	33
POWER PLUS 4V43 S™*	207.6	17.6	100	57.4	31
POWER PLUS 5A45 AM1™*	206.4	19.8	100	59.0	30
HUGHES 7383 GT3	205.7	20.1	100	59.1	32
BURRUS 5566 GT3	204.3	18.7	100	58.7	32
POWER PLUS 6B52 S™*	196.2	18.9	100	55.8	31
POWER PLUS 4A30 AM1™*	194.6	16.9	100	59.3	30
POWER PLUS 6A12 AM1™*	190.6	20.1	100	57.1	32
Average	203	19.4	100	58	31

ILLINOIS



Power Plus® 5R68 Q™\* was best in Marshall Co. for Bob Oldenburg & Don Lippold.



Mark Monier saw Burrus® 4J63 T & Power Plus® 7A18AM1™\* perform well in Marshall Co.



Ava Jayne Jarvis wears her Burrus® cap proudly as Power Plus® 4K74 S™\* & 4V43 S™\* take the top two places in Madison Co. for her grandparents Dan & Shari Bierbaum.



The grandchildren of Tom & Marcy Burrus are all smiles!



New Power Plus® 7P44™\* yielded 233 bu/a in Mason Co. for Alvena & Virgil Gathmann.



Power Plus® 7D51 Q™\* & 7A18AM1™\* went one-two in Mason Co. for Larry Hill.

European corn borer and corn rootworm still survive

By Don Rhoads

For many years ads appeared on television showing a lonely Maytag repairman sitting in his shop staring at his phone anxiously waiting for someone to call with a broken machine. The call never came.

A similar analogy has recently existed for entomologists and seed corn sales agronomists with respect to European corn borer (ECB) and corn rootworm (CRW). From 2006 through 2010 very few service calls were made by the lonesome entomologists and agronomists concerning these pests. That changed fairly significantly in 2011 when Monsanto's YieldGard® VT3 corn rootworm technology became suspect in effectively controlling CRW in some areas of Iowa and suspected areas of Nebraska and Illinois. The CRW resistance article addresses this topic more thoroughly. We agronomists have been told we lead boring lives, but exciting times have returned!

Let's address the two insect pests separately.

**European corn borer** – Predicting ECB injury is nearly impossible. In 2006 levels of ECB were higher than any preceding years. Populations were low in 2007, with rebounding numbers in 2008. In 2009 agronomists were temporarily thrilled with the possibility of a heavy ECB year. Flights of adult moths were discovered in early June, and even early whorl feeding in

non-Bt hybrids was found! Our enthusiasm was soon squelched by heavy rains drowning most of the tiny larvae.

2010 and 2011 also experienced heavy rains which probably diminished ECB populations. University entomologists believe the widespread use of ECB Bt technologies has lowered the overall population levels of ECB. The University of Illinois has suspended their fall ECB surveys because they were randomly selecting fields to look for overwintering ECB. Because most fields were planted to ECB Bt hybrids, the numbers of ECB found were nearly zero.

Even with such widespread use of Bt technologies, ECB are not extinct. Night time drives late this summer resulted in many ECB adult moths splattering the windshield. We can't count on heavy rains every year to kill ECB. Planting corn borer protected Bt hybrids is the most effective weapon to fight ECB and to keep the agronomists' phone quiet.

**Corn rootworm** – Many of the same analogies can be applied to CRW. CRW is a different insect from ECB and robs from yields with totally different methods. The same circumstances that crippled the ECB populations also lowered CRW numbers.

CRW beetles lay eggs in the soil during the summer months. These eggs remain in the soil profile during the winter months. Eggs can withstand fairly adverse winter weather with few detrimental effects. These eggs start hatching in June. Tiny

larvae are most vulnerable at this time to drowning in saturated soils.

As in 2010, several factors contributed to the low populations of CRW in many areas in 2011.

Adult beetle populations were low the preceding year, resulting in fewer eggs laid. Where egg laying did occur, the tiny larvae came into the world hungry, needing their first meal of corn roots soon after hatching. The saturated soils in early June drowned the little critters before they could enjoy their first tasty morsels of corn roots.

An Illinois entomologist recently said "Even with low numbers, the CRW is not going away." For the growers who experienced severe root pruning on their YieldGard® VT3 hybrids, that statement rang true.

Even with excellent root protection from Herculex® XTRA and Agrisure® 3000 GT hybrids, some larvae can survive, especially from the refuge acres. Many adult beetles were observed as late as mid September at a dealer field day in LaSalle County, Illinois. The CRW has demonstrated over time its ability to adapt and survive.

Continuing to utilize Herculex® and Agrisure® Bt technologies and planting refuge from Burrus®, Hughes®, and Hoblit® is the soundest management strategy to fight these yield-limiting pests and keep the agronomists' telephones silent.





Craig Gathmann  
Manito, IL

Planted: May 13 in 30" rows. Planting Population: 32,000. Harvested: September 26. Previous Crop: Green Beans. Fertilizer: N: 200, P: 46, K: 90. Herbicide: Bicep II Magnum, Impact. Soil Type: Sandy loam. Remarks: Irrigated plot.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
Dekalb 63-84	255.4	21.5	88	59.1	28
Dekalb 62-97	234.2	20.7	80	60.1	33
POWER PLUS 7P44 AM™*	233.4	26.3	100	62.6	33
BURRUS 227562	231.6	21.0	96	59.4	30
BURRUS 986709	231.5	22.6	100	59.8	32
BURRUS 4J63 T	228.9	20.3	92	58.9	31
HOBLIT 5566 GT3	227.7	23.0	100	58.3	33
POWER PLUS 7A18 AM1™*	226.4	26.0	100	62.4	29
BURRUS 498109	226.1	22.4	100	60.0	33
BURRUS 803599	225.1	22.1	96	59.3	31
POWER PLUS 6A12 AM1™*	220.4	26.1	84	62.7	29
POWER PLUS 4V43 S™*	220.3	19.5	100	59.5	26
Pioneer P1567XR	219.9	24.8	100	61.8	28
Dekalb 62-54	218.3	20.5	72	59.0	32
ChannelBio 216-63 VT3	217.9	21.6	100	60.1	31
POWER PLUS 5N48™*	216.9	20.5	96	62.1	30
BURRUS 833162	216.8	19.8	100	59.9	31
BURRUS 494048	215.2	19.5	92	58.4	30
BURRUS 483952	215.1	28.1	100	63.3	33
BURRUS 585774	213.6	19.7	84	59.0	29
BURRUS 471516	211.2	22.6	96	58.8	33
POWER PLUS 5A45 AM1™*	210.1	21.3	100	59.7	30
BURRUS 100363	209.5	20.0	84	60.1	30
POWER PLUS 7D51 Q™*	209.2	25.4	100	61.1	30
BURRUS X6J36	209.1	20.6	100	60.5	25
BURRUS 341332	208.6	23.3	100	58.3	26
BURRUS 484759	207.1	21.9	84	59.0	32
BURRUS 778098	206.1	20.6	100	59.6	30
BURRUS 943018	204.8	22.3	96	58.4	30
BURRUS 680038	204.5	21.9	100	59.8	32
POWER PLUS X6F72™*	203.7	21.7	100	58.5	30
BURRUS 463227	203.3	20.8	100	60.9	32
BURRUS 260667	202.4	24.9	100	60.5	30
BURRUS 974498	201.5	20.2	84	60.7	33
POWER PLUS 6B52 S™*	199.4	19.4	96	59.3	28
BURRUS 431445	197.3	20.0	96	58.4	27
Pioneer P1615XR	196.8	25.3	100	61.9	33
BURRUS 355951	194.9	24.6	100	60.0	32
BURRUS 829583	194.8	20.5	76	59.2	30
POWER PLUS 4A30 AM1™*	193.0	20.3	92	59.4	30
BURRUS 388920	185.7	21.1	76	60.4	32
HUGHES 5456 GT3	182.6	19.6	96	58.4	30
POWER PLUS X6F73™*	182.1	21.0	100	59.3	30
POWER PLUS 4C58 Q™*	180.9	22.1	88	59.3	32
POWER PLUS 4B32 AMX™*	179.4	20.1	96	61.1	32
BURRUS 512852	176.3	20.3	100	57.7	29
HUGHES 4125 GT3	171.9	18.2	92	55.8	31
Average	208.7	21.9	94	59.8	30



Tom Barker saw Burrus® X6J36 lead the Macon Co. plot.

Burrus employee deployed

## Command Sergeant Major Tony McCormick serving in Afghanistan

By Marcy Burrus

Tony McCormick has worked on the Burrus farm for 15 years. In addition, he has been serving in the National Guard unit based out of Springfield, IL since 1980. He is serving his second deployment; his previous deployment was to Iraq.

This time Tony is working in the Kunar Province, close to Pakistan, with the 1-14th Agriculture Development Team. Tony was chosen for this team because he is a former teacher and has both leadership skills and ag experience with Burrus Seed. He was deployed in April and plans to return home next Spring.

The unit is composed of 58 total members, 30 who handle security. The area is very dangerous because some of the locals don't want the servicemen there. Included in the unit are a veterinarian, an agronomist, and a hydrologist. They are instructing the farmers on crop rotation, fertilizer, irrigation, and pesticide use as well as how to maintain the soil. Previously the only crop grown was poppy. Before help from the unit, apples the size of plums were being grown. They are now growing normal size apples.

It is very hot where Tony is serving. While the average high temperature for June in Springfield, IL is 84°F, the average in Afghanistan is 105°F.

The first four months the unit was there, only two days were below 100°F



The Afghanistan farmers watch Tony McCormick as he plants corn with a hand planter. This replaces the traditional planting method using a stick to make a hole, then dropping seeds in by hand.

for the low temperature. Keep in mind, the servicemen wear 70 lbs. of equipment.

Tony's duties have included helping the farmers be more successful. Tony trained for six months with the Amish before deployment. Their farming equipment/practices would most clearly mirror what they are working with in Afghanistan. Before, planting was accomplished by making a hole in the ground with a stick and dropping in a kernel of corn. **At Tony's request, a hand planter was shipped from Burrus Seed Farms. Can**

**you imagine the amazement on their faces when they saw how easy the corn planted with it?**

Also serving with Tony in Afghanistan is his son-in-law, Mike Behary. His son Bryce previously served in Kuwait and daughter Courtney in Afghanistan.

We look forward to his safe return next Spring with his job awaiting as we grow the seed crop for 2013. We salute Tony and his team for making a difference in the world by educating farmers and serving our country.

## MASSAC

Wow!

Travis Broth  
Metropolis, IL

Planted: May 20 in 30" rows. Planting Population: 29,000. Harvested: October 7. Previous Crop: Soybeans. Weather: May-wet, June-dry, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
Dekalb 64-69	200.0	16.4
POWER PLUS 7A18 AM1™*	194.0	19.0
POWER PLUS 7D51 Q™*	194.0	17.6
Dekalb 63-87	192.0	15.4
BURRUS X6F72	188.0	17.0
Dekalb 62-97	184.0	16.5
NK N68B3111	184.0	18.4
Pioneer 33N58	182.0	16.4
NK N7853111	180.0	19.8

FS 65BV1	180.0	18.0
FS 64JV1	179.0	16.1
FS 66S41	179.0	18.7
FS 62MV4	178.0	15.9
NK N77P	171.0	18.8
NK N74R	169.0	18.8
NK N68A	168.0	15.8
Pioneer P1184HR	161.0	16.4
NK N75M	157.0	17.4
NK N72F	156.0	17.7
FS 63BV1	154.0	16.5
NK N61P	151.0	15.9
NK N72Q	141.0	18.3
Average	174.6	17.3

Power Plus® X6F72™\*  
is best

Bremer Brothers  
Metropolis, IL

Planted: May 13 in 30" rows. Planting

Population: 29,000. Harvested: September 29. Previous Crop: Soybeans. Fertilizer: N: 191, P: 92, K: 120. Herbicide: Roundup. Soil Type: Silt loam. Weather: May-wet, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS X6F72™*	182.4	19.2	100	60.8	29
BURRUS 571 R	182.2	16.8	90	60.2	29
POWER PLUS 4A30 AM1™*	175.7	18.1	100	61.6	29
POWER PLUS 6B52 S™*	173.7	18.2	100	60.1	29
POWER PLUS 7D51 Q™*	169.0	20.4	100	61.1	29
POWER PLUS 7U17 S™*	166.5	19.0	100	61.3	29
POWER PLUS 5A45 AM1™*	162.5	18.3	100	63.1	29
POWER PLUS 4V43 S™*	160.2	17.1	100	59.8	29
POWER PLUS 4K74 S™*	154.9	17.5	100	61.9	29
POWER PLUS 7A18 AM1™*	152.9	19.5	100	60.9	29
POWER PLUS 6A12 AM1™*	151.1	19.0	100	60.8	29
HOBLIT 5557 VT3	138.2	18.1	100	58.6	29
POWER PLUS 6B51 R™*	125.2	18.8	93	58.7	29
POWER PLUS 4N49 Q™*	69.8	17.8	100	60.5	29
Average	154.6	18.4	99	60.7	29



MASSAC

Koch Brothers  
Brookport, IL

**Planted:** May 19 in 30'' rows. **Harvested:** September 29. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 96, K: 120. **Herbicide:** Roundup. **Soil Type:** Silt loam. **Weather:** May–wet, June–normal, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
Dekalb 64-69	214.4	21.9	100	59.5	33
NK N74R	213.4	22.9	100	56.7	29
Dekalb 63-87	212.9	21.8	100	59.0	32
POWER PLUS 7D51 Q™*	211.5	22.3	100	60.6	30
POWER PLUS 4V43 S™*	209.0	20.2	100	60.1	30
Pioneer P33K44	206.6	22.5	100	61.1	31
POWER PLUS 6F72 AM™*	206.3	20.9	100	59.3	31
POWER PLUS 7A18 AM1™*	203.2	23.1	100	60.3	32
FS 62MV4	201.6	22.0	100	58.5	28
POWER PLUS 4A30 AM1™*	200.4	21.1	100	60.3	32
Pioneer P1018HR	196.8	20.0	90	58.0	30
POWER PLUS 6A12 AM1™*	192.6	20.6	100	60.2	30
FS 64JV4	190.7	21.0	98	57.3	29
POWER PLUS 6B52 S™*	186.0	20.7	100	60.2	31
POWER PLUS 5A45 AM1™*	185.1	19.5	100	60.9	33
Average	202.0	21.4	99	59.5	31

MCDONOUGH

Experimental products & new products dominate

John Cook  
Sciota, IL

**Planted:** May 2 in 30'' rows. **Planting Population:** 30,000. **Harvested:** September 15. **Previous Crop:** Soybeans. **Fertilizer:** N: 165, P: 84, K: 102. **Herbicide:** Harness Xtra, Impact, Atrazine. **Corn Borer Rating:** Light. **Weather:** May–wet, June–dry, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 227562	213.5	26.9	92	61.3	28
Dekalb 62-97	212.3	27.9	100	58.4	28
POWER PLUS X6F73™*	209.1	26.5	100	61.9	33
BURRUS X6J36	206.1	26.5	80	61.4	32
BURRUS 803599	205.2	26.6	100	61.3	34
POWER PLUS X6F72™*	204.9	28.0	100	63.6	35
POWER PLUS 5A45 AM1™*	204.1	27.0	72	61.1	33
Channel 216-63VT3	201.8	31.1	92	62.5	32
BURRUS 498109	200.0	25.8	92	60.5	34
POWER PLUS 5N48™*	199.6	23.1	100	61.4	34
BURRUS 829583	197.3	29.0	92	62.3	28
POWER PLUS 6A12 AM1™*	195.3	27.1	84	61.2	33
POWER PLUS 7D51 Q™*	194.3	31.5	88	64.6	32
BURRUS 471516	193.6	28.4	92	61.5	33
BURRUS 833162	193.4	25.0	92	60.0	33
BURRUS 680038	191.0	29.8	100	62.3	35
POWER PLUS 7D51 Q™*	190.4	30.0	84	61.9	34
Pioneer P1018XR	190.1	27.7	84	61.6	33
POWER PLUS 4V43 S™*	189.4	24.1	88	59.5	32
POWER PLUS 7A18 AM1™*	188.9	31.0	96	64.4	30
Dekalb 58-83	188.6	22.9	96	58.7	34
BURRUS 388920	187.6	27.5	80	60.2	34

ILLINOIS

Burrus wins big again this year

Corn						
Place	Hybrid/Brand	Yield	Entries	Sponsor	Cooperator	County
1st	7D51™*	236.2	22	Independent	Brunswick FFA	Chariton, MO
1st	4V43™*	183.8	16	Independent	Bill, Steve & Tim Wood	Champaign
1st	7U17™*	183.1	14	Independent	Greg Bertz	Lafayette, MO
1st	7A18AM1™*	170.4	17	Independent	Larry McNary	Pike
2nd	7D51™*	235.8	20	Independent	David Wankel	Cass
2nd	4A30AM1™*	229.6	28	Independent	Bob Dodson	McHenry
2nd	7A18AM1™*	205.5	56	Independent	Dowson Farms	Sangamon
2nd	7A18AM1™*	194.0	22	Independent	Travis Booth	Massac
2nd	7D51™*	194.0	22	Independent	Travis Booth	Massac
2nd	6B50™*	182.1	10	Independent	David Emmerich	Chariton, MO
2nd	5A45AM1™*	167.4	24	IL Extension	Shelby Co. Extension	Shelby
3rd	3309GT3	227.2	28	Independent	Bob Dodson	McHenry
3rd	7D51™*	201.9	17	Independent	Kaiser Farms, Inc	Carroll Co., MO
3rd	7D51™*	189.5	31	Independent	Scherer Farms, Inc	Richland
3rd	7A18AM1™*	176.5	16	Independent	Bill, Steve & Tim Wood	Champaign
3rd	6F72AM™*	175.5	14	Independent	Greg Bertz	Lafayette, MO
3rd	7A18AM1™*	156.1	12	Independent	Dan Terstriep	Adams
4th	7D51™*	244.0	26	Independent	Mitchell Corbin	Holt, MO
4th	X6J36	201.8	29	Independent	Jim & Jeff Smith	Peoria
4th	5G42™*	171.4	14	Independent	Greg Bertz	Lafayette, MO
4th	6A12AM1™*	166.9	16	Independent	Bill, Steve & Tim Wood	Champaign
5th	7A18AM1™*	225.0	20	Independent	David Wankel	Cass
5th	6A12AM1™*	203.3	56	Independent	Dowson Farms	Sangamon
5th	X6F72	188.0	22	Independent	Travis Booth	Massac
5th	4A30AM1™*	179.0	19	Independent	LaSalle Co. Farm Bureau	LaSalle
5th	6B50™*	171.4	14	Independent	Greg Bertz	Lafayette, MO
5th	5A45AM1™*	162.6	17	Independent	Larry McNary	Pike

Soybeans						
Place	Variety/Brand	Yield	Entries	Sponsor	Cooperator	County
1st	36C0™*	58.0	9	Independent	Jerry Surber	Linn, MO
1st	201RR	52.4	13	Independent	Vern Stade	McHenry
2nd	28J0™*	74.5	19	Independent	LaSalle Co. Farm Bureau	LaSalle
2nd	43D1™*	63.3	27	Independent	McCormick Farms	Chariton, MO
2nd	37T1™*	56.7	16	Independent	Greg Bertz	Lafayette, MO
2nd	454RR	50.3	13	Independent	Vern Stade	McHenry
3rd	37T1™*	73.5	97	Univ. of MO	University of Missouri	Gentry, MO
3rd	37T1™*	64.9	28	Independent	Montgomery Co. Young Leaders	Montgomery
3rd	38D2™*	63.2	27	Independent	McCormick Farms	Chariton, MO
3rd	40V1™*	55.4	9	Independent	Jerry Surber	Linn, MO
5th	777RR	48.4	13	Independent	Vern Stade	McHenry

BURRUS 483952	187.3	25.7	72	61.8	31
BURRUS 4J63 T	186.2	25.9	96	64.0	29
BURRUS 778098	185.0	27.8	88	59.4	31
BURRUS 431445	184.6	19.6	92	63.4	32
BURRUS 494048	184.6	23.5	100	59.3	31
HUGHES 5456 GT3	184.0	21.3	84	58.8	29
BURRUS 986709	183.0	28.1	76	58.7	31
BURRUS 585774	182.4	28.1	60	61.6	31
Pioneer P1567XR	181.6	29.8	100	64.1	32
POWER PLUS 7P44 AM™*	180.6	31.5	80	64.9	31
BURRUS 341332	179.8	27.0	96	61.2	31
HUGHES 6435 GT3	177.9	19.6	72	54.8	32
BURRUS 463227	177.0	21.8	60	60.6	30
Pioneer P1615XR	175.9	30.0	88	60.9	34
BURRUS 260667	172.6	28.2	96	60.0	32
BURRUS 943018	171.5	25.6	52	59.8	32
HUGHES 4125 GT3	170.4	19.7	80	59.2	32
HOBLIT 5566 GT3	164.7	27.5	100	58.7	33
BURRUS 512852	152.7	22.2	100	57.1	34
BURRUS 355951	152.4	27.0	92	57.7	32
POWER PLUS 4B32 AMX™*	148.7	22.6	64	61.9	32
POWER PLUS 4A30 AM1™*	142.6	25.5	68	61.5	34
POWER PLUS 4C58 Q™*	140.3	23.7	76	60.5	30
POWER PLUS 6B52 S™*	137.5	25.2	60	60.3	34
Pioneer P1184XR	137.0	25.8	72	60.8	32
BURRUS 100363	106.3	25.3	48	59.3	32
Average	181.3	26.3	85	60.9	32

New Burrus X6J36 on top

John Cook  
Sciota, IL

**Planted:** May 2 in 30'' rows. **Planting Population:** 32,000. **Harvested:** September 14. **Previous Crop:** Soybeans. **Fertilizer:** N: 175, P: VRT, K: VRT. **Herbicide:** Harness Xtra, Atrazine, & Impact. **Corn Borer Rating:** Light. **Soil Type:** Heavy. **Weather:** May–wet, June–dry, July–dry, August–dry. **Remarks:** POWER PLUS 3C98™\* had 40% green snap in plot.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS X6J36	191.8	24.0	80	59.0	31
POWER PLUS 4V43 S™*	190.5	20.5	80	59.2	30
POWER PLUS 7A18 AM1™*	190.3	26.2	90	62.6	31
POWER PLUS 6A12 AM1™*	189.1	24.5	100	60.1	30
POWER PLUS X6F72™*	188.9	23.2	100	59.8	32
POWER PLUS 7D51 Q™*	184.4	26.0	100	61.5	30
POWER PLUS 4B32 AMX™*	168.8	23.0	80	64.8	31
POWER PLUS 6B52 S™*	166.2	22.2	100	59.6	30
POWER PLUS 5A45 AM1™*	161.3	23.5	100	61.9	31
POWER PLUS 4A30 AM1™*	160.9	24.5	80	62.1	31
POWER PLUS 3C98 R™*	140.4	19.2	60	59.8	31
Average	175.7	23.3	88	60.9	31

MCHENRY

DJ Farms  
Marengo, IL

Soil Type: Medium.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Agrigold 6309VT3	211.1	18.0	58.8
Channel 207-01	209.8	19.6	58.5
Agrigold A6384VT3PRO	208.5	18.9	56.3
Pioneer P0916XR	204.8	20.8	57.7
Agrigold A6329VT3PRO	200.4	19.1	59.5
Channel 207-01	199.9	19.5	58.3
Agrigold A6437	197.5	18.9	61.4
POWER PLUS 5N48™*	197.4	19.9	58.9
POWER PLUS 6B51 R™*	197.2	21.8	57.6
HUGHES 5874	192.2	19.1	58.0
Agrigold A6458CL	191.9	20.9	55.6
AgriGold A6478	181.6	19.5	60.2
Pioneer P0717R	181.6	18.7	59.2
POWER PLUS 4C58 Q™*	179.6	22.5	58.3
HUGHES 5456 GT3	178.7	19.3	56.6
Pioneer P1184R	176.9	21.3	59.6
Average	194.3	19.9	58.4





## Strike 3 or home run for 2012

# Corn following corn

By Don Rhoads

For the second year in a row, in some areas corn following corn yields have lagged behind corn following soybeans. Until 2010, corn following corn yields were close and many times equal to corn following soybeans. With the advent of European corn borer, corn rootworm technologies, healthier genetics and state-of-the-art seed treatments, corn on corn yields rivaled corn on soybeans.

As in 2010, some corn following corn fields looked bad from the start, while others looked fairly good. The Burrus® show plot which has been continuous corn for decades averaged 189 bushels per acre. This average yield was lower than some years, but still very good for 2011.

**There were similar as well as different environmental factors from 2010 to 2011:**

- 1. Residue** – There were large amounts of corn residue in 2010. This residue had broken down very little by planting time, and tied up nitrogen normally available for the crop. The opposite occurred in 2011. 2010 harvest and tillage were early allowing for good breakdown of corn residue. In most cases we can't blame residue for poor corn on corn performance.
- 2. Cold, wet soils** – This occurred in both years, but for different reasons. In 2010 some growers tried primary tillage in the spring in less than ideal conditions because of soil damage the previous fall. This led to unsatisfactory seed beds and additional compaction. In 2011 the first corn planted was primarily following soybeans. These soils dried first and good seed beds were established. The second half of April and into May turned cool and wet. Once the soils were dried enough, about 60% of the corn was planted the first two weeks of May. Some of these plantings, especially the slower-to-

dry corn following corn fields, were planted in less than ideal conditions. (I know this did not happen to any of you reading this, but you probably saw these conditions on your neighbor's fields). These tougher conditions led to more compaction, both wheel and side wall, residue interference or "hairpinning" and inconsistent seeding depths.

- 3. Loss of nitrogen** – Maintaining adequate nitrogen into the reproductive stage was a challenge the last two years. Because corn on corn requires more nitrogen fertilizer than corn following soybeans, corn following corn was at a greater disadvantage.
- 4. Poor root development and function** – In 2010 roots were compromised by cold, wet conditions for a longer period than 2011. Roots were observed dying in June in 2010 from too much water. The roots appeared to stay healthier in 2011, but with the sudden shock of very little rainfall and extreme heat in July, the root systems in corn following corn seemed to be less efficient in supplying moisture to the plants. Corn following corn showed more leaf stress and less light interception in July and August. This increased kernel abortion and decreased the plant's ability to fully fill the remaining kernels.
- 5. Disease** – Both 2010 and 2011 had moderate amounts of gray leaf spot and Northern corn leaf blight (NCLB) in Central IL or MO. But the NCLB has been heavy the past two years and increasing annually in Northern IL or Southern WI. Some Goss' wilt was reported in 2010, but many fields, especially corn following corn, experienced heavy infestations of Goss' wilt. Susceptible hybrids struggled to remain alive. Be sure to read the Goss' article about the excellent Goss' ratings for many

of the Power Plus® and Hughes® products.

After several years of excellent corn on corn performance, it's disappointing to have two consecutive years of poorer yields when compared to corn after soybeans. Obviously profit margins are greater with corn following soybeans, but the correct way to draw the comparison choice should be between corn following corn versus soybeans after corn. The reason for these choices is because you are looking at last year's corn stalks, deciding which crop to plant into them. Even with reduced corn yields, corn on corn shows more profit potential than soybeans. This topic is addressed in the economics of corn and soybeans article. Realize that growing corn after corn carries additional risk of disease. It provides the proverbial risk/reward scenario. Rotation to soybeans might be the safest choice but is most likely not the highest return on investment.

Some growers will have fewer acres of corn following corn for 2012. The last two years have left a bad taste in their mouth. We proved, prior to 2010, that we could successfully produce corn following corn. What has changed? Hybrids, technologies, and seed treatments continue to improve. Our knowledge and management of corn on corn is greater today than anytime in history.

What might have changed is the amount of crop residues from technologies, providing heavier and heavier amounts of inoculum to attack susceptible hybrids from our reduced tillage systems. There is a cumulative effect that takes place as this has been building for several years.

The other thing that has changed is the weather. The record setting, adverse weather patterns the last two years resulted in poor environmental conditions for corn on corn. If these patterns continue into 2012, then corn following corn will again be a challenge. If we return to a weather pattern closer to the long term averages, we'll see lots of home runs.

If you are considering corn following corn production for 2012, there are management tips which will improve your odds for success:

- 1. Select your most productive soils** with better water holding capacity.
- 2. Tillage can be a benefit in covering some residue**, creating a seedbed that allows for good seed to soil contact.
- 3. In general, there is more potential for grass problems in corn following corn than following soybeans.** Utilizing Roundup or Liberty hybrids can ease your concerns about weed control.
- 4. Slightly more nitrogen is required for corn following corn than corn following soybeans.** Refer to [www.extension.agron.iastate.edu/soilfertility/nrate.aspx](http://www.extension.agron.iastate.edu/soilfertility/nrate.aspx) for those guidelines.
- 5. Insect pressure is higher with corn following corn.** European corn borer over winter in corn residue and corn rootworms are a threat in corn on corn fields. Utilize corn borer and rootworm traits from Burrus and Hughes to fight these pests.
- 6. Avoid planting the same hybrid family in the same field year after year.** Disease inoculums can build in the first year, and if the same hybrid family is planted, that particular disease might build to an unacceptable level, creating stalk rot, ear rot and yield loss. A different hybrid is more likely to carry a different form of resistance, to help fight the disease present in the field.
- 7. Select hybrids with good disease tolerance.** Now that Goss' wilt has moved into the Midwest, it's more critical than ever to select a strong disease-fighting package of hybrids. Over 85% of the Burrus testing near Arenzville, IL is conducted in corn following corn environments. This is by design. We can evaluate and sort the best genetics with built-in disease tolerances.



Tom & Marcy Burrus along with Larry & Cheryl Strohbeck helped Catherine Albers celebrate her 100th birthday in Clinton Co. Catherine followed her husband as a Burrus dealer and was succeeded by her son Harold "Yogi" Albers.



Ronald, Ronnie & Roy Smith predicted in August that Burrus® X6J36 would win the Cass Co. plot. They were right!



Inquisitive growers attended a plot tour to learn more about the strong Burrus family of products for 2012.



Adam Winkelman of Cass Co. worked with Burrus RSM Jason Buss for optimum product placement.



At Burrus & Hughes, we believe honesty and integrity have value and always will.



Power Plus® 7D51 Q™\* & 4V43 S™\* are 4th & 5th in Massac Co. for Don & David Koch.



Power Plus® X6F72™\* was best in Massac Co. for Mark Bremer, Burrus So. IL Seed Specialist Ken Johnson & David Bremer.



Four of the top six yields were from the Burrus family of products in Menard Co. for Mike Reichart.



Ashley & Greg Deal of McLean Co. were all smiles over their corn yields this year.

## Optimum® AcreMax® Insect Protection Technology 2012 Bt Corn Stewardship

The 2012 growing season will be the dawn of a new era for refuge planting. Burrus® will distribute Power Plus® products with the Optimum® AcreMax® Xtra technology providing above and below ground pest protection with the Corn Belt refuge already blended in each bag. We will also offer Power Plus® products with the Optimum® AcreMax® insect protection technology providing above ground protection also including the applicable Corn Belt refuge right in the bag!

The technology pipeline is not completely full of one bag product/refuge solutions so growers will still utilize a variety of technology choices and refuge options in 2012. Growers are excited about utilizing the "one bag solutions" in their operations. This new technology will be both beneficial to the grower and the industry. In the future growers in the Corn Belt will be able to choose from worry-free planting options because all of their refuge needs will be met with the Optimum® AcreMax® Xtra and Optimum® AcreMax® technologies. The industry will benefit by knowing the proper stewardship and increasing the efficacy of the technology over time.

A strong Bt corn stewardship program will help us prolong the beneficial technology. Stewardship is a major focal point with respect to federal governing bodies as they review products through the regulatory process. Companies that develop the traits and technology are also responsible to promote and facilitate good stewardship of their products. Burrus® is committed to educating their sales teams and growers of best management practices for each respective technology which helps maximize value, benefits and longevity of the products and technology.

Below is a short review of the insect resistant technologies that are offered for sale by our company. You will also find a description and logo of Insect Resistant Management (IRM) requirements for Bt corn.



- For corn borer control – Hybrids with the Herculex® I (HX1) trait. This technology requires a 20% refuge of non corn borer technology to be planted within 1/2 mi. of the field planted with this technology.



- For corn rootworm control Hybrids with the Herculex® corn rootworm (HXRW) trait. This technology requires a 20% of non corn rootworm technology to be planted in the same field or directly adjacent to the field.



- For control of corn borer and corn rootworm within the same plant – hybrids stacked with Bt traits HX1 and HXRW commonly referred to as Herculex® Xtra or HXX. This technology requires a 20% refuge of non-corn borer and non-corn rootworm technology hybrid to be planted in the same field or directly adjacent to the field.



- For control of corn borer and corn rootworm within the same plant – hybrids stacked with Bt traits YieldGard® corn borer and YieldGard® corn rootworm commonly referred to as YieldGard® VT Triple or YieldGard® VT3. This technology requires 20% of a non-corn borer or non-corn rootworm technology hybrid be planted in the same field or directly adjacent to the field.



- For control of corn borer and corn rootworm within the same plant – hybrids stacked with Bt traits Agrisure® CB/LL and Agrisure® RW. This technology requires 20% of a non-corn borer or non-corn rootworm technology hybrid be planted in the same field or directly adjacent to the field.



- A technology that provides broad lepidopteran control, controlling corn borer, corn rootworm and the multi-pest complex. This technology requires 20% of a non-corn borer or non-corn rootworm technology hybrid be planted in the same field or directly adjacent to the field.



- An in the bag product that contains 90% of a Power Plus® hybrid with Herculex® Xtra insect protection and 10% of Power Plus® hybrid of the same genetic family with the Herculex® I trait, which serves as the corn borer refuge. This allows the flexibility of planting the required 20% corn borer refuge up to 1/2 mi. The corn borer refuge can be Optimum® AcreMax® RW or a hybrid with glyphosate resistance. In the Power Plus® nomenclature, Optimum® AcreMax® 1 products are "A" products in the second digit such as Power Plus® 7A52AM1™\* brand.



- An in-the-bag product that contains 90% of a Power Plus® hybrid with Herculex® RW stacked with

glyphosate tolerance and 10% of a Power Plus® hybrid with glyphosate herbicide tolerance that serves as the corn rootworm refuge. In the Power Plus® nomenclature these products are labeled with "M" in the second digit such as Power Plus® 7M53 AMRW™\* brand. **Spraying Ignite® is not a choice with Optimum® AcreMax® RW products.**



- An in-the-bag product that contains 95% of a Power Plus® hybrid with Herculex® I stacked with the YieldGard® Corn Borer trait and 5% of a Power Plus® hybrid with glyphosate herbicide tolerance (RR2) that serves as the corn borer refuge. **Spraying Ignite® is not a choice with Optimum® AcreMax® products.**



- An in-the-bag product that contains 90% of a Power Plus® hybrid with Herculex® Xtra technology and 10% of a Power Plus® hybrid with glyphosate herbicide tolerance that serves as the corn borer and corn rootworm refuge. **Spraying Ignite® is not a choice with AMX products.**



Following the insect resistance management (IRM) requirements are an essential part of good stewardship. They are also part of the EPA terms and conditions for corn with Bt genes for corn borer and/or corn rootworm protection. Corn with Bt genes for corn borer and/or corn rootworm protection help corn growers protect their crops from corn insect pests. Bt corn products allow corn growers to produce higher yields with better quality grain in an environmentally friendly way.

IRM requirements have been incorporated into the registrations granted by the EPA for all Bt corn products. Implementing the IRM requirements reduces the probability of target insects from developing increased tolerance to the insecticidal Bt proteins thus increasing the longevity of these valuable traits.

Trait suppliers require all growers purchasing hybrids with a Bt trait sign a user agreement of some kind. By signing it, the growers agree to implement an IRM program as specified in the respective Product Use Guides. The IRM program includes planting a corn refuge, following EPA-mandated use requirements and other steps outlined in the Product Use Guide.



Failure to follow these IRM requirements can result in a grower losing access to Bt technology. There is no reason for not signing the technology forms. Once a grower opens a bag of technology, they agree to all terms that are associated with that respective technology.

#### IRM Compliance Assurance Program (CAP)

Complying with IRM requirements is a regulatory and stewardship obligation critical to preserving the longevity and effectiveness of Bt corn technology. The EPA requires Bt corn seed providers to conduct random on farm visits during the growing season as part of a comprehensive Compliance Assurance Program (CAP) to assess whether growers are following the IRM requirements. Again, by planting Bt products and signing a technology agreement you agree to participate in the on-farm assessment if chosen. The CAP also outlines consistent standards developed by the EPA and Bt corn registrants to respond to growers who have not followed the IRM requirements to bring them back into full compliance. These responses include:

- Notifying the grower by letter of IRM compliance deviations
- Providing the grower additional IRM educational materials
- Conducting a compliance assistance visit with the grower prior to planting to assist the grower in planning and implementing a proper IRM program.
- Conducting a compliance assistance visit with the grower the following growing season to assess IRM compliance
- Denying access of Bt corn to growers who have been out of compliance for any two years out of five years.

**This is an exciting time in agriculture. We as an industry need to be good stewards in all we do. Agriculture is a bright spot, let's leave it that way for future generations by practicing good stewardship.**

®Power Plus, Optimum and AcreMax are registered trademarks of Pioneer Hi-Bred. Optimum® AcreMax® 1 insect protection products available in the Power Plus brand. Power Plus brand seed is distributed by Burrus.

Herculex® Insect Protection technology by Dow AgroSciences and Pioneer Hi-Bred.

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AM1 - Optimum® AcreMax® 1 Insect Protection System with an integrated corn rootworm refuge solution.

AM-RW - Optimum® AcreMax® RW rootworm protection system contains a single-bag integrated refuge solution for above-ground insects. Do not spray with Ignite®/Liberty®. Not all seeds in the bag are tolerant to Ignite/Liberty herbicides.

AM-R - Optimum® AcreMax® Insect Protection system contains a single-bag integrated refuge solution for above-ground insects. Do not spray with Ignite®/Liberty®. Not all seeds in the bag are tolerant to Ignite/Liberty herbicides.

AMX-R - Optimum® AcreMax® Xtra Insect Protection system contains a single-bag integrated refuge solution for above-ground insects. Do not spray with Ignite®/Liberty®. Not all seeds in the bag are tolerant to Ignite/Liberty herbicides.

Burrus®, Hoblit® and Hughes® are registered trademarks of Burrus. \* Power Plus® brand seed is distributed by Burrus. Power Plus® is a registered trademark of Pioneer Hi-Bred. Optimum® AcreMax® 1 and Optimum® AcreMax® RW insect protection products available in the Power Plus® brand.

## MCHENRY

**Simons Farms  
Marengo, IL**

**Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: 125, K: 125. **Herbicide:** Guardsman Max & Buctril. **Soil Type:** Meduim. **Remarks:** Hughes 5874.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	222.8		19.6	10	30
POWER PLUS 1H37Q™*	185.4	13	16.8	5	31
HUGHES 3309GT3	215.0	2	15.6	45	31
POWER PLUS 2A16AM1™*	194.3	8	17.8	99	29
HUGHES 4125GT3	193.8	11	18.0	5	30
HUGHES 6435GT3	194.0	10	19.3	50	29
HUGHES 5456GT3	194.2	9	19.2	65	28
✓Check	207.9		19.4	58	30
POWER PLUS 3C98R™*	210.0	3	18.6	68	29
POWER PLUS 4C58Q™*	195.0	7	22.0	4	28
POWER PLUS 4A30 AM1™*	202.3	6	21.8	66	31
POWER PLUS 5N48™*	208.4	4	20.2	88	30
POWER PLUS 5A45AM1™*	208.1	5	22.2	79	30
POWER PLUS 6B52™*	214.6	1	20.0	88	30
HUGHES 4431GTV	183.3	12	18.3	70	31
✓Check	215.1		19.6	60	30
Average	202.8		19.3	54	30
Check Average	215.3		19.5	42	30

**Dan Ziller  
Huntley, IL**

**Planted:** May 10 in 30'' rows. **Planting Population:** 32,500. **Harvested:** October 20. **Previous Crop:** Corn. **Soil Type:** Medium. **✓Check Hybrid:** Hughes 6435 GT3. **Remarks:** Heavily root lodged.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect
✓Check	114.7		21.2	20
HUGHES 2795 GT3	161.2	8	16.5	20
POWER PLUS 1H37 Q™*	173.3	6	18.3	20
HUGHES 3309 GT3	174.4	4	17.1	20
POWER PLUS 2A16 AM1™*	183.7	2	18.9	95
HUGHES 4125 GT3	185.1	1	18.2	46
HUGHES 5456 GT3	177.6	3	19.8	32
✓Check	119.2		21.6	8
POWER PLUS 3C98 R™*	188.5	5	18.6	59
POWER PLUS 4A30 AM1™*	177.5	7	21.8	83
POWER PLUS 4C58 Q™*	152.6	10	23.8	10
POWER PLUS 5A45 AM1™*	168.2	9	22.2	59
✓Check	142.9		21.2	9
Average	163		19.9	37
Check Average	125.6		21.3	60



Power Plus® 7A18AM1™\* was the top performer in Macoupin Co. for Lynn & Don Etter & Jim McKown.



## Power Plus® & Hughes are 2nd & 3rd

**Bob Dodson  
Harvard, IL**

**Previous Crop:** Soybeans. **Soil Type:** Heavy.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
Pioneer P0533XR	235.3	20.1	85	60.1	32
POWER PLUS 4A30 AM1™*	229.6	20.9	100	62.8	31
HUGHES 3309 GT3	227.2	17.4	100	57.4	32
NK N68B	227.1	22.1	100	54.5	31
NK N61P	226.6	20.9	95	58.8	31
Pioneer P0453HR	225.0	18.3	100	58.1	32
Pioneer P0528XR	221.9	20.2	100	60.6	32
Seed Direct 4L92	221.2	20.5	88	59.7	30
POWER PLUS 3C98 R™*	220.7	18.2	98	59.1	30
Pioneer P0392XR	220.3	18.5	100	57.2	30
POWER PLUS 6B52 S™*	220.1	20.9	100	60.3	29
HUGHES 4125 GT3	218.5	17.9	98	56.5	31
HUGHES 5874	215.2	19.7	100	59.5	30
HUGHES 5124 GT	214.3	18.4	100	56.6	30
POWER PLUS 1H37 Q™*	214.3	18.0	95	59.0	31
HUGHES 5124 GT	213.0	19.3	100	55.9	31
Seed Direct 4M89	211.7	18.9	100	58.3	30
POWER PLUS 5N48™*	211.4	20.8	85	59.7	30
Pioneer P0448XR	210.9	18.9	100	60.8	31
Yield Direct 4X22	207.7	17.7	94	57.5	30
NK N49J	207.5	17.5	100	56.9	29
NK N53W	206.6	18.9	97	57.8	31
Yield Direct 3X58GT3	206.4	16.0	100	59.0	31
Seed Direct 4X75	205.5	18.3	96	58.1	29
Yield Direct 5E27RR	203.7	18.5	94	59.7	30
Yield Direct 4N57	202.3	17.4	99	59.4	29
Pioneer 36V51RR2	195.0	17.8	99	58.5	31
POWER PLUS 4C58 Q™*	192.3	25.3	93	60.3	31
Average	214.7	19.2	97	58.6	31

## MENARD

### Power Plus® 7A18 AM1™\* wins

**Mike Reichart  
Tallula, IL**

**Planted:** April 13 in 30'' rows. **Planting Population:** 33,000. **Harvested:** September 8. **Previous Crop:** Soybeans. **Fertilizer:** N: 160, P: 70, K: 120. **Herbicide:** Roundup, Harness.

**Weather:** May-wet, June-normal, July-dry, August-dry.

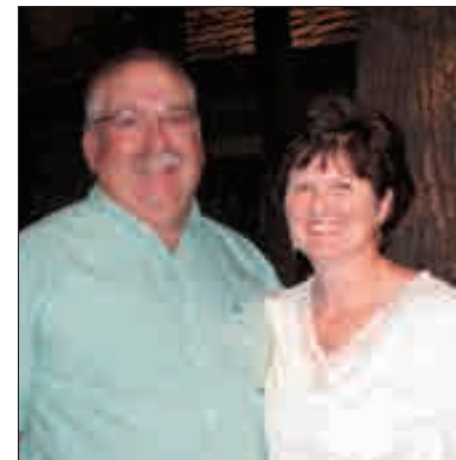
Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7A18 AM1™*	232.0	28.6	63.1	31
Agrigold 6533	223.7	28.1	62.0	31
HOBELIT 5557 VT3	220.5	25.1	61.3	30
POWER PLUS X6F72™*	216.5	24.5	61.1	30
FS 64JV3	216.2	24.6	61.2	31
POWER PLUS 4V43 S™*	215.0	23.4	59.9	30
Stone 6N52	213.6	23.3	59.8	31
Stone 7T231VT3	213.4	22.5	59.6	31
Agrigold A6458VT3	212.7	24.2	61.1	30
POWER PLUS 6B52 S™*	209.4	21.1	59.3	31
FS 65BV3	207.2	28.5	62.1	30
POWER PLUS 6A12 AM1™*	206.2	25.7	61.4	29
POWER PLUS 7D51 Q™*	204.7	27.1	61.8	31
POWER PLUS 4A30 AM1™*	201.1	21.8	60.5	31
BURRUS X6J36	193.2	22.0	59.5	30
Average	212.4	24.7	60.9	30



Power Plus® 6B52 S™\* & 4V43 S™\* were above 200 bu/a in Greene Co. for Rob & Sandy Hall.



Richard Douglas saw the new Power Plus® X6F72™\* win at 222 bu/a in Hancock Co.



Andy & Tammy Schmalshof saw new Power Plus® 7P44™\* take top honors in Fulton Co.





It matters because our name is on every bag!

MERCER

Ron Zimmerman  
New Boston, IL

**Planted:** May 5 in 30'' rows. **Planting Population:** 33,000. **Harvested:** September 29. **Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 40, K: 80. **Herbicide:** Princep, Halex GT. **Corn Borer Rating:** Heavy. **Soil Type:** Sandy loam. **Remarks:** Irrigated plot.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 443903	233.0	24.5	100	59.5	32
BURRUS 710321	229.3	26.3	100	59.4	33
BURRUS 798157	226.8	28.6	100	59.5	25
POWER PLUS X6F72™*	226.6	27.0	100	59.0	31
BURRUS 483952	224.5	33.1	100	60.8	25
POWER PLUS 7A18 AM1™*	222.7	34.5	100	61.6	30
POWER PLUS 6A12 AM1™*	215.8	33.0	100	61.5	33
BURRUS 873843	214.5	34.5	100	59.1	33
POWER PLUS 6B52 S™*	214.1	27.9	100	60.1	33
POWER PLUS X6F73™*	211.3	25.7	100	59.1	33
HOBILT 5566 GT3	211.1	31.2	100	57.9	29
POWER PLUS 5A45 AM1™*	210.3	27.2	100	61.4	29
BURRUS 431445	209.8	24.8	100	59.7	30
BURRUS 784713	209.5	26.8	100	59.8	31
BURRUS 463227	209.3	24.5	100	61.1	33
POWER PLUS 7D51 Q™*	208.7	34.1	100	61.5	32
BURRUS 784713	207.1	24.8	100	60.9	31
BURRUS 778098	204.9	26.8	100	60.5	29
BURRUS 990102	203.9	35.8	100	59.4	33
BURRUS 943018	203.3	28.3	100	58.9	31
BURRUS 974498	200.2	27.8	100	60.1	33
POWER PLUS 7D51 QR™*	200.1	34.8	100	61.5	33
BURRUS 833162	199.6	24.6	100	58.6	32
POWER PLUS 4C58 Q™*	198.7	27.0	100	60.5	24
BURRUS 680038	198.2	24.1	100	57.8	28
BURRUS 388920	197.5	27.1	80	59.2	31
BURRUS 498109	196.9	34.3	96	59.4	30
BURRUS 833714	193.3	31.4	100	61.5	31
BURRUS 629459	191.4	36.5	100	61.2	33
POWER PLUS 4V43 S™*	190.5	22.5	100	60.7	33
BURRUS 260667	188.3	35.8	100	59.8	30
BURRUS 803599	187.4	25.4	100	60.5	31
BURRUS X6J36	186.6	25.7	100	58.8	33
BURRUS 592252	185.8	26.3	100	60.3	31
BURRUS 341332	184.7	31.6	100	60.7	30
BURRUS 355951	178.7	34.9	100	59.5	32
BURRUS 471516	178.5	23.8	96	62.6	30
BURRUS 4J63 T	173.2	26.6	100	58.4	33
BURRUS 585774	171.6	24.4	100	59.4	31
BURRUS 512852	170.0	24.2	100	57.9	26
POWER PLUS 4A30 AM1™*	168.9	24.1	100	61.9	30
Average	200.9	28.6	99	60.0	31



Power Plus® X6F72™\* was the best commercial product for Ron Zimmerman of Mercer Co.

ILLINOIS

20" row plot

Wayne Duncan  
Alexis, IL

**Planted:** April 26 in 30'' rows. **Planting Population:** 36,500. **Harvested:** October 5. **Previous Crop:** Soybeans. **Fertilizer:** N: 175, P: VRT, K: VRT. **Herbicide:** Laudis, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–wet, June–normal, July–dry, August–dry. **✓Check Hybrid:** Power Plus 4A30 AM1™\*. **Remarks:** Sprayed with fungicide on 7-15-11.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	197.0		17.1	100	35
BURRUS 512852	162.0	23	17.4	100	33
BURRUS 833162	207.9	5	15.2	100	33
POWER PLUS 4C58 Q™*	188.2	18	16.1	87	27
POWER PLUS 5N48™*	193.9	13	15.8	96	36
POWER PLUS 4V43 S™*	200.7	10	16.1	92	35
✓Check	183.1		17.3	96	33

POWER PLUS 5A45 AM1™*	170.5	22	18.0	100	33
POWER PLUS 6B52 S™*	193.6	12	17.5	96	35
BURRUS 100363	191.9	14	17.2	76	34
BURRUS 388920	187.5	17	19.1	80	34
BURRUS X6J36	202.4	7	18.4	100	36
✓Check	194.4		18.2	100	36
BURRUS 471516	202.9	9	18.2	100	38
BURRUS 803599	194.7	15	18.1	92	34
BURRUS 943018	188.9	19	19.0	100	31
BURRUS 341332	186.3	21	19.6	100	33
POWER PLUS X6F73™*	206.1	6	18.4	98	35
POWER PLUS 6A12 AM1™*	203.3	8	19.5	100	30
POWER PLUS X6F72™*	210.1	4	19.2	100	32
✓Check	188.6		18.6	96	36
BURRUS 778098	209.4	1	19.0	80	34
BURRUS 498109	193.2	11	18.7	88	36
BURRUS 260667	183.0	20	20.0	68	34
POWER PLUS 7A18 AM1™*	206.5	3	20.1	96	33
POWER PLUS 7D51 Q™*	207.8	2	19.6	92	34
BURRUS 483952	187.3	16	19.2	60	30
✓Check	185.2		18.5	100	33
Average	193.8		18.2	93	34
Check Average	189.7		17.9	98	34

Power Plus® 4A30 AM1™\*  
wins plot

Scott Olson  
Joy, IL

**Planted:** May 2 in 30'' rows. **Harvested:** October 7. **Previous Crop:** Soybeans. **Herbicide:** Roundup. **Corn Borer Rating:** Light. **Weather:** May–wet, June–dry, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4A30 AM1™*	196.9	12.6	96	62.2	32
POWER PLUS 4M31 AMRW™*	194.7	12.5	96	61.2	36
POWER PLUS 5A45 AM1™*	182.2	13.8	88	63.0	34
POWER PLUS 7A18 AM1™*	173.6	15.1	84	60.8	35
POWER PLUS 5M46™*	172.2	12.8	88	62.8	32
POWER PLUS 6A12 AM1™*	157.3	15.6	88	61.5	35
Average	179.5	13.7	90	61.9	34

Why wasn't the highest yielding hybrid ranked number one in the test plot?

For years, there has been a debate over the best way to present yield data from test plots.

Throughout this publication, regular plots without a check are printed in order from highest to lowest based on number 2 yield. Check plots containing the same hybrid repeated several times throughout the plot are designated to identify field variation. At Burrus, we use a formula to adjust the yields for field variations and rank the hybrids from best to least in relation to its two nearest checks.

Some field variation is common in most plots. Differences in drainage, soil texture, soil pH, slope, and etc. can make a difference in any given year. Obviously, plots with the least variability are the most uniform and produce the most repeatable data.

Using a check hybrid system and adjusting yields and rank to those checks is the key to accurate testing. It provides a means of comparing hybrid performance without the unpredictable impact of field variability. Basically, it adjusts for “good” or “bad” spots in a field. The plot used in this year’s example varies dramatically which illustrates how yield adjustment procedures works.

First, the check hybrid is adjusted to number 2 corn and then the checks are averaged (207.7 bu/a). Next, each pair of checks is averaged and their deviation from the overall check average is recorded (either +4.9, +6.2, -1.7 or – 5.4 bu/a etc.

in the example plot). By adding this figure to the number 2 yield, we can make an adjusted yield for any variation of conditions within a field.

The rank column then shows where the hybrid places after all are adjusted. The highest number 2 yield (Power Plus® 7D51 Q™\* @ 232.2 bu/a) is only ranked second because of its relationship to its adjacent checks. The highest-ranking hybrid on the adjusted yield column was Power Plus® X6F72™\* at 227.1 bu/a.

As you know, some companies publish a + or – the check rating for hybrid performance. Their rank column might give you the same order (largest plus yield will be ranked number 1) but we feel it’s easier to follow a rank than search for plus or minus values. Other companies display their adjusted yields. At Burrus, we feel uncomfortable to list Burrus 512852 with an adjusted yield 181.0 bu/a when it really made 176.1bu/a.

Consequently, we’ve chosen to publish the number 2 yields in the order the hybrids were planted. Then, we show the yield rank as adjusted for the check. This gives you the opportunity to look at the variability of the check and the actual yield. Additionally, you’ll find the hybrids that performed best in relation to the check. But, as this plot shows, the top number 2 yield may not receive the highest ranking.

Here’s how we do it:

EXAMPLE CHECK PLOT

Darrell Steele  
Washington, IA  
Washington, Co., IA

Brand Hybrid	Check Yield	Ave. of 2 checks	Deviation from check Average	No. 2 Yield	Adj. Yield	Rank
✓Power Plus 4A30AM1™*	209.4					
Burrus 512852		202.8	4.9	176.1	181.0	23
Burrus 833162		202.8	4.9	206.7	211.6	9
Power Plus 4C58 Q™*		202.8	4.9	196.0	200.9	20
Power Plus 5N48™*		202.8	4.9	198.7	203.6	18
Power Plus 4V43 S™*		202.8	4.9	204.1	209.0	13
✓Power Plus 4A30AM1™*	196.2					
Power Plus 5A45AM1™*		201.5	6.2	209.6	215.8	6
Power Plus 6B51 R™*		201.5	6.2	196.9	203.1	19
Burrus 100363		201.5	6.2	205.0	211.2	10
Burrus 388920		201.5	6.2	199.4	205.6	17
Burrus X6J36		201.5	6.2	209.0	215.2	7
Burrus 471516		201.5	6.2	203.3	209.5	12
Burrus 803599		201.5	6.2	220.2	226.4	3
✓Power Plus 4A30AM1™*	206.8					
Burrus 943018		209.4	-1.7	208.7	207.0	15
Burrus 341332		209.4	-1.7	216.3	214.6	8
Burrus 680038		209.4	-1.7	220.2	218.5	4
Power Plus 6A12AM1™*		209.4	-1.7	208.1	206.4	16
Power Plus X 6F72™*		209.4	-1.7	228.8	227.1	1
✓Power Plus 4A30AM1™*	211.9					
Burrus 778098		213.1	-5.4	214.2	207.7	14
Burrus 498109		213.1	-5.4	197.4	192.0	22
Burrus 260667		213.1	-5.4	203.1	197.7	21
Power Plus 7A18AM1™*		213.1	-5.4	222.4	217.0	5
Power Plus 7D51 Q™*		213.1	-5.4	232.2	226.8	2
Burrus 483952		213.1	-5.4	215.7	210.3	11
✓Power Plus 4A30AM1™*	214.3					
Plot average	208.2					
Check average	207.7					

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®Power Plus is a registered trademark of Pioneer Hi-Bred.  
Optimum® AcreMax® 1 and Optimum® AcreMax® RW insect protection products available in the Power Plus® brand.





## MONROE

### Power Plus® 4V43 S<sup>TM</sup>\* tops plot

Chris Howell  
Columbia, IL

**Planted:** May 13 in 30" rows. **Planting Population:** 30,700. **Harvested:** September 23. **Previous Crop:** Wheat. **Fertilizer:** N: 221, P: 92, K: 0. **Herbicide:** Degree Xtra, Roundup PowerMax, Resource Q. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May-wet, June-wet, July-dry, August-normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4V43 S <sup>TM</sup> *	160.3	19.5	95	59.4	27
POWER PLUS 7D51 Q <sup>TM</sup> *	155.4	21.5	100	58.9	27
POWER PLUS 5A45 AM1 <sup>TM</sup> *	141.5	19.2	100	60.3	26
POWER PLUS 4A30 AM1 <sup>TM</sup> *	135.1	20.8	100	60.2	28
POWER PLUS 6A12 AM1 <sup>TM</sup> *	133.8	21.0	100	58.8	26
POWER PLUS 7A18 AM1 <sup>TM</sup> *	119.5	21.5	100	58.4	27
POWER PLUS X6F72 <sup>TM</sup> *	116.6	19.8	100	59.0	28
Average	137.5	20.5	99	59.3	27

## MONTGOMERY

Montgomery County  
Young Leaders  
Raymond, IL

✓Check Hybrid: Dairyland 9414 Q

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	135.9		17.2
FS 62MV4VTPro	156.8	4	15.9

Pioneer P1018XR	159.0	2	16.3
Golden Harvest H-9138	137.2	23	15.6
Stine 9731VT3	134.0	28	17.2
✓Check	147.2		18.0
AgriGold A6533	163.4	12	17.7
POWER PLUS 7A18 AM1 <sup>TM</sup> *	163.8	11	18.2
Becks 6626HXR	171.4	3	19.2
Great Lakes GL6530VT3P	161.6	14	17.8
✓Check	163.7		18.9
Dairyland DSR-9814SSX	154.6	31	17.1
Wyffels 6871VT3	161.9	27	15.2
Ag Venture 8950HBW	167.8	19	16.6
Dynagro 51VP40	168.9	18	15.4
✓Check	174.2		19.0
Mycogen 2V702	195.6	1	17.3
LG LG2620	187.8	9	19.0
Steyer 10901	172.4	25	16.7
Stone 6404VTPro	188.0	8	17.5
✓Check	181.5		19.5
Ag Venture 8428HB	177.1	21	17.5
Stine 9806VTPro	172.6	26	22.2
POWER PLUS 7D51 Q <sup>TM</sup> *	168.0	30	20.1
Golden Harvest H-9173	169.3	29	19.3
✓Check	176.9		20.9
LG LG2549	181.6	13	17.4
Steyer 11302	184.3	10	16.9
Pioneer P1395AM1	186.9	6	17.7
Wyffels 7997VTPro	172.0	22	17.7
✓Check	173.7		20.3
Stone 6128 SS	168.5	15	18.0
FS 64JV3VTPro	177.5	7	18.3
Mycogen 2A787	165.3	20	19.3
Great Lakes GL354VT3P	179.2	5	19.7
✓Check	159.7		20.3
Dynagro 52VP20	152.8	24	16.0
Dairyland DSR-9313SSX	159.2	17	16.6
AgriGold A6573	159.9	16	18.2
Becks 6077HR	141.8	32	15.7
✓Check	156.5		20.0
Average	166.6	18	
Check Average	163.3		19.3

## MORGAN

Lee Burrus  
Meredosia, IL

**Planted:** May 9 in 30" rows. **Harvested:** September 28. **Previous Crop:** Soybeans. **Fertilizer:** N: 196, P: 0, K: 0. **Herbicide:** Degree Xtra, Impact, Aatrex. **Weather:** May-normal, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 990102	237.7	22.1	100	58.5	35
BURRUS 4J63 T	233.0	22.4	96	57.4	36
POWER PLUS X6F73 <sup>TM</sup> *	224.2	20.3	100	59.6	33
POWER PLUS 7D51 Q <sup>TM</sup> *	220.4	22.4	93	58.9	36
BURRUS 471516	219.2	21.6	86	58.0	35
BURRUS 829583	218.6	22.0	94	56.9	35
POWER PLUS 5A45 AM1 <sup>TM</sup> *	216.6	22.1	100	60.5	34
POWER PLUS X6F72 <sup>TM</sup> *	216.2	23.1	94	58.3	35
BURRUS 898841	216.0	21.6	99	56.3	35
BURRUS 757778	215.3	20.5	93	58.1	34
BURRUS 803599	214.6	21.3	51	57.3	34
POWER PLUS 7P44 AM1 <sup>TM</sup> *	212.5	24.2	99	58.7	35
POWER PLUS 6A12 AM1 <sup>TM</sup> *	212.5	21.2	100	59.2	32
BURRUS 101413	212.2	19.5	89	57.9	33
BURRUS 484759	211.4	21.7	100	57.3	36
BURRUS 820274	210.5	24.8	99	56.4	33
POWER PLUS 5N48 <sup>TM</sup> *	207.0	19.8	96	58.3	31
BURRUS 312320	206.1	23.0	72	57.7	33
POWER PLUS 7A18 AM1 <sup>TM</sup> *	204.9	25.9	95	55.7	34
BURRUS 974498	204.8	20.1	100	59.1	35
BURRUS 778098	204.4	22.2	99	57.8	35
BURRUS 4J63 T	203.3	19.9	86	57.8	35
BURRUS 227562	201.6	19.9	79	55.5	36
BURRUS 824534	200.9	20.1	83	57.8	35
BURRUS 585774	199.8	20.2	84	58.0	34
POWER PLUS 7P44 AM1 <sup>TM</sup> *	198.2	25.2	97	58.3	37
BURRUS 483952	197.8	28.3	85	52.9	36
BURRUS 388920	197.7	19.8	63	57.1	36
POWER PLUS 4B32 AMX <sup>TM</sup> *	197.6	20.0	99	58.4	36

BURRUS 341332	197.6	23.2	94	56.7	33
POWER PLUS 7D51 Q <sup>TM</sup> *	197.1	22.8	99	59.4	35
BURRUS 781296	196.4	18.8	48	57.9	35
BURRUS 359718	195.2	18.9	83	57.1	34
BURRUS 680038	193.9	21.8	92	57.3	35
BURRUS 100363	192.9	20.1	89	57.4	34
POWER PLUS 4A30 AM1 <sup>TM</sup> *	192.5	21.4	97	58.1	33
POWER PLUS 6B52 S <sup>TM</sup> *	191.7	22.0	98	57.6	33
BURRUS 943018	191.1	21.6	95	58.3	35
POWER PLUS 4A30 AM1 <sup>TM</sup> *	190.5	20.3	99	59.8	37
BURRUS 498109	190.4	23.2	84	57.1	34
BURRUS 355951	190.1	20.7	96	54.3	34
POWER PLUS 5R68 Q <sup>TM</sup> *	189.6	20.9	84	57.9	36
BURRUS 562468	187.2	21.2	90	57.0	33
BURRUS 675887	185.8	19.1	88	57.8	36
BURRUS 737028	185.1	21.1	96	57.5	33
BURRUS 260667	184.8	24.2	97	52.0	36
POWER PLUS 4V43 S <sup>TM</sup> *	183.6	19.0	57	58.0	38
HOBLIT 5566GT3	174.2	22.8	81	56.3	36
BURRUS 526926	171.6	20.1	91	59.1	34
POWER PLUS 6B52 S <sup>TM</sup> *	170.7	19.0	97	57.2	36
BURRUS 618577	170.4	18.6	70	56.1	36
BURRUS 113487	163.4	18.8	80	57.3	34
BURRUS 264297	163.3	21.6	80	56.0	35
BURRUS X6J36	154.3	18.9	51	57.2	35
Average	198.5	21.4	88	57.5	35

Jarrod Mawson  
Jacksonville, IL

**Planted:** April 17 in 30" rows. **Planting Population:** 34,000. **Harvested:** September 14. **Previous Crop:** Soybeans. **Soil Type:** Heavy loam. **Weather:** May-wet, June-wet, July-normal, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
Dekalb 63-84	211.2	15.3	60.4	34
POWER PLUS 7D51 Q <sup>TM</sup> *	207.7	17.7	63.5	34
Garst 83R38	204.4	17.0	60.3	34
Average	207.8	16.7	61.4	34

# Commitment to NON-Genetically Modified Corn

Burrus and Hughes remain committed to bringing our customers non-GM hybrids. We continue with the tradition of industry-leading hybrid choices for the 2012 growing season with the addition of new Power Plus® 6F70<sup>TM</sup>\* and Burrus 6J34. Also in our powerful stable of non-GM hybrids are Hughes 2691, 4373 and 5874, Power Plus 5N48<sup>TM</sup>\*, 5G42<sup>TM</sup>\* and 6B50<sup>TM</sup>\* and Burrus 750.

At Burrus, our research program continues to look towards new non-GM products for the grain premium market. Our goal is to bring exceptional yield with an ultimate goal of rock-solid test weight on several products. Watch for the yield performance on the non-GM top performers throughout the *Harvest Report* and you will see why we are still committed to the non-GM grain premium markets.

**Burrus is one of the few companies**

**that run an independent lab test for trait purity of our non-GM hybrids. We do this to verify the seed is pure when it leaves our dock.**

There are several seed companies discontinuing their non-GM products and only offering hybrids genetically modified with the Roundup Ready® gene or other insecticide traits. Others are handicapping them to insure their high dollar traited products out-perform the conventionals. We have built areas of adaption for every product family. We are interested in your success on every acre and will bring you our very best products in non-GM possible.

**At Burrus/Hughes, we continue to offer non-GM corn hybrids.** Burrus/Hughes currently has nine products. These products work on a variety of soil types and offer a range in maturity for a grower delivering grain for a non-GM

premium. Burrus is committed to the non-GM customer and we will continue to be committed to the future non-GM grain market as long as there are competitive premiums paid for grain and consistent demand from growers.

If you are looking to capture premium opportunities with your non-GM grain it is always prudent to have a signed contract with your grain buyer. Many market factors complicate the premium issue for grain buyers. End users of grain are hesitant to commit to premiums for the 2012 growing season. Please consult [www.burruseed.com](http://www.burruseed.com) for the most current information.

Non-GM premiums are constantly moving. You can count on Burrus to be willing and able to help you fulfill end-user demands while keeping our eye on the target.



Power Plus® 4A30AM1<sup>TM</sup>\* & its refuge counterpart 4M31AMRW<sup>TM</sup>\* stole the show in Mercer Co. for Art & Scott Olson.



Burrus® X6J36 was best in McDonough Co. for Dean Cook, Jim Lutz, Dylan & John Cook.





Serving our customers in Missouri

Our commitment to serve our customers is something we take very seriously. Every day we strive to position our company to meet the challenges of customer satisfaction. Whether it is installing new plant upgrades or adding semis to the fleet, we always have customer satisfaction in mind. The Missouri warehouse is a prime example of another win-win situation for our customers and our company.

Thanks to our proven performance and the confidence of our Missouri dealers and customers, our Missouri sales of corn and soybeans continue to grow on a yearly basis. In order to better serve the increased demand, we felt our customers would be best served if we had a centrally located warehouse facility. We were fortunate to purchase the former Reed



Don Kennedy joined Burrus last fall to manage the Chillicothe warehouse.

Seeds warehouse in Chillicothe, MO. The warehouse has indoor dock loading capability and a belt conveyor designed for bulk

loading of soybeans. This facility has been a benefit for our RSMs.

The Chillicothe location has worked extremely well and has fit our needs. The Missouri warehouse and grounds are managed by Don Kennedy. Don is the son of retired Burrus RSM M.G. and Beth Kennedy of Trenton, MO. Don and his wife Marsha have one son, Eric, and they also reside in Trenton, MO. Don also has the same great customer service attitude as his father, so we know the apple didn't fall far from the tree!

In Missouri, don't hesitate to call your Burrus RSM to fill those last minute orders or to fulfill your planting time needs. The Chillicothe warehouse will provide a nearby location for the RSMs to help meet any of your hybrid corn or soybean seed needs.

OGLE

Power Plus® 4A30 AM1™\*  
at 211 bu/a

Dave Baker  
Polo, IL

Planted: May 1 in 30" rows. Planting Population: 32,000. Harvested: October 8. Previous Crop: Corn. Soil Type: Medium. Remarks: July 11 had big winds, Aug. 6 had 22% hail damage, Sept. 30 had 45mph wind.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4A30 AM1™*	211.6	19.9	100	59.4	28
POWER PLUS 5A45 AM1™*	188.3	21.2	100	62.9	28
POWER PLUS 6A12 AM1™*	186.9	22.4	100	59.6	28
HUGHES 5456 GT3	178.6	19.7	100	55.6	28
POWER PLUS 3C98 R™*	177.6	19.5	100	60.4	28
HUGHES 4125 GT3	168.5	19.1	100	56.2	28
POWER PLUS 2A16 AM1™*	163.1	21.5	100	58.5	28
HUGHES 4431 GTV	156.6	18.6	100	57.3	28
Average	178.9	20.2	100	58.7	28

MORGAN

 Burrus Seed Farms  
Arenzville, IL

Planted: April 12 in 30" rows. Planting Population: 30,000. Harvested: August 30. Previous Crop: Corn. Fertilizer: N: 246, P: 0, K: 0. Herbicide: Degree Xtra, Laudis, AAtrex, Prowl. Corn Borer Rating: Light. Soil Type: Silt loam. Weather: May-normal, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7D51 Q™*	243.8	24.0	100	55.2	30
POWER PLUS 5A45 AM1™*	221.2	28.2	96	56.5	31
POWER PLUS 4A30 AM1™*	213.9	27.3	100	56.1	34
BURRUS 4J63 T	209.0	26.1	96	54.0	35
POWER PLUS 7U17 S™*	206.5	28.5	80	55.3	29
POWER PLUS 5G42™*	204.7	24.8	100	58.5	29
HOB LIT 5557 VT3	202.9	27.9	76	54.8	32
POWER PLUS 7A18 AM1™*	194.7	33.4	84	57.3	30
POWER PLUS 5N48™*	191.7	21.9	100	58.3	32
POWER PLUS X6F72™*	191.6	26.6	96	55.8	30
POWER PLUS 6B51 R™*	190.9	25.3	100	56.5	34
POWER PLUS 5M46™*	189.3	25.6	100	57.3	32
POWER PLUS 6B52 S™*	185.2	26.1	100	56.6	34
BURRUS X6J36	184.4	22.2	100	56.1	32
BURRUS 591L	184.3	22.5	100	56.3	30
POWER PLUS 6A12 AM1™*	180.8	29.3	100	55.3	33
POWER PLUS 6B50™*	180.4	24.1	88	57.3	32
POWER PLUS X6F72™*	179.9	27.5	96	56.2	28
HOB LIT 5566 GT3	178.6	25.1	100	52.7	28
POWER PLUS 4V43 S™*	178.6	25.1	96	55.5	36
POWER PLUS 4C58 Q™*	177.7	24.6	100	54.9	29
BURRUS 750	177.6	26.9	100	57.8	31
HUGHES 5456 GT3	167.0	21.4	100	54.2	32
POWER PLUS 3C98 R™*	165.7	19.2	96	58.5	30
POWER PLUS 4M31 AMRW™*	164.5	26.1	96	56.6	31
HUGHES 4125 GT3	163.8	19.7	80	54.5	32
Average	189.6	25.4	95	56.1	31

Gerald Roegge  
Jacksonville, IL

Planted: May 3 in 30" rows. Harvested: September 16. Previous Crop: Soybeans. Fertilizer: N: 232, P: 69, K: 120. Herbicide: Bicep II Magnum, Callisto, AAtrex. Weather: May-normal, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 101413	215.3	19.3	94	58.5	37
BURRUS 680038	212.5	18.7	100	58.0	37
BURRUS 4J63 T	210.6	17.9	99	57.5	38
POWER PLUS 4V43 S™*	209.2	19.8	99	57.6	39
POWER PLUS X6F73™*	209.1	19.1	100	58.4	38
BURRUS 803599	206.7	21.8	85	57.2	38
BURRUS 484759	204.1	19.4	93	57.6	39
POWER PLUS 7D51 Q™*	203.8	24.0	100	60.3	38
POWER PLUS 7A18 AM1™*	203.8	22.5	90	58.1	38
POWER PLUS 4A30 AM1™*	202.4	18.0	98	59.1	39
POWER PLUS 4B32 AMX™*	202.1	18.0	99	59.2	33
BURRUS 990102	200.5	25.1	88	59.0	39
BURRUS 100363	200.3	16.4	99	59.7	40
BURRUS 471516	199.7	21.7	99	57.7	33
BURRUS 943018	199.2	20.1	96	56.6	35
POWER PLUS 6B52 S™*	199.1	19.0	98	57.5	38
BURRUS 778098	197.8	19.6	100	58.0	38
BURRUS 974498	197.4	18.0	99	59.7	39
BURRUS 359718	197.4	21.7	87	56.3	35
POWER PLUS 6A12 AM1™*	197.3	20.4	94	57.8	38
BURRUS 781296	196.6	15.6	98	58.3	39
POWER PLUS X6J36™*	196.6	17.9	99	57.3	39
BURRUS 483952	196.5	19.0	86	57.8	39
POWER PLUS 5N48™*	196.3	16.4	97	59.0	39
BURRUS 388920	196.0	17.2	82	58.0	38
POWER PLUS 5R68 Q™*	193.0	17.2	98	58.2	37
BURRUS 955898	190.0	24.2	99	57.5	38
POWER PLUS X6F72™*	188.0	20.4	94	59.0	38
BURRUS 341332	187.9	21.9	99	59.0	34
BURRUS 833162	185.4	19.2	99	58.3	37
HUGHES 5456 GT3	180.5	15.7	99	58.4	35
POWER PLUS 3C98 R™*	174.4	17.2	97	58.7	36
POWER PLUS 5A45 AM1™*	173.9	21.0	99	60.4	38
HOB LIT 5566 GT3	171.1	19.2	98	56.1	38
BURRUS 431445	170.2	17.6	98	60.2	36
BURRUS 498109	165.7	14.4	92	57.6	39
BURRUS 260667	163.2	18.3	96	56.8	37
BURRUS 355951	162.1	18.1	97	56.1	37
Average	193.6	19.2	96	58.2	37

MOULTRIE

Roger Roney  
Lovington, IL

Previous Crop: Soybeans. ✓Check Hybrid: Kruger K-6010VT3.

Brand-Variety	Bu. Per Acre	Rank	% Moisture
Kruger K4R-9203	196.0	8	20.9
Kruger K4R-9710	205.0	4	21.2
✓Check	188.0		21.1
Kruger K-7211	216.0	1	17.5
Kruger K-7611	209.0	2	19.4
Kruger K-7312	200.0	6	19.1
✓Check	212.0		20.2
Pioneer P1184	185.0	12	19.9
Dekalb 83-84	198.0	7	18.3
POWER PLUS 4A30 AM1™*	185.0	13	18.9
✓Check	198.0		20.2
Kruger K-6216VT3	205.0	5	20.8
Kruger K-7713	186.0	10	20.5
Kruger K4R-9513	186.0	11	22.5
✓Check	197.0		19.7
Kruger K-7614	209.0	3	22.6
BURRUS X6J36	195.0	9	18.7
POWER PLUS 5A45 AM1™*	183.0	14	21.5
✓Check	202.0		20.8
Average	197.6		20.2
Check Average	199.4		20.4



Allen Sprague saw seven products from the Burrus family roll out above 200 bu/a in DeWitt Co.



Dave Baker saw Power Plus® products with Optimum® AcreMax1® excel in Ogle Co.



Don Rhoads showed the Burrus and Hughes dealers the product line up at Atlanta, IL. Our "stress soil" focus has identified products that work across an array of soils.



Lenabelle & Ronnie Burrus of Morgan Co. enjoy the benefits of their Burrus Seed Corn Specialist dealership.





## PEORIA

### Burrus X6J36 is fourth

Jim and Jeff Smith  
Princeville, IL

**Planted:** May 7 in 30'' rows. **Planting Population:** 32,800. **Harvested:** October 4. **Previous Crop:** Soybeans. **Fertilizer:** N: 170, P: 120, K: 120. **Herbicide:** Roundup. **Corn Borer Rating:** Light. **Soil Type:** Light loam. **Weather:** May-wet, June-dry, July-dry, August-dry. **✓Check Hybrid:** AgriGold A6533

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	168.1		23.0
AgriGold A6389VT3	176.3	22	18.6
FS 58MV4	179.6	21	21.3
Dekalb 58-83	148.2	27	19.8
Munson 7081VT3P	189.7	13	21.5
Munson 7043	145.3	28	21.6
AgriGold A6458VT3	189.5	15	20.5
<b>POWER PLUS 5A45 AM1™*</b>	<b>159.7</b>	<b>26</b>	<b>20.9</b>
FS 60TV4	191.7	9	19.1
✓Check	216.3		22.5
AgriGold A6476	189.8	11	19.3
FS 61BX1	206.6	2	20.0
FS 62MV4	200.0	5	20.6
Dekalb 62-97	199.8	6	22.9
Dekalb 62-54	195.8	8	22.4
Munson 7251VT3P	204.1	3	19.3
Munson 7298-3000GT	189.5	14	22.3
<b>BURRUS X6J36</b>	<b>201.8</b>	<b>4</b>	<b>19.1</b>
<b>POWER PLUS 6B51 R™*</b>	<b>198.6</b>	<b>7</b>	<b>19.8</b>
✓Check	197.8		22.3
Dekalb 63-84	210.5	1	21.5
Munson 7322	189.3	17	21.3
AgriGold A6533	189.4	16	21.2
AgriGold A6553	182.6	20	22.4
<b>POWER PLUS 7A18 AM1™*</b>	<b>186.3</b>	<b>19</b>	<b>23.5</b>
NK N74R3000GT	190.0	10	23.9
NK N72R	188.1	18	23.7
Munson 7423VT3P	163.4	25	24.6
AgriGold A6573	189.7	12	24.2
✓Check	193.9		22.7
<b>POWER PLUS 7D51 Q™*</b>	<b>144.9</b>	<b>29</b>	<b>24.9</b>
FS 64JV3	170.6	23	24.4
Munson 7584VT3	166.9	24	24.1
✓Check	185.4		22.3
Average	185.3		21.8
Check Average	192.3		22.6

## PIKE

Oscar Turnbull  
Griggsville, IL

**Planted:** April 8 in 30'' rows. **Planting Population:** 29,500. **Harvested:** September 24. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 150, K: 150. **Herbicide:** Durango & Guardsman Max. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
<b>POWER PLUS 7D51 Q™*</b>	<b>218.0</b>	<b>19.8</b>	<b>100</b>	<b>60.3</b>	<b>31</b>
<b>POWER PLUS 6B52 S™*</b>	<b>205.1</b>	<b>18.5</b>	<b>98</b>	<b>60.5</b>	<b>30</b>
Horizon 72A06Q	191.1	18.9	100	56.8	30
Horizon 74A88Q	177.8	19.0	100	60.3	29
Average	198	19	100	59.4	30



## QR codes How they can benefit you

By Tim Greene

QR codes are the black and white "puzzle like" squares you are starting to see in many forms of advertising. QR stands for quick response. These small black and white squares are used to take a piece of information from a transitory media and put it into your smartphone.

We have begun to use QR codes to share information with our customers and we are working on details to expand our offerings. You will notice the QR codes on our ads. When we needed to release the ad copy, the single bag refuge products Optimum® AcreMax® and Optimum® AcreMax® Xtra were not deregulated by the E.P.A. The QR code allowed us to change the content on the website on the day the new technology was released.

The QR codes originated in Japan and are largely attributed to the Toyota Motor Company where they were used in the

vehicle manufacturing process. QR codes are more beneficial than standard bar codes because they can store much more data and information. The other useful benefit is that QR codes do not require specific scanners because many of today's cell phones can scan them. Some smartphones come with scanner capability as part of the phone. Other phones allow for an easy download of a scanning app like Optiscan.

For 2012 planting, we plan to use QR codes on all of our E-Z Load corn boxes. These will provide a useful tool for the grower during the busy time of planting season. Each code will be designed with all the pertinent details a grower will need to know about that particular hybrid. Yes, it is amazing that it can all be done with a simple point and click of one's smartphone. We will continue to evaluate all the possibilities of utilizing QR codes to help our growers be more efficient in the future.

Carl Smith  
Nebo, IL

**Planted:** May 10 in 30'' rows. **Planting Population:** 31,000. **Harvested:** October 20. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 100, K: 250. **Herbicide:** Bicep II Magnum. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
<b>BURRUS 359718</b>	<b>216.3</b>	<b>13.9</b>	<b>97</b>	<b>58.8</b>	<b>29</b>
<b>BURRUS 798157</b>	<b>215.4</b>	<b>14.5</b>	<b>100</b>	<b>62.8</b>	<b>29</b>
<b>BURRUS 803599</b>	<b>210.7</b>	<b>14.2</b>	<b>97</b>	<b>62.5</b>	<b>33</b>
<b>POWER PLUS 7A18 AM1™*</b>	<b>203.4</b>	<b>15.0</b>	<b>100</b>	<b>61.4</b>	<b>30</b>
<b>BURRUS 101413</b>	<b>201.5</b>	<b>13.8</b>	<b>100</b>	<b>59.7</b>	<b>29</b>
<b>BURRUS 710321</b>	<b>198.5</b>	<b>14.5</b>	<b>97</b>	<b>59.6</b>	<b>36</b>
<b>BURRUS 833714</b>	<b>196.5</b>	<b>14.5</b>	<b>100</b>	<b>60.4</b>	<b>32</b>
<b>BURRUS 100363</b>	<b>195.8</b>	<b>13.3</b>	<b>93</b>	<b>59.9</b>	<b>29</b>
<b>POWER PLUS 7P44™*</b>	<b>194.2</b>	<b>15.2</b>	<b>100</b>	<b>57.3</b>	<b>29</b>
<b>BURRUS 422145</b>	<b>194.0</b>	<b>13.5</b>	<b>97</b>	<b>58.5</b>	<b>29</b>
<b>POWER PLUS 5A45 AM1™*</b>	<b>192.6</b>	<b>13.8</b>	<b>100</b>	<b>61.8</b>	<b>28</b>
<b>BURRUS 585774</b>	<b>192.6</b>	<b>13.8</b>	<b>97</b>	<b>59.1</b>	<b>30</b>
<b>BURRUS 413622</b>	<b>191.9</b>	<b>13.5</b>	<b>94</b>	<b>60.7</b>	<b>30</b>
<b>BURRUS 483952</b>	<b>186.3</b>	<b>14.2</b>	<b>96</b>	<b>60.5</b>	<b>32</b>
<b>BURRUS 680038</b>	<b>185.6</b>	<b>14.2</b>	<b>100</b>	<b>62.1</b>	<b>33</b>
<b>BURRUS 227562</b>	<b>184.3</b>	<b>13.2</b>	<b>92</b>	<b>57.5</b>	<b>25</b>
<b>BURRUS 829583</b>	<b>183.3</b>	<b>14.3</b>	<b>94</b>	<b>60.1</b>	<b>30</b>
<b>POWER PLUS 4V43 S™*</b>	<b>182.8</b>	<b>13.6</b>	<b>100</b>	<b>61.0</b>	<b>36</b>
<b>BURRUS 833162</b>	<b>180.7</b>	<b>13.3</b>	<b>100</b>	<b>58.8</b>	<b>28</b>
<b>POWER PLUS 4A30 AM1™*</b>	<b>180.6</b>	<b>14.0</b>	<b>100</b>	<b>59.9</b>	<b>31</b>
<b>BURRUS 629459</b>	<b>180.2</b>	<b>14.5</b>	<b>100</b>	<b>61.2</b>	<b>29</b>
<b>BURRUS 943018</b>	<b>179.9</b>	<b>15.6</b>	<b>100</b>	<b>61.9</b>	<b>30</b>
<b>BURRUS 986709</b>	<b>178.9</b>	<b>14.8</b>	<b>100</b>	<b>58.5</b>	<b>28</b>
<b>BURRUS 873843</b>	<b>178.6</b>	<b>15.9</b>	<b>93</b>	<b>58.4</b>	<b>28</b>
<b>BURRUS 355951</b>	<b>178.5</b>	<b>15.0</b>	<b>100</b>	<b>58.4</b>	<b>29</b>
<b>POWER PLUS 7D51 Q™*</b>	<b>178.1</b>	<b>14.2</b>	<b>97</b>	<b>60.6</b>	<b>31</b>
<b>BURRUS 484759</b>	<b>177.9</b>	<b>14.3</b>	<b>100</b>	<b>59.8</b>	<b>33</b>

<b>BURRUS 778098</b>	<b>177.4</b>	<b>14.2</b>	<b>73</b>	<b>60.1</b>	<b>29</b>
<b>BURRUS 312320</b>	<b>176.7</b>	<b>15.2</b>	<b>97</b>	<b>59.3</b>	<b>31</b>
<b>BURRUS 494048</b>	<b>176.5</b>	<b>13.3</b>	<b>94</b>	<b>60.1</b>	<b>30</b>
<b>HOBILIT 5566 GT3</b>	<b>175.6</b>	<b>15.1</b>	<b>100</b>	<b>58.7</b>	<b>31</b>
<b>POWER PLUS 6A12 AM1™*</b>	<b>174.5</b>	<b>15.3</b>	<b>92</b>	<b>60.9</b>	<b>25</b>
<b>BURRUS 431445</b>	<b>173.8</b>	<b>13.3</b>	<b>96</b>	<b>62.3</b>	<b>28</b>
<b>BURRUS 4J63 T</b>	<b>172.5</b>	<b>13.6</b>	<b>97</b>	<b>58.4</b>	<b>31</b>
<b>POWER PLUS 6B52 S™*</b>	<b>170.3</b>	<b>13.7</b>	<b>97</b>	<b>62.3</b>	<b>32</b>
<b>BURRUS 498109</b>	<b>170.3</b>	<b>13.7</b>	<b>100</b>	<b>57.2</b>	<b>34</b>
<b>BURRUS 471516</b>	<b>170.0</b>	<b>14.2</b>	<b>97</b>	<b>61.8</b>	<b>32</b>
<b>POWER PLUS 7D51 Q™*</b>	<b>169.9</b>	<b>13.9</b>	<b>94</b>	<b>62.3</b>	<b>32</b>
<b>BURRUS 341332</b>	<b>165.7</b>	<b>16.0</b>	<b>100</b>	<b>59.6</b>	<b>30</b>
<b>POWER PLUS X6F72™*</b>	<b>165.5</b>	<b>14.4</b>	<b>97</b>	<b>61.9</b>	<b>29</b>
<b>POWER PLUS X6F73™*</b>	<b>163.3</b>	<b>14.1</b>	<b>100</b>	<b>61.9</b>	<b>27</b>
<b>BURRUS X6J36</b>	<b>162.7</b>	<b>13.7</b>	<b>97</b>	<b>61.7</b>	<b>30</b>
<b>BURRUS 260667</b>	<b>162.3</b>	<b>15.0</b>	<b>100</b>	<b>56.3</b>	<b>30</b>
<b>BURRUS 990102</b>	<b>159.5</b>	<b>16.1</b>	<b>97</b>	<b>62.7</b>	<b>31</b>
<b>POWER PLUS 5N48™*</b>	<b>149.2</b>	<b>13.6</b>	<b>94</b>	<b>59.8</b>	<b>31</b>
<b>POWER PLUS 4B32™*</b>	<b>146.8</b>	<b>13.4</b>	<b>100</b>	<b>58.7</b>	<b>30</b>
<b>BURRUS 512852</b>	<b>129.0</b>	<b>13.4</b>	<b>100</b>	<b>58.3</b>	<b>30</b>
<b>BURRUS 388920</b>	<b>117.9</b>	<b>13.0</b>	<b>33</b>	<b>60.9</b>	<b>34</b>
Average	178.5	14.2	96	60.1	30

Oscar Turnbull  
Griggsville, IL

**Planted:** April 10 in 30'' rows. **Planting Population:** 29,500. **Harvested:** September 24. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 150, K: 150. **Herbicide:** Durango & Guardsman Max. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
<b>POWER PLUS 6B52 S™*</b>	<b>191.9</b>	<b>17.0</b>	<b>60.6</b>
<b>POWER PLUS 7D51 Q™*</b>	<b>184.5</b>	<b>17.9</b>	<b>61.5</b>
Horizon 72A06Q	164.8	17.2	56.8
Horizon 74A88Q	160.0	17.5	61.6
Average	175.3	17.4	60.1



Power Plus® products handled Horizon in Pike Co. for Oscar & Jeremiah Turnbull.



Power Plus® 7P44AM™\* rolled out 240 bu/a in Stark Co. for Pete Gill, Burrus RSM Dick Burns & Brian Copple.



Cody Hadden of Morgan Co. had fun showing his Burrus York barrow at the Illinois State Fair.



Craig & Lori Kilby saw the Tazewell Co. Preview plot average 207 bu/a.



Brandon, Dennis & Raymond Graves along with John Snider & Blake Graves of Lakeview Farms in Richland Co. enjoy working with the Burrus team.





Burrus does business by the Golden Rule.



Burrus® X6J36 was one of the driest hybrids at 17.1% moisture in Tazewell Co. for Kurt & Jacob Walker.

PIKE

**Farmers State Bank  
Pittsfield, IL**

**Previous Crop:** Corn. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry. **✓Check Hybrid:** Pioneer P1395XR

Brand-Variety	Bu. Per Acre	Rank	% Moisture
LG 2549VT3	150.5	57	12.9
✓Check	134.6		13.2
LG 2549VT3	142.3	66	12.5
LG 2602VT3	144.9	63	13.1
LG 2620VT3	150.8	56	13.4
LG 2636VT3	136.1	70	13.4
Stone 5913VT3	153.3	54	12.9
Stone 6128GenSS	146.6	62	12.7
Stone 6234VT3Pro	165.2	38	13.8
Stone 6404VT3Pro	158.3	43	14.4
Garst 84U58 AG3111	147.8	60	13.0
Garst 84T28 GT	137.2	69	13.8
Garst 83F08 3000GT	152.6	55	14.1
Garst 83Z99 CB/LL/RR127.0	73	14.5	
Channel 209-85VT3Pro135.6	71	13.8	
Channel 217-17VT3Pro140.8	67	12.7	
Channel 214-14VT3Pro153.5	53	13.6	
Channel 216-96VT3Pro156.2	48	13.8	
✓Check	158.0	14.1	
NK N63R-3000GT	133.9	72	13.5
NK N68B-3000GT	155.0	50	13.4
NK N74R-3000GT	154.7	51	13.6
NK N72Q-AG3111	149.6	58	14.7
POWER PLUS 6A12 AM1™*	166.4	35	14.2
POWER PLUS 4A30 AM1™*	156.7	47	13.6
POWER PLUS 7A18 AM1™*	161.7	40	14.8
POWER PLUS 7D51 Q™*	157.8	45	14.2
Dekalb 61-69	157.4	46	12.8
Dekalb 62-54	154.2	52	12.9
Dekalb 63-84	170.4	32	12.2
Dekalb 64-69GenSS	163.9	39	13.7
FS S8MV4VT3Pro	140.0	68	12.5
FS 61BX1GenSS	161.2	41	13.3
FS 6ZMV4VT3Pro	149.0	59	13.1
FS 64JV3VT3	147.3	61	13.3
✓Check	161.3	12.6	
Mycogen SS2P768	156.0	49	13.5
Mycogen 2H736	142.3	65	13.2
Mycogen 2H756	143.0	64	14.0
Mycogen 2A787	158.3	44	14.4
Pioneer P1018AM1	179.8	20	13.7
Pioneer P1184AM1	188.6	10	12.9
✓Check	194.4	14.0	
Pioneer P1567XR	174.2	27	14.7
NuTech 5H-513	177.9	24	14.8
NuTech 5H-515	159.0	42	12.9
NuTech SX-716	182.1	19	15.3
Croplan 6125	166.0	37	14.1
Croplan 6631	168.5	33	13.4
Croplan 6286	165.8	37	12.6
Croplan 7505	168.0	34	14.3

✓Check	187.7	13	13.7
AgVenture RL7966 HBW	173.5	30	13.3
AgVenture RL8233 HB	174.0	29	13.6
AgVenture RL8428 HB	187.7	12	13.8
AgVenture RL8950 AM1	178.2	23	14.6
Golden Harvest H-8672 3000GT	172.3	31	13.8
Golden Harvest H-8940 3000GT	174.1	28	13.2
Golden Harvest H-9173 AG3111	174.7	26	14.9
Golden Harvest H-9138 3000GT	166.4	36	14.5
Lewis 1009SS	179.0	21	13.2
Lewis 910VT3	183.4	17	12.9
Lewis 1211VT3Pro	195.0	5	12.9
Lewis 1215VT3Pro	208.7	2	14.0
DynaGro DS1 VP40	190.1	8	13.2
DynaGro D52Q90	188.0	11	13.4
DynaGro D52VP20	211.6	1	13.3
DynaGro 57U38	193.1	6	12.9
✓Check	199.1		13.7
Great Heart HT-120VT3Pro	200.5	3	14.0
Great Heart HT-171 3000GT	183.8	16	13.9
Great Heart HT-237VT3	199.8	4	14.3
Great Heart HT-212-VT3Pro	189.5	9	13.8
LG 2549VT3	190.6	7	14.1
Pioneer P1184AM1	182.2	18	13.2
LG 2602VT3	185.2	15	14.5
✓Check	182.1		13.6
LG 2620VT3	186.1	14	14.2
LG 2626VT3	175.9	25	14.8
LG 2549VT3	178.4	22	13.4
Average	166.8		13.6
Check Average	173.9		13.6

David Barton  
Nebo, IL

**Planted:** April 18 in 36" rows. **Planting Population:** 28,500. **Harvested:** September 19. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 100, K: 100. **Herbicide:** Bicep II Magnum, Touchdown. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6B51 R™*	199.3	19.5	59.4	28
POWER PLUS 6B52 S™*	184.7	18.8	58.7	28
POWER PLUS 6B52 S™*	184.5	20.0	58.5	28
Dekalb 63-42	180.6	19.1	58.8	28
Average	187.3	19.4	58.9	28



We've been giving mulligans for 76 years.

100% free replant — corn and PowerShield™ treated soybeans.



Winter crop plan

The goal for our winter crop is to fulfill our mission statement to provide quality seed, consistent performance, and exceptional value, ensuring the ongoing success of our customers.

The foundation for this plan was started by building relationships. Kevin and Todd Burrus went to South America following the death of Martin Burrus to better understand winter seed production and to build relationships that would lead to success when winter production would be needed.

Accurately evaluating the crop potential in early August was the next step. This allowed for an early commitment and the process of shipping the foundation seed to plant the acres in a timely manner. We strategically chose products we believed would meet customers' needs and increase their return on investment. Efficient management means fewer products and not waiting for 2011 performance to finalize the decision.

We chose to grow some acres in Argentina and Chile. Argentina is somewhat warmer which speeds up the growing process. Chile is a cooler environment with less risk because 100% of our acres are growing under irrigation. 20% of the products are partially being grown in South America. Plans are being made to visit the production sites during the growing season.

Shipping the seed back to the U.S. is as important as getting it grown. We are connected in multiple ways to insure timely arrival whether by ocean or air freight.

We plan to finish bagging our summer supply early. Upon completion of bagging we plan to begin delivery to customers in early January. We will ask for dealer and customer cooperation during this time considering that this will be 1 month earlier than normal.

In late March, the Burrus delivery staff will return to the conditioning facility to begin sizing, cleaning, treating, and packaging winter grown seed. Part-time delivery staff will begin delivering winter crop seed as it becomes available. We absolutely need to be down to only winter crop delivery during this time period. Customers will need to expect multiple deliveries.

We must all understand that the timeline is vital and important. The plan in place will work if we are patient and realistic in our expectations. A spirit of cooperation will be imperative for success!

All major seed suppliers will be bringing seed back from South America this Spring. The most knowledgeable industry leaders expect 20% of the seed to be delivered during the planting season. Obviously some products will be more dependent upon winter crop. When you order seed that will come from winter production, you have chosen products we believe will increase your yields. Customer satisfaction will be more impacted by product performance in 2012 than whether bags are delivered in February or early April.

Following a mission statement makes difficult decisions easier.

Tom Barger  
Pittsfield, IL

**Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 100, K: 100. **Herbicide:** Bicep II Magnum. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-wet, August-wet.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6B52 S™*	161.1	18.0	98	60.0	29
Pioneer 35P57	159.4	21.7	98	59.7	29
Average	160.2	19.8	98	59.8	29



Nolan & Hayden Mueller, sons of Dennis & Kristen Mueller of Will Co. enjoy being farm boys.





Super high yields from Whiteside Co. for Jeff Merema.



Power Plus® X6F72 made 203 bu/a in Warren Co. for Larry & Lori Carlson.



The Gathmann family celebrated Virgil & Alvena's 50th wedding anniversary on a cruise. Virgil began as a Burrus dealer the year before they married. Congrats!



## New technology service adds more value

For several years Burrus Seed and Hughes Hybrids have offered an added-value program for customers called the Burrus/Hughes Cropping plan. This plan has been a multi-faceted approach to hybrid and soybean selection to place the right products in the right environment for optimum performance. A list of specific questions about soil types, herbicide programs, insect pressure, previous crop as well as management techniques was entered into a spreadsheet and products were prescribed for each particular environment.

More recently, Jerad Ropp has been added to our staff as a Precision Farming Consultant. He is available to customers to advise them about precision farming software and hardware. Whether a customer is at entry level or wants to expand his knowledge base, Jerad can bring that service.

**For 2012 Burrus and Hughes are taking this service to a totally higher level. This new computer-driven Hybrid Placement Program (HPP) will be based on specific hybrid selection and placement utilizing a state-of-the-art data base that will be**

**the most scientific, site-specific program in the industry.** Grower information about field attributes, soil types, yield potential, fertility program, machinery, and management practices will be combined with the Burrus and Hughes knowledge from genetic research, test plots, traits, agronomics and population studies. This new software will analyze this vast amount of information and generate a plan for optimal hybrid placement for each field.

Burrus and Hughes recognize that modern corn producers expect and deserve more than ever before from their seed supplier. These challenges and opportunities can only be achieved through innovative information technology.

This new and exciting Hybrid Placement Program is being finalized and should be available yet this Spring for the 2012 season. If you are interested in utilizing this new value-added technology for your farming operation, contact your Burrus or Hughes sales representative. At Burrus, you get more than just sacks of seed. Think technology, think performance, think value....Think Burrus!

## Power Plus® 7A18 AM1™\* wins!

Larry McNary  
New Canton, IL

**Planted:** May 7 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 16. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 150, K: 150. **Herbicide:** Degree Xtra, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May-dry, June-dry, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt. /Acre	1000 Plants
<b>POWER PLUS 7A18 AM1™*</b>	<b>170.4</b>	<b>20.3</b>	<b>59.1</b>	<b>32</b>
FS 64JV3	164.5	19.1	57.8	32
Dekalb 61-88	163.3	18.4	56.6	32
FS 64JV3	163.1	17.5	58.4	32
<b>POWER PLUS 5A45 AM1™*</b>	<b>162.6</b>	<b>20.2</b>	<b>59.1</b>	<b>32</b>
Dekalb 62-97	162.5	20.1	56.1	32
Steyer 11405	160.7	18.6	56.7	32
<b>POWER PLUS 4A30 AM1™*</b>	<b>160.5</b>	<b>19.2</b>	<b>56.8</b>	<b>32</b>
Dekalb 58-83	160.3	17.2	57.3	32
Steyer 11003	160.0	18.2	56.6	32
FS 62MV4	159.6	18.0	55.5	32
<b>BURRUS 750</b>	<b>159.0</b>	<b>21.8</b>	<b>58.5</b>	<b>32</b>
FS 65BV1	157.7	22.1	55.5	32
Steyer 10901SS	150.8	19.3	56.9	32
FS 58MV4	149.7	17.6	56.4	32
FS 66S41	149.5	21.5	58.4	32
Steyer 11002	148.6	21.9	54.5	32
Average	159.0	19.5	57.1	32

## RICHLAND

Scherer Farms Inc.  
Olney, IL

**Planted:** May 18 in 30" rows. **Harvested:** October 1. **Soil Type:** Silty clay loam.

Brand/Product	Bu. Per Acre	% Moisture
Stine 9806SS	205.1	21.0
Dekalb 63-87	192.4	17.1
<b>POWER PLUS 7D51 Q™*</b>	<b>189.5</b>	<b>20.2</b>
Dekalb 66-96	187.4	19.0
Stine EX114SS	184.5	22.6
Dekalb 63-25	175.3	18.5
NK 78S3111	173.1	21.0
NK 68A3000GT	168.3	17.5
NK 72F3000GT	166.4	20.0
NK 72QGT	166.0	18.6
Mycogen 2T784	164.6	19.2
Mycogen 2V702	162.9	17.7
NK 74R3000GT	162.7	19.0
NK 68B3000GT	161.9	16.9
Stine 9731	157.3	18.0
<b>POWER PLUS 7U17 S™*</b>	<b>156.1</b>	<b>19.0</b>
<b>POWER PLUS 6B52 S™*</b>	<b>156.0</b>	<b>16.9</b>
Mycogen 2T784	155.0	19.1
Mycogen 2D744	154.2	18.3
Mycogen 2V738	154.0	19.2
Mycogen 2V738	150.2	18.1
Stine 9806	149.7	22.3
Mycogen 2D744	149.5	17.6
Dekalb 61-88	149.5	16.3
Mycogen 2K757	146.8	18.7
NK 72Q3111	146.3	19.4
Mycogen 2V715	145.1	17.8
Dekalb 62-58VT2P	143.5	16.8
Mycogen 2V715	143.0	17.6
Dekalb 62-97	143.0	16.1
Dekalb 61-49	118.3	17.3
Average	160.6	18.6

## SANGAMON



Dowson Farms  
Divernon, IL

**Planted:** April 6 in 20" rows. **Planting Population:** 40,000. **Harvested:** August 25. **Previous Crop:** Corn. **Herbicide:** Lexar, Quilt Xcel.

Brand/Product	Bu. Per Acre	% Moisture
Channel 212-08	206.4	19.5
Pioneer P1395AM1	206.3	22.3
Pioneer P1184AM1	204.8	20.7
Pioneer 1018AM1	204.1	23.0
Dekalb 61-88	202.3	18.0
<b>POWER PLUS 6A12 AM1™*</b>	<b>201.9</b>	<b>23.4</b>
<b>POWER PLUS 7A18 AM1™*</b>	<b>201.1</b>	<b>21.1</b>
Croplan 6525	198.7	19.3
Lewis 1112	198.0	19.4
Dekalb 62-97	196.3	17.5
Channel 214-14	196.0	18.8
FS 60TV4	195.4	19.2
Dekalb 58-83	194.8	18.3
Dekalb 62-09	194.2	18.9
FS 65BV3	193.8	21.3
NK 72F	193.6	21.5
Channel 212-75	193.1	19.0
Dekalb 63-84	193.0	17.9
Dekalb 63-84	192.9	18.6
Croplan 6125	192.0	19.0
Wyffels 8681	191.9	21.6
Wyffels 7477	191.6	21.7
Dekalb 67-57	191.6	21.4
Dekalb 63-84	191.5	17.7
Dekalb 59-35	191.2	18.0
Dekalb 63-84	191.0	17.4
Dekalb 63-84	190.0	16.6
Dekalb 61-21	189.6	17.3
Lewis 1009	189.4	21.7
Dekalb 66-96	189.0	23.7
Dekalb 63-84	188.0	18.7
FS 62MV4	187.9	20.4
Pioneer P1162AM1	187.8	20.1
Wyffels 7997	187.3	21.6
Dekalb 63-84	186.6	18.6
Dekalb 63-84	186.5	18.3
Channel 216-96	186.5	20.0
Dekalb 63-84	185.8	17.2
<b>POWER PLUS 7D51 Q™*</b>	<b>185.7</b>	<b>23.8</b>
Dekalb 63-84	185.5	18.9
Channel 216-63	184.7	23.3
Wyffels 6871	183.6	19.4
Lewis 1215	183.6	20.1
NK 74R	182.0	20.6
Agrigold 6458	181.6	19.1
Agrigold 6533	180.4	21.0
FS 64JV3	179.2	19.1
Dekalb 65-63	178.7	19.5
Agrigold 6573	178.0	21.2
Croplan 6286	177.4	19.2
Croplan 6631	177.3	18.7
Agrigold 6553	175.6	18.4
NK 68A	175.2	20.4
Dekalb 64-69	174.6	17.6
FS 66S41	170.9	20.6
Average	189.4	19.8



Larry & Sherrill Tjaden trust the Burrus family of products on their farm in Woodford Co.





With 100% free replant on seed corn, Burrus guarantees a growing start

Information abounds on the Burrus website

Use the Burrus website, [www.burrusseed.com](http://www.burrusseed.com) as a handy tool to find the answers to your corn and soybean questions. All you need to do is run the cursor of your mouse over the topic and click. You will find agronomic and economic information is just a click away.

There are six major categories for your use. Each contains topics relative to its heading. The six categories are:

- 1. **Products** – This section contains information on corn, soybeans, alfalfa, and product availability. You can view our Product Selection Guide, offers, Power Plus® explanation, technology, and research.
- 2. **Careers** – Here you will find information about dealership availability, how to become a Seed Corn Specialist, training, and employment opportunities.
- 3. **Dealers** – The **BOSS 24/7** is available to allow dealers to place orders, check customer payments, shipping, and order status. It's updated twice daily.
- 4. **Company** – The Burrus mission statement is here along with information about the owners, Regional Sales Managers, agronomics, history of the company, and directions to the Arenzville facility.
- 5. **Resources** – This section provides our *Product Selection Guide*, reference materials, frequently asked questions, the Burrus archives and links to helpful sites. In the archives, be sure to watch the video featuring the robotics which is part of the new bagging system.
- 6. **Contact** – This section has contact

information for our office, Burrus Regional Sales Managers, Hughes District Sales Managers, and Hoblit sales associates. You will also find the home phone number for each of the family owners. Few companies print the home phone numbers of the owners, but if the need arises to speak with one of the owners, you know all you need to do is pick up the phone.

In addition, you will find the 2011 plot results for corn and soybeans. These are posted as soon as possible following har-

vest of a plot. Growers are anxious to see results from corn and soybean plots, so [www.burrusseed.com](http://www.burrusseed.com) is the place to look.

Another feature you will want to read is the *Burrus Buzz*. It contains agronomic information, insect updates, and other timely information.

During the growing season, you will want to check the rainfall and soil temps recorded at Arenzville each day.

Bookmark [www.burrusseed.com](http://www.burrusseed.com) as one of your favorites and visit often for the news and events from Burrus.



See our website for up-to-date information.

POWER PLUS 6B51 R™*	175.2	13	23.4	90	32
POWER PLUS 6B52 S™*	176.9	12	23.1	100	34
POWER PLUS 6A12 AM1™*	195.8	5	26.3	100	33
POWER PLUS 6Y10 R™*	200.3	3	23.5	100	33
✓ Check	199.6		23.2	100	33
POWER PLUS X6F72™*	197.7	8	25.4	100	34
BURRUS X6J36	198.7	7	22.6	100	32
POWER PLUS 7D51 Q™*	207.6	2	27.1	100	33
POWER PLUS 7A18 AM1™*	203.0	4	25.9	100	34
Dekalb 63-84	189.8	11	26.8	80	32
F.S. 65BV3	199.0	6	27.0	100	33
✓ Check	201.7		23.9	100	33
Average	192.2		23.8	99	33
Check Average	206.1		23.2	100	33



Planted: April 6 in 20" rows. Planting Population: 40,000. Harvested: August 25. Previous Crop: Corn. Herbicide: Lexar.

Brand/Product	Bu. Per Acre	% Moisture
Croplan 6525	205.7	20.9
POWER PLUS 7A18 AM1™*	205.5	21.2
Pioneer P1018AM1	205.4	21.3
Dekalb 67-57	204.4	22.7
POWER PLUS 6A12 AM1™*	203.3	22.8
Pioneer P1184AM1	201.2	20.5
Dekalb 66-96	200.3	21.2
Dekalb 61-88	200.2	17.1
Channel 216-63	199.4	20.4
Channel 212-08	199.3	18.6
Pioneer P1395AM1	196.3	21.7
POWER PLUS 7D51 Q™*	196.1	21.2
Lewis 1112	195.5	19.2
Dekalb 63-84	195.0	17.7
Dekalb 63-84	195.0	18.0
FS 65BV3	194.9	21.5
Channel 214-14	193.8	18.8
Dekalb 62-09	192.6	20.2
FS 60TV4	192.1	18.3
Dekalb 63-84	191.4	17.4
Channel 216-96	190.5	18.9
Dekalb 61-21	190.3	17.4
Dekalb 62-97	189.6	18.0
Dekalb 63-84	189.3	19.0
Pioneer P1162AM1	188.9	19.1
Wyffels 8681	187.0	21.0
Wyffels 7477	186.6	22.4
Dekalb 63-84	186.0	17.1
Wyffels 7997	185.8	21.1
Dekalb 63-84	185.8	17.2
Dekalb 63-84	183.9	18.5
Lewis 1215	183.2	19.3
Dekalb 63-84	181.8	17.6
Dekalb 63-84	181.7	16.8
Dekalb 59-35	181.6	17.1
Dekalb 65-63	181.4	19.0
FS 64JV3	181.2	17.7
Dekalb 63-84	181.1	18.5
Agrigold 6458	180.6	18.0
NK 72F	180.2	20.9
FS 66S41	179.5	21.9
NK 68A	178.2	19.3
Agrigold 6573	176.9	21.5
Dekalb 64-69	175.0	17.8
Croplan 6286	174.3	17.9
FS 62MV4	172.5	21.3
Agrigold 6553	171.1	18.4
Wyffels 6871	170.8	18.0
Croplan 6125	170.2	15.9
Dekalb 58-83	170.1	15.5
Croplan 6631	169.4	18.3
Dekalb 63-84	169.1	17.0
Channel 212-75	168.5	19.1
Lewis 1009	167.0	18.5
NK 74R	166.3	19.3
Agrigold 6533	156.1	20.4
Average	185.7	19.2



ILLINOIS

SANGAMON

Wayne Heissinger  
Williamsville, IL

Planted: May 7 in 30" rows. Planting Population: 32,000. Harvested: September 24. Previous Crop: Soybeans. Herbicide: Degree Xtra, Roundup.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 7A18 AM1™*	218.6	24.0	56.9
POWER PLUS 6A12 AM1™*	194.5	20.9	58.6
POWER PLUS 7A18 AM1™*	191.8	22.2	58.4
POWER PLUS 4M31 AMRW™*	191.4	19.6	60.4
POWER PLUS 4M31 AMRW™*	181.0	18.4	61.1
POWER PLUS 6A12 AM1™*	170.8	21.1	58.3
Average	191.4	21.0	59.0

COMPARE!  
Kevin Foran  
Williamsville, IL

Planted: May 7 in 30" rows. Planting Population: 33,000. Harvested: September 14. Previous Crop: Soybeans. Fertilizer: N: 180, P: 60, K: 120. Herbicide: Lumax. Weather: May-normal, June-normal, July-dry, August-dry. ✓Check Hybrid: Burrus 4J63 T

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	% Plants
✓ Check	243.7		23.3	100	34
POWER PLUS 2A16 AM1™*	174.8	15	21.4	100	32
POWER PLUS 3C98 R™*	174.0	16	19.0	100	32
POWER PLUS 4A30 AM1™*	161.7	17	22.9	100	33
✓ Check	193.1		22.1	100	33
POWER PLUS 4N49 Q™*	184.7	9	22.5	100	32
POWER PLUS 5R68 Q™*	162.8	14	24.2	100	32
✓ Check	192.3		23.4	100	33
HOBLOT 5557 VT3	207.9	1	23.4	100	34
POWER PLUS 5A45 AM1™*	187.7	10	23.1	100	32





Your opportunity for extra income

## Become a Burrus dealer

Burrus dealerships are available in limited areas of Illinois, Missouri, Wisconsin, Iowa and Indiana for well-respected growers who have a working knowledge of our products and a sincere interest in helping area growers become more successful. Burrus dealers and Seed Corn Specialists represent the Burrus®, Hoblit®, Hughes®, and Power Plus® brands value to local growers by sharing their personal experience and knowledge of our performance and policies. In addition, Burrus dealers are kept abreast of research breakthroughs and the latest information on how to maximize technology opportunities for themselves and their customers.

The Seed Corn Specialist is a designation reserved for those firmly committed Burrus. Ask your Burrus RSM, Hughes DSM or Hoblit Sales Associate about the responsibilities and benefits to becoming a Seed Corn Specialist.

In addition, Dealers have the opportunity to utilize the complete online support

system, **BOSS 24/7**. This system allows for online ordering and dealership management 24 hours a day, seven days a week at [www.burrusseed.com](http://www.burrusseed.com). To order seed online when it's convenient, not just during business hours.

Burrus is positioned as a family owned, growing, regional seed company with a complete line up of seed corn and soybeans. As an American company owned by a third and fourth generation farm family, President Tom Burrus states, "Our farm background and basic business principles make it easy to relate to our customers and farmer dealers."

Dealership availability is limited throughout our marketing area. If you are interested in joining our growing team, feel free to call our office toll-free at 1-877-4 BURRUS or contact one of the Burrus RSMs, Hughes DSMs or Hoblit Sales Associates about dealership availability in your area. A dealership can improve your profitability.



Nick & Cathy Miller enjoy representing Burrus & Hoblit in McLean Co.



Chad & Ryan Esther saw Power Plus® 7A18AM1™ & 7U17S™ excel in Schuyler Co.



Brad & Sierra Veale & Earl Grimes saw an experimental Power Plus® X6F72™ steal the show in Clinton Co., MO.



At 242 bu/a Burrus® X6J36 was the top commercial hybrid for Andy Zehr of Livingston Co.

## SCHUYLER

Jr. Briney and Sons  
Sheldons Grove, IL

**Previous Crop:** Soybeans. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Dekalb 62-09VT3P	246.0	19.7	62.4
Channel 214-14VT3P	230.5	21.0	62.3
Channel 212-75VT3P	226.3	20.9	60.2
Pioneer P1018AM1	220.8	20.0	61.0
Channel 212-17VT3P	217.4	20.0	62.0
Channel 213-32VT3	216.2	21.2	60.3
Dekalb 61-88VT3P	215.8	20.1	61.0
Mycogen 2V715	214.7	20.1	58.0
<b>POWER PLUS 7A18 AM1™*</b>	<b>214.0</b>	<b>23.9</b>	<b>63.9</b>
Pioneer P1567XR	213.7	22.1	63.5
<b>POWER PLUS 5A45 AM1™*</b>	<b>213.6</b>	<b>21.9</b>	<b>64.4</b>
<b>BURRUS X6J36</b>	<b>212.0</b>	<b>19.1</b>	<b>61.7</b>
Pioneer P1395AM1	209.6	21.1	62.3
Pioneer P1162AM1	209.5	21.7	63.4
Channel 216-63VT3	206.4	20.4	62.0
Channel 212-08	204.1	20.2	63.0
<b>POWER PLUS 4A30 AM1™*</b>	<b>203.6</b>	<b>19.9</b>	<b>61.9</b>
<b>POWER PLUS 6A12 AM1™*</b>	<b>203.0</b>	<b>20.9</b>	<b>61.2</b>
Dekalb 59-35VT3	202.4	19.0	61.7
Dekalb 58-83VT3P	201.0	18.2	63.0
Pioneer P1184AM1	200.8	19.4	63.2
Dekalb 63-84VT3	196.4	20.3	61.0
<b>POWER PLUS 4V43 S™*</b>	<b>194.4</b>	<b>19.5</b>	<b>60.9</b>
Dekalb 62-97VT3P	193.1	20.3	61.0
Channel 209-19VT3	190.5	19.3	60.2
Pioneer 35K09AM1	188.6	18.8	63.7
Channel 209-77	188.4	20.6	59.2
<b>POWER PLUS 6B52 S™*</b>	<b>174.7</b>	<b>18.8</b>	<b>62.7</b>
Average	207.4	20.3	61.8

## Power Plus® 6B52 S™\* is best

Ryan Esther  
Rushville, IL

**Previous Crop:** Soybeans. **Fertilizer:** N: 160, P: 150 K: 120. **Herbicide:** Roundup. **Corn Borer Rating:** Moderate. **Soil Type:** Light loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
<b>POWER PLUS 6B52 S™*</b>	<b>176.2</b>	<b>18.4</b>	<b>100</b>	<b>62.6</b>	<b>28</b>
<b>POWER PLUS 7A18 AM1™*</b>	<b>175.1</b>	<b>20.6</b>	<b>100</b>	<b>61.2</b>	<b>28</b>
<b>POWER PLUS 4V43 S™*</b>	<b>174.3</b>	<b>18.1</b>	<b>100</b>	<b>62.6</b>	<b>26</b>
<b>POWER PLUS 7D51 Q™*</b>	<b>169.1</b>	<b>20.0</b>	<b>52</b>	<b>63.0</b>	<b>25</b>
<b>POWER PLUS 4A30 AM1™*</b>	<b>167.2</b>	<b>19.1</b>	<b>100</b>	<b>62.8</b>	<b>27</b>
<b>POWER PLUS X6F72™*</b>	<b>161.0</b>	<b>19.1</b>	<b>100</b>	<b>62.8</b>	<b>24</b>
<b>POWER PLUS 5A45 AM1™*</b>	<b>160.3</b>	<b>19.4</b>	<b>54</b>	<b>64.9</b>	<b>28</b>
<b>BURRUS X6J36</b>	<b>152.1</b>	<b>16.8</b>	<b>64</b>	<b>60.2</b>	<b>24</b>
Average	166.9	18.9	84	62.5	26

Ryan and Chad Esther  
Rushville, IL

**Planted:** April 18 in 30" rows. **Planting Population:** 30,000. **Harvested:** September 26. **Previous Crop:** Soybeans. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	1000 Plants /Acre
<b>POWER PLUS 7A18 AM1™*</b>	<b>157.7</b>	<b>16.3</b>	<b>100</b>	<b>32</b>
<b>POWER PLUS 7U17 S™*</b>	<b>155.5</b>	<b>15.6</b>	<b>100</b>	<b>29</b>
<b>POWER PLUS 5A45 AM1™*</b>	<b>154.7</b>	<b>15.7</b>	<b>100</b>	<b>30</b>
<b>POWER PLUS 4V43 S™*</b>	<b>153.5</b>	<b>15.0</b>	<b>76</b>	<b>32</b>

<b>POWER PLUS 7D51 Q™*</b>	<b>149.8</b>	<b>16.1</b>	<b>100</b>	<b>31</b>
<b>BURRUS X6J36</b>	<b>145.8</b>	<b>14.7</b>	<b>100</b>	<b>32</b>
<b>POWER PLUS 6A12 AM1™*</b>	<b>138.8</b>	<b>16.0</b>	<b>100</b>	<b>31</b>
<b>POWER PLUS 4A30 AM1™*</b>	<b>132.4</b>	<b>15.4</b>	<b>100</b>	<b>28</b>
<b>POWER PLUS 6Y10 R™*</b>	<b>129.1</b>	<b>15.1</b>	<b>100</b>	<b>29</b>
<b>POWER PLUS 6B51 R™*</b>	<b>129.0</b>	<b>14.5</b>	<b>72</b>	<b>30</b>
<b>POWER PLUS X6F72™*</b>	<b>119.1</b>	<b>15.4</b>	<b>100</b>	<b>32</b>
<b>POWER PLUS 6B52 S™*</b>	<b>114.9</b>	<b>15.0</b>	<b>100</b>	<b>30</b>
Average	140	15.4	96	30

## SHELBY

Schultz Farms  
Stewardson, IL

**Planted:** May 13 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 17. **Previous Crop:** Soybeans. **Herbicide:** Roundup. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry. **✓Check Hybrid:** Burrus 571 R

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
<b>✓Check</b>	182.1	15.4	90	30	
<b>POWER PLUS 5A45 AM1™*</b>	<b>138.1</b>	<b>10</b>	<b>15.4</b>	<b>95</b>	<b>30</b>
<b>POWER PLUS 7D51 Q™*</b>	<b>174.6</b>	<b>7</b>	<b>16.9</b>	<b>100</b>	<b>30</b>
<b>POWER PLUS X6F72™*</b>	<b>185.1</b>	<b>4</b>	<b>16.8</b>	<b>100</b>	<b>32</b>
<b>POWER PLUS 6B52 S™*</b>	<b>165.3</b>	<b>8</b>	<b>16.1</b>	<b>85</b>	<b>30</b>
<b>✓Check</b>	172.2	16.2	95	30	
<b>POWER PLUS 6A12 AM1™*</b>	<b>199.6</b>	<b>3</b>	<b>17.5</b>	<b>95</b>	<b>32</b>
<b>POWER PLUS 7A18 AM1™*</b>	<b>206.0</b>	<b>2</b>	<b>18.8</b>	<b>95</b>	<b>32</b>
<b>POWER PLUS 4A30 AM1™*</b>	<b>170.2</b>	<b>9</b>	<b>16.4</b>	<b>100</b>	<b>31</b>
<b>POWER PLUS 4V43 S™*</b>	<b>196.2</b>	<b>5</b>	<b>16.9</b>	<b>100</b>	<b>30</b>
<b>✓Check</b>	209.0	16.3	95	31	
<b>POWER PLUS X6F72™*</b>	<b>218.7</b>	<b>1</b>	<b>18.0</b>	<b>100</b>	<b>32</b>
<b>POWER PLUS 4K74 S™*</b>	<b>205.7</b>	<b>6</b>	<b>17.0</b>	<b>90</b>	<b>30</b>
<b>✓Check</b>	197.2	16.0	90	32	
Average	187.1	16.7	95	31	
Check Average	190.2	16	93	30	

## Power Plus® 5A45™\* is second!

Shelby County Extension  
Shelbyville, IL

**Planted:** May 11 in 30" rows. **Harvested:** September 13. **✓Check Hybrid:** Dynagro 57V21

Brand-Variety	Bu. Per Acre	Rank	% Moisture
<b>✓Check</b>	180.0		24.8
Steyer 11204VT3	172.2	4	22.1
Steyer 11501VT3	181.0	10	22.0
<b>✓Check</b>	181.6		23.9
Lewis 110VT2P	185.7	16	20.8
Lewis 1215VT3P	189.9	20	20.9
<b>✓Check</b>	188.4		24.0
LG 2636VT3	183.0	14	23.0
LG 2620VT3	200.6	21	22.2
<b>✓Check</b>	200.0		24.0
<b>POWER PLUS 7A18™*</b>	<b>183.5</b>	<b>15</b>	<b>24.0</b>
Merschmann M1015B-15	177.0	8	22.6
<b>✓Check</b>	190.3		24.2
Stine 1109D	161.9	1	22.1
<b>POWER PLUS 5A45™*</b>	<b>167.4</b>	<b>2</b>	<b>22.7</b>
<b>✓Check</b>	182.4		23.7
Dynagro D51VP40	181.5	11	20.2
Dynagro D51VP20	175.9	6	21.1
<b>✓Check</b>	176.2		23.5
Moews 3776VT3	186.7	17	20.0
Moews 3618VT3	181.8	12	19.4
<b>✓Check</b>	179.2		23.2
AgriGold 6533VT3	174.7	5	22.9
AgriGold 6573VT3	190.5	21	22.7
<b>✓Check</b>	189.2		23.6
Purple Ribbon 631VT3	182.1	13	24.1
Purple Ribbon 634VT3	168.7	3	22.5
<b>✓Check</b>	171.5		22.9
Hubner H6762GEN33	179.6	9	23.1
Hubner H5709VT3P	201.4	24	21.0
<b>✓Check</b>	205.8		24.0
Dekalb 62-97	195.3	22	21.2
Dekalb 63-84VT3	187.3	18	20.0
<b>✓Check</b>	191.4		23.0
Wyffels W7147	176.9	7	20.9
Wyffels W6871	187.4	19	19.8
<b>✓Check</b>	168.2		23.7
Average	183.1		22.4
Check Average	184.9		23.7

Alfalfa

High Performance Forage Solutions

Every acre counts in today's high-intensity farming operations. Make the most profit by choosing the best alfalfa for your needs. We offer high-quality alfalfa to fit your unique requirements.

Hughes® 372HY

Hughes 372HY is the next generation of hybrid alfalfas using the Sunstra Hybrid Alfalfa Technology. It is characterized by its aggressive, high forage yielding, high quality features. 372HY expresses fast regrowth of dense, distintively fine-stemmed forage. This fine stem characteristic makes a dense attractive alfalfa bale. As your stand of 372HY gets older, the forage yield and persistence advantages become more pronounced.

Hughes® 200FY

Hughes 200FY alfalfa is a high forage yielding, persistent alfalfa with excellent forage quality potential. It expresses quick regrowth after cutting to maximize the growing season. Hughes 200FY 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. Hughes 200FY is an alfalfa variety for the dairy or beef producer that demands high tonnages of dairy quality forage.

Hughes® H100

Hughes H100 alfalfa is a blend of high quality alfalfa seed. Hughes 100 has excellent persistence, with an exceptional forage yield potential. Hughes 100 is a good valued alfalfa that will give three to four years of production.

Agronomic Characteristics	372HY	200FY	H100
Bacterial Wilt	HR	HR	HR
Fusarium Wilt	HR	HR	HR
Phytophthora Root Rot	HR	HR	R
Anthracnose (Race 1)	HR	HR	MR
Verticillium Wilt	HR	HR	MR
Aphanomyces Root Rot (Race 1)	R	HR	MR
Pea Aphid		R	
Stem Nematode	HR	R	
Northern Root-knot Nematode	HR	R	
Winter Survival	1.8	2.1	
Fall Dormancy	4.0	4.0	
DRI	29	30	20
Root Type	TAP	TAP	TAP
Cutting Recovery	9.2*	9.0*	9.0*
Yield Level	9.5*	9.4*	8.5*
Forage Quality	9.2*	9.0*	8.5*
Wheel Traffic	8.9*	8.5*	
* 10 Equals the highest or best, 1 equals the poorest			
HR= High resistance    MR= Medium resistance    R=Resistant			



Expect a growing start with Burrus. Our PowerShield™\* seed treatment promotes emergence under cold, damp conditions, protects from disease and insects, and ultimately adds yield.



Jim & Lois Latimer are proud Burrus/Hughes dealers in Dekalb Co.



Bruce & Renee Wiederholt of Nodaway Co., MO like the relationship of working with an independent, family-owned company.



Burrus 7D51 Q™\* stood tall in Tazewell Co. for Kent Kleinschmidt.

The Hughes® 372HY and 200FY alfalfa varieties will work very well in all of the Burrus®, Hoblit®, and Hughes® trade area. They have heat and drought tolerance to perform well as they move south. They also have the persistence to tolerate winters where snow cover may be limited.

Which Burrus Hybrids are right for your farm?

General Characteristics														
	1285GCL	2240GT3	2795GT3 2450GT 2691	1H37 Q™*	3309GT3 3310GT	2A16AM1™* 2M17AMRW™*	4431GTV	4125GT3 3928GT 4373	4592VT3	3C98 R™*	5124GT 5456GT3	5874 4K74 S™*	4A30AM1™* 4M31AMRW™* 4B32AMX™*	4V43 S™*
Relative days to maturity	94	98	100/98	102	103/102	104	104	105/104/105	105	107	107	107	108	108
Plant height	7	7	7	7	7	6	8	6		4	8	6	7	5
Ear height	7	7	8	7	7	7	7	9	8	5	9	8	8	7
Ear type	Fixed	Inter	Inter	Inter	Fixed	Inter	Fixed	Inter	Semi	Inter	Flex	Inter	Inter	Inter
Drought tolerance	7	8	8	8	8	8	8	8	8	8	8	9	8	8
Green snap tolerance	8	8	8	6	8	4	4	8	7	5	8	7	6	5
Planting Information														
Adapt to no-till	8	8	9	9	9	10	9	9	9	10	9	10	10	10
Speed of emergence (1)	7	8	9	8	9	7	8	9	7	8	9	8	8	8
High organic soils	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Timber soils	8	7	10	8	10	8	8	9	10	9	9	10	9	9
Clay & varied soils	8	7	9	9	9	9	8	9	9	9	9	10	9	9
Wet soils	7	7	9	8	9	7	7	8	8	7	8	7	8	8
Sand (dryland)	7	6	8	8	8	8	7	8	8	8	8	9	8	8
Sand (irrigated)	9	9	9	10	9	9	7	9	9	9	9	8	9	9
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/Ignite resistance BW is YieldGard Corn Borer in a waxy hybrid														
BL is Agrisure CB/LL & Liberty/Ignite resistance VT3 is YieldGard Corn Borer, Rootworm and Roundup Q is Herculex XTRA and Roundup GT3 Q is Agrisure CB/LL, RW and GA21 Glyphosate tolerance														





At Burrus we are still old fashioned, preferring to walk the plots to evaluate products that yield, stand up and defend themselves from diseases and stress. Our customers expect performance under a variety of conditions from our hybrids.



Christine, Nathan & Alan Ottens were pleased with good overall corn yields in Whiteside Co.



Brian & Kyra Willenborg of Fayette Co. appreciate the 100% Free Replant that Burrus has offered since 1935.



Ron & Jenni Kuhlmann saw Power Plus® 7D51 Q™\* roll out 232 bu/a to win in Cass Co.

Recommended Planting Rates for Hybrid Seed Corn						
	A	B				C
High Organic Soils	34-38,000	31-35,000				28-32,000
Timber Soils	31-35,000	27-31,000				26-30,000
Clay and Varied Soils	31-35,000	27-31,000				26-30,000
Sand (Dryland)	26-30,000	23-27,000				21-25,000
Sand (Irrigated)	34-38,000	31-35,000				28-32,000
Brand Products	1285GCL 3309GT3 3310GT 6435GT3 4A30 AM1™* 4M31AMRW™* 4B32AMX™*	2240GT3 2795GT3 2450GT 2691 4431GTV 4125GT3 3928GT 4373 1H37 Q™* 2A16AM1™* 2M17AMRW™*	3C98 R™* 5874 4V43 S™* 5N48™* 5557VT3 5566GT3 7383GT3 591L 5R68 Q™* 6Y10 R™* 6A12AM1™*	6K24 Q™* 6A25AM1™* 6B50™* 6B51 R™* 6B52 S™* 6F70™* 6F71R™* 6F72AM™* 6F73AMX™* 7U16 R™*	7U17 S™* 7A18AM1™* 7730AMX™* 7P43 R™* 7P44AM™* 7D49 S™* 7D51 Q™* 7A52AM1™* 7M53AMRW™* 750	5124GT 5456GT3 4J63 T 4C58 Q™* 5A45 AM1™* 5M46AMRW™* 5G42™* 6J34 6J35GT 6J36GT3
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	Burrus®, Hoblit®, and Hughes®, are registered trademarks of Burrus. * Power Plus® Brand seed is distributed by Burrus. * Power Plus® is a registered trademark of Pioneer Hi-Bred. Optimum®, AcreMax®, and Optimum® AcreMax® RW insect protection products available in the Power Plus® brand.		
PowerShield™ (fully treated)	160-170	135-145	125-135			
Use higher end of range in less than ideal conditions.						

## Corn Silage Update

Jim Hughes and the team have chopped, weighed, and shipped silage samples to the lab for quality analysis. The information has not been received at this time, so the chart is from 2010 fall results. In general, recommendations are not expected to change as genetics influence the production of quality silage significantly. Remember there is a fairly large affect to quality from environment. Drought stress has shown to affect yield more than quality, but factors such as daylight hours, nighttime temperature, planting date, and leaf disease are all factors that affect quality silage.

With few exceptions this season, we have seen very good crop prospects in Wisconsin and parts of northern Illinois. Ample heat and timely rainfall have been positive influences. Wind damage in northern Illinois and early frost have had a negative impact in some areas. From the southernmost part of Wisconsin on up there

were scattered reports of frost damage to the corn crop. Two points to remember when ensiling frost-killed corn: watch for silo gas and test silage for nitrate content prior to feeding.

An alternative strategy pursued by some producers is sometimes referred to as the “big pile.” The big pile method is to pursue the highest tonnage per acre possible and use dry distiller’s grains and other ingredients to raise the silage feeding quality. The big pile method has evolved out of the time-honored practice of choosing silage by planting the tallest and leafiest corn possible. Today’s method is much more sophisticated, utilizing such tools as NIR and in-vitro analysis. The high quality and big pile are utilized successfully to feed high-producing herds. We have a few recommendations for the pursuit of the big pile at the end of our update.

Past research has shown that higher plant densities tend to produce more tons

of forage per acre. Much of the data on this subject is at least ten years old. In grain production, we have dramatically improved hybrid tolerance to high plant populations, resulting in positive advances in yield. Given that genetics have been adapted to higher plant populations, we would recommend taking a closer look at increasing silage populations to take advantage of this improvement. Keep in mind that as plant density is increased and nitrogen levels are increased there is increased risk of summer lodging during wind storms.

While we see lots of change on the silage front, one constant remains: the art and science of nutrition and forage quality analysis and production remains a complex and evolving field. Our goal at Hughes/Burrus is to evolve with the dairyman to provide the information and products he requires for top milk production. Keep those milk trucks rolling.

6435GT3	4C58 Q™*	4J63T	5A45AM1™* 5M46AMRW™* 5G42™*	5N48™*	5557VT3	5566GT3 591L 7383GT3	6A12AM1™* 6Y10 R™*	6A25AM1™* 6K24Q™*	6J36GT3 6J35GT 6J34	6B50™*, 6B51 R™* 6B52 S™* 6B53AM™*	6F73AMX™* 6F72AM™* 6F71 R™*, 6F70™*	7A18AM1™*, 7U17 S™* 7U16 R™* 7T30AMX™*	7P44AM™* 7P43 R™*	7D51™*, 7A52AM1™* 7M53AMRW™*, 750 7D49 S™*, PP750™*
108	108	108	110	110	111	111	112	112	112	113	113	114	114	115
6	8	6	8	6	8	7	8	7	6	7	7	7	8	8
Med	5	7	8	7	7	8	8	7	6	7	6	7	8	8
Inter	Inter	Inter	Inter	Inter	Inter	Inter	Inter	Inter	Inter	Inter	Inter	Inter	Inter	Inter
8	8	10	7	8	8	8	8	9	8	10	9	8	8	9
7	5	8	4	7	7	8	5	6	8	5	8	7	7	8
8	8	10	8	10	10	10	9	9	10	10	10	10	9	10
8	7	9	8	8	9	8	9	8	8	8	8	8	8	7
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
8	9	9	9	8	9	8	7	9	8	9	9	9	9	9
8	9	10	9	8	10	9	8	9	9	9	9	9	9	9
4	6	10	9	9	7	8	8	NA	8	9	7	8	7	7
7	8	8	8	7	7	8	8	9	8	9	9	9	9	9
8	9	9	9	8	8	8	9	10	9	10	10	10	10	10

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.

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It’s still a tradition for the Mitzelfelt family of Woodford Co. Jordan, Joshua & Josie graced the cover of the Harvest Report in 1996 and here they are 15 years later still wearing Burrus proudly. They are the grandchildren of Sonny & Mary Mitzelfelt.

Recommended Refuge Choices Burrus, Hoblit & Power Plus®												
Base Hybrid	2A16AM1™*	4A30AM1™*	4B32AMX™*	4C58 Q™*	4J63 T	4V43 S	5A45AM1™*	5557 VT3	5566GT3 Q	5R68 Q™*	6J36GT3	6A12AM1™*
Technology	Optimum® AcreMax®1	Optimum® AcreMax®1	Optimum® Acremax® Xtra	HXX Quad	VT3 Triple	HX1/RR	Optimum® AcreMax®1	VT3 Triple	Agrisure 3000GT	HXX Quad	Agrisure 3000GT	Optimum® AcreMax®1
Best Refuge **												
Optimum® AcreMax® RW	2M17AMRW™*	4M31AMRW™*	No refuge required				5M46AMRW™*				7M53AMRW™*	
Glyphosate ((1))	3310GT	3C98 R™*		3C98 R™*	3C98 R™*	5124GT	6Y10 R™*	6Y10 R™*	6Y10 R™*	6B51 R™*	6J35GT	6Y10 R™*
((2))	3928GT	5124GT		5124GT	5124GT	6Y10 R™*	6B51 R™*	6B51 R™*	6B51 R™*	6Y10 R	6Y10 R	6F71 R™*
Liberty Link®				591L		591L	591L		591L	591L	591L	591L
** Refuge choices always should have a granular insecticide or High rate Poncho (1250) in the area where the corn rootworm variant exists except for Optimum AcreMax RW products.												
Base Hybrid	6A25AM1™*	6K24 Q™*	6B52 S™*	6F72AM/6F73AMX™*	5827VT3	7U17 S™*	7D49 S	7A18AM1™*	7A52AM1™*	7T30AMX™*	7P44AM	7D51 Q
Technology	Optimum® AcreMax®1	HXX Quad	HX1/RR	Optimum® Acremax®/Xtra	VT3 Triple	HX1/RR	HX1/RR	Optimum® AcreMax®1	Optimum® AcreMax®1	Optimum® AMX®	Optimum® Acremax®	HXX Quad
Best Refuge **	7M53AMRW™*							7M53AMRW™*		No refuge needed	No refuge needed	
			No refuge needed						No refuge needed			
Glyphosate ((1))	6Y10 R™*	6Y10 R™*	6Y10 R™*		6Y10 R™*	7U16 R™*	7U16 R™*	7U16 R™*	7U16 R™*			7U16 R™*
((2))	6F71 R™*	6F71 R™*	6F71 R™*		6B51 R™*	7P43 R™*	7P43 R™*	7P43 R™*	7P43 R™*			7P43 R™*
Liberty Link®	591L	591L	591L			591L	591L	591L	591L			591L
** Refuge choices always should have a granular insecticide or High rate Poncho (1250) in the area where the corn rootworm variant exists except for Optimum AcreMax RW products.												

# Which Burrus Hybrids are right for your farm

Strengths and Weaknesses														
Hybrids	1285GCL	2240GT3	2795GT3	1H37 Q™*	3309GT3	2A16AM1™*	4431GTV	4125GT3	4592VT3	3C98 R™*	5124GT	5874	4A30AM1™*	4V43 S™*
			2450GT 2691		3310GT	2M17AMRW™*		3928GT 4373			5456GT3	4K74 S™*	4M31AMRW™*	4B32AMX™*
Plant growth regulator sensitivity	NA	NA	5	NA	NA	6	NA	5	NA	6	4	4	4	7
General stay green	8	9	8	9	7	7	7	8	7	9	8	7	9	9
Northern leaf blight tolerance	7	8	8	8	7	5	9	7	8	7	7	8	5	8
Southern leaf blight tolerance	7	5	6	NA	NA	NA	7	7	NA	4	7	8	6	NA
Anthracnose tolerance	NA	7	7	5	6	5	NA	6	NA	6	6	8	7	7
Gray leaf spot tolerance	7	6	7	7	4	6	6	7	5	6	8	8	7	7
Diplodia ear rot tolerance	NA	7	8	NA	6	6	NA	6	5	6	6	7	7	7
Harvest Information														
Grain quality	7	8	8	9	6	8	8	7	8	10	7	10	10	8
Test weight	7	7	7	9	7	4	7	7	9	9	7	10	10	8
Growing Degree Days to silk	1128	1200	1220	NA	1300	1320	1300	1280	NA	1380	1320	1340	1330	NA
Growing Degree Days to 30 %	2180	2068	2300	NA	2450	NA	NA	2480	NA	2655	2530	2710	2790	NA
Growing Degree Days to 20 %	NA	NA	NA	NA	NA	NA	NA	NA	NA	3100	NA	3150	NA	NA
Dry down rate	10	7	8	9	7	8	8	8	6	8	8	9	8	8
Ear retention	8	8	8	8	9	8	8	9	9	9	9	9	8	9
High tonnage silage	NA	7	NA	10	8	9	8	9	7	9	9	10	10	7
Harvest residue	NA	NA	NA	9	7	10	NA	9	7	9	9	10	10	7





# Turn over a new leaf.

Plant our beans. Performance. Convenience. Value.  
100% free replant on PowerShield™ treated beans.





The red-tagged plants indicate genetic rootworm technology.

## We have our heads in the sand.

**Silt, clay, and loam too.**

Put our team of agronomists, seed specialists, to work to develop a cropping plan for your farm. Call us.



Recommended Refuge Choices Hughes & Power Plus®								
Base Hybrid	1285GCL	2240GT3	2795GT3	3309GT3	4125GT3	4431GTV	1H37 Q™*	2A16AM1™*
Technology	Agrisure GT/CB/LL	Agrisure 3000GT	Agrisure 3000GT	Agrisure 3000GT	Agrisure 3000GT	Agrisure Viptera 3111	HXX Quad	Optimum® AcreMax®1
Best Refuge **								
Optimum® AcreMax® RW								2M17AMRW™*
Glyphosate ((1))	2450GT	2450GT	2450GT	3310GT	3928GT	3928GT	3310GT	3928GT
((2))	3310GT	3310GT	3310GT	3928GT	3310GT	3310GT	3928GT	3310GT
Liberty Link®								
** Refuge choices always should have a granular insecticide or High rate Poncho (1250) in the area where the corn rootworm variant exists except for Optimum AcreMax RW products.								
Base Hybrid	5456GT3	4592VT3	4A30AM1™*	4B32AMX™*	6435GT3	5A45AM1™*	6J36GT3	
Technology	Agrisure 3000GT	VT3 Triple	Optimum® AcreMax® 1	Optimum® Acremax® Xtra	Agrisure 3000GT	Optimum® AcreMax® 1	Agrisure 3000GT	
Best Refuge **								
Optimum® AcreMax® RW			4M31AMRW™*	No refuge required		4M31AMRW™*		
Glyphosate ((1))	5124GT	5124GT	5R65 R™*		5124GT	5R65 R™*	6J35GT	
((2))	3928GT	3928GT	571 R		5R65 R™*	571R	5124GT	
Liberty Link®						591L	591L	
** Refuge choices always should have a granular insecticide or High rate Poncho (1250 ) in the area where the corn rootworm variant exists except for Optimum AcreMax RW products.								
^^ Please use a corn borer refuge within 1/2 mile								
* Power Plus®, Optimum® and AcreMax™ are trademarks of Pioneer Hi-Bred Burrus®, Hoblit® and Hughes® are registered trademarks of Burrus								
Liberty Link® is a registered trademark of Bayer CropScience								

6435GT3	4C58 Q™*	4J63T	5A45AM1™* 5M46AMRW™* 5G42™*	5N48™*	5557VT3	5566GT3 591L 7383GT3	6A12AM1™* 6Y10 R™*	6A25AM1™* 6K24Q™*	6J36GT3 6J35GT 6J34	6B50™*, 6B51 R™* 6B52 S™* 6B53AM™*	6F73AMX™* 6F72AM™* 6F71 R™*, 6F70™*	7A18AM1™*, 7U17 S™* 7U16 R™* 7T30AMX™*	7P44AM™* 7P43 R™*	7D51™*, 7A52AM1™* 7M53AMRW™*, 750 7D49 S™*, PP750™*
8	4	4	7	8	4	5	6	NA	7	6	5	6	NA	5
8	6	7	7	8	7	10	8	9	7	9	9	7	9	10
7	7	8	6	7	8	7	5	8	NA	6	7	6	6	8
7	NA	8	6	7	9	8	NA	NA	NA	7	NA	NA	NA	8
5	6	8	7	5	8	8	5	NA	NA	8	NA	5	6	8
5	6	7	7	5	9	9	6	8	NA	8	7	6	7	8
7	7	8	6	7	7	8	6	7	NA	7	7	8	7	8
8	8	8	10	9	8	8	9	10	9	8	8	9	10	10
7	8	7	9	7	7	8	7	9	8	7	8	8	9	10
1320	NA	1290	1440	1320	1295	1290	1340	NA	1300	1390	NA	1440	NA	1450
2600	NA	2675	NA	2600	2755	2690	NA	NA	2690	2750	NA	NA	NA	2850
3160	NA	3100	NA	3160	3210	3145	NA	NA	NA	3220	NA	NA	NA	3400
8	7	10	8	9	8	7	8	8	8	9	8	7	7	7
8	9	8	6	8	8	10	8	8	9	9	9	9	8	9
10	10	7	10	10	7	8	8	9	7	10	9	10	10	10
9	10	7	10	9	7	8	10	9	7	10	9	10	10	10



How we farm has changed, who we are has not

# Should I spray my corn with fungicide at V5, VT, or both?

By Bryan D. Young

Over the last six years, the Burrus® research and testing program has conducted numerous trials looking at fungicide application to current and experimental hybrids. These trials were performed across different populations, crop rotations, and planting dates. From these data we are able to group our hybrids into different brackets for likelihood of yield response to a fungicide application at pollination. This type of recommendation is for a grower who is planning on a fungicide application before the crop is planted.

Looking at table 1, our hybrids are grouped into three different categories: low, moderate, and high probability of seeing a yield response to a fungicide application at VT or tasseling. With these groups we have applied economics to our data to determine the potential amount of dollars that are returned to the grower. For our economic comparison we used a fungicide application expense of \$30 and the added expense of drying higher moisture corn. Our data has typically shown that a fungicide application will add a point of moisture to the grain.

In figure 1, the three different groups of hybrids are graphed by grain price for total dollars returned to management after all expenses are paid. With these data, if a grower was planning on selling his grain at \$6 a bushel, the grower would lose \$7 per acre by spraying a low probability hybrid, spraying a moderate probability hybrid would net the grower \$12 an acre, and a fungicide application at VT on high probability hybrid would improve the growers bottom line by \$46 an acre. Figure 1 and table 1 are designed to work together to help growers determine the benefits of a VT fungicide application before planting.

Our best recommendation for a VT fungicide application is to scout the crop and then determine if the field needs to be sprayed based on the amount of disease present. The recommendations on planning a VT fungicide application before planting are from averages and there is variability from location to location based upon the environment and the amount of disease present. Data was pulled from our multi-year fungicide trial on a hybrid from the three different probability of yield response categories. The data from the three hybrids were not from the same years or locations, so comparisons cannot

be made between the three hybrids by location number. The hybrid from the high probability group returned on average ten bushels an acre with fungicide application, with five out of the eight locations having over a nine bushel an acre advantage to a VT fungicide application (Figure 2). At market prices for corn at \$6 a bushel, a planned VT fungicide application on a hybrid from the high probability group is an easy decision to expect a return on investment in most environments.

With the hybrids in the moderate probability group, yield response tends to be more variable from location to location. In our data, the hybrid from the moderate group had an average yield advantage of 6 bushel an acre with a VT fungicide application, with a large range in the data set (Figure 3). This variability is not only seen in our research plots, but has also been reported from growers who have done side by side comparisons with and without a VT fungicide application. One grower might see a 10 to 15 bushel an acre yield response to fungicide application on a specific hybrid, while another grower down the road might only see two to six bushel an acre yield response on the same hybrid. This variability is difficult to explain. The hybrids in the moderate group tend to have average to above average health and situations of seeing a large yield response to a VT fungicide application are likely in environments that had more disease pressure.

Hybrids in the low probability of yield response group tend to have above average plant health. Based upon the economics in figure 1, a VT fungicide application would just break even at a market price of \$8 a bushel. It wouldn't make much sense in applying a fungicide to these hybrids in most environments, but there are some situations where a grower might benefit from a fungicide application.

In figure 4, the hybrid with a low probability of yield response, one location had a 20 bushel an acre yield advantage for a VT fungicide application. This location had a significant amount of Northern corn leaf blight; the hybrid is weak on this disease, but has very good resistance to gray leaf spot. The other locations in this comparison did not have Northern corn leaf blight. Without this one location, the average yield response to VT fungicide application would be three bushels an acre. If a grower did not scout his fields around pollination and had Northern corn leaf blight in his

crop canopy like this one location, the grower has the potential to lose twenty bushels an acre or more. Remember it is always important to scout for disease around pollination, even if you think there shouldn't be any issues in the field.

Besides looking at corn fungicide application at VT, we also performed trials in 2011 looking at the V5 fungicide application. The V5 fungicide application was being promoted last winter by different fungicide suppliers as a way to limit early season disease development and to reduce the plants susceptibility to stalk rot in the fall.

Our trial was designed with four treatments: untreated, V5, VT, and V5 plus VT applications. The trial was conducted across three different locations with three replications at each location. The treatments were applied to four hybrids at each location. At each of these locations we did not have a lot of disease present and we did not see a yield response to fungicide application (Figure 5). Because we did not see a response to the VT application in the trial and we expected to see a response at VT with three of the four hybrids, we cannot make a strong statement for or against the V5 application.

Before spending the money on fungicide application, it is important to scout for disease to assure that you are making the most of your investment. Dollars invested for fungicide application are the most beneficial around pollination. A healthy crop canopy during grain fill will put more energy into the ear for higher grain yields.

POWER PLUS X6F72™*	235.2	29.0	91	62.2	32
BURRUS 803599	233.8	28.9	91	61.5	32
POWER PLUS 5N48™*	232.7	23.5	90	60.6	29
BURRUS 463227	229.2	25.7	100	59.8	33
POWER PLUS 7A18 AM1™*	228.0	29.2	86	61.6	35
BURRUS 431445	227.8	24.7	90	61.3	31
BURRUS 498109	227.6	26.6	94	55.3	36
BURRUS 778098	226.7	26.9	91	60.4	35
BURRUS 100363	223.8	26.0	100	61.8	32
POWER PLUS X6F73™*	222.2	24.0	100	60.4	35
BURRUS 943018	219.8	25.9	95	60.8	34
BURRUS 227562	219.6	27.4	93	63.8	28
BURRUS 833162	219.3	27.5	100	57.2	33
BURRUS 471516	219.0	27.8	92	62.1	34
BURRUS 829583	216.6	28.6	100	63.0	35
BURRUS 680038	216.3	28.9	100	60.7	34
BURRUS 388920	215.3	25.5	91	60.2	35
HUGHES 5456 GT3	214.4	25.8	100	60.9	33
BURRUS 355951	213.0	29.2	91	60.4	32
POWER PLUS 6A12 AM1™*	212.9	27.8	85	62.3	33
POWER PLUS 6B52 S™*	212.6	26.0	100	60.2	28
BURRUS 194722	211.7	21.2	100	59.3	34
BURRUS 260667	211.2	22.1	100	56.7	32
BURRUS 494048	210.7	26.0	100	61.2	27
HUGHES 6435 GT3	210.4	24.3	91	58.2	32
POWER PLUS 4V43 S™*	209.9	24.7	100	60.8	36
BURRUS 443903	207.2	25.9	100	60.6	35
BURRUS X6J36	203.8	27.1	100	59.2	37
BURRUS 341332	203.0	26.5	97	61.0	34
BURRUS 220968	202.1	23.3	100	59.6	35
POWER PLUS 4A30 AM1™*	201.7	27.2	100	60.9	34
BURRUS 592252	201.3	27.8	100	60.4	32
BURRUS 990102	199.6	28.6	90	60.5	37
BURRUS 784713	199.3	24.6	100	60.6	33
POWER PLUS 7D51 Q™*	199.0	27.5	100	62.5	32
BURRUS 629459	197.4	29.4	97	60.7	35
POWER PLUS 4C58 Q™*	195.5	24.1	82	61.4	28
BURRUS 202623	193.7	21.7	100	59.3	34
BURRUS 986709	192.2	30.0	100	61.5	30
POWER PLUS 4B32 AMX™*	189.7	22.0	100	61.4	34
HUGHES 4125 GT3	188.6	22.7	100	60.0	32
HOBLIT 5566 GT3	179.6	29.8	97	56.9	36
BURRUS 483952	176.6	25.3	68	54.8	31
POWER PLUS 5A45 AM1™*	173.0	27.1	100	61.2	30
Average	211.5	26.4	96	60.4	33

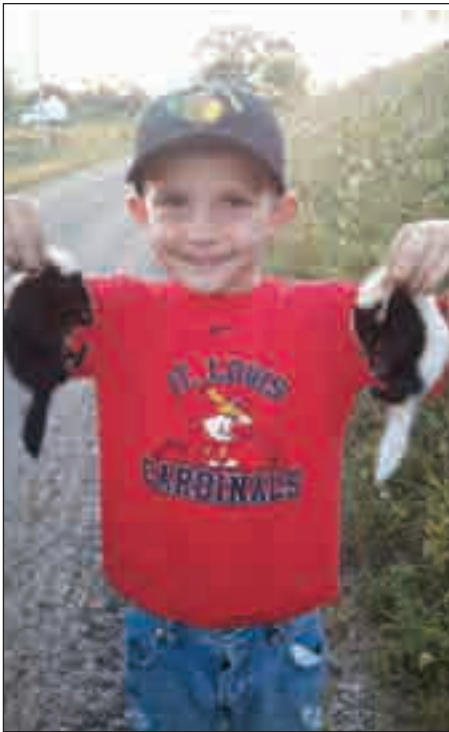
## STARK

Power Plus® 7P44 AM™\*  
at 240 bu/a

Pete Gill  
Princeville, IL

Planted: May 3 in 30" rows. Planting Population: 34,000. Harvested: October 4. Previous Crop: Soybeans. Fertilizer: N: 165, P: 36, K: 92. Herbicide: Corvus, Atrazine, Laudis. Soil Type: Silt loam. Weather: May-normal, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 4J63 T	240.1	29.7	91	60.8	34
POWER PLUS 7P44 AM™*	240.0	29.9	100	60.5	29
BURRUS 585774	235.3	27.3	100	60.2	32



Chase Olson thought he had found some baby kittens. Like Chase, growers need to be certain they know what they are getting from their seed suppliers because some stink.





Figure 1. Fungicide return by probability of yield response.

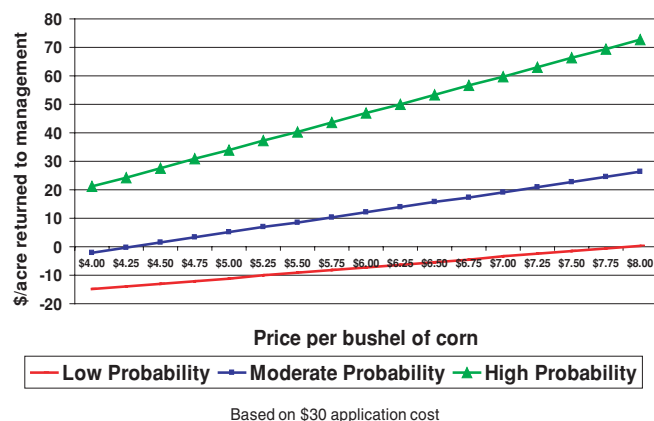
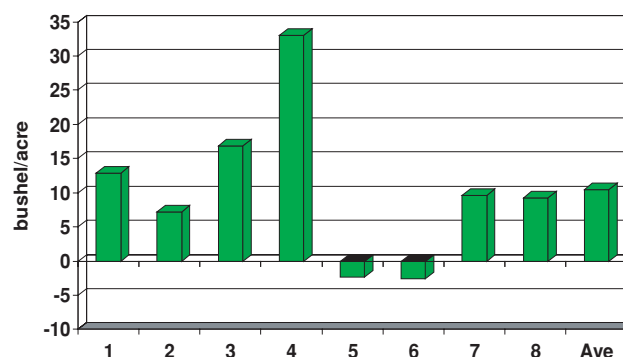


Figure 2. Yield advantage to VT fungicide 8 locations high probability of a yield response



Scott & Al Jacob of Warren Co., MO liked the yields of their Power Plus® soybeans.

Figure 3. Yield advantage to VT fungicide 9 locations moderate probability of a yield response

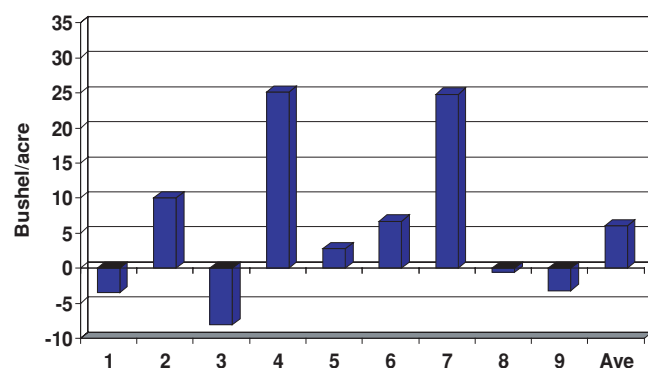


Figure 4. Yield advantage to VT fungicide 8 locations low probability of a yield response

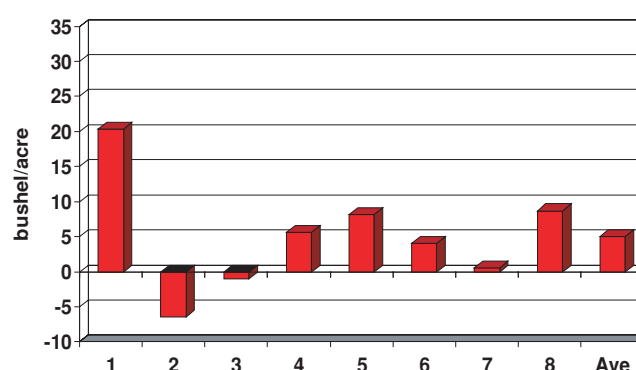


Figure 5. V5 fungicide trial yield results averaged across four hybrids and three locations.

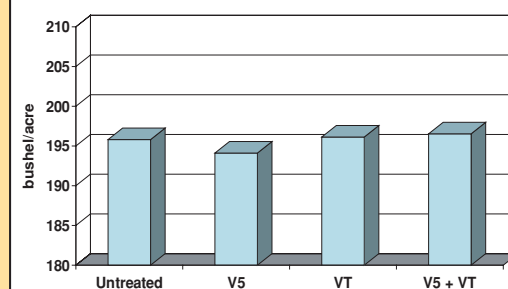


Table 1. Probability of Yield Response to Fungicide Application

High	Moderate		Low	
Burrus 4J63T	Burrus 750	Power Plus 2A16AM1™*	Burrus 591L	Power Plus 1H37Q™*
6J34		2M17AMRW™*		4A30AM1™*
6J35R	Hughes 1285GCL	3C98R™*	Hoblit 4B32AMX™*	
6J36GT3	2240GT3	4C58Q™*	5566GT3	4M31AMRW™*
		4K74S™*		4V43S™*
Hoblit 3310GT	5557VT3	5N48™*	Hughes 5G42™*	
		5R65R™*	2450GT	5A45AM1™*
		5R66B™*	2691	5M46AMRW™*
Hughes 5874	6435GT3	5R68Q™*	2795GT3	6Y10R™*
4592VT3		7U16R™*	3928GT	6A12AM1™*
		7U17S™*	4125GT3	6K24Q™*
		7A18AM1™*	4373	6A25AM1™*
		750™*	4431GTV	6B50™*
		7D49S™*	5124GT	6B51R™*
		7D51Q™*	5456GT3	6B52S™*
		7A52AM1™*	7383GT3	6F70™*
		7M53AMRW™*		6F71R™*
				6F72AM™*
				6F73AMX™*
				7P43R™*
				7P44AM™*

## More grain in the tank, more money in the bank.

Our field experts work side by side with you to provide cutting-edge technologies regardless of your soil type, like the refuge simplified corn rootworm technology system Optimum® AcreMax® 1 insect protection, available in the Power Plus® brand.

New for 2012, Optimum® AcreMax® and Optimum® AcreMax® Xtra are single-bag refuge systems delivering protection for above ground insects and above and below ground insects respectively. Try some on your farm this spring. Optimum® AcreMax® 1 insect protection was the first one-product-per-field-option for corn rootworm refuge.

At Burrus, earning your trust means doing the little things right.





Choose the Burrus family of products to maximize your yield on every acre.

# Get to know our Sales Managers

## Mike Langan and Brian Maxwell

“A leader is one who knows the way, goes the way, and shows the way,” said John C. Maxwell, author, speaker, and pastor. This quote truly tells the story. At Burrus, we are very fortunate to have capable individuals leading our sales teams. Mike Langan leads the Burrus sales team as the Sales Manager while Brian Maxwell leads the Hughes sales team as their Sales Manger.

Our Sales Managers each bring several years of selling experience to their positions. Mike and Brian promote the Burrus family of products to our Regional Sales Managers, Dealers, and customers. They strive to help them be as successful as they can be. Warren G. Bennis, widely regarded as a pioneer in the field of leadership studies, is quoted as saying, “Leadership is the capacity to translate vision into reality.” That quote summarizes the job Mike and Brian do for the Burrus and Hughes sales teams.

Mike Langan has been the Burrus Sales Manager for 3 years. He is a graduate of Joliet Junior College. Mike brings 22 years of experience in ag sales, with an emphasis in seed treatment, insecticides, fungicides, seed sales, and management. Mike feels he has based his career on honesty and integrity. He is customer-driven and lists one of his top goals as providing excellent customer service.



Mike Langan, Sales Manager

Mike and his wife, Nora, live in Lakewood, IL and are the proud parents of 3 children. In his spare time, Mike enjoys spending time with his family as well as hunting and fishing.

Brian Maxwell truly loves being in the seed business. Following graduation from Ellsworth Community College with a degree in Ag Business, he has spent the last 33 years in the seed business. He’s worked as a Dealer, RSM, and now Sales Manager. He has benefited from understanding the seed business from the ground up. What Brian enjoys most about the seed business is that you have the opportunity to watch a crop from planting



Brian Maxwell, Sales Manager

to harvest, and that every year is different.

Brian has been married for over 35 years to his childhood sweetheart, Debbie. They reside in Woodstock, IL and are the parents of 5 grown children and 10 grandchildren. Brian enjoys traveling with his wife and spending time with his grandchildren.

President Kennedy said, “Leadership and learning are indispensable to each other.” Mike and Brian are good leaders because they have the great ability to listen. Please know that these guys are always willing to listen to the needs and wants of your operation because they have the overall desire to help you be successful.

BURRUS 943018	185.9	15	22.3	100	32
BURRUS 341332	178.3	19	23.1	100	32
✓Check	181.3		21.4	100	31
BURRUS 380038	192.4	14	23.5	100	29
POWER PLUS 6A12 AM1™*	195.0	9	23.2	100	31
POWER PLUS X6F72™*	190.8	16	23.0	100	31
POWER PLUS X6F73™*	184.9	18	21.5	100	30
BURRUS 77098	194.6	11	22.6	100	31
✓Check	185.8		23.1	100	31
BURRUS 498109	195.7	4	21.8	100	31
BURRUS 260667	172.1	20	22.9	100	30
POWER PLUS 7A18 AM1™*	197.9	3	25.3	90	30
POWER PLUS 7D51 Q™*	209.9	1	25.6	100	30
BURRUS 483952	162.5	21	25.6	80	31
✓Check	161.8		21.0	100	31
Average	184.9		22.1	99	31
Check Average	175.5		21.3	100	31

Jacob Walker  
Hopdale, IL

**Planted:** May 13 in 30" rows. **Planting Population:** 35,000. **Harvested:** October 10. **Previous Crop:** Soybeans. **Herbicide:** Roundup Power Max, Bicep II Magnum. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–wet, June–wet, July–dry, August–dry. **✓Check Hybrid:** Golden Harvest 9127GT3

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	165.1		20.1	100	33
Golden Harvest 9127GT3	165.4	23	20.1	100	33
✓Check	170.8		21.0	100	33
Golden Harvest 9138GT3	175.2	19	21.9	100	33
✓Check	172.2		19.4	100	33
Golden Harvest 8969GT3	197.6	7	16.7	100	33
✓Check	180.6		19.3	100	33
Golden Harvest 8577GT3	171.9	24	19.4	100	33
✓Check	168.6		20.0	100	33
LG 2620VT3	200.4	1	20.1	100	33
✓Check	172.2		20.4	100	33
LG 2529VT3PRO	157.1	28	15.6	100	33
✓Check	162.6		20.0	100	33
LG 2642VT3	188.1	9	21.5	100	33
✓Check	176.0		20.5	100	33
LG 2641VT3	185.6	14	21.6	100	33
✓Check	176.1		19.9	100	33
POWER PLUS 6A12 AM1™*	178.6	21	19.7	100	33
✓Check	178.2		20.2	100	33
POWER PLUS 4C58 Q™*	160.9	29	18.4	100	33
✓Check	172.5		20.5	100	33
POWER PLUS X6F72™*	184.6	13	18.5	100	33
✓Check	177.2		20.0	100	33
BURRUS X6J36	179.9	18	17.1	100	33
✓Check	175.0		19.1	100	33
Hughes 5456GT3	184.3	16	17.5	100	33
✓Check	180.9		18.7	100	33
Pioneer P1567XR	170.1	27	19.0	100	33
✓Check	175.3		18.9	100	33
Pioneer P1395AM1	182.1	15	17.8	100	33
✓Check	175.9		19.2	100	33
Pioneer P1184AM1	173.2	22	18.1	100	33
✓Check	174.9		19.2	100	33
Pioneer P1018XR	184.3	17	18.6	100	33
✓Check	181.2		19.3	100	33
Becks 5435RR	174.4	25	17.2	100	33
✓Check	173.3		19.0	100	33
Becks 5442VT3	205.1	2	17.8	100	33
✓Check	180.6		18.9	100	33
Dekalb 63-84VT3	188.8	12	16.7	100	33
✓Check	175.9		19.0	100	33
Dekalb 62-97VT3PRO	199.2	6	17.4	100	33
✓Check	176.0		19.0	100	33
Dekalb 58-83VT3PRO	171.3	26	15.4	100	33
✓Check	169.5		19.9	100	33
Dekalb 64-69VT3PRO	190.9	11	18.5	100	33
✓Check	181.7		19.4	100	33
Stone 64-04VT3PRO	201.3	5	19.4	100	33
✓Check	174.7		20.4	100	33
Stone 64-18SS	179.3	20	21.5	100	33

## TAZEWELL

Craig Kilby  
Mackinaw, IL

**Previous Crop:** Soybeans. **Herbicide:** Volley ATZ. **Corn Borer Rating:** Light. **Soil Type:** Silt loam. **Weather:** May–wet, June–normal, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
BURRUS 443903	239.0	21.8	100	60.9	35
BURRUS 798157	234.3	25.4	100	63.6	39
BURRUS 784713	230.8	22.9	100	61.9	40
BURRUS 833162	230.6	20.4	100	60.1	40
BURRUS 829583	229.4	27.9	100	62.3	39
BURRUS 101413	228.8	25.0	100	64.8	34
BURRUS 463227	228.4	20.9	100	61.3	35
BURRUS 585774	226.8	25.0	100	59.0	37
BURRUS 220968	223.8	20.3	100	60.4	36
HUGHES 5456 GT3	219.1	20.2	100	57.3	34
POWER PLUS 6A12 AM1™*	219.0	26.8	100	62.7	35
BURRUS 943018	218.0	25.1	100	60.7	35
POWER PLUS 7A18 AM1™*	217.6	31.5	100	62.8	37

BURRUS 974498	216.7	26.0	100	65.0	39
BURRUS 986709	215.8	27.4	100	61.2	32
BURRUS 413622	215.3	24.7	100	61.1	37
POWER PLUS 4V43 S™*	214.7	22.8	98	61.6	40
POWER PLUS 6B52 S™*	213.6	22.2	100	60.6	39
POWER PLUS X6F72™*	212.9	28.2	97	63.3	38
BURRUS 483952	211.9	27.3	100	64.7	40
BURRUS 484759	210.2	23.2	100	61.4	40
BURRUS 388920	210.2	27.8	100	63.5	40
BURRUS 680038	210.1	24.9	100	58.3	36
BURRUS 803599	210.1	23.0	100	60.1	39
POWER PLUS 7P44AM™*	209.4	32.4	100	67.6	37
POWER PLUS 4B32AMX™*	208.2	21.1	100	61.1	36
HUGHES 6435 GT3	207.3	20.1	100	60.1	33
BURRUS 4J63 T	205.9	23.8	100	62.3	38
POWER PLUS 7D51QR™*	205.8	31.7	100	64.4	38
BURRUS 471516	205.2	29.3	100	63.6	41
HOBLOT 5566 GT3	204.1	29.3	100	60.7	38
BURRUS 778098	203.5	28.4	97	65.3	35
BURRUS 355951	203.0	30.3	100	57.9	38
POWER PLUS X6F73™*	202.1	28.0	100	63.3	38
POWER PLUS 5A45 AM1™*	192.8	24.0	100	62.9	36
BURRUS 494048	191.9	23.3	100	61.1	33
POWER PLUS 4C58 Q™*	191.4	23.6	100	61.9	35
BURRUS 260667	191.3	27.3	100	58.3	34
BURRUS 629459	189.8	29.5	100	64.3	36
POWER PLUS 7D51 Q™*	187.9	30.7	100	60.5	35
BURRUS 341332	187.8	26.9	100	60.8	34
BURRUS 498109	186.2	27.3	100	60.6	38
BURRUS 422145	185.6	22.0	100	63.4	36
BURRUS 431445	184.7	23.3	100	65.3	33
BURRUS X6J36	181.0	24.2	100	59.1	41

BURRUS 512852	180.9	22.3	100	61.2	36
POWER PLUS 4A30 AM1™*	176.9	23.1	100	63.0	40
BURRUS 990102	173.3	31.0	100	66.2	41
Average	207.1	25.5	100	61.9	37

Kent Kleinschmidt  
Emden, IL

**Planted:** May 11 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 23. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 100, K: 100. **Herbicide:** Harness, Roundup. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–normal, July–dry, August–dry. **✓Check Hybrid:** Power Plus 4A30 AM1™\*.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	174.6		19.6	100	31
BURRUS 512852	150.0	22	21.6	100	31
BURRUS 833162	184.4	12	19.2	100	32
POWER PLUS 4C58 Q™*	184.3	13	20.1	100	31
POWER PLUS 4V43 S™*	186.5	7	20.4	100	31
POWER PLUS 5A45 AM1™*	178.1	17	21.5	100	30
POWER PLUS 6B51 R™*	186.3	8	20.9	100	31
✓Check	173.8		21.3	100	31
BURRUS 388920	209.1	2	21.1	100	30
BURRUS X6J36	188.7	10	21.9	100	30
BURRUS 471516	197.2	5	21.6	100	31
BURRUS 303599	191.4	6	22.0	100	31





# Committed to exceeding customer demand

**"We are dedicated to continue growing our business," says Todd Burrus. "Yes, we are doing some production in South America to buoy our total supplies for 2012. We are "on track" to exceed our customer demand which includes new customers and increased orders from our regular customers and enough seed to replant if that becomes necessary, too."**

The 2011 growing season has created challenges to the seed corn crop. Those challenges have impacted seed production across the Corn Belt leaving summer produced seed supplies tight and somewhat dependent upon winter seed production in South America. **All major seed corn suppliers have been impacted and most corn producers will need to be flexible as the industry manages the situation.** Thorough understanding can help people cope with short term issues. Seed corn production utilizes inbred seed that is less able to handle weather adversity. This inbred seed produces hybrid seed for our customers, consequently their crop is tougher and less impacted by stress.

Our seed corn production team has 3 primary growing locations at Arenzville, Atlanta, and Woodstock, IL. A supply target is set in February on a product-by-product basis. Realistic yield goals for each product and field are factored into the production plan. Approximately 80% of our seed acres are irrigated with the majority being produced on family-owned farms.

A production plan is written so all of us understand the plan. This plan includes the

details of which inbreds are at what population for each field, chemicals, fertility, isolation requirements and other planned inputs are recorded. Specific planting time adjustments are made to improve pollination and purity. In field corn, nature assures pollen and silk are present simultaneously. However when planting seed corn with 2 parents (male and female) genetically different, we plant the same field 2 to 3 times to insure male pollen and female silks are present at the same time in July. This step is critical but went very well in the Spring of '11.

Crop tending includes pre and post-emergence spraying (typically 3 applications). We use manual labor to "rogue out" off-type plants. June was hard on the seed crop with excessive rainfall. Some fields that had an excellent start deteriorated during this month due to wet feet and less nitrogen. Our response was to add nitrogen to some fields. We used ground, air, and some irrigation to help apply additional nitrogen. Most fields responded to the extra nitrogen.

**When the weather forecast called for high temperatures, we poured the irrigation to the seed fields. We over build our irrigation systems by about 10% so we can catch up if we get behind or can super-saturate the soil if we feel it will remove stress. Even that didn't solve the pollination issues last summer.**

This was not our first experience that irrigation cannot always offset high temperatures. Just like humans, some corn inbreds handle the heat better than others. This

explains why we had excellent yields on some products and not as good on others. Too wet followed by too hot spelled too much stress.

Detasseling was completed in July. This is the process where the tassels (the male part) are removed from the female rows that allows all pollen in the field to come from the male rows. In most fields a mechanical detasseler removes 80% of the tassels followed by hand labor to complete the job. Over 600 teenagers along with some contract labor are employed during a 3 week period.

July was very hot with high daily temperature above 90°F most days. These high temperatures disrupted the pollination process, in some fields leaving disappointing seed sets and lower than average yields. However, our interplant planting pattern is a big advantage when pollination issues arise. The diversified plan worked well in the north as the Woodstock production came in almost on target. Bryan Young, testing coordinator, was in charge of scheduling the helicopter for pollination. He studied each inbred to best understand when each would shed pollen, what hours of the day its maximum potency could be utilized, and adjusted the flight schedules accordingly.

Before seed harvest began, we began to make arrangements in South America. Actually, we have worked at building relationships for several years knowing that eventually we might need a winter crop grown there. Planning ahead can pay dividends.

Seed harvest was completed on a

timely basis. We continue to utilize sweet corn equipment to gently handle ear corn harvest. Each ear is scrutinized by hand sorters, gently shelled, cleaned, and stored until bagging season.

**We plan to condition, treat, blend, and package the summer produced seed, both corn and soybeans, with a goal of completion by mid-January. We will begin delivery in January with a goal of having all summer produced seed in our dealers hands by mid-March.** We can then focus on the seed coming from South America. It will need to be conditioned, treated, blended, packaged and delivered.

If growers will take their summer produced seed prior to mid-March, they will have a majority of their seed on hand to begin planting whenever they feel it is fit. Consequently, we have time to get the winter seed crop to the farm in time to finish 2012 corn planting. "We have been in business for 76 years. We have seen it all," says Tom Burrus. "We have an effective plan in place and Lord willing, we will make it all happen for our customers this spring, just like we have in the past." **We thank everyone in advance for their cooperation with us.**

**We will all experience some inconvenience associated with a portion of the seed crop coming from South America. It is a valuable reminder that good planning and execution are key elements associated with agriculture, but that we are all dependent upon God for our success.**



Roy Wyss, Burrus RSM Dick Burns & Dale Wyss experienced nice bean yields in Woodford Co.

✓Check	188.0	20.1	100	33
Stone 63-14VT3PRO	191.8	10	19.3	100 33
✓Check	189.6	20.1	100	33
Stone 62-34VT3PRO	203.7	3	16.9	100 33
✓Check	188.1	20.7	100	33
Steyer 10602GT3	157.5	30	17.7	100 33
✓Check	185.2	20.3	100	33
Steyer 10901VT3PRO	202.6	4	18.9	100 33
✓Check	193.3	19.1	100	33
Steyer 11302VT3PRO	197.7	8	19.8	100 33
Average	180.2		19.2	100 33
Check Average	177		19.7	100 33

## WARREN

Larry Carlson  
Gerlaw, IL

Planted: April 13 in 30" rows. **Planting Population:** 36,000. **Harvested:** September 21. **Previous Crop:** Soybeans. Fertilizer: N: 185, P: 70, K: 140. **Herbicide:** Halex GT, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam.

**Weather:** May-wet, June-normal, July-dry, August-dry. ✓Check Hybrid: Channel 214-14VT3P

Brand/Product	Bu. Per Acre	Rank	% Moisture	Adj. Test Wt.	1000 Plants /Acre
✓Check	179.1		20.8	57.2	36
Pioneer P1018XR	205.8	5	21.0	59.3	36
Pioneer P1567XR	182.8	13	22.8	59.6	36
Pioneer P1395XR	195.0	9	22.1	58.5	36
Channel 210-57STX	186.5	12	20.8	60.2	36
Channel 212-08VT3P	217.8	2	20.0	59.0	36
✓Check	212.8		20.1	60.0	36
Stine 9731VT3P	189.0	11	24.1	59.0	36
Stine 9726VT3P	175.8	14	27.6	59.9	36
Stine 9806VT3P	197.9	8	32.4	59.0	36
Dekalb 61-88	219.6	1	20.3	59.0	36
Dekalb 62-97	212.9	3	23.8	58.9	36
Dekalb 63-84	208.0	4	23.0	59.7	36
POWER PLUS 7A18 AM1™*	189.4	10	31.4	64.8	36
BURRUS X6J36	201.3	7	24.4	60.0	36
POWER PLUS X6F72™*	203.6	6	21.8	61.4	36
✓Check	207.4		22.0	60.5	36
Average	199.1		23.4	59.8	36
Check Average	199.8		21	59.2	36





Commitment...we know yours; we encourage you to experience ours.

# Drought tolerance in corn

By Tim Greene

Drought tolerance seems to pique every grower's interest. The thought of being able to grow crops with very limited or no rainfall is pure bliss. Developing overall drought tolerance has been a goal in the forefront for many corn breeding programs.

Understanding drought tolerance has proven to be more enigmatic for corn breeders than originally perceived. The challenge is very different than developing traits for either herbicide or insect resistance. There are several factors that are crucial components in the lack of moisture and overall yield relationship. Variables such as soil, fertility program, heat, disease, nutrient uptake, insect pressure and timing of water stress can vary greatly under different circumstances.



Corn breeders are working diligently on both native drought tolerance (non-GM version) and biotech tolerance alternatives. For example, Optimum® AQUAmax™ hybrids are currently being developed using Pioneer's proprietary Accelerated Yield Technology (AYT™) system. Native traits are effectively scanned and identified within corn plants that enable them to improve water access and usage during low moisture stress conditions. The goal is for Optimum® AQUAmax™ hybrids to contain target native traits that help deliver such characteristics as prolific silking and extended roots that reach deep for water. Management practices are also scrutinized, i.e., higher yields can often be achieved by planting very early hybrids that pollinate and fill ears ahead of the most severe mois-

ture limitations of late summer. Plant populations and row spacing studies are also important to help growers maximize performance under low-moisture conditions.



Agrisure Artesian™ technology is touted as the industry's first water-optimized corn technology. In Syngenta field trials, corn hybrids with Agrisure Artesian™ technology have the potential to deliver 15% yield preservation under moisture stress. Syngenta believes its offering can help Central and Eastern Corn Belt growers stabilize yields in years of inconsistent rainfall or in fields with variable soil types and/or low soil moisture-holding capacity.

Hybrids with the Agrisure Artesian™ technology hybrids are developed using Gene Blueprinting™ process, a Syngenta technology process that allows them to identify and select multiple genes within the corn genome that have distinctive modes of action and are responsible for drought protection mechanisms in corn. These multiple genes are then introduced into elite germplasm for testing and evaluation in a variety of managed stress environments including dryland, limited irrigated, irrigated, and non-irrigated high yield.

The unique multiple modes of action approach allows the plant to yield more under water stress conditions throughout the growing season. Plant performance is enhanced regardless of which stage of development the plant is in when water stress occurs.

Right now most of the research is being conducted for the Western Corn Belt to bring corn growing possibilities to marginal land. Research and Development will continue on drought tolerance in corn hybrids. We will keep monitoring all the opportunities as they become available.

## WHITESIDE



Jeff and Ron Merema  
Fulton, IL

**Planted:** May 7 in 30" rows. **Harvested:** October 1. **Previous Crop:** Corn. **Herbicide:** Balance Flex, Atrazine, Roundup Power Max. **Soil Type:** Medium loam. **✓Check Hybrid:** Power Plus 6A12 AM1™\*

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
✓Check	245.9	23.5	59.7	34

## ILLINOIS/MISSOURI

POWER PLUS 7A18 AM1™*	249.1	1	26.2	58.2	34
BURRUS 6J36 GT3	224.7	11	22.3	59.2	34
HUGHES 7383 GT3	245.2	2	24.2	57.0	34
POWER PLUS 7A18 AM1™*	243.9	3	25.7	60.4	34
BURRUS X6J36	229.1	8	20.3	62.1	34
HUGHES 7283 GT3	228.2	10	25.0	56.3	34
POWER PLUS 7D51 Q™*	221.4	13	25.7	58.9	34
POWER PLUS 6B52 R™*	232.3	4	21.5	60.8	34
POWER PLUS 5A45 AM1™*	213.6	15	22.4	60.6	34
HUGHES 6435 GT3	198.4	21	21.5	56.8	34
HUGHES 5456 GT3	228.5	9	20.5	57.7	34
POWER PLUS 4A30 AM1™*	229.2	7	21.0	63.4	34
POWER PLUS 4C58 Q™*	216.5	14	22.2	60.6	34
HUGHES 4431 GTV	204.3	19	19.7	60.5	34
HUGHES 4125 GT3	210.0	17	19.4	58.2	34
POWER PLUS 3C98 R™*	221.5	12	20.9	59.5	34
POWER PLUS 2A16 AM1™*	197.0	22	19.8	59.7	34
POWER PLUS 1H37 Q™*	198.6	20	18.7	62.9	34
POWER PLUS 4N49 Q™*	212.0	16	20.6	61.8	34
✓Check	234.3	23.3	60.2	34	
POWER PLUS 6B52 R™*	220.1	6	21.0	61.3	34
POWER PLUS 4C58 Q™*	194.8	18	22.5	59.6	34
POWER PLUS 4N49 Q™*	220.1	5	20.9	58.6	34

✓Check	221.4	23.6	58.4	34
Average	221.6	22.1	59.7	34
Check Average	233.9	23.5	59.4	34

## High yields

**COMPARE!** Russ and Chad Ottens  
Lyndon, IL

**Planted:** May 2 in 30" rows. **Planting Population:** 30,000. **Harvested:** October 12. **Previous Crop:** Corn. **Soil Type:** Medium.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.
POWER PLUS 7A18 AM1™*	217.9	20.6	100	58.4
POWER PLUS 6B52 S™*	212.4	17.0	100	60.3
POWER PLUS 7D51 Q™*	211.7	19.8	100	61.0
HUGHES 5456 GT3	210.6	16.9	100	58.8
POWER PLUS 7D51 Q™*	207.4	21.3	100	58.4
POWER PLUS 6A12 AM1™*	203.4	19.3	100	61.6
POWER PLUS 4A30 AM1™*	200.4	17.7	100	62.6
BURRUS X6J36	199.2	18.2	100	60.1
HUGHES 7383 GT3	196.9	19.8	100	54.0
POWER PLUS 3C98 R™*	194.6	15.9	100	58.8
POWER PLUS 4C58 Q™*	193.3	17.4	100	61.0
POWER PLUS 2A16 AM1™*	187.3	15.6	100	62.7
HUGHES 6435 GT3	186.3	16.8	100	56.6
POWER PLUS 5A45 AM1™*	185.8	17.8	100	63.1
HUGHES 4125 GT3	183.0	15.2	100	60.4
HUGHES 4431 GTV	177.7	16.4	100	59.7
Average	198	17.9	100	59.8

## WILL

Adam Clark  
Wilmington, IL

**Planted:** May 6 in 36" rows. **Planting Population:** 30,000. **Harvested:** October 9. **Previous Crop:** Wheat. **Fertilizer:** N: 194, P: 87, K: 96. **Herbicide:** Harness XTRA, Glyphosate. **Corn Borer Rating:** Light. **Soil Type:** Light. **Weather:** May-wet, June-wet, July-dry, August-dry. **Remarks:** Nice corn standing well in spite of stress.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7A18 AM1™*	172.5	22.3	97	58.6	24
POWER PLUS 6B51 R™*	171.9	20.1	97	60.1	26
HUGHES 5456 GT3	165.8	17.4	97	57.9	27
POWER PLUS 4M31 AMRW™*	160.0	21.5	97	61.4	27
POWER PLUS 4M31 AMRW™*	159.0	21.4	97	59.9	29
POWER PLUS 4A30 AM1™*	158.8	20.0	97	61.0	32
POWER PLUS 2A16 AM1™*	152.5	19.1	97	61.3	25
HUGHES 4125 GT3	148.9	17.7	97	60.0	21
Average	161.2	19.9	97	60.0	26

## WOODFORD

Burrus X6J36™\* &  
Power Plus® 4V43 S™\*  
2nd & 3rd

Pete Streid  
Metamora, IL

**Planted:** May 5 in 30" rows. **Planting Population:** 36,000. **Harvested:** October 18. **Previous Crop:** Soybeans. **Fertilizer:** N: 190, P: 0, K: 0. **Herbicide:** Powermax Roundup, Atrazine, Callisto. **Corn Borer Rating:** Light. **Soil Type:** Ipava. **Weather:** May-wet, June-normal, July-dry, August-wet.

Brand/Product	Bu. Per Acre	% Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	177.4	15.8	100	35	



Power Plus® beans performed well in Andrew Co., MO for Kelby Jamison & Brandon Palmer.



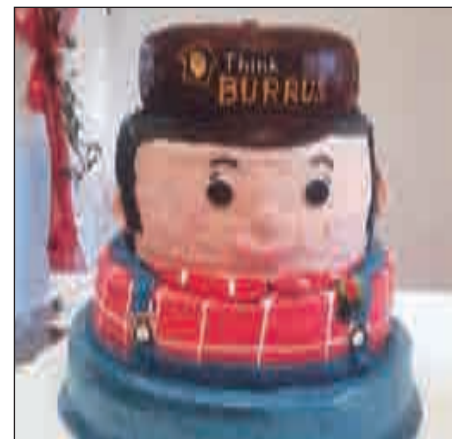
Power Plus® 5A45AM1™\* ranked number one in Buchanan Co., MO for Darryl Walkup.



In Linn Co., MO Brian & Bill Brockman trust the family of Burrus products to beat the competition.



Power Plus® 4V43 S™\* & X6F72 were the top commercial products in Chariton Co., MO for David & Susie Emmerich.



This creative groom's cake was on display at the wedding of Court and Sharail Aeschliman of Schuyler Co., MO.





Paul & Tammie Mahnken saw their 15" corn plot average 217 bu/a in Lafayette Co., MO.



Corey & Terry Matter saw Power Plus® 6B52™\* rank at the top in Woodford Co.



John & Becky Lorentzen of Boone Co., MO place high value on the honest answers they can trust from Burrus.



Derek & Sheldon Davis saw Power Plus® 4A30AM1™\* nearly break 200 bu/a in Atchison Co., MO.



Brunswick FFA saw Power Plus® 7D51 Q™\* win in Chariton Co., MO. Pictured left-right Roger Lewellen, Austin Elliott, Hayden Holcer & Advisor Rene Hinkbein.

## Huge Thanks!

The 2011 growing season was another roller coaster ride in the world of agriculture. While visiting with several growers at the Farm Progress show in Decatur, it was determined that there is no such thing as a normal growing season anymore! Many areas started out in great shape, then the wet weather hit along with cool temperatures. When that all subsided, Mother Nature turned up the heat in most areas and shut off much of the water. After all the ups and downs growers have gone through this growing season, we hope you enjoy reflecting on the growing season that was 2011 with this edition of the Harvest Report.

There are some terrific yields from both corn and soybeans in this publication. We hope that several of the agronomic articles throughout the publication will help you make a little more sense of this past growing season and aid your management decisions ahead. Our objective is to put together a complete, unbiased harvest publication so our customers can make the best and most-informed decisions for their farming operations. Some seed companies throw together a bunch of harvest results and call it a "plot book" or only send out edited results. Our customers and prospects have come to expect better from us.

We would like to thank everyone who helped with this publication. The Harvest Report is considered the best in the industry and that can be attributed to a lot of hard work from a wonderful group of people. Thank you to each and every cooperator who spent the time to plant and weigh a plot. We would also like to thank our Regional Sales Managers, District Sales Managers, Sales Associates, Sales Agronomists and Research Agronomists who weighed, counted, measured, and calculated location after location.

We would like to thank the HIP Advertising group who designed the cover and overall layout. We also appreciate the dedicated effort of Louise Harvey who took the lead on producing all the pages before turning it over to the other professionals at Production Press, Inc. to complete the printing. Our entire office staff – Mark, Paulette, Jenny, Sheila, Deb, Meghan and Kelly – regularly worked the plot data. Sandy at the Hoblit office and Ann at the Hughes office kept the plot data directed to Arenzville in a timely fashion also.

I would like to extend thanks to Marcy and Lori who typed, edited and proofed all the numbers and articles. Together with Tom, they saw that the Harvest Report progressed so we could once again be one of the first seed companies to publish complete results and agronomic articles for your judgment.

Thank you for taking the time to read this publication. We appreciate your business and we make every effort to be a good quality partner for your operation. Trust is something you don't want to take for granted and rest assured we do not. If you are not yet planting the Burrus family of products, we invite you to join the growing number of corn and soybean growers enjoying the benefits we bring to market. Growers are always looking for ways to improve their yields. Our goal is to put together the best publication to assist in those efforts.

Successfully,

Tim Greene

BURRUS 512852	184.7	20	15.2	100	37
BURRUS 833162	204.8	10	16.3	100	34
POWER PLUS 4C58 Q™*	197.9	14	16.2	81	31
POWER PLUS 4V43 S™*	216.9	3	14.8	100	35
✓Check	177.8		16.2	100	35
POWER PLUS 5A45 AM1™*	161.2	22	17.4	100	33
POWER PLUS 6B51 R™*	207.4	8	16.2	100	35
BURRUS 388920	218.9	1	14.5	89	37
POWER PLUS X6J36™*	218.9	2	15.9	100	36
BURRUS 471516	211.3	5	17.0	100	35
BURRUS 803599	187.3	18	16.7	100	30
✓Check	178.0		16.1	97	35
BURRUS 943018	198.6	13	16.9	100	32
BURRUS 341322	175.3	21	17.9	100	31

POWER PLUS X6F72™*	201.4	12	17.7	100	34
POWER PLUS 6A12 AM1™*	202.8	9	17.6	91	35
BURRUS 680038	201.7	11	16.1	100	35
✓Check	171.8		16.8	100	36
POWER PLUS X6F73™*	199.7	16	18.4	100	34
BURRUS 778098	212.4	7	17.5	100	35
POWER PLUS 7A18 AM1™*	212.6	6	19.2	100	36
BURRUS 260667	202.0	15	19.3	100	34
BURRUS 498109	199.1	17	17.7	94	33
POWER PLUS 7D51 Q™*	191.4	19	18.5	100	36
BURRUS 483952	220.1	4	18.1	88	35
✓Check	192.7		16.4	100	37
Average	197.2		16.9	98	34
Check Average	179.6		16.3	99.4	36

## WOODFORD

Terry Matter  
Minonk, IL

Soil Type: Medium loam. ✓Check Hybrid: Power Plus 6A12 AM1™\*

Brand/Product	Bu. Per Acre	Rank	% Moisture	Adj. Test Wt. /Acre	1000 Plants
POWER PLUS 5A45AM1™*	173.6	4	18.7	63.6	30
POWER PLUS 7D51 Q™*	168.1	6	17.0	64.3	30
POWER PLUS 6B52 S™*	190.7	1	18.6	66.6	30
✓Check	191.5		18.7	63.6	30
POWER PLUS 7A18AM1™*	186.8	5	16.8	64.2	30
POWER PLUS 4A30AM1™*	190.4	3	16.1	62.0	30
POWER PLUS 4V43 S™*	192.1	2	18.0	66.5	30
✓Check	190.1		18.0	63.5	30
Average	185.4		17.7	64.3	30
Check Average	190.8		18.4	63.5	30

## MISSOURI

### ATCHISON

Sheldon & Derek Davis,  
Fairfax, MO

Planted: May 4 in 30" rows. Planting Population: 32,000. Harvested: September 28. Previous Crop: Soybeans. Fertilizer: N: 180, P: 50, K: 60. Herbicide: Corvus. Soil Type: Medium loam. Weather: May-normal, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants
POWER PLUS 4A30 AM1™*	194.7	17.2	60	62.3	25
POWER PLUS 4A30 AM1™*	187.8	17.3	60	62.9	25
POWER PLUS 5R65 R™*	181.7	16.0	100	60.0	32
Average	188.1	16.8	73	61.8	27

## BUCHANAN

Walkup Farms  
Gower, MO

Planted: May 3 in 30" rows. Planting Population: 30,300. Harvested: October 13. Previous Crop: Soybeans. Fertilizer: N: 185, P: 60, K: 80. Herbicide: Harness Xtra, Roundup. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-wet, June-wet, July-normal, August-normal. ✓Check Hybrid: Power Plus 6Y10 R™\*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants
✓Check	169.8		15.3	100	28
POWER PLUS 5A45 AM1™*	185.2	1	15.4	100	24
POWER PLUS 7D51 Q™*	183.4	3	15.5	100	27
POWER PLUS X6F72™*	181.1	5	15.0	100	25
✓Check	174.5		15.0	96	29
POWER PLUS 6B52 S™*	189.2	4	14.7	100	29
POWER PLUS 6A12 AM1™*	183.6	6	15.4	100	26
POWER PLUS 7U17 S™*	190.8	2	16.2	100	27
POWER PLUS 4A30 AM1™*	168.9	7	14.8	100	26
✓Check	183.3		14.9	96	27
Average	181		15.2	99	27
Check Average	175.9		15.1	97	28





We select hybrids that are specifically suited for our marketing area, not ones that must work nationwide.

Nomenclature the more things change...the more they stay the same

Dealers and customers will see the same nomenclature as 2011.

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.
- PSF – is the Hughes® brand primarily. This seed size represents a PowerShield™ treated, flat-sized seed ranging from 38 lbs. and up.
- PSR – is recognized as what was previously PX23 in the Burrus system. This seed size is a PowerShield™ treated round-sized seed ranging from 38 lbs. and up.
- PS3 – is a PowerShield™ 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 of \$10/unit.
- PS4 – is also treated with PowerShield™ and is a flat or round weighing 40-49 lbs.
- The new seed treatment nomenclature will be primarily represented by the following:
  - PS – PowerShield™ 250 could be Poncho or Cruiser® (Burrus and Hoblit® brands will be using Poncho for black cutworm)
  - BX – Burrus Xtra will be treated with Poncho 500 and will be the standard treatment on all Power Plus® brand corn products
- 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 PS4 will weigh between 40-49 lbs. and a PS5 will be in the weight range of 50-59 lbs.

Growers can capitalize on additional seed size discounts within the Burrus system when those particular sizes are available. Discounts are given for small and extremely large seed sizes. PS3s, PS6s and PS7s have a \$10 discount off retail price. Always check the GO sheet for the latest seed size availability. The Go sheets are updated regularly and can be found at [www.burrusseed.com](http://www.burrusseed.com). If you have questions, don't hesitate to talk to your local Burrus RSM, Hughes DSM or Hoblit Sales Associate. You can also call our office toll free at 877-4BURRUS. Our goal is to get you the correct hybrid in the best seed size available for your management application.

Dekalb 61-49	220.4	16.8	100	55.2	26
POWER PLUS 7U17 S™*	219.2	20.0	100	60.0	28
Dekalb 62-97	215.8	17.5	100	54.0	27
Lewis 1110VT2P	212.3	17.0	100	57.3	25
Merschmen 1015B15	210.2	19.4	85	55.2	26
Garst 83R38	209.9	17.9	100	56.5	24
Lewis 1213	209.0	18.0	100	55.5	24
Dekalb 61-49	208.2	18.0	90	56.5	28
Mycogen 2A787	207.4	19.6	100	56.9	28
Mycogen 2V702	207.0	17.6	85	54.9	26
POWER PLUS 6B51 R™*	200.1	17.4	90	55.3	27
Mycogen 2V715	197.6	17.1	100	54.8	26
Dekalb 59-35	193.0	17.2	100	56.3	25
Mycogen 2H736SS	191.3	20.4	100	56.0	27
Mycogen 2V738SS	189.5	19.5	90	57.4	27
Stine 9731	183.8	17.4	100	55.3	23
POWER PLUS 4V43 S™*	164.4	15.7	100	58.0	28
Average	208	18.3	97	56.4	26

David Emmerich  
Salisbury, MO

Planted: May 10 in 30" rows. Planting Population: 30,000. Harvested: September 30. Previous Crop: Soybeans. Fertilizer: N: 180, P: 75, K: 80. Herbicide: Corvus, Atrazine. Corn Borer Rating: Moderate. Soil Type: Medium loam. Weather: May-normal, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants /Acre
Stine 9086VT3	182.3	17.3	56.4	30
POWER PLUS 6B50™*	182.1	13.9	62.5	30
Stine 9806VT3	181.0	18.7	56.7	30
Stine 9807VT3	169.3	16.4	55.1	30
Stine 9806VT3PRO	168.9	18.4	56.6	30
Stine 9731RR	167.0	15.2	58.9	30
Stine 114NVT3	162.7	18.3	57.6	30
Stine 9729RR	161.8	14.4	58.7	30
POWER PLUS 5A45 AM1™*	158.7	14.0	63.6	30
Stine 9728VT3PRO	153.6	17.8	59.5	30
Average	168.7	16.4	58.6	30

CLARK

Power Plus® 6A12 AM1™\* wins plot

Kevin and Brian Buford  
Kahoka, MO

Planted: April 5 in 30" rows. Planting Population: 30,000. Harvested: September 7. Previous Crop: Soybeans. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-

Power Plus® 7D51 Q™\* is best

Brunswick FFA  
Brunswick, MO

Planted: May 5 in 30" rows. Planting Population: 30,000. Harvested: September 23. Previous Crop: Soybeans. Fertilizer: N: 212, P: 80, K: 80. Herbicide: Degree Xtra, Atrazine. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-normal, July-dry, August-dry. Remarks: Power Plus 4V43 S™\* suffered weed and grass damage.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 7D51 Q™*	236.2	19.0	100	58.2	30
Lewis 1215	229.2	19.0	100	58.7	26
Dekalb 63-87	226.2	19.2	90	56.7	23
Dekalb 64-69	222.4	18.0	100	57.0	27
Stine 9806	222.2	20.8	100	54.7	29



At 228 bu/a Power Plus® X6F72™\* took top honors in Washington Co., IA for Oscar Steele, Andrew Schneider, Jerad Ropp & Darrell Steele.

CARROLL



Kaiser Farms Inc.  
Carrollton, MO



Planted: May 26 in 30" rows. Harvested: October 1. Previous Crop: Corn.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Dekalb 66-96	219.0	15.0	60.1
Dekalb 62-97	202.6	14.7	56.3
POWER PLUS 7D51 Q™*	201.9	16.7	61.5
Pioneer P1395HR	198.2	14.1	59.7
Producers 7224VT3	197.0	16.8	57.3
Producers 7414VT3	195.0	17.7	56.8
Dekalb 61-49	191.0	13.9	56.2
Pioneer P1360HR	190.8	14.4	61.5
Pioneer P1018HR	189.3	14.0	58.9
Dekalb 64-69	187.7	15.2	57.3
Pioneer 31P42	187.4	17.1	59.3
NK N74R-3000GT	185.0	16.4	57.7
Pioneer 32D79	180.4	17.1	60.4
POWER PLUS 4V43 S™*	173.9	14.5	58.6
NK N79Z-3000GT	169.6	17.7	59.6
NK N69H-3000GT	162.9	14.9	56.5
Pioneer P1420HR	148.9	15.5	58.8
Average	187.1	15.6	58.6

CHARITON

Power Plus® 4V43 S™\* is first!

David Emmerich  
Salisbury, MO

Planted: May 9 in 30" rows. Planting

Population: 30,000. Harvested: September 30. Previous Crop: Soybeans. Fertilizer: N: 180, P: 75, K: 85. Herbicide: Corvus, Atrazine. Corn Borer Rating: Moderate. Soil Type: Medium loam. Weather: May-normal, June-normal, July-dry, August-dry. ✓Check Hybrid: Power Plus® 4A30 AM1™\*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	159.9		13.4	100	30
BURRUS 512852	147.2		14.0	100	31
BURRUS 833162	173.8	2	12.7	100	28
POWER PLUS 5N48™*	166.8	6	12.8	100	31
POWER PLUS 4V43 S™*	175.0	1	13.6	100	28
POWER PLUS 5A45 AM1™*	163.9	10	14.3	100	28
POWER PLUS 6B51 R™*	148.4	18	13.3	100	26
✓Check	152.5		13.7	100	30
BURRUS 100363	154.9	15	12.9	90	27
BURRUS 388920	137.4	21	13.5	85	27
BURRUS X6J36	159.1	13	13.3	100	27
BURRUS 471515	165.9	7	13.8	100	30
BURRUS 803599	165.7	8	14.9	100	29
✓Check	157.9		13.4	100	30
BURRUS 943018	162.6	12	14.5	100	28
BURRUS 341332	155.6	14	16.7	100	28
BURRUS 680038	171.6	3	14.3	100	29
POWER PLUS 6A12 AM1™*	165.5	9	15.0	100	28
BURRUS X6F72	170.1	4	14.6	95	29
✓Check	154.7		13.6	90	28
BURRUS 77809	167.8	5	13.3	90	27
BURRUS 498109	144.0	20	13.0	95	31
BURRUS 260669	150.5	17	15.9	100	29
POWER PLUS 7U17 S™*	163.7	11	15.9	100	29
POWER PLUS 7D51 Q™*	153.2	16	16.0	100	31
BURRUS 483952	148.1	19	13.5	75	28
✓Check	143.4		13.4	95	29
Average	158.5	4		97	29
Check Average	153.7		13.5	97	29





# Agrisure Viptera™

By Brian Maxwell



Traits are designed to protect the yield potential of the hybrid. So when growers make product selections, their first job is to determine which hybrids work best for their farm. Secondly, growers should choose which traits will help maintain the highest yield opportunity for that hybrid. As we look at the Agrisure Viptera™ trait we see it does the following:

Agrisure Viptera™ provides season-long protection for above ground lepidopteran pests. This can help give growers the peace of mind that the crop you are raising is protected from pests like corn borer, common stalk borer, ear worm,

black cut worm, Army worm, and Western bean cut worm.

Granted, this list which is not seen every year, can do a great deal of damage when present. For example, if you experience an ear worm infestation and lose 10 kernels per ear, that's equal to 300,000 kernels per acre when your population is 30,000 plants. That comes to about 1.7% of your yield. In smaller terms, if your crop is yielding 200 bushels per acre you are losing approximately 3.4 bushels per acre or \$19.72 per acre.

The key to the Agrisure Viptera™ trait is to choose the hybrid that best fits your fields, and if you can get that hybrid with the Agrisure Viptera trait then you have just added a little extra insurance to the yield protection. We offer Agrisure Viptera™ 3111 protection in Hughes 4431 GTV brand. Try some on your farm today.

wet, June-wet, July-dry, August-dry. ✓Check Hybrid: Power Plus® 7D51™\*. Remarks: 50# Urea at v5.

Brand/Product	Bu. Per Acre	Rank	% Moisture	Adj. Test Wt. /Acre	1000 Plants
✓Check	173.3		23.1	57.8	29
POWER PLUS 4V43 S™*	161.8	3	19.9	56.0	29
POWER PLUS 6B52 S™*	143.7	7	20.4	56.1	30
POWER PLUS 7U17 S™*	170.3	2	22.1	58.5	29
✓Check	160.1		23.5	58.9	30
POWER PLUS 6A12 AM1™*	167.1	1	21.0	56.3	28
POWER PLUS 4A30 AM1™*	147.5	4	18.7	57.7	28
POWER PLUS 3C98 R™*	133.4	6	15.0	56.8	27
POWER PLUS 5R65 R™*	145.0	5	22.5	57.6	28
✓Check	146.5		23.5	56.9	30
Average	154.9		21.0	57.3	29
Check Average	160		23.4	57.9	30

## CLINTON

Power Plus® X6F72™\*  
is second

Earl and Jerald Grimes  
Osborn, MO



Penn Farms pulling team from Knox Co., MO won the 8500#, open diesel truck division at the 2011 Missouri State Fair. We are proud to have them on the Burrus team!

POWER PLUS X6F72™*	183.7	2	18.3	0	27
✓Check	171.2		17.7	50	29
BURRUS 778098	130.7	22	16.5	0	28
BURRUS 498109	144.0	18	17.9	10	30
BURRUS 260667	152.5	15	19.8	0	29
POWER PLUS 7U17 S™*	176.1	4	19.8	0	28
POWER PLUS 7D51 Q™*	164.5	12	20.5	0	29
BURRUS 483952	145.9	16	18.8	0	30
✓Check	165.9		19.0	22	28
Average	169.2		17.6	17	29
Check Average	175.4		17.4	51	62

Power Plus X6F72™\*  
takes second



Earl and Jerald Grimes  
Osborn, MO

Planted: May 11 in 30" rows. Planting Population: 30,000. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 200, P: 40, K: 70. Herbicide: Balance Flexx, Surpass, Roundup. Soil Type: Medium loam. Weather: May-normal, June-normal, July-dry, August-normal. ✓Check Hybrid: Power Plus® 4A30 AM1™\*. Remarks: This plot endured 80-100 MPH wind on 8-18-11.

Brand/Product	Bu. Per Acre	Rank	% Moisture	Adj. Test Wt. /Acre	1000 Plants
✓Check	180.5		17.0	29	
BURRUS 512852	154.4	19	17.4	29	
BURRUS 833162	188.4	5	15.0	30	
POWER PLUS 5N48™*	189.3	3	15.0	29	
POWER PLUS 4V43 S™*	185.1	8	15.3	28	
POWER PLUS 5A45 AM1™*	157.9	17	17.4	29	
POWER PLUS 6B52 S™*	179.4	11	17.1	29	
✓Check	181.8		16.4	27	
BURRUS 100363	146.3	20	16.1	30	
BURRUS 388920	145.6	21	17.0	29	
BURRUS X6J36	167.6	14	16.9	29	
BURRUS 471516	185.0	6	17.3	29	
BURRUS 803599	183.2	9	18.5	29	
✓Check	177.6		17.1	28	
BURRUS 943018	178.7	7	18.6	31	
BURRUS 341332	173.5	10	19.8	28	
BURRUS 680038	192.5	1	16.7	27	
POWER PLUS 6A12 AM1™*	167.0	13	18.9	28	
POWER PLUS X6F72™*	183.7	2	18.3	27	
✓Check	171.2		17.7	29	
BURRUS 778098	130.7	22	16.5	28	
BURRUS 498109	144.0	18	17.9	30	
BURRUS 260667	152.5	15	19.8	29	
POWER PLUS 7U17 S™*	176.1	4	19.8	28	
POWER PLUS 7D51 Q™*	164.5	12	20.5	29	
BURRUS 483952	145.9	16	18.8	30	
✓Check	165.9		19.0	28	
Average	169.2		17.6	29	
Check Average	175.4		17.4	28	

## COOPER

Power Plus® 7D51™\*  
stomps competition



Glen Grissum  
Boonville, MO



Planted: May 15 in 30" rows. Planting Population: 31,000. Harvested: October 15. Previous Crop: Corn. Fertilizer: N: 32, P: 80, K: 100. Soil Type: Loam. Weather: May-normal, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 7D51 Q™*	188.9	14.2	61.6

POWER PLUS 7D51 Q™*	178.7	15.6	64.0
Dekalb 64-69	177.8	13.6	57.5
Pioneer 33D49	177.1	13.9	60.5
Hogemeyer 8692	174.0	14.6	59.7
Hogemeyer 8691	172.5	14.4	58.7
Pioneer P1018XR	156.6	13.5	60.4
Average	175.1	14.3	60.3

## HOLT

Power Plus® 7D51 Q™\*  
fourth place

Mitchell Corbin  
Mound City, MO

Planted: May 1 in 20" rows. Planting Population: 40,000. Harvested: September 17. Previous Crop: Soybeans. Fertilizer: N: 280, P: VRT, K: VRT. Herbicide: Basis, 2,4-D, Halex GT. Soil Type: Heavy loam. Weather: May-wet, June-wet, July-normal, August-normal.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt. /Acre	1000 Plants
Dekalb 65-63	248.8	26.6	24	56.7	38
Pioneer P1395HR	248.7	25.3	70	56.8	38
Dekalb 63-07	247.0	23.5	84	56.9	36
POWER PLUS 7D51 Q™*	244.0	25.1	96	58.3	34
Dekalb 62-97	242.0	24.8	84	56.7	36
Dekalb 63-25	239.5	25.0	92	57.3	40
POWER PLUS 7U17 S™*	239.4	29.5	88	57.9	40
Dekalb 61-49	238.9	25.2	94	56.3	38
Dekalb 62-09	235.5	23.8	80	55.4	38
Dekalb 66-96	230.3	26.8	68	59.7	38
Dekalb 63-87	228.5	26.9	70	56.7	32
Dekalb 61-88	227.0	25.3	82	55.8	38
Pioneer P0916HR	224.1	23.0	96	56.7	36
Dekalb 62-13	223.4	23.5	78	56.4	38
Dekalb 59-35	223.1	23.6	96	56.4	38
POWER PLUS 5A45 AM1™*	219.0	25.5	88	59.4	32
Dekalb 64-04	217.9	22.6	85	56.1	36
BURRUS X6J36	217.4	24.2	76	56.0	34
POWER PLUS 6A12 AM1™*	216.9	26.3	88	57.0	38
POWER PLUS 6B52 S™*	213.8	24.0	84	56.0	38
Dekalb 65-19	213.0	25.0	84	56.3	34
POWER PLUS 4A30 AM1™*	211.1	23.6	92	58.9	36
Dekalb 64-69	205.1	23.7	72	55.9	32
POWER PLUS X6F72™*	201.0	26.3	92	56.5	36
Dekalb 58-83	197.4	22.5	70	59.1	42
POWER PLUS 4V43 S™*	181.6	23.5	68	55.9	30
Average	224.4	24.8	81	57.0	36

## HOWARD



Heath and Jared Meyer  
Glasgow, MO

Planted: May 5 in 30" rows. Planting Population: 31,000. Harvested: September 30. Previous Crop: Soybeans. Fertilizer: N: 180, P: 90, K: 90. Herbicide: Keystone/Atrazine. Soil Type: Medium loam. Weather: May-normal, June-normal, July-dry, August-dry. Remarks: Nice plot.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000 Plants
BURRUS 750	206.0	16.4	64.1	30
POWER PLUS 4K74 S™*	203.1	13.1	63.3	32
POWER PLUS 6B50™*	202.6	13.8	61.5	30
POWER PLUS 5G42™*	192.8	14.0	63.6	28
POWER PLUS 5R66 B™*	186.7	13.9	61.0	29
Average	198.2	14.2	62.7	30



Experience Burrus, it is what’s inside that counts.

# Dropped ears fears

By Clayton Cook

Driving the combine through a field where ear drop has occurred ranks high on the list of things farmers don’t want to see. Seeing ears on the ground can make a farmer cringe and wonder just how much loss is occurring. Taking a round off with the combine and seeing a couple hundred ears on the ground can look and feel like it’s all on the ground, but you have to think about how much ground you are covering.

From research conducted in 2011 ear drop severity is often less severe than it is perceived. In an earlier article we calculated that if you see 400 ears dropped over one and a half acres with 170 bushel corn at a population of 34,000 plants per acre, the actual loss is only about 8/10 of a percent. The question becomes what causes 8/10 of one percent of the ears to detach and fall to the ground?

In times before corn borer Bt hybrids, ears falling to the ground before the combine could capture them was a routine occurrence nearly every year. European corn borer invaded ear shanks, feeding on the tissue, allowing the ear and husk to detach from the plant. Corn borer Bt hybrids solved most of the problem. This could be called “camo” ear drop as the husk covered ears blended in with the other refuse on the ground, thus this type of ear drop is easily overlooked.

Occasionally, ears detach with no evidence of insect injury. Most of the time the ears become loose at the attachment point to the shank and drop to the ground “clean,” with no husk cover. Unfortunately the bright, yellow ears can be seen easily from the combine seat, adding to the grower’s frustration level in much more of a way than the “camo” ear drop will.

For 2011, what caused the “clean” ear

drop that many of us noticed? The over used answer of “environmental stress” does not provide much of an answer to this problem. However, this statement is probably the simplest way to describe the complicated answer of what really happened. There is not a single answer that can be applied to every field across the areas where we saw ear drop. Most likely there was a combination of factors that contributed to each area’s issues. Things like inadequate nitrogen, high nighttime temperatures, and rapid dry down can all be factors that contributed to ear drop.

Dr. Emerson Nafziger, professor of Agronomic Extension at the University of Illinois, points out that whatever mechanism triggered the poor ear attachment, he believes it started before ear emergence, perhaps one to two weeks before tasseling. In most every case, the dropped ears exhibited smaller diameter, pinched ear butts. This pinching appeared to go into the end of the cob, constricting the diameter of the attachment point of cob and shank.

Dr. Nafziger theorizes that the constriction process started when the tiny ear was perhaps an inch long. He also believes it’s very time sensitive and because as fast as corn was maturing at that stage, differences were magnified. He says that not only maturity differences of weeks or days, but even hours could have been the difference of ears hanging on or dropping to the ground. It’s hard to imagine, but that helps explain why some fields were perfect while others dropped some ears, even the randomness of individual ears falling while neighboring plants remained intact.

When all is said and done it comes down to insects, environmental stresses, and genetics. Because the majority of corn today has some type of corn borer



Shown is the example of a smaller diameter, pinched end of an ear that constricts the attachment point of the cob and shank.

Bt in it you can pretty much narrow it down to genetics and different stresses. This year we were hot and dry in several areas which adds stress. The hybrids that are genetically predisposed to having a weaker attachment point at the shank become the main focal point of the ear drop issue; their ear shanks dry faster and are more brittle than usual due to hot dry days and nights, and thus allowing some of ears to fall to the ground.

Each year the best way to combat issues such as ear drop is to plant a combination of hybrids with varying strength points. Some hybrids that we expect to be more high-yield hybrids might have other standability issues to go with them. While others that are more consistent will tend to be less susceptible to the problems like green snap, ear drop, etc.

On a perfect year the high-yield hybrids will always win, but how many years do we have that are perfect? With a diversified hybrid setup you can help insure yourself against a windy spring when more green snap can occur, or a hot dry summer that could contribute to more ear drop or fall stalk lodging. A good balance of consistent hybrids versus high-yield potential hybrids will help alleviate seeing too much of any particular negative issue, such as ear drop, during the growing season.

O, K: O. **Herbicide:** Capreno. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–normal, June–normal, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.	1000. Plants /Acre
POWER PLUS 7U17 S™*	236.0	20.0	60.0	40
POWER PLUS 4A30 AM1™*	231.7	17.5	61.4	40
POWER PLUS 7D51 Q™*	228.8	20.2	60.6	40
POWER PLUS 6B52 S™*	222.6	18.5	59.2	40
POWER PLUS 6B52 S™*	221.7	18.1	59.6	39
POWER PLUS 4V43 S™*	217.2	17.2	59.3	40
POWER PLUS 5A45 AM1™*	213.4	18.0	60.5	40
POWER PLUS 6B52 S™*	212.5	18.1	59.6	32
POWER PLUS 6A12 AM1™*	198.1	19.0	60.8	40
POWER PLUS 6B52 S™*	189.6	18.4	59.6	42
Average	217.2	18.5	60.1	39

Greg Bertz  
Mayview, MO

**Planted:** May 9 in 30" rows. **Planting Population:** 27,500. **Harvested:** September 20. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: 80, K: 80. **Herbicide:** Capreno, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–normal, June–normal, July–normal, August–dry. **✓Check Hybrid:** Power Plus 4K74 S™\*. **Remarks:** This plot suffered 85 mph wind in August

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	183.1		15.5	70	24
POWER PLUS 5G42™*	171.4	4	17.1	40	24
POWER PLUS 6F72 AM™*	175.5	3	17.3	55	26
BURRUS 750	161.9	9	19.5	50	26
POWER PLUS 6B50™*	171.4	5	16.9	55	24
✓Check	176.6		15.5	80	28
POWER PLUS 7U17 S™*	183.1	1	18.0	70	29
POWER PLUS 5N48™*	150.2	8	15.3	45	25
POWER PLUS 4V43 S™*	152.5	7	15.5	40	26
Kruger K-6213 VT3	137.8	13	15.6	55	28
✓Check	157.5		15.5	60	27
Kruger K-4510	95.0	14	15.5	30	25
Kruger K-4110	129.9	12	15.7	80	27
Kruger K-4014	134.7	10	16.7	85	29
Kruger K-9513	130.7	11	16.8	80	28
✓Check	156.0		15.6	90	29
Pioneer 33T57	142.7	6	17.3	90	26
Pioneer P1395	155.3	2	16.0	55	28
✓Check	148.8		15.3	80	28
Average	153.4		16.3	64	27
Check Average	164.4		15.5	76	27



Scott & Susan Harris along with son Jordan Bottiger of Gentry Co., MO are great representatives of Burrus.



Power Plus® 7U17 S™\* was the top performer for Kim & Greg Bertz of Lafayette Co., MO.

## KNOX

Penn Farms  
Edina, MO

**Planted:** April 28 in 30" rows. **Planting Population:** 35,000. **Harvested:** September 26.

## MISSOURI

**Previous Crop:** Soybeans. **Fertilizer:** N: 200, P: 75, K: 150. **Herbicide:** SureStart. **Soil Type:** Medium loam. **Weather:** May–normal, June–normal, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 7U17 S™*	175.1	19.3	57.9
POWER PLUS 5G42™*	164.2	17.8	59.5
BURRUS 750	159.6	18.2	59.6
POWER PLUS 4A30 AM1™*	154.5	18.5	56.7
BURRUS X6J36	153.3	18.5	57.7
POWER PLUS 7U17 S™*	139.0	17.5	58.4
POWER PLUS 6B50™*	135.2	17.8	58.5
POWER PLUS 5N48™*	114.9	18.5	58.7
Average	149.5	18.3	58.4

## LAFAYETTE

Power Plus® 7U17S™\*  
tops plot at 236 bu/a

COMPARE! Mahnken Brothers  
Corder, MO

**Planted:** April 9 in 15" rows. **Planting Population:** 40,000. **Harvested:** September 2. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P:





## PETTIS

R. Dale Harms  
Windsor, MO

**Planted:** May 25 in 38" rows. **Planting Population:** 20,000. **Harvested:** October 15. **Previous Crop:** Soybeans. **Herbicide:** Roundup. **Corn Borer Rating:** Moderate. **Soil Type:** Medium loam. **Weather:** May-normal, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4V43 S™*	104.7	15.1	100	57.8	
POWER PLUS 4V43 S™*	78.4	14.4	85	58.7	20
POWER PLUS 6A12 AM1™*	70.2	15.6	100	61.0	18
POWER PLUS 7D51 Q™*	52.4	16.7	90	58.2	19
POWER PLUS 4V43 S™*	51.8	14.3	85	56.6	18
POWER PLUS 5A45 AM1™*	50.2	14.5	80	57.7	18
POWER PLUS 6B52 S™*	46.8	15.0	85	55.8	17
POWER PLUS 7U17 S™*	30.2	20.0	95	59.0	17
Average	60.6	15.7	90	58.1	18

## PIKE

John Scherder  
Frankford, MO

**Planted:** April 10 in 30" rows. **Planting Population:** 30,000. **Harvested:** October 20. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: VRT, K: VRT. **Herbicide:** Degree Xtra. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Dekalb 62-97	127.2	13.4	59.5
POWER PLUS 6B52 S™*	113.4	13.1	60.5
Pioneer P1162AM1	112.0	13.8	58.3
Golden Harvest 9173	97.2	14.0	59.2
Average	112.4	13.6	59.4



Tatum, granddaughter of Greg & Marj Tiemann of Lafayette Co., MO helped the family freeze their Burrus Coon's Choice sweet corn.



Dry corn in Johnson Co., MO allowed early harvest for Daniel, Stephen & Richard Ring.

# COMPACTION

Several ways to reduce it including cover crops

By Tim Greene

When we encounter soils damaged by compaction, some of the compaction damage can have an effect on yields for an extended time. Heavy equipment and tillage tools can damage soil structure. Too much rain can also cause compaction in certain areas. Good soil structure is important because it determines the ability of a soil to hold water, nutrients, and air. These three vital components to the structure allow roots to function properly.

**Soil compaction is a result of soil particles being pressed together, reducing the pore space between them.** When pore space is reduced, the soil has less ability to move water through the soil profile. Obviously water moves more readily through larger pores. Less air in compacted soils can limit healthy root development. Compaction can also limit root development because roots must exert more force to penetrate a compacted area. Sometimes the resistance of the compacted soil is greater than the root can exert, limiting proper root development. From the crop production standpoint, some researchers feel that the real effects of soil compaction on overall water flow and storage capacity within the soil may be more detrimental than the direct effect of the soil compaction on root growth.

**The major myth about compaction is that freezing and thawing can diminish soil compaction.** Research has shown that only the top 2" – 5" of the soil will experience multiple freeze-thaw cycles. Deeper compaction layers are not affected by winter weather.

When root growth is impeded, roots in compacted soils are not able to explore for moisture and nutrients as efficiently. The damage to the plant is magnified in a dry growing season. In a dry season, soil compaction can lead to stunted, drought stressed plants due to the lack of proper root growth.

Compacted soils during the 2011 growing season suffered yield stress. In some cases the yield stress was severe. Symptoms were similar in most cases. Plants with inhibited root systems were able to survive the early portion of the growing season because of the available surface moisture. The roots did not have the need to go deeper into the soil search-

ing for moisture and nutrients. When the heat of the summer and subsequent dry weather hit, the root structure of the plant was still within the top four inches of the soil surface in most cases and then could not break through the compacted soil layers when they needed to the most. In wet years, denitrification (loss of nitrate nitrogen to the atmosphere) can increase in compacted soils because of less soil aeration. Even potassium deficiency symptoms increase in compacted soils. Plants expend energy to take up potassium. Reduced soil aeration affects root metabolism. All of these factors add stress to the plant and may ultimately lead to lower yields.

Although the heavy rains can contribute to compaction, the major cause of our compacted soils is from harvest-time wheel traffic during wet field conditions. Today's modern combines bring to the field massive grain harvesting ability along with lots of weight. A combine loaded with 300 bushels of grain can weigh 30 tons or more. A grain cart carrying 1000 bushels of corn can weigh 76,000 lbs.

Tillage is the most common practice that most growers use to help eliminate soil compaction. The two biggest reasons for tillage practices are increased seed to soil contact during planting and improved root growth.

**Most of the fall tillage decisions will have been made by the time this article is read. However, there are some guidelines that can be useful for further reference:**

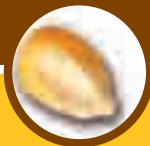
- Deep tillage should be accomplished in dry soils. The goal of deep tillage is to "shatter the soil." Wet soils "smear" but do not shatter. Pulling heavy tillage equipment with a large tractor can cause more compaction in wet soils than is being alleviated. Deep ripping in dry, compacted soils requires a lot of horsepower. If the implement pulls easier than expected, it's possible the soil is too wet for good shattering. Most areas in our marketing area would have experienced the beneficial shattering aspects of deep tillage this fall due to the drier soil conditions.
- Tillage tools can relieve compaction only to the depth they are operated. Compaction in some cases may extend downward 18" to 24" in the

soils. Discing or field cultivating will cosmetically leave the soil surface looking good, but does nothing for curing compaction. Deep tillage can not fully restore soil pore space to its original pre-compaction state, but it can allow spaces for air to enter the soil. It also helps break up the physical barrier which is key to helping unlock the compaction puzzle.

- When opting for deep tillage, try to leave some surface residue to minimize soil loss, especially on sloping fields. Surface residue can greatly lower the chances of water or wind erosion. The goal is not to try and correct one problem only to create another.

**If growers do not want to utilize tillage to manage soil compaction because they are in a reduced or no-till management environment, then cover crops provide a nice alternative.** It is believed in many university research circles that no-till can be even more effective at minimizing compaction losses than traditional tillage. University research has shown that continuous no-till tends to resist compaction issues from heavy loads better than soil that has been subsoiled every three years. In reduced or no-till environments, growers also use different types of cover crops to help manage their compaction issues. Cover crops improve soil structure, support microbial diversity, facilitate drainage, and reduce soil erosion among other things while helping improve the overall facet of farm economics. Cereal rye and oats are two good fall cover crop options. Both crops are deep rooting and tend to grow well if planted by early to mid-October. In last year's *Harvest Report* we talked about the "tillage" or "forage" radishes. There are several types of radishes and many have different brand names in the market. These large radishes are used to help break through layers of soil compaction. Research is continuing on these types of crops to offer alternatives to help alleviate soil compaction issues but tillage still remains the number 1 way growers tend to battle compaction.

**Relieving severe soil compaction is more than a one-year process, but with proper management soils can recover in 2 - 3 years.**



# Nitrogen management: simple or complex?

By Don Rhoads

Nitrogen articles have appeared in this publication for years. After writing about it for decades, what is there left to say? Nitrogen hasn't changed over time, corn still needs nitrogen fertilizer, it can't pull it from the air like soybeans and the way we apply it has not changed dramatically. So why do we still need to address nitrogen management? Perhaps the most important reason is we still get a number of questions throughout the year concerning nitrogen. The basic premise is very simple: furnish an adequate amount of nitrogen to the crop when it needs it. After the last two years of excessive spring and early summer rainfall, that premise is not as simple as it sounds.

The map shows how much rainfall was received during June across the Midwest. The areas of extremely heavy rainfall are less in 2011 compared to 2010, but Western Illinois, Northeastern Missouri and Southeastern Iowa recorded up to 12.5 inches of rain during the month, which was about 8 inches above normal. The Burrus plant near Arenzville, Illinois received a whopping 14.25 inches of rain in June!

If you have read our previous articles, you remember us saying that the nitrate form of nitrogen is vulnerable to loss by either leaching downward in the soil profile or denitrification into the atmosphere with heavy rainfall. By June, most all nitrogen applied the previous fall and early spring had converted to nitrates, no matter which form was originally applied. The amount of downward movement in the soil is dependent on the amount of rainfall. For each inch of rain, nitrates can move downward in the soil 4-6 inches in silty loam and even more in sandy soils. A four inch rain can move some of the nitrate nitrogen 1.5 to 2 feet deeper into the soil profile.

This is a double-edged sword during a year like 2011. Excessive rainfall can limit root development, resulting in smaller, shallower root systems. Root growth cannot keep pace with the downward movement of nitrate nitrogen. The nitrate nitrogen might still be in the soil, but it has moved or leached below the effective rooting zone. Ironically there is so much nitrogen in the air above the corn plants and below the roots in the soil, yet none is available to feed the plant.

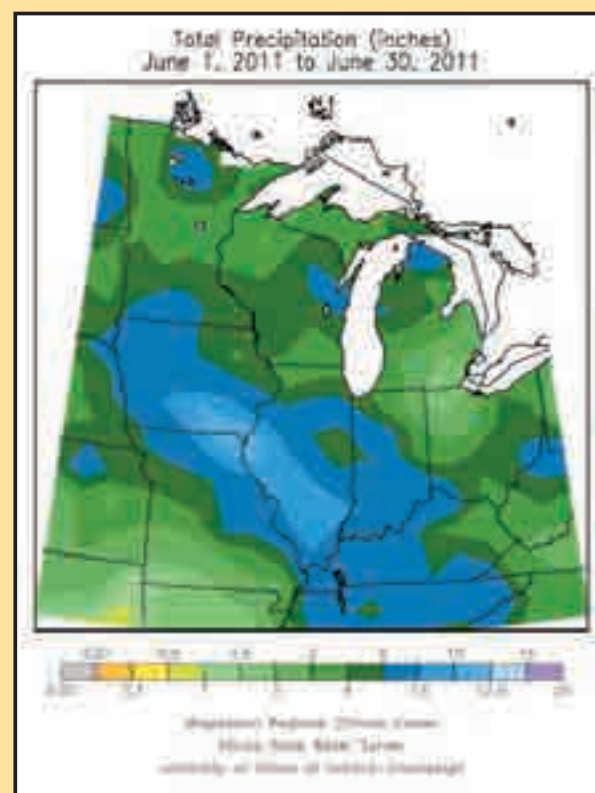
A Burrus nitrogen rate trial managed by Bryan Young has shown some interesting results over the years. This continuous corn trial is a replicated mini-strip type plot. In 2011 it was planted April 8th and side-dressed May 23rd with five treatments of 28% UAN solution at rates of 0, 50, 100, 150, and 200 units per acre. Bryan's research team also used a chlorophyll meter called a Spad meter at tasseling to record chlorophyll levels of leaf tissue. It has been well documented that chlorophyll content (greenness) of the leaves is directly correlated to nitrogen uptake by the plant. This means that darker leaves with higher chlorophyll content register higher readings on the Spad meter.

The graph shows average yield levels and Spad meter readings from all replications at the various nitrogen rates. The yields and Spad readings increased as nitrogen rates increased to the 150 unit level. The 150 and 200 unit rates were not significantly different. Even with 14.25" of rain in June, evidently adequate nitrogen remained from the 150 unit level to maximize yield and to equal the 200 unit rate.

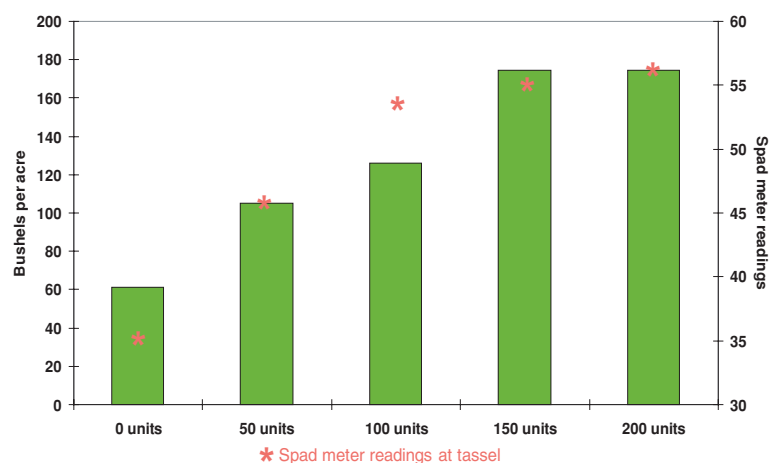
How could nitrogen still be available to feed the crop with over 14" of rain in June? Remember, the UAN solution was side-dressed May 23rd. UAN consists of approximately 50% urea, 25% ammonium and 25% nitrate. We know the nitrate portion could have been leached or denitrified in the saturated soils, but a large portion of the urea and ammonium might not have converted to the nitrate form and still available for plant uptake.

In this trial side-dressing urea was a good management decision. Realistically, however, most nitrogen must be applied either in the fall or preplant in the spring to assure applications are completed. The industry is not equipped to side-dress most of the corn acres. Even in this small trial, Bryan was fortunate to have an application window of good weather before the rains arrived.

The last two years of saturated soils during the spring and early summer have made many growers reconsider nitrogen management. Some are thinking about split applications, maybe 2/3 of their needs in the fall and 1/3 preplant or side-dress. Others are considering all in the spring, utilizing different forms of nitrogen, while some are thinking about increasing rates. Some growers in 2011 applied encapsulated urea by air to the growing crop. Some results were positive, while some saw no benefit. There are no right or wrong answers. Overreacting from the previous



## Burrus 2011 nitrogen rate trial



year's environment is not wise.

The basic premise remains the same: corn does not care which form of nitrogen you apply, as long as it is available in sufficient quantities when needed. Fall anhydrous ammonia with N-Serve is still a good choice in many areas. It is not recommended south of Route 16 in Illinois or other areas of the Midwest with sandy or poorly drained soils. Ammonium nitrate and UAN are not recommended in the fall because part of the nitrogen is already in the nitrate form. Urea is also not recommended in the fall because research has shown it to be less effective than anhydrous ammonia.

Nitrogen rate recommendations can still be found at [www.extension.agron](http://www.extension.agron).

[iastate.edu/soilfertility/nrate.aspx](http://iastate.edu/soilfertility/nrate.aspx). Many growers are using this site for nitrogen rate information. The site asks for the region you farm, previous crop, cost of nitrogen, and corn selling price. Unlike older nitrogen recommendation charts, this tool does not ask for yield goals. Although Missouri is not included, the guidelines from Central and Southern Illinois should apply. If you have Missouri heavy soils or river bottoms, use Central Illinois. For Missouri hill ground, use Southern Illinois.

Each farming operation is different, but whatever Mother Nature decides to throw at us next growing season, staying with a basic nitrogen management plan that fits your operation will be the key to long term success.





## RALLS

### Sunset View Farms Center, MO

**Planted:** May 6 in 30" rows. **Planting Population:** 28,600. **Harvested:** September 20. **Previous Crop:** Soybeans. **Fertilizer:** N: 150, P: 80, K: 80. **Herbicide:** Degree, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Medium clay. **Weather:** May–wet, June–wet, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 6B52 S™*	104.5	19.2	94	60.3	25
POWER PLUS 6B52 S™*	99.0	19.3	95	60.2	26
Pioneer P1395	98.3	17.6	94	60.9	27
Garst 83P06	93.4	22.6	97	59.7	27
Average	98.8	19.7	95	60.3	26

## IOWA

## CLINTON

### Wayne, Stan, & Matt Harmsen Clinton, IA

**Planted:** May 3 in 30" rows. **Planting Population:** 32,000. **Harvested:** September 21. **Previous Crop:** Corn. **Remarks:** Aztec on highest yielding Power Plus 6B51 R and 7A18 AM1™\*.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
LG 2620VT3	246.0	31.0	95	55.8	32
POWER PLUS 7A18 AM1™*	244.4	29.0	85	59.3	32
Channel 209-77VT3	239.4	29.0	85	58.3	32
DeKalb 59-35ARP	233.5	30.0	98	57.3	32
POWER PLUS 6B51 R™*	232.6	27.3	90	57.8	32
Pioneer P1162XR	232.2	31.0	98	58.8	32
Pioneer P1162AM1	229.4	31.0	98	59.5	32
POWER PLUS 7A18 AM1™*	227.2	28.7	75	58.6	32
Channel 209-85VT3 Pro	227.0	27.6	95	57.9	32
HUGHES 7383 GT3	226.4	28.0	75	57.0	32
POWER PLUS 7D51Q™*	221.7	30.5	65	59.7	32
HUGHES 5456 GT3	219.0	26.6	99	55.7	32
POWER PLUS 6A12 AM1™*	218.7	27.9	85	60.6	32



Power Plus® 7A18AM1™\* cranked out over 244 bu/a for Wayne & Stan Harmsen in Clinton Co., IA.



Tim Whittaker of Louisa Co., IA smiled after harvesting his Burrus corn.

POWER PLUS 6B51 R™*	218.6	26.9	95	58.3	32
POWER PLUS 6B52 S™*	217.3	28.2	95	52.6	32
POWER PLUS 5A45 AM1™*	216.0	25.8	75	61.2	32
POWER PLUS 4A30 AM1™*	213.3	27.7	99	55.9	32
POWER PLUS 3C98 R™*	207.0	24.1	90	57.4	32
Channel 205-99STX	202.9	24.8	95	56.2	32
LG 2508 VT3Pro	201.2	22.9	95	57.6	32
POWER PLUS 2A16 AM1™*	199.1	23.7	98	57.1	32
POWER PLUS 4C58 Q™*	193.9	27.5	90	57.3	32
BURRUS X6J36	186.3	28.1	60	57.3	32
HUGHES 4125 GT3	186.0	23.3	60	56.3	32
HUGHES 4431 GTV	183.9	21.9	85	56.0	32
DeKalb 61-21ARP	182.1	27.3	65	57.8	32
HUGHES 6435 GT3	157.5	27.6	15	54.9	32
Average	213.4	27.3	84	57.5	32

## LOUISA

Power Plus® 5G42™\*  
is first

### North Farms LLC Columbus Junction, IA

**Planted:** May 3 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 17. **Previous Crop:** Soybeans. **Fertilizer:** N: 120, P: VRT, K: VRT. **Herbicide:** Corvus. **Corn Borer Rating:** Light. **Soil Type:** Heavy loam. **Weather:** May–wet, June–normal, July–dry, August–dry. **✓Check Hybrid:** Power Plus 5A45 AM1™\*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	176.3		16.1	80	26
POWER PLUS 5N48™*	197.6	2	15.0	65	31
POWER PLUS 5G42™*	204.3	1	15.1	80	29
BURRUS 750	196.0	5	15.7	80	31
POWER PLUS 6B50™*	192.3	9	15.2	65	29
POWER PLUS 7U17 S™*	195.3	7	15.6	80	30
POWER PLUS 4V43 S™*	188.8	10	15.0	70	31
✓Check	173.2		15.0	90	31
POWER PLUS X6F72™*	174.0	11	15.1	55	31
POWER PLUS 4A30 AM1™*	191.3	4	15.0	90	32
Kruger K 6213 VT3	191.8	3	15.2	80	31
Kruger K 1113 RR	189.8	8	14.8	70	32
Kruger K A49710 GSM	189.8	6	14.1	80	32
✓Check	165.2		15.1	80	31
Average	187.5		15.1	76	30
Check Average	171.5		15.4	83	29



Ron Woodworth saw Hughes products excel in Lafayette Co., WI.



Nick & Bill Peacock saw Power Plus® 4A30AM1™\* & 3C98 R™\* go one/two in Lafayette Co., WI.

## WASHINGTON

Power Plus® X6F72™\*  
is best!

### Darrell Steele Washington, IA

**Planted:** May 6 in 30" rows. **Planting Population:** 35,500. **Harvested:** September 28. **Previous Crop:** Soybeans. **Fertilizer:** N: 210, P: 60, K: 100. **Herbicide:** Corvus, Atrazine. **Corn Borer Rating:** Light. **Soil Type:** Medium loam. **Weather:** May–wet, June–wet, July–dry, August–dry. **✓Check Hybrid:** Power Plus 4A30 AM1™\*.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	209.4		22.5	90	33
BURRUS 512852	176.1	23	22.7	90	33
BURRUS 833162	206.7	9	19.0	90	34
POWER PLUS 4C58 Q™*	196.0	20	20.1	85	34
POWER PLUS 5N48™*	198.7	18	19.4	90	34
POWER PLUS 4V43 S™*	204.1	13	21.2	70	33
✓Check	196.2		23.5	90	34
POWER PLUS 5A45 AM1™*	209.6	6	24.5	100	33
POWER PLUS 6B51 R™*	196.9	19	22.1	90	33
BURRUS 100363	205.0	10	21.6	80	34
BURRUS 388920	199.4	17	23.0	70	33
BURRUS X6J36	209.0	7	22.3	80	34
BURRUS 471516	203.3	12	27.1	90	34
BURRUS 803599	220.2	3	26.0	90	33
✓Check	206.8		24.5	100	33
BURRUS 943018	208.7	15	25.5	100	34
BURRUS 341332	216.3	8	27.0	100	34
BURRUS 680038	220.2	4	26.0	100	32
POWER PLUS 6A12 AM1™*	208.1	16	26.7	90	32
POWER PLUS X6F72™*	228.8	1	26.5	100	34
✓Check	211.9		26.0	100	33
BURRUS 778098	214.2	14	25.2	100	33
BURRUS 498109	197.4	22	25.2	100	34
BURRUS 260667	203.1	21	26.2	100	34
POWER PLUS 7A18 AM1™*	222.4	5	27.1	100	34
POWER PLUS 7D51 Q™*	232.2	2	29.1	100	34
BURRUS 483952	215.7	11	26.9	100	33
✓Check	214.3		24.5	100	34
Average	208.2		24.3	93	33
Check Average	207.7		24.2	96	33

## WISCONSIN

## GRANT

Power Plus® 6B52™\*  
& 4A30 AM1™\*

### Rolling S Farms Jim Steiger Bagley, WI

**Planted:** May 3 in 30" rows. **Planting Population:** 36,000. **Harvested:** October 10. **Herbicide:** Minimum. **Soil Type:** Medium loam. **Weather:** May–normal, June–dry, July–dry, August–dry. **✓Check Hybrid:** Power Plus 2A16 AM1™\*

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
BURRUS 603726	172.4	25	17.1	97	35
POWER PLUS 1H37 Q™*	221.8	9	16.9	97	33
✓Check	225.2		19.8	100	35

BURRUS 999139	208.9	14	16.8	100	33
BURRUS 541672	237.7	2	16.9	97	36
BURRUS 202623	198.4	21	19.3	100	34
BURRUS 463227	215.9	10	19.9	100	36
POWER PLUS 4C58 Q™*	231.7	4	23.9	100	34
✓Check	221.6		19.6	100	34
BURRUS 833162	234.4	5	19.0	98	34
BURRUS 994842	214.4	13	16.7	100	35
BURRUS 579075	218.9	11	16.9	94	34
HUGHES 2795 GT3	211.5	15	17.0	94	31
BURRUS 290782	224.5	8	19.3	100	35
✓Check	232.1		18.9	97	34
BURRUS 918065	217.4	17	17.4	97	27
HUGHES 3309 GT3	215.1	18	20.2	100	35
HUGHES 4431 GTV	200.8	24	20.1	93	28
BURRUS 562173	209.9	22	20.6	94	34
BURRUS 914042	223.2	12	20.5	97	33
✓Check	238.1		18.7	100	31
BURRUS 512852	203.5	20	24.0	100	33
HUGHES 6435 GT3	227.2	7	23.8	88	34
BURRUS 105911	212.0	16	21.6	86	36
HUGHES 4125 GT3	205.4	19	21.0	97	30
HUGHES 5456 GT3	230.9	6	19.0	91	33
✓Check	218.8		18.8	100	32
POWER PLUS 4A30 AM1™*	231.2	3	22.0	100	36
BURRUS 757778	185.6	23	23.5	94	36
POWER PLUS 6B52 S™*	234.1	1	20.2	86	35
Average	217.4		19.6	97	34
Check Average	227.2		19.2	99	33

## LAFAYETTE

### Peacock Farms Shullsburg, WI

**Planted:** May 2 in 30" rows. **Planting Population:** 32,000. **Harvested:** October 6. **Previous Crop:** Soybeans. **Soil Type:** Medium. **Remarks:** High wind on July 11.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. Test Wt.	1000 Plants /Acre
POWER PLUS 4A30 AM1™*	209.7	25.9	100	60.0	30
POWER PLUS 3C98 R™*	207.0	22.8	83	58.7	29
HUGHES 5456 GT3	206.2	26.1	91	57.5	31
LG 2544VT3	204.6	28.4	76	56.1	29
POWER PLUS 4C58 Q™*	203.8	26.4	93	57.6	28
POWER PLUS 2A16 AM1™*	201.0	25.5	100	57.4	30
HUGHES 5124 GT	182.0	23.2	53	56.8	28
HUGHES 4125 GT3	165.1	26.1	45	56.5	29
HUGHES 4431 GTV	159.8	22.2	97	56.6	30
Average	193.3	25.2	82	57.5	29

Hughes 3309 GT3  
goes 248 bu/a

### Ron Woodworth Shullsburg, WI

**Planted:** May 2 in 30" rows. **Harvested:** October 5. **Previous Crop:** Soybeans. **Soil Type:** Medium loam. **✓Check Hybrid:** Power Plus® 2A16 AM1™\*.

Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	1000 Plants /Acre
✓Check	186.9		22.7	97	34
HUGHES 2795 GT3	210.4	5	20.5	97	32
HUGHES 4125 GT3	212.8	4	19.8	100	34
HUGHES 3309 GT3	248.2	1	21.9	100	33
HUGHES 5456 GT3	225.0	2	23.0	88	35
✓Check	161.4		25.9	100	33
HUGHES 6435 GT3	237.9	3	22.2	100	33
POWER PLUS 4A30 AM1™*	222.3	7	26.1	100	35
POWER PLUS 3C98 R™*	224.6	6	18.4	97	33
HUGHES 4370	192.6	8	21.8	59	34
✓Check	216.9		21.4	100	33
Average	212.6		22.2	94	34
Check Average	188.4		23.3	99	33





Know your seed supplier; place your trust with Burrus and Hughes

Aphid watch-2012

By David Hughes

For most growers, the 2011 soybean harvest has been surprisingly good. Apparently, the heat and rainfall patterns of the summer that have been challenging for corn, produced positive results in many fields. While we have heard isolated reports of aphid outbreaks, incidence of this prolific little bug has been low this year. However, we have seen in the past that the soybean aphid can be a serious pest that should not be ignored. We will look at the most current aphid information with an eye toward the 2012 growing season.

For those of you not already familiar with this tiny bug, let's review some background information about *Aphis glycines*. First discovered in the upper Midwest in 2000, aphids are now present in 21 states and Canada. This 1/16" long pest damages plants by sucking sap. The results can be reduction in plant height, pod number, seed size, and yield. Soybean aphids can also vector disease during their feeding. Aphids can have up to 12 generations per season. If populations grow large, some aphids will develop wings and can spread over a very large area to find new soybean fields.

In late summer-early fall winged males and females develop and move out of soybean fields to the buckthorn plant. Once the move to buckthorn is complete mating and egg-laying occurs and the eggs overwinter on those plants. This overwintering pattern is significant in that it gives researchers a specific location to monitor insect populations.

Soybean fields should be scouted from the seedling stage through pod fill for aphids. Generally the best place to look is on the underside of new leaves and



Photo courtesy of Oneil, www.planthealth.info

Seeing the Binodoxys wasp in your fields is good because it is a natural predator of the soybean aphid.

growing points of young plants. Aphids can be found on all parts of more mature plants. Keep in mind that aphids tend to build up more heavily on late-planted fields. The current threshold for treatment is 250 aphids per plant during R1-R5. Treatment is not recommended past the R6 growth stage. There are many insecticides labeled for aphid control please consult your agronomic professional for specific recommendations.

The quest to understand and fight the soybean aphid is ongoing. One new tactic that has been put into action is the use of biological control. Starting in 2007, the Asian aphid parasitoid *Binodoxys communis* has been released in hopes it will establish itself and become a significant natural predator of the aphid. Binodoxys are tiny, stingerless wasps that lay their eggs in aphids. When these eggs hatch, the larva consume the aphid as a food source. One question that hasn't been answered yet is can this little wasp survive the harsh winters of Minnesota and Wisconsin. If it is successful, scientists



Photo courtesy of Kelley Timmon, South Dakota State Univ.

This is a close up of an aphid sucking life out of a soybean leaf.

hope that spraying aphids will no longer be necessary.

In the 2010 *Harvest Report* aphid antibiosis ratings were discussed. This is a rating based on lab and field evaluations that predict how quickly aphids will multiply on soybean varieties. Antibiosis is not a feature added to the soybeans but is a rating of the natural differences among varieties that influence the insect activity. This effort has continued and we have PowerPlus® varieties for sale that show good antibiosis. Currently, PowerPlus® 32K0™\*, and 28V2™\* exhibit very good and above average antibiosis.

As for 2012, University of Illinois Extension reports a high colonization of buckthorn is occurring and that no Asian ladybeetles have been observed at these sites. While overwintering numbers are used to predict possible future insect pressure, this is by no means an exact science. We recommend that growers keep a sharp eye on soybean fields this coming spring.

Sources: The Bulletin #23, Art. #1 Oct. 7, 2011 University of Illinois Extension; [www.plantpath.wisc.edu/soyhealth/aglycine.htm](http://www.plantpath.wisc.edu/soyhealth/aglycine.htm); The Ohio State University Extension factsheet FC-ENT-0037-09 Soybean Aphid.

DEKALB

Hughes 555 RR wins big

COMPARE! Roger Thorpe Waterman, IL

Planted: May 11 in 30" rows. Planting Population: 150,000. Harvested: October 4. Previous Crop: Corn. Soil Type: Medium. Remarks: Fungicide.

Brand/Product	Bu. Per Acre	% Moisture
HUGHES 555 RR	76.2	10.4
Asgrow AG2752	71.7	10.0
Dairyland DSR-2560	71.5	10.4
Average	73.1	10.3

EFFINGHAM

Lagerhausen Farms Shumway, IL

Previous Crop: Corn. Herbicide: Prowl, Touchdown. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-dry. Remarks: 41F9™\* and 43D1™\* were harvested on 10-15-11.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 37T1™*	49.8	11.0
POWER PLUS 34B9™*	49.5	11.0
HOBLIT 342	49.3	10.9
POWER PLUS 36C0™*	46.3	10.8
POWER PLUS 34T2™*	46.1	10.3
POWER PLUS 38D2™*	45.7	11.0
POWER PLUS 41F9™*	43.9	13.6
POWER PLUS 43D1™*	42.2	13.4
HOBLIT 36P2	41.6	10.7
Average	46.0	11.4

GREENE

Power Plus® 43D1™\* brand is outstanding

Ben Gilmore Roodhouse, IL

Planted: June 1 in 8" rows. Planting Population: 185,000. Harvested: October 12. Previous Crop: Corn. Herbicide: Glyphosate. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 43D1™*	66.5	10.9
POWER PLUS 38D2™*	59.0	9.7
POWER PLUS 37T1™*	58.6	9.1
POWER PLUS X34T2™*	58.4	9.5
POWER PLUS 36C0™*	56.9	10.0
POWER PLUS 41F9™*	55.9	9.7
POWER PLUS 40V1™*	53.7	10.2
POWER PLUS 34B9™*	53.5	9.4
HOBLIT 36P2	47.7	9.5
Average	56.7	9.8

ADAMS

Power Plus® 40V1™\* brand wins plot

Russell Nieders Jr. Liberty, IL

Planted: May 9 in 30" rows. Planting Population: 130,000. Harvested: October 11. Previous Crop: Corn. Herbicide: Roundup. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 40V1™*	50.0	11.3
POWER PLUS 38D2™*	43.9	10.9
HOBLIT 36P2	43.9	11.0
POWER PLUS 36C0™*	42.0	10.5
POWER PLUS 34B9™*	41.9	10.8
POWER PLUS X34T2™*	38.0	10.0
POWER PLUS 37T1™*	35.6	10.8
Average	42.2	10.8

CLAY

Power Plus® 43D1™\* brand is first

Bruce and Brian Garrison Louisville, IL

Planted: May 25 in 30" rows. Planting

Population: 130,000. Harvested: October 5. Previous Crop: Corn. Herbicide: Roundup. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-dry. ✓Check Hybrid: Power Plus 39G9™\*

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	42.5		11.2
POWER PLUS 43D1™*	43.6	1	10.6
POWER PLUS 41F9™*	42.9	4	09.6
POWER PLUS 40V1™*	41.5	7	11.0
POWER PLUS 38D2™*	43.5	2	09.6
✓Check	40.1		10.5
POWER PLUS 37T1™*	42.9	5	09.2
HOBLIT 36P2	42.4	6	09.8
POWER PLUS 36C0™*	39.6	8	09.8
POWER PLUS X34T2™*	43.0	3	09.9
✓Check	38.8		09.5
Average	41.9		10.1
Check Average	40.5		10.4





# Helicoverpa zea – Equal opportunity pest

By David Hughes

The soybean podworm (SPW) is commonly known in the Midwest as corn earworm, but for farmers in other parts of the country, this pest finds the time to attack other major crops. Soybean podworm is a major economic pest in southern soybean production states. For cotton growers the worm is known as the bollworm. In fact, *Helicoverpa zea* will attack corn, cotton, grain sorghum, soybeans, tomatoes, and many other crops. In this article we will focus on this worm as a soybean pest.

Soybean podworm overwinters as a pupa in the soil. Resident moths (buff-colored with irregular wing markings) emerge in April and are later joined by migratory moths in June. First-generation moths mate and the females lay their eggs on crop and wild host plants. The larvae hatch in 2-10 days and feed for 2-4 weeks. Full-grown larva crawl down the host plant and pupate in the soil. The next (second) generation moths emerge within the next 10-25 days.

Corn is the preferred host of SPW. Damage from this second generation is generally the most economically harmful for this crop. The second generation of moths mate and females lay eggs on green corn silks. The emerging larva will feed on the kernels. This second generation will in turn pupate and emerge as a third generation. Third generation larva are the stage which will most likely be a problem for Missouri soybeans.

In Southern Missouri, late-planted or double-cropped soybeans are most vulnerable to attack by SPW. The SPW will feed on many parts of the plant but the areas of most concern are pods and seeds. Infestations occurring during peak flowering to early pod fill stages can delay seed formation and reduce yields. In university research trials, an average of one large larva



Photo courtesy of Wayne Bailey, University of Missouri

Here you see both winged and wingless aphids that attack soybeans.

per foot of row was found to reduce yields by approximately 1.9 bushels per acre.

Economic thresholds for corn and soybeans differ greatly. Chemical control is quite difficult in corn because numerous applications would be required to prevent ear damage. In soybeans, once plants start to flower, rescue insecticide treatments are recommended when SPW populations are more than one per row foot and 5 percent or more of the pods are damaged. If the majority of worms are 1.25-1.5", they will soon pupate and the damage is already done. If insecticide treatment is warranted, use high gallons of water to ensure good canopy coverage.

There are several considerations for control. First, since late-planted soybeans are at highest risk, timely planting can play a significant role in avoiding infestation. Second, keep a careful eye on your soybean fields, especially double-crop and late planted as SPW can do a lot of damage in a short time. There are several insecticides labeled

for control of SPW, including, but not limited to: Asana® XL, Baythroid® XL, Leverage® 2.7, Lorsban® 4E, Mustang® Max, Sevin®, and Warrior®. Consult your label for proper rates and use instructions.

A new development that may help combat SPW is the new Agrisure Viptera™ corn trait. Viptera™ provides excellent corn earworm control. Widespread use of this and other corn insect traits that control or suppress earworm may have the side benefit of reducing the number of earworms in the third generation that favors soybeans.

Due to the highly mobile nature of the moth stage, control of the worm in corn will not eliminate the possibility of infestation, but time will tell if it reduces pressure.

Sources: Corn Earworm In Missouri by Michael L. Boyd and Wayne C. Bailey, State Extension Entomology Specialists; Soybean Podworm in Kentucky Soybean by Doug Johnson, Extension Entomologist University of Kentucky College of Agriculture; Insecticide Recommendations for Soybeans-2010 University of Kentucky.

## JODAVIESS

Kyle Embry  
Hanover, IL

Planted: May 10 in 20" rows. Planting Population: 150,000. Harvested: October 19. Previous Crop: Corn. Soil Type: Medium.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 23Z1™*	75.9	12.8
POWER PLUS 28S1™*	71.6	12.8
HUGHES 555 RR	71.1	13.0
POWER PLUS 26W2™*	70.8	13.2
HUGHES 454 RR	69.9	12.9
HUGHES 777 RR	67.3	13.2
HUGHES 201 RR	67.1	12.6
Average	70.5	12.9

## LASALLE

New Power Plus® 26W2™\*  
at 78 bu/a

Jeff and Tina Busch  
Tonica, IL

Planted: May 21 in 30" rows. Planting Population: 140,000. Harvested: October 17. Previous Crop: Corn. Herbicide: Roundup. Soil Type: Loam. Weather: May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 26W2™*	78.1	12.2
HUGHES 555 RR	75.5	11.7
POWER PLUS 23Z1™*	74.5	12.4
POWER PLUS 28W2™*	74.0	11.8
POWER PLUS 28J0™*	73.7	12.4
POWER PLUS 34T2™*	73.6	12.0
POWER PLUS 32K0™*	73.6	12.0
Becks 325	73.5	11.8
HUGHES 777 RR	73.5	12.9
HUGHES 454 RR	72.5	12.3
Average	74.2	12.2

LaSalle County Farm Bureau  
Ottawa, IL

Planted: May 19 in 30" rows. Planting Population: 140,000. Harvested: October 5. Remarks: No Fungicide.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Dairyland DSR2880R2Y	75.2	09.9	56.0
POWER PLUS 28J0™*	74.5	12.5	56.3
Asgrow AG3231	72.8	14.0	55.2
Great Lakes 2949	72.2	09.7	56.2
Channel 2800R2	72.0	11.1	56.2
Stone 2801	71.5	10.7	56.5
NK S31L7	71.4	12.3	56.0
Becks 325NR	70.5	15.7	53.4
Stone 3001	69.8	12.8	55.6
Mycogen 5N304	69.2	11.1	55.9
Channel 2903R2	69.1	11.7	56.1
Pioneer 92Y80	68.6	10.2	56.8
Golden Harvest S29-W7	67.5	09.5	55.4
Steyer 2801R2	67.4	13.4	56.1
Renk RS282R2	66.8	09.6	57.6
Asgrow 2931	66.6	09.6	57.4
Becks 294NR	65.8	13.0	55.6
Stone 3A288	65.2	10.3	56.1
Dairyland DSR3017R2Y	61.8	10.7	56.0
Average	69.4	11.5	56.0



Shirley & Doug Thornton saw Power Plus® X6F72™\* rank #1 in Greene Co.



Several Burrus dealers and customers, including Tom Burrus, enjoyed a fun day at the beach in Cancun, Mexico.





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The new LinkUp Offer is one more way it pays to rotate herbicide modes of action with LibertyLink and Ignite®

\*Based on seeding rates of 1 acre/unit of soybean seed.  
1 unit of soybeans = 140,000 seeds



Burrus Bros. and Associated Growers  
826 Arenzville Road  
Arenzville, IL 62611

**LASALLE**

LaSalle County Farm Bureau  
Ottawa, IL

**Planted:** May 19 in 30" rows. **Planting Population:** 140,000. **Harvested:** October 5. **Remarks:** With Headline Fugicide.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
Stone 3001	80.0	13.9	55.5
Stone 2801	79.6	10.3	56.9
Asgrow 2931	79.1	10.1	55.8
NK S31L7	78.8	15.2	55.3
Mycogen 5N304	78.8	13.5	55.1
Great Lakes 2949	78.2	10.6	55.5
Channel 2800R2	77.7	10.2	56.4
Dairyland DSR2880R2Y	77.0	10.1	57.4
Asgrow AG3231	75.7	15.2	54.7
Pioneer 92Y80	75.6	10.4	56.4
POWER PLUS 28J0™*	74.9	11.6	55.9
Channel 2903R2	74.3	12.8	55.3
Renk RS282R2	74.2	10.4	56.9
Great Lakes 3429	73.6	14.9	54.5
POWER PLUS 32K0™*	73.2	14.0	54.9
Steyer 2801R2	73.0	14.7	55.2
Becks 325NR	72.6	14.3	55.6

Becks 294NR	72.5	14.4	55.2
Stone 3A288	72.2	11.5	55.1
Golden Harvest S29-W7	71.8	09.5	53.9
Renk RD322NR2	71.0	12.3	56.7
Dairyland DSR3017R2Y	71.0	13.4	55.1
POWER PLUS X34T2™*	70.5	19.2	54.5
Average	75.0	12.7	55.6

**LOGAN**

Hoblit 372LL tops plot

Heartland Production  
Atlanta, IL

**Planted:** May 11 in 30" rows. **Harvested:** October 10. **Previous Crop:** Corn. **Herbicide:** Authority, Raptor.

Brand/Product	Bu. Per Acre	% Moisture
BURRUS N1044	78.7	10.6
Asgrow 3931	78.7	10.6
HOBLIT 372LL	78.0	10.5
POWER PLUS 34B9™*	77.2	10.6



Burrus is proud to have Ron Simonton & Cody Blankenbeker representing us as dealers in Clark Co.

BURRUS N9703	77.2	10.6
Pioneer 93Y70	76.3	10.6
POWER PLUS 36C0™*	76.3	10.6
BURRUS N5038	76.2	10.6
BURRUS N5307	75.9	10.5
POWER PLUS X34T2™*	75.3	10.6
Asgrow 3431	74.8	10.6
HOBLIT 342	73.7	10.6
Asgrow 3731	73.4	10.5
BURRUS N3450	73.2	10.5
POWER PLUS 37T1™*	73.0	10.6
POWER PLUS 28J0™*	72.9	10.6
POWER PLUS 41F9™*	72.4	10.5
BURRUS N9303	72.3	10.6
HOBLIT 412LL	72.2	10.6
Pioneer 93Y40	72.0	10.5
POWER PLUS 32K0™*	71.9	10.5
BURRUS N9830	71.9	10.6
BURRUS N4040	71.8	10.6
BURRUS N9308	71.7	10.5
BURRUS N4063	71.2	10.6
BURRUS N3140	70.4	10.6
BURRUS N4032	70.4	10.6
Pioneer 94Y01	69.3	10.6
BURRUS N3923	69.0	10.6
BURRUS N5023	68.4	10.6
POWER PLUS 38D2™*	67.8	10.5
BURRUS N0592	67.7	10.6



Mindy, Mark & Brad Halverson have been pleased with the performance of their Hughes products in Dane Co., WI.

BURRUS N6320	67.5	10.5
HOBLIT 36P2	67.4	10.6
POWER PLUS 43D1™*	67.3	10.6
BURRUS N8073	66.4	10.6
BURRUS N8803	66.2	10.6
BURRUS N9040	65.9	10.6
POWER PLUS 40V1™*	64.8	10.6
BURRUS N2410	64.1	10.9
Pioneer 92Y80	64.0	10.6
BURRUS N7598	61.0	10.6
BURRUS N7039	60.8	10.6
BURRUS N7126	60.2	11.0
BURRUS N2432	55.7	10.6
Average	70.5	10.6

**MARSHALL**



Gill Seed-Peter Gill  
Camp Grove, IL

**Planted:** May 2 in 30" rows. **Planting Population:** 140,000. **Harvested:** October 17. **Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Medium loam. **Weather:** May-wet, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 36C0™*	70.8	11.6
POWER PLUS 28J0™*	69.8	12.2
POWER PLUS 31P1™*	67.9	11.9
POWER PLUS 34B9™*	67.2	11.4
POWER PLUS 34T2™*	66.6	12.2
POWER PLUS 32K0™*	59.5	11.8
POWER PLUS 36P2™*	57.6	11.8
HOBLIT 342	52.1	11.7
Average	63.9	11.8

**MCHENRY**

Hughes Seed Farms  
Woodstock, IL

**Herbicide:** Roundup. **Soil Type:** Medium. **Weather:** May-normal, June-dry, July-wet, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
HUGHES 2.5	81.0	12.2
HUGHES 2.7	80.0	12.0
POWER PLUS 28S1™*	79.0	12.4
HUGHES 555 RR	77.0	12.0
Pioneer 92Y30	76.0	12.1
HUGHES 777 RR	75.0	12.2
Pioneer 92Y80	75.0	12.6
HUGHES 201 RR	74.0	12.2
POWER PLUS 28V2™*	74.0	12.6
POWER PLUS 20E1™*	74.0	12.3
POWER PLUS 26W2™*	73.0	12.2
POWER PLUS 32K0™*	72.0	13.3
POWER PLUS 23Z1™*	71.0	11.9
HUGHES 454 RR	70.0	12.2
Average	75.1	12.3





# Should that field of decaying corn stalks be planted to corn or soybeans next year?

By the time this article is read, many cropping decisions will have been made for the 2012 growing season. As we stated in the corn following corn article, some growers were disappointed in their corn on corn yields compared to corn following soybeans. For that reason some are considering more soybeans and less corn on corn acres.

Excluding 2010 and 2011, a 10% yield loss for corn following corn versus corn following soybeans has been considered an average penalty. Data compiled from 125 sites from 1980 through the late nineties show an average of 11.7% yield reduction with corn following corn. 149 sites of data from 2000 through 2008 show an 8.1% decline with corn on corn when compared to corn following soybeans. Better genetics, seed treatments and insect traits probably all contributed to lowering the yield difference in recent years.

If we can rely on the past to predict the future, then we should on average expect around an 8% yield differential. If we expect 200 bushels per acre following soybeans, then 184 bushels per acre (92% X 200) is a realistic goal for corn on corn. If our yield goal is 175 bushels per acre with corn following soybeans, then 161 bushels per acre can be expected from corn following corn.

Yes, corn following soybeans had higher profit potential than corn following corn, but is that the correct economic comparison? The profit potential of corn following corn should be compared to the profit potential of soybeans following corn. In other words, soybeans will be replacing corn on those acres.

To help make cropping decisions, the University of Illinois has a great website at [www.farmdoc.illinois.edu/](http://www.farmdoc.illinois.edu/). Even if you don't live in Illinois, it's still a good source of budgeting for Midwestern agriculture. One of the areas of information is called FAST Tools.

One of the FAST Tools is a crop budgeting tool. This consists of crop budgeting, expense breakdown, breakeven prices and crop insurance information. The spreadsheets have default values assigned for all the line items, but you can override the assigned default numbers for your particular operation.

The accompanying four graphs were derived from FAST Tools information. The four graphs represent different regions and soil types in Illinois. As shown on the individual graphs, Missouri is also



represented in the appropriate graphs. The numbers should be very close for regions in Iowa, too. All input costs were the amounts assigned by the FAST Tools, which are actual costs for those

areas sourced from Farm Business Farm Management records. Grain prices of \$5.50 per bushel for corn and \$11.50 for soybeans were prices quoted at inland elevators for December 2012 when this was written in mid-October.

The graphs show projected net income for 2012 over all variable and fixed costs except land. The costs for corn following corn are slightly higher than corn following soybeans, and the extra costs are accounted for. Net income is shown for both crops at different yield levels. The dashed line is the recent average soybean yield from that region. As an example, in high productivity soils in central Illinois, the average soybean yield has been 56 bushels per acre. Soybeans making 56 bushels per acre would net the same amount as 159 bushels of corn following corn.

Yes, corn following soybeans may yield more than corn following corn, but in this scenario if corn following corn yields greater than 159 bushels per acre, then it is more profitable than the average yield of soybeans. Drawing similar horizontal lines

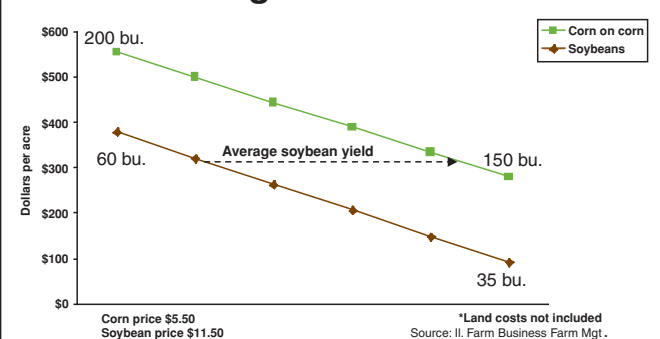
from different soybean yields shows the corresponding corn yield needed for equal profit. So look back at your last 5 year yield history for corn and soybeans and draw lines to see what these graphs tell you.

Monitoring input costs is more important than ever, but don't be lulled into thinking the cheapest price is the best value. When the product remains constant such as fertilizer, then price plays a big role in deciding where to buy. The retailer with exceptional service, even with slightly higher prices, might earn and deserve your business. When purchasing non-equivalent inputs such as seed, product performance, quality, and service must be factored into the economic equation. The lowest priced seed might not deliver the highest value.

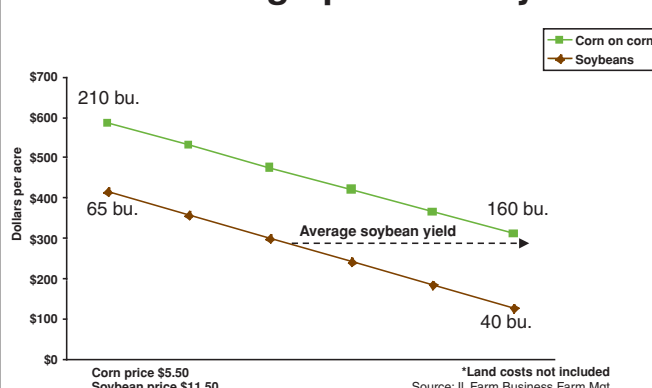
Seed is still the most important input purchased each year. Your Burrus®, Hughes®, or Hoblit® sales representative can assist with a cropping plan to maximize profits on your farm with the selection of the right hybrid or soybean variety for each field. Put him to work for you.

## 2012 projected income\*

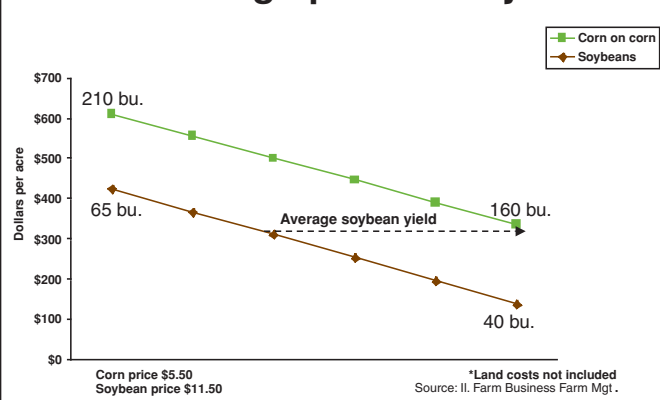
### Central IL low to medium productivity soils and good Missouri soils



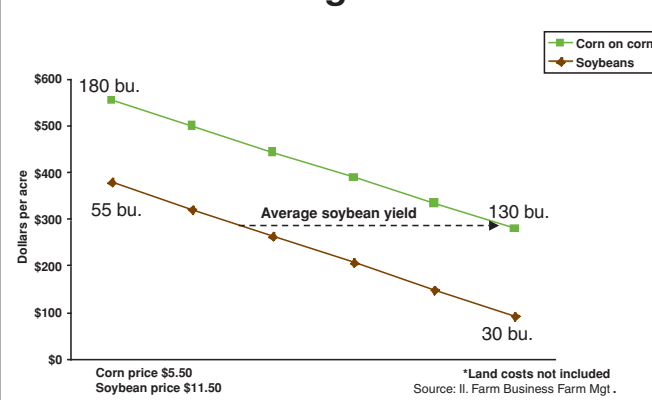
### Northern IL high productivity soils



### Central IL high productivity soils



### Southern IL and light Missouri soils





Hard work + dedication = The Burrus & Hughes way

MCHENRY

Vern Stadel  
McHenry, IL

Planted: May 22 in 30" rows. Planting Population: 150,000. Harvested: October 18. Previous Crop: Corn. Herbicide: Touchdown. Soil Type: Medium loam. ✓Check Hybrid: Hughes 454 RR

Brand-Variety	Bu. Per Acre	Rank	% Moisture
HUGHES 201 RR	52.4	1	12.1
NK S21-N6	50.0	3	11.8
✓Check	51.8		12.1
POWER PLUS 23-Z1™*	47.5	8	11.8
Pioneer 92M54	49.6	4	11.9
HUGHES 555 RR	48.4	6	11.6
Dyna-Gro V25N9RR	47.4	9	11.8
✓Check	51.8		12.2
Pioneer 92Y51	46.8	11	11.9
POWER PLUS 26W2™*	47.2	10	12.0
HUGHES 777 RR	48.4	5	11.9
Pioneer 92Y80	44.1	13	12.1
✓Check	49.0		12.1
POWER PLUS 28V2™*	46.3	12	11.9
Dyna-Gro 31RY17	48.1	7	12.6
HUGHES 454 RR	50.3	2	12.0
Average	48.7		12.0
Check Average	50.9		12.1

Hughes 555 RR at 72 bu/a

Hughes Seed Farms  
Woodstock, IL

Previous Crop: Corn. Herbicide: Roundup. Soil Type: Medium. Weather: May-normal, June-dry, July-wet, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
HUGHES 555 RR	72.0	12.0
HUGHES 2.5	71.0	12.1
POWER PLUS 20E1™*	70.0	12.5
HUGHES 201 RR	70.0	12.0
Pioneer 92Y30	70.0	11.8
POWER PLUS 23Z1™*	70.0	12.4
HUGHES 2.7	69.0	12.1
POWER PLUS 26W2™*	68.0	12.3
POWER PLUS 28S1™*	68.0	12.1
Pioneer 92Y80	68.0	13.0
HUGHES 454 RR	66.0	12.7
HUGHES 777 RR	65.0	12.1
POWER PLUS 32K0™*	64.0	12.8
POWER PLUS 28V2™*	63.0	12.9
Average	68.1	12.3

Think Performance,  
Think Technology,  
Think Value...  
Think Burrus!

MENARD

Hoblit 36P2 tops plot

Mike Reichart  
Tallula, IL

Planted: May 5 in 30" rows. Planting Population: 140,000. Harvested: October 7. Previous Crop: Corn. Herbicide: Roundup. Soil Type: Loam. Weather: May-wet, June-normal, July-dry, August-dry. Remarks: Entry 1 Avicta Complete, Entry 6 Trilex Gaucho, Entry 7 Trilex Poncho Votivo, Entry 8 Cruiser Maxx Plus.

Brand/Product	Bu. Per Acre	% Moisture
HOBLIT 36P2	73.9	9.0
POWER PLUS 34T2™*	73.5	9.6
Stone 2R3401	72.4	9.7
POWER PLUS 38D2™*	72.1	9.0
POWER PLUS 37T1™*	71.7	9.4
HOBLIT 36P2	69.2	10.3
HOBLIT 36P2	68.2	10.3
HOBLIT 36P2	67.5	10.0
Average	71.1	9.7

MERCER

Scott Olson  
Joy, IL

Planted: May 5 in 30" rows. Harvested: October 7. Previous Crop: Corn. Herbicide: Roundup. Soil Type: Heavy loam. Weather: May-wet, June-dry, July-dry, August-dry. Remarks: Entry 3 untreated Power Plus® 28J0™\*; all others treated.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 36C0™*	58.0	10.9
POWER PLUS 34B9™*	57.2	10.4
POWER PLUS 28J0™*	53.5	10.4
POWER PLUS 28J0™*	48.8	10.2
POWER PLUS 28S1™*	45.7	9.1
Average	52.7	10.2

Mercer County Soil and Water  
Aledo, IL

Planted: May 20 in 15" rows. Harvested: October 5. Previous Crop: Corn. Herbicide: Valor XLT, PowerMax.

Brand/Product	Bu. Per Acre	% Moisture
NK 34-N3	84.4	11.8
FS 33A02	83.3	11.9
Pioneer 93Y82	82.2	22.3
Mycogen 5N342	81.2	11.9
FS 28A02	80.4	11.6
Channel 3701	79.4	21.5
Munson 8352	79.2	12.4
Asgrow AG3231	78.4	12.3
POWER PLUS X34T2™*	78.2	12.1
Mycogen 5N284	78.2	11.7
Mycogen 5N304	78.1	11.8
Stone 2R3401	77.4	12.8
DynaGro 37RY33	77.2	12.1
Stone 2R3001	77.0	11.9
Channel 3105	76.7	10.1
NK 31-L7	76.0	11.6
Becks 294	75.7	10.2
Channel 3402	75.5	12.6
FS 31A02	75.0	11.7

Stone 2R701	74.9	10.5
Asgrow AG3431	74.1	12.3
Pioneer 92Y80	73.9	9.2
Munson 8322	73.9	11.2
Becks 325	73.3	10.4
Asgrow AG3631	72.3	12.1
Renk 322	72.2	10.5
POWER PLUS 34B9™*	72.2	10.3
FS 31A02	71.9	10.8
NK 27-C4	71.5	11.8
Renk 282	71.3	8.8
NuTech 7359	71.3	12.2
POWER PLUS 32K0™*	70.3	10.2
FS 31A02	70.1	11.7
Becks 322	69.7	9.5
DynaGro 39RY30	69.6	10.7
NuTech 7270	69.5	10.0
NuTech 7290	69.1	9.4
DynaGro 37J34	67.9	11.6
Pioneer 92Y51	65.1	9.2
Munson 8302	63.2	9.7
Average	74.5	11.7

MONTGOMERY

Power Plus® 37T1™\*  
takes third

Montgomery County  
Young Leaders  
Raymond, IL

Planted: June 4 in 30" rows. Planting Population: 150,000. Harvested: October 7. Previous Crop: Corn. ✓Check Hybrid: Pioneer 93Y40

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	51.8		8.0
Becks 375NR	58.4	5	8.7
Ag Venture 38X1RR	54.6	24	8.5
Great Lakes GL3649R2	58.6	4	8.4
Steyer 3603R2	57.4	12	7.9
✓Check	56.2		7.6
Dairyland DSR-3805R2Y	56.6	25	7.8
Stine 3522-4	55.9	27	7.7
Pioneer 93Y60	58.4	19	8.2
Dynagro 33Y39	59.5	13	10.2
✓Check	56.8		7.9
FS 39A02	60.9	15	9.3
Mycogen 371 R2	56.9	28	8.3
POWER PLUS 38D2™*	60.4	16	9.0
LG 3756R2	60.1	18	10.5
✓Check	59.2		8.6
Stone Seed 2R3801	61.7	17	9.2
NK S34-N3	63.7	6	8.7
Becks 398NR	65.9	2	9.0
Pioneer 93Y82	66.2	1	9.0
✓Check	59.9		8.9
FS 37A02	63.7	14	11.7
Great Lakes GL3879R2	64.5	8	10.0
LG 3616R2	64.6	7	9.1
Ag Venture 35A4RR	62.6	20	8.8
✓Check	61.7		8.6
Steyer 3803R2	63.4	9	10.0
POWER PLUS 37T1™*	64.9	3	9.7
Stone Seed 2R3401	61.3	23	8.3
NK S39-V2	63.4	11	9.8
✓Check	57.9		8.7
Dairyland DSR-3736R2Y	60.6	22	9.4
Mycogen 385 R2	62.7	10	9.3
Dynagro 38RY35	60.8	21	8.4
Stine 39RA02	59.1	26	10.9
✓Check	60.3		9.1
Average	60.3		9.0
Check Average	58.0		8.4



Glenn Nesbo ran a seed treatment test in Scott Co.



Burrus RSM Dick Burns & Ralph Peters saw the Peoria Co. bean plot average 78 bu/a.



Jeff & Ron Schultz saw Power Plus® beans excel in Shelby Co.



Kevin & Brian Buford saw nearly a tie between two widths with 5 varieties best in 30" rows, 4 best in 15" rows in Clark Co.



Jordan Watson served as an intern for the Jason Buss and Seth Link territories this past summer.





As promised, PowerShield™ upgrades for 2012

# Improved seed treatments add yield!

Most growers have realized the benefits of seed treatments on their own farm. The continued advancement of seed treatments rewards growers with faster emergence, better stands and higher yield capabilities. Burrus has again upgraded its seed treatment offerings on seed corn and soybeans for the 2012 planting season. "With our 100% free replant program, we have a vested interest in getting good stands in every field," says Tom Burrus, president of Burrus Hybrids.

Burrus has conducted seed treatment tests for over 30 years. Our goal is to identify the very best choices for improved stand establishment under cold, wet conditions as well as identify products that add yield while protecting the plants from disease and insects. We begin testing numbered compounds as much as three years before commercialization. This strategy has proven beneficial for our growers for many years.

Peace of mind is difficult to put a value on. Customers have relied on Burrus and Hughes for years because of diligent testing on seed treatments and consistent, proven performance from those products. Farmer-growers appreciate the honest approach and integrity with which they have been received.

"We are excited to offer growers a new advancement in our seed corn and soybean treatments for 2012 planting," says agronomist Bryan Young. "These changes mean better cold emergence and higher yields. When every last bushel counts, what a great time to add more yield!"

We offer growers a new advancement in our soybean treatment. The new addition to our soybean seed treatment package is a step up in performance. This



premium treatment package delivers three active biological/biochemical components. The new biological components contain selected organisms, their exudates and other bio-active compounds that have shown to enhance rhizobial activity, nitrogen-fixing nodulation and nutrient uptake. This new PowerShield™ formulation provides very uniform coverage and a unique, high-quality visual appearance. The new addition reduces the need for inoculant on PowerShield™ treated beans.

Enhanced root nodulation is known to help maximize the plant's own nitrogen fixing ability and helps plants handle

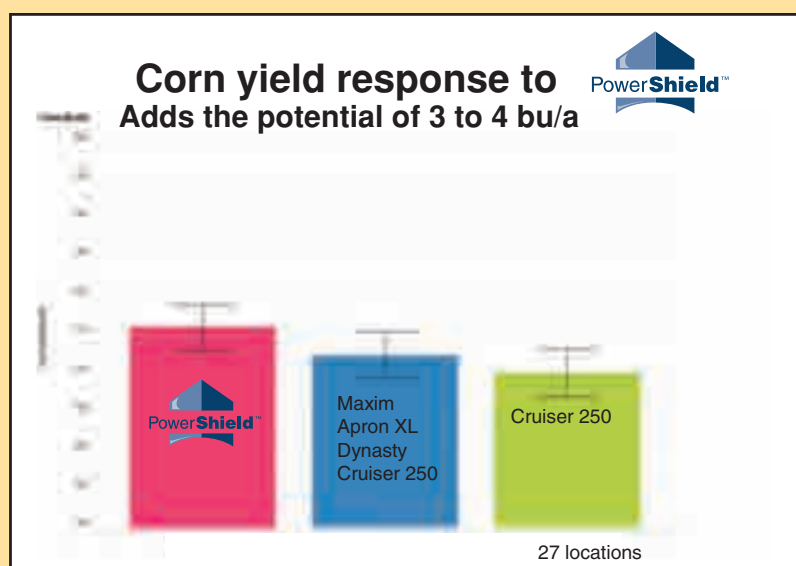
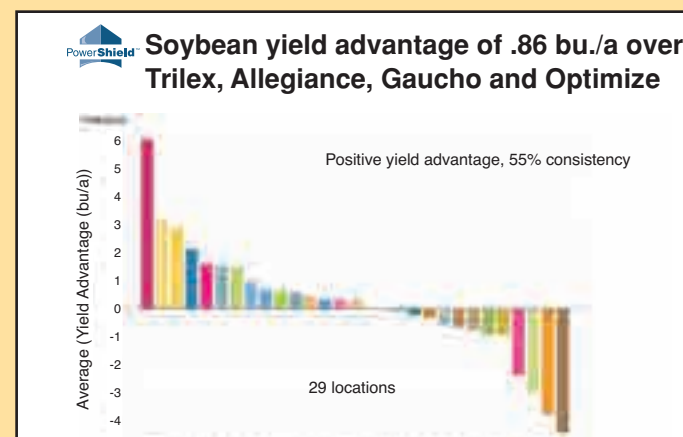
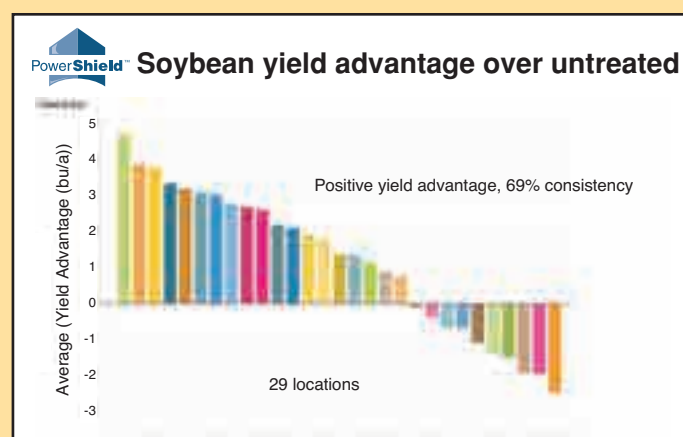
environmental stresses much better. More vigorous root and overall plant growth play key roles in development and health of the plant. When growers have soybean plants that utilize and fully maximize their nitrogen fixation capabilities they can expect darker green foliage, faster plant growth and a quicker closure to the crop's canopy. Multi-year testing has shown a significant 8/10 bushel bean yield increase when utilizing this new enhanced performance technology, and 2.5 bushels per acre when compared to untreated seed. The upgrade on the PowerShield™ soybean seed treatment rings a nice return on a \$2/unit investment.

We are also adding additional components to the Burrus, Hoblit, Hughes and Power Plus® brand corn for 2012 planting. This enhancement to our already "best in the industry" treatment package helps provide early season plant growth and nutrient uptake. This means plants typically experience greater plant growth with better ability to withstand environmental stresses, improving overall plant performance, and

thus increasing yield. Tests conducted with this treatment on seed corn responded with increases of 3-4 bushels per acre. Also this new formulation improves seed flow through seed handling and planting equipment for better seed drop accuracy with more precise and consistent seed placement. Once again, this puts Burrus and our PowerShield™ seed treatment in the top leadership position within the seed industry.

Yield results this fall again paint a pleasant picture for growers with a handsome return on their seed treatment investment dollar. Our research has proven the overall advantage to the Burrus family of corn products with increased bushels per acre. Fully treated soybean benefits go beyond yield too. The PowerShield™ treatment allows for lower seeding costs and earlier planting opportunities.

Burrus®, Hoblit® and Hughes® are registered trademarks of Burrus.  
\*Power Plus® Brand distributed by Burrus.  
®Power Plus is a registered trademark of Pioneer Hi-Bred.  
Optimum® AcreMax® 1 and Optimum® AcreMax® RW insect protection products available in the Power Plus® brand.



## Treatment Description

Trade name & Formulation	Classification	Active Ingredient	Target Pest/Mode of Action/Target system
<b>New</b> PowerShield™	enhancer - plant growth/biological	Non-rhizobial product "BioStacked Combination of Bacilli plus bio-active compounds with antimicrobial and PGPR (plant growth promoting rhizobia) activity	Improved plant emergence and final stands. •Increased root mass and greater rhizobial nodulation •Improved overall plant health & increased yield
<b>Old</b> Optimize 400	inoculant, growth enhancer	Active ingredient LCO (Lipo-chitooligosaccharide) formulated in an inoculant carrier ( <i>Bradyrhizobium jaenicum</i> )	Rhizobium and LCO combination. Enhances colonization of roots by rhizobia. Enhanced nodulation and plant growth.



**We are committed to Midwestern corn and soybean growers not stockholders worldwide**

## Weed resistance issues

The topic of herbicide-resistant weeds has gained momentum the last few years, but the first reports of herbicide-resistant weeds were documented in the 1950s, when dandelion and wild carrot were found to be resistant to 2,4-D. Triazine resistance was first reported in the late 1960s in Washington state. Worldwide there are 200 herbicide-resistant weed species.

Let's break it down closer to home:

Illinois has 9 confirmed herbicide-resistant weed species. Lambsquarters was found to be resistant to atrazine in 1985. Weed scientists estimate there are over 4 million acres in Illinois infested with herbicide-resistant weeds. The most widespread resistant weed in Illinois is Common Waterhemp. In 2010 Palmer Amaranth was found to be resistant to glyphosate.

Missouri also has 9 confirmed herbicide-resistant weed species. Common cocklebur was found to be resistant to Classic® and Scepter® in 1992. Weed scientists estimate there are over 4 million acres in Missouri infested with herbicide-resistant weeds. Like Illinois, the most widespread resistant weed in Missouri is Common Waterhemp. In 2010 Annual Bluegrass was discovered to be resistant to glyphosate.

Likewise, Iowa has 9 herbicide-resistant weed species. The first herbicide-resistant weed from Iowa was Kochia, discovered in 1985 to be resistant to atrazine. Iowa does not have as many total acres as Illinois or Missouri with herbicide-resistant weeds, but scientists still estimate there are over 67,000 acres with herbicide-resistant weeds. The most widespread resistant weed in Iowa is Horseweed. Glyphosate tolerant Horseweed was most recently discovered in 2011.

Indiana has the unglamorous distinction of the most herbicide-resistant weeds in the Burrus footprint with 11 different weed species. The first herbicide-resistant weed reported in Indiana was Redroot Pigweed with resistance to atrazine in 1980. It's estimated that over 60,000 acres in Indiana are infested with resistant weeds. The most widespread resistant weed is Lambsquarters. Common Waterhemp with resistance to glyphosate is the most



**Resistant weeds can start in small areas and then spread rapidly across the fields if not contained.**

recently discovered (2009) new type of resistance in Indiana.

Wisconsin has 9 weed species exhibiting herbicide-resistance. The first herbicide-resistant weed from Wisconsin reported in 1979 was Lambsquarters with resistance to atrazine. There are over 500,000 acres estimated to have resistant weeds in Wisconsin. Lambsquarters is the most widespread resistant Wisconsin weed. The most recent discovery was Eastern Black Nightshade in 1999 with resistance to Raptor® and Pursuit®.

The predominant problem weed in the Midwest today is Common Waterhemp, followed by Marestalk (Horseweed) and Giant Ragweed. Many soybean fields across the Midwest this summer had Waterhemp and Marestalk showing above the soybean canopy. If those fields were owned by grumpy landlords, the tenants might have been getting an ear full. Some of those fields might have simply had poor weed control from whatever herbicide program used. Other fields, however, could be showing the first signs of weed resistance. Several growers stated that their initial glyphosate application was unsatisfactory, so another application was made with little or no improvement in weed control. These situations definitely point to glyphosate weed resistance.

Waterhemp is a prolific seed producer, having the ability to produce one and a half times the number of seeds than any other pigweed species. Most Waterhemp plants produce around 250,000 seeds, but some can produce up to 1 million seeds.

Waterhemp seeds germinate over wide ranges of soil temperatures, resulting in late emergence into the summer. Some of these late emergent weeds escape earlier applications of post applied herbicides. Waterhemp seed can also remain viable in the soil for up to four years.

Waterhemp is dioecious, which means that male and female flowers occur on separate plants. Male plants produce pollen which is dispersed by wind to fertilize female plants to produce seed. The huge concern is if pollen comes from a resistant plant, the resistant trait can be transferred to another field and fertilize previously susceptible female plants. The female plant will then produce seed, some of which will be susceptible. The exact distance Waterhemp pollen can travel is unknown, but scientists believe pollen grains can travel up to a half mile from their parent male plant.

**Most of the documented cases of Waterhemp resistance have developed in fields with continued use of glyphosate for several years with no other alternative herbicides. One of the easiest management tools to lower the risks of weed resistance is to use other herbicide modes of action along with the glyphosate program.**

As the charts show, weed resistance is wide spread and has been documented for decades. Atrazine, one of the most important herbicides ever developed, has a long list of resistant weeds. In spite of weed resistance issues, atrazine still plays an important role in today's weed-fighting agricultural systems. It is in many tank-mix combinations, and continues to be an integral part of many prepackaged products. In the future, glyphosate may play a similar role. Glyphosate will not be a stand alone product like it has been in the past, but will remain an important component in weed control strategies.

**Herbicide management today and into the future will not be as easy as pouring in a jug of glyphosate into the sprayer and assuming all weeds will be killed. We will need to reeducate ourselves about herbicide modes of action, weeds controlled and timing of applications.**

### Recommendations for controlling glyphosate waterhemp

In corn, most preplant and pre-emergence herbicides provide good control or suppression of Waterhemp, especially when mixed with atrazine. A post-emergence treatment is usually required, especially if rainfall generates later germinating seeds. Post-emergence herbicides for Waterhemp control include atrazine, 2,4-D, dicamba, Status®, Callisto®, Laudis®, Corvus®, Impact®, and glyphosate (glyphosate-resistant corn) if the Waterhemp population is not resistant to glyphosate. Ignite® tank mixed with atrazine (Liberty Link® corn) is effective on small Waterhemp 2 – 3 inches tall.

In soybeans it's always recommended to start with clean fields at planting, either with tillage or chemical burn-down. 2,4-D amine can be used with glyphosate for burndown, but must be applied at least 2 weeks before planting to minimize the potential soybean injury. A full rate of a preplant or pre-emerge herbicide will help control early season flushes of weeds, including any glyphosate-resistant waterhemp. Products such as Authority®, Valor®, Valor® XLT, Dual, Warrant™, Intrro®, and even Prowl® have good activity on small seeded broadleaves such as Waterhemp. Pre-emergence herbicides can greatly reduce Waterhemp populations. A post-emergence treatment is usually necessary to control late-emerging plants. Blazer®, Cobra®, Flexstar®, Reflex® and Ignite® (Liberty Link soybeans) are all good choices for post applications, but should be applied before weeds reach 4 inches in height. If the remaining Waterhemp population is not glyphosate resistant, glyphosate can be used to clean up any remaining weeds.



**One resistant weed can lead to this mess the following year!**





### Herbicide resistant weeds in Illinois

Weed species	Herbicide	Year
Lambsquarters	atrazine	1985
Kochia	atrazine	1992
Smooth Pigweed	atrazine	1993
Common Waterhemp	Classic, Pursuit, Pinnacle	1993
Kochia	atrazine, Ally	1995
Common Waterhemp	atrazine, Broadstrike, Pursuit, Pinnacle	1996
Common Ragweed	First Rate, Pursuit	1998
Giant Ragweed	First Rate, Pursuit	1998
Eastern Black Nightshade	Raptor, Pursuit	1999
Common Waterhemp	atrazine, Bladex	2001
Common Waterhemp	Blazer, Flexstar, Raptor, Cobra, Pinnacle	2002
Horseweed	glyphosate	2005
Common Waterhemp	Classic, glyphosate, Pursuit	2006
Common Waterhemp	Callisto	2009
Palmer Amaranth	glyphosate	2010

### Herbicide resistant weeds in Missouri

Weed species	Herbicide	Year
Common Cocklebur	Classic, Scepter	1992
Common Waterhemp	atrazine	1994
Common Waterhemp	Classic, Broadstrike, Permit, Raptor, Scepter	1994
Common Waterhemp	Pursuit, Accent, Beacon, Exceed, Pinnacle	1994
Barnyard Grass	Stam	1994
Common Sunflower	Classic, First Rate, Broadstrike, Permit, Scepter	1996
Common Sunflower	Pursuit, Expert	1996
Horseweed	glyphosate	2002
Common Ragweed	glyphosate	2004
Common Waterhemp	Blazer, First Rate, glyphosate, Flexstar, Pursuit, Cobra	2005
Palmer Amaranth	glyphosate	2008
Giant Ragweed	glyphosate	2009
Annual Bluegrass	glyphosate	2010

### Herbicide resistant weeds in Iowa

Weed species	Herbicide	Year
Kochia	atrazine	1985
Lambsquarters	atrazine	1989
Pennsylvania Smartweed	atrazine	1990
Giant Foxtail	atrazine	1992
Common Waterhemp	Pursuit	1993
Giant Foxtail	Select, Option, Fusilade, Assure, Poast	1994
Common Cocklebur	Classic, Pursuit	1995
Common Waterhemp	atrazine	1996
Common Sunflower	Classic, Pursuit	1997
Shattercane	Pursuit	1998
Giant Ragweed	First Rate, Beacon, Exceed	2000
Common Waterhemp	Cobra	2009
Common Waterhemp	glyphosate	2009
Common Waterhemp	Callisto, Pinnacle	2009
Giant Ragweed	glyphosate	2009
Horseweed	glyphosate	2011

### Herbicide resistant weeds in Indiana

Weed species	Herbicide	Year
Redroot Pigweed	atrazine	1980
Lambsquarters	atrazine	1980
Jimsonweed	atrazine	1992
Kochia	atrazine, Bladex, Ally	1995
Common Ragweed	First Rate, Pursuit	1998
Horseweed	glyphosate	2002
Giant Ragweed	Accent, Steadfast	2004
Common Waterhemp	Classic, First Rate, Scepter, Pursuit	2005
Giant Ragweed	glyphosate	2005
Johnsongrass	Accent	2005
Shattercane	Accent	2006

### Herbicide resistant weeds in Wisconsin

Weed species	Herbicide	Year
Lambsquarters	atrazine	1979
Smooth Pigweed	atrazine	1985
Kochia	atrazine	1987
Velvetleaf	atrazine	1990
Giant Foxtail	Fusilade, Poast	1991
Large Crabgrass	Fusilade, Poast	1992
Kochia	Oust	1995
Common Waterhemp	Pursuit	1999
Giant Foxtail	Pursuit, Accent	1999
Green Foxtail	Raptor	1999
Eastern Black Nightshade	Raptor, Pursuit	1999

## New look

At Burrus the mission is to provide quality seed, consistent performance, and exceptional value ensuring the ongoing success of our growers. Our commitment to the future and the quality of our seed is unsurpassed.

Our mission statement and our goals have not changed but some of our seed packages have! For 2012 planting, a few of our bags will have a new look. The new Hoblit® bag for LibertyLink® soybeans will be all maroon with white lettering to help distinguish it from our Roundup Ready® Hoblit bags that are white with blue lettering. We decided to make the bag change to remind growers it is a different product than the Roundup Ready® line of beans.

Our Power Plus® bags for 2012 planting will also look different than the past bags. The new corn bags will be our traditional Burrus® brown with a retro look while the soybean bags will be dark blue. All Power Plus® bags will clearly identify Burrus as the distributor and Pioneer as the source. The look will have changed but the fundamentals are the same, quality product and superior service.



Todd Gottswiler of Dekalb Co., MO continues to appreciate the one-on-one service he receives from Burrus RSM Brad Veale.



Monica & Dale Albrecht are proud Hughes dealers in Walworth Co., WI.



Exceeding your expectations -- that's our goal.

Tips for managing volunteer corn

Volunteer corn can be an annoyance in soybean fields and in severe cases can be yield robbing in corn and soybeans. With the 2011 environment causing more dropped ears than normal, dealing with volunteer corn this year must be part of the 2012 Burrus Cropping Plan. Relatively early harvest should lower the chances of lost ears but stalk and root lodging can leave unharvested ears.

If a field suffered ear loss, there are some management tips you might consider:

- 1. **Rotate to soybeans** – Managing heavy volunteer corn in soybeans is easier and more effective than in corn.
- 2. **Fall tillage** – Some tillage in the fall can initiate germination and growth before winter which will reduce if not eliminate the problem.
- 3. **Soybean grass herbicide tank-mixed with post applied glyphosate (Roundup® Ready soybeans) or glufosinate (Liberty Link® or Ignite® soybeans)** – Volunteer corn from fields previ-



ously planted to Roundup® or Liberty® resistant corn might not be controlled by either glyphosate or glufosinate. A post-applied grass herbicide tank mixed with either will easily control volunteer corn.

The chart from the *University of Illinois Bulletin* lists several soybean grass herbicides to control volunteer corn.

Table 1. Herbicide options for control of volunteer corn in soybean.

Product	Volunteer corn height (in.)	Herbicide rate (lb ai/A)	Additives		
			Alone	+ Glyphosate	
				"Loaded" formulation	"Nonloaded" formulation
Ignite®	0-10	22	AMS	—	—
	10-12	29	AMS	—	—
Assure II	0-12	4	COC (1%) or	NIS (0.125%)	COC (1%) or
	12-18	5	NIS (0.25%)		NIS (0.25%)
	18-30	8			
Targa	0-18	5	COC (1%) or	NIS (0.125%)	NIS (0.25%)
	18-30	8	NIS (0.25%)		
Fusion	0-12	4	COC (1%)	COC (0.25%)	COC (0.25%)
	12-24	6	COC (0.5-1%) or	COC (0.25%)	COC (0.25%)
Fusilade DX	0-12	4	COC (1%)	COC (0.25%)	COC (0.25%)
	12-24	6	COC (0.5-1%) or	COC (0.25%)	COC (0.25%)
SelectMax	0-12	6	COC (1%) or	AMS	NIS (0.25%) + AMS
	12-24	9	NIS (0.25%)		
	24-36	12			
Select or Arrow	4-12	4-6	COC (1%)	NIS (0.125%) + AMS	COC (0.5-1%) + AMS
	12-24	6-8			
Poast	0-12	12	COC + NH <sub>4</sub>	No directions on label	No directions on label
	12-20	16	COC + NH <sub>4</sub>		
Poast Plus	0-12	18	COC + NH <sub>4</sub>	No directions on label	No directions on label
	0-20	24	COC + NH <sub>4</sub>		

\*Apply only to glufosinate-resistant varieties. Will not control volunteer glufosinate-resistant corn.

Asgrow 3731	82.5	12.4
NK 34-N3	82.2	10.9
Pioneer 92Y80	81.8	11.1
POWER PLUS 28S1™*	80.6	11.1
FS 29A12	80.4	10.6
FS 33A02	80.3	11.7
POWER PLUS 31P1™*	80.2	10.8
Asgrow 3631	79.8	11.4
POWER PLUS 28J0™*	79.5	10.8
Munson 8372R2	79.1	11.3
NK 31-L7	79.0	10.7
FS 34A12	78.8	10.9
FS 31A02	78.5	10.5
POWER PLUS 32K0™*	78.2	10.4
POWER PLUS 34B9™*	77.7	10.6
Munson 8341R2	77.7	10.3
FS 36A12	77.7	11.0
FS 28A02	77.6	11.1
Munson 8328RR	77.4	10.6
Munson 8302R2	76.4	10.2
NK 27C4	76.3	11.1
Munson 8352R2	75.9	10.8
Munson 8322R2	75.4	11.0
Munson 8281R2	75.4	11.1
Asgrow 3431	75.2	10.9
HOBLIT 342	74.7	10.7
POWER PLUS 36A1™*	74.6	11.6
Munson 8261RR	71.3	11.4
Average	78.6	10.9

PIKE

Jim and Bob Gresham  
Pittsfield, IL

Planted: May 20 in 9" rows. Planting Population: 150,000. Harvested: October 15. Previous Crop: Corn. Fertilizer: N: 0, P: 0, K: 60. Herbicide: Valor XLT, Roundup. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-dry. ✓Check Hybrid: FS Hisoy 39R70

Brand-Variety	Bu. Per Acre	Rank	% Moisture
POWER PLUS 40V1™*	68.6	2	11.5
✓Check	65.8		11.7
POWER PLUS X34T2™*	73.2	1	11.5
HOBLIT 36P2	63.5	7	11.3
✓Check	69.1		11.5
POWER PLUS 36A1™*	66.0	5	11.4
POWER PLUS 36C0™*	68.4	3	11.7
✓Check	67.6		11.4
POWER PLUS 37T1™*	67.4	4	11.6
POWER PLUS 38D2™*	64.3	6	11.6
✓Check	67.0		11.5
Average	67.4		11.5
Check Average	67.4		11.5

MORGAN

Gerald Roegge  
Jacksonville, IL

Planted: May 6 in 30" rows. Harvested: October 12. Previous Crop: Corn. Herbicide: Dual II Magnum, Raptor. Weather: May-normal, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
BURRUS N5307	75.5	11.2
BURRUS N4063	74.1	11.6
BURRUS N5038	73.3	11.6
POWER PLUS 34B9™*	73.3	11.7
HOBLIT 372LL	72.0	11.5
BURRUS N3450	71.2	11.3

POWER PLUS X34T2™*	71.0	11.6
Asgrow 3931	70.7	11.7
BURRUS N9303	69.8	11.5
Asgrow 3731	69.8	11.0
Asgrow 3431	69.7	11.2
BURRUS N3923	69.5	11.8
POWER PLUS 36C0™*	68.8	11.7
HOBLIT 412LL	68.8	12.0
Pioneer 93Y40	68.2	11.7
Pioneer 93Y70	67.9	11.2
BURRUS N4040	67.8	11.6
BURRUS N1044	67.7	11.6
POWER PLUS 37T1™*	66.7	10.9
HOBLIT 36P2	66.5	11.7
POWER PLUS 38D2™*	66.5	11.3
BURRUS N9308	66.4	11.5
POWER PLUS 32K0™*	66.1	11.5
BURRUS N9830	65.8	11.0
BURRUS N9703	65.1	11.5
HOBLIT 342	64.6	11.6

BURRUS N8803	64.5	11.4
POWER PLUS 41F9™*	63.8	11.3
Pioneer 94Y01	63.8	11.3
BURRUS N6320	63.8	10.9
POWER PLUS 28J0™*	63.3	11.9
POWER PLUS 40V1™*	63.2	11.9
BURRUS N4032	62.8	11.9
POWER PLUS 43D1™*	62.5	11.7
BURRUS N5023	62.5	11.0
BURRUS N8073	60.7	11.5
BURRUS N3140	60.3	11.7
BURRUS N0592	59.5	11.5
BURRUS N7039	57.0	11.0
BURRUS N2410	56.3	12.0
BURRUS N7126	54.6	12.1
BURRUS N7598	52.0	11.8
BURRUS N2432	51.8	11.4
BURRUS N9040	51.4	11.7
Pioneer 92Y80	50.5	11.8
Average	64.9	11.5

PEORIA

Ralph Peters  
Elmwood, IL

Planted: May 20 in 15" rows. Planting Population: 160,000. Harvested: October 7. Previous Crop: Corn. Soil Type: Heavy loam. Weather: May-wet, June-normal, July-dry, August-dry. Remarks: Two treatments of fungicide R3 and R1.

Brand/Product	Bu. Per Acre	% Moisture
Asgrow 2931	84.0	10.8
NK 28-K1	83.1	11.1
Asgrow 3131	82.7	10.5
Asgrow 3231	82.6	10.7



Kade Marnin, son of Burrus RSM Donny & Kara Marnin displayed the purple ribbon on his woodworking class project that he earned showing pigs at the 2011 Chariton Co., MO fair.

SCHUYLER

Esther Farms  
Rushville, IL

Planted: May 23 in 15" rows. Planting Population: 140,000. Harvested: October 10. Previous Crop: Corn. Herbicide: Roundup. Soil Type: Heavy loam. Weather: May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 36C0™*	66.4	8.7
POWER PLUS 41F9™*	65.4	9.6
POWER PLUS 40V1™*	64.1	8.8
POWER PLUS 38D2™*	63.9	8.5
POWER PLUS 36P2™*	59.1	8.7
POWER PLUS 37T1™*	48.8	8.5
Average	61.3	8.8





To spray or not to spray?

# The debate about foliar fungicide considerations for 2012

Each growing season we field questions about the use of foliar fungicides on soybeans. While information on fungicide use in corn is widely available, soybean information is less common. One explanation is that soybeans are generally less intensively managed than corn. Another is that within research that has been done, results tend to be similar and the economic response to foliar fungicide use is variable.

In 2007, the University of Illinois reported returns ranging from -8 to +6 bushels per acre with an average of +1 bushel from foliar treatments. Generally, the higher returns were seen in areas experiencing the highest rainfall during the growing season. One possible explanation for these results is that in Illinois and other Midwestern states, there are few foliar diseases that get severe enough to affect yield. Two diseases that are of concern are Septoria Brown Spot and Frogeye Leaf Spot. Both of these pathogens can be controlled by fungicides.

**Septoria Brown Spot spreads from soybean residue** to young soybean plants by splashing rain. Infection can occur as early as the V2 growth stage on lower leaves. Infected leaves can turn rusty yellow or brown and drop prematurely. Hot dry weather can halt the spread of the fungus. Economic loss can occur when frequent July and August rains allow the disease to spread into the upper one third of the canopy.

Infection can vary by soybean variety and the maturity. Continuous soy-



Photo courtesy of Dean Malvick, Department of Plant Pathology, University of Minnesota

Septoria Brown Spot

beans are more vulnerable to infection than rotated fields. In continuous cropping systems with high Septoria infection, plowing of crop residue is recommended. Fungicides may be applied from bloom to pod fill to reduce the severity of yield loss. Application at R3-R6 growth stage is most effective. Most seasons, Septoria is a cosmetic, rather than an economic problem.

**Frogeye Leaf Spot is different.** This disease appears to be on the move, recently causing problems in northern growing areas. An economic response to fungicide application is more likely when Frogeye is present. Frogeye is a seedborne pathogen and therefore can travel long distances to infect new areas. Frogeye is easily recognizable due to its unique leaf lesions from which its name is derived.

Infection occurs most often after flowering. Initial symptoms are small, yellow spots on leaves which eventually enlarge to a diameter of approximately 1/4 inch. The centers of these lesions become gray/brown and have reddish/purple margins. If

lesions are numerous they can merge to form larger irregular patterns.

Pod and stem lesions can also form. Disease development is favored by warm, humid weather. Frogeye survives through infected seeds and spores on crop residue. Severe infection will produce enough inoculum to survive through a rotation season of corn and infect the following soybean crop. Severe infections can produce economic yield loss.

**Management of Frogeye includes crop rotation and residue management coupled with scouting and fungicide treatment.** Disease resistance genes are present in several varieties and the use of



Photo Courtesy of David Hughes

Frogeye Leaf Spot

resistant varieties is recommended following an outbreak. Three resistant genes are Rcs1, Rcs2, and Rcs3. Several PowerPlus® varieties that exhibit good Frogeye are: 32K0™\*, 36C0™\*, and 41F9™\* and Hoblit 342NRR and 412LL.

**If fungicide use is warranted for Frogeye, there is an important factor to**

**address.** For the second consecutive year, resistance of Frogeye to strobilurin fungicides has been confirmed in the southern Illinois counties of Hardin and Pope and could be present elsewhere. **When treating soybeans for Frogeye growers should use triazole-based fungicides and if treating other diseases use a strobilurin/triazole mix.**

**Strobilurin fungicides to avoid on Frogeye:**

Azyoxystrobin: Quadris®, Quilt®, Quilt® XL  
Fluoxastrobin: Evito®  
Pyraclostrobin: Headline®  
Trifloxystrobin: Stratego®, Stratego® YLD  
Fungicides recommended for Frogeye:  
Triazole: Proline®, Top Guard®, Domark®  
Thiophanate-Methyl: Topsin®

Last year in the *Harvest Report*, we discussed general plant response to fungicide application. This year we discuss specific disease threats. Put these issues all together and it paints a confused picture. Several points are emerging: there are economic foliar diseases in our growing area that are controlled by fungicides, fungicide resistance is occurring, economic returns are low on average, but can be positive when disease and environmental conditions allow infection to progress. Sharpen your pencils and scout your fields because it is up to you, the grower, to find the right answer for your farm.

Sources: Septoria Leaf Spot, University of Wisconsin Extension [www.plantpath.wisc.edu/soyhealth/minordiseases/septoria.htm](http://www.plantpath.wisc.edu/soyhealth/minordiseases/septoria.htm); The Bulletin #17 7-18-08, #17 7-29-11, #23 10-07-11 University of Illinois Extension; University of Missouri, Soybean Rust G4442; Purdue Extension BP-131-W Frogeye Leaf Spot,

## SCOTT

### Seed treatment test

Glenn & Janson Nesbo  
Winchester, IL

**Planted:** May 10 in 18" rows. **Harvested:** October 7. **Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry. **Remarks:** Entry 1- Avicta Complete, Entry 2- Cruiser Max Plus, Entry 3- Trilex, Poncho, & Votivo, Entry 4- Trilex & Gaucho.

Brand/Product	Bu. Per Acre	% Moisture
HOBLOIT 36P2	59.6	8.5
HOBLOIT 36P2	58.6	8.0
HOBLOIT 36P2	55.3	7.7
HOBLOIT 36P2	51.6	7.6
Average	56.3	8.0

## SHELBY

Schultz Farms  
Stewardson, IL

**Planted:** May 31 in 15" rows. **Planting Population:** 177,000. **Harvested:** October 6. **Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Medium loam. **Weather:** May-wet, June-wet, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 34B9™*	55.8	9.4
POWER PLUS X34T2™*	53.8	9.8
POWER PLUS 37T1™*	52.6	9.2
POWER PLUS 37T1™*	52.3	9.3
NK S39-A3	51.7	9.6
POWER PLUS 38D2™*	50.9	9.9
HOBLOIT 342	50.4	9.6
POWER PLUS 41F9™*	49.7	9.2
POWER PLUS 36C0™*	49.5	9.6
POWER PLUS 39G9™*	48.6	9.6
Becks 362NR	48.5	10.1
HOBLOIT 36P2	47.8	9.5
POWER PLUS 40V1™*	47.4	9.8
POWER PLUS 41F9™*	47.1	9.9
POWER PLUS 43D1™*	46.4	9.9
Average	50.2	9.6

Shelby County Extension  
Shelbyville, IL

**Planted:** May 20 in 30" rows. **Harvested:** October 6. **✓Check Hybrid:** LG 3616

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	62.4		9.4
Merschmann Kennedy 1036 Votivo	60.4	1	9.4
Merschmann Kennedy 1036	60.3	2	9.4
✓Check	61.0		9.4
Lewis 381R2	56.1	10	9.4
Lewis 351R2	58.1	5	9.4
✓Check	62.8		9.3
Hubner H37-10R2	58.0	6	9.3
Hubner H39-12R2	56.6	9	9.3
✓Check	62.2		9.3
Steyer 3404R2	58.9	4	9.3
Steyer 3803R2	57.0	7	9.3
✓Check	62.9		9.3
Dynagro 37RY33	59.4	3	9.2
Dynagro 36RY38	54.4	13	9.2
✓Check	63.3		9.2
LG 3466	55.5	11	9.2
LG 3890	53.1	16	9.2
✓Check	61.9		9.2
POWER PLUS X34T2™*	53.3	15	9.2

POWER PLUS 37T1™*	54.5	12	9.1
✓Check	61.9		9.1
Asgrow 3731	56.8	8	9.1
Asgrow 3231	53.6	14	9.1
✓Check	65.9		9.1
Average	58.8		9.3
Check Average	62.7		9.3

## WHITESIDE

Jeff and Ron Merema  
Fulton, IL

**Previous Crop:** Corn.

Brand/Product	Bu. Per Acre	% Moisture
HUGHES 555 RR	71.9	12.5
POWER PLUS 32K0™*	69.4	14.2
POWER PLUS 28S1™*	69.1	13.3
HUGHES 454 RR	68.7	12.5
POWER PLUS 28V2™*	68.7	13.1
POWER PLUS 23Z1™*	68.0	12.4
HUGHES 777 RR	66.9	12.6
POWER PLUS 26W2™*	66.7	12.8
POWER PLUS 28S1™*	64.9	12.4
Average	68.3	12.9



If you go by the numbers, you'll go buy our numbers

## Some soybean diseases to watch for in 2012

By Don Rhoads

Each growing season is slightly to significantly different from any other year and offers a unique environment. Like any other plant diseases, soybean diseases require the proper environment for development and growth. Although some soybean diseases were present in 2011, little if any yield penalties resulted. Three of the more common soybean diseases are sudden death syndrome (SDS), frogeye leaf spot, and brown stem rot (BSR).

**Sudden death syndrome** – SDS was first discovered in Arkansas in 1971. Since then SDS has spread across the Midwest. SDS is usually more severe when soybeans are planted early into cool, wet soils followed by heavy summer rains which saturate the soil. The first symptoms are yellowing of leaves and defoliation of the upper leaves. The disease first appears in small areas of fields, often in wetter or compacted areas. Because the SDS fungus overwinters in the soil, these areas can grow larger each growing season.

Plants infected with SDS have a mosaic, mottled appearance on the leaves, eventually turning yellow and dying. The pith, or center part of the stem, will remain white. If plants with suspected SDS are dug from moist soils, small blue patches on the surface of the taproot at the soil line is a strong indication of SDS. These blue patches are fungal spores that cause SDS.

Management options to control SDS are limited. Although no soybean varieties are resistant to SDS, some varieties are less sensitive. Fourteen Power Plus®, Hughes®, and Hoblit® varieties have SDS scores of 7 or 8, using a 1 to 10 scale with 10 being totally resistant. These are very good scores and these varieties should be planted in fields with suspected or confirmed SDS. Foliar fungicides have no effect on SDS, and unfortunately seed applied fungicides have shown only limited effect on this disease. Crop rotation also has not shown to lower the incidence of SDS.

Some researchers believe earlier planting dates increase the possibility for SDS development. This does not occur every year because saturating rains may

not develop later in the growing season. The relatively dry conditions across much of the Midwest this past summer probably eliminated SDS developing in fields that had a previous history of SDS. Fields that experienced outbreaks of SDS in the past should be planted last.

Good drainage is also an important tool to combat SDS. If a field has wheel compaction, then deep tillage may help. In other fields, a good long term no-till program that allows good water movement into the soil can help in fighting SDS. Any cultural practice that improves drainage will lower the chances of SDS developing.

**Frogeye leaf spot** – Frogeye leaf spot is a foliar disease that favors hot, humid conditions. Typically, frogeye has been more of a problem in the southern states, but has become more widespread in the Midwest in recent years. Infection can occur anytime during the growing season, but most often at flowering.

The first symptoms are tiny, yellow spots on new leaves and grow to about 1/4" in diameter. These lesions become brown and have purple margins. In severe cases lesions can grow on pods and invade into the developing bean.

Crop rotation and tillage may help lower the chances for frogeye, but because the spores of the pathogen are easily transported by wind, infection can start from other fields. Frogeye will continue to reproduce and grow during the growing season as long as weather conditions continue to be warm and humid.

Several foliar fungicides are labeled for frogeye, but results have been inconsistent in the Midwest. Many times the disease severity does not warrant fungicide applications. Also somewhat alarming was the finding of frogeye leaf spot resistant to the strobilurin family of fungicides in 2010 in Tennessee and spread in 2011 to Kentucky, Missouri and



Sudden death syndrome



Brown stem rot



Frogeye



Blue clusters root

Illinois. This family of fungicides includes Quadris®, Quilt®, Quilt® XL, Headline®, Stratego®, and Stratego® Yield.

Frogeye was found in some areas of central and southern Illinois and Missouri in 2011. Fortunately the Power Plus® soybean varieties, though not immune, have good tolerances to frogeye leaf spot. In several plots planted beside competitive brands, the Power Plus® varieties in nearly every plot had less disease symptoms.

**Brown stem rot** – Brown stem rot (BSR) is not considered to be a major soybean disease in most years, but in isolated cases yields can be reduced up to 30%. The soil borne pathogen infects the roots early in the season. Symptoms do not appear until pods begin to fill. In some cases only internal vascular damage can be found, while in other cases leaves can become chlorotic and resemble leaves from plants infected with SDS. The easiest way to tell the difference between BSR and SDS is splitting the stem and looking at the pith color. BSR infections

cause the pith to turn a dark chocolate-brown color, while the pith on SDS infected plants remains white.

The BSR pathogen survives in crop residue and as the plant ages, symptoms develop more quickly. BSR prefers cooler temperatures during pod fill, although BSR was found in some locations late in the 2011 growing season. Fortunately most of these fields were close to maturity and suffered very little if any yield loss from BSR.

Crop rotation is the best method to lower the incidence of BSR. The fungus does not survive well with any soil contact, so one or two years of corn will greatly lower the amount of BSR fungi in the field.

We can't predict what type of environment we'll encounter for the next growing season, but if we arm ourselves with a tough, defensive package of soybean varieties from the Power Plus®, Hughes®, and Hoblit® brands, diseases like the ones described might not be totally eliminated, but their impact will certainly be minimized.



The Hoblit 342RR soybeans roll in for Penn Farms of Knox Co., MO.



Jimmie Palmer saw a 53 bu/a average on the Linn Co., MO plot.





# LibertyLink® soybeans and Ignite® herbicide

By Tim Greene



LibertyLink® soybeans are definitely gaining traction in the marketplace.

At Burrus, we offer two varieties for 2012 planting. The two varieties are designed to tackle different soil types. We offer the Hoblit 372LL which is a 3.7 maturity soybean. We also offer the Hoblit 412LL which is a 4.1 maturity. These two maturity ranges should work in many areas of our marketplace where weed resistant issues are now becoming commonplace.

LibertyLink® soybeans with Ignite® herbicide enable growers to effectively avoid or manage weed resistance as the only nonselective alternative to glyphosate tolerant systems. Ignite® herbicide with the LibertyLink trait offers several advantages over glyphosate tolerant systems. Advantages are:

- Kills weeds in days vs. weeks.
- Nonselective, post-emergence control of broadleaf and grass weeds, including weeds resistant to glyphosate and multiple herbicide classes.
- If environmental conditions don't allow a residual to be activated, LibertyLink® and Ignite® herbicide offer the most reliable solution for weed resistance management.
- The only nonselective alternative to glyphosate for over the top use.
- Preserve the utility of glyphosate-tolerant technology with the rotation of chemical families.

Growers who are considering implementation of an Ignite®/LibertyLink® program in their operation might best be suited by having their own sprayer. **Timeliness of application is the key to an Ignite® program.** The LibertyLink® program is considered a great management practice for growers to help avoid weed resistance. Growers should strongly consider a pre-emergence pro-



Mahnken Farms planting terraced land.

gram and focus on timely applications when weeds are no more than 4" tall.

Ignite® was introduced in 2009 as a new formulation of glufosinate ammonium or Liberty®. Ignite is a more concentrated product than Liberty® allowing growers to use lower use rates. The standard use rate of Ignite® is 22 oz. per acre, while the Liberty® formulation was 32 oz. Ignite® offers a unique mode of action. Ignite® controls weeds that have developed resistance to glyphosate and/or other herbicide classes, including waterhemp, ragweed, and marestail. Ignite® can be tank mixed with most other crop protection products for very quick weed kill.

Using the Ignite® herbicide as part of your management plan for corn is a great option too. Ignite® is a contact killer. This means thorough coverage of weeds is crucial for success. Flat fan tips at 40-60 PSI with 15-20 gallons of water per acre are recommended. This means thorough spray coverage with medium sized droplets (300 microns) is crucial for success. Also 3 lbs. of AMS (ammonium sulfate) per acre are required. To aid burn-down and residual activity, Atrazine can be added to the tank mix.

Before spraying non-Roundup corn

(5R66 or 591L) with Ignite®, be sure to thoroughly clean the spray tank, hoses, and nozzles if the sprayer previously contained any glyphosate products. The cleaning process should include washing down tank side walls with a commercial tank cleaner and triple rinsing. Remember, it takes only a few parts per million of glyphosate to significantly injure non-Roundup Ready corn or non-Roundup Ready soybeans.

Pay special attention to:

- Sprayer surfaces or components where build-up might occur because of repeated coats of spray followed by drying.
- Irregular surfaces in the tank caused by baffles, plumbing fixtures, agitation hardware, etc.
- Top side of the spray tank and around baffles.
- Sprayer sumps and pumps.

**Weed control and herbicide management will always play a part in the economic success of any operation. Good luck in your efforts to control those troublesome weeds on your farm. The LibertyLink® system provides a useful tool in that ongoing fight.**

## ILLINOIS

### WOODFORD

Power Plus® 28J0™  
is best

Terry Matter  
Minonk, IL

**Planted:** May 23 in 30" rows. **Planting Population:** 140,000. **Harvested:** October 18. **Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Medium loam.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 28J0™ *	70.6	14.3
POWER PLUS 28J0™ *	69.7	14.2
POWER PLUS 32K0™ *	66.9	14.1
POWER PLUS 34B9™ *	66.6	13.3
HOBLOT 342	66.1	13.9
POWER PLUS 34T2™ *	65.9	14.1
HOBLOT 36P2	65.4	13.5
POWER PLUS 36C0™ *	63.1	14.1
POWER PLUS 28J0™ *	63.1	14.1
Average	66.4	14.0

## MISSOURI

### CHARITON

Power Plus® beans are  
2nd & 3rd



McCormick Farms  
Sumner, MO

**Planted:** May 19 in 30" rows. **Planting Population:** 150,000. **Harvested:** October 14. **Previous Crop:** Corn. **Herbicide:** Valor and Roundup. **Soil Type:** Medium loam. **Weather:** May-normal, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
Asgrow 3730	64.3	9.9
POWER PLUS 43D1™ *	63.3	10.6
POWER PLUS 38D2™ *	63.2	9.9
Mycogen 5N342R2	62.9	9.8
Mycogen 5N431R2	62.1	10.0
Mycogen 5N352R2	61.7	9.9
POWER PLUS 41F9™ *	61.5	9.9
Asgrow 4005	60.5	9.9
Mycogen 5N385R2	60.2	9.5
Asgrow 4032	60.1	10.5
Mycogen 5N386R2	60.0	9.8
Asgrow 3832	59.7	10.3
Mycogen 5N360R2	58.9	9.1
POWER PLUS 37T1™ *	58.8	9.8
Asgrow 3731	58.2	9.4
Asgrow 3932	58.0	10.5
Mycogen 5N393R2	57.4	9.8
POWER PLUS 40V1™ *	57.1	9.9
Mycogen 5N371R2	56.8	9.9
Mycogen 5N392RR	56.5	10.4
Asgrow 3803	56.1	8.4
POWER PLUS 36C0™ *	54.3	10.0
Asgrow 3830	51.9	9.9
Pioneer 94Y01	51.6	9.6
Asgrow 4232	50.5	10.5
NK S38-H8	46.9	10.3
NK S42-T4	45.9	10.2
Average	57.7	9.9



Aaron & Gary Bunnell saw Power Plus® 40V1™\* lead the pack in Grundy Co., MO at 65 bu/a.



Lowell Gause of Walworth Co., WI saw Hughes 201RR at the top with 59.7 bu/a.



David Dobson and Marcy Burrus chatted at the Casner/Dobson field day in MO.



We don’t make a habit of telling you how much “value” a product or technology brings, we let you experience the “worth” on your farm.

CLARK

15" vs. 30" rows

**COMPARE!** Kevin and Brian Buford  
Kahoka, MO

**Previous Crop:** Corn. **Fertilizer:** N: 0, P: Variable, K: Variable. **Soil Type:** Medium loam. **Weather:** May–normal, June–wet, July–dry, August–dry. **Remarks:** 1st line of each variety is 15" rows: 170,000 planting population. 2nd line 30" rows: 135,000 planting population.

Brand/Product	Bu. Per Acre	% Moisture	1000 Plants /Acre
POWER PLUS 36C0™ *	40.3	8.0	170
POWER PLUS 36C0™ *	41.8	8.1	135
POWER PLUS 37T1™ *	44.5	7.3	170
POWER PLUS 37T1™ *	43.9	7.8	135
POWER PLUS 38D2™ *	43.0	8.1	170
POWER PLUS 38D2™ *	43.1	7.8	135
POWER PLUS 40V1™ *	40.2	8.3	170
POWER PLUS 40V1™ *	39.5	8.1	135
POWER PLUS 34B9™ *	41.8	8.1	170
POWER PLUS 34B9™ *	44.2	8.1	135
POWER PLUS X34T2™ *	41.2	7.7	170
POWER PLUS X34T2™ *	41.7	7.5	135
POWER PLUS 32K0™ *	43.2	7.7	170
POWER PLUS 32K0™ *	43.7	7.5	135
Kruger 3701	44.3	7.7	170
Kruger 3701	44.1	7.4	135
Kruger 4101	38.1	7.7	170
Kruger 4101	37.7	7.8	135
Average	42.0	7.8	152

GRUNDY

**COMPARE!** Gary Bunnell and MG Kennedy  
Spickard, MO

**Planted:** April 19 in 30" rows. **Planting Population:** 149,000. **Harvested:** October 3. **Previous Crop:** Corn. **Herbicide:** Authority First, Roundup Power Max, Cadet. **Soil Type:** Light loam. **Weather:** May–normal, June–normal, July–dry, August–dry. **✓Check Hybrid:** Power Plus® 36A1™\*

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	60.7		8.9
POWER PLUS 34B9™ *	59.4	6	8.5
POWER PLUS X34T2™ *	58.9	7	8.6
POWER PLUS 36C0™ *	63.7	2	10.5
POWER PLUS 37T1™ *	63.7	3	11.6
✓Check	59.6		8.8
POWER PLUS 38D2™ *	61.5	5	9.4
POWER PLUS 40V1™ *	65.1	1	15.1
POWER PLUS 41F9™ *	58.2	8	10.4
POWER PLUS 43D1™ *	62.8	4	14.3
✓Check	58.1		9.3
Average	61.1		10.5
Check Average	59.5		9.0

HENRY

R. Dale Harms  
Windsor, MO

**Planted:** June 5 in 30" rows. **Planting Population:** 135,000. **Harvested:** October 8.

MISSOURI/  
WISCONSIN

**Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Light loam. **Weather:** May–normal, June–dry, July–dry, August–dry. **Remarks:** 1st 43D1™\* narrow rows, 2nd 43D1™\* wide rows.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 37T1™ *	43.1	8.2
POWER PLUS 43D1™ *	43.0	10.2
POWER PLUS 40V1™ *	41.3	9.3
POWER PLUS 38D2™ *	40.8	9.0
POWER PLUS 43D1™ *	40.4	10.4
POWER PLUS 41F9™ *	38.5	9.0
POWER PLUS 43D1™ *	37.3	10.2
Average	40.6	9.5

JOHNSON

Steve and Dan Ring  
Centerview, MO

**Planted:** May 10 in 30" rows. **Planting Population:** 140,000. **Harvested:** October 21. **Previous Crop:** Corn. **Fertilizer:** N: 0, P: 30, K: 30. **Herbicide:** Roundup. **Soil Type:** Light loam. **Weather:** May–normal, June–dry, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 41F9™ *	43.6	9.1
POWER PLUS 38D2™ *	42.6	9.0
POWER PLUS 37T1™ *	42.6	9.1
POWER PLUS 36C0™ *	36.7	9.2
POWER PLUS 40V1™ *	32.2	9.9
Average	39.5	9.3

Steve and Dan Ring  
Centerview, MO

**Planted:** May 11 in 30" rows. **Planting Population:** 140,000. **Harvested:** October 21. **Previous Crop:** Corn. **Fertilizer:** N: 0, P: 30, K: 30. **Herbicide:** Roundup. **Soil Type:** Light loam. **Weather:** May–normal, June–dry, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 37T1™ *	54.7	9.3
POWER PLUS 43D1™ *	51.6	9.4
POWER PLUS 40V1™ *	47.9	9.5
POWER PLUS 38D2™ *	47.4	9.4
POWER PLUS 36C0™ *	46.7	9.6
POWER PLUS 41F9™ *	45.8	8.9
HOB LIT 422	45.5	9.4
HOB LIT 422	43.1	9.5
Average	47.8	9.4

LAFAYETTE

Power Plus® 37T1™ \*  
brand  
is second

Greg Bertz  
Mayview, MO

**Planted:** June 5 in 15" rows. **Planting Population:** 173,000. **Harvested:** October 11. **Previous Crop:** Corn. **Herbicide:** Roundup. **Soil Type:** Medium loam. **Weather:** May–normal, June–normal, July–dry, August–dry. **✓Check Hybrid:** Krueger 384RRSCN

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	50.2		10.6
Pioneer 94Y01	50.9	4	11.4

Pioneer 93Y70	42.5	10	10.5
POWER PLUS 43D1™ *	42.0	11	11.5
POWER PLUS 40V1™ *	45.3	8	11.5
✓Check	50.2		10.6
POWER PLUS 38D2™ *	47.7	7	11.2
POWER PLUS 37T1™ *	56.7	2	10.9
Kruger 439RRSCN	49.5	5	11.1
Kruger 2-4302	54.6	3	11.8
✓Check	52.1		10.5
Kruger 2-4201	45.2	9	10.9
Kruger 2-4102	48.7	6	11.8
Kruger 2-4101	53.5	4	11.0
Kruger 2-3701	57.2	1	10.3
✓Check	54.8		10.6
Average	50.1		11
Check Average	51.8		10.6

LINN

Power Plus® 36C0™ \*  
brand  
wins at 58 bu/a

**COMPARE!** Jerry Surber  
Wheeling, MO

**Planted:** May 19 in 15" rows. **Planting Population:** 160,000. **Harvested:** October 7. **Previous Crop:** Soybeans. **Herbicide:** Roundup and Cobra. **Weather:** May–normal, June–normal, July–dry, August–dry. **✓Check Hybrid:** NK 39A3

Brand-Variety	Bu. Per Acre	Rank	% Moisture
POWER PLUS 36C0™ *	58.0	1	7.5
✓Check	47.8		8.6
Pioneer 93Y70	53.4	6	7.6
✓Check	46.7		8.1
Asgrow 3803	54.1	4	8.6
✓Check	44.3		7.9
POWER PLUS 36A1™ *	53.4	5	7.6
✓Check	45.6		7.8
Asgrow 3731	57.2	2	7.1
✓Check	45.7		7.6
POWER PLUS 40V1™ *	55.4	3	8.0
✓Check	44.3		7.8
Asgrow 3830	49.0	8	7.5
✓Check	43.7		7.6
POWER PLUS 41F9™ *	48.5	9	7.2
✓Check	43.7		7.5
Asgrow 4005	52.3	7	7.6
Average	49.6		7.7
Check Average	45.2		7.9

Power Plus® 36C0™ \*  
brand &  
Power Plus® 43D1™ \*  
brand

Jimmie Palmer  
Brookfield, MO

**Planted:** May 12 in 30" rows. **Planting Population:** 149,000. **Harvested:** October 4. **Previous Crop:** Corn. **Herbicide:** Prefix and Roundup. **Soil Type:** Medium loam. **Weather:** May–normal, June–normal, July–dry, August–dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 36C0™ *	58.5	8.4
POWER PLUS 43D1™ *	58.0	9.6
POWER PLUS 40V1™ *	56.9	9.5
POWER PLUS 37T1™ *	54.9	9.7
POWER PLUS X34T2™ *	52.0	8.0
POWER PLUS 38D2™ *	50.4	8.2
POWER PLUS 34B9™ *	49.7	8.4
POWER PLUS 41F9™ *	46.8	8.5
Average	53.4	8.8

MACON

Danny and Sheryl Smithson  
LaPlata, MO

**Planted:** May 3 in 10" rows. **Planting Population:** 165,000. **Harvested:** October 5. **Previous Crop:** Corn. **Fertilizer:** N: 9.5, P: 45, K: 70. **Soil Type:** Light Clay. **Weather:** May–normal, June–wet, July–dry, August–dry. **Remarks:** The top 2 entries sprayed with Quadris/Endigo/Wuxal K25. The last entry was a control no spray added.

Brand/Product	Bu. Per Acre	% Moisture
HOB LIT 38H1	75.5	10.5
POWER PLUS 41F9™ *	72.3	10.4
POWER PLUS 41F9™ *	62.2	9.8
Average	70.0	10.2

PETTIS

Kevin Harms  
Mora, MO

**Planted:** June 13 in 30" rows. **Planting Population:** 135,000. **Harvested:** October 11. **Previous Crop:** Corn. **Herbicide:** Valor and Roundup. **Soil Type:** Light loam. **Weather:** May–normal, June–dry, July–dry, August–normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 43D1™ *	57.7	12.6
POWER PLUS 37T1™ *	55.2	12.9
POWER PLUS 38D2™ *	55.0	12.6
POWER PLUS 40V1™ *	54.5	12.8
POWER PLUS 39G9™ *	53.7	12.8
POWER PLUS 41F9™ *	53.0	12.3
POWER PLUS 36C0™ *	52.7	13.5
Average	54.5	12.8

WISCONSIN

WALWORTH

Lowell Gause  
Darien, WI

**Planted:** June 1 in 30" rows. **Planting Population:** 167,000. **Harvested:** October 22. **Previous Crop:** Corn. **Soil Type:** Heavy. **Remarks:** Hughes 454 RR.

Brand-Variety	Bu. Per Acre	Rank	% Moisture
✓Check	53.7		12.9
HUGHES 201 RR	59.7	1	12.7
POWER PLUS 23-Z1™ *	56.5	5	12.4
HUGHES 555 RR	57.6	3	12.3
Asgrow 2330	53.4	9	12.5
Asgrow 2406	55.1	6	12.1
✓Check	53.3		12.4
NK 25F2	51.4	11	12.2
POWER PLUS 26W2™ *	56.7	4	12.3
NK 26-E9	53.2	10	12.1
HUGHES 777 RR	53.7	8	12.0
Asgrow 27-52	54.8	7	12.1
POWER PLUS 28V2™ *	58.0	2	12.2
✓Check	54.6		12.1
Average	55.1		12.3
Check Average	53.9		12.5





They line up for our performance.

### Hughes 201RR MATURITY 2.1



- Comes from a good family
- Early yield power
- Very good White Mold Score
- BSR resistant
- Widely adapted

Emergence	8
Standability	9
SDS	NA

### 23Z1™\*brand POWER PLUS MATURITY 2.3



- Great yield potential for Northern Illinois
- Very good SCN race 3 resistance
- Multi-race Phytophthora resistance (Rps1c)
- Moderate SDS resistance
- Relatively tall with medium canopy width
- Good on any soil type

Emergence	10
Standability	10
SDS	6

### Hughes 454RR MATURITY 2.5



- Well suited for varied soils
- White mold tolerance is very good
- Very good with Brown Stem Rot tolerance
- Medium-tall with good standability
- Can handle all row widths
- Very good Phytophthora resistance

Emergence	9
Standability	9
SDS	NA

### Hughes 555RR MATURITY 2.5



- Very showy appearance
- Tremendous performance
- Cyst resistance is very good
- Excellent agronomics
- Best choice for stress-prone areas
- Very good agronomically

Emergence	9
Standability	9
SDS	8

### 26W2™\*brand POWER PLUS MATURITY 2.6



- Excellent SCN race 3 resistance
- Multi-race Phytophthora resistance (Rps1c)
- Very good Sudden Death Syndrome field tolerance
- Excellent field emergence
- Good harvest standability

Emergence	9
Standability	9
SDS	6

### Hughes 777RR MATURITY 2.7



- Good disease package
- Excellent yielding variety
- Phytophthora resistance (Rps1c)
- Cyst resistance is excellent
- Can handle all row width systems
- This big line will stand well for harvest

Emergence	8
Standability	9
SDS	8

### 28J0™\*brand POWER PLUS MATURITY 2.8



- Offensive yields for Illinois and Iowa
- Very good SCN race 3 resistance
- Good iron deficiency chlorosis tolerance
- Very good Sudden Death Syndrome field tolerance
- Excellent shattering resistance
- Good southern movement for maturity

Emergence	9
Standability	9
SDS	7

### 28V2™\*brand POWER PLUS MATURITY 2.8



- "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

Emergence	9
Standability	9
SDS	7





Think Trust  
Trust is the most important attribute you should expect from your seed supplier.  
Trust is something you never question when you work with Burrus/Hughes/Hoblit.

32K0™\*brand POWER PLUS MATURITY 3.2

- Very good soybean aphid antibiosis
- Multi-race Phytophthora resistance (Rps1k)
- Good Sudden Death Syndrome field tolerance
- Above average frogeye leaf spot tolerance
- Outstanding SCN race 3 resistance
- Taller plant height will provide an edge in stress environments

Emergence	9
Standability	9
SDS	6

Hoblit 342NRR MATURITY 3.4

- Top yields
- SCN Resistant (PI 88788)
- Phytophthora resistance (Rps1c)
- Brown Stem Rot resistant
- Great SDS score
- Excellent frogeye and charcoal rot resistance

Emergence	9
Standability	9
SDS	7



34B9™\*brand POWER PLUS MATURITY 3.4

- Very good SCN race 3 resistance
- Very good Sudden Death Syndrome field tolerance
- Excellent harvest standability
- Moderate tolerance to the charcoal rot/drought complex
- Excellent shattering resistance
- Versatile product that will perform well across environments

Emergence	9
Standability	9
SDS	8

36C0™\*brand POWER PLUS MATURITY 3.6

- Multi-race phytophthora resistance (Rps1k)
- Very good SCN race 3 resistance
- Moderate iron deficiency chlorosis tolerance
- Very good Sudden Death Syndrome field tolerance
- Outstanding frogeye leaf spot tolerance
- Excellent harvest standability

Emergence	10
Standability	10
SDS	8

Hoblit 36P2 MATURITY 3.6

- Top performer in multi-year testing
- Excels on high producing soils
- Medium plant height and canopy width
- Good SCN race 3 resistance
- Excellent harvest standability
- Light soil rating 5

Emergence	9
Standability	9
SDS	7

37T1™\*brand POWER PLUS MATURITY 3.7

- Great companion to 36C0™\*
- Lighter soils need narrow rows
- Very good SCN race 3 resistance
- Multi-race Phytophthora resistance (Rps1K)
- Good Sudden Death Syndrome field tolerance
- Good field emergence
- Good harvest standability

Emergence	9
Standability	9
SDS	7

38D2™\*brand POWER PLUS 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

Emergence	9
Standability	9
SDS	8

40V1™\*brand POWER PLUS MATURITY 4.0

- Fantastic yield potential
- Very good SCN race 3 resistance
- Above average height for lighter soils
- Good Sudden Death Syndrome field tolerance
- Excellent field emergence
- Excellent harvest standability

Emergence	10
Standability	10
SDS	8

41F9™\*brand POWER PLUS MATURITY 4.1

- Excellent choice for challenging soils in Southern Illinois and Missouri
- Very good resistance to SCN race 3
- Multi-race Phytophthora resistance (Rps1k)
- Very good Sudden Death Syndrome field tolerance
- Very good frogeye leaf spot tolerance
- Above average tolerance to the charcoal rot/drought complex
- Excellent field emergence

Emergence	10
Standability	10
SDS	8

43D1™\*brand POWER PLUS MATURITY 4.3

- Short stature for maturity
- Narrow rows are best for light soils or doublecropping
- Great in river bottoms
- Good SCN race 3 resistance and SDS tolerance
- Very good Phytophthora field tolerance
- Excellent field emergence
- Excellent harvest standability

Emergence	10
Standability	10
SDS	7







Growers know they can trust the agronomic advice of the Burrus team. Call your Burrus Regional Sales Manager today for honest answers to your questions.

Hoblit 372LL

MATURITY 3.7

LIBERTY LINK

IGNITE® HERBICIDE TOLERANT

- Consistently high yields
- Taller plant type with good branching
- Very good SDS tolerance
- Good lodging and shattering scores
- Very good Phytophthora scores with k gene
- Will work in areas where weed resistance is a problem

Emergence	9
Standability	9
SDS	7



Hoblit 412LL

MATURITY 4.1

LIBERTY LINK

IGNITE® HERBICIDE TOLERANT

- Very high yield potential
- Tall plant type with good branching
- Very good SDS tolerance
- Good lodging and shattering scores
- Excellent frog-eye and good SCN scores
- Will work in areas where weed resistance is a problem

Emergence	9
Standability	9
SDS	6



### LibertyLink Soybeans

LibertyLink® soybeans with Ignite® herbicide enables growers to effectively avoid or manage weed resistance as the only nonselective alternative to glyphosate-tolerant systems. LibertyLink soybean varieties combine elite genetics and excellent crop safety with built-in tolerance to the powerful, postemergence weed control of Ignite. High-yielding LibertyLink soybean varieties are available in a range of maturities.

Ignite herbicide applied over the top of LibertyLink soybean varieties provides cost-effective, nonselective postemergence control of broadleaf and grass weeds, including weeds resistant to glyphosate and multiple herbicide classes.

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### LibertyLink Corn

The LibertyLink® trait with Ignite® herbicide enables growers to effectively avoid or manage weed resistance as the only nonselective alternative to glyphosate-tolerant systems. LibertyLink hybrids combine high-yielding genetics with excellent crop safety from built-in tolerance to the powerful, postemergence weed control of Ignite. A wide selection of LibertyLink hybrids are available from elite germplasm providers, including all Herculex®, SmartStax™ and Agrisure® hybrids with corn borer protection.

Ignite herbicide applied over the top of LibertyLink corn hybrids provides cost-effective, nonselective postemergence control of broadleaf and grass weeds, including weeds resistant to glyphosate and multiple herbicide classes.

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### Ignite Herbicide

Ignite® herbicide provides growers cost-effective, nonselective, postemergence weed management in days vs. weeks, across all LibertyLink® crops including corn, soybeans, cotton and canola. Ignite delivers powerful control of broadleaf and grass weeds, including weeds resistant to glyphosate and multiple herbicide classes. Additionally, Ignite can be applied as a burndown treatment prior to planting or prior to emergence of any soybean, cotton, corn, canola, or sugar beet crop. It is a valuable tool prior to emergence of glyphosate-tolerant crops to provide a clean start, free of tough-to-control or resistant weeds.

The LibertyLink trait with Ignite herbicide helps growers to effectively manage weed resistance, while enabling nonselective herbicide rotation on a whole farm basis. The LibertyLink trait is available in LibertyLink soybean varieties; LibertyLink corn hybrids, including all Herculex®, SmartStax™ and Agrisure® hybrids with corn borer protection; FiberMax® and Stoneville® cotton varieties and InVigor® canola hybrids.

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### LibertyLink Patent Statement

Soybean seeds containing the LibertyLink® trait are protected under multiple United States patents and may be planted only to produce one (1) commercial crop and only after signing a Grower Trait License 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.

### Trademark Statement

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## 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			

## Soybean ratings and characteristics

Roundup Ready													
Brands	Maturity	SCN	Emer-gence	Stand-ability	PRR	BSR	SDS	White mold	Canopy width	Plant Ht.	Lt. Soils	Pubes-cence	
Hughes Brand HH201	2.1	NA	8	9	7	10	NA	8	7	8	8	L. Tawny	
Power Plus® Brand 23Z1™*	2.3	PI88788	10	10	7	5	6	6	6	8	5	L. Tawny	
Hughes Brand 454RR	2.4	NA	9	9	8	10	NA	8	7	8	7	L. Tawny	
Hughes Brand 555RR	2.5	PI88788	9	9	7	8	8	7	7	8	7	L. Tawny	
Power Plus® Brand 26W2™*	2.6	Peking	9	9	4	7	6	4	7	6	5	L. Tawny	
Hughes Brand 777RR	2.7	PI88788	8	9	8	8	8	6	8	9	8	L. Tawny	
Power Plus® Brand 28J0™*	2.8	PI88788	9	9	5	4	7	5	7	7	6	L. Tawny	
Power Plus® Brand 28V2™*	2.8	PI88788	9	9	5	10	7	5	7	8	8	L. Tawny	
Power Plus® Brand 32K0™*	3.2	PI88788	9	9	6	4	6	5	7	9	7	L. Tawny	
Hoblit Brand HB342	3.4	PI88788	9	9	5	7	7	5	8	9	8	Tawny	
Power Plus® Brand 34B9™*	3.4	PI88788	9	9	6	6	8	5	7	8	7	L. Tawny	
Power Plus® Brand 36C0™*	3.6	PI88788	10	10	5	NA	8	NA	7	6	5**	L. Tawny	
Hoblit Brand 36P2	3.6	PI88788	9	9	7	6	7	7	7	7	5**	L. Tawny	
Power Plus® Brand 37T1™*	3.7	PI88788	9	9	6	NA	7	NA	8	6	5**	L. Tawny	
Power Plus® Brand 38D2™*	3.8	PI88788	9	9	6	NA	7	NA	7	7	8	L. Tawny	
Power Plus® Brand 40V1™*	4.0	PI88788	10	10	5	NA	8	NA	7	7	7	L. Tawny	
Power Plus® Brand 41F9™*	4.1	PI88788	10	10	6	NA	8	NA	7	9	8	L. Tawny	
Power Plus® Brand 43D1™*	4.3	PI88788	10	10	7	NA	7	NA	7	4	5**	L. Tawny	
Liberty Link													
Brands	Maturity	SCN	Emer-gence	Stand-ability	PRR	BSR	SDS	White mold	Canopy width	Plant Ht.	Lt. Soils	Pubes-cence	
Hoblit Brand HB372LL	3.7	NA	9	9	8	NA	8	5	7	6	7	L. Tawny	
Hoblit Brand HB412LL	4.1	NA	9	8	6	NA	7	6	7	8	8	L. Tawny	

Ratings: 10 = Best, 1 = Poorest  
SCN Ratings: R = Resistant, MR = Medium Resistant  
NA = Not Available  
\*\*Narrow rows best in light soils


\*Power Plus® Brand is distributed by Burrus  
The seed count estimates will vary by lot.  
Growers will not have an option for which lot they will get, as they are supplied by the way the beans come out of storage.



Most growers are fiercely independent. They prefer to make their own choices. You can count Burrus and Hughes in that group too.

# TRUST

76 years of seed corn performance, technology, and value.



1285GCL  
Brand

Agrisure  
GT/CB/LL

Herbicide Choice

Glyphosate

CONV.

1285GCL  
Brand

Agrisure  
GT/CB/LL

94 Day Maturity

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

A high performance option

Maximum performance on best soils

Tall plant provides good silage option

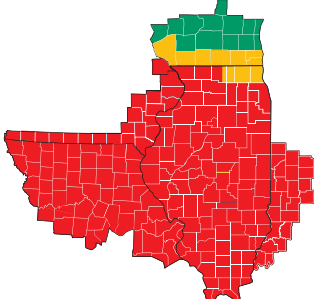
Plant health and stay green are good


Good early emergence and rapid dry down

Likes high populations and rotated ground

Planting Application Choices

No-Till	Excellent	Good	Suitable
Corn/Corn			
Early Planting			
Population	Group A	Group B	Group C





2240 GT3  
Brand

Agrisure  
3000GT

Herbicide Choice

Glyphosate

CONV.

2240GT3  
Brand

Agrisure  
3000GT

98 Day Maturity

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

Excellent stability over all environments

Watch for GLS and spray fungicides

Tall high yielding hybrid

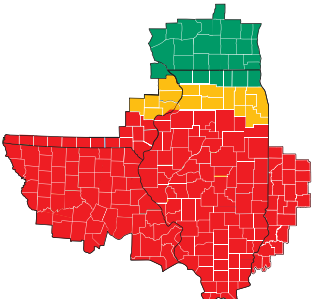
Stalk and root strength are good

Best adapted to northern environments

Best with medium to high populations


Planting Application Choices

No-Till	Excellent	Good	Suitable
Corn/Corn			
Early Planting			
Population	Group B	Group A	Group C










2795GT3  
BRAND

2691  
BRAND

2450GT  
BRAND

100/98 Day Maturity



Herbicide Choice

Glyphosate

CONV.

2795GT3  
Brand

2691  
Brand

2795GT3  
Brand

Agrisure  
3000GT

Agrisure  
3000GT

Agrisure  
3000GT

2450GT  
Brand

Agrisure  
GT

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

• Tall, showy hybrid

• Emerges rapidly

• Very good health and overall appearance

• Prefers high end yield environments

• Yield history in testing has been remarkable

• Husk flare promotes good dry down

Planting Application Choices

No-Till

Corn/Corn

Early Planting

Population

Excellent

Good

Suitable

●

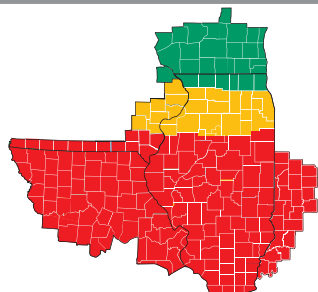
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●

Group B

Group A

Group C





1H37 Q<sup>TM\*</sup>  
Brand

1H37 Q<sup>TM\*</sup>  
Brand

102 Day Maturity

Herbicide Choice

CONV.

1H37 Q<sup>TM\*</sup>  
Brand

1H37 Q<sup>TM\*</sup>  
Brand

Agrisure  
3000GT

Agrisure  
3000GT

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

• Consistent high yields

• Good drought tolerance

• Good health for maturity

• Ear will flex

• Will work well for both grain and silage

• Great for northern IL and Wisc.

Planting Application Choices

No-Till

Corn/Corn

Early Planting

Population

Excellent

Good

Suitable

●

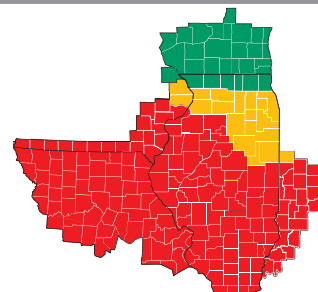
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●

Group A

Group B

Group C





3309GT3  
BRAND

3310GT  
BRAND

103/102 Day Maturity

Herbicide Choice

Glyphosate

CONV.

3309GT3  
Brand

3309GT3  
Brand

Agrisure  
3000GT

Agrisure  
3000GT

3310GT  
Brand

Agrisure  
GT

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

• Hallmarks are consistency and high yield

• Likes high planting populations

• Swift dry down and good stalk strength

• Medium – tall hybrid stature

• Works in fuller season zones for early harvest

• Scout and treat with fungicide if needed

Planting Application Choices

No-Till

Corn/Corn

Early Planting

Population

Excellent

Good

Suitable

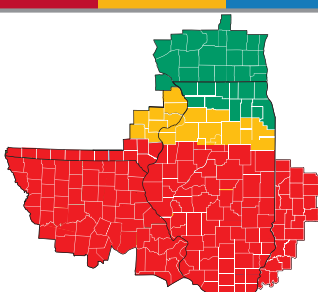
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●

●

Group A

Group B





2A16AM1<sup>TM\*</sup>  
Brand

2M17AMRW<sup>TM\*</sup>  
Brand

104 Day Maturity

Herbicide Choice

CONV.

2A16AM1<sup>TM\*</sup>  
Brand

2A16AM1<sup>TM\*</sup>  
Brand

Agrisure  
3000GT

Agrisure  
3000GT

2M17AMRW<sup>TM\*</sup>  
Brand

Agrisure  
GT

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

• Excellent yield potential for maturity

• Moderately tall with very good stalks and roots

• Very good drought tolerance

• Fast dry down for early harvest

• Average test weight

• May respond to fungicide applications in corn following corn

Planting Application Choices

No-Till

Corn/Corn

Early Planting

Population

Excellent

Good

Suitable

●

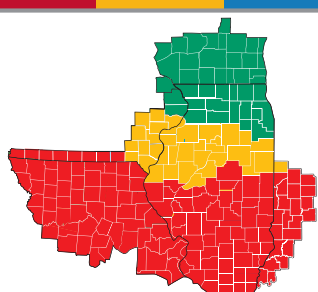
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●

Group B


Group C

Group A





Success is not doing one thing right,  
it is doing everything right.



4431GTV  
BRAND


104 Day Maturity

Herbicide Choice


Glyphosate

CONV.

4431GTV  
Brand



4431GTV  
Brand



Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

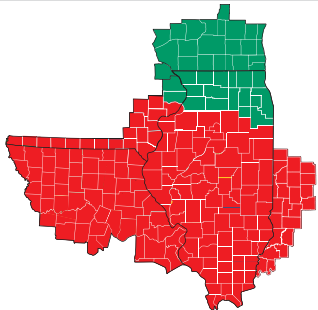
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10

- New Agrisure Viptera® Technology with broad lepidopteran control
- Showy, attractive hybrid
- Good husk flare
- Nice grain finish
- Good late season intactness

Planting Application Choices

	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting	●		
Population	Group A	Group B	





4125GT3  
BRAND

3928GT  
BRAND

4373  
BRAND


105/104/105 Day Maturity

Herbicide Choice

Glyphosate


CONV.

4125GT3  
Brand



4373  
Brand

4125GT3  
Brand



Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

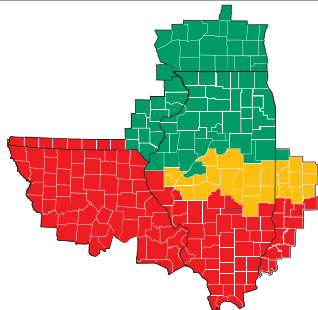
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10

- Consistent across locations and environments
- Very good ear flex
- Large plant style with good standability
- Very good fall appearance and intactness
- Husk opens on narrow leaf for reliable dry down
- Excellent quantity and quality silage

Planting Application Choices

	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting	●		
Population	Group B	Group A	Group C





3C98 R<sup>TM</sup>\*


Brand

107 Day Maturity

Herbicide Choice

CONV.

3C98 R<sup>TM</sup>\*



Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9


10

- Excellent yield potential for maturity
- Medium plant height
- Excellent stalks and roots
- Good disease package
- Very good test weight

Planting Application Choices

	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting	●		
Population	Group B	Group A	Group C





5124 GT  
Brand

5456GT3  
Brand


107Day Maturity

Herbicide Choice


Glyphosate

CONV.


5456GT3  
Brand



5124 GT  
Brand



5456GT3  
Brand



Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

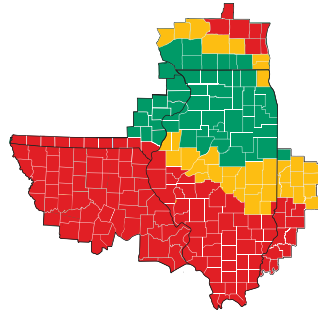
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10

- Excellent ear flex capability
- Large plant style but stands very well
- Very good fall appearance and intactness
- Good leaf disease package
- Husks open well for fast dry down
- Height and yield make this hybrid a great silage choice


Planting Application Choices


	Excellent	Good	Suitable
No-Till	●		
Corn/Corn	●		
Early Planting	●		
Population	Group C	Group B	Group A







**5874**  
Brand

**POWER PLUS**

**4K74 S<sup>TM</sup>\***  
Brand  
107/109 Day Maturity

Herbicide Choice

CONV.

**4K74 S<sup>TM</sup>\***  
Brand

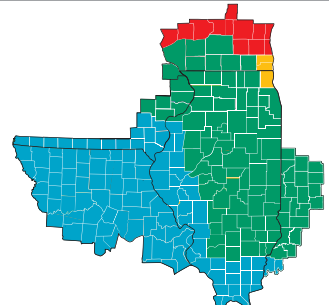
**5874**  
Brand


**4K74 S<sup>TM</sup>\***  
Brand

Drought Tolerance	8
Stalk Strength	7
Root Strength	7
Dry Down	8
Early Vigor	7

- Capable of top yields across wide geography
- Very attractive summer appearance
- Timely treatment for corn borer recommended
- Good grain quality
- Fast dry down
- Average fall appearance

Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting		●	
Population	Group B	Group C	Group A



**POWER PLUS**

**4B32AMX<sup>TM</sup>\***  
Brand  
**4A30AM1<sup>TM</sup>\***  
Brand  
**4M31AMRW<sup>TM</sup>\***  
Brand  
108 Day Maturity

Herbicide Choice

CONV.

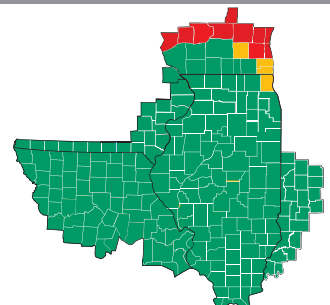
**4A30AM1<sup>TM</sup>\***  
Brand


**4A30AM1<sup>TM</sup>\***  
Brand

Drought Tolerance	8
Stalk Strength	9
Root Strength	8
Dry Down	8
Early Vigor	8

- Superb yield potential
- Single bag refuge for above and below ground insect control.
- Excellent stalk and root strength
- Heavy test weight grain, should make food grade
- Open husks for fast drydown
- Very good drought tolerance

Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting	●		
Population	Group A	Group B	



**POWER PLUS**

**4V43 S<sup>TM</sup>\***  
Brand  
108 Day Maturity

Herbicide Choice

CONV.

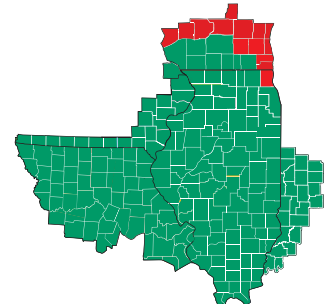
**4V43 S<sup>TM</sup>\***  
Brand

**4V43 S<sup>TM</sup>\***  
Brand

Drought Tolerance	8
Stalk Strength	7
Root Strength	7
Dry Down	8
Early Vigor	8

- If a grower has liked 4K74 S<sup>TM</sup>\*, he'll love 4V43 S<sup>TM</sup>\*
- Tremendous yield potential from medium sized plants
- Well adapted to the non-variant areas of Illinois and Missouri
- Good stalks and roots
- Good health well into fall

Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting		●	
Population	Group B	Group C	Group A

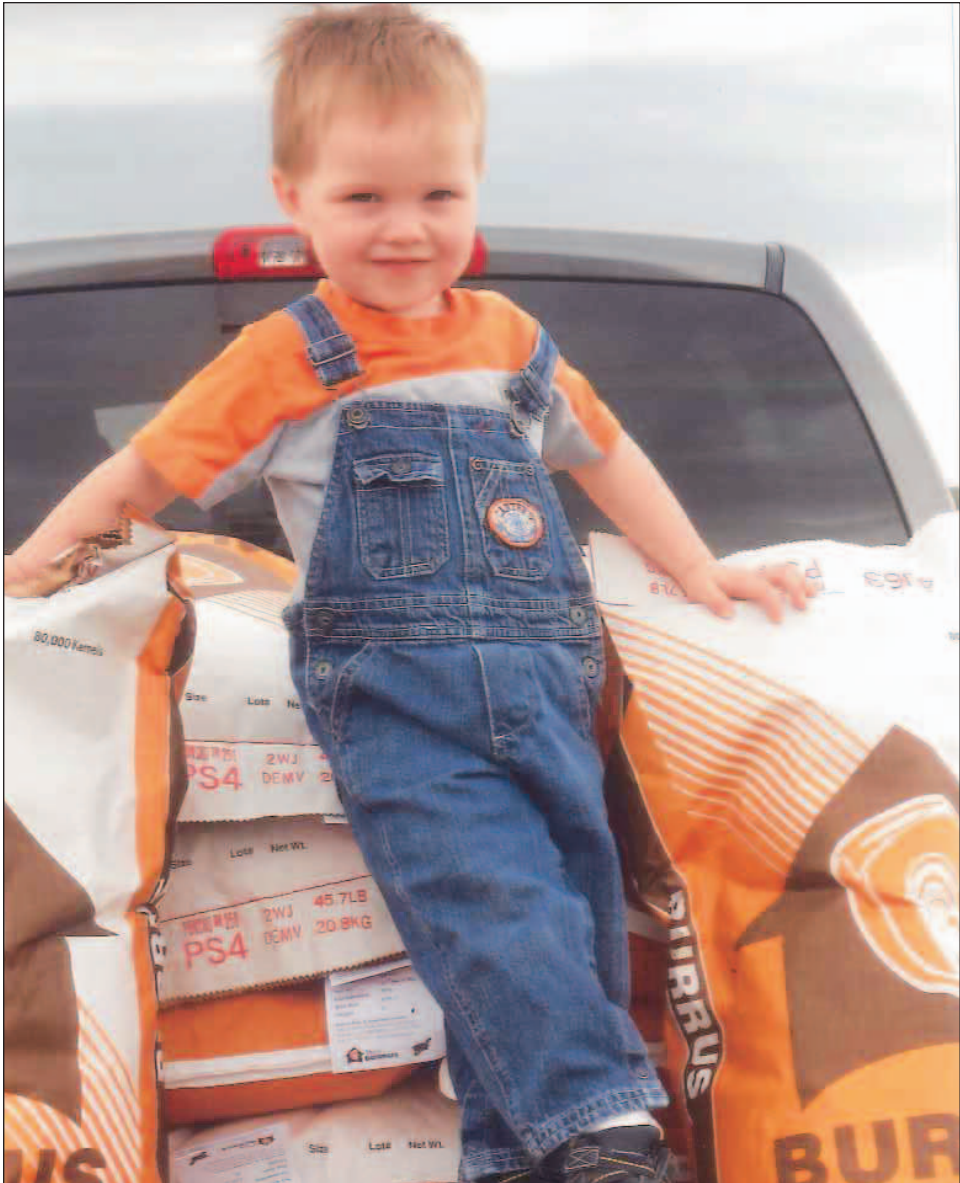





Kenzie & Chase Olson, children of Scott & Jennifer Olson of Mercer Co., love Burrus corn & John Deere tractors.




**Think Value**  
Irrigated testing allows Burrus the opportunity to prove how high our products and experimentals can yield. We have harvested over 300 bu/a from plots on multiple years.





Brian & Brenda Blackford of Vermilion Co. had grandson Aiden's help during planting this spring.





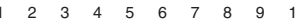


**6435GT3**  
BRAND  
108 Day Maturity

Herbicide Choice  
Glyphosate CONV. 

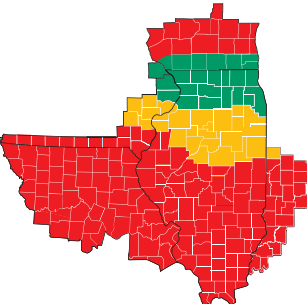
**6435GT3**  
Brand  


**6435GT3**  
Brand  



Drought Tolerance	
Stalk Strength	
Root Strength	
Dry Down	
Early Vigor	

1 2 3 4 5 6 7 8 9 10


- Suited for prairie soils of Illinois
- Good stalk strength with average roots
- Girthy ears on medium tall plants
- Fungicide applications may boost top-end
- Does not like wet feet
- Good fall appearance





Planting Application Choices			
	Excellent	Good	Suitable
No-Till		●	
Corn/Corn		●	
Early Planting		●	
Population	Group B	Group A	Group C





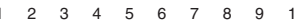


**4C58 Q<sup>TM</sup>\***  
Brand  
108 Day Maturity

Herbicide Choice  
CONV. 

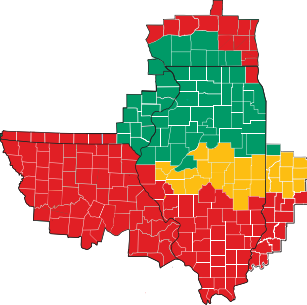
**4C58 Q<sup>TM</sup>\***  
Brand  


**4C58 Q<sup>TM</sup>\***  
Brand  



Drought Tolerance	
Stalk Strength	
Root Strength	
Dry Down	
Early Vigor	

1 2 3 4 5 6 7 8 9 10


- Tall plants with low ear placement
- Excellent test weight, food grade candidate
- Somewhat susceptible to gray leaf spot, consider spraying with fungicide
- Good drought tolerance
- Put this workhorse in your stable and reap the benefits





Planting Application Choices			
	Excellent	Good	Suitable
No-Till		●	
Corn/Corn			●
Early Planting		●	
Population	Group B	Group A	Group C








**4J63 T**  
Brand  
108 Day Maturity

Herbicide Choice  
CONV. 

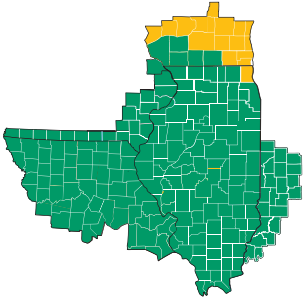
**4J63 T**  
Brand  


**4J63 T**  
Brand  


Drought Tolerance	
Stalk Strength	
Root Strength	
Dry Down	
Early Vigor	

1 2 3 4 5 6 7 8 9 10

- Tremendous top end yield potential
- Best at medium plant populations
- Good roots with average stalks
- Will work on various soil types, especially sand and light soils



Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn			●
Early Planting	●		
Population	Group C		Group B





5M46AMRW<sup>TM</sup>\*  
Brand

5A45AM1<sup>TM</sup>\*  
Brand

5G42<sup>TM</sup>\*  
Brand

110 Day Maturity

Herbicide Choice

CONV.

5A45AM1<sup>TM</sup>\*  
Brand

AcreMax 1  
ADDITIONAL

5G42<sup>TM</sup>\*  
Brand

5A45AM1<sup>TM</sup>\*  
Brand

AcreMax 1  
ADDITIONAL

5M46AMRW<sup>TM</sup>\*  
Brand

AcreMax  
ADDITIONAL

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

- Consistent performance across all soil types
- Excellent disease package
- Can drop an ear
- Big plant stature with excellent stalk and root strength
- Heavy test weight grain, should make food grade
- Good drought tolerance

Planting Application Choices

No-Till	Excellent	Good	Suitable
Corn/Corn	●		
Early Planting	●		
Population	Group B	Group C	Group A

5N48<sup>TM</sup>\*  
Brand

110 Day Maturity

Herbicide Choice

CONV.

5N48<sup>TM</sup>\*  
Brand

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

- Off the chart yield potential
- Excellent stalk strength
- Medium tall plant style
- Will respond to fungicide application when gray leaf spot is present
- Strong resistance against Northern corn leaf blight

Planting Application Choices

No-Till	Excellent	Good	Suitable
Corn/Corn	●		●
Early Planting	●		
Population	Group B	Group C	Group A

5557VT3  
Brand

111 Day Maturity

Herbicide Choice

CONV.

5557VT3  
Brand

Ignite  
ADDITIONAL

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8

9

10

- Top end yield potential from medium plant size
- Very good stalks will handle high pops
- Adapted to various soil types
- Heavy test weight grain
- Excellent choice for no-till

Planting Application Choices

No-Till	Excellent	Good	Suitable
Corn/Corn	●	●	
Early Planting	●		
Population	Group B	Group C	Group A

5566GT3  
Brand

591L  
Brand

7383GT3  
Brand

111 Day Maturity

Herbicide Choice

Glyphosate CONV.

5566GT3  
Brand

Agrisure 3000GT

7383GT3  
Brand

Agrisure 3000GT

591L  
Brand

Ignite

7383GT3  
Brand

Agrisure 3000GT

Drought Tolerance

Stalk Strength

Root Strength

Dry Down

Early Vigor

1

2

3

4

5

6

7

8


9

10

- Agrisure 3000GT technology makes 5566GT3 and 7383GT3 both quad stacks
- Lots of top end yields from medium sized plants
- Great agronomics with good test weight and fall appearance
- Prefers higher populations on your better soils

Planting Application Choices

No-Till	Excellent	Good	Suitable
Corn/Corn	●	●	
Early Planting	●		
Population	Group B	Group C	Group A





# POWER PLUS

## 6A12AM1<sup>TM\*</sup> 6Y10 R<sup>TM\*</sup>

112 Day Maturity

Herbicide Choice


**6A12AM1<sup>TM\*</sup>**  
Brand

Optimum  
**AcreMax 1**  
ABOVE/BELLOW

**6A12AM1<sup>TM\*</sup>**  
Brand

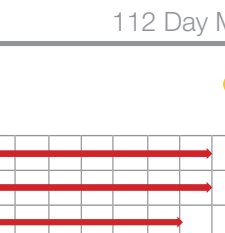
Optimum  
**AcreMax 1**  
ABOVE/BELLOW

**6Y10 R<sup>TM\*</sup>**  
Brand




	1	2	3	4	5	6	7	8	9	10	
Drought Tolerance								8			
Stalk Strength								8			
Root Strength							7				
Dry Down								8			
Early Vigor								8			

- Super high yield potential
- Good disease package
- Big plant stature
- Excellent stalk and root strength
- This product is under-utilized
- Good drought tolerance



Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn	●		
Early Planting	●		
Population	Group B	Group C	Group A



# POWER PLUS


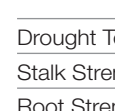
## 6A25AM1<sup>TM\*</sup> Brand

## 6K24 Q<sup>TM\*</sup> Brand


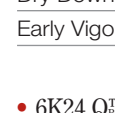
112 Day Maturity

Herbicide Choice

CONV.

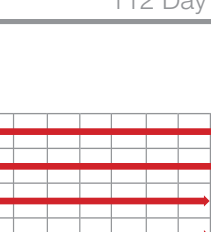



HERBICIDE RESISTANT


Characteristic	6A25AM1 <sup>TM*</sup> Brand	6K24 Q <sup>TM*</sup> Brand
Drought Tolerance	9	9
Stalk Strength	9	9
Root Strength	8	8
Dry Down	8	8
Early Vigor	8	8

- 6K24 Q<sup>TM\*</sup> Brand has superb yield potential as a quad or AM1
- Excellent stalk and root strength
- Heavy test weight grain
- Open husks for fast drydown
- Above average on leaf diseases
- This has the potential to be your best performer



### Planting Application Choices

	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting		●	
Population	Group B	Group A	Group C



**Think  
BURRUS®**


**6J36 GT3**  
Brand

**6J35 GT**  
Brand



**6J34**  
Brand


112 Day Maturity

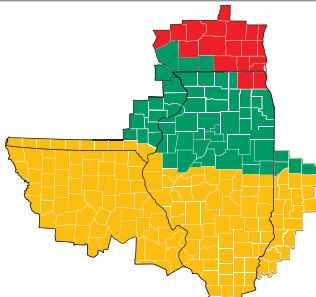
Herbicide Choice

**Glyphosate**  
**6J36GT3**  
Brand  

**Agrisure 3000GT**

**CONV.**  
**6J34**  
Brand


**6J36GT3**  
Brand  

**Agrisure 3000GT**


**6J35GT**  
Brand  

**Agrisure GT**



Drought Tolerance	8									
Stalk Strength	8									
Root Strength	8									
Dry Down	8									
Early Vigor	8									
	1	2	3	4	5	6	7	8	9	10

- Consistent high yield
- Very good stalks and roots
- Average plant and ear height
- Dense leaf canopy with solid agronomics
- Very fast dry down
- Good drought tolerance

Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting		●	
Population	Group B	Group A	Group C



# POWER PLUS

## 6B50™<sup>\*</sup> Brand


## 6B52 S™<sup>\*</sup> Brand

## 6B51 R™<sup>\*</sup> Brand


113 Day Maturity

Herbicide Choice

**6B51 R™<sup>\*</sup>**  
Brand





**6B52 S™<sup>\*</sup>**  
Brand



**6B50™<sup>\*</sup>**  
Brand

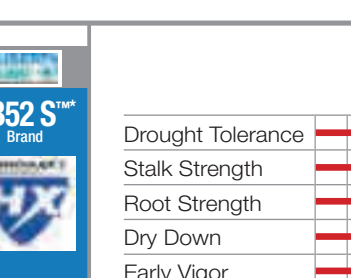
**6B52 S™<sup>\*</sup>**  
Brand





	1	2	3	4	5	6	7	8	9	10
Drought Tolerance	—————●—————									
Stalk Strength	—————●—————									
Root Strength	—————●—————									
Dry Down	—————●—————									
Early Vigor	—————●—————									

- Tremendous yield potential from big plants
- Excellent GLS tolerance
- Well adapted to the non-variant areas of Illinois and Missouri
- Excellent stalks and roots
- Good health well into the fall



### Planting Application Choices

	Excellent	Good	Suitable
No-Till	●		
Corn/Corn	●		
Early Planting	●		
Population	Group B	Group A	Group C





6F73<sup>AMX</sup><sup>TM\*</sup> Brand 6F71<sup>R</sup><sup>TM\*</sup> Brand 6F70<sup>TM\*</sup> Brand  
6F72<sup>AM</sup><sup>TM\*</sup> Brand 113 Day Maturity

Herbicide Choice  
CONV.

6F73<sup>AMX</sup><sup>TM\*</sup> Brand

6F72<sup>AM</sup><sup>TM\*</sup> Brand

6F71<sup>R</sup><sup>TM\*</sup> Brand

Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn	●		
Early Planting		●	
Population	Group B	Group A	Group C

Drought Tolerance	→
Stalk Strength	→
Root Strength	→
Dry Down	→
Early Vigor	→

- 6F73<sup>AMX</sup><sup>TM\*</sup> brand for single-bag refuge for above and below ground insect control
- 6F72<sup>AM</sup><sup>TM\*</sup> brand is a single-bag refuge for above ground insect control
- Tall plant type with medium ear placement
- Heavy test weight grain, food grade candidate
- Excellent stalks and above average roots
- Good drought tolerance

7U18<sup>AM1</sup><sup>TM\*</sup> Brand 7U17<sup>S</sup><sup>TM\*</sup> Brand 7U16<sup>R</sup><sup>TM\*</sup> Brand  
114 Day Maturity

Herbicide Choice  
CONV.

7A18<sup>AM1</sup><sup>TM\*</sup> Brand

7U17<sup>S</sup><sup>TM\*</sup> Brand

7U16<sup>R</sup><sup>TM\*</sup> Brand

Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting	●		
Population	Group B	Group C	Group A

Drought Tolerance	→
Stalk Strength	→
Root Strength	→
Dry Down	→
Early Vigor	→

- Off the chart yield potential
- Taller plant type
- Excellent agronomic package
- Exceptional drought tolerance
- Above average test weight
- Nice staygreen with good stalks and roots

7P44<sup>AM</sup><sup>TM\*</sup> Brand 7P43<sup>R</sup><sup>TM\*</sup> Brand  
114 Day Maturity

Herbicide Choice  
CONV.

7P44<sup>AM</sup><sup>TM\*</sup> Brand

7P43<sup>R</sup><sup>TM\*</sup> Brand

Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn		●	
Early Planting		●	
Population	Group B	Group A	Group C

Drought Tolerance	→
Stalk Strength	→
Root Strength	→
Dry Down	→
Early Vigor	→

- 7P44<sup>AM</sup><sup>TM\*</sup> is a single-bag refuge system for above ground insects
- High yielder, if you have liked 7D51<sup>TM\*</sup> performance in the past you will like this product
- Heavy test weight grain, food grade candidate
- Excellent stalks and above average roots
- Good drought tolerance
- Very good leaf disease and ear rot tolerances

750<sup>Brand</sup>

7D49<sup>S</sup><sup>TM\*</sup> Brand 7D51<sup>Q</sup><sup>TM\*</sup> Brand 7A52<sup>AM1</sup><sup>TM\*</sup> Brand 7M53<sup>AMRW</sup><sup>TM\*</sup> Brand 750<sup>TM\*</sup> Brand  
115 Day Maturity

Herbicide Choice  
Glyphosate CONV.

7D51<sup>Q</sup><sup>TM\*</sup> Brand

750<sup>Brand</sup>

7A52<sup>AM1</sup><sup>TM\*</sup> Brand

7M53<sup>AMRW</sup><sup>TM\*</sup> Brand

7D49<sup>S</sup><sup>TM\*</sup> Brand

Planting Application Choices			
	Excellent	Good	Suitable
No-Till	●		
Corn/Corn	●		
Early Planting	●		
Population	Group B	Group C	Group A

Drought Tolerance	→
Stalk Strength	→
Root Strength	→
Dry Down	→
Early Vigor	→

- Same great performance of 7D51<sup>TM\*</sup> without the insecticide worries!
- 7A52<sup>AM1</sup><sup>TM\*</sup> new and proven with simplicity
- 7M53<sup>AMRW</sup><sup>TM\*</sup> is dual purpose, refuge for AM1 & also a one bag solution for refuge too.
- 7D49<sup>S</sup><sup>TM\*</sup> works in MO and So. IL without CRW pressure



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**New 4B32AMX<sup>brand™\*</sup>**  
**New 6F73AMX<sup>brand™\*</sup>**



**AcreMax®**

**ABOVE/BELOW Xtra**

# All refuge requirements in single-bag products!

Burrus has the next generation of integrated refuge products to deliver convenience for insect refuge management (IRM).

Above-ground protection: Power Plus® 6F72AM<sup>™\*</sup> & 7P44AM<sup>™\*</sup> brands Optimum® AcreMax® insect protection products include Herculex® I insect protection stacked with YieldGard® Corn Borer.

Above-and-below-ground protection: Power Plus® 4B32AMX<sup>™\*</sup> & 6F73AMX<sup>™\*</sup> brands Optimum® AcreMax® Xtra insect protection products combine Herculex® XTRA insect protection stacked with YieldGard® Corn Borer.

Both systems contain only Glyphosate tolerance, not Glufosinate tolerance.

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