# **HARVEST A LEGACY** with BURRUS.

2017 HARVEST REPORT













# ENTRUST BURRUS with YOUR LEGACY.

#### DEAR GROWER,

Long before our first bag of seed was sold, we were farmers. Nearly 83 years later, we are still farmers. We eat, sleep, and breathe the seed business, and are proud to be a multi-generational, independently owned business in an industry of multi-national giants. The value of our independence is exceeded only by our dedication to increasing our growers' profitability, and at a time with so much consolidation in the seed industry, it is refreshing to see some things are staying the same.

Our ancestors taught us traditional values that we still live by today, things like innovation, appreciation, taking pride in what you do, and dedication to quality. These core values have been critical to our success year-after-year. We instill these qualities in the products we produce, the services we provide, and the relationships we build with growers, Dealers, and co-workers. While producing and selling seed may be what some companies do for a living, it is who we are. We truly believe it is this dedication that sets us apart from competitors.

The extra attention Burrus spends on many small details means extra profitability for you — things like hooded spraying to improve purity; four-color, color sorting; and double gravitying. Superior pre-harvest methods are utilized to control seed size and improve cold germination, ensuring each seed bagged has the best chance at survival. To prove how invested we are in growers getting a stand, we

have furnished a 100% Free Replant Guarantee each and every year since 1935. And those are just a few examples of our high standards.

Other seed companies would view these as upgrades or extra-mile services. Not here! We also have a testing program designed to identify the highest performing products for your local area. We understand that not every acre is flat and black. Nationwide companies only test on the most productive soils, then choose products that can go far and wide. Those products are good, but often not the very best for your soils and management style. Our extensive testing, combined with our knowledgeable staff and implementation of tools such as the Crop Optimization Planner through MyFarms<sup>SM</sup> can identify the products that will work best for each acre you farm, instead of the entire county.

To our loyal growers, we thank you for entrusting us with your family's livelihood. We value and appreciate the continued confidence you place in our products and team. If you are new to Burrus, we urge you to get to know us. Visit our website at burrusseed. com to see our story and the products and services we offer. If you prefer to get to know our company directly, give one of our owners a call — their cell phones are printed in this publication, on our website, and in all our printed publications.

If you have not been planting Burrus, try our Test Drive offer. We will out-produce your favorite corn hybrid or we send you a check for \$1,000. Or, try our

Bet the Back 40 challenge to compare our soybeans with the varieties you have been planting in the past. If we do not out yield the competitor, you will receive 45 units of a Burrus family branded soybean the following year at no cost to plant your back 40. Join the growing number of growers getting better from what we are building.

The Burrus passion to be the best supplier you have drives us to go the extra mile in everything we do.

We are building meaningful, long lasting relationships that make growers listen and transform into our loyal advocates. After providing open, honest, and unbiased advice for decades, growers know they can trust us.

Yes, we are confident that Burrus is the best choice. We work each day with the intent to preserve our company's mission, integrity, and traditions. Providing Midwestern growers the service, products, and advice needed to be as successful and profitable as possible is our privilege, not a job. No matter the size, history, or goals set for your operation, we are certain we can help strengthen your legacy. We look forward to partnering with you.

SUCCESSFULLY,

Fom Burrus Dan The

Tom and Dave



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THE VALUE OF OUR INDEPENDENCE IS EXCEEDED ONLY BY OUR DEDICATION TO INCREASING OUR GROWERS' PROFITABILITY.

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#### WE GO WHERE YOU GROW.

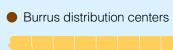
Our specialty is high-yielding corn and soybeans on your soil types. Burrus Account Managers help growers select the right products for maximum profit across all acres.

Our newly redesigned and device-responsive website utilizes geolocation to provide customized information to each user. Your local weather radar, commodity markets and Account Manager's contact information are available as soon as you open the page.

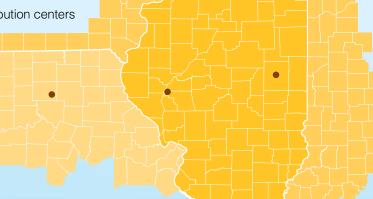
#### FIND YOUR ACCOUNT MANAGER AT **BURRUSSEED.COM**













# **GRAND GENTLEMAN** of the **SEED INDUSTRY**

1949 - 2017

The achievements of Tom Burrus in this company and within the seed industry are extensive and will be long remembered. How Tom lived his life, though, will be even more impactful and an influence on those who come after him far into the future.

Tom lived his life with enthusiasm and encouragement to all. He was an engaging conversationalist who relished what others had to say and found genuine interest in what was going on in their lives.

You would be hard pressed to find a more compassionate man when it came to family, friends, employees — even new acquaintances. Tom had a knack for making customers feel like family and calling each by name. He made you feel that who you were and what you did mattered.

You didn't need to know Tom long to recognize he needed 26 hours in every day to achieve goals and set new ones. He was uninhibited about what he believed in, and was a clear, constant voice of advocacy for the independent seed industry and the individual farmer. Integrity, the value of service, and the lost art of being a gentleman defined his life, personal and professional.

#### Tom was somebody you simply wanted to be around.

Many professional awards populate Tom's career. A few he was most proud of — the 2010 IPSA Industry

Service Award, Honorary Life Member Award from the Illinois Seed Trade Association, and induction to the Jacksonville Area Chamber of Commerce Agri-Industry Hall of Fame in 2010. Illinois College, Tom's alma mater, benefited greatly from his attention. In 2016, he and Marcy shared the honor of being Homecoming Parade Marshall, and Tom received the Young Alumni Award in 1988.

Tom served two terms as board member and was a former president of IPSA. For 33 years, he was a board member (six as board chairman) for Illinois Foundation Seed Inc. of which Tom's father, Martin, was a former board member.

In his community, Tom was a member of the Passavant Area Hospital board for two terms, five years as an Illinois College Trustee, and commissioner of the Coon Run Drainage District. It's impossible to list the many capacities he served in over the years at the Arenzville United Methodist Church.

To do justice defining the life Tom lived and the impact he left, would take words we don't have. He left the seed industry a better place and Burrus Seed as well. He built upon the solid foundation laid by generations before him, and casted a vision for the generations that follow.

We are better people because we knew him, and something less because he's gone.



I knew Tom for over 38 years and highly respected Tom for his honesty, integrity, and commitment to the industry. He always had a smile on his face, and you were glad to see him.

**CRAIG NEWMAN**, President and CEO AgReliant Genetics-Retired

I met Tom Burrus for the first time in 2007. I was struck by his friendly and welcoming nature, along with his singular humor. Little did I know that I would become the recipient of his regular humorous observations via email.

#### TODD L. MARTIN

Independent Professional Seed Association

Tom was one of the best seedsman I have ever had the opportunity to know. His integrity and passion for the seed business were second to none. I always enjoyed the opportunity to talk to him ... just recently he gave me some words of encouragement that I will never forget.

#### **JOE MERSCHMAN**

Merschman Seeds, Inc.

Tom was a model I tried to pattern myself after when I entered the seed business.

#### **GLEN DAVIS**

Leaend Seeds







# Keep pests at bay and the agronomist away

Stephanie Porter, C.C.A.

Many growers take corn traits for granted, especially when it comes to insect control. The problem with this is that some insects, such western corn rootworm, have developed resistance to certain trait events. Fall armyworm resistance has also been reported, but not yet in the Burrus footprint. More recently, entomologists and companies are now reporting that Cry1F (Herculex® 1 Bt trait) no longer protects against the western bean cutworm.

Many choose not to utilize insect traits within corn hybrids because of marketing incentives or cost savings. This is fine, but realize that without insect traits you are now losing your insurance policy against some important pests. In recent years, several pests have been severe due to increased flights, warm winters, or late corn planting.

#### Black cutworm (April - June, VE-V8)

Black cutworm flights have been heavier in some areas the last several years. The insecticide in PowerShield® seed treatment provides excellent control against this pest, but it only lasts so long. Fields especially at risk for black cutworm are those that have winter annual weeds (late spring tilled), no-till/ minimum tillage, corn following soybeans, or late planted. If any of your fields fall into these categories, do not be without trait protection and use the following corn technologies: Optimum® AcreMax® XTreme (AMXT), Optimum® AcreMax® Xtra (AMX), Optimum® AcreMax® TRIsect® (AMT), Optimum® AcreMax® (AM), Herculex® XTRA (Q), Herculex® 1 (S), or Agrisure Viptera®3111

#### Corn rootworm (late May - August, V4-R2)

For the past several years, corn rootworm pressures have been very low. This has farmers considering going without the corn rootworm trait. This has to be determined on a field-byfield basis, but corn rootworm populations have started to increase again. Be on the lookout if you have previously had issues or have a multi-year corn rotation, and continue to protect with technologies such as AMX or AMXT. Other corn hybrids that consist of AMT or 3111A may be recommended for fields with no reported western corn rootworm resistance or that have been in a corn/soybean rotation.



New products Power Plus® X4A67™\* & Burrus X6R25 excelled in Champaign Co. for Rick &



Atypical cutworm feeding on glyphosate only trait corn that is at a later growth stage.



#### European corn borer (June - mid-July, V6-VT and mid-July - mid-September, V12-R6)

We have been talking about European corn borer (ECB) a lot in the last several years, but this year, ECB pressure was much lower. Since this pest overwinters in corn stalks, those who regularly experience a problem should use Bt traits such as: AMXT, AMX, AMT, AM, Q, S, 3111A, or Agrisure® 3010. Scouting for ECB can be brutal and there is a short timeframe for insecticide application for this pest. Because of this, the benefits of using a Bt trait for corn borer control, such as less use of pesticides, often outweigh a non-GMO premium.

#### Corn earworm (July - harvest, V12-R6)

There have been many reports of corn earworm feeding, especially on late planted or replanted corn. Insecticides are often not economical, unless receiving a food grade premium. Insect feeding not only damages kernels, but also can lead to ear rot pathogen infection. Some ear rot pathogens can produce mycotoxins, which can be toxic to some animals. Ultimately, the only trait technology that truly protects against ear feeding pests such as corn earworm, as well as fall armyworm, and western bean cutworm is the Viptera® trait, such as Agrisure Viptera® 3111.



Paul Droege & Burrus AM Cory Rimbey show off their vintage Burrus cloth seed bags.

#### **ADAMS**

#### Power Plus® 6P73AM brand tops plot at 269 bu/a



Quincy. IL

Planted: April 16 in 30" rows. Planting Population: 32,500. Harvested: September 21. Previous Crop: Soybeans. Fertilizer: N: 180, P: 60, K: 90. Herbicide: Degree, Yukon. Insecticide: Tombstone. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: Maywet. June-normal. July-dry. August-normal. Remarks: 16 fl oz/acre of NUTRIPLANT AG 6-4-3.

				Auj. 1000
	Bu. Per	%	%	Test Plants
Brand/Product	Acre	Moisture	Erect	Wt. /Acre
POWER PLUS 6P73AM™*	269.7	22.7	100	58.6 31
POWER PLUS 6C40™*	261.7	22.2	100	61.5 29
POWER PLUS 6C41S™*	257.0	23.9	100	60.9 29
POWER PLUS 7V66AVIXT™*	254.6	21.3	100	61.3 30
POWER PLUS 4J93AM™*	246.6	20.7	100	61.2 30
POWER PLUS 5K33AM™*	241.9	20.0	100	60.0 30
POWER PLUS X4A67™*	240.8	20.2	100	63.0 31
POWER PLUS 4J90™*	239.3	20.7	100	62.2 25
BURRUS X6R25	231.7	23.2	100	60.7 29
CATALYST 7577 3010	225.9	23.9	100	59.9 28
POWER PLUS 6F74AVIXTM*	225.6	21.9	100	62.4 31
CATALYST 6216 3111A	221.6	20.4	100	59.0 29
Average	243.0	21.8	100	60.9 29

#### Myers Farms, Camp Point, IL

Planted: April 19 in 30" rows. Planting Population: 34,000. Harvested: October 18. Previous Crop: Soybeans. Fertilizer: N: 130, P: VRT, K: VRT. Herbicide: Bicep, Acuron. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-wet, June-normal, July-dry,

				Adj.	1000
	Bu. Per	%	% .	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
Lewis Hybrids R1414VT2P	277.6	17.8	100	60.5	
Lewis Hybrids 14DP857	266.4	16.8	100	59.2	32
Lewis Hybrids 11SS768	260.7	17.0	100	60.3	30
Lewis Hybrids R01613VT2P	260.5	16.2	100	60.0	33
POWER PLUS X4A67™*	259.2	18.2	100	60.5	33
POWER PLUS 5K33AN™*	256.9	19.0	99	60.7	31
BURRUS X6R25	254.0	18.5	100	60.6	33
POWER PLUS 6P73AN™*	253.8	19.9	100	60.9	33
POWER PLUS 7M83AMTM*	252.8	17.2	100	61.3	32
CATALYST 7577 3010	252.1	19.4	100	60.7	34
Lewis Hybrids 10DP747	251.6	17.6	100	61.4	33
POWER PLUS 4J93AM™*	248.0	18.1	100	60.5	32
POWER PLUS 6P73AN™*	247.0	18.8	100	60.7	32
POWER PLUS 6C41 STM*	241.1	18.9	100	62.7	34
CATALYST 6216 3111A	237.4	17.2	100	57.3	32
POWER PLUS 6F74AVIXTM*	236.9	16.3	100	62.0	32
Lewis Hybrids RI409VT2P	228.9	17.2	100	60.3	33
Lewis Hybrids 16DP887	222.7	17.4	100	61.3	32
POWER PLUS 7V66AVIXTTM*	220.7	16.7	100	61.2	31
Average	248.9	17.8	100	30.6	32



Agronomy 101 in Arenzville, IL

#### **BOONE**

#### Power Plus® 4A67AMXTTM\* is third!



COMPARE Marshall Newhouse, Capron, IL

Planted: May 18 in 30" rows. Planting Population: 32,000. Harvested: October 28. Previous Crop: Soybeans. Soil Type: Heavy loam. \( \script{Check Hybrid:} \) NuTech 5L-702 AMXT.

Brand/Product	Bu. Per	Rank	%	Test Wt.
✓ CHECK	Acre 209.0	18	Moisture 16.7	56.6
NuTech 5L-601 AMXT	206.6	20	17.5	56.8
NuTech 5L-702 AMXT	186.9	37	17.7	58.8
NuTech 5L-503 AMXT	209.5	17	17.7	57.9
NuTech 5L- 504 AMXT	203.8	26	20.0	62.3
NuTech 5LB-1606 AMXT	201.7	30	18.8	57.7
DeKalb 51-38 RIB	202.0	28	16.6	60.0
DeKalb 56-45 RIB	206.6	22	19.5	58.3
DeKalb 58-06 RIB	213.2	14	18.7	57.5
FS Invision E4702X1	205.5	24	17.7	59.1
FS Invision E4701X1	200.0	31	17.1	58.4
FS Invision E4704X1	192.9	35	17.2	58.2
NK 0142-3120	192.9	36	17.4	59.2
NK 0659-3120	217.2	11	18.6	57.2
NK 0962-3220A	219.6	9	20.3	59.8
Stone 5218 RIB	223.5	6	17.5	56.9
Stone 5848 RIB	218.0	10	16.8	56.2
✓CHECK	206.6	21	18.1	58.3
POWER PLUS 1G48AMXT™*	<b>221.7</b>	7	16.2	<b>56.9</b>
POWER PLUS 2B77AMXT™*	212.2	16	17.2	60.6
POWER PLUS 3H85AMX <sup>TM</sup> *	206.1	23	18.8	59.7
POWER PLUS 4A67AMXT <sup>TM</sup> *	230.3	3	20.0	57.7
Tracys T104-26 3122	207.3	19	18.4	59.1
Tracys T106-11 3111VIP	178.3	39	19.3	53.4
Tracys T107-25 3000GT	202.0	29	19.5	56.7
Tracys T108-26 3111VIP	204.1	25	20.3	55.1
Dairyland DS-9900RA	195.1	34	16.0	54.0
Dairyland DS-9701RA	195.3	33	16.0	56.4
Dairyland DS-6802	185.6	38	16.3	56.6
Dairyland DS-9804 SSX	212.4	15	16.2	55.2
Dairyland HIDF 3605RA	202.8	27	20.4	58.4
Dairyland EXP-10614	227.8	4	18.7	59.6
Dairyland DS-6106	220.3	8	18.4	58.7
Dairyland EXP-10811	244.7	1	19.5	57.1
Dairyland 9508	215.4	12	18.8	53.6
Dairyland EXP-10906	214.4	13	23.7	56.1
Dairyland DS-9110RA	196.5	32	22.0	59.9
Dairyland DS-6911	238.7	2	19.1	56.2
✓ CHECK	224.8	5	17.2	56.9
Average	209.0		18.4	57.6
Check Average	213.5		17.3	57.3
Olicok Avelaye	۷۱۷.۷		17.0	51.5

#### **BUREAU**

#### Power Plus® 4A67AMXT<sup>TM</sup>\* goes 293.3 bu/a



Greg Steele, Princeton, IL

Planted: May 8 in 30" rows. Planting Population: 38,000. Harvested: October 17. Previous Crop: Corn. Soil Type: Medium loam.

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
DeKalb DKC6434	320.8	23.9	56.5
AgriGold 6579	316.5	23.4	56.7
Wyffels W7696RIB	310.7	24.5	56.3
Pioneer P1197	303.2	24.3	56.4
AgriGold 642-59	299.6	24.4	56.1
AgVenture 7408	299.6	23.1	56.8
Wyffels W6946DGRIB	297.5	23.3	55.5
Wyffels W8268RIB	297.5	26.8	56.1
AgriGold 640-77	297.2	23.4	56.3
AgVenture 8915	296.7	26.4	57.9
Dvna-Gro 52SS63	296.2	25.1	56.2

Pioneer P1366 Beck's 6274 POWER PLUS 4A67AMXT <sup>TM*</sup> Beck's 6418 Beck's 6674SX POWER PLUS 5K35AMX <sup>TM*</sup> AgriGold 641-78 Munson 7237SSRIB Munson 7568SS Dyna-Gro 54SS64 Dyna-Gro 48SS38 Munson 7312 DeKalb DKC5806RIB AgVenture 8714 Beck's 6365 Pioneer P1422 AgriGold 6572 Pioneer P1311 AgVenture 8211 Wyffels 7456 Pioneer P0919AM POWER PLUS 7V66AMXT <sup>TM*</sup> AgriGold 636-56 AgriGold 6499 DeKalb DKC66-74RIB POWER PLUS 2B77AMXT <sup>TM*</sup> NK 12w66 Beck's 5828 Hefty 6104 Hefty 5804 NK 614R38 Stine R9635 Beck's 5883 Munson 7252SSRIB Hefty 6004	294.6 293.6 293.3 293.0 292.9 291.4 289.4 289.3 289.1 286.6 285.3 282.5 280.3 279.9 279.7 279.6 279.6 278.8 277.2 276.3 275.3 275.3 275.3 275.3 275.3 275.3 275.3 275.6 265.6 264.4 263.2 260.9 259.6 257.6	24.3 24.5 22.0 24.9 25.1 24.0 26.2 22.6 24.3 21.7 24.4 25.4 23.0 25.3 22.9 23.8 21.7 24.7 23.7 21.0 23.1 24.8 21.4 23.9 23.3 22.6 24.3 22.6 23.3 22.6 23.1 24.8 24.3 22.6 23.1 24.8 24.3 25.4 26.2 26.2 26.2 27.7 27.7 27.7 27.7 27.7	55.6 57.7 56.3 57.6 57.6 57.6 56.2 56.9 56.7 59.0 56.8 60.7 58.0 57.7 58.0 55.4 55.7 55.4 55.7 55.4 55.7 55.4 55.7 55.4 56.2 57.6 57.6 57.6 57.6 57.6 57.6 57.6 57.6 57.6 57.6 57.6 57.6 57.6 57.7 58.0 57.7 58.0 57.7 58.0 57.7 58.0 57.7 58.0 57.7 58.0 57.7 58.0 57.7 58.0 57.1
Average	283.9	23.7	56.9

#### **CASS**

#### Power Plus® 6P75AMXTM\* yields over 241 bu/a

Allen & Josh Fischer, Arenzville, IL

Planted: April 23 in 30" rows. Planting Population: 30,000. Harvested: October 18. Previous Crop: Soybeans. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-normal.

	Du. Per	70
Brand/Product	Acre	Moisture
POWER PLUS 6P75AMX™*	241.6	16.7
POWER PLUS 6P75AMX™*	241.3	16.5
POWER PLUS 6F74AMX <sup>TM</sup> *	230.9	16.1
POWER PLUS 6F74AMX™*	224.5	16.5
Average	234.6	16.5

#### Brian Burrus, Arenzville, IL

Planted: April 19 in 30" rows. Population: 35,500. Harvested: September 20. Previous Crop: Soybeans. Herbicide: Bicep, FB Glyphosate/Atrazine. Corn Borer Rating: Moderate. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-normal.

				Adj. 1000	
	Bu. Per	%	%	Test Plants	
Brand/Product	Acre	Moisture	Erect	Wt. /Acre	
POWER PLUS 6F74AMXTM*	226.4	20.8	100	60.7 34	
CATALYST 6216 3111A	224.2	20.9	80	56.2 31	
POWER PLUS X4A67™*	223.9	20.6	100	60.2 34	
POWER PLUS 4J99 R™*	223.2	21.9	95	58.4 34	
POWER PLUS 5K35AWX <sup>TM</sup> *	222.0	19.4	100	58.7 31	
POWER PLUS 4J95ANXTM*	221.9	21.9	100	58.4 33	
POWER PLUS 6F74AMXTM*	221.4	20.7	95	61.2 35	



Mary Ann, Asher & Ron Brockhouse saw big yields in a pretty dry year in Cass Co. with Power Plus® 6P75AMX™\* making 238.9 bu/a.

BURRUS X6R25 POWER PLUS 6P75AMX <sup>TM3</sup>	221.4				
POWER PLUS 7V66AWXTTM:	* 213.6	22.3	100	61.0	34
Average	221.9	04.0	07	FO 4	00

#### Ron Brockhouse. Virginia, IL

Planted: April 21 in 30" rows. Population: 34,000. Harvested: September 21. Previous Crop: Soybeans. Herbicide: Bicep, Halex GT. Corn Borer Rating: Light. Soil Type: Heavy loam. Weather: May-normal, June-dry, July-dry, August-normal. Remarks: Fungicide applied was

				Auj. 1000
	Bu. Per	%	%	Test Plants
Brand/Product	Acre	Moisture	Erect	Wt. /Acre
POWER PLUS 6P75AVIXTM*	238.9	22.2	100	60.0 32
POWER PLUS 4J99 RTM*	236.0	20.1	100	60.0 30
CATALYST 6216 3111A	234.7	22.2	100	56.5 33
POWER PLUS 4J95AMX <sup>TM</sup> *	226.2	20.9	100	59.7 30
POWER PLUS X4A67™*	225.1	19.3	100	61.2 30
POWER PLUS 5K35AWX™*	222.9	20.3	100	60.0 31
BURRUS X6R25	220.8	22.8	100	61.1 32
POWER PLUS 7V66AWXTTM*	218.9	21.3	100	60.3 28
POWER PLUS 6F74AMX™*	217.8	20.8	100	61.7 32
Average	226.8	21.1	100	60.1 31

#### **CHAMPAIGN**

#### Power Plus® 6F74AMXTM\* wins at 281.4 bu/a



COMPARE Rick Knight, Homer, IL

Planted: April 22 in 30" rows. Planting Population: 34,500. Harvested: October 7. Previous Crop: Soybeans. Herbicide: Roundup. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-dry.

				Auj. 1000
	Bu. Per	%	%	Test Plants
Brand/Product	Acre	Moisture	Erect	Wt. /Acre
POWER PLUS 6F74AWX™*	281.4	15.6	100	62.0 38
POWER PLUS 4A67AWXTTM*	277.3	14.7	100	62.0 32
POWER PLUS 5K35AMX <sup>TM</sup> *	276.6	14.9	100	60.5 37
BURRUS X6R25	276.6	16.0	100	61.0 38
POWER PLUS 5C17AWXTTM*	276.0	15.1	100	59.0 34
POWER PLUS 6L45AWIT™*	274.7	17.6	100	59.4 38
POWER PLUS 7M83AMTM*	274.3	16.7	100	62.2 37
CATALYST 6216 3111A	274.0	16.8	100	60.2 38
POWER PLUS 6P75AMX™*	268.1	16.3	100	61.5 38
POWER PLUS 4J95AMX™*	267.7	14.9	100	59.0 30
POWER PLUS 7V66AWXTTM*	263.4	15.7	100	59.0 40
POWER PLUS 7A18 Q™*	246.6	14.8	100	62.0 38
Average	271.4	15.8	100	60.7 36



Power Plus® 6F74AMX™\* & Catalyst 6216 3111A handled the dry weather in Cass Co. for



Josh, Bethany, Allen & Teresa Fischer saw Power Plus® 6P75AMX™\* roll out 241 bu/a in

## **Enlist™ field days**

Burrus partnered with supplier, Dow AgroSciences, to provide hands-on training on the Enlist<sup>(TM)</sup> system to growers across our footprint. Four field days were hosted over the summer in Smithville, MO; Madison, WI; Lexington, IL; and Mt. Vernon, IL. In total, we had over 250 growers take advantage of the opportunity to attend.

Attendees were first welcomed by a Burrus family member, followed by a plot tour led by experts from Dow. Members of our sales and agronomic teams were also in attendance and available for questions and additional information. In-field stations included Enlist soybean tolerance and weed control programs, best management practices

for Enlist Duo herbicide, susceptible crops, and herbicide technology comparison. Each field tour was followed by lunch at a local restaurant to provide additional opportunities for growers to ask questions of Burrus and Dow representatives.

While final import approvals for Enlist soybeans are still pending, Burrus is excited to bring this promising technology to our growers. If you are interested in the Enlist system, visit www.enlist.com or ask your Burrus Account Manager for additional information. For feedback from a Burrus grower who has experienced the Enlist system firsthand, see our article on the Enlist Field Forward  $\mbox{\ensuremath{}^{\text{\tiny{TM}}}}$ program.



Todd Burrus welcomes growers to the Enlist field day in Smithville, MO.



Product Lead Josh Gunther answers questions in Lexington, IL.



# Uneven corn emergence and replant decisions

Josh Gunther, C.C.A.

One of the largest yield limiting factors in 2017 was attributed to emergence issues. In many areas across the Burrus footprint, there were less than ideal planting conditions that resulted in many acres of replant. The problem is that we know early planting of corn typically leads to higher yields, but we must remember that corn yields are only maximized if we plant into ideal soil conditions. Uneven emergence can result if the seedbed is either too dry or too wet. If the seedbed is cloddy, delayed plants can result from uneven seed to soil contact. Changes in topography and seeding depth can also be common culprits that can lead to uneven emergence. In an ideal world, every plant should be emerging on the same day; however, if the seedbed is not fit, it is not uncommon for seedling emergence to take place over the span of 3 weeks.

Replant can be one of the toughest decisions for a farmer because one must decide whether to keep the stand, spot in more seed, or tear it all up and start over. Sure, fields can look great when driving by at

55 mph, but the first step is to go to the field to determine the final stand as well as uniformity. A stand count is not the only determining yield factor, as plant-to-plant spacing will also weigh heavily on the final yield of the field. A few things to look for when taking stand counts are:

- Corn taller than average
- · Corn shorter than average
- Gaps
- · Crowded plants

A corn plant that is behind by two growth stages or more typically will not set a viable ear at the end of the season, due to competition for sunlight, moisture, and nutrients with the surrounding mature plants; therefore, "spotting in replant" is typically not recommended. Emergence that is spread out among a 10-day period can reduce yields 6-9% in a 250 bu/a field which can equate to 15-22 bu/a. While it is true that hybrids, especially those with a flex ear, can compensate for gaps, it is rarely enough to fully compensate for those smaller ears on crowded plants.

When contemplating replant, refer to the Burrus Replanting Yield Predictions chart.

Remember that this chart assumes that all lower populated stands are perfectly uniform, which is rarely the case. Multiple growth stages or large gaps within a field should also be factored in when contemplating a replant decision.

To optimize yields, we need to be sure that all plants evenly emerge to eliminate competition. Early planting dates do not pay off without a uniform stand and often, it is best if you hold off until field conditions are fit at a later planting date. If planting into less than ideal conditions, it is likely that you will have to wait at least 2 weeks to determine the final stand. At that point, if replant is needed, you could be close to 3 weeks behind the original planting date.

The moral of the story is that most of the time it is going to pay off to wait a few days for ideal planting conditions. Since it is impossible to accurately predict upcoming weather conditions, Burrus stands behind their 100% Free Replant guarantee to help when replant is a necessity.

#### REPLANTING YIELD PROJECTIONS

This chart is a variation of a chart originally released from the University of Illinois. It more accurately estimates yield potential in today's hybrids in relation to planting date and population. Use this chart when considering when to start planting, if you should replant when less than ideal stands are established and when it is too late to plant corn. Since the data in Line A was generated from hybrids with determinate ear styles, use it when considering stands for hybrids with population requirements from Group A as indicated in our Planting Rate Guide. Use Line B for hybrids requiring populations from Group B and use Line C for hybrids requiring populations from Group C, both of which are also on our Planting Rate Guide.

PERCENTAGE OF MAXIMUM YIELD EXPECTED FROM PLANTING ON DIFFERENT DATES AND AT DIFFERENT RATES										
PLANT POPULATI	ION PER ACRE									
Line A*	14,500	17,000	19,500	22,000	24,500	27,000	29,500	32,000	34,500	37,000
Line B*	12,500	15,000	17,500	20,000	22,500	25,000	27,500	30,000	32,500	35,000
Line C*	10,500	13,000	15,500	18,000	20,500	23,000	25,500	28,000	30,500	33,000
PLANTING DATE					% OF MAXIMUM	YIELD EXPECTED				
APRIL 1	6-8	72	79	83	87	89	92	92	93	94
APRIL 10	70	76	82	86	90	92	94	94	94	95
APRIL 20	74	81	86	91	94	97	98	99	99	100
APRIL 30	75	82	87	92	95	98	98	99	100	100
MAY 9	73	79	85	89	93	95	97	97	97	97
MAY 19	66	73	78	83	86	89	90	91	91	91
MAY 29	56	63	68	73	76	79	80	81	80	78
JUNE 8	40	50	60	65	69	71	72	72	72	70

Extrapolated figures from University of Illinois data

#### HOW TO USE THIS TABLE:

- 1. Enter the line that most closely represents the date your field was first planted. Read across the column until you are on the line closest to the actual plant population remaining.
- **Example**: If you plant Power Plus® 4J95 AMX<sup>TM\*</sup> on April 10 and 12,500 plants per acre remain, expect a yield of approximately 70% of full yield potential. (Use Line B)
- Enter the line representing the date closest to replanting. Read opposite your population goal.
   Example: May 19 planting, 32,500 plant population, 91% of potential yield for Power Plus® 4J95 AMX<sup>TM\*</sup>
- Calculate net yield by subtracting present yield potential from yield potential if replanted.
- 4. Determine if any yield advantage can be gained by replanting. Also, subtract the added cost of replanting (labor, fuel, chemicals) and consider potential risks involved with replanting. Keep in mind, with the Burrus 100% Free Replant Guarantee, you will qualify for free seed, free seed treatment if available, and free tech fees or equal or lesser value, if from the same technology family.

#### **DEKALB**

# Power Plus® X4A67<sup>TM</sup>\*competes



Dekalb County Corn Growers, Malta, IL

Planted: April 25 in 30" rows. Planting Population: 35,000. Harvested: October 20. Previous Crop: Corn. Remarks: No Fungicide.

	Bu. Per	%	Adj. Test
Brand/Product AgriGold A642-59 GENSSRIB	313.4	Moisture 23.4	wt. 56.8
DuPont Pioneer P1197AMXT	306.3	23.4	56.8
Conserve FS FS61SX1 GENSSRIB	300.2	23.4	56.8
Golden Harvest G12W66 3000GT	299.9	22.6	57.4
DuPont Pioneer P1366AMXT	297.8	25.1	55.8
NK Seeds N69D 3000GT	295.7	22.9	57.3
XL 6365AMX	293.7 293.2	23.4 24.4	56.8 56.2
Hoegemeyer Hybrids 8295AMXT DeKalb DKC64-34 GENSSRIB	293.2	23.4	56.9
Hoegemeyer Hybrids 7901AMXT	291.0	23.0	57.1
Wyffels W6898 GENSSRIB	288.0	24.4	56.2
Beck's 6589 V2P	287.7	22.3	57.7
Channel 213-19 GENSSRIB	287.2	23.5	57.0
Axis Seeds 60R50 GENSSRIB	286.4	23.1	57.0
POWER PLUS X4A67™* Wyffels W7578 GENSSRIB	<b>285.2</b> 284.9	<b>22.4</b> 23.4	<b>57.6</b> 57.0
LG Seeds 5650 GENSSRIB	284.6	23.5	57.0
Axis Seeds 62A58 GENSSRIB	284.2	23.8	56.7
Pfister 70A1 SSR	283.8	23.3	56.7
POWER PLUS 3H85AMX™*	283.0	21.3	58.3
Great Lakes 6462 GENSSRIB	282.0	23.6	56.8
DeKalb DKC62-52 GENSSRIB	281.4	23.4	56.9
Conserve FS FS632X1 GENSSRIB	280.3	23.0	57.3
DeKalb DKC63-21 GENSSRIB LG Seeds 5618 GENSSRIB	276.3 276.2	22.4 23.3	57.6 57.0
LG Seeds 5565 GENSSRIB	275.8	22.7	57.5
AgriGold A641-78 GENSSRIB	275.7	24.2	56.6
AgriGold A636-56 GENSSRIB	275.2	21.5	58.2
DeKalb DKC58-06 GENSSRIB	274.7	22.5	57.6
Great Lakes 5824 GENSSRIB	274.5	22.4	57.4
DuPont Pioneer P0707AMXT	274.4	22.8	57.2
ProHarvest Seeds PH8312 GENSSRIB Channel 210-26 GENSSRIB	273.5	22.5 22.6	57.4 57.4
NK Seeds N66V 3122	272.3	24.0	56.6
ProHarvest Seeds PH8074 GENSSRIB		22.6	57.5
Beck's 6418SX GENSSRIB	270.9	23.8	56.7
Axis Seeds 56Z50 GENSSRIB	269.7	21.1	58.4
Stine Seed 9635 GENSSRIB	269.2	24.5	56.3
Beck's 6076SX GENSSRIB Pfister 71C1SSR	268.9 266.7	23.1 24.5	57.1 56.2
Pfister 72C6	264.6	23.8	56.4
Axis Seeds 54A50 GENSSRIB	264.2	21.6	58.1
Hoegemeyer Hybrids 7558AMXT	262.3	22.0	57.9
Channel 208-23 GENSSRIB	261.5	22.2	57.8
DuPont Pioneer P0589AMXT	261.3	21.6	58.2
Beck's 5883SX GENSSRIB	260.3	22.1	57.8
Golden Harvest G09A86 3111  POWER PLUS 4J95AMX <sup>TM*</sup>	259.6 <b>257.1</b>	23.5 <b>23.8</b>	56.7 <b>56.8</b>
NK Seeds NK0968 3111	256.9	22.9	57.3
Pfister 69E2 SSR	250.8	23.6	56.9
Pfister 2545 RASS	250.2	23.3	56.9
DeKalb DKC56-45 GENSSRIB	247.8	22.2	57.8
POWER PLUS 2B77AMXT <sup>TM</sup> *	246.7	21.2	58.5
Golden Harvest G10T63 3122 Stine Seed 9425 3111	244.6 242.0	22.4 21.1	57.6 58.4
Axis Seeds 56H56 GENSSRIB	241.8	21.6	58.0
Hoegemeyer Hybrids 7089AMXT	240.9	21.0	58.6
Great Lakes 5935 GENSSRIB	240.0	23.4	57.0
AgriGold A639-41 GENSSRIB	237.8	24.1	56.5
Stine Seed 9742-20 Double	234.9	22.7	57.2
DePont Pioneer P0339AMT ProHarvest Seeds PH6705 GENSSRIB	234.6	22.5 22.5	57.3
Conserve FS FS542X1 GENSSRIB	233.4	21.1	57.5 58.6
Stine Seed 9428-32 GENSSRIB	225.6	21.7	58.1
Hoegemeyer Hybrids 7333AMX		22.4	57.6
Stine Seed 9537-21 Double	209.0	21.4	58.0
Average	268.1	22.9	57.3

#### Power Plus® 3H85AMXTM\* & Power Plus® X4A67TM\* perform well in competitive plot



Dekalb County Corn Growers, Malta, IL

Planted: April 25 in 30" rows. Planting Population: 35,000. Harvested: October 20. Previous Crop: Corn. Remarks: With Fungicide.

Brand/Product	Bu. Per Acre	% Moisture	Test Wt.
Beck's 6589 V2P	314.5	24.1	57.0
Wyffels W6898 GENSSRIB	313.3	23.7	57.1
Wyffels W7578 GENSSRIB	312.0	25.8	55.9
Hoegemeyer Hybrids 8295AMXT	309.6	23.9	56.9
Axis Seeds 62A58 GENSSRIB	307.9	24.3	56.6
Hoegemeyer Hybrids 7901AMXT	307.1	23.0	57.5
NK Seeds N69D 3000GT	303.3	24.6	56.6
LG Seeds 5618 GENSSRIB	301.4	26.2	55.7
DeKalb DKC64-34 GENSSRIB	300.8	25.7	55.9
NK Seeds NK0968 3111 <b>POWER PLUS 3H85AMX</b> <sup>TM</sup> *	300.7	24.1 <b>23.6</b>	56.9
POWER PLUS X4A67TM*	297.9 296.0	23.4	57.1 57.3
Great Lakes 6462 GENSSRIB	294.2	25.4	56.3
DeKalb DKC56-45 GenSSRIB	294.1	24.7	56.5
DuPont Pioneer P1197AMXT	294.0	24.5	56.6
Pfister 72C6	292.7	25.7	55.9
AgriGold A642-59 GENSSRIB	291.8	24.8	56.5
Golden Harvest G12W66 3000GT	290.9	23.8	57.1
Conserve FS FS61SX1 GENSSRIB	289.6	24.1	56.9
XL 6365AMX	288.0	23.4	57.4
DuPont Pioneer P1366AMXT	287.6	25.7	55.8
LG Seeds 5650 GENSSRIB	286.9	23.9	57.2
Axis Seeds 60R50 GENSSRIB	286.5	23.7	57.3
Great Lakes 5824 GENSSRIB	282.9	24.2	56.8
DeKalb DKC63-21 GENSSRIB	280.6	23.5	57.3
DeKalb DKC58-06 GENSSRIB Pfister 70A1 SSR	280.5 279.7	24.7 24.9	57.1 56.2
ProHarvest Seeds PH8312 GENSSRIB		25.0	56.4
Beck's 6076SX GENSSRIB	279.0	23.6	57.1
NK Seeds N66V 3122	277.6	23.7	57.3
POWER PLUS 2B77AMXT™*	277.4	22.0	58.3
Channel 210-26 GENSSRIB	277.0	25.5	55.9
Conserve FS FS632X1 GENSSRIB	276.4	25.8	55.9
LG Seeds 5565 GENSSRIB	276.1	23.4	57.4
Golden Harvest G10T63 3122	275.1	24.0	57.1
Pfister 71C1SSR AgriGold A641-78 GENSSRIB	275.0 274.5	26.1 23.0	55.7 57.7
Great Lakes 5935 GENSSRIB	272.9	24.7	56.6
Hoegemeyer Hybrids 7558AMXT	272.7	23.6	57.2
Beck's 6418SX GENSSRIB	272.5	25.9	55.8
DeKalb DKC62-52 GENSSRIB	271.4	22.8	57.8
Channel 213-19 GENSSRIB	271.2	24.6	56.6
DuPont Pioneer P0589AMXT	269.7	23.4	57.3
ProHarvest Seeds PH8074 GENSSRIB		25.5	56.0
Golden Harvest G09A86 3111	268.2	24.0	57.0
Channel 208-23 GENSSRIB	266.1	24.3	56.8
AgriGold A636-56 GENSSRIB	265.2	23.5	57.3
DuPont Pioneer P0339AMT Conserve FS FS542X1 GENSSRIB	262.5	22.4	57.9
Axis Seeds 54A50 GENSSRIB	261.8	23.3 22.9	57.5 57.7
AgriGold A639-41 GENSSRIB	261.0	26.0	55.8
DuPont Pioneer P0707AMXT	260.2	23.7	57.2
Axis Seeds 56Z50 GENSSRIB	252.0	23.5	57.4
Pfister 2545 RASS	251.4	24.6	56.3
Hoegemeyer Hybrids 7089AMXT	250.2	22.4	58.1
Pfister 69E2 SSR	249.3	25.3	56.2
Stine Seed 9635 GENSSRIB	247.7	23.9	56.9
Axis Seeds 56H56 GENSSRIB	246.9	23.1	57.7
Stine Seed 9425 3111	245.1	22.2	58.2
Stine Seed 9742-20 Double	242.8	23.8	57.1
Beck's 5883SX GENSSRIB	237.6	24.0	57.0
ProHarvest Seeds PH6705 GENSSRIB POWER PLUS 4J95AMX™*	237.0 <b>235.1</b>	23.6 <b>24.3</b>	57.3 <b>56.9</b>
Stine Seed 9428-32 GENSSRIB	233.9	2 <b>4.3</b> 22.4	57.9
Stine Seed 9537-21 Double	228.2	22.4	57.9
Hoegemeyer Hybrids 7333AMXT		22.0	58.1
Average	274.9	24.1	56.9

#### Gerald Latimer, Dekalb, IL

Planted: May 20 in 30" rows. Planting Population: 34,000. Harvested: October 26. Previous Crop: Soybeans. Soil Type: Medium loam. Remarks: No funcicide.

	Bu. Per	%	Test
Brand/Product	Acre	Moisture	Wt.
POWER PLUS 5K33AM™*	274.0	21.3	59.4
POWER PLUS 5C17AMXT™*	252.8	22.1	60.7
POWER PLUS 4A67AMXT™*	251.5	21.6	58.3
POWER PLUS 2B77AMXT™*	249.0	20.1	59.2
POWER PLUS 6F74AMX™*	244.0	21.5	60.8
POWER PLUS 6P75AMX™*	241.7	21.2	59.0
POWER PLUS 2Y06AM™*	239.3	20.1	58.0
POWER PLUS 5K35AMX™*	239.1	22.7	57.2
POWER PLUS 3H85AMX™*	238.9	19.6	59.0
POWER PLUS 4J95AMX™*	223.4	21.3	57.4
POWER PLUS 2F91AMXT™*	217.6	19.6	59.9
Average	242.8	21.0	59.0



Seymour Chanin is wearing his first Burrus cap while helping his grandpa, Kenny Rahe in Morgan Co.



Pete & Carrie Gill (front w/ Pickles & Pancake), Doug Nelson, Princeville FFA Advisor, Suzy & Kelly Gill, Brent & Chase Yordy, Yordy Turkey Farm & Burrus AM Dick Burns with the Grand Champion Poultry Pen at the IL State Fair.

## Managing resistant weeds

Jamie Long, C.C.A.

Repetitive use of one site-of-action (SOA) has led to a spread of herbicide-resistant weeds throughout the Midwest. Waterhemp is one of the problematic broadleaf weeds to control in this area due to it germinating throughout the growing season, being dioecius (male and female plants), and producing hundreds of thousands of seeds per plant. In every state encompassed in the Burrus footprint, there have been waterhemp populations confirmed to be resistant to glyphosate (i.e. Roundup  $^{\!\scriptscriptstyle \otimes}$ products), ALS-inhibiting (i.e. FirstRate®), or PPO-inhibiting (i.e. Cobra<sup>®</sup>, Flexstar<sup>®</sup>) herbicides. In some states, there is also resistance to Photosystem II inhibitors (i.e. atrazine), HPPD-inhibitors (i.e. Callisto®), and synthetic auxin herbicides (i.e. 2,4-D). With the increase in resistance, it is critical to use a full systems approach to combat these weeds, including cultural, mechanical, and chemical practices.



Waterhemp growing through the soybean canopy, a common sight.

#### CULTURAL

#### Row spacing

Narrow rows reach canopy closure more quickly, reducing the amount of light reaching the soil and therefore reducing the amount of germinating weed seeds.

#### • Rotate technologies

Avoid using the same chemicals on both corn and soybeans or rotate technologies within the same crop (i.e. LibertyLink®, Roundup Ready 2 Xtend®, glyphosate tolerant).

#### • Crop rotation

A corn-soybean rotation allows for different pre-emergence and post-emergence herbicide usage.

#### MECHANICAL

#### Tillage

In fields where tillage is an option, the tillage can help bury weed seeds as well as control weeds that have already emerged.

#### Hand weeding

Weed escapes are often those that are resistant, therefore hand weeding those out can help reduce the spread of resistant weeds in the field.

#### CHEMICAL

#### • Layer soil residual herbicides

Soil residual herbicides can help prevent the emergence of newly germinated weed seedlings. Most soil residuals provide a few weeks of control and should be applied both pre-emergence as well as with the post-emergence pass to provide weed control until the canopy is closed. Soil residuals require an activating rainfall of approximately ½" within 7 days of application so being wary of weather conditions and outlook is critical to get the best control with these herbicides.

#### • Tank mix

Research has found tank mixing chemicals in one pass can provide better weed control and reduce selection pressure more than using multiple passes with different SOA. Using multiple SOA at once can help battle resistant weeds and reduce selection pressure on new resistant weeds.

#### Proper application techniques

It is imperative to follow the label to make a proper application. Some herbicides, especially contact herbicides, require specific nozzle selection and carrier volume recommendations. Many post-emergence herbicides require specific adjuvants to be applied for increased weed control as well. Always follow the label and use full use rates to ensure proper weed control.

It is important to understand what weed species are present on your farm and which ones are resistant. Using management tactics based on weed species can help to properly manage these resistant weeds and reduce the weed seed bank present on your farm. It is critical to remember that if you have herbicide resistant weeds, they will always be resistant, even if you have not used the chemical for years. With limited herbicide options and continued selection pressure, it is important to use integrated pest management tactics to combat these weeds in the future.



#### **DEWITT**

#### Bill Steward, Clinton, IL

Planted: April 22 in 30" rows. Planting Population: 34,500. Harvested: October 9. Previous Crop: Soybeans. Fertilizer: N: 200, P: 175, K: 175. Herbicide: Realm Q. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-dry.

Brand/Product POWER PLUS 7M83AMTM* POWER PLUS X4A67TM* POWER PLUS 5C17AWXTTM* POWER PLUS 4J95AMXTM* POWER PLUS 7A18 QTM*	225.4 223.7	% Moisture 18.9 15.9 14.8 15.3 18.0	% Erect 97 97 95 84 85	Test Wt. 60.7 63.0 63.0 61.0 63.5	32 28 30 34
POWER PLUS 6L45AMT <sup>TM*</sup> POWER PLUS 7V66AWXT <sup>TM*</sup> CATALYST 6216 3111A POWER PLUS 6P75AWX <sup>TM*</sup> POWER PLUS 5K35AWX <sup>TM*</sup> BURRUS X6R25 POWER PLUS 6F74AMX <sup>TM*</sup>	222.0 *220.3 220.0 214.6 210.8 209.0 206.6	15.5 18.5 16.8 17.5 16.5 17.5 16.5	100 95 100 93 97 100 86	58.0 62.1 60.2 61.4 62.2 63.4 64.2	28 34 30 33 30 28 34
Average	221.3	16.8	94 _	61.9	31

#### **DOUGLAS**

#### Bill Bozdech, Villa Grove, IL

Planted: April 22 in 30" rows. Planting Population: 34,500. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 165-105 replant 28-60 side, P: 92, K: 120. Herbicide: Degree Xtra, Roundup. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-dry.

				Adj. 1000
	Bu. Per	%	%	Test Plants
Brand/Product	Acre	Moisture	Erect	Wt. /Acre
POWER PLUS 6L45AMT™*	244.0	15.2	100	57.0 28
POWER PLUS X4A67™*	243.4	13.8	100	62.0 32
POWER PLUS 7M83AMTM*	239.5	17.7	100	62.9 34
POWER PLUS 7V66AVIXTTM*	234.3	14.7	100	60.5 32
POWER PLUS 5K35ANIXTM*	233.6	13.5	100	60.0 30
BURRUS X6R25	227.4	14.2	100	62.5 28
POWER PLUS 4J95AMX™*	226.4	13.8	100	62.0 30
POWER PLUS 7A18 Q™*	223.7	17.7	100	63.4 34
POWER PLUS 5C17AVIXTTM*	223.6	13.9	100	62.0 28
POWER PLUS 6P75ANIXTM*	222.1	15.7	100	58.0 33
CATALYST 6216 3111A	219.9	16.9	100	57.2 30
POWER PLUS 6F74AMX <sup>TM</sup> *	217.6	15.7	100	65.0 34
Average	229.6	15.2	100	61.0 31

#### **FULTON**

# Power Plus® tops competitive plot



Spangler Grain, Marietta, IL

Planted: April 20 in 30" rows. Planting Population: 34,000. Harvested: November 1. Previous Crop: Soybeans. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 6P73AM™*	285.1	15.4
POWER PLUS 6C41 S™*	281.5	16.7
Wyffels 7456VT2	278.2	15.8
POWER PLUS X4A67™*	274.3	14.3

AgriGold 6579STX Channel 216-36STX Wyffels 7696VT2 Wyffels 7976VT2 AgriGold 640-77VT2 Wyffels 7888SS Channel 212-20STX AgriGold 6499STX Channel 214-45STX FS 63ZX1 AgriGold 6572STX Wyffels 7578SS Golden Harvest G18-D87 POWER PLUS 5K35AMX <sup>TM*</sup> Wyffels 8918SS Golden Harvest G12-W66	272.7 268.5 267.9 259.9 259.8 259.8 259.1 258.8 255.1 254.8 254.8 253.0 251.7 <b>245.9</b> 244.0 241.4	15.8 16.1 15.3 17.1 15.6 15.6 16.2 15.6 16.2 15.7 16.8 18.0 <b>15.2</b>
POWER PLUS 5K35AMX™*	245.9	
,		
ProHarvest X17651	222.0	16.7
AgriGold 6542STX	210.3	14.8
Average	257.2	16.1



Gavin Brewer grinned as he held his baby brother, Grayson. They are the sons of Burrus SM Ryne & Marie of Champaign Co.



David Schutz, Mark Ruschhaupt, Doug Thornton, Burrus SM Tim Carmody & Tim Ruschhaupt are all smiles at the 2017 Burrus Salling Saminar

#### **GREENE**

# New Power Plus®7M83AM<sup>TM</sup>\* & Power Plus® X4A67<sup>TM</sup>\* win!

Dan Carter, Carrollton, IL

Planted: April 15 in 30" rows. Planting Population: 32,000. Harvested: October 1. Previous Crop: Soybeans. Fertilizer: N: 200, P: 80, K: 120. Herbicide: Corvus, Laudis. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, Augustnormal.

	Bu. Per	%	%	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS 7M83AM™*	227.7	16.0	100	62.0	32
POWER PLUS X4A67™*	227.2	14.4	100	62.5	32
CATALYST 6216 3111A	219.5	14.2	100	61.0	32
POWER PLUS 6P75AWX™*	218.6	15.1	100	59.0	32
POWER PLUS 5K35ANIXTM*	206.3	14.0	100	61.5	32
POWER PLUS 4J95AMX <sup>TM*</sup>	201.9	15.0	100	61.0	32
POWER PLUS 6F74AMX™*	198.8	14.9	100	62.5	32
POWER PLUS 6C41 S™*	189.9	16.4	100	63.0	32
POWER PLUS 7V66AVIXTTM*	179.5	14.7	100	61.5	32
BURRUS X6R25	157.9	17.1	100	64.3	32
Average	202.7	15.2	100	61.8	32

# Power Plus® 4J95AMXTM\* is a winner

Doug & Joe Thornton, Carrollton, IL

Planted: April 19 in 30" rows. Planting Population: 32,000. Harvested: October 28. Previous Crop: Soybeans. Fertilizer: N: 196, P: 92, K: 120. Herbicide: Volley ATZ, Atrazine. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, Augustnormal. ✓ Check Hybrid: Power Plus 4J93 AM™\*.

	Bu. Per		%	%	Plants	
Brand/Product	Acre	Rank	Moisture	Erect	/Acre	
<b>✓</b> CHECK	237.6		15.6	100	32	
POWER PLUS 4J95AMX™*	254.9	1	14.5	100	32	
POWER PLUS X4A67™*	226.2	4	15.8	100	32	
POWER PLUS 5K35AVIXTM*	243.1	2	15.2	100	32	
CATALYST 6216 3111A	222.4	5	16.4	100	32	
<b>✓CHECK</b>	221.0		14.8	100	32	
BURRUS X6R25	223.7	3	15.5	100	32	
POWER PLUS 6F74AVIXTM*	217.2	6	15.5	100	32	
POWER PLUS 6P75AVIXTM*	197.7	7	15.5	100	32	
POWER PLUS 7V66AVIXTTM*	191.6	8	15.5	100	32	
<b>✓CHECK</b>	227.5		14.3	100	32	
Average	223.9	1	5.3	100	32	
Check Average	228.7	1	4.9	100	32	

## Talking about tip back

Josh Gunther, C.C.A.

In 2017, the talk in many coffee shops across the Burrus footprint has been tip back in corn. This phenomenon can be seen almost every year in different areas of the corn growing region, but the origins are typically not straightforward. Tip back is the term used when grain is not filled all the way to the tip of the ear. It often looks like an empty cob sticking out at the tip of the ear with no kernels on it. Occasionally, there will be aborted kernels present on the tip of the cob as well. Tip back can be seen in many different genetics from a diverse set of germplasm, and is not specific to any certain hybrid or seed company. There are many reasons why the tips of the ear do not fill completely. Various stresses can cause the tips to be barren.

Stress at pollination time is a commonly considered cause of tip back. Drought stress during pollination can delay silk development and in turn, the kernels at the tip of the ear are the last ones to pollinate because ears pollinate from the base first, then out to the tip. If the silks attached to the tip do not emerge to receive pollen until after pollen shed has ended for the season, then the tip will never be pollinated, resulting in tip back. However, this is not the most common reason we are seeing tip back this year. Most of the tip back I have seen has aborted kernels on the cob meaning it went through stress after the pollination period. If there are aborted kernels, that means there was successful pollination and then the plant decided it would not be able to support all the pollinated kernels.

Any stress in the period immediately following pollination can result in aborted kernels. These kernels usually abort starting at the tip and then work their way to the base. Final kernel number is determined in the 18-20 days between pollination and the R3 growth stage (milk stage). Any stress that limits the amount of energy the plant can produce can cause kernel abortion to occur. The most common of these stresses is drought stress. The deficiency of water will limit the amount of transportation and photosynthesis that the plant can undergo. Excessive rainfall or irrigation can cause saturated soil which will limit the amount of oxygen available to the

roots, which can also cause kernel abortion. Therefore, too much or too little water is a reason a plant will abort a portion of its kernels.

Another stress is high nighttime temperatures. If the overnight temperature does not drop below 70° F, plants will not have adequate time to recover from the high daytime temperatures and respiration rates will stay increased throughout the night, wasting needed energy for the kernels.

Additional factors that limit photosynthesis are foliar leaf diseases and cloudy days. If there are heavy foliar diseases present or an extended period with no sunshine, plants will start aborting kernels because there is not enough photosynthesis transpiring to support the grain fill needed. Nutrient deficiencies can also lead to kernel abortion. If a plant is deficient in any nutrient, that deficiency can contribute to kernel abortion.

Perhaps the most common reason for tip back in the Burrus footprint this year was uneven emergence. If plants do not emerge evenly, the late emerging plants will continually struggle for sunlight, moisture, and nutrients. These late emerging plants typically have a smaller diameter stalk and smaller ears with more tip back.

In summary, any stress during or after pollination can result in tip back. The areas of tip back seem to be pretty widespread this year and are more than likely caused by one or more of the factors above.



Example of tip back in a research plot in Cass Co.



Berkley Gunther, daughter of Burrus Product Lead Josh and Brittany, shared a big smile!



Brock Willenborg exhibited a show pig from Todd Burrus. Dave Lidy of FS bought the 4-H project in Fayette Co.

#### **HANCOCK**

#### Power Plus® 6P73AM hrand wins at 315.6 bu/a!



COMPARE Tim Bolton. Nauvoo, IL

Planted: April 18 in 36" rows. Planting Population: 27,000. Harvested: October 17. Previous Crop: Soybeans. Fertilizer: N: 180, P: VRT, K: VRT. Herbicide: Capreno, Atrazine. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-normal.

				Adj.	1000
	Bu. Per	%	%	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS 6P73AM™*	315.6	17.4	100	58.3	26
POWER PLUS 7M83AMTM*	306.4	16.9	100	59.7	27
POWER PLUS 5K33AM™*	297.7	16.1	100	62.0	28
POWER PLUS 4J93AM™*	288.6	16.2	100	58.0	28
POWER PLUS 6C40™*	287.5	18.1	100	61.5	27
POWER PLUS X4A67™*	287.5	16.3	100	61.0	27
BURRUS X6R25	267.5	17.8	100	58.5	27
POWER PLUS 4J90™*	265.0	16.2	100	59.0	28
Average	289.5	16.9	100	59.8	27

#### Big yields

Richard Douglas, Dallas City, IL

Planted: April 15 in 30" rows. Planting Population: 34,000. Harvested: October 30. Previous Crop: Soybeans. Fertilizer: N: 200, P: VRT, K: VRT. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-normal. Remarks: Weigh wagon check in two strips.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. 1000 Test Plants Wt. /Acre
POWER PLUS 6P73AMTM*				59.0 34
POWER PLUS 6P73AM™*				59.0 34
Average	297 7	15.1	100	59 0 34



Heston Howell likes looking at the crops with his dad Burrus AM John Howell.



Longtime Burrus dealer Ron Schultz & his great-grandson Kase wear their Burrus caps with pride.

#### Power Plus® 6P75AMX<sup>TM</sup>\* & Power Plus® 4A67AMXT<sup>M</sup>\* above 300 bu/a



Michael McDowell, Dallas City, IL



Planted: May 18 in 30" rows. Planting Population: 34,000. Harvested: October 19. Previous Crop: Corn. Fertilizer: N: 205, P: 40, K: 80. Herbicide: Corvus, Atrazine. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-normal.

				ruj.	1000
	Bu. Per	%	%	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS 6P75AMX™*	300.8	21.3	100	57.1	35
POWER PLUS 4A67AVIXT <sup>TM*</sup>	300.2	18.8	100	58.8	34
Wyffels 8918	293.0	20.1	100	66.7	
POWER PLUS 7V66AIVIXTTM*	292.7	21.2	100	59.0	34
BURRUS X6R25	287.3	20.9	100	58.7	34
Golden Harvest G18D87	280.4	23.8	100	58.6	
Wyffels 6198	273.3	19.2	100	58.7	
Golden Harvest G12W66	268.9	20.8	100	59.3	
Average	287.1	20.8	100	59.6	34

#### **IROQUOIS**

**Borchers Farm**, Gilman, IL

Planted: May 31 in 30" rows. Planting Population: 34,000. Harvested: October 30. Previous Crop: Wheat. Fertilizer: N: 200, P: 150, K: O. Herbicide: Roundup, Resicore. Corn Borer Rating: Light. Soil Type: Heavy loam. Weather: May-wet, June-wet, July-dry, Augustdry. Remarks: Farm is tiled.

rand/Product	Bu. Per Acre	% Moisture	% Erect	Adj. 1000 Test Plant Wt. /Acro	s
OWER PLUS 7V66AIVIXT™*	244.9	21.0	100	60.3 34	
OWER DITIS 1/0670/MYTM*	2/12 1	20 5	100	62 2 33	

## Thank you to our 2017 interns

Burrus was lucky to have another exceptional group of interns for the 2017 growing season. Eleven college students from across the Burrus footprint joined sales, production, and agronomy staff members for a memorable three-month learning experience. We could not have made it through such a busy season without their help.

While this summer marked an introduction to Burrus Seed for many of our interns, we were honored to have two students return for their second summer in a row, Morgan McCormick and Kevin Freel. Additionally, we were exceptionally proud to have a fifth generation Burrus family member, Griffin Greene, join the team as our agronomy intern.

We take pride in providing an internship experience that offers an honest look at the breadth of our company along with real-world exposure to experts in the field. Our interns are selected in late fall each year, but potential future applicants can find full details and apply online through the Careers page of our website. To learn more about our outstanding 2017 intern group, see our Think Burrus blog at blog.thinkburrus.com.

#### **2017 Summer Intern Statistics:**

- 80,800+ miles driven
- · 2,800+ units of seed delivered
- 750+ EZ Load boxes and pallets picked up
- 1,000+ field signs erected
- 400+ calls made on current or prospective



2017 Burrus Seed interns (L to R) Peyton McClure, Carson Bloomberg, Katelyn Muhlenberg, Morgan McCormick, Mikayla Engeman, Griffin Greene, Sarah Kilver, Jacob Janssen, & Carson Isley. Interns not pictured: Kevin Freel and Andy VanLanduyt.

CATALTSI 0210 3111A	Z3Z.U	<b>ZU.U</b>	100	0Z.U	54
POWER PLUS 4J95ANX <sup>TM</sup> *	230.3	20.0	100	60.0	33
POWER PLUS 3H85AWXTM*	225.2	19.0	100	61.7	33
BURRUS X6R25	219.7	21.0	100	59.3	34
POWER PLUS 6F74AMX™*				63.3	32
POWER PLUS 5K35AWX <sup>TM*</sup>	217.3	21.0	100	59.3	34
Average	228.8	20.4	100	61.0	33

#### **KANKAKEE**

Dick Moran, Manteno, IL

Planted: May 22 in 30" rows. Planting Population: 32,000. Harvested: October 19. Previous Crop: Soybeans. Fertilizer: N: 177, P: 69, K: 90. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-dry. ✓ Check Hybrid: Power Plus 4J95AMX<sup>™\*</sup>. Remarks: Major wind event near VT time causing rood lodging across plot and surrounding fields.

	Bu. Per		%	%	Plant
Brand/Product	Acre	Rank	Moisture	Erect	/Acr
✓ CHECK	219.8	18.5	10 5	7.1	26
POWER PLUS 779855™*	225.2	13	16.5	30	30
POWER PLUS 174847™*	217.2	20	19.8	10	28

POWER PLUS 479071™*	187.8	25	16.7	90	28
POWER PLUS 4A67AWXTTM*	248.5	1	18.0	90	30
<b>✓</b> CHECK	232.7		18.4		30
POWER PLUS 5K35AWXTM*	221.4	21	17.9	25	30
POWER PLUS 5C17AWXTTM*	220.0	22	17.3	65	30
POWER PLUS 4J95AWX™*	227.9	16	17.3	30	28
POWER PLUS 4J99R™*	250.1	5	15.8	50	28
POWER PLUS 6F74AMX™*	240.8	8	17.3	65	32
✓ CHECK	234.6		15.6		30
CATALYST 6216 3111A	237.6	11	19.7	30	30
POWER PLUS 6F74AMX™*	226.6	19	19.2	60	32
POWER PLUS 791838™*	227.9	18	20.4	30	32
POWER PLUS 6L45AMT <sup>TM</sup> *	240.9	9	20.5	30	30
✓ CHECK	234.3		18.5		30
POWER PLUS 794551™*	199.7	24	22.5	30	27
POWER PLUS 7V66AWXTTM*		17	19.8	20	30
POWER PLUS 6C41 S™*	203.7	23	22.4	25	28
POWER PLUS 6P75AWX <sup>TM</sup> *		15	20.1	40	29
✓ CHECK	226.3		19.3		29
POWER PLUS 351612™*	244.4	2	20.0	50	30
POWER PLUS 393883™*	221.5	14	23.3	80	32
POWER PLUS 608608™*	233.3	6	21.8	80	30
POWER PLUS 183253™*	228.5	10	23.1	40	32
✓ CHECK	223.4		20.0		30
POWER PLUS 436792™*	240.6	3	26.4	70	30
POWER PLUS 296832™*	224.5	12	22.9	90	32
BURRUS 6T54 3000GT	229.3	7	22.2	90	32
POWER PLUS 360572™*	238.2	4	22.0	90	30
✓ CHECK	219.9		18.8		3
Average	227.4	19.8	51.0	59.7	30
Check Average	227.3	18	3.4 _	10	29.3

## **Hughes Hybrids celebrates 50 years**

Hughes Hybrids brand seed was started 50 years ago in 1967. Earl Hughes Sr. had been in the seed business since the late 1920's producing public oat varieties and growing seed corn for companies on the east coast. In 1967, Hughes entered the single-cross hybrid corn market and created the Hughes Hybrids brand. During the 1970's and 1980's, the Hughes Hybrids brand grew rapidly with the success of products such as 39-A, 5404, and 5870. Today, the brand exists as part of the Burrus family of brands. Earl Jr.'s sons, Don, Dave, and Jim now manage and operate the Hughes production site located in Woodstock, IL. Celebrating 50 years is reason to recognize a couple longstanding Hughes Hybrids Dealers.

In 1967, several farmers partnered with Hughes as dealers to begin selling the new seed. The Moore family was one of those initial partners. Tom Moore, Sr. ended up being a career-long user and seller of Hughes and later, Burrus Seed. On a farm located a few miles west of Rockford, IL, Tom built a loyal customer base and earned numerous sales awards. One of the things Tom was known for was taking an active interest in the success of the younger farmers in his neighborhood. Tom was considered a friend by the Hughes family and a great business partner. Tom remained an active dealer until his passing at the age of 78.

At the time of his father's passing in 2012, Tom Jr. and his wife Tami made the decision to continue the dealership, naming it TNT Seed. They have followed in Sr.'s footsteps, building the business into the top performing dealership in the Burrus northern sales region. Tom and Tami treat their dealership as a serious business and both actively pursue sales. TNT Seeds has also continued the family tradition of winning sales awards. The Hughes and Burrus families are proud to have partnered with the Moore family for 50 years.

In 1977, Dave Olson planted his first Hughes Hybrids corn product, SLX-19. This marked the beginning of a long friendship and business relationship between the Hughes and Olson families. Dave, along with his brother Dale, raise corn, soybeans, and tobacco just outside of Stoughton, Wisconsin in Dane

From that first seed corn hybrid, the relationship between Hughes and the Olson brothers has grown to more than a simple supplier/customer transaction. Dave and Dale have always been on the cutting edge of agronomic practices and are interested in trying the newest ideas and technologies. This drive led them to becoming a research plot cooperator for Hughes, and 18 years later, this relationship continues with Burrus. The Olson farm is often the highest corn yield site in our network and if it is not first, it is usually near the top year after year. In addition to the research site, Dave and Dale provide valuable feedback on corn and soybean varieties in their fields to our research department.

"I consider the Olson's as friends rather than customers after all these years and have enjoyed their easygoing personalities. Working

Dakalh DKC63 E3DID

Check Average

with great families like theirs is one of the best rewards of being in the seed business for me," said Dave Hughes. Thank you to the Olson's for 40 great years of working together.



Tom Jr. & Tami Moore continue to operate and grow their family dealership, TNT Seeds.



Dave & Dale Olson in their research plot in Dane Co., WI.

#### KNOX

#### The check varies, so the plot winners are located together

Block Farms, Maquon, IL

Planted: April 22 in 30" rows. Planting Population: 35,500. Harvested: October 9 Previous Crop: Soybeans. Soil Type: Clay loam. ✓ Check Hybrid: Agrigold A6499STXRIB.

	Bu. Per		%
Brand/Product	Acre	Rank	Moisture
✓ CHECK	297.4		19.9
Pioneer P0157AMX	265.8	43	17.8
DeKalb DKC56-45RIB	279.0	37	17.8
FS FS57TX1RIB	260.0	44	17.4
DeKalb DKC58-06RIB	269.0	42	18.3
POWER PLUS X4A67™*	286.6	31	19.0
NK Brand NK0962-3220AEZ	276.1	40	19.0
✓ CHECK	281.6		20.1
AgriGold A6441STXRIB	278.3	28	18.7
POWER PLUS 4J95AMX™*	269.0	36	19.0
Stone 6068RIB	266.2	38	19.5
AgriGold A540-77STX	272.4	32	19.4
FS FS61SX1RIB	265.3	39	19.4
AgriGold A641-78STX	283.9	19	20.1
✓ CHECK	274.2		20.4
Pioneer P1197AM	285.5	12	19.0
Agrigold A6488VT2RIB	277.2	26	19.0

DeKalb DKC62-52RIB	277.7	25	19.2
Stone 6288RIB	281.4	19	19.5
Wyffels W7456RIB	283.2	16	20.3
Munson 7237SS RIB	282.4	18	19.2
✓ CHECK	276.6		20.2
Pioneer P1257AMXT	272.5	34	19.7
DeKalb DKC63-21RIB	276.6	30	19.2
POWER PLUS 6P75AMX™*	287.0	14	20.2
FS FS63ZX1RIB	284.6	22	19.9
Wyffels W7696RIB	306.7	3	19.9
Munson 7383VT2 DG	273.2	33	19.5
✓CHECK	281.1	00	19.9
Stone 6368RIB	310.9	1	20.3
Pioneer P1366AM	295.1	2	19.9
DeKalb DKC64-34RIB	281.7	8	19.4
Munson 7468VT2 DG	293.4	5	19.4
Wyffels W7976RIB	286.4	7	19.4
AgriGold A6572STXRIB	271.5	21	20.0
✓CHECK	250.3	۷1	18.2
Stone 6448RIB	270.0	23	20.1
Pioneer P1311AM	288.6	6	19.1
Munson 7523VT2P RIB	279.6	10	20.0
AgriGold A6579STX	293.6	3	20.0
Wyffels W7888RIB	273.8	3 15	20.3
Stone 6458RIB	274.5	13	19.8
✓ CHECK	281.2	13	20.2
FS FS64SX1RIB	280.9	17	20.2
Pioneer P1422AMXT		35	20.5
	266.0	აა 11	
Munson 7507VT2RIB	284.7		21.8
AgriGold A645-10VT2RIB	277.1	24	20.4
Munson 7589SS RIB	274.4	27	20.5
Wyffels W8918RIB	257.2	41	20.1
DeKalb DKC66-74RIB	272.8	29	20.3
Pioneer P1751AM	288.4	9	21.1
✓ CHECK	265.5		20.4
Average	278.6		19.7

276.0

#### **LASALLE**

#### Power Plus® 6P75AMXTM\* wins at 259.5 bu/a



COMPARE Jeff Busch, Tonica, IL

Planted: April 24 in 30" rows. Planting Population: 34,000. Harvested: October 18. Previous Crop: Soybeans. Fertilizer: N: 220, P: 150, K: 150. Herbicide: Roundup. Corn Borer Rating: Light. Soil Type: Heavy loam. Weather: May-wet, June-normal, July-dry, August-dry. **Remarks:** Corn was cut off clean at V1 from high winds. Plot also received some hail damage.

				Auj. II	JUU
	Bu. Per	%	%		ants
Brand/Product	Acre	Moisture	Erect	Wt. /A	cre
POWER PLUS 6P75AMX <sup>TM*</sup>	259.5	22.5	99	58.6	34
POWER PLUS 5K35AMX <sup>TM*</sup>	257.2	22.1	100	58.5 3	33
POWER PLUS 4J99 R™*	257.1	21.8	100	59.4 3	30
POWER PLUS 3H85AWX <sup>TM</sup> *	256.6	19.8	97	59.9 3	3
POWER PLUS 4A67AWXTTM*	252.1	21.2	100	61.3 3	30
BURRUS X6R25	251.4	24.0	100	61.0 3	35
CATALYST 6216 3111A	249.7	21.8	100	56.4 3	32
POWER PLUS 2B77AVIXTTM*	242.8	19.7	100	60.9 3	31
POWER PLUS 4J95AMX™*	240.2	22.3	100	59.5	32
POWER PLUS 6F74ANXTM*	239.1	22.3	100	60.5 3	34
POWER PLUS 7V66AVIXTTM*	236.3	23.4	99	59.7	32
Average	249.3	21.9	100	59.6 3	32

# **LOGAN**

#### **Experimentals top** this plot

Kent Kleinschmidt, Emden, IL

Planted: April 24 in 30" rows. Planting Population: 35,000. Harvested: October 30. Previous Crop: Soybeans. Fertilizer: N: 210, P: 120, K: 120. Herbicide: Medal, Roundup. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-wet, June-wet, July-normal, August-dry. /Check Hybrid: Power Plus 4J95 AMX™\*.

	Bu. Per		%	%	1000 Plants
Brand/Product	Acre	Rank	Moisture	Erect	/Acre
✓CHECK	167.3		16.0	80	28
BURRUS 174847	225.0	8	15.1	85	31
BURRUS 779855	225.5	7	14.9	85	29
POWER PLUS X4A67™*	217.7	10	16.0	95	29
BURRUS 479071	185.1	23	15.7	100	28
✓ CHECK	208.3		16.3	100	30
POWER PLUS 4J99 R™*	204.7	17	15.8	100	32
POWER PLUS 6F74AMXTM*	210.8	12	16.8	100	33
√CHECK	180.3		16.8	100	31
POWER PLUS 5K35ANIX™*	186.8	22	16.6	90	32
POWER PLUS 5C17AWXTTM*	195.1	18	16.7	85	28
√CHECK	190.3		16.7	85	28
POWER PLUS 6L45AMT <sup>TM</sup> *	200.5	14	17.5	100	33
CATALYST 6216 3111A	194.9	19	16.8	100	33
POWER PLUS 6F74AMXTM*	206.3	11	17.6	100	34
BURRUS 791838	195.7	16	17.0	100	30
√CHECK	179.9		16.4	100	25
POWER PLUS 6P75AVIXTM*	214.8	9	17.1	100	32
BURRUS 794551	226.7	4	16.3	100	29
POWER PLUS 7V66AVIXTTM*	193.3	20	17.5	100	31
POWER PLUS 6C41 S™*	233.2	3	17.9	-20	33
√CHECK	188.7		16.3	40	30
BURRUS 296832	247.9	1	17.8	100	33
BURRUS 6T54 3000GT	201.7	15	17.5	100	30
BURRUS 360572	184.7	24	18.1	60	32
BURRUS 436792	246.4	2	18.3	100	32
√CHECK	192.2		16.9	80	33
BURRUS 393883	224.0	5	17.3	60	28
BURRUS 351612	191.0	21	16.9	55	34
BURRUS 608608	200.0	13	17.2	40	31
BURRUS 183253	221.9	6	19.4	100	34
✓CHECK	175.4	•	16.8	70	34
Average	203.6	1	6.9	84	31
Check Average	185.3		6.5	81.9	
Olicok Avelaye	100.0	- 1	0.5 _	01.3	<b>LJ.J</b>

#### **MACOUPIN**

#### Power Plus® 5K33AMTM\* made 266.1 bu/a

Mike Cole. Palmyra, IL

Planted: April 18 in 30" rows. Planting Population: 36,000. Harvested: October 9. Fertilizer: N: 170, P: 92, K: 180. Herbicide: Lexar, Roundup. Soil Type: Medium loam. Weather: May-wet, June-normal, July-normal, August-dry.

	Bu. Per	%
and/Product	Acre	Moisture
OWER PLUS 5K33AM™*	266.1	15.7
OWER PLUS 5K33AM™*	252.7	16.7
OWER PLUS 6P73AM™*	252.2	16.6
OWER PLUS 4J93AM™*	247.1	16.9
OWER PLUS 6F74AMX™*	217.7	15.8
ATALYST 5009 3220	211.7	15.8
Average	241.2	16.2



Tina & Jeff Busch saw half of the Burrus family of hybrids yield above 250 bu/a in LaSalle Co.



Bryce Graves is ready to help parents, Paul & Jess on the farm with his overalls, tractor, &



Power Plus® 6P73AMTM\* & 7M83AMTM\* took first & second above 245 bu/a in Macoupin Co for Wayne & Pat Ladage.



Mike Cole saw Hoblit 384LL soybeans make 82 bu/a in Macoupin Co.

#### Wayne Ladage, Virden, IL

Planted: April 19 in 30" rows. Planting Population: 35,500. Harvested: October 4. Previous Crop: Soybeans. Fertilizer: N: 200, P: 80 , K: 120. Herbicide: Halex GT, Atrazine. Insecticide: Force. Corn Borer Rating: Light. Soil Type: Medium Ioam. Weather: May-wet, Junedry, July-dry, August-normal.

## One of the pillars for success..... the correct product mix

#### **Todd Burrus**

The current ag economy calls for efficient use of input dollars. However, the most critical economic decisions are the ones that influence the cost per bushel produced, not the price per unit. The key to being a low cost producer is increasing yields.

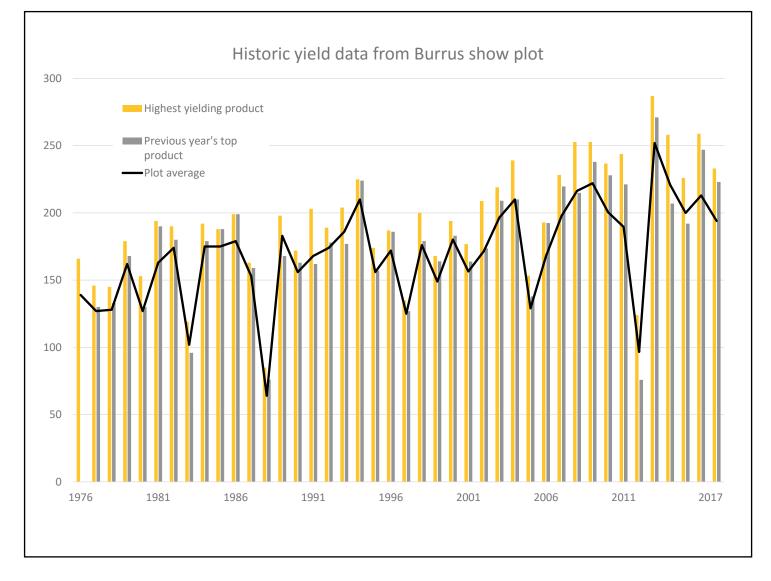
The big question is, "What products will perform best in my fields in 2018?" Within the ag community, many have relied on the thought, "I want to plant this year's best next spring." Some have relied on their seed representative to guide their decisions. Others have gotten comfortable with the MyFarms<sup>SM</sup> COP field-by-field product selection process that uses customer preferences and multiple

research data to narrow their choices.

We have used the show plot, west of the production facility in Arenzville, IL, to demonstrate the value of reliance on one year's data. We have planted our product lineup every year for 42 consecutive years. There is an evolution of products over time as new products are added and others are retired every year. Over 42 years, we have had 36 different winners, 7 products provide winning yields multiple times, and 3 times the same product (planting last year's best) won in consecutive years. That is less than 10% of the time for back-to-back winners. The new products group has created winning yields over 35% of the time. This makes sense when considering steady yield increases due to new products.

Sorting through seed data can be both challenging and rewarding. Using all the resources available can lead to a better result than selecting and placing products based on one single factor. I recommend using MyFarms COP, communication with your Burrus representative, and using a portfolio of products to ensure genetic and maturity differences that will lead to higher yields, improved standability, and better economics.

Ask your Burrus representative about being able to ship your seed with MyFarms planting plans included for the seed shed and the planter operator. This can help us execute the best planting plan for 2018. A good plan and great execution lead to customer satisfaction.



				Auj.	1000
	Bu. Per	%	%	Test	<b>Plants</b>
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS 6P73AWTM*	246.6	16.2	100	60.1	36
POWER PLUS 7M83AMTM*	245.7	17.8	100	63.2	36
POWER PLUS X4A67™*	241.0	15.7	100	62.9	36
POWER PLUS 5K33AWITM*	240.0	16.2	100	61.1	36
POWER PLUS 4J93ANTM*	237.7	15.4	100	61.2	36
POWER PLUS 6L45AWT <sup>TM*</sup>	230.5	17.8	100	61.6	36
POWER PLUS 5C17AVIXTTM*	226.3	15.3	100	59.2	36
POWER PLUS 6F74AWX <sup>TM*</sup>	224.1	15.9	100	62.4	36
Average	236.5	16.3	100	61.5	36

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









Kent & Sarah Kleinschmidt were awarded with a Master Farmer designation by Holly Spangler of *Prairie Farmer*.



Power Plus® 4J93AM™\* got off to a great start after only 4 days out of the bag for Jeff Bixenman in Mason Co., MO.



Tim & Brian Bolton saw their Hancock Co. plot average 289.5 bu/a.



Burrus AM Justin Parks inspects corn on his family farm in Carroll Co.



Richard & Larry Douglas saw Power Plus® 6P73AM<sup>TM</sup> crank out over 298 bu/a in Hancock Co.

#### MARSHALL

# Power Plus® 3H85AWX<sup>TM</sup>\* wins at 271.3 bu/a!

Mark Monier, Sparland, IL

Planted: May 9 in 30" rows. Planting Population: 34,900. Harvested: October 18. Previous Crop: Soybeans. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: Maywet, June-normal, July-dry, August-dry.

				Aaj. 1000
	Bu. Per	%	-%.	Test Plants
Brand/Product	Acre	Moisture	Erect	Wt. /Acre
POWER PLUS 3H85AVIXTM*	271.3	17.7	100	60.4 32
POWER PLUS 6P75AVIXTM*	242.0	20.5	90	59.2 34
POWER PLUS 5C17AVIXTTM*	241.4	20.1	90	60.0 34
POWER PLUS X4A67ANTM*	240.5	18.8	100	61.7 28
POWER PLUS 4J99 RTM*	239.8	20.0	100	59.0 32
POWER PLUS 4A67AWXTTM*	237.6	18.8	90	59.7 32
POWER PLUS 5K35AVIXTM*	232.8	20.1	100	59.0 30
BURRUS X6R25	232.2	21.6	40	58.4 30
CATALYST 6216 3111A	231.0	20.4	100	54.0 34
POWER PLUS 6F74AMX™*	224.5	20.7	90	61.2 33
POWER PLUS 2B77AWXTTM*	219.7	18.3	90	63.5 29
POWER PLUS 4J95AMX™*	219.4	20.5	100	60.2 34
POWER PLUS 7V66 AVIXTTM*	218.5	20.5	90	59.2 34
POWER PLUS 4J95AMX™*	218.3	20.9	70	59.2 30
Average	233.5	19.9	89	59.6 32

#### **MCDONOUGH**

# Power Plus® X4A67<sup>TM</sup> \* & Power Plus® 7M83AM<sup>TM</sup> \* go one & two

John Cook, Sciota, IL

Planted: April 13 in 30" rows. Planting Population: 35,600. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 170, P: 70, K: 140. Herbicide: Harness Xtra. Insecticide: None. Corn Borer Rating: Light. Soil Type: Heavy loam. Weather: May-normal, June-dry, July-normal, August-dry.

	Bu. Per	9/0	0/0	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS X4A67™*	265.9	15.8	96	58.6	32
POWER PLUS 7M83ANTM*	260.1	18.3	96	59.5	33
POWER PLUS 6P75AMX <sup>TM</sup> *	256.2	18.1	100	56.4	34
BURRUS X6R25	252.2	18.3	100	59.8	34
POWER PLUS 2N82AWTM*	251.4	14.8	100	58.9	36
POWER PLUS 5K35AMXTM*	251.0	16.1	100	59.4	37
CATALYST 6216 3111A	244.0	17.2	100	56.1	36
POWER PLUS 6F74AMX <sup>TM</sup> *	240.9	17.1	100	61.2	36
POWER PLUS 4J95AMX <sup>TM</sup> *	239.9	16.4	100	58.7	34
Average	251.3	16.9	99	58.7	35

# Power Plus® wins top four places

Doug Thorman, Macomb, IL

Planted: April 21 in 30" rows. Planting Population: 34,000. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 140, P: 52, K: 180. Herbicide: Harness Xtra, Impact. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium Ioam. Weather: May-normal,

# **Burrus supports local FFA Chapters**

#### Olivia Rahe, Communications Associate

Community involvement has long been a pillar of Burrus Seed. This year, we decided to show our support of local FFA chapters in an eye-catching way. Account Managers reached out to schools in their community and inquired if the FFA team would be attending the 2017 Farm Progress Show (FPS) in Decatur, IL. The annual FPS is the nation's largest outdoor farm event, drawing over 100,000 visitors in three days. In exchange for wearing donated Burrus t-shirts to the event, participating



AM Jim Allen awards donation to Mt. Pulaski FFA Chapter President, Nathan Ford in Logan Co.



Mulberry Grove FFA, Bond Co. was awarded the \$500 grand prize.

FFA chapters received a monetary donation from Burrus Seed.

Nearly 900 students from 23 area FFA chapters arrived at the Farm Progress Show in orange Burrus t-shirts. As they explored the grounds, they caught the attention of other attendees and several photos of the flashy t-shirts were shared on social media. In addition to the initial donation, each school was entered into a drawing for a \$500 grand prize! Account Manager, Colby Reilson was happy to present the grand prize check to the winning chapter, Mulberry Grove FFA in Bond Co., IL.



Carrollton FFA members represent Greene Co at 2017 Farm Progress Show.



These shirts were hard to miss at the 2017 Farm Progress Show!

June-dry, July-dry, August-dry. **✓Check Hybrid:** Power Plus 4J93AM™\*.

					1000
Brand/Product	Bu. Per Acre	Rank	% Moisture	% Erect	Plants /Acre
✓ CHECK	234.3	Hullik	20.8	100	32
		40			
POWER PLUS 4J90™*	224.5	13	18.3	100	30
Prairie Hybrids 5787	202.4	16	18.7	100	32
ProHarvest Seeds 8074	232.6	11	18.0	100	32
Prairie Hybrids 5447	212.0	15	18.4	100	32
POWER PLUS 5K33AM™*	244.2	6	18.2	100	31
POWER PLUS X4A67™*	260.5	1	17.8	100	32
✓ CHECK	245.4		17.8	100	32
ProHarvest Seeds 8244	246.5	5	19.1	100	32
POWER PLUS 6C40™*	258.9	2	19.7	100	30
Prairie Hybrids 7355	233.8	10	19.1	100	32
Prairie Hybrids 7387	228.9	12	19.3	100	32
BURRUS X6R25	241.7	9	20.5	100	32
POWER PLUS 7M83AMTM*	256.8	4	21.0	100	32
<b>✓CHECK</b>	234.8		17.8	100	32
POWER PLUS 6P73AM™*	248.5	3	19.0	100	31
Prairie Hybrids 8052	206.2	14	19.8	100	32
Prairie Hybrids 8229	233.2	8	21.0	100	32
Prairie Hybrids 8904	233.7	7	20.1	100	32
✓ CHECK	226.4		17.2		32
Average	235.3		19.1	100	32
Check Average	235.2		18.4	100	32
Olicon Avelage	200.2		10.4	100	UΖ

#### **MCHENRY**



#### DJ Farms, Marengo, IL

Planted: April 25 in 30" rows. Planting Population: 30,000. Harvested: October 2. Previous Crop: Corn. Herbicide: Capreno, Guardsman. Soil Type: Medium Joan

	D D	0/	1000	
Brand/Product	Bu. Per Acre	% Moisture	Plants /Acre	
Dekalb 58-06 RIB	232.6	18.8	58.7	
Agrigold A636-56 STX	231.6	17.6	58.4	
Channel 207-27STXRIB	231.4	19.8	58.8	
Channel 209-50STXRIB	230.4	18.8	58.8	
AgriGold A6413	229.6	17.0	60.5	
Channel 210-26STXRIB	229.6	22.5	57.1	
Wyffels W6480	226.7	18.1	58.1	
Dekalb 54-38 RIB	226.2	15.2	58.1	
Wyffels W7110	225.4	20.0	58.8	
Wyffels W5440	225.3	16.6	60.1	
Channel 203-01 STX RIB	223.7	17.3	56.2	
POWER PLUS 4J90™*	223.3	19.5	58.8	
Axis 54T54GENSSRIB	222.5	15.3	57.7	
AgriGold A6441 STX RIB	221.9	19.6	56.6	
Wyffels W6946 DG-RIB	221.3	20.1	57.4	
AgriGold A6441 STX RIB	220.6	17.4	57.6	

POWER PLUS 2R63 R™*	220.3	18.2	59.4
Channel 205-19STXRIB	220.2	16.8	57.1
Pioneer P0589 AAMXT	214.1	18.1	58.4
AgriGold A630-31 VT2RIB D	1213.7	15.0	56.8
Yield Direct 4L97-S STAX	213.3	16.7	58.1
OMG 4M49	213.2	18.4	57.2
Pioneer P1197 AMXT	211.1	21.5	57.3
OMG 5M14	211.0	17.1	55.1
Wyffels W4960	210.1	17.4	58.7
AgriGold A636-55 VT2 Pro	210.0	16.1	61.4
AgriGold A6472	208.3	20.9	58.1
Axis 51T03	208.0	15.6	58.2
Axis 60B04	205.8	22.7	56.8
Axis 56H56GENSS	201.8	17.4	57.8
Average	219.4	18.2	58.1

#### **MERCER**

#### New hybrids win



Planted: April 25 in 30" rows. Planting Population: 33,600. Harvested: October 23. Previous Crop: Soybeans. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: Maynormal, June-dry, July-dry, August-dry.

				Adj.	1000
	Bu. Per	%	%	Test F	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS X4A67™*	263.2	17.2	96	59.8	33
POWER PLUS 7M83ANTM*	262.6	19.2	96	60.2	32
POWER PLUS 6L45AMT™*	260.9	19.2	96	58.2	31
POWER PLUS 4J95AWX™*	259.9	17.7	98	58.4	30
POWER PLUS 5K35AMX™*	252.4	17.8	96	58.5	33
CATALYST 6216 3111A	251.8	18.8	92	56.7	31
BURRUS X6R25	248.7	19.0	70	59.7	31
POWER PLUS 6F74AVIXTM*	241.1	19.2	100	62.2	30
POWER PLUS 6P75AMX <sup>TM</sup> *	239.3	20.2	90	59.5	34
Average	253.3	18.7	93	59.2	32

#### Scott Olson, Joy, IL

Planted: April 25 in 30" rows. Planting Population: 34,000. Harvested: October 24. Previous Crop: Corn. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-dry. Remarks: Hail damage was simulated with a 4 foot 3-point hitch when the corn was about V7.

Brand/Product	Bu. Per Acre	% Moisture	% Erect	Test Plants Wt. /Acre
POWER PLUS 7M83AMTM*	289.5	18.3	100	59.5 33
POWER PLUS X4A67™*	268.9	15.8	100	60.0 34
POWER PLUS 5K35AVIXTM*	260.5	17.0	96	60.3 31
POWER PLUS 6F74AMX™*	256.4	17.0	100	61.3 32
POWER PLUS 3H85AWX <sup>TM</sup> *	255.3	15.0	100	58.0 33
BURRUS X6R25	254.3	17.2	100	60.3 32
POWER PLUS 4J95AMX™	* contr	ol		
	253.1	16.4	100	59.0 31
POWER PLUS 6P75AVIXTM*	251.6	17.9	100	59.5 32
POWER PLUS 4J95AMX™	* mino	r hail		
		16.5	100	58.7 31
POWER PLUS 4J95AMX™	* contr	ol		
	249.2	16.7	100	59.2 31
POWER PLUS 4J95AMX <sup>TM</sup> *	247.3	16.3	100	59.0 30
CATALYST 6216 3111A	234.1	17.5	74	56.4 34
POWER PLUS 2B77AVIXT <sup>TM*</sup>	216.4	15.1	100	59.0 35
POWER PLUS 4J95AMX™		r hail		
	205.2	17.5	96	59.4 30
Average	249.4	16.7	98_	59.3 32

#### **MONROE**



Mon-Clair Corn Growers, Waterloo, IL

Planted: April 12 in 30" rows. Planting Population: 32,000. Harvested: September 21. Previous Crop: Wheat. Soil Type: Medium loam. ✓ Check Hybrid: Dyna Gro 56VC46 Remarks: Entries 5,6,40,41 had sprayer damage.

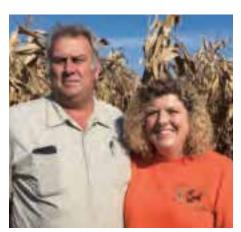
Bu. Per Rank Mulsture Wt.

✓ CHECK 239.3 17.2 61.2

LG Seeds 5548STXRIB	206.3	37	15.1	59.8
POWER PLUS 4J93AMTM*	<b>243.7</b>	<b>22</b>	14.8	61.1
Agrigold A6442	242.0	25	15.5	60.7
AgVenture 7844AM	223.9	34	15.0	60.5
POWER PLUS 5K33AM™*	242.2	24	15.0	61.4
Wyffels W6946DGRIB	233.6	30	15.3	59.7
<b>√CHECK</b>	274.0		18.2	62.1
Dyna-Gro 51VC54	214.5	38	15.4	60.9
LG Seeds 5607VT2PRIB	234.5	36	16.3	61.8
Agrigold A6449VT2PRIB	253.8	23	16.6	62.5
Wyffels W7456RIB	262.3	13	16.6	62.0
LG Seeds 5618VT2P	239.8	32	16.5	62.9
POWER PLUS 6C41S™*	276.1	6	18.3	61.9
✓ CHECK	260.7		17.4	61.6
AgVenture 8537AM	256.5	18	15.7	62.6
FS 63ZV1	234.0	33	16.5	62.9
POWER PLUS 6P73AM™*	278.3	2	16.2	61.6
Wyffels W7976RIB	244.2	29	16.7	60.8
Agrigold A6544VT2P	264.7	12	16.2	62.0
AgVenture 8513AM	245.2	28	18.2	60.0
		20		
✓CHECK	271.2	0.0	18.2	60.8
Wyffels W7696RIB	249.3	26	16.3	60.2
AgVenture 8430AM	278.5	3	16.1	61.4
LG Seeds 5643VT2P	260.6	16	16.0	60.9
POWER PLUS 7M83AM™*	233.8	35	17.5	60.6
Wyffels W7888RIB	270.3	9	16.7	63.7
AgVenture 8614AM	292.0	1	18.0	61.3
✓ CHECK	261.8	-	17.9	61.7
FS 64SV1	246.8	20	16.3	60.5
Dyna-Gro 54VC52	248.7	19	17.0	62.7
Agrigold A6572VT2P	252.9	15		63.0
			16.2	
AgVenture 8714AM	269.9	4	15.9	63.0
LG Seeds 5650VT2P	258.1	11	16.6	63.8
AgVenture 8899AM	267.5	5	17.4	60.8
Agrigold A645-10	246.7	21	16.3	63.6
Dyna-Gro 55VC45	263.7	8	16.5	63.7
LG Seeds 5663VT2PRIB	253.4	14	16.6	62.7
AgVenture 8915AM	265.3	7	17.4	61.6
Wyffels W8268RIB	234.0	31	16.9	60.8
FS 66ZV1	240.1	27	16.5	62.5
✓CHECK	255.7	21		61.9
		10	17.6	
Agrigold A6659VT2P	258.8	10	16.3	63.3
Dyna-Gro 57VC51	250.5	17	16.8	62.1
✓ CHECK	258.2		17.6	62.8
Average	252.4		16.6	61.8
Check Average	260.1		17.7	
onoun morago	200.1		11.1	01.1



Terry Dolan grins next to his Power Plus 6C40™\* in Grundy Co., MO.



All smiles with two Power Plus® hybrids above 300 bu/a in Hancock Co. for Michael & Molly McDowell!

## Burrus corn wins big again this year

Place	Hybrid/Brand	Yield	Entries	Sponsor	Cooperator	County
1st	6P75AMX™*	300.8	8	Independent	Michael McDowell	Hancock
1st	6P73AM™*	285.1	22	Independent	Spangler Grain	Fulton
1st	X4A67™*	260.5	16	Independent	Doug Thorman	McDonough
1st	6P73AM™*	258.8	14	Independent	Greg Bertz	Lafayette, MO
1st	3H85AMX™*	256.3	13	Independent	Mark Horstmeier	Stephenson
1st	6P73AM™*	255.0	21	Independent	Mike Gentry	Caldwell, MO
1st	7V66AMX™*	234.3	24	Independent	Curt Elmore	Vermilion
2nd	4A67AMXT™*	300.2	8	Independent	Michael McDowell	Hancock
2nd	6P73AM™*	284.3	9	Independent	Santa Fe Ag Leaders	Lafayette, MO
2nd	4A67AMXT™*	283.7	28	Independent	Edgewood Farms	Ogle
2nd	6C41S™*	281.5	22	Independent	Spangler Grain	Fulton
2nd	6P73AM™*	278.3	38	Independent	Mon-Clair Corn Growers	Monroe
2nd	7M83AM™*	265.9	9	Independent	Santa Fe Ag Leaders	Lafayette, MO
2nd	6C40™*	258.9	16	Independent	Doug Thorman	McDonough
2nd	6P73AM™*	258.0	20	Independent	John Potter	Morgan
2nd	X4A67™*	248.5	13	Independent	Mark Horstmeier	Stephenson
2nd	X4A67™*	233.1	24	Independent	Curt Elmore	Vermilion
2nd	6P75AMX™*	215.8	16	Independent	Rochelle FFA	Ogle
3rd	6P73AM™*	278.7	16	Independent	Schuster Farms	Cooper, MO
3rd	6P73AM™*	248.5	16	Independent	Doug Thorman	McDonough
3rd	4J93AM™*	247.5	7	Independent	Santa Fe Ag Leaders	Lafayette, MO
3rd	4A67AMXT™*	230.3	39	Independent	Marshall Newhouse	Boone
4th	6P75AMX™*	286.8	28	Independent	Tazewell Co. Corn Growers	Tazewell
4th	X4A67™*	274.3	22	Independent	Spangler Grain	Fulton
4th	7M83AM™*	256.8	16	Independent	Doug Thorman	McDonough
4th	7M83AM™*	241.7	21	Independent	Mike Gentry	Caldwell, MO
4th	4J95AMX™*	238.4	13	Independent	Mark Horstmeier	Stephenson
5th	X4A67™*	259.2	19	Independent	Myers Farms	Adams
5th	4A67AMXT™*	283.7	28	Independent	Edgewood Farms	Ogle
5th	4A67AMXT™*	211.5	16	Independent	Rochelle FFA	Ogle



Dick Moran saw Power Plus® 4A67AMXT<sup>TM®</sup> yield 248.5 bu/a to win in Kankakee Co.



Derick Roberts, Roy & Ronnie Smith saw the Morgan Co. plot start at 247 bu/a with Power Plus® 6P75AMX<sup>TM\*</sup>.





Kristen & London Borchers, Morgan Moller, Bridon Borchers, Jake Moller, Peyton McClure (intern); (back row) Zach Borchers & Burrus AM Quinn Moller plant a plot in Iroquois Co.

# Welcome new Sales Agronomist Jamie Long

Burrus Seed proudly added a new Sales Agronomist, Jamie Long, to the Burrus team this spring. Jamie is a recent graduate of Purdue University with a Master of Science in Weed Science, following receiving her Bachelor of Science degree in Plant and Soil Science from Southern Illinois University – Carbondale. Jamie has worked as a research assistant for both universities as well as working on her family's farm. In addition, Jamie holds a Certified Crop Advisor (C.C.A.) certification with a Resistance Management Specialty and an Illinois Pesticide Applicator license.

Jamie was raised on a farm near the banks of the Mississippi river in Ellis Grove, Illinois. In her spare time, Jamie enjoys hunting and



Jamie Long scouting soybeans in Andrew Co., MO

fishing. "The agronomy team at Burrus has been a wealth of knowledge and very helpful with helping me this field season. The entire company has been very welcoming and I have enjoyed my time exploring my territory this summer with the various account managers." said Long. Todd Burrus expressed, "We are thrilled to have someone of Jamie's caliber joining the company, and we are impressed with her quality of work the first few months on the job."

Her position includes customer service for growers located in western Illinois and Missouri and agronomic training of the sales staff in her territory. You can follow Jamie's work with Burrus on Twitter @jamieatburrus.



Jamie enjoys spending her free time hunting and being outdoors.

#### **MORGAN**

# New Power Plus® 7M83AMbrand & Power Plus® 7M80<sup>TM</sup>\* win one & two



Burrus Seed Farms, Arenzville, IL

Planted: April 13 in 30" rows. Planting Population: 34,000. Harvested: September 14. Previous Crop: Corn. Fertilizer: N: 200, P: VR, K: VR. Herbicide: Breakfree ATZ, Armezon, Aatrex, Prowl. Insecticide: Aztec. Soil Type: Silt loam. Weather: May-normal, June-dry, July-dry, August-dry.

	Bu. Per	%	Test Plants
Brand/Product	Acre	Moisture	
POWER PLUS 7M83AM™*	233.4	23.1	59.1 32
POWER PLUS 7M80™*	225.4	22.3	59.5 33
POWER PLUS 6F71R™*	222.7	22.0	61.1 33
POWER PLUS 4J90™*	216.7	19.4	59.2 32
POWER PLUS 4J95AMX™*	215.1	20.0	58.5 33
CATALYST 7577 3010	213.1	24.3	58.0 32
POWER PLUS 4J99 R™*	212.6	19.5	59.2 31
POWER PLUS 5K35AMX™*	211.2	19.0	59.2 32
CATALYST 6216 3111A	208.3	20.3	53.8 33
BURRUS 6R20	207.4	20.8	59.2 32
POWER PLUS 6C40™*	204.7	22.3	59.3 32
POWER PLUS X7M85 ™*	202.6	19.9	59.5 32
POWER PLUS X4A67™*	197.5	18.7	60.8 32
POWER PLUS 6C41S™*	192.6	25.0	58.8 31
BURRUS 6Q60	188.5	23.3	57.5 32
POWER PLUS 6P73AM™*	187.7	18.4	58.8 33
POWER PLUS 7A18Q™*	184.2	19.4	60.8 32
POWER PLUS 6F74AMX™*	182.1	18.1	61.2 32
POWER PLUS 5K33AM™*	180.5	17.5	59.7 30
POWER PLUS 6P75AMX™*	172.3	17.9	59.2 32
BURRUS X6R25	171.3	20.0	58.6 32
POWER PLUS 7V66AMXT™*	170.7	17.3	60.9 32
POWER PLUS 5C17AMXT™*	168.9	17.0	61.0 32
BURRUS 6T54 3000GT	165.7	23.4	57.0 31
POWER PLUS 4J93AM™*	161.9	16.4	58.5 30
POWER PLUS 6L45AMT™*	152.8	18.0	58.2 32
Average	194.2	20.1	59.1 32

#### Phil Hinners, Meredosia, IL

Planted: April 15 in 30" rows. Planting Population: 32,000. Harvested: October 13. Previous Crop: Soybeans. Herbicide: Harness, Atrazine, Banvel. Soil Type: Heavy loam. Weather: May-normal, June-dry, July-dry, August-normal.

Brand/Product POWER PLUS 6C40TM* Wyffels 6910	Bu. Per Acre <b>231.7</b> 220.6	% Moisture <b>18.8</b> 17.2	Adj. Test Wt. <b>61.2</b> 59.8
Average	226.1	18.0	60.5



#### Werries Farms, Chapin, IL

Planted: April 24 in 30" rows. Planting Population: 36,000. Harvested: September 18. Previous Crop: Corn. Soil Type: Medium loam. 
√Check Hybrid: Dekalb DKC60-87RIB.

	Bu. Per		%
Brand/Product	Acre	Ranl	Moisture
<b>√CHECK</b>	244.9	9	25.4
Dekalb DKC66-74P	RIB 240.0	) 10	28.2
Dekalb DKC64-34F	IIB 243.1	8	27.1
Dekalb DKC65-94F	IIB 262.5	5 1	26.1
Dekalb DKC63-21F	IIB 251.3	3 2	24.4
Dekalb DKC62-52F	IIB 248.4	1 4	22.7

<b>✓CHECK</b>	249.3		25.0
Pioneer P1422AMXT	230.3	12	25.1
Pioneer P1366AMXT	220.7	16	26.0
Pioneer P1311AMXT	232.9	11	26.2
Pioneer P1197AMXT	252.3	3	25.4
BURRUS X6R25	229.8	13	24.3
POWER PLUS 7V66AMXT™*	225.7	15	24.5
POWER PLUS X4A67™*	246.5	7	22.6
POWER PLUS 6P75AMX™*	243.5	9	24.4
Wyffels W7696	248.7	5	26.2
Wyffels W7578	246.8	6	25.0
Wyffels W8918	226.8	14	27.2
<b>✓</b> CHECK	251.4		24.8
Average	241.8		25.3
Check Average	248.5		25.1

# Power Plus® 6P73AMTM\* is second at 258 bu/a



Planted: April 13 in 30" rows. Planting Population: 36,000. Harvested: September 11. Previous Crop: Soybeans. Fertilizer: N: 240, P: 250, K: 300. Herbicide: Weed Master. Insecticide: None. Soil Type: Medium loam. Weather: Maynormal, June-dry, July-dry, August-normal. Remarks: Competitors' plot. They did not take test weight

			1000
Bu. Per	%	%	Plants
		Erect	/Acre
		400	00
	20.2	100	36
257.5	17.0		
256.3	22.1		
255.2	20.5		
255.0	24.2		
254.9	21.0		
250.5	18.4	100	34
248.1	21.0		
247.3	23.3	100	35
246.2	21.8		
244.0	18.2		
243.4	21.2		
240.0	19.9	100	36
238.0	17.8		
235.9	19.0		
234.4	22.0		
221.8	18.1		
219.5	19.1		
218.8	16.4		
244.5	20.1	100	35
	264.9 258.0 257.5 256.3 255.2 255.0 254.9 250.5 248.1 247.3 246.2 244.0 238.0 235.9 234.4 221.8 219.5 218.8	Acre Moisture 264.9 21.4 258.0 20.2 257.5 17.0 256.3 22.1 255.2 20.5 255.0 24.2 254.9 21.0 247.3 23.3 246.2 21.8 244.0 18.2 243.4 21.2 240.0 19.9 238.0 17.8 235.9 19.0 234.4 22.0 221.8 18.1 219.5 19.1 218.8 16.4	Acre Molisture Erect 264.9 21.4 258.0 20.2 100 257.5 17.0 256.3 22.1 255.2 20.5 255.0 24.2 254.9 21.0 250.5 18.4 100 248.1 21.0 247.3 23.3 100 246.2 21.8 244.0 18.2 243.4 21.2 240.0 19.9 100 238.0 17.8 235.9 19.0 234.4 22.0 221.8 18.1 219.5 19.1 218.8 16.4

# Catalyst 6216 3111A is first

Bill Points, Waverly, IL

Planted: April 20 in 30" rows. Planting Population: 34,000. Harvested: October 20. Previous Crop: Soybeans. Fertilizer: N: 155, P: 200, K: 200. Herbicide: Balance, Laudis, Atrazine. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-normal.

				Adj.	1000
	Bu. Per	%	%	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
CATALYST 6216 3111A	236.4	14.8	100	56.0	32
Wyffels 7888	235.7	15.6	100	59.0	33
POWER PLUS 5K35AMX™*	232.8	14.9	100	59.0	30
POWER PLUS X4A67™*	226.7	15.0	100	60.0	32
Wyffels 7888	226.2	16.2	100	60.0	33
POWER PLUS 6P75AMX™*	226.1	15.7	100	59.0	30
POWER PLUS 4J95AMX <sup>TM*</sup>	222.4	15.0	100	57.5	34
POWER PLUS 7V66AVIXTTM*	194.0	15.4	100	59.0	34
Average	225.0	15.3	100	58.7	32



Lois & Jim Latimer saw Power Plus® 5K33AM<sup>TM\*</sup> make 270 bu/a to win in Dekalb Co.



Leni & Layne Johnston help their cousin Griffin Porter shuck Coon's Choice at Grandma & Grandpa's farm



Michael & Kent Shriver saw their Adams Co. plot average 243 bu/a.



Burrus Sales Agronomist Jamie Long is in her happy place...a field.

#### Ronald Smith, Ashland II

Planted: April 13 in 30" rows. Population: 35,000. Harvested: September 23. Previous Crop: Soybeans. Herbicide: Princep (Fall), Halex GT (Spring). Corn Borer Rating: Light. Soil Type: Heavy loam. Weather: May-wet, June-dry, July-dry, August-normal.

	Bu. Per	%	%	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS 6P75AMX™*	247.2	16.1	100	61.5	32
POWER PLUS 5K35AMX™*	242.3	16.2	100	61.0	32
BURRUS X6R25	240.0	16.2	100	62.5	33
POWER PLUS 7V66AVIXTTM*	239.9	16.5	100	62.7	31
POWER PLUS 6F74ANIXTM*	239.7	17.1	100	63.3	33
CATALYST 6216 3111A	233.9	16.2	100	58.0	32
POWER PLUS X4A67™*	232.4	16.2	100	62.5	33
POWER PLUS 5K35AMXTM*	231.3	16.6	100	60.7	32
POWER PLUS 4J95ANIXTM*	229.0	16.6	100	61.2	32
POWER PLUS 4J99 RTM*	228.6	15.9	100	60.0	33
Average	236.4	16.4	100	61.3	32

#### **OGLE**

#### Rochelle FFA, Rochelle, IL

Planted: May 22 in 30" rows. Planting Population: 32,000. Harvested: October 27. Previous Crop: Soybeans. Soil Type: Sand.

			Adj.
	Bu. Per	%	Test
Brand/Product	Acre	Moisture	Wt.
Pioneer P0825	220.5	19.6	56.7
POWER PLUS 6P75AMX™*	215.8	20.1	59.4
Pioneer P1197	214.3	20.4	57.3
DeKalb DKC64-87RIB	212.0	20.5	59.7
POWER PLUS 4A67AMXT™*	211.5	18.4	58.5
DeKalb DKC60-87RIB	210.0	20.5	59.6
DeKalb DKC56-45RIB	209.2	18.5	60.3
AgriGold A6441	205.1	18.5	58.3
Pioneer P0589	203.5	17.9	59.9
POWER PLUS 2B77AMXT™*	200.7	18.9	59.7
FS 602ZX	200.5	19.0	58.9
POWER PLUS 4J95AMX™*	198.0	19.2	57.9
FS 55TX-1	197.1	17.9	60.5
AgriGold A6499	191.2	21.7	59.7
POWER PLUS 5K35AMX™*	187.6	19.9	58.3
DeKalb DKC51-38RIB	183.6	17.2	59.4
Average	203.8	19.3	59.0

#### Check out Power Plus® 4A67AMXTTM\*



Adi. 1000

#### **COMPARE** Edgewood Farms, Leaf River, IL

Planted: April 25 in 30" rows. Planting Population: 35,000. Harvested: October 26. Previous Crop: Soybeans. Soil Type: Medium loam. Weather: May-wet June-wet, July-wet, August-dry. Check Hybrid: AgriGold

				Adj.
Brand/Product	Bu. Per Acre	Rank	% Moisture	Test Wt.
✓ CHECK	268.8		21.4	59.3
AgriGold 645-10 VT2	265.0	13	20.2	58.1
AgriGold 6579 STX	272.1	7	22.6	58.6
AgriGold 6572 STX	268.9	8	22.7	60.5
AgriGold 6544 STX	265.5	11	22.4	57.9
AgriGold XA31602 STX	227.4	28	23.0	56.8
AgriGold XA41603 VT2	247.6	25	19.3	59.5
AgriGold 642-59 STX	274.4	5	21.6	58.8
AgriGold 641-78 STX	256.9	20	21.1	60.3
DeKalb DK61-54 STX	272.2	6	21.6	59.5
AgriGold 6488 VT2	265.4	12	22.1	59.9
AgriGold 640-77 STX	265.5	10	20.9	59.0
AgriGold 6472 VT2	262.2	15	21.2	58.8
AgriGold 6462 STX	258.2	18	21.9	58.4
AgriGold 639-40 VT2	275.4	4	21.8	57.0
✓CHECK	262.0	·	21.6	59.6
AgriGold 639-41 STX	265.9	17	21.3	58.5
POWER PLUS 4J95AMX™*	251.5	26	21.7	59.8
POWER PLUS 4A67AMXT™*	283.7	2	20.9	58.9
AgriGold 6441 STX	283.2	3	21.2	58.8
AgriGold 6413 STX	263.0	22	20.8	60.2
AgriGold 636-56 STX	259.9	24	20.0	58.8
AgriGold 636-55 VT2	273.3	9	19.1	62.2
AgriGold 6416 STX	250.5	27	19.8	59.1
POWER PLUS 2B77AMXT™*	272.1	14	19.3	58.4
AgriGold 6346 VT2	266.3	16	19.1	58.1
AgriGold XA31702 STX	285.0	1	20.3	58.6
POWER PLUS 1G48AMXTTM*	264.0	21	18.9	60.3
AgriGold 6267 STX	260.8	23	18.4	59.6
AgriGold 629-22 STX	264.4	19	18.2	60.4
✓ CHECK	283.4		21.4	60.5
Average	265.6		20.8	59.2
Check Average	271.4		21.4	59.8

# Flag the technology

The thought of planting colored flags along roadsides and entry points to fields to identify herbicide-resistant crops may have seemed silly to some growers. But, after the 2017 season, the perception on this task may have changed. This year proved the importance of being knowledgeable of the herbicide programs used by neighbors, as well as being transparent with your own fields. To think, several of the herbiciderelated problems this year could have been avoided with a simple flag.

Introduced by the University of Arkansas, the Flag the Technology program aims to reduce chemical misapplications. Twenty years ago, all soybeans were conventional and growers could assume that a postsoybean herbicide was appropriate for all soybeans in the marketplace. Today, we are in a very different place when it comes to soybean weed management.

In recent growing seasons, we have seen a drastic increase in the number of LibertyLink® soybean acres. We also saw the launch of dicamba resistant Roundup Ready 2 Xtend® soybeans and anticipate the launch of 2,4-D resistant Enlist E3™ soybeans. It is

unlikely that one technology will dominate, but rather all will share the marketplace. Finding solutions to solve the misapplication problem is imperative and flags are an easy and economical choice.

There is a lot of information that can be lost or miscommunicated between a grower and their chemical company. A color-coded flag at the primary entrance of a field provides a failsafe for the grower and applicator while also notifying surrounding growers of the crop system being used. Flag the Technology has a simple color coding system associated with each herbicide trait. By utilizing the flagging system, the applicator can confirm the product in the tank matches the trait in the field.

Burrus Seed has employed the system for the past few years with great success and we encourage our growers to adopt the system as well. Flags are available through multiple online retailers. For your convenience, flags are also available for purchase from Burrus Seed. Ask your Account Manager for details. Reduce herbicide application errors and encourage responsible neighbor relationships with the Flag the Technology program.



Tom Burrus holds the flags used for each herbicide system. From top to bottom: Roundup Ready 2 Xtend, Enlist, LibertyLink, glyphosate, and conventional.

#### "At Burrus, we guarantee you a growing start."

Since 1935, we have offered a 100% Free Replant guarantee. The entire Burrus family of products brands qualify for free seed, free seed treatment, if available and free tech fees of equal or less value, if from the same technology family. Ask your Account Manager for full details.



## **Understanding plot results**

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.

Field variation is common in most plots. Differences in drainage, soil texture, soil pH, slope, 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 illustrating how yield adjustment procedures work.

First, the check hybrid is adjusted to number 2 corn then, the checks are averaged (259.0 bu/a). Next, each pair of checks is averaged and their deviation from the overall check average is recorded (either -5.1 or +11.9 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® 6C41S™ at 232.9 bu/a) is only ranked second because of its relationship to the adjacent checks. The highest-ranking hybrid on the adjusted yield column was Power Plus® 7M83AM™ at 284 7 hu/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 is easier to follow a rank than search for plus or minus values. Other companies display their adjusted yields. At Burrus, we feel uncomfortable listing Power Plus® 4J99 R™\* with an adjusted yield of 284.7 bu/a when it actually made 272.8 bu/a.

Consequently, we have 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 will 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:

Brand / Hybrid	Check Yield	Avg. 2 Checks	Deviation from Check Avg.	No. 2 Yield	Adj. Yield	Rank
√ Power Plus 4J93AM™*	282.9					
Power Plus 2N82AM™*		264.1	- 5.1	249.2	244.1	6
Power Plus 4J99R™*		264.1	- 5.1	247.0	241.9	7
Power Plus 5K33AM™*		264.1	- 5.1	268.6	263.5	4
Catalyst 6216 3111A		264.1	- 5.1	236.1	231	9
Power Plus 6C41S™*		264.1	- 5.1	276.5	271.4	2
√ Power Plus 4J93AM™*	245.3					
Power Plus 6F74AMX™*		247.1	+ 11.9	246.2	258.1	5
Catalyst 7577 3010		247.1	+ 11.9	228.5	240.4	8
Power Plus 6P73AM™*		247.1	+ 11.9	254.7	266.6	3
Power Plus 7M83AM™*		247.1	+ 11.9	272.8	284.7	1
√ Power Plus 4J93AM™*	248.8					
Plot Average	254.7					
Check Average	259.0					

Pioneer P1197AMX

#### Solid performance

Kevin Baumann, Baileyville, IL

Planted: April 25 in 30" rows. Planting Population: 35,000. Harvested: October 27. Previous Crop: Soybeans. Soil Type: Medium loam. Weather: May-wet, June-wet, July-wet, August-dry. ✓ Check Hybrid: DK64-34.

	Bu. Per		%	Test
Brand/Product	Acre	Rank	Moisture	Wt.
<b>✓CHECK</b>	283.4		22.5	59.1
AgriGold 6572 STX	281.4	1	24.0	59.6
Pioneer P1311 AMXT	266.7	10	23.2	56.3

AgriGold 6488 VT2	273.1	7	23.1	56.5
Pioneer P1366AMXT	279.2	3	24.0	58.2
AgriGold 6441VT2	257.3	14	22.8	58.3
Pioneer P0589AMXT	263.6	12	21.2	58.6
Pioneer P0825AMXT	275.0	5	22.7	56.3
DeKalb 58-06 STX	279.7	2	21.5	56.9
AgriGold 636-56 STX	277.9	4	20.4	59.0
Pioneer P0157AMXT	250.5	17	19.6	59.1
Pioneer P0574AMXT	262.3	13	20.3	58.5
Pioneer P0707AMXT	263.7	11	21.0	59.5
DeKalb 62-52 STX	274.0	6	21.6	59.3
POWER PLUS 1G39AM™*	252.6	15	20.6	59.3
POWER PLUS 4J93AM™*	268.7	9	22.0	58.8
POWER PLUS 6P73AM™*	272.5	8	22.2	57.7
✓ CHECK	283.3		23.6	58.3
Average	269.3		22.1	58.3
Check Average	283.4		23.0	58.7

252.0 16 22.7 57.8

#### Peoria County Corn/Soy, Peoria. IL

Planted: April 24 in 30" rows. Planting Population: 34,500. Harvested: October 13. Previous Crop: Soybeans. Soil Type: Silt loam. Check Hybrid: Wyffels W7578 SS. Remarks: Third party trial.

	bu. Per		70	Piants
Brand/Product	Acre	Rank	Moistu	
<b>✓</b> CHECK	266.2		20.2	58.5
POWER PLUS 3H85AMX™*	246.7	17	19.3	58.3
Becks 5883SX	231.5	18	19.3	57.1
NuTech 5L308	275.2	4	19.5	58.2
Stine 9635	251.4	16	20.0	58.9
POWER PLUS 4J95AMX™*	255.8	11	20.8	57.9
FS 60LX1	253.6	12	19.4	55.8
Golden Harvest 10T63	252.4	14	21.1	57.0
Pfister 71C1RA	253.6	13	19.7	57.3
Stone 6188 RIA	264.4	10	21.8	57.5
Becks 6365XL	268.8	7	21.2	56.6
NuTech 5L-713	264.9	9	21.5	55.5
Pfister 2770	251.6	15	22.4	58.0
Stone 6368RIB	277.7	3	21.1	57.3
Wyffels W7696RIB	278.4	1	20.4	57.8
FS 64SX1	266.8	8	21.0	59.6
Golden Harvest 15L32	269.9	6	21.4	59.1
DeKalb 66-74RIB	270.5	5	21.2	57.5
Wyffels W8268RIB	277.7	2	22.2	58.1
<b>✓</b> CHECK	269.5		20.0	59.2
Average	262.3		20.7	57.8
Check Average	267.9	_	20.1	58.9
Uneck Average	267.9		20.1	58.9

#### **SANGAMON**

#### Power Plus® 6L45AMT TM\* wins



Curtis Biesenthal, New Berlin. IL

Planted: April 22 in 30" rows. Planting Population: 34,000. Harvested: September 30. Previous Crop: Soybeans. Fertilizer: N: 194, P: 138, K: 180. Herbicide: Bicep, Halex GT. Insecticide: No. Corn Borer Rating: Light. Soil Type: Medium Ioam. Weather: May-normal, June-normal, July-dry, August-dry.

				Adj.	1000
	Bu. Per	%	%	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS 6L45AMT <sup>TM</sup> *	224.0	19.0	80	61.7	31
POWER PLUS 6P75AMX™*	214.7	15.8	95	57.0	31
POWER PLUS 6F74ANIXTM*	211.6	16.6	95	61.2	34
POWER PLUS 4J99 R™*	208.9	14.2	80	61.0	29
Cropland 5290SS	206.6	15.6	90	58.0	33
CATALYST 6216 3111A	203.6	13.7	100	56.0	33
Cropland Experimental	197.1	14.6	100	61.0	33
POWER PLUS 5K35AMXTM*	192.9	13.6	100	57.0	30
POWER PLUS 7V66AMXT™	*176.6	15.1	100	60.0	31
POWER PLUS X4A67™*	176.0	13.8	100	60.0	29
POWER PLUS 3H85AMX <sup>TM</sup> *	174.8	12.8	100	58.0	31
POWER PLUS 4J95ANIXTM*	172.0	14.7	100	59.0	23
Average	196.6	15.0	97	59 2	31

Ron Schultz, Stewardson, IL

Planted: April 25 in 30" rows. Planting Population: 33,400. Harvested: October 16. Previous Crop: Soybeans. Corn Borer Rating: Light. Weather: May-wet, June-normal, Julydry, August-dry. /Check Hybrid: Power Plus 5K33AM<sup>TM</sup>\*

	Bu. Per		%	%	Plant
Brand/Product	Acre	Rank	Moisture	Erect	/Acre
✓ CHECK	197.2		15.1	100	21
POWER PLUS 4J93AM™*	195.0	7	17.0	100	24
POWER PLUS 4J99 RTM*	182.5	10	17.0	100	23
POWER PLUS 6P73AW™*	226.0	1	16.5	100	25
POWER PLUS 6F74ANX™*	207.6	3	17.0	100	31
CATALYST 6216 3111A	204.1	5	17.0	100	22
✓ CHECK	213.7		16.4	100	21
POWER PLUS 6C41 STM*	196.2	6	18.4	100	18
CATALYST 7577 3010	185.2	8	18.3	100	18
POWER PLUS 7M83AN™*	212.4	2	18.2	100	25
POWER PLUS 5K33AN™*	204.2	4	16.5	100	17
Munson 7507	181.4	9	19.5	100	22
<b>✓CHECK</b>	192.7		17.0	100	15
Average	199.9	1	7.2	100	22
Check Average	201.2	1	6.2	100	19
-					

#### **STEPHENSON**

#### 4 of the top 5 yields go to PowerPlus® hybrids



Davis, IL

Planted: April 18 in 30" rows. Planting Population: 32,000. Harvested: October 19. Previous Crop: Soybeans. Soil Type: Medium loam. Weather: May-wet, June-wet, July-wet, August-dry.

			nuj.
	Bu. Per	%	Test
Brand/Product	Acre	Moisture	Wt.
POWER PLUS 3H85AMX™*	256.3	19.1	58.9
DynaGro 48SS76	250.1	18.3	58.9
POWER PLUS X4A67™*	248.5	19.9	58.9
POWER PLUS 3H85AMX™*	247.8	19.0	58.6
POWER PLUS 4J95AMX™*	238.4	21.3	58.2
DynaGro 52SS91	237.9	21.1	59.5
POWER PLUS 2B77AMXT™	*235.6	18.9	59.1
AgriGold 6267	232.3	17.1	57.8
POWER PLUS 1G48AMXT™	*232.0	18.3	58.7
LG Seeds 5499	223.8	17.8	58.0
DynaGro 43SS50	215.6	17.1	58.3
DynaGro 40SS48	213.1	16.3	57.7
AgriGold 6237	209.3	16.6	57.4
Average	233.9	18.5	58.5

#### **TAZEWELL**

#### Power Plus® 6P75AMX<sup>TM</sup>\* is fourth at 286.8 bu/a



**Tazewell County Corn Growers**, Morton, IL

Planted: April 18 in 30" rows. Planting Population: 33,000. Harvested: October 2. Soil Type: Medium loam. / Check Hybrid: Steyer

	Bu. Per		%
Brand/Product	Acre	Rank	Moisture
<b>✓CHECK</b>	270.8		20.9
NuTech 5L-308	260.8	21	19.3
POWER PLUS 4J95AMX™*	253.2	27	20.2
<b>✓</b> CHECK	283.0		19.8
Nu Tech 5D-709	253.8	28	20.0
Pfister 70A-1SSR	265.9	20	19.4
<b>✓CHECK</b>	277.9		21.9
Becks 6165	256.5	24	18.7
Great Lakes 6185	255.2	26	19.8
<b>✓CHECK</b>	279.5		21.4
Steyer 11104SS	253.8	25	20.2
Pioneer 1197 AMXT	280.0	6	20.0
✓ CHECK	274.5		22.9
Roeschely RX-70SS	283.2	5	20.2
Pfister 2770RASS	273.0	13	23.7
✓ CHECK	284.8		21.3
POWER PLUS 6P75AMX™*	286.8	4	20.7
Pro Harvest 8312	284.7	7	20.3
<b>✓CHECK</b>	279.5		22.8



Burrus AM Luke Turner & daughter, Lauren enjoy some father/daughter time in a tractor cab.



Craig Edler cuts his corn silage plot in Green Co., WI.



Halley Halverson is ALL ears with her dad, Brad's Power Plus® 1G39AM™\* in Dane Co.,



Kent Kleinschmidt saw a Burrus experimental top his Logan Co. plot at 247.9 bu/a.



Nettie & Kyle Embry saw the PS SDS treatment take the top 3 places in their Jo Daviess Co. plot.

## Fall herbicide programs

Jamie Long, C.C.A.

With harvest coming to an end, it is time for growers to begin prepping for the next year by applying fall herbicide to their fields. Fall herbicide applications are often made on no-till fields targeting winter annual species such as marestail (horseweed), purple deadnettle, henbit, and chickweed. Applying a herbicide in the fall can help control these weeds prior to them reaching the reproductive stage and will allow for a cleaner field prior to planting next year's crop.

#### **Application timing**

In the Burrus footprint, the application timing is likely between early October and Thanksgiving. Since the target of the fall herbicide application is the emerged winter annual species, it is important to allow the weeds time to germinate and emerge through the crop residue. Applying the herbicide too late can cause issues with poor herbicide efficacy due to reduced activity within the plant.

#### Herbicides

Fall programs typically include dicamba and/or 2,4-D plus glyphosate to control weeds that are currently emerged. To get residual control of emerging winter annual species, residuals can be applied as well. The chart shows recommended herbicide programs based on next year's crop. It is important to not rely on the residual to provide control of spring emerging weeds. Most university research shows that a soil residual herbicide in the fall will deteriorate and not control the summer annual weeds (i.e. waterhemp) in the spring.

As always, follow the herbicide label when making a herbicide application. For more information regarding fall herbicide programs for your farm, contact your Burrus agronomist.

#### Did you know?

Purple deadnettle (left) and henbit (right) are both alternative hosts of soybean cyst nematode (SCN). If these weeds are not controlled in the fall, SCN levels can continue to increase rapidly and infect the following soybean crop.





University of Kentucky, College of Agriculture, Food & Environment

Herbicide Recommendations Based on Upcoming Crop				
UPCOMING CROP	FALL HERBICIDE PROGRAM			
Any crop	Glyphosate + 2,4-D Autumn™ Super + glyphosate or 2,4-D Metribuzin + 2,4-D (excluding dandelions) Authority® MTZ + 2,4-D (excluding dandelions) Basis® / Harrow™ + 2,4-D Dicamba + 2,4-D Express® + 2,4-D			
Soybeans	Canopy® EX / Cloak® EX / Fallout™ + 2,4-D Canopy® / Cloak® DF + 2,4-D (excluding chickweed)			
Corn	Simazine + 2,4-D			

Adapted from 2017 Weed Control Guide Ohio, Indiana and Illinois

Pioneer 1311	280.4	11	20.0
Stone 62-88	275.5	15	20.4
✓ CHECK	288.5		20.4
AgriGold 6499	279.1	10	21.4
Wyffels 7888SS	284.6	8	19.1
✓ CHECK	276.3	U	22.5
Great Lakes 6462	283.3	1	20.4
AgriGold 6572	281.8	3	20.3
<b>√CHECK</b>	274.1		20.7
Steyer 11409	260.6	22	20.7
Stone 6458	273.0	12	20.4
✓ CHECK	281.0		21.1
FS 64SX1	272.0	14	20.7
Dekalb 64-87	259.9	23	20.4
✓ CHECK	278.6		20.4
Pro Harvest 8404	284.7	2	20.9
Roeschely RX 15-71	267.2	17	20.9
✓CHECK	276.6		21.8
Wyffels 8918	265.3	16	20.9
FS 66TX1	264.6	18	20.9
✓ CHECK	273.6	10	20.9
Dekalb 66-74SS	273.6	9	21.0
Becks 6674SX	260.2	19	20.8
✓ CHECK	272.2		19.6
Average	273.1		20.7

278.1

Check Average



Greg Tieman & Jenna, Colton & Eli Fitzwater saw Power Plus® 6C41 S™\* win in Saline Co., MO at 292 bu/a.



21.2

#### **SEED CORN TECHNOLOGY REVIEW**

Technology				Herbicide Refuge Req. Different insects controlled by technology									
	ECB Trait	CRW Trait	Broad Lep	RR	ш		ECB	CRW	BCW	FAW	CEW	WBC	SB
Qrome®	•	•		х	х	5% IR	С	С	С	С	S	NoA	С
Optimum®AcreMax®XTreme (AMXT)		•		х	x	5% IR	С	С	С	С	S	NoA	С
Optimum®Intrasect®XTreme (CYXR)		•		x	x	<sup>†</sup> 5%	С	С	С	С	S	NoA	С
Optimum®AcreMax®Xtra (AMX)		•		х	х	10% IR	С	С	С	С	S	NoA	С
Optimum®AcreMax®TRIsect® (AMT)				x	х	10% IR	С	C*	С	С	S	NoA	С
Optimum®AcreMax® (AM)				х	х	5% IR	С	NoA	С	С	S	NoA	С
Optimum®AcreMax®Leptra® (AML)			•	х	x	5% IR	С	NoA	С	С	С	С	С
Herculex® XTRA/RR (HXX/RR/Q)		•		x	х	20%	С	С	С	С	S	NoA	С
Herculex® XTRA (HXX)		•				20%	С	С	С	С	S	NoA	С
Herculex® 1 (HX1/RR/S)				х	х	*20%	С	NoA	С	С	S	NoA	С
Optimum® AcreMax® 1 (AM1)		•		х	х	*20%	С	С	С	С	S	NoA	С
Agrisure Duracade® 5222 E-Z Refuge®		• 0	•	х	*	5% IR	С	С	С	С	С	С	С
Agrisure Duracade® 5122 E-Z Refuge®		• 0		х	*	5% IR	С	С	С	С	NoA	NoA	С
Agrisure® 3122 E-Z Refuge®		•		х	*	5% IR	С	С	С	С	S	NoA	С
Agrisure Viptera® 3111		•	•	x	x	20%	С	C*	С	С	С	С	С
Agrisure® 3000GT				х	х	20%	С	C*	NoA	NoA	NoA	NoA	NoA
Agrisure Viptera® 3220 E-Z Refuge®			•	х	*	5% IR	С	NoA	С	С	С	С	С
Agrisure Viptera® 3110			•	х	х	*20%	С	NoA	С	С	С	С	С
Agrisure® 3010				х	х	*20%	С	NoA	NoA	NoA	NoA	NoA	NoA
Refuge Advanced® Powered by SmartStax®		• •		х	х	5% IR	С	С	С	С	С	NoA	С
Genuity® SmartStax® (GENSS)		• •		х	x	5% IR	С	С	С	С	С	NoA	С
Genuity® VT Triple PRO® (GENVT3P)		•		х		10% IR	С	C*	NoA	С	С	NoA	С
YieldGard VT Triple® (VT3)		•		х		20%	С	C*	NoA	NoA	NoA	NoA	NoA
Genuity® VT Double PRO® (GENVT2P)				x		5% IR	С	NoA	NoA	С	С	NoA	С
PowerCore™ Enlist™**				х	x	*5%	С	NoA	С	С	С	NoA	С

#### **EVENT (Protein Expressed, Insect Target)** CORN BELT REFUGE GUIDELINES

- TC1507 (Cry1F, ECB)
- MON 810 (Cry1Ab, ECB)
- BT11 (Cry1Ab, ECB)
- MON89034 (Cry1A.105 + Cry2Ab2, Broad Lep)
- DAS-59122-7 (Cry34/Cry35Ab1, CRW)
- MIR604 (mCry3A, CRW)
- MON88017 (Cry3Bb1, CRW)
- O Event 5307 (eCry3.1Ab, CRW)
- MIR162 (Vip3Aa, Broad Lep)
- DP4114 (Cry1F + Cry1Ab, ECB; Cry34/Cry35Ab1, CRW)



Power Plus® 4J93AM™\* carried the mail whether it was on top of the hill or in the bottoms for Cole & Jay Collins in Shelby Co., MO.

5% is single bag refuge with refuge blended in the bag, no separate refuge needed

<sup>†</sup>5% non-Bt refuge must be within field or directly adjacent

\*5% non-Bt refuge must be within 1/2 mile of the field

10% is single bag refuge with refuge blended in the bag, no separate refuge needed

10% & 20% means 10% of CRW refuge is blended in the bag plus 20% non-Bt refuge for ECB must be within 1/2 mile from the field

20% non-Bt refuge must be within field or directly adjacent

\*20% non-Bt refuge must be within 1/2 mile of the field \*\*2,4-D and FOP resistance

\*Refer to bag tag or Burrus Seed Product Selection Guide

ECB - European corn borer

CRW - Corn rootworm

BCW - Black cutworm

FAW - Fall armyworm

CEW - Corn earworm WBC - Western bean cutworm

SB - Common stalk borer

C - Control of the insect

C\* - Resistance may have been reported

**S** - Suppression of the insect

NoA - No activity on the insect x - Includes herbicide tolerance

RR - Roundup Ready® (glyphosate)

LL - LibertyLink® (glufosinate)

IR - Integrated Refuge

Power Plus® 5K35AMX<sup>TM\*</sup> & 4A67AMXT<sup>TM\*</sup> both achieved 295 bu/a in Whiteside Co. for Jeff Merema.



Jim Lutz, Dylan, Clayton & John Cook saw Power Plus® X4A67™\* win at 265.9 bu/a in McDonough Co.

#### **VERMILION**

#### New Power Plus®7V66AVIXT<sup>TM\*</sup> & Power Plus® X4A67<sup>TM</sup>\* go one & two



Curt Elmore, Allerton, IL

Planted: April 23 in 30" rows. Planting Population: 35,600. Harvested: October 20. Previous Crop: Soybeans. Soil Type: Medium Ioam. Weather: May-wet, June-normal, Julydry, August-dry. Remarks: Significant rainfall following planting. Stands ranged from 30-34K. 5% stalk logding from strong winds.

	Bu. Per	
Brand/Product	Acre	Moisture
POWER PLUS 7V66AMXT™*	234.3	
POWER PLUS X4A67 <sup>IM*</sup>	233.1	13.5
POWER PLUS X4A67 <sup>TM</sup> * Wyffels W7456RIB DeKalh DKC64-87RIB	231.6	15.4
DeKalb DKC64-87RIB	231.0	14.8
	230.9	14.4
Wyffels W7888RIB	229.0	15.0
Wyffels W7578RIB	228.3	13.9
Wyffels W7888RIB	227.7	16.0
Wyffels W6898RIB	225.0	14.1
POWER PLUS 6P75AMX™*	218.2	15.2
Wyffels W8918RIB	217.9	15.4
PÓWER PLUS 6L45AMT™*	217.7	15.6
Pioneer P1197AMXT	214.3	14.3
DeKalb DKC63-21RIB	211.9	14.8
DeKalb DKC66-74RIB	211.3	14.7
Allegiant 11697SS	211.2	15.2
	211.0	15.6
Allegiant 11395SS	211.0	15.4
	205.7	13.9
DeKalb DKC65-94RIB	204.0	15.3
Wyffels W8268RIB	205.7 204.0 203.7 199.3	15.9
Wyffels W7696RIB	199.3	15.3
Pioneer P1257AMXT	192.7	
Allegiant 11352VT2P	170.7	
Average	215.5	14.9
Average	210.0	14.5

#### WHITESIDE

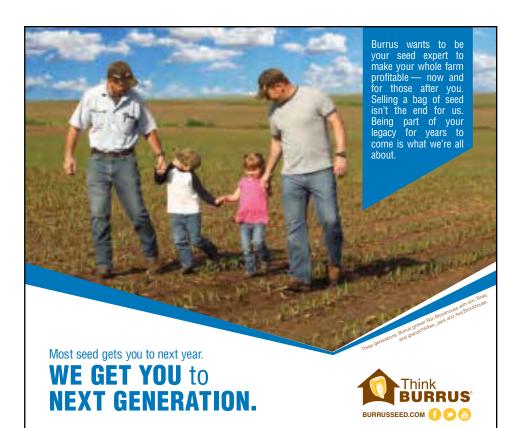
Russ Ottens, Lydon, IL

Planted: May 10 in 30" rows. Harvested: October 18. Fertilizer: N: 165. Soil Type: Medium loam.

			Adj.
	Bu. Per	%	Test
Brand/Product	Acre	Moisture	Wt.
POWER PLUS 4A67AMXT™*	254.3	20.9	57.8
POWER PLUS 5C17AMXT™*	241.0	23.2	58.4
POWER PLUS 3H85AMX™*	238.7	19.3	58.5
POWER PLUS 7V66AMXT™*	230.3	21.3	57.5
POWER PLUS 5K35AMX™*	229.1	21.0	57.4
POWER PLUS 2B77AMXT™*	221.4	19.5	57.9
POWER PLUS 6P75AMX™*	221.2	21.5	57.5
POWER PLUS 4J95AMX™*	207.6	21.7	57.0
Average	230.4	21.1	57.8

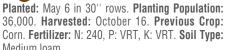


Brock Watson, son of Burrus AM Jordan & Maggie grins atop a spill of beans.



#### Power Plus® 5K35AMX<sup>TM</sup>\* & Power Plus® 4A67AMXTtm\* at 295 bu/a





			Adj.
	Bu. Per	%	Test
Brand/Product	Acre	Moisture	Wt.
POWER PLUS 5K35AMX™*	295.8	22.8	58.0
POWER PLUS 4A67AMXT™*	295.0	23.2	56.7
BURRUS X6R25	292.4	23.7	59.0
POWER PLUS 2Y06AM™*	282.3	20.2	58.0
POWER PLUS 6P75AMX™*	280.9	23.0	57.9
POWER PLUS 5C17AMXT™*	278.7	22.7	59.6
POWER PLUS 3H85AMX™*	275.2	21.3	58.3
POWER PLUS 4J95AMX™*	264.0	22.5	57.3
Dairyland Seed 9508	255.5	23.5	57.1
POWER PLUS 7V66AMXT™*	254.1	23.1	57.3
POWER PLUS 1G48AMXT™*	248.3	19.3	58.7
POWER PLUS 2B77AMXT™*	242.3	20.0	59.3
Average	272.0	22.1	58.1

#### Power Plus® 5C17AMXTIM\* & Power Plus® 4A67AMXTTM \* put more grain in the hopper

Alan Ottens, Morrison, IL

Planted: May 15 in 30" rows. Planting Population: 34,000. Harvested: October 30. Previous Crop: Soybeans. Fertilizer: N: 210. Soil Type: Medium

	Bu. Per	%	Test
Brand/Product	Acre	Moisture	Wt.
POWER PLUS 5C17AMXT™*	277.2	20.2	58.5
POWER PLUS 4A67AMXT™*	276.6	19.8	59.3
POWER PLUS 6P75AMX™*	267.8	20.4	57.4
POWER PLUS 2Y06AM™*	264.0	18.0	58.4
POWER PLUS 2B77AMXT™*	258.5	18.0	60.6
POWER PLUS 5K35AMX™*	256.7	20.5	59.1
POWER PLUS 7V66AMXT™*	248.6	20.7	59.6
POWER PLUS 4J95AMX™*	246.5	20.3	59.2
POWER PLUS 1G48AMXT™*	242.7	17.7	60.8
Average	259.8	19.5	59.2

# Questions to ask for rootworm protection

In today's economy, we are called to be efficient with our inputs. We cannot afford to have rootworm injury that can decrease yields as much as 50 bu/a, particularly when rootworm protection can vary from \$10-20/a. However, we need to avoid paying for protection that is not needed or used.

We can use history to help us make good future decisions. We know rootworm insect pressure has been somewhat cyclical with some seasons having high insect pressure and others with low. Since there are no "rescue treatments" available, a good decision-making process is necessary.

We recommend all corn following corn fields utilize some form of rootworm protection. In general, stacked traits tend to provide the most convenient season-long protection. Since rootworm traits or soil applied granular insecticides, while less convenient, can provide effective rootworm management. Some other alternatives can help under low pressure,

but can become variable if significant insect pressure exists.

The decisions are more difficult when looking at corn following soybeans. Here, we recommend asking yourself some questions to find the right solution for you.

Were rootworm beetles present in your soybeans last summer? Has your county ever experienced corn rootworm injury following soybeans? Has your farm or neighbors ever had rootworm issues following soybeans?

The answers to these questions can help you make a good decision. A "yes" to any of these questions would indicate there is a greater risk of crop injury and yield loss to rootworm some day in the future. The higher the risk of injury, the greater the value of the protection.

Do not hesitate to call our Sales Agronomists to help you work your way through the decision-making process of rootworm protection on your acres.

#### **WINNEBAGO**

#### **Power Plus® beats Pioneer** by 18.9 bu/a



Scott Burkhart, Winnebago, IL

Planted: April 24 in 30" rows. Harvested: October 18. Previous Crop: Soybeans. Soil Type: Medium loam. Weather: May-wet, June-wet, July-wet, August-dry.

Brand/Product POWER PLUS 2Y06AMTM * Pioneer P0157 AM	Bu. Per Acre <b>237.2</b> 218.3	% Moisture <b>20.2</b> 19.1	Adj. Test Wt. <b>57.3</b> 60.0
Average	227.7	19.6	58.6



#### Scott Burkhart, Winnebago, IL

Planted: April 24 in 30" rows. Harvested: October 18. Previous Crop: Soybeans. Soil Type: Medium loam. Weather: May-wet, June-wet, July-wet,

Brand/Product POWER PLUS 1G39AMTM* Pioneer P0157 AM	Bu. Per Acre <b>217.6</b> 204.6	% Moisture <b>18.4</b> 18.3	Adj. Test Wt. <b>58.9</b> 58.8
Average	211.1	18.4	58.9



Gannon (a freshman) & Griffin (a junior) Greene



PowerShield® treated beans in LaSalle Co



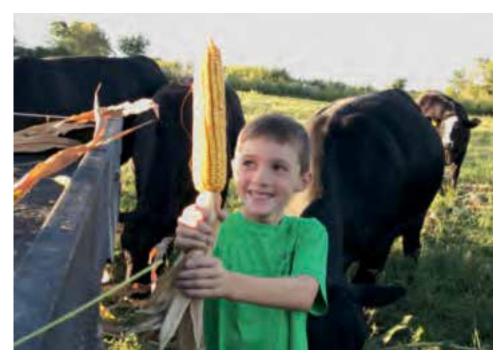
Mason & Adam Krohe, grandsons of Todd & Deb Burrus, enjoy their black cats. Mason likes soccer and being silly, while Adam likes reading and doing chores.



Three of the top four hybrids were Power Plus® for Bruce & John of Spangler Grain in Fulton Co



The Stephen & Daniel Ring corn plot was a beauty in Johnson Co., MO. They save Power Plus $^{\circ}$  and Catalyst smoke the LG & Stine hybrids.



Thomas Schuster of Cooper Co., MO exhibits Power Plus® 6C41 S™\* with a big smile on his face.

### Stalk rots

Jamie Long, C.C.A.

Stress during the grain fill period can increase the risk of stalk rots in corn prior to grain harvest. These stresses can include: disease (gray leaf spot, Northern corn leaf blight), drought, lack of sunlight, high plant populations, wind and hail injury, corn rootworm, European corn borer (2nd generation), hybrid differences, excessive soil moisture, and nutrient deficiency. When these stresses are present during grain fill, the corn plant cannot properly photosynthesize, causing a lack in carbohydrate production needed for grain fill. Since the grain is the sink of the products, the corn plant remobilizes carbohydrates from the stalk and leaf to fill the demand from the grain. This remobilization creates weakened stalks and increases the susceptibility of fungal infection and disease.

Stressed fields should be scouted early to mid-September. Pinch and push tests should be completed. For the pinch test, pinch the stalk near the bottom most node, if the stalk collapses, it fails the pinch test. For the push test, push the corn stalk to a 30-degree angle and if it does not stand back up, it fails the push test. To confirm stalk rot, split the stalk and look for discoloration near nodes. Purdue Extension's online chart, Diseases of Corn: Stalk Rots details common stalk rots and identification of each. For questions, contact your sales agronomist.

If fields have been identified to have stalk rots present, plan to harvest those fields first to avoid yield loss due to late-season lodging. For future field seasons, reduce plant stress by managing insects and disease, implementing crop rotation, planting hybrids with a good foliar disease package, and planting at a lower population.



Visible effects of stalk rot.

#### **WOODFORD**

Jim Zoss, Lowpoint, IL

Planted: April 20 in 30" rows. Planting Population: 36,000. Harvested: September 28. Previous Crop: Soybeans. Fertilizer: N: 215, P: 75, K: 105. Herbicide: PowerMax, Status. Insecticide: None. Soil Type: Medium Ioam. ✓ Check Hybrid: Channel 213-19STXRIB Remarks: 18# of Sulfur and Avaris fungicide were annlied

	Bu. Per		%
Brand/Product	Acre	Rank	Moisture
Channel 20052CTVDID	262.8	10	23.1
Channel 20953STXRIB	259.8	19	20.8
Beck 6127A3	258.6	20	22.0
Channel 210-26STXRIB	257.1	22	20.3
Pioneer P1197AMXT	270.4	9	22.9
POWER PLUS 5K35AMX™*	250.3	24	<b>20.8</b> 23.2
✓ CHECK	256.5 253.1	10	
LG Seeds LG5606STXRIB Stone Seed 6188RIB	253.1 271.6	18 3	21.4 21.5
Channel 212-20STXRIB	262.2	ა 10	21.5
Dekalb DKC62-52RIB	256.1	16	20.3
Pioneer P1257AMXT	261.3	12	21.9
CHECK	248.5	12	22.4
BURRUS X6R25	<b>262.5</b>	8	22.4
LG Seeds LG5618STXRIB	265.9	6	23.4
Sun Prairie Seeds SP 2840 R		14	24.4
XL 6365AMX	264.6	7	22.7
Dekalb DKC63-21RIB	260.2	11	21.8
✓CHECK	253.7	11	23.2
Pioneer P1311AMXT	277.7	1	23.2
FS FS 63ZX1	257.4	17	23.2
Stone Seed 6368RIB	272.9	4	24.2
Sun Prairie Seeds SP 2852 GSS	252.3	23	25.4
Channel 214-45STXRIB	272.2	5	23.3
✓CHECK	257.7	J	23.4
Beck's 6674SX	253.4	25	24.4
Dekalb DKC64-34RIB	269.0	15	23.3
	* <b>222.5</b>	26	23.0
FS FS 64SX1 RIB	284.4	2	23.0
LG Seeds LG5650STXRIB	273.1	13	24.2
Channel 216-36STXRIB	262.6	21	23.7
✓CHECK	271.1		22.3
Average	261.2		22.7
0	258.4		
Check Average	∠3ŏ.4		22.9

# Your future is in the bag.

#### **ATCHISON**

# New Power Plus® 7M83AM<sup>TM</sup>\* wins at 272 bu/a



Planted: April 26 in 30" rows. Planting Population: 32,000. Harvested: September 29. Previous Crop: Soybeans. Fertilizer: N: 180/32, P: 60, K: 60. Herbicide: Resicore, Aatrex. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-normal, July-normal, August-normal. 

Check Hybrid: Power Plus 4J93AMTM\*.

					1000
	Bu. Per		%	%	Plants
Brand/Product	Acre	Rank	Moisture	Erect	/Acre
<b>✓</b> CHECK	282.9		19.9	100	30
POWER PLUS 2N82AW™*	249.2	6	19.2	90	26
POWER PLUS 4J99 R™*	247.0	7	20.3	80	26
POWER PLUS 5K33AM™*	268.6	4	20.7	80	30
CATALYST 6216 3111A	236.1	9	21.6	100	29
POWER PLUS 6C41S™*	276.5	2	22.1	100	29
<b>✓CHECK</b>	245.3		20.1	70	28
POWER PLUS 6F74AMX™*	246.2	5	20.8	90	28
CATALYST 7577 3010	228.5	8	25.1	100	26
POWER PLUS 6P73AM™*	254.7	3	20.5	100	26
POWER PLUS 7M83AM™*	272.8	1	21.0	100	25
<b>✓CHECK</b>	248.8		21.4	80	26
Average	254.7	2	1.1	91	27
Check Average	259.0	2	0.5 _	83	28



Doug Smith and wife Sheila, Burrus CSR welcomed two new granddaughters Shae Smith & Zoey Zielonko.



Field inspections with northern Burrus AMs and Dave Hughes.

#### **AUDRAIN**

# Big yields for June planting

CE-Grain Carl Ehrlich, Ladonnia, MO

Planted: June 2 in 30" rows. Planting Population: 36,000. Harvested: October 27. Previous Crop: Soybeans. Soil Type: Medium loam. Weather: May-wet, June-wet, July-wet, August-normal.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 6C41 S™*	245.8	23.0
POWER PLUS 5K33AM <sup>TM</sup> *	233.8	21.0
Average	239.8	22.0



At 258.8 bu/a, Power Plus® 6P73AM<sup>TM\*</sup> won the Lafayette Co., MO plot for Greg Bertz & Tim Barnes



Kevin Gregory saw Power Plus® 6C41 STM\* win the Montgomery Co., MO plot at 214.5 bu/a.

#### **BOONE**

John & Zach Lorentzen, Sturgeon, MO

Planted: May 16 in 30" rows. Planting Population: 30,000. Harvested: September 30. Previous Crop: Soybeans. Fertilizer: N: 185, P: 60, K: 60. Herbicide: Corvus. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: Maywet, June-dry, July-dry, August-dry. Remarks: Replant corn.

Brand/Product POWER PLUS 4J93AMTM* POWER PLUS 4J99 RTM* POWER PLUS 6F74AMXTM*	178.4	% Moisture 19.0 19.2 20.9	% Erect 100 100	Adj. 1000 Test Plants Wt. /Acre 58.2 29 58.7 29 60.2 30
POWER PLUS 2N82AM™* POWER PLUS 5K33AM™*	172.3 169.8	18.9 20.2	100 100	58.7 27 62.0 27
CATALYST 7577 3010 <sup>TM*</sup> POWER PLUS 6P73AM <sup>TM*</sup> CATALYST 6216 3111A	168.0 159.9 157.3	26.0 22.0 20.5	100 100 100	58.5 27 60.5 26 56.2 26
POWER PLUS 6C41 STM* Average	<b>149.9</b> 168.8	<b>22.2</b> 21.3	1 <u>00</u> 100	<b>60.0 28</b> 59.4 28

# Burrus Sales Agronomist Jamie Long needs a longer arm to measure Power Plus® 6C41 STM\*. Lewis 1308 VT2P 231.9 /CHECK 225.2 POWER PLUS 7M83AMTM\* 241.7

# Power Plus® 6P73AM<sup>TM</sup> tis first at 255 bu/a



Planted: April 19 in 30" rows. Harvested: October 11. Previous Crop: Soybeans. Fertilizer: N: 180, P: 18, K: 18. Herbicide: Atrazine, Me-Too Lachlor, Roundup. Insecticide: None. Corn Borer Rating: Light. Soil Type: Silty clay loam. Weather: May-normal, June-dry, July-wet, August-normal. Check Hybrid: Agrigold 6499.

Brand/Product	Bu. Per Acre	Rank	% Moistur
<b>✓CHECK</b>	229.0		16.0
Stine 9742-20	202.5	19	15.6
Stine 9737-20	209.1	18	16.0
Stine 9734	199.0	21	16.4
Stine 9814-11	229.1	11	19.5
Lewis 1315 VT2P	249.3	2	17.3
Lewis 1414 VT2P	231.5	9	16.8

Lewis 1308 VT2P	231.9	7	16.
<b>√CHECK</b>	225.2		16.
POWER PLUS 7M83AM™*	241.7	4	17.
POWER PLUS 6P73AM™*	255.0	1	17.
POWER PLUS 5K33AM™*	232.7	10	16.
POWER PLUS 4J93AM™*	228.6	15	16.
<b>√CHECK</b>	236.2		16.
DeKalb 65-94 SmartStax	240.7	8	16.
DeKalb 64-35 VT2P	243.6	6	16.
DeKalb 62-52 SmartStax	234.0	17	16.
DeKalb 59-50 VT2P	208.4	20	15.
<b>√CHECK</b>	236.4		16.
AgriGold 6659 VT2P	251.2	3	17.
AgriGold 6652 VT2P	228.5	16	17.
AgriGold 6579 VT2P	228.9	14	17.
AgriGold 6572	230.9	13	16.
AgriGold 6544	241.4	5	17.
AgriGold 6559	230.9	12	16.
<b>√CHECK</b>	225.0		16.
Average	230.8		16.
Check Average	230.4		16.4

#### Stalk us!















Mark Butler of HIP Advertising prepares the planter with Tom Burrus during a spring photo shoot



Sheldon & Patty Davis saw their son Derek's Atchison Co., MO plot top entry Power Plus® 7M83AM™\* vield 272.8 bu/a.



Mark & ChaRae Penn saw Power Plus<sup>®</sup> 4J93AM™\* win at 287.1 bu/a in Knox Co., MO.

#### **CARROLL**

Kevin Casner, Carrollton, MO

Planted: May 3 in 30" rows. Planting Population: 32,000. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N:190. Herbicide: Generic Glyphosate, Corvus, Laudis, Atrazine. Insecticide: Warrior, Lambda II. Soil Type: Medium Ioam. Weather: May-normal, June-normal, July-normal, August-normal.

**Remarks:** Plot weighed by Beck's. No compensation for the check was used in the ranking of these results.

				Adj.	1000
	Bu. Per	%	%	Test	Plant
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
Beck's 6674SX	264.6	17.0	100	63.1	32
Beck's 6589V2P	262.0	17.2	100	61.8	32
POWER PLUS 7M83AM™*	260.4	16.8	100	62.3	32
Beck's 6368SX	259.9	16.7	100	58.5	32
POWER PLUS 6P73AMTM*	258.7	16.1	100	61.8	32
Beck's 6365AM	257.5	16.5	100	61.2	32
Beck's 6127A3	257.2	16.6	100	64.2	32
Beck's 6127A3	256.9	16.5	100	61.3	32
Phoenix 5832A3	250.8	16.5	100	62.5	32
Beck's 5828AM	250.7	15.2	100	61.9	32
Pioneer P1197AM	250.4	15.7	100	60.6	32

Beck's 6076V2P	250.1	14.4	100	61.6 32
Beck's 5829A4	249.8	14.5	100	59.1 32
POWER PLUS 4J93AMTM*	249.3	15.2	100	60.5 32
Beck's 6225HR	248.9	16.7	100	62.8 32
Beck's 6127A3	248.7	17.5	100	62.0 32
POWER PLUS 5K33AMTM1	247.2	16.2	100	62.0 32
Beck's 6127A3	245.0	17.1	100	63.9 32
CATALYST 6216 3111A	245.0	15.8	100	58.4 32
Beck's 6165AM	244.9	15.5	100	62.3 32
Beck's 6948A3	244.9	18.1	100	60.6 32
Beck's 6127A3	244.0	17.9	100	61.9 32
Beck's EX 1708	241.9	15.1	100	60.8 32
CATALYST 7577 3010	241.8	19.6	100	59.9 32
Beck's 6127A3	239.4	17.5	100	63.2 32
POWER PLUS 6F74ANXTM*	236.7	15.6	100	62.8 32
POWER PLUS 6C41 STM*	233.6	17.5	100	62.8 32
Average	249.6	16.5	100	61.6 32

## Corn rootworm pressure update

Stephanie Porter, C.C.A.

Overall, corn rootworm (CRW) populations were low this past season, but many growers are aware this important pest's populations are slowly, but surely increasing. Overwintering eggs start to hatch in the spring, around the time you see lightning bugs or cottonwood trees shed seeds. Last year's mild winter, followed by favorable conditions at rootworm egg hatch, helped populations to slightly increase in 2017. Root feeding can take place throughout the summer or until the emergence of either western CRW or northern CRW beetles.

Some say when the population of western CRW decreases, populations of northern CRW can increase. In some areas, northern CRW have developed extended diapause, which means they overcome a corn/soybean rotation by emerging after two years. The western CRW developed a way to overcome not only corn/soybean rotation by laying eggs in soybean fields, but also have become resistant to traits, which are the best tools against this pest.

A corn root dig is one of the best ways to evaluate CRW pressure for the following year. The Burrus research team evaluated rootworm injury within plots across the Burrus territory, with a more extensive protocol set-up within

research plots. An evaluation of conventional hybrids within rootworm "hotspots" revealed low to no rootworm pressure.

Many Midwestern states conducted insect surveys and reported low beetle numbers. However, in Illinois, beetle per plant averages are low, but have increased when compared to the last several years. For more information, read *Increased Insect Densities Reflected in Annual Corn and Soybean Survey*, by Kelly Estes.

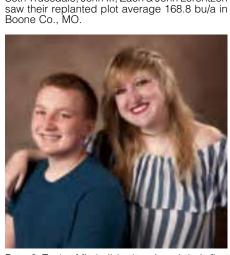
In the instance of corn planted after corn, we always recommend protecting corn roots against CRW, but we continue to encourage crop rotation. Keep records and rotate to different Bt traits or plant non-Bt corn with soil insecticide (following crop rotation). In areas of heavy rootworm pressure, a pyramid Bt corn may be needed. Unfortunately, research has shown that the use of an insecticide with Bt trait(s) can accelerate resistance to both management strategies. It is best to evaluate CRW on a field by field basis, even if you have used soil insecticide or transgenics. Those that have not used CRW management strategies because of low pest pressure the last few years should plan now! Be aware, especially during the seed selection process, that CRW could be coming back to your field or a field near you!



Rootworm feeding on a non-rootworm traited hybrid near Fulton  ${\sf Co.}$ 



Burrus research team evaluates roots for CRW injury with Nick Tinsley of Bayer CropScience. (L to R) Griffin Greene, Nick Tinsley, Stephanie Porter and losh Gunther.



Seth Truesdale, John III, Zach & John Lorentzen

Pete & Taylor Mitchell both enjoyed their first jobs this summer. Taylor is looking forward to attending Mizzou next year, while Pete will start his first year of high school.



Burrus AM Justin Parks with Power Plus® 4A67AMXT™\* in Whiteside Co.

#### **CHARITON**

#### Power Plus® 6P73AM brand makes 253.8 bu/a



Planted: April 18 in 30" rows. Planting Population: 31,000. Harvested: October 4 Previous Crop: Soybeans. Fertilizer: N: 120Nh3 60-side dress, P: VRT , K: VRT. Herbicide: Degree Xtra, Atrazine, Permethrin. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium Ioam. Weather: May-normal, Junenormal, July-dry, August-dry.

	Bu. Per	%	Test	Plants
Brand/Product	Acre	Moisture	Wt.	/Acre
POWER PLUS 6P73AM™*	253.8	15.2	58.5	30
POWER PLUS 6C41 S™*	248.2	17.0	60.3	30
POWER PLUS 7M83AM™*	247.8	15.5	59.0	30
POWER PLUS 4J93AM™*	245.7	15.0	58.0	30
CATALYST 7577 3010	237.6	17.0	56.3	29
POWER PLUS 5K33AM™*	232.7	15.2	58.0	30
POWER PLUS 6F74AMX™*	221.0	14.9	61.0	30
Average	241.0	15.7	58.7	30

#### Table 1. Mean number of western corn rootworm beetles per plant in corn by crop reporting district and year.

and the property of the proper							
DISTRICT	2011	2013	2014	2015	2016	2017	
Northwest	0.26	0.33	0.05	0.02	0.02	0.10	
Northeast	0.15	0.20	0.02	0.00	0.02	1.95	
West	0.01	0.10	0.01	0.01	0.00	0.75	
Central	0.35	0.37	0.74	0.02	0.05	0.30	
East	0.31	0.81	0.51	0.01	0.01	0.40	
West-southwest	0.01	0.20	0.06	0.00	0.01	0.70	
East-southeast	0.02	0.01	0.00	0.00	0.00	0.00	
Southwest	0.00	0.00	0.00	0.01	0.01	0.15	
Southeast	0.00	0.03	0.01	0.00	0.02	0.20	

Means were determined by counting the number of beetles on 20 consecutive plants for between 15 and 50 fields per district.

Adapted from Insect Densities Reflected in Annual Corn and Soybean Survey, U of I Bulletin, by Kelly Estes, University of Illinois

Bt Trait Proteins to Contol Corn Rootworm & Resistance Status					
TRADE NAME	EVENT	PROTEIN(S)	REASON FOR RESISTANCE		
YieldGard® RW	MON88017	Cry38b1	Field-evolved resistance due to western CRW being continually exposed to the same management tactic after resistance developed.		
Agrisure <sup>®</sup> RW	MIR604	mCry3A	Cross-resistance or western CRW populations resistant to Cry3Bb1, will likely also be resistant to mCry3A.		
Herculex® RW	DAS-59122-7	Cry34/35Ab1	Most recent field-evolved or greater than expected injury and incomplete resistance because survival of western CRW on Bt corn was less when compared to non-Bt corn. Limited in its geographic distribution within lowa.		
Agrisure Duracade®	5307	eCry3.1Ab	Not launched because of regulatory approval in China. Only available stacked with Agrisure RW with insect resistance management in mind. Cross-resistance or western CRW populations resistant to Cry3Bb1, will likely also be resistant to eCry3.1Ab.		

Stephanie Porter, Burrus Seed Sales Agronomist



Power Plus® 7M83AM™\* won in Chariton Co., MO at 223.3 bu/a for Todd & David Emmerich of Big Red Farms & Owen Burris

#### Mike Spencer, Mendon, MO

Planted: April 19 in 30" rows. Planting Population: 30,000. Harvested: September 27 Previous Crop: Soybeans. Fertilizer: N: 180-Nh3, P: 80, K: 90. Herbicide: Corvus, Atrazine. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium Clay. Weather: May-normal, June-normal, July-dry, August-dry. Remarks: North plot.

	Bu. Per	%	Test Plants
Brand/Product	Acre	Moisture	Wt. /Acre
POWER PLUS 6C41 S™*	218.5	17.2	62.3 27
POWER PLUS 7M83AM™*	217.2	15.5	60.0 28
POWER PLUS 6P73AM™*	216.9	14.6	59.0 27
POWER PLUS 5K33AM™*	215.2	14.5	59.5 25
POWER PLUS 4J93AM™*	207.0	14.1	58.0 25
POWER PLUS 4J93AM™*	200.0	15.0	59.5 26
CATALYST 6216 3111A	198.1	14.0	58.0 27
POWER PLUS 6F74AMX™*	197.8	14.7	62.0 25
CATALYST 7577 3010	194.4	17.5	59.4 27
Average	207.2	15.2	59.7 26

#### Mike Spencer, Mendon, MO

Planted: April 19 in 30" rows. Planting Population: 30,000. Harvested: September 27. Previous Crop: Soybeans. Fertilizer: N: 180-Nh3, P: 80, K: 90. Herbicide: Corvus, Atrazine. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium Clay. Weather: May-normal, June-normal, July-dry, August-dry. Remarks: South plot.

			Aaj. 1000
	Bu. Per	%	Test Plants
Brand/Product	Acre	Moisture	Wt. /Acre
POWER PLUS 5K33AM™*	193.7	13.3	60.0 25
POWER PLUS 4J93AM™*	183.5	13.0	59.8 26
POWER PLUS 6C41 S™*	175.1	16.5	61.2 27
POWER PLUS 6F74AMX™*	172.5	14.3	61.0 25
POWER PLUS 4J93AM™*	170.5	13.0	60.0 25
CATALYST 6216 3111A	166.5	13.0	56.0 27
POWER PLUS 6P73AM™*	159.7	13.5	58.0 27
POWER PLUS 7M83AM™*	159.4	14.0	60.0 28
CATALYST 7577 3010	155.4	17.5	58.4 27
Average	170.7	14.2	59.4 26

#### Big Red Farms, Salisbury, MO

Planted: April 21 in 30" rows. Planting Population: 30,000. **Harvested:** October 24. **Previous Crop:** Soybeans. **Fertilizer:** N: 180, P: 80, K: 100. Herbicide: Bicep, Atrazine. Corn Borer Rating: Moderate. Soil Type: Light loam. Weather: Maynormal, June-normal, July-dry, August-dry. 
✓ Check Hybrid: Power Plus 4J95™\*. Remarks: The plot didn't get the second pass of the chem program.

Brand/Product	Acre	Rank	Moisture	Wt.	/Acre
✓ CHECK	194.7	Hullik	15.7	58.0	25
BURRUS 669702	224.9	8	16.1	61.0	
BURRUS 317772	214.4	13	16.6	60.2	25
BURRUS 537061	202.7	18	15.7	59.0	26
✓ CHECK	151.2		16.4	57.0	26
POWER PLUS 4J99 R™*	166.6	21	16.0	58.0	26
POWER PLUS 4J93AM™*	179.8	16	15.8	58.0	27
POWER PLUS 4J95ANIXTM*	137.9	25	16.2	58.0	26
POWER PLUS 5K35AWXTM*	163.2	22	16.8	59.2	26
POWER PLUS 5K33AM™*	188.7	11	15.9	59.0	27
POWER PLUS 6C41 S™*	211.3	2	17.1	63.3	27
<b>✓</b> CHECK	136.1		15.6	58.5	26
CATALYST 6216 3111A	159.3	20	15.5	55.0	27
POWER PLUS 6F74AMX <sup>TM*</sup>		12		62.8	27
POWER PLUS 6N83AM™*	152.8	23	17.5	58.4	25
BURRUS 791838	175.9	14	17.2	61.3	27
<b>✓</b> CHECK	134.2		15.6	57.5	26
POWER PLUS 7V66AWXT <sup>TM</sup> *		-	16.3	61.0	27
POWER PLUS 6P73AM™*		-	15.5	58.0	27
BURRUS 794551	210.5	_	16.0	56.0	
POWER PLUS 7M83AMTM*		1	16.0	60.0	27
<b>✓CHECK</b>	171.2		15.5	57.0	
BURRUS 296832	211.9	10		58.5	
BURRUS 6T54 3000GT	169.4	24	16.4	60.0	
CATALYST 7577 3010	192.6	19	17.0	58.3	26
BURRUS 436792	203.6	15	16.2	59.0	27
✓ CHECK	157.4	_	15.5	57.5	26
	213.4		16.3	59.0	27
	222.2		16.4	61.0	27
BURRUS 156455	212.3	7	16.0	61.0	27
BURRUS 351612	193.5	17	16.2	59.5	27
✓ CHECK	158.3		15.5	58.0	26
Average	185.3		16.2	59.0	26
Check Average	157.6		15.7	57.6	26









# Schutz family named Farm Family of the Year

David Schutz and his son Brad represent the third and fourth generations operating their family farm in west central Illinois. To recognize their many efforts and dedication both on and off the farm they were honored as the 2017 Illinois Farm Family of the Year by *Illinois AgriNews* and Burrus Seed at the University of Illinois' Salute to Agriculture Day on September 9th.

It is a team effort involving the entire family that gets the work done on their 1,800-acre corn and soybean farm located near Hillview, IL. While David and Brad are directly involved in the crop production, David's wife, Debbie, and Brad's wife, Julie, are busy working behind the scenes helping to shuttle equipment, handling the bookkeeping duties, and keeping a watchful eye that the family is safe and moving forward. Even Brad and Julie's children, Owen, 10; Sydney, 7; and Violet, 6 pitch in when needed. David and Debbie's daughter, Alyssa, resides in Chicago with her husband Eriks Zusevics.

The Schutz family is very active in the White

Hall First Christian Church. David has also served on the local school board, the elevator board, and the Quincy area Walk to Emmaus board. Debbie has been a nurse for 35 years. They are both strong supporters of the local school's sports program and FFA.

The Schutz family and Burrus have partnered for many years. The father-son team are Burrus Dealers and have planted both corn and soybean research plots for several years.

David and Brad work closely with Burrus Sales Manager Tim Carmody. He nominated them for the award. "The family members that make up David and Brad Schutz Family Farms epitomizes what makes rural America and independent family farming operations the backbone of American agriculture," wrote Carmody. "This west central Illinois farm family toils together, worships together, plays together, and has come to know great successes as well as disappointments working the land that now has the fifth generation of this family living on its soil. This family is what Illinois farm families exemplify."



22017 Illinois Farm Family of the Year honors went to the Schutz family of Hillview, IL. On hand for the event were Violet, Owen and Sydney Schutz (front) and (back) Brad Schutz, James Henry of the *Illinois AgriNews*, Julie, David, Debbie Schutz, Tom Burrus, Alyssa (Schutz) and Eriks Zusevics.



New Power Plus® 24F8™\* won at 77.4 bu/a in Kankakee Co. for Jason & Dianna Zimmer.



Dan Schuster saw Power Plus® 6P73AM™\* roll out 278.7 bu/a in Cooper Co., MO.



5 of the 6 top yields were Power Plus® Hybrids for Wayne & Stan Harmsen of Clinton Co., IA.



Burrus Intern Griffin Greene spotted oospores for the first time



Tom Burrus used a field sign to view the solar eclipse in Jacksonville, IL.

#### **COOPER**

# Power Plus® 6P73AM<sup>TM</sup>\* made 278.7 bu/a

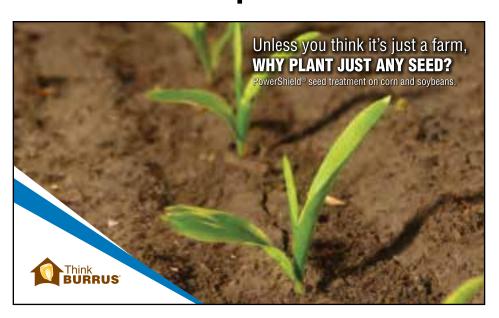
Schuster Farms, Blackwater, MO

Planted: April 9 in 30" rows. Planting Population: 32,000. Harvested: October 17. Previous Crop: Soybeans. Soil Type: Heavy loam. Remarks: Poorly drained.

Moisture
15.8
14.8

POWER PLUS 6P73AMTM* Pioneer P1637AM Pioneer P1197AM Pioneer P1316AM POWER PLUS 7M83AMTM* Pioneer P1442AM POWER PLUS 5K33AMTM* POWER PLUS 6C41 STM* POWER PLUS 4J93AMTM*	278.7 272.9 271.4 269.8 268.8 268.5 261.0 254.5 253.8	14.9 15.2 14.7 15.1 15.5 15.6 15.5 15.8 15.0
	253.8 253.0 246.0 242.3	
Pioneer P0707AM POWER PLUS 6F74AMX™* Average	241.9 <b>241.7</b> 261.5	15.1 <b>15.2</b> 15.2

# Check out burrusseed.com for more plot results







#### burrusseed.com MAKE IT YOUR HOMEPAGE!



Blayden Palmer put in a full day of work during harvest 2017

#### **GRUNDY**

G&B Farms-Aaron & Gary Bunnell, Trenton, MO

Planted: April 18 in 30" rows. Planting Population: 30,000. Harvested: September 22. Previous Crop: Soybeans. Fertilizer: N: 210, P: VRT, K: VRT. Herbicide: Roundup 2,4-D. Insecticide: Hero. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-normal, July-dry, August-dry. ✓ Check Hybrid: Power Plus 4J93AM™\*.

					1000
	Bu. Per		%	%	Plants
Brand/Product	Acre	Rank	Moisture	Erect	/Acre
✓ CHECK	219.7		19.6	100	30
POWER PLUS 6C41 S™*	217.8	5	22.6	100	28
CATALYST 7577 3010	208.9	7	22.4	100	27
POWER PLUS 7M83AN™*	232.5	2	20.8	100	30
POWER PLUS 6F74AWX <sup>TM*</sup>	201.7	8	21.5	100	26
✓ CHECK	206.3		18.4	100	26
POWER PLUS 6P73AMTM*	205.5	3	20.0	100	27
<b>CATALYST 6216 3111A</b>	203.7	4	18.1	100	28
POWER PLUS 5K33AN™*	223.8	1	18.1	100	29
POWER PLUS 4J93AM™*	199.9	6	17.6	100	27
POWER PLUS 2N82AMTM*	109.9	9	18.3	100	28
<b>✓CHECK</b>	189.4		18.5	100	28
Average	201.6	1	9.7	100	28
Check Average	205.1	1	8.8	100	28



Tracy & Beth Jones are presented with a Master Farmer award by Holly Spangler of *Prairie Farmer*.

#### **JOHNSON**

Steven & Daniel Ring, Centerview, MO

Planted: April 15 in 30" rows. Planting Population: 30,000. Harvested: October 16. Previous Crop: Soybeans. Fertilizer: N: 150, P: 50, K: 50. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-wet.

				Adj.	1000
	Bu. Per	%	%	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS 2N82AMTM <sup>*</sup>	206.4	16.1	100	58.0	28
POWER PLUS 4J93AM™*	203.8	15.9	100	58.0	28
CATALYST 6216 3111A	202.2	18.3	100	61.5	29
POWER PLUS 5K33AM™*		14.6	100	55.0	26
POWER PLUS 6F74AMX <sup>TM</sup>	193.9	16.7	100	60.2	31
CATALYST 7577 3110	191.1	15.9	100	60.0	28
POWER PLUS 7M83AM™*	189.6	17.0	100	59.3	28
POWER PLUS 6C41 S™*	186.5	16.0	100	59.0	27
POWER PLUS 4J93AM™*	185.5	16.3	100	61.0	28
POWER PLUS 6P73AM ™*	176.6	18.1	100	61.5	30
LG Seeds 5643	174.8	15.7	100	59.0	29
LG Seeds 5618	168.5	18.6	100	59.6	28
Stine 9808	159.6	17.6	100	61.4	26
Average	187.3	16.7	100	59.5	28



Todd Emmerich wore his camo Burrus cap at the Colosseum in Rome.

# A new solution for rootworm problems

# **★** Agrisur∈Duracade®

Corn rootworm (CRW) are more than a pest to many growers today. They are an unpredictable, destructive insect costing an estimated \$1 billion annually in control measures and yield loss. While some growers are seeing certain rootworm traits (Cry1 3ab) failing, others are not yet seeing CRW pressure in their fields. Regardless of experience, all growers can agree on the importance of finding innovative pest management. Preservation of traits, and rootworm technology in general, is a key focus for new products entering the market.

Syngenta has developed an exciting new product to combat rootworms called Agrisure Duracade®. This proprietary rootworm technology features a unique mode of action to protect against Western, Northern and Mexican CRW. Agrisure Duracade stands out among currently available traits; it expresses a protein that binds differently in the gut of the rootworm. The Agrisure Duracade trait helps develop a healthier, more robust root system for optimal water and nutrient uptake. Stronger roots lead to healthier plants that stand all season, realizing the crop's genetic yield and increased profit potential.

When it comes to CRW, management is key. Long-term control of CRW requires a multi-year, whole farm approach. It is essential to achieve a balance between CRW control, yield protection, and resistance management.

Because of this, effective CRW management requires the integration of multiple control measures and not a singular technology.

Agrisure Duracade will only be available stacked with a second corn rootworm trait, Agrisure® RW (MIR604). The most comprehensive stack will be Agrisure Duracade 5222 E-Z Refuge®. This trait package will include the Agrisure Duracade trait along with Agrisure RW, Agrisure® CB/LL, Herculex® I, Agrisure Viptera® and Agrisure GT traits. Growers will have two control measures for both rootworm and corn borer along with glyphosate tolerance and the Agrisure Viptera trait for protection against the most destructive lepidopteran corn pests. The Agrisure Duracade 5222 E-Z Refuge® trait stack provides a convenient 5% integrated, single bag refuge option for corn growers.

The Burrus research team has viewed the Agrisure Duracade technology in plot locations and put this technology through our battery of tests. Agrisure Duracade is fully approval for sale in the United States and Canada and for export to a number of importing markets.

Burrus has seed corn production of an Agrisure Duracade product, but will not release it until full regulatory approval is granted worldwide. Contact your Burrus Account Manager for Agrisure Duracade stewardship information. We will keep you updated on all the latest developments.

Consult bag tags for E-Z Refuge product herbicide options: only those labeled GT/LL may be sprayed with glufosinate



#### KNOX

#### Penn Farms, Edina, MO

Planted: April 16 in 30" rows. Planting Population: 33,000. Harvested: September 20. Previous Crop: Soybeans. Soil Type: Medium loam. Weather: May-normal, June-dry, Julywet, August-wet. /Check Hybrid: Burrus 6T54 3000GT. Remarks: Cherry Box River Bottom.

	Bu. Per		%	%	Plants
Brand/Product	Acre	Rank	Moisture	Erect	/Acre
<b>✓</b> CHECK	281.2		29.0	100	33
POWER PLUS 6P73AM	277.9	2	28.1	100	33
<b>✓</b> CHECK	257.9		31.0	100	33
POWER PLUS 6P73AM	278.5	3	28.0	100	33
POWER PLUS 4J93AM	287.1	1	30.2	100	33
<b>✓</b> CHECK	283.8		31.0	100	33
Average	277.7	2	9.6	100	33
Check Average	274.3	3	0.3 _	100	33

#### Byron & Loren Harder, Novelty, MO

Planted: April 20 in 30" rows. Planting Population: 28,000. Harvested: October 12. Herbicide: FulTime, Atrazine. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-dry.

				Auj. 1000	
	Bu. Per	%	%	Test Plants	ŝ
Brand/Product	Acre	Moisture	Erect	Wt. /Acre	i
POWER PLUS 4J90™*	238.4	17.2	100	58.3 27	
POWER PLUS 4J90™*	221.9	17.8	100	58.5 27	
Average	230.2	17.5	100	58.4 27	



An unusual location to spot a Burrus Seed field marker while a plot was harvested in MO!



Jacob Bryant & Byron Harder saw amazing yields from Power Plus® 4J90 $^{\text{TM}}$ \* in Knox Co., MO with dry conditions in June, July, & August.



Jeff & Ron Schultz saw Power Plus® 6P73AM<sup>TM\*</sup> take first in Shelby Co.



David Scholl & Lara Carlson-Scholl participated in the Galesburg, IL Labor Day parade.



Beau Leedle helps Burrus AM Brad Kufalk load the planter for a Walworth Co., WI plot.

Stewardship is important at Burrus

# PowerShield® upgraded with two modes of insecticide

Since we moved to Poncho® 500/VOTiVO®. we have yet to furnish replant for black cutworm, wireworm, and white grubs. So why would we change our inputs? Stewardship. As you know, Burrus is a proponent of taking the best possible care of our environment. With this in mind, we are now using Lumivia insecticide. Lumivia utilizes an active ingredient different than clothianidin which is the base chemistry in Cruiser® and Poncho® seed treatments. Research has shown that Lumivia has minimal impact on the environment and beneficial insects and pollinators when used in accordance to the label. Use of Lumivia enables us to preserve the efficacy of clothianidin while also being stewards of the environment. For those with nematodes in their soil profile,

we offer HP or high rate Poncho, treated seed with Poncho $^{\circ}$  1250/VOTiVO $^{\circ}$  for a \$10 per unit upgrade.

Lumivia® provides a new mode of action for corn. It is fast acting against soil pests and systemically translocates upward protecting the seed, roots, and developing seedling stem and leaves. Wireworms can feed on the young plants, roots, and seeds even at 29 days after emergence; Lumivia will protect plants up to 60 days after planting. Lumivia has low to no impact on beneficial arthropods and pollinators and has an excellent environmental, ecological, and toxicological profile. Adding Lumivia is just another step Burrus is taking to make sure our growers are set-up for success.

The beauty of trademarking our

PowerShield® label is that we can upgrade components as new and better options are developed, keeping it the best seed treatment available! This year, replant was higher than normal, almost twice our 10-year average, and yet, we were over three times better than some major competitors. Some have asked how and why? We have better seed treatment and higher cold germinations. The cold, wet weather in 2017 planting time separated the men from the boys on replant.

You can trust that we are always willing to make the changes necessary to offer the very best products and services available. If you have questions about our seed treatments and how they can help your bottom line, contact your Burrus Account Manager.

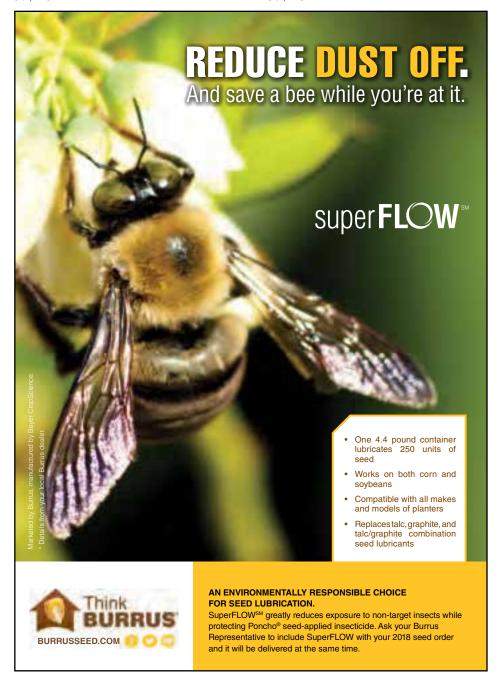




Donnie, Connie, Danny & Dakota McCormick saw Power Plus® 6P73AM<sup>TM\*</sup> win in Chariton Co., MO.



The McCormick family harvests in Chariton Co., MO.



# Five questions to decide on corn fungicides

#### **Stephanie Porter**

If you are trying to decide if fungicides are needed, here are some questions you need to answer:

- 1. What growth stage is the plant? Fields should be scouted for disease at tassel. Ideally, the best time to scout is right before pollination. If you are busy, and would like to press the "easy button," you can take advantage of the MyFarms<sup>SM</sup> gray leaf spot and scouting alerts.
- 2. Have you had issues with leaf disease in the past or is there a high amount of residue in the corn field? Previously high yielding corn fields, corn-on-corn, or no-till fields could contain high residue that may harbor disease. If so, you may be more at risk for gray leaf spot or northern corn leaf blight.
- 3. How susceptible is your hybrid? Every corn hybrid has a disease rating for gray leaf spot or northern corn leaf blight. Check the disease rating for your hybrid, if it is low you may be more likely to need a fungicide if disease pressure is high. Another tool is the use of the fungicide response chart found on the Grower Charts page of our website.
- 4. Are there disease symptoms near the ear of the plant or upper canopy? We become very concerned the closer that diseases such as gray leaf spot develop within the lower canopy and move upwards towards the ear of the plant. For example, in ideal conditions for disease development, I have observed the spread of gray leaf spot to the next leaf up on the plant within 3 days. Since diseases such as NCLB and southern rust can blow into your field, your goal should be to scout the entire field for symptoms (not just field edges) and to keep the upper canopy disease free.
- 5. What is the future weather outlook? Temperatures, humidity, and wet weather in the forecast should also be taken into consideration when contemplating fungicide use on a susceptible hybrid.

In the case of fields with uneven corn growth, always read fungicide label. However, it is best to wait until the entire field is flowering or at the VT growth stage. This becomes especially important if a nonionic surfactant is used in conjunction with a fungicide. There is a risk of injuring corn with applications made after V8 or before VT.

	GRAY LEAF SPOT (Cercospora zea-maydis)	NORTHERN CORN LEAF BLIGHT (Setosphaeria turcica)	SOUTHERN RUST (Puccinia polysora)
FUNGAL SPORE SURVIVAL	Overwinters in leaf debris	Overwinters in leaf debris	Windblown from the south
TEMPERATURES	75 - 85 degrees F	64 - 80 degrees F	80 - 90 degrees F
HUMIDITY / MOISTURE	High humidity / wet	Prolonged moisture / dew	High humidity / wet / dew
PLANT PART AFFECTED	Leaves	Leaves	Leaves, stalks, husks, ears
OCCURRENCE	Silking to maturity	Silking or after silking	As soon as spores arrive
LESION DEVELOPMENT	10 to 14 days	7 to 12 days	6 to 10 days
MANAGEMENT	Resistance / tillage / rotation / fungicides	Resistance / fungicides	Resistance / fungicide

#### **GUIDE TO ACCURATE CORN PLANTING**

Use the chart below for setting your planter.

John Deere Finger Pickup Kinze Finger Pickup *1	Reduce speed 10% 35-39# Reduce speed by 33% below 35#
John Deere Vacuum Pickup	A50617 40-88#, A43215 25-50#, H136478 25-35#
Case IH & IHC Early Riser	Corn Drum 30-80#, Popcorn Drum less than 35#, E pocket drum for problem sizes
Case IHC 1200 New Holland SP Series	4855 Disc for 30-70#, 4845 disc below 50#
Ford or White Air 5400	247396B 57-73#, 247454B 42-62#, 247535B 28-50#
White Air 5100	247917B 57-73#, 247707B 42-62#, 248505B 28-50#, 247957B 22-33#
White Air 6000 New Idea 9000	852434 57-73#, 852435 42-62#, 852436 25-50#, 852437 22-33#
Deutz Allis	Seed Disc X Large (585805) 59# & over, Large (586141) 45-60#, Medium (585807) 39-52#, Sm/Medium (1501872) 30-39#, Small (587485) 30# & less



Details are double checked in preparation for planting the Phil Henke corn plot in Saline Co., MO.



#### **LAFAYETTE**

#### First Missouri 300 bu/a vield of the season!



David Dobson, Lexington, MO

Planted: April 19 in 30" rows. Planting Population: 32,500. Harvested: September 30. **Previous Crop:** Soybeans. **Fertilizer:** N: 200-NH3, P: VRT, K: VRT. **Herbicide:** Corvus, Atrazine, Laudis, Roundup. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-normal, July-Plus 6C41STM\*

					1000
	Bu. Per		%	%	<b>Plants</b>
Brand/Product	Acre	Rank	Moisture	Erect	/Acre
<b>✓CHECK</b>	300.7		17.7	100	31
POWER PLUS 4J93AM™*	253.4	5	14.4	100	31
POWER PLUS 5K33AM™*	268.9	3	15.1	100	30
POWER PLUS 6F74AVIXTM*	259.5	4	15.6	100	31
<b>✓CHECK</b>	300.4		17.8	100	31
CATALYST 6216 3111A	245.5	7	15.0	100	30
POWER PLUS 6P73AM™*	282.5	2	15.0	100	31
POWER PLUS 7M83AMTM*	284.5	1	15.7	100	31
CATALYST 7577 3110	245.8	6	16.4	100	31
<b>✓CHECK</b>	304.3		17.2	100	31
Average	274.6	1	6.0	100	31
Check Average	301.8	1	7.6 _	100	31

#### Power Plus® 6P73AMm\*\* takes second at 284.3 bu/a

Santa Fe Ag Leaders, Alma, MO

Planted: April 25 in 30" rows. Planting Population: 30,000. Harvested: October 14. Previous Crop: Soybeans. Soil Type: Medium loam. Remarks: Third party plot.

			1000	
	Bu. Per	%	Plants	
Brand/Product	Acre	Moisture	/Acre	
XL Brand 6365AM	288.7	16.3	30	
POWER PLUS 6P73AM™*	284.3	15.7	30	
Dekalb DKC64-35RIB	274.6	16.5	30	
MorCom Hybrids MC 4319 VT2P RIB	271.9	16.5	30	
Pioneer P1257AM	270.2	15.0	30	
Mycogen MY12G35RA	265.8	15.3	30	
AgriGold A6579VT2RIB	263.9	15.4	30	
LG Seeds LG5618VT2PRIB	263.3	15.0	30	
Golden Harvest G11X64-3010	253.0	16.0	30	
Average	270.6	15.7	30	

#### New Power Plus® 7M83AMTM\* is second at 265.9 bu/a

Santa Fe Ag Leaders, Alma, MO

Planted: April 25 in 30" rows. Planting Population: 30,000. Harvested: October 14. Previous Crop: Soybeans. Soil Type: Medium loam. Remarks: Third party plot.

			1000
	Bu. Per	%	Plants
Brand/Product	Acre	Moisture	/Acre
Beck's 6589V2P	267.7	16.8	30
POWER PLUS 7M83AM™*	265.9	15.3	30
Dekalb DKC67-72RIB	265.6	17.0	30
Pioneer P1555CHR	265.5	16.0	30
MorCorn MC 4725 VT2P RIB	263.2	17.2	30
LG Seeds LG5650VT2PRIB	262.2	15.6	30
AgriGold A6572VT2RIB	254.5	16.3	30
ProHarvest 8522SSTX-RIB	251.2	16.6	30
Mycogen 2C786	249.9	16.6	30
Average	260.6	16.4	30



Congratulations to Troy & David Dobson & Brett Hoeflicker for growing the first 300 bu/a yield in the state of Missouri in Lafayette Co., MO.

#### Power Plus® 6P73AMTM\* wins!



COMPARE Greg Bertz, Mayview, MO

Planted: April 13 in 30" rows. Planting Population: 32,000. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 170-NH3, P: 105, K: 130. Herbicide: Armezon Pro. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-normal, July-normal, August-dry. ~Check Hybrid: Lewis 16DP887 SS.

				Adj.	1000
Brand/Product	Bu. Per Acre	Rank	% Moisture	Test Wt.	Plants /Acre
Lewis Hybrids R1313 SS	232.6	11	14.6	60.0	31
✓ CHECK	259.3		15.8	60.0	29
		40			
Lewis Hybrids R1412 VT2P	234.0	10	15.2	59.0	29
Lewis Hybrids 15DP878 SS	237.2	8	14.6	59.5	30
Lewis Hybrids 14DP857 SS	243.5	5	14.0	58.5	30
POWER PLUS 7H23 S™*	225.3	14	14.5	59.0	30
POWER PLUS 7M83AMTM*	244.2	4	14.8	60.0	30
POWER PLUS 7U15AM™*	236.1	9	15.0	60.0	30
<b>✓CHECK</b>	255.2		15.2	60.0	29
Lewis Hybrids R1414	250.6	3	15.2	59.0	29
Lewis Hybrids R1313 SS	254.2	2	15.0	60.0	29
Lewis Hybrids RD1613 VT2P	230.0	13	15.0	58.5	29
POWER PLUS 6P73AMTM*	258.8	1	14.0	59.0	30
POWER PLUS 6C41 STM*	242.0	7	16.1	62.0	30
Lewis Hybrids 11DP768 VT2P	243.4	6	15.1	60.0	29
POWER PLUS 5K33AMTM*	231.5	12	15.0	60.0	29
<b>✓CHECK</b>	266.3		15.5	59.5	29
Average	243.8		15.0	59.6	30
Check Average	260.3		15.5	59.8	29

#### Santa Fe Ag Leaders, Alma, MO

**Planted:** April 25 in 30" rows. **Planting Population:** 30,000. **Harvested:** October 14. **Previous Crop:** Soybeans. Soil Type: Medium loam. Remarks: Third party plot.

			1000	
	Bu. Per	%	Plants	
Brand/Product	Acre	Moisture	/Acre	
Pioneer P1197AM	271.8	14.9	30	
MorCorn Hybrids MC 4180	257.0	14.4	30	
POWER PLUS 4J93AM™*	247.5	15.7	30	
LG Seeds LG5606STXRIB	247.0	14.8	30	
DeKalb DKC60-87RIB	238.5	15.4	30	
Golden Harvest G10T63-3120EZR	237.1	16.2	30	
Mycogen MY10Z28RA	233.5	15.1	30	
Average	247.5	15.2	30	

#### **MONTGOMERY**

Kevin Gregory, Middletown, MO

Planted: May 15 in 30" rows. Planting Population: 30,000. Harvested: October 17. Previous Crop: Soybeans. Herbicide: Dual, Atrazine, Bicep. Soil Type: Medium loam. Weather: May-wet, Junenormal, July-dry, August-dry.

			Muj.
	Bu. Per	%	Test
Brand/Product	Acre	Moisture	Wt.
POWER PLUS 6C41 S™*	214.5	18.7	62.6
POWER PLUS 6F71 R™*	205.1	19.3	62.2
POWER PLUS 6F71 R™*	204.7	19.1	62.2
POWER PLUS 6C41 S™*	192.8	18.6	62.6
POWER PLUS 4J93AM™*	183.8	15.7	58.0
POWER PLUS 4J93AM™*	175.3	16.3	59.0
Average	196.0	18.0	61.1



Brenda Blackford & Burrus AM Quinn Moller harvest Blackford Farms plot in Vermilion Co.



Rick Urish, Burrus AM & Richard, Larry & Kyle Martin saw their PowerShield® treated sóybeans excel in Logan Co.



Amelia & Theron Stuckey wear Burrus caps like their dad, Andrew. Think Burrus!



Power Plus® 4A67AMXT™\* made 286.6 bu/a & Power Plus® 6P75AMX™\* made 287 bu/a for Jarrod Secrist & Gene Shores of Block Farms

#### **PLATELESS PLANTERS**

SEED SIZE weight per 80,000 kernel unit		SURE DR under 30#		SURE DRO 30-39#	P 3	<b>SURE DR</b> 40-49#	OP 4	<b>SURE DROP 5</b> 50-59#	<b>SURE DROP 6</b> 60-69#	SURE DROP 7 70# and over		
Burrus Xtra seed treatment (Poncho® 500 or Li High rate Poncho (Poncho® 1250)**	umivia®)**	BX2 HP2		BX3 HP3		BX4 HP4		BX5 HP5	BX6 HP6	BX7 HP7		
John Deere/Kinze Finger Pickup *1 *7	Max. Speed *2	66% *3		66-90% *3	*5	100%		100%	100%	100%		
John Deere Vacuum Pickup *6	Disc Size Vacuum Inches	A43215 7-13						A43215 10-13	A50617 7-10	A50617 9-13	A50617 10-13	A50617 13-15
John Deere ExactEmerge™ Vac Meter *6	Vacuum Inches	Consult manufacturer Regular Corn Not recommended Not recommended		turer 4-8		8-10		9-13	13-15	17-20		
Kinze Edge Vac *7	Disc Size Vacuum Inches *8 Singulator *8			Regular Co 20 8	orn	Regular 0 20 8	Corn	Regular Corn 20 8	Regular Corn 20 8	Regular Corn 20 5		
Case IH and IHC Early Riser	Drum Hopper Pres. *4 Brush Setting	Popcorn 6 8-9 oz. 1/2 down	or Corn *5	Popcorn 10 oz. Wire down	Corn *5 8-9 oz. Up	Corn 9-10 oz. Lt. Contac	ct	Corn 10-12 oz. Down	Corn 12 oz. max Remove	Corn 12 oz. max Remove		
Case IHC 1200 *7 New Holland SP Series	Disc Size Vacuum Singulator	4845 20 3	4855 18 3	4845 22 3	4855 18 3	4855 20 3		4855 20 3	4855 20 3	4855 20 3		
White Air 6000 and New Idea 9000	Disc Size	852436 o	r 852437	852436 or	852437	852435 o	r 852436	852434 or 852435	852434	852434		

- \*1 Also for Black Machine, Great Plains, Buffalo Finger Pickup, JD1535 drill
- \*2 For maximum planter speed, multiply the percentage shown times recommended speed range in operator's manual
- \*3 Worn ripples on the carrier plate can increase overdrop drastically
- \*4 For IHC Cyclo Air models, deduct 1 ounce of air pressure.
- $^{\star}5$  Recommendation does not fit every weight in this SureDrop size. Consult recommended weight range in your operator's manual.
- \*6 Consult operator's manual for talc recommendation. Double recommendation for Poncho treated seed
- \*7 Consult operator's manual for graphite recommendation
- \*8 Check field performance for specific settings.

For other plate planter recommendations, call our office toll free at (877) 4 BURRUS.

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# High-performance alfalfa forage solutions

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

214FY

HR

HR

HR HR

HR

34/35

HR

MR

1.9\*\* TAP

4.1

8.0\*

8.4\*

8.0\*

7.5\*

Agronomic Summary

Phytophthora Root Rot Verticillium Wilt

Anthracnose (Race 1)

Stem Nematode

Pea Aphid Blue Alfalfa Aphid

Root Type
Fall Dormancy

Winter Survival

**Cutting Recovery** 

Forage Yield Level

Forage Quality

Wheel Traffic

Aphanomyces Root Rot (Race 1)

Aphanomyces Root Rot (Race 2)

Northern Root-knot Nematode

Bacterial Wilt

Fusarium Wilt

DRI

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

**344EQ (EXTENDED QUALITY) ALFALFA** was developed to provide superior forage quality over an extended harvest window for growers. 344EQ features high TTNDFD and NDGD48 forage quality scores. Yield is very good and is coupled with a reliable disease package. This variety belongs on farms intending to produce high yields of consistent top quality forage.

NEW



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

SASHV	Features	

- Consistent high forage yield
- Rapid recovery after harvest
- Excellent disease resistance
- Fine stems

Agronomic Summary	344EQ
Bacterial Wilt	HR
Fusarium Wilt	HR
Phytophthora Root Rot	HR
Verticillium Wilt	HR
Anthracnose (Race 1)	HR
Aphanomyces Root Rot (Race 1)	HR
Aphanomyces Root Rot (Race 2)	MR
DRI	33/35
Winter Survival	1.9**
Fall Dormancy	4.2
Root Type	TAP
Crown Depth	AVE
Cutting Recovery	8.2*
Forage Yield Level	8.9*
Forage Quality	9.0*

#### 344EQ Features

- Expanded harvest window for best quality
- Reduced lignin content
- Excellent yield



Aaron Bunnell & MG Kennedy saw Power Plus® 5K33AM<sup>TM\*</sup> top the Grundy Co., MO plot at



Congratulations to Lacey & Zach Whitehill (Burrus AM) on their recent wedding.



Gabe Points helps his father Bill harvest a plot in Morgan Co.



A tap root from the PowerShield  $^{\!0}$  SDS research plot in Armstrong, IL.



Burrus AM Rob Church checks stalk integrity in northwest MO.



<sup>\*\*</sup>Rated 1-6

(1 = most winter hardy, 6 = least winter hardy)

HR = High resistance
MR = Medium resistance

= Resistant



## Save money with Burrus Seed

As farmers ourselves, we are aware of the constant fluctuations in the industry and the need to make the most of every dollar spent. We strive to provide growers with multiple opportunities to save additional money on their seed orders. Below are just a few of the opportunities available for 2018. Contact your Account Manager for more information on all the ways Burrus can help your bottom line.

#### **Early Pay Savings**

Even if you need to borrow the money, prepaying your seed bill can save you more money than the interest a lending institution charges. Burrus' Early Pay Savings discount program offers percentage discounts based on payments received September through April. The earlier you pay, the more you save!

#### 100% Free Replant

A testament to our confidence in our product lineup, Burrus has offered a 100% Free Replant guarantee since 1935. The entire Burrus family of products qualify for our replant guarantee of free seed, free seed treatment if available, and free tech fees of equal or less value, if from the same technology family.

#### **Seed Size Discounts**

In an effort to offer growers as many opportunities to save money as possible, we have discounts for specific seed sizes.

Ordering small or large sizes of seed corn can qualify growers for an additional savings opportunity. Always consult your Account Manager for availability.

#### Structured Refuge

We all like convenience, but our job is to help you maximize your yield and profits too. We offer structured refuge products to provide savings compared to integrated refuge products. Our recommendation is to consider planting a mix of both structured and integrated refuge products to maximize convenience and performance.

#### **Financing Options**

Burrus offers financing through both John Deere Financial and Rabo AgriFinance. With different plans to choose from, you can carry through December at 0%, or bridge from fall through April, allowing time to deliver grain and pay off the financing company. Whatever your needs, we have a plan to accommodate.

#### **Growth Advantage**

Increase your seed purchase in the Burrus family of products and take advantage of additional discounts. The Growth Advantage program just makes sense – when you plant more Burrus, yield goes up, profit across all acres goes up even higher, and seed costs go down. Ask your Account Manager for full details to see if you qualify.

#### **Proud to Grow Burrus**

We value your business and believe growers should be recognized for their loyalty. Maintain or increase your 2018 order volume of corn, soybeans, and/or alfalfa compared to the amount ordered in 2017. Your loyalty will be rewarded with a volume discount. Learn of the opportunities available to you by contacting your Account Manager.

1	EARLY PAY SAVINGS
10.5%	November 10, 2017
10%	December 10, 2017
9%	January 10, 2018
5.5%	February 10, 2018
4%	March 10, 2018
3%	April 10, 2018
DISCOUNT*	POSTMARK DATE

<sup>\*</sup>Discount rate is reduced by 2% when MasterCard, Visa, or Discover is used.

#### **SHELBY**

Rutter Farms Inc. -Kenny Rutter, Shelbina, MO

Planted: May 14 in 30" rows. Planting Population: 30,000. Harvested: October 25. Previous Crop: Soybeans. Fertilizer: N: 150, P: 80, K: 80. Soil Type: Medium loam. Weather: May-wet, June-wet, July-dry, August-dry. ✓ Check Hybrid: Power Plus 6F74™\*.

Bu. Per		%	%	Plants
Acre	Rank	Moisture	Erect	/Acre
128.0		14.3	95	24
133.8	8	14.5	100	24
150.3	1	14.7	100	29
145.4	3	14.5	100	27
135.8	7	15.3	100	26
137.4	6	14.6	100	27
140.9	4	14.0	100	28
137.4		14.3	100	29
139.1	11	14.3	95	30
143.4	10	14.5	100	27
159.1	2	14.7	100	28
143.9	9	15.2	100	29
153.3	5	14.5	90	26
153.2		14.3	90	27
142.9	1	4.6	98	27
139.5	1	4.3 _	95	26
	128.0 133.8 150.3 145.4 135.8 137.4 140.9 137.4 159.1 143.4 159.1 153.2 142.9	Acre Rank 128.0 133.8 8 150.3 1 145.4 3 135.8 7 137.4 6 140.9 4 137.4 139.1 11 143.4 10 159.1 2 143.9 9 153.3 5 153.2 142.9 1	Acre   Rank   Moisture   128.0   14.3   133.8   8   14.5   150.3   1   14.7   145.4   3   14.5   137.4   6   14.0   137.4   14.3   139.1   11   14.3   143.4   10   14.5   159.1   2   14.7   143.9   9   15.2   153.3   5   14.5   153.2   14.3   14.6   14.6	Acre         Rank         Moisture         Erect           128.0         14.3         95           133.8         8         14.5         100           150.3         1         14.7         100           145.4         3         14.5         100           137.4         6         14.6         100           140.9         4         14.0         100           137.4         14.3         100           139.1         11         14.3         95           143.4         10         14.5         100           159.1         2         14.7         100           143.9         9         15.2         100           153.2         14.5         90           142.9         14.6         98

Jay & Cole Collins, Lentner, MO

Planted: May 15 in 30" rows. Planting Population: 30,000. Harvested: October 13. Previous Crop: Soybeans. Soil Type: Light Clay. Weather: Maywet, June-dry, July-dry, August-dry. Remarks: Top of hill vs bottom of hill. High yield was at the bottom

Brand/Product	Bu. Per Acre	% Moisture	Adj. Test Wt.
POWER PLUS 4J93AM™* POWER PLUS 4J93AM™*	218.3 184.6	19.8 19.6	58.4 58.2
Average	201.4	19.7	58.3

#### **CLINTON**

# Power Plus® 6P75AMX<sup>TM</sup>\* brand wins at 261.8 bu/a



Harmsen Farms, Clinton, IA

Planted: May 6 in 30" rows. Planting Population: 35,000. Harvested: October 3. Previous Crop: Corn. Soil Type: Medium loam. Weather: May-wet, June-wet, July-wet, August-dry. ✓ Check Hybrid: Power Plus 4J95AM™\*.

				Adj
Brand/Product	Bu. Per Acre	Rank	% Moisture	Tes Wt.
✓CHECK	245.2		25.4	57.
POWER PLUS 1G48AMXT™*	244.8	10	20.8	57.
POWER PLUS 2Y06AM™*	260.4	2	22.3	57.
POWER PLUS 2B77AMXT™*	249.7	6	22.7	57.
Pioneer P0589	241.6	11	22.3	57.
Pioneer P0707	221.4	13	23.7	58.
<b>✓CHECK</b>	233.3		25.2	57.
POWER PLUS 3H85AMX™*	244.9	8	25.1	58.
POWER PLUS 4A67AMXT <sup>TM</sup> *	254.1	4	24.9	<b>59</b> .
POWER PLUS 5C17AMXT™*	244.0	9	25.5	59.
POWER PLUS 5K35AMX™*	253.3	5	25.0	58.
<b>✓CHECK</b>	240.5		27.5	58.
Pioneer P1197	252.9	3	28.3	58.
BURRUS X6R25	210.1	14	26.4	57.
POWER PLUS 6P75AMX™*	261.8	1	25.9	60.
Pioneer P1366	243.6	7	28.5	59.
POWER PLUS 7V66AMXTTM*	226.0	12	26.9	59.
<b>✓CHECK</b>	227.4		26.0	58.
Average	241.9		25.1	58.
Check Average	236.6		26.0	58

#### **SALINE**

# Power Plus® 6C41S<sup>TM</sup>\* wins at 292.6 bu/a



Greg Tieman, Blackburn, MO

Planted: April 24 in 30" rows. Planting Population: 32,000. Harvested: September 30. Previous Crop: Soybeans. Fertilizer: N: 200-NH3, P: VRT, K: VRT. Herbicide: Anthem, Halex GT. Insecticide: None. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-normal, July-normal, August-normal. ✓ Check Hybrid: Power Plus 6C41S™\*.

					1000
	Bu. Per		%	%	Plants
Brand/Product	Acre	Rank	Moisture	Erect	/Acre
<b>✓CHECK</b>	258.7		18.5	100	28
POWER PLUS 4J93AM™*	244.6	5	16.9	100	29
POWER PLUS 5K33AN™*	263.5	4	17.0	100	29
CATALYST 6216 3111A	224.0	8	16.6	100	29
POWER PLUS 6F74AMX™*	239.8	6	17.3	100	30
<b>✓</b> CHECK	290.2		19.3	100	30
POWER PLUS 6P73AN™*	283.3	2	18.0	100	29
POWER PLUS 7M83AWTM*	275.9	3	17.5	100	29
CATALYST 7577 3110	238.1	7	18.0	100	29
POWER PLUS 6C41S™*	292.6	1	18.5	100	29
<b>✓CHECK</b>	282.1		18.5	100	29
Average	263.0	1	7.8	100	29
Check Average	277.0	1	8.8	100	29





#### Phil Henke, Gilliam, MO

Planted: April 12 in 30" rows. Planting Population: 30,000. Harvested: September 25. Previous Crop: Soybeans. Fertilizer: N: 190-Nh3, P: 80, K: 80. Herbicide: Pre-Surestart, Post-Atrazine, Roundup. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-normal, June-normal, July-normal, August-normal. Check Hybrid: Power Plus 6F74AMX<sup>TM\*</sup>.

Bu. Per		%	%	Plants
Acre	Rank	Moisture	Erect	/Acre
207.6		13.0	100	28
209.0	4	12.7	100	29
208.2	5	12.8	100	27
192.6	8	13.5	100	29
193.9		13.0	100	28
211.4	6	13.0	100	29
221.6	3	14.0	100	29
202.0	7	14.3	100	28
228.6	1	15.9	100	29
224.0	2	12.7	100	29
218.2		13.0	100	29
210.6	1	3.4	100	29
	207.6 209.0 208.2 192.6 193.9 211.4 221.6 202.0 228.6 218.2	Acre Rank 207.6 209.0 4 208.2 5 192.6 8 193.9 211.4 6 221.6 3 202.0 7 228.6 1 224.0 2 218.2	Acre Rank Moisture 207.6 13.0 209.0 4 12.7 208.2 5 12.8 192.6 8 13.5 13.0 211.4 6 13.0 221.6 3 14.0 202.0 7 14.3 228.6 1 15.9 224.0 2 12.7 218.2 13.0	Acre Rank Moisture Erect 207.6 13.0 100 209.0 4 12.7 100 192.6 8 13.5 100 193.9 13.0 100 221.6 3 14.0 100 202.0 7 14.3 100 228.6 1 15.9 100 224.0 2 18.2 13.0 100

Kurtis Gregory, Marshall, MO

Planted: April 24 in 30" rows. Planting Population: 33,000. Harvested: September 23. Previous Crop: Soybeans. Herbicide: 24D Roundup, Halex GT, Headline AMP w/ insecticide. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: Maynormal, June-normal, July-normal, August-normal.

			Adj.
	Bu. Per	%	Test
Brand/Product	Acre	Moisture	Wt.
POWER PLUS 4J93AM™*	271.5	19.2	58.7
POWER PLUS 4J93AM™*	267.4	19.2	58.7
Channel 210-26 VT2P	265.7	19.1	56.7
Channel 210-26 VT2P	246.3	19.1	56.7
Average	262.7	19.2	57.7



McKenzi Ruschhaupt holds her baby brother Lane. They are the children of Tim & Jennifer longtime Burrus dealers.



WOW! Power Plus® 3H85AMX™\* rolled out 271.3 bu/a in Marshall Co. for Brent Angelo, Burrus AM and Mark Monier.



Power Plus® 4J95AMX<sup>™\*</sup> rolled out 254.9 bu/a for Shirley & Doug Thornton of Greene Co.



The kernel depth on Power Plus® 4J95AMX<sup>™</sup>, is impressive!



New Power Plus® 7M83AM<sup>TM\*</sup> & X4A67<sup>TM\*</sup> won in DeWitt Co. for Bill & Bill Steward Jr.



Stephanie Porter diagnoses plant issues in the lab at our Jacksonville office.



Braxton Phelps, Dalton Walker & Jake Seckman joined the Burrus Seed Farms, Inc. team full-time.



Burrus CSR Angie Knapp's grandson Liam Knapp enjoys playing outside.



Burrus SM Ryne Brewer & Burrus AMs Ross Kleinsteiber & Mathias Hoffmann on a field visit with Rick Knight in Edgar Co.



Power Plus® 6C41 S™\* topped the Saline Co., MO plot at 228.6 bu/a for Phil & Anthony Henke.

#### **NUMBERING SYSTEM FOR 2018**

The Burrus numbering system indicates the maturity with the first digit. Multiply the first digit by two then add 100 for the maturity day rating. For example, for Power Plus® 4J95 AMX<sup>™</sup> brand, multiply the first digit by 2 = 8 then add 100. This depicts the maturity range as 108-109 days. The second letter and last two digits are at random except for the Optimum® AcreMax® products. When the letter is the same and the digits are consecutive, it indicates a similar family, e.g., Power Plus® 6C40<sup>™</sup> and Power Plus® 6C41S<sup>™</sup>. The last letter(s) is silent. That was added to the product number for the purpose of reminding growers of the technology included in that product. The chart below explains what each means.

Brands	Ma- turity	Group	Technology	Desig- nation	RR	ш	Resistance or Control
Power Plus®7M85 Qrome™*	115		Qrome®	Qrome	х	х	Herculex® XTRA, Agrisure® RW, YieldGard® Corn Borer
Power Plus® 5C17AMXT™*	110		Optimum® AcreMax® XTreme	AMXT	х	х	Herculex® XTRA, Agrisure® RW, YieldGard® Corn Borer
Power Plus®6F74AMX™*	113	Above/	Optimum® AcreMax® Xtra	AMX	x	х	Herculex® XTRA, YieldGard® Corn Borer
Power Plus®6L45AMT™*	112	Below	Optimum® AcreMax® TRIsect	AMT	х	х	Agrisure® RW, YieldGard® Corn Borer, Herculex® I Corn Borer
Power Plus® 7A18 Q <sup>™</sup>	114	Ground Insect	Herculex® XTRA	Q	х	х	Herculex® XTRA
Burrus 6R25 5222	112	Control	Agrisure Duracade® 5222 E-Z Refuge	5222	x	х	Agrisure Viptera®, Agrisure Duracade®, Agrisure® RW, Agrisure® CB/LL, Herculex® I Corn Borer
Catalyst® 6216 3111A	111		Agrisure Viptera® 3111A	3111A	x	х	Agrisure Viptera®, Agrisure® RW, Agrisure® CB/LL, Agrisure Artesian®
Burrus 6T54 3000GT	113		Agrisure® 3000GT	3000GT	х	х	Agrisure® RW, Agrisure® CB/LL
Power Plus® 4J93AM™*	109	Above	Optimum® AcreMax®	AM	x	х	Herculex® I Corn Borer, YieldGard® Corn Borer
Catalyst® 7577 3010	114	Ground Insect	Agrisure® 3010	3010	х	х	Agrisure® CB/LL
Power Plus® 6C41S™*	112	Control	Stacked, Herculex® I	S	x	х	Herculex® I Corn Borer
Power Plus® 6F71 R™*	113	Glyphosate	Roundup Ready®	R	x		Glyphosate tolerant
Burrus 6T51 GT	113	Resistant	Agrisure® GT	GT	x		Glyphosate tolerant
Burrus 6Q60	113	CONV.	Conventional	No letters			No traits

**IMPORTANT:** Characteristic scores provide key information useful in selecting and managing products in your area. Information and ratings are based on comparisons with other products sold by Burrus. Information and scores are assigned by Burrus and are based on period-of-years testing through 2017 harvest and were the latest available at time of printing. Some scores may change after 2018 harvest. Scores represent an average of performance data across areas of adaptation, multiple growing conditions, and a wide range of both climate and soil types, and may not predict future results. Individual product responses are variable and subject to a variety of environmental, disease, and pest pressures. Please use this as only one component of your product positioning decision.





#### **BURRUS HYBRID COMPARISON**

	GENERAL C	HARACTERI	STICS				PLANTING INFORMATION			RESPONS Environ	SE TO MENTAL CONDITIONS	PROTECTION FROM PESTS			
Brand	Days to maturity	Roundup Ready®	Liberty Link®	Plant height	Ear height	Ear type	Speed of emergence	Corn on corn	Refuge requirement	Drought tolerance	Water optimization	Greensnap	Nematode	Corn borer	Corn rootworm
ABOVE / BELOW GROUND INSECT CONTROL															
Power Plus® 1S26AMXT™	101	Yes	Yes	8	6	Flex	8	Good	Integrated refuge	7	None	8	Yes	Yes	Yes
Power Plus® 1G48AMXT™	102	Yes	Yes	6	7	Intermediate	7	Excellent	Integrated refuge	8	None	6	Yes	Yes	Yes
Power Plus® 2F91AMXT™*	103	Yes	Yes	8	7	Fixed	8	Good	Integrated refuge	8	None	9	Yes	Yes	Yes
Power Plus® 2B77AMXT™*	105	Yes	Yes	6	7	Intermediate	8	Excellent	Integrated refuge	8	None	8	Yes	Yes	Yes
Power Plus® 3H85AMX™*	107	Yes	Yes	7	7	Flex	8	Suitable	Integrated refuge	7	None	9	Yes	Yes	Yes
Power Plus® 4A67AMXT™*	109	Yes	Yes	7	6	Flex	6	Good	Integrated refuge	7	None	6	Yes	Yes	Yes
Power Plus® 4J95AMX™	109	Yes	Yes	6	6	Intermediate	7	Good	Integrated refuge	10	Optimum® AQUAmax®	8	Yes	Yes	Yes
Power Plus <sup>®</sup> 5C17AMXT™	110	Yes	Yes	7	6	Intermediate	7	Good	Integrated refuge	7	None	8	Yes	Yes	Yes
Power Plus <sup>®</sup> 5K35AMX <sup>™</sup>	110	Yes	Yes	7	7	Flex	6	Good	Integrated refuge	8	None	6	Yes	Yes	Yes
Catalyst 6216 3111A	111	Yes	Yes	7	6	Intermediate	7	Good	20% structured refuge	10	Agrisure Artesian®	8	Yes	Yes	Yes
Power Plus® 6L45AMT™	112	Yes	Yes	7	6	Intermediate	7	Suitable	Integrated refuge	8	None	7	Yes	Yes	Yes
Burrus 6T54 3000GT	113	Yes	Yes	8	6	Intermediate	8	Suitable	20% structured refuge	8	None	8	Yes	Yes	Yes
Power Plus® 6F74AMX <sup>TM*</sup>	113	Yes	Yes	7	7	Intermediate	8	Excellent	Integrated refuge	9	None	8	Yes	Yes	Yes
Power Plus® 6P75AMX™*	113	Yes	Yes	8	7	Flex	7	Good	Integrated refuge	7	None	6	Yes	Yes	Yes
Power Plus <sup>®</sup> 7A18 Q <sup>™</sup>	114	Yes	Yes	8	8	Intermediate	8	Excellent	20% structured refuge	8	None	7	Yes	Yes	Yes
Power Plus® 7V66AMXT™	115	Yes	Yes	8	8	Flex	7	Good	Integrated refuge	7	None	8	Yes	Yes	Yes
ABOVE GROUND INSECT	CONTROL														
Hughes 9C24 3110A	95	Yes	Yes	8	8	Intermediate	8	Suitable	20% structured refuge	10	Agrisure Artesian®	8	Yes	Yes	No
Power Plus <sup>®</sup> 1G39AM <sup>™</sup>	101	Yes	Yes	6	7	Intermediate	7	Excellent	Integrated refuge	8	None	6	Yes	Yes	No
Power Plus® 2Y06AM™	104	Yes	Yes	8	6	Intermediate	7	Suitable	Integrated refuge	8	None	6	Yes	Yes	No
Power Plus® 2N82AM™	105	Yes	Yes	5	5	Intermediate	7	Good	Integrated refuge	10	Optimum® AQUAmax®	8	Yes	Yes	No
Power Plus® 4J93AM™*	109	Yes	Yes	6	6	Intermediate	7	Good	Integrated refuge	10	Optimum® AQUAmax®	8	Yes	Yes	No
Power Plus® 5K33AM™	110	Yes	Yes	7	7	Flex	6	Good	Integrated refuge	8	None	6	Yes	Yes	No
Power Plus® 6C41 S™	112	Yes	Yes	9	8	Flex	9	Good	20% structured refuge	8	None	7	Yes	Yes	No
Power Plus® 6P73AM™	113	Yes	Yes	8	7	Flex	7	Good	Integrated refuge	7	None	6	Yes	Yes	No
Power Plus® 6N83AM™	113	Yes	Yes	7	6	Intermediate	7	Good	Integrated refuge	10	Optimum® AQUAmax®	7	Yes	Yes	No
Catalyst 7577 3010	114	Yes	Yes	8	7	Flex	8	Good	20% structured refuge	9	None	8	Yes	Yes	No
Power Plus® 7M83AM™	115	Yes	Yes	7	6	Intermediate	8	Suitable	Integrated refuge	8	None	6	Yes	Yes	No
GLYPHOSATE RESISTANT	Г														
Power Plus® 2R63 R™*	104	Yes	No	7	7	Intermediate	8	Excellent	None needed	9	None	7	Yes	No	No
Power Plus® 4J99 R™	109	Yes	No	6	6	Intermediate	7	Good	None needed	10	Optimum® AQUAmax®	8	Yes	No	No
Burrus 6T51 GT	113	Yes	No	8	6	Intermediate	8	Suitable	None needed	8	None	8	Yes	No	No
Power Plus® 6F71 R™	113	Yes	No	7	7	Intermediate	8	Excellent	None needed	9	None	8	Yes	No	No
CONVENTIONAL															
Hughes 3442	102	No	No	7	6	Fixed	8	Good	None needed	8	None	7	Yes	No	No
Power Plus® 2R67™*	105	No	No	7	7	Intermediate	8	Excellent	None needed	9	None	7	Yes	No	No
Power Plus® 4J90™	109	No	No	6	6	Intermediate	7	Good	None needed	10	Optimum® AQUAmax®	8	Yes	No	No
Burrus 6R20	112	No	No	8	7	Intermediate	7	Good	None needed	8	None	7	Yes	No	No
Power Plus® 6C40™	112	No	No	8	7	Flex	9	Good	None needed	8	None	7	Yes	No	No
Burrus 6Q60	113	No	No	7	8	Intermediate	7	Good	None needed	8	None	8	Yes	No	No
Power Plus® 7M80™*	115	No	No	7	6	Intermediate	8	Suitable	None needed	8	None	6	Yes	No	No

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.

AM is Optimum® AcreMax® AMX is Optimum® AcreMax® Xtra AMXT is Optimum® AcreMax® XTreme AMT is Optimum® AcreMax® TRIsect

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

R is Roundup Ready Corn 2 (NK603) or Glyphosate tolerance, Agrisure GT S is Herculex I/RR2

		ADAPTA	BILITY					PROTECTIO	ON FROM D	ISEASES		HARVEST DESCRIPTION								
Western bean cutworm	Wireworm	High organic soils	Timber soils	Clay and varied soils	Wet soils	Sand irrigated	Sand dryland	Northern leaf blight	Gray leaf spot	Goss's wilt	Diplodia ear rot	Stalks	Roots	Drydown	Ear retention	Grain quality	Test weight	High tonnage silage	Harvest residue	Brand
																	AB	OVE / BE	LOW GR	OUND INSECT CONTROL
0	Yes	9	8	7	7	8	7	6	5	7	6	8	6	9	8	8	7	9	8	Power Plus® 1S26AMXT™
0	Yes	9	9	9	8	8	7	8	7	8	8	9	9	8	8	7	8	7	7	Power Plus® 1G48AMXT™
0	Yes	9	9	9	8	9	8	7	7	9	NR	9	7	8	8	8	8	6	7	Power Plus® 2F91AMXT™
0	Yes	9	9	8	8	9	7	8	7	9	7	9	9	8	8	8	8	7	8	Power Plus® 2B77AMXT™
0	Yes	10	8	7	6	7	6	7	7	8	6	7	8	8	8	7	7	9	6	Power Plus® 3H85AMX™
0	Yes	10	7	8	8	9	6	8	7	7	7	8	7	7	8	8	7	9	9	Power Plus® 4A67AMXT™
0	Yes	9	9	9	8	9	6	8	5	8	5	8	8	8	9	8	7	5	6	Power Plus® 4J95AMX™*
0	Yes	10	7	7	7	9	6	7	7	8	7	8	6	6	8	8	8	10	8	Power Plus® 5C17AMXT™
0	Yes	9	8	8	8	9	7	7	6	8	6	8	6	7	7	8	7	9	7	Power Plus® 5K35AMX <sup>TM*</sup>
9	Yes	9	9	8	8	10	8	7	6	7	NR	8	9	7	8	7	6	6	6	Catalyst 6216 3111A
0	Yes	8	8	8	8	7	8	5	6	5	7	8	7	8	8	8*	7	8	8	Power Plus® 6L45AMT™
0	Yes	10	8	8	6	9	7	7	6	7	5	9	7	7	8	7	7	9	9	Burrus 6T54 3000GT
0	Yes	8	9	9	6	7	9	7	7	8	7	9	8	8	9	8*	8	9	9	Power Plus® 6F74AMX™*
0	Yes	10	7	7	8	10	6	8	7	8	7	8	7	7	7	7	7	9	8	Power Plus® 6P75AMX <sup>TM*</sup>
0	Yes	10	9	9	8	10	9	5	6	NR	8	7	6	7	9	9*	8	9	10	Power Plus® 7A18 Q™*
0	Yes	10	7	7	8	9	6	7	7	8	7	9	8	7	6	9*	8	10	10	Power Plus® 7V66AMXT™
																		AB	OVE GR	OUND INSECT CONTROL
9	Yes	10	9	8	8	8	7	7	NR	8	NR	8	8	9	7	8	8	9	7	Hughes 9C24 3110A
0	Yes	9	9	9	8	8	7	8	7	8	8	9	9	8	8	7	8	7	7	Power Plus® 1G39AM™⁺
0	Yes	9	9	9	8	9	7	7	8	8	8	7	8	8	8	7	8	8	8	Power Plus® 2Y06AM™*
0	Yes	7	9	9	8	6	7	6	7	9	7	9	8	8	9	7	7	5	NR	Power Plus® 2N82AM™*
0	Yes	9	9	9	8	9	6	8	5	8	5	8	8	8	9	8	7	5	6	Power Plus® 4J93AM™
0	Yes	9	8	8	8	9	7	7	6	8	6	8	6	7	7	8	7	9	7	Power Plus® 5K33AM™*
0	Yes	9	9	8	8	9	8	6	8	8	6	8	6	8	8	10*	10	8	7	Power Plus® 6C41 S™*
0	Yes	10	8	8	8	10	6	8	7	8	7	8	7	7	7	7	7	9	8	Power Plus® 6P73AM™
0	Yes	8	9	9	7	8	8	7	7	8	5	8	7	9	8	6	6	6	7	Power Plus® 6N83AM™*
0	Yes	7	9	9	7	9	9	7	6	8	6	8	7	7	8	7	8	8	8	Catalyst 7577 3010
0	Yes	9	9	9	8	9	7	7	7	8	8	8	8	6	8	8	8	10	10	Power Plus® 7M83AM™
-			_	_		_	_	_	_	_	_	_	_	_				_		GLYPHOSATE RESISTANT
0	Yes	9	9	9	9	9	8	9	8	9	6	9	9	8	7	7	7	8	7	Power Plus® 2R63 R™
0	Yes	9	9	9	8	9	6	8	5	8	5	8	8	8	9	8	7	5	6	Power Plus® 4J99 R™*
0	Yes	10	8	8	6	9	7	7	6	7	5	9	7	7	8	7	7	9	9	Burrus 6T51 GT
0	Yes	8	9	9	7	7	9	7	7	8	7	9	8	8	9	8*	8	9	9	Power Plus® 6F71 R™*
	.,	l .					_	_	_	_							_	_	_	CONVENTIONAL
0	Yes	9	9	8	9	9	7	7	7	7	NR	8	9	8	9	7*	7	7	7	Hughes 3442
0	Yes	9	9	8	8	8	7	9	8	9	6	8	8	8	7	7	7	8	7	Power Plus® 2R67™
0	Yes	9	9	9	8	9	6	8	5	8	5	8	8	8	9	8	7	5	6	Power Plus® 4J90™*
0	Yes	10	8	8	7	9	6	7	7	NR	7	8	8	8	8	7	7	10	8	Burrus 6R20
0	Yes	9	9	8	8	9	8	6	8	8	6	8	6	8	8	10*	10	8	7	Power Plus® 6C40™
0	Yes	8	8	9	8	9	8	8	6	8	7	8	8	7	8	6	6	9	6	Burrus 6Q60
0	Yes	9	9	9	8	9	7	7	7	8	8	8	8	6	8	8	8	10	10	Power Plus® 7M80™*

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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<sup>\*</sup>Grain quality – possible food grade in some markets

#### **LAFAYETTE**

#### 6 of 7 belong to **Burrus family**



Darlington, WI

Planted: May 6 in 30" rows. Planting Population: 34,000. Harvested: October 20 Previous Crop: Soybeans. Fertilizer: N: 200. Soil Type: Medium loam. Weather: May-wet, June-dry, July-normal, August-dry.

			Aaj.	1000
	Bu. Per	%	Test	Plant
Brand/Product	Acre	Moisture	Wt.	/Acre
POWER PLUS 3H85AMX™*	239.0	19.8	58.4	32
POWER PLUS 2Y06AM™*	231.1	17.8	58.3	33
POWER PLUS 5C17AMXT™*	230.4	22.0	58.0	34
BURRUS X6R25	229.5	24.9	58.1	33
DeKalb 58-08	229.3	20.8	58.1	32
POWER PLUS 4A67AMXT™*	229.1	21.7	57.5	33
POWER PLUS 2B77AMXT™*	228.9	19.3	58.7	34
Pioneer P0589	226.9	20.2	58.8	33
POWER PLUS 1G39AM™*	226.9	17.2	60.2	33
DeKalb 60-67	222.6	21.2	58.3	33
POWER PLUS 4J95AMX™*	221.8	23.0	57.2	32
POWER PLUS 1S26AMXT™*	220.5	16.6	59.7	32
POWER PLUS 1G48AMXT™3	218.0	17.1	60.2	34
POWER PLUS 2F91AMXT™*	214.5	18.5	59.4	33
BURRUS X479071	211.3	15.9	57.3	30
Pioneer P0657	202.6	19.5	59.4	33
Average	223.9	19.7	58.6	33
			23.0	,

#### **WALWORTH**

#### Power Plus® 2Y06AMTM \* wins at 270.7 bu/a



COMPARE Ben Leedle, Lake Geneva, WI



Planted: May 8 in 30" rows. Planting Population: 33,000. Harvested: October 9. Previous Crop: Corn. Fertilizer: N: 200, P: 69, K: 90. Herbicide: Sure Start, Roundup. Soil Type: Medium loam. ✓Check Hybrid: Power Plus 2B77

	D., D.,		0/	Auj.
Brand/Product	Bu. Per Acre	Rank	% Moisture	Test Wt.
✓ CHECK	250.3	Hullik	22.4	57.7
BURRUS X664400	243.1	9	19.0	58.6
POWER PLUS 1G39AM™*	254.3	6	19.3	57.6
POWER PLUS 1G48AMXT™*	259.9	3	20.6	59.3
BURRUS X479071	236.5	10	20.8	57.7
POWER PLUS 2Y06AM™*	270.7	- 1	21.4	59.0
Dekalb DKC52-61	247.7	7	17.3	58.2
√Check	245.2		23.5	58.3
Dekalb DKC54-40	265.7	2	19.2	58.8
POWER PLUS 2N82AM™*	254.8	5	22.3	58.1
POWER PLUS 3H85AMXTM*	247.0	8	20.9	57.9
Croplan 5875	235.2	11	22.6	57.4
POWER PLUS 4A67AMXT™*	258.7	4	23.8	60.0
√Check	250.3		24.0	59.7
Average	251.4		21.2 5	58.4
Check Average	248.6		23.3	58.6
55	5.0		_0.0	55.0

#### **TIPPECANOE**

#### Power Plus® 6P75AMXTM\* wins at 285.3 bu/a



Chad Tolen, LaFayette, IN



Planted: May 8 in 30" rows. Planting Population: 31,500. Harvested: October 8 Previous Crop: Corn. Fertilizer: N: 150, P: 100, K: 150. Herbicide: Corvus, Atrazine, Callisto, Roundup. Insecticide: 3lb Force. Soil Type: Lightloam. Weather: May-wet, June-wet, Julydry, August-dry. Remarks: Quilt fungicide was used at tassel time.

	Bu. Per	%	%	Test	Plants
Brand/Product	Acre	Moisture	Erect	Wt.	/Acre
POWER PLUS 6P75AMX™*	285.3	24.7	100	59.2	32
AgVenture RL8899AM	280.1	24.6	100	60.2	32
AgVenture AV8714AM	279.1	23.2	100	57.7	32
POWER PLUS 3H85AWX <sup>TM*</sup>	267.7	22.3	100	59.5	32
POWER PLUS 4J95AWXTM*	250.9	22.0	100	59.5	32
POWER PLUS 7V66AWXTTM*	243.4	24.0	100	63.0	32
Average	267.8	23.5	100	59.9	32

## Power Plus® X4A67tm \*

**VERMILLION** 

# goes 264 bu/a

Ross Holbert, Dana. IN

Planted: April 18 in 30" rows. Planting Population: 34,800. Harvested: October 3. Previous Crop: Soybeans. Fertilizer: N: 198, P: 36, K: 102. Herbicide: Harness Xtra, Atrazine, Roundup PowerMax. Corn Borer Rating: Light. Soil Type: Medium loam. Weather: May-wet, June-dry, July-normal, August-dry.

	Bu. Per	%	%	Test Plants
Brand/Product	Acre	Moisture	Erect	Wt. /Acre
POWER PLUS X4A67™*	264.5	13.3	100	61.6 33
DeKalb 60-67	251.9	13.5	95	61.5 33
Channel 211-35	248.8	14.3	100	60.5 32
POWER PLUS 4J99 R™*	247.3	13.9	85	60.9 30
POWER PLUS 5C17AVIXT™*	245.5	13.3	100	61.3 31
Channel 213-19	244.6	15.1	100	61.3 33
POWER PLUS 5K35AMX™*	243.1	14.4	100	60.7 34
POWER PLUS 6P75AMX™*	242.6	15.0	100	59.0 33
POWER PLUS 4J95AMX <sup>TM*</sup>	241.8	14.6	95	59.7 30
POWER PLUS 6L45AVITTM*	240.9	15.6	100	59.3 34
Average	247.1	14.3	98	60.6 32



WOW! Power Plus® 2Y06AMTM\* took first place at over 270 b/a in Walworth Co., WI for Ben, Beau, Laura & Lilly Leedle.



Ross Holbert saw Power Plus® X4A67TM\* win in Vermillion Co., IN at 264.5 bu/a.

# **Qrome® products - A key** to unlocking yield potential

Josh Gunther, C.C.A.

With the recent buzz surrounding the EPA's framework to delay corn rootworm resistance, there is a definite need for pyramided Bt corn within the seed corn market. Qrome® products are DuPont Pioneer's answer to this demand. Qrome products contain a proprietary transgenic event featuring a molecular stack of the proven Bt proteins from the Herculex® 1 and Herculex® RW traits. These advanced technologies are similar to the proven traits currently represented in Optimum® AcreMax® XTreme (AMXT) products. They provide a dual mode of action for above and below ground insect protection, as well as 5% integrated refuge in the bag. AMXT currently provides outstanding insect protection for those areas with rootworm infestation. However, the downside is there are limited genetics that will take these traits without affecting the agronomics or yield of the plant. Therefore, Qrome products offer a new molecular stack of these proven traits will allow a broader set of genetics to be available with rootworm and corn borer protection.

The Burrus research team had the opportunity to evaluate Qrome products within many different sources of genetics

that we are familiar with over the last three years. From our observations, Qrome products have only improved these hybrids. Burrus feels this new trait will bring growers better yields by not only improving our current hybrids, but also allowing a more diverse set of germplasm that would not take the Herculex 1 and Herculex RW traits separately. The Burrus research team has not seen any ill side effects with this technology.

The only question left to answer is when will this technology be available to growers? Qrome products have received approval in many key import markets including the United States, Canada, Mexico and Japan. The current wait is for import approval in China. To DuPont's best estimate, import approval in China could happen by the end of 2017. Once Qrome products are cleared in all import markets, growers can expect to see it in the lineup of Power Plus® brand products from Burrus. We have already advanced a Qrome product for 2018 sales and the seed has been grown awaiting approvals.





# Higher populations do not always mean higher yields

Josh Gunther, C.C.A.

One of the most critical decisions that a farmer must make each spring is what population to set the planter. This decision can make an enormous difference in overall performance in both yield and standability. All too often, growers like to set their planter at the start of planting season and leave it there while planting all their acres. This is not how to optimize the full potential of each seed. We all know the price of seed has gone up over the last decade, making it even more important to maximize inputs.

Most have heard growers can increase corn yields by increasing planting population, but that isn't always the case. As corn genetics become more and more complex, we need to start treating different hybrids differently. Some hybrids have a fixed ear, meaning no matter how good the growing conditions are, the ear isn't going to be any larger than a predetermined size. Others however are considered flex eared, these hybrids can flex the size of the ear to make the most out of a good year. Flex hybrids also have the advantage of being able to help compensate for a row with gaps or uneven stand. Fixed eared hybrids usually respond better to a higher planting population, whereas a flex hybrid you typically don't see increased yields with an increased seeding rate, you are often just increasing the plant to plant stresses with no added benefit.

Each year, the Burrus research team runs a series of population studies replicated 14 times in different environments. In this study, we place our current products as well as promising experimental products ranging in populations from 21,000 seeds/acre to 46,000 seeds/acre. This study, year after year, gives us the best planting rate for each hybrid to help maximize yields, manage risks, and optimize seed cost per acre. Yield is only one factor when looking at the data from this study. Another important component is overall standability. When planting populations are increased, plant to plant stresses which will make the plant more susceptible to root lodging and stalk lodging are also increased. These different components are considered when making a planting population recommendation.

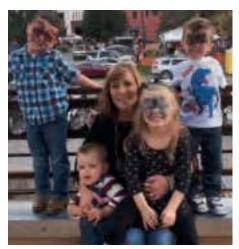
Another factor to consider when making your seed selection, along with product and price, should be seeding rate. With tighter margins in the agriculture sector, growers are starting to make more of their decisions based on price, which is understandable in these economic times. But to get the full picture, look at the price of seed on a per acre basis instead of per bag. Many of our competitors are recommending populations nearing 40,000 seeds per acre. Having to plant at these high populations to maximize yields makes the seed much more expensive, even if the seed is substantially cheaper per bag. As an example, let's look at hybrid A which has a recommended planting population of

38,000 seeds/acre and costs \$260/unit, and hybrid B which has a recommended planting population of 32,000 seeds/acre and costs \$300/unit. At first glance, many growers would choose hybrid A at \$40/unit. However, once you take the seeding rate into consideration, you realize that on a per acre basis hybrid A is costing \$123.50/acre while hybrid B is only costing \$120.00/acre. That savings of \$3.50/acre makes hybrid B the better value even though the price per bag is higher. These differences change dramatically depending on cost and planting rates, but we implore you to take the time to run a cost per acre analysis when making your decisions.

With all that being said, price should not be your only consideration when making a seed selection. Every farm should diversify their portfolio with both offensive and defensive products. Burrus' Corn Planting Rates chart will assist you with getting our hybrids at the ideal planting rates for your soils. Each of these hybrids have been tested in a range of populations, across different soil types, over several years to place them in the corresponding categories (A, B or  ${\bf C}$ planting ranges). This will not only help you reach the highest yields across your farm, but it will reduce the risk across your acres as well. This is just one more example of the true passion of the Burrus mission statement: "To provide quality seed, consistent performance, and exceptional value ensuring the ongoing success of our customers."



Burrus Product Lead Josh Gunther & Jim Hughes take notes to create their 2019 dream corn lineup!



Burrus CSR Judy Hall manages a quick photo with grandkids Tucker & Cooper Watkins, Kinsli Dobson, & Eliot Penner. Her heart is as full as her arms.



It's like Christmas in July at HIP Advertising when Tom Burrus dropped off Burrus Coon's Choice sweet corn!



Scott Burkhart & Burrus AM Bryce Sandahl review side-by-side results in Winnebago Co. Power Plus® 2Y06AM<sup>TM\*</sup> at 237 bu/a vs. Pioneer P0157 at 218 bu/a!

#### **CORN PLANTING RATES**

Soil Type	A	В			C		
High organic soils	34-40,000		31-37,000			28-34,000	
Timber soils	31-37,000		27-3	3,000		26-32,000	
Clay & varied soils	31-37,000		27-33,000			26-32,000	
Sand (dryland)	26-32,000	23-29,000			21-27,000		
Sand (irrigated)	34-40,000	31-37,000		28-34,000			
Brand products	2F91AMXT™*	1S26AMXT™*	6F74AMX™*	7577 3010	2R67™*	3H85AMX™*	7V66AMXT™*
	2N82AM™*	1G48AMXT™*	7A18 Q™*	7M83AM™*	4J90™*	4A67AMXT™*	5K33AM™*
		2B77AMXT™*	9C24 3110A	2R63 R™*	6R20	5C17AMXT™*	6C41 S™*
		4J95AMX™*	1G39AM™*	4J99 R™*	6Q60	5K35AMX™*	6C40 <sup>™</sup> *
		6216 3111A	2Y06AM™*	6T51 GT	7M80™*	6P75AMX™*	6P73AM™*
		6L45AMT <sup>™</sup>	4J93AM™*	6F71 R™*			
		6T54 3000GT	6N83AM™*	3442			

Best standability is normally achieved at the lowest recommended rates. Allows for a 10% stand loss.

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Northern Burrus AMs tour the Hughes production facility.



Jett likes helping his dad, Kyle Page in Ogle Co.



One last walk through the plot for the Burrus agronomy team and Burrus family members – it's a tradition.



Mark Butler of HIP Advertising, photographer Chad Mitchell & Tom Burrus do what it takes to get the perfect shot.

#### **CASS**

#### **PS SDS** is an advantage

Brian Burrus, Arenzville. IL

Planted: May 14 in 30" rows. Planting Population: 140,000. Harvested: September 26. Previous Crop: Corn. Herbicide: Sonic, Glyphosate, Liberty. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 355LL PS SDS	63.7	10.3
HOBLIT 355LL PS SDS	63.4	10.3
HOBLIT 355LL PS	60.1	10.4
HOBLIT 355LL PS	58.0	10.3
Average	61.3	10.3

#### **GREENE**

#### 3.6 maturity shines

Ted Ballard/Bob Schaefer, Carrollton, IL

Planted: May 31 in 30" rows. Planting Population: 165,000. Harvested: October 31. Previous Crop: Corn. Fertilizer: P: 200, K: 200. Herbicide: Glyphosate + 2,4-D, Glyphosate + FlexStar Post. Soil Type: Medium Clay. Weather: May-normal, June-dry, July-dry, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 36A1X™* PS SDS	71.8	9.1
POWER PLUS 36R8 <sup>TM</sup> * PS SDS	68.5	9.4
POWER PLUS 36J3™* PS	68.5	9.5
POWER PLUS 36J3™* PS SDS	67.8	9.1
POWER PLUS 38K6™* PS	67.7	9.2
POWER PLUS 38K6™* PS SDS	67.6	9.3
POWER PLUS 41B8™* PS SDS	67.3	8.4
POWER PLUS 36J3™* PS SDS	66.8	9.0
Average	68.2	9.1

Dan Carter, Carrollton, IL

Planted: May 14 in 30" rows. Planting Population: 170,000. Harvested: October 1. Previous Crop: Corn. Herbicide: Fierce XLT, Liberty, Select. Soil Type: Light loam. Weather: May-wet, June-dry, July-dry, August-normal.

Brand/Product	Bu. Per Acre	% Moisture
HOBLIT 405LL PS SDS	72.2	16.1
HOBLIT 384LL PS SDS	69.5	11.8
HOBLIT 355LL PS	69.5	11.1
HOBLIT 405LL PS	68.5	17.2
HOBLIT 384LL PS	68.5	12.4
Average	69.6	13.7

# Mitigating off-target movement of dicamba

Jamie Long, C.C.A.

The release of dicamba-tolerant (DT) soybeans and accompanying herbicides in 2017 led to an influx of off-target movement issues associated with dicamba applications. Off-target movement can occur with any herbicide, but symptomology due to exposure of dicamba can occur at an extremely low rate and non-DT soybeans are one of the most sensitive plant species to dicamba. Three routes of off-target movement include: physical spray drift, tank contamination, and volatilization.

#### **Physical Spray Drift**

Physical spray drift occurs when spray droplets do not reach an intended surface in the field. The most common form of physical spray drift is when fine droplets (driftable fines) are transported via wind and often injure nearby (downwind) sensitive plants. To reduce the potential for physical spray drift, the applicator can spray in low wind speeds (3 to 10 mph), use nozzles that produce an



Leaf cupping, a sign of dicamba injury and a common sight during the 2017 growing season.

ultra-coarse droplet spectrum, use low boom height, and apply at slow sprayer speeds. In addition to the droplets moving directly with the wind, physical spray drift can also occur if there is a temperature inversion present at the time of application. A temperature inversion is most likely to occur in the morning or evening hours and consists of warm air trapped beneath cool air. If an application occurs during a temperature inversion, the herbicide particles can be suspended above or at the canopy and can move either parallel through the temperature inversion and eventually settle out or can remain suspended until the temperature inversion is released and move with the air until settling out. To prevent movement due to a temperature inversion, avoid spraying at 0 to 3 mph winds, do not spray in the morning or evening hours, or use a smoke bomb to detect a temperature inversion.

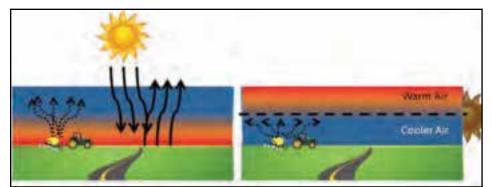
#### **Tank Contamination**

Tank contamination occurs when the spray tank and boom are not properly cleaned following the application of dicamba. It is

important to clean the entire system with a commercial tank cleaner followed by two rinses with water alone. In addition to cleaning the tank, it is critical to clean the boom, screens, end caps, and to open valves to ensure the entire system is properly rinsed.

#### Volatilization

Dicamba volatilization is when the herbicide droplets land on a surface in the field but can volatilize or "pick up" after the application and is difficult to predict. Volatility can occur days after the herbicide application and is driven by many factors including environment, surface, and formulation. Volatility is more likely to occur during high evaporation times, such as high temperature and low humidity. Volatility occurs more from a plant surface than from soil, therefore late post applications may be more prone to volatilization due to more plant material in the field and likely increased daily temperatures. Using the low-volatile, improved formulations is imperative in reducing the potential for



Doug Shoup, K-State Research & Extension

#### Crane Bros, Carrollton, IL

Planted: May 15 in 15" rows. Planting Population: 150,000. Harvested: October 23. Previous Crop: Corn. Herbicide: Fierce XLT, Liberty. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 384LL PS SDS	70.4	9.5
HOBLIT 384LL PS	68.9	9.0
Average	69.6	9.2
Dan Carter.		

Dan Carter, Carrollton, IL

Planted: April 25 in 30" rows. Planting Population: 170,000. Harvested: October 1. Previous Crop: Corn. Herbicide: Warrant, Roundup. Soil Type: Light loam. Weather: Maywet, June-dry, July-dry, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 36A1X™* PS SDS	56.7	11.0
POWER PLUS 41B8™* PS	50.4	11.3
POWER PLUS 38K6™* PS SDS	50.4	10.7
POWER PLUS 38K6™* PS	48.2	11.0
POWER PLUS 36J3™* PS SDS	47.9	10.8
POWER PLUS 36J3™* PS	47.6	11.2
POWER PLUS 35C7™* PS	46.2	10.9
POWER PLUS 36R8™* PS SDS	44.0	11.1
Average	48.9	11.0



## **Utilizing the LibertyLink®** soybean system

Jamie Long, C.C.A.

The LibertyLink® system provides growers a high yielding soybean and an additional option for combatting or slowing the spread of glyphosate and PPO-resistant weed species on their farm. Currently, over 50% of the soybean seed sold by Burrus is LibertyLink. The success of the system can be contributed to both the high yield potential, as well as the excellent weed control of Liberty® herbicide. The following information contains tips for successfully utilizing the LibertyLink system. This information can benefit growers already using the system, as well as growers considering planting LibertyLink soybeans on their farm to prevent herbicide resistance.

#### LibertyLink seed

LibertyLink seed has a high yield potential and as university research has shown, LibertyLink soybean varieties have an average 2.1 bu/a yield advantage over Roundup Ready 2 Yield® soybean varieties. Burrus offers a full LibertyLink portfolio of maturities (2.3 to 4.5) that reach outstanding yields, even in tough conditions. In addition to the current Burrus portfolio, there are three new LibertyLink varieties (Hoblit 298LL, Hoblit 368LL, and Hoblit 418LL) being introduced for the 2018 growing season that have research proven high yield potential.

To maximize your LibertyLink soybean yield potential, include PowerShield® seed treatment to enhance emergence and protect against early season pathogens and insects. In situations with sudden death syndrome (SDS) concerns, PowerShield for sudden death syndrome (PS SDS) seed treatment can protect against yield loss due to SDS. Talk with your Burrus Seed representative for more information on variety and seed treatment selection.

#### Liberty herbicide

Liberty herbicide provides control of grass and broadleaf annual weed species, including those weeds that are glyphosate-resistant, using glufosinate as its active ingredient. Liberty is a contact herbicide, meaning is does not move within the plant, an aspect different than glyphosate. To ensure optimum weed control, the applicator must follow certain application parameters.

#### • Coverage

Because Liberty is a contact herbicide, it will not translocate within the plant, meaning it only kills what it contacts. The Liberty label recommends using nozzles that produce medium to coarse droplets.

#### Carrier volume

Liberty is recommended to be applied at 20 gallons of water per acre, to achieve proper coverage on the leaf surface.

#### Rate and timing

Liberty can be applied through the R1 (beginning bloom) soybean growth stage at a rate of 32 - 43 fl. oz/a in soybeans, up to 87 fl. oz/a per year.

#### Weed size

Target small (<3"), actively growing weeds to achieve optimum control.



Hughes 266LL soybeans looked great for Jeff Busch in LaSalle Co.

Kaity Spangler was selected to represent the University of Illinois as a member of the 2017 Homecoming Court. She is pictured with her grandparents, Sharon & Bruce Spangler, longtime Burrus supporters

#### **JO DAVIESS**

#### Power Plus® 2808<sup>TM</sup>\* PS SDS wins!

Kyle Embry, Hanover, IL

Planted: May 16 in 30" rows. Planting Population: 138,000. Harvested: October 18. Previous Crop: Corn. Soil Type: Medium Clay. Weather: May-wet, June-wet, July-wet, August-

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 28Q8TM* PS SDS	55.2	11.4
POWER PLUS 25G8™* PS SDS	54.0	11.3
POWER PLUS 26Z5™* PS SDS	51.4	11.1
POWER PLUS 26Z5™* PS	50.1	11.2
POWER PLUS 24F8™* PS SDS	49.8	11.2
POWER PLUS 26Z5™* PS	48.4	11.9
POWER PLUS 20B7™* PS SDS	48.1	11.4
Average	51.0	11.4

#### KANKAKEE



Planted: April 22 in 30" rows. Planting Population: 120,000. Harvested: September 29. Previous Crop: Corn. Herbicide: 2,4-D, Roundup, Authority, Liberty. Soil Type: Heavy loam. Weather: May-wet, June-dry, July-dry,

Brand/Product	Acre	Moisture
POWER PLUS 24F8™* PS	77.4	9.6
HUGHES 266LL PS SDS	70.0	9.6
POWER PLUS 25G8™* PS	69.4	9.9
POWER PLUS 32D5™* PS SDS	68.1	9.1
HUGHES 266LL PS	68.0	9.4
POWER PLUS 32D5™* PS	67.8	9.2
POWER PLUS 30M8™* PS SDS	66.2	8.8
POWER PLUS 26Z5™* PS SDS	62.6	9.0
POWER PLUS 26Z5™* PS	62.4	8.8
Average	68.0	9.3

#### **LASALLE**

Jeff Busch, Oglesby, IL

Planted: May 11 in 30" rows. Planting Population: 140,000. Harvested: October 3. Previous Crop: Corn. Herbicide: Liberty. Soil Type: Heavy loam. Weather: May-wet, Junenormal, July-dry, August-dry. Remarks: Used fungicide. Some white mold in field.

	Bu. Per	%
Brand/Product	Acre	Moisture
HUGHES 285LL PS SDS	70.8	10.4
HUGHES 285LL PS	69.7	10.2
Average	70.2	10.3

#### **LOGAN**

Larry Martin, Lincoln, IL

Planted: May 15 in 30" rows. Planting Population: 150,000. Harvested: September 28. Previous Crop: Corn. Soil Type: Heavy loam. Weather: May-wet, June-wet, July-normal, August-normal

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 31W7™* PS	73.4	12.1
POWER PLUS 31W7™* PS	71.9	11.4
POWER PLUS 31W7™* PS SDS	71.5	11.6
POWER PLUS 31W7™* PS SDS	70.1	12.1
Average	71.1	11.8

#### **MACOUPIN**

Mike Cole, Palmyra, IL

Planted: April 28 in 30" rows. Planting Population: 140,000. Harvested: September 20. Herbicide: Liberty. Weather: May-wet, Junenormal, July-dry, August-dry.

Brand/Product HOBLIT 384LL HOBLIT 405LL HOBLIT 426LL	Bu. Per Acre <b>82.1</b> 77.7 76.4	% Moisture 10.5 11.8 13.0
HUBLII 426LL	/b.4	13.0
Average	78.7	11.8

#### **Greg Rosentreter**, Gillespie, IL

Planted: May 15 in 15" rows. Planting Population: 170,000. Harvested: October 4. Previous Crop: Corn. Herbicide: Prefix, Liberty. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 384LL PS	73.0	8.9
HOBLIT 384LL PS SDS	70.8	8.8
Average	71.9	8.9

#### **MARION**

#### Power Plus® beans take top 7 places

Steve Brummel, Salem, IL

Planted: June 7 in 30" rows. Planting Population: 180,000. Harvested: October 2. Previous Crop: Corn. Herbicide: Gramoxone with Prefix burndown and Roundup post. Soil Type: Medium Clay. Weather: May-normal, June-dry, July-normal, August-dry. / Check Hybrid: Generic

		Bu. Per		%
Brand/Product		Acre	Rank	Moisture
√CHECK		48.2		9.2
Generic GT40		49.2	8	8.6
√CHECK		47.3		8.5
Generic GT41		43.4	9	9.0
√CHECK		46.8		8.6
POWER PLUS 41B8™* P	PS SDS	47.6	7	8.1
√CHECK		45.6		8.5
POWER PLUS 38K6TM*	PS	47.5	5	8.3
√CHECK		45.7		8.4
POWER PLUS 38K6™* P	PS SDS	47.1	4	8.1
√CHECK		44.1		8.1
POWER PLUS 36R8™* F	S	45.7	6	8.1
√CHECK		44.0		8.3
POWER PLUS 36A1XTM* P	PS SDS	46.3	2	7.9
√CHECK		42.9		7.9
POWER PLUS 36J3™* P	S SDS	46.7	1	8.1
√CHECK		43.6		8.2
POWER PLUS 36J3™* P	S	47.1	3	8.2
√CHECK		45.3		8.2
Average	_	46.0		8.3
Check Average	_	45.4		8.4

#### **MONROE**

#### Power Plus® 36J3<sup>TM</sup> \* makes 81 bu/a



Planted: May 31 in 180" rows. Planting Population: 140,000. Harvested: October 19. Previous Crop: Corn. Fertilizer: P: 100, K: 200. Herbicide: Authority XL, Glyphosate, 2,4-D, Prefix. Soil Type: Medium Clay. Weather: Maywet, June-normal, July-dry, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 36J3™* PS	81.0	10.5
POWER PLUS 36J3™* PS SDS	76.8	10.3
POWER PLUS 36A1XTM* PS SDS	76.8	10.7
POWER PLUS 38K6™* PS SDS	75.7	9.9
POWER PLUS 41B8™* PS	72.5	9.8
POWER PLUS 36R8™* PS	71.1	10.2
POWER PLUS 38K6™* PS	69.9	9.9
Average	74.8	10.2







# Combine management strategies for high soybean yields

Stephanie Porter, C.C.A.

On July 19th, the Illinois Soybean Association's ILSOY Advisor Field Day took place in Roseville, IL on the farm of Ron Moore, current President of the American Soybean Association (ASA). As a presenter, I spoke with growers answering questions about incorporating management strategies to increase soybean yields. The foundation of this discussion was Dr. Fred Below's Six Secrets of Soybean Success, but was focused on remaining profitable and sustainable in the future.

#### 1. Weather

Weather is the #1 influence on soybean yields. We can't control Mother Nature, but we can plant early to obtain more sunlight or photosynthesis. Plant at the same time as corn, but make sure the soil is fit. Next, look at the extended forecast and do not expose to temperatures below 50° F for the first 24-48 hours during their rapid water imbibition period. After this time, soybeans should be tolerant to cold but there can still be a frost risk after emergence, especially moving north.

#### 2. Fertility

Hands down, fertility has been most instrumental when it comes to obtaining soybean yields above 60 bu/a. In the past,

our fertility program centered around corn and our soybeans often got the "leftovers." Recent research has focused on fertility needs of soybeans at key times during the growing season. Soil test often and supply soybean crops with P (phosphorus) and K (potassium), so they are not limiting factors of yield.

#### 3. Foliar protection

Because most soybean yield (60-80%) comes from the middle of the plant (nodes 5-16), it is vital to protect that yield by applying a fungicide or insecticide at the growth stage R1 - R3. Canopy protection is needed to protect critical reproductive growth stages (R1 - R5). Soybean varieties can differ in disease and aphid tolerance, and scouting fields throughout the growing season will guide economic foliar management decisions.

#### 4. Genetics

The rate of soybean genetic gain has increased with investment and new breeding methods. When planting early, growers should choose the right variety that is a fuller maturity to increase yield. Since early planted soybeans will have a longer time to grow before bloom, they may grow taller. Therefore, a reduction in planting populations is suggested not only to help encourage branching (more

nodes/pods) and reduce lodging, but also to alleviate some disease issues.

#### 5. Row arrangement

Many university studies have shown that narrow row soybeans produce higher yields. Dr. Below's work has also shown crop yield in narrow rows is more responsive to increased management as discussed throughout this article.

#### 6. Seed treatment

When planting early, seed treatment such as PowerShield® for sudden death syndrome (PS SDS) is a must not only for root rot protection, but also for management of SDS and early control of soybean cyst nematode (SCN). Don't forget the insecticide (neonicotinoid) can not only increase vigor, but also manage early season insects, such as bean leaf beetle.

A systems approach of many different management strategies is required when seeking high soybean yields, but factors such as field drainage, proper pH, planting depth (1.5 - 2 inches), and weed control should not be ignored. We want each soybean plant to be a factory with efficient production, while overcoming potential limiting factors. When thinking high soybean yields, one must be willing to take risks to earn rewards, while incorporating good agronomics for success.



Limited soybean yields were not attributed to a single insect in 2017, but rather a combination of pests.

Stephanie Porter and Tom Corbin representing Burrus at the ILSOY Advisor Field Day. (courtesy of Jill Loehr, *Prairie Farmer*)

#### **MONTGOMERY**

Brent Harrison, Fillmore, IL

Planted: May 23 in 30" rows. Planting Population: 150,000. Harvested: September 30. Previous Crop: Corn. Herbicide: Sonic Pre-Emergent, Liberty. Soil Type: Medium loam. Weather: May-wet, June-dry, July-dry, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 405LL PS SDS	49.9	11.5
HOBLIT 405LL PS	49.1	11.4
HOBLIT 405LL PS SDS	47.9	10.8
HOBLIT 405LL PS	43.5	11.0
Average	47.6	11.2

#### **MORGAN**

Bill Points, Waverly, IL

**Planted:** May 17 in 30" rows. **Harvested:** September 30. **Previous Crop:** Corn. **Weather:** May-normal, June-dry, July-dry, August-dry.

Brand/Product HOBLIT 384LL PS HOBLIT 384LL PS SDS	Bu. Per Acre <b>75.4</b> <b>75.4</b>	Moisture 9.8 9.8
Stine 38LE02 Standard HOBLIT 384LL PS	74.7 <b>74.5</b>	9.8 <b>10.2</b>
Average	75.0	9.9

Phil Hinners, Meredosia, IL

Planted: May 10 in 30" rows. Planting Population: 160,000. Harvested: October 17. Previous Crop: Corn. Herbicide: Valor, Fierce, Roundup, 2,4-D. Soil Type: Heavy loam. Weather: May-normal, June-dry, July-dry, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 38K6™* PS	79.8	12.3
POWER PLUS 38K6™* PS	78.2	12.3
POWER PLUS 38K6™* PS	75.5	12.0
POWER PLUS 38K6™* PS	71.2	11.7
Average	76.2	12.1

#### OGLE

Adam Book, Leaf River. IL

Planted: May 28 in 30" rows. Planting Population: 140,000. Harvested: September 29. Previous Crop: Corn. Soil Type: Medium Ioam. Weather: May-wet, June-wet, July-normal, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 25A5™* PS SDS POWER PLUS 25A5™* PS	47.4 42.0	10.9 11.1
Average	44.7	11.0

#### **PEORIA**

# Power Plus® 35C7<sup>TM</sup>\* PS SDS takes fourth place



Planted: May 18 in 30" rows. Planting Population: 140,000. Harvested: October 20. Previous Crop: Corn. Soil Type: Loam. Weather: May-wet, June-normal, July-dry, August-dry. ✓ Check Hybrid: NK S35-C3. Remarks: Seed Treatment: Golden Harvest used Clariva Complete, others used Acceleron + ILeVO..

	D. D.		Adj. Test
rand/Product	Bu. Per Acre	Rank	Wt.
/Check	63.0		13.7
Asgrow AG39X7	62.2	5	13.2
Stone 2RX3827	59.7	16	13.3
NuTech 7384	60.7	11	12.7
S Hisoy 38X70	61.0	9	13.1
POWER PLUS 38K6™* PS SDS	61.9	7	12.8
Asgrow 36AX	61.9	6	12.7
Stone 2RX3527	60.6	12	12.8
Stine 35RF02	60.8	10	12.6
Pfister 35R201	59.8	15	12.3
S Hisoy 35X70	62.5	3	12.8
Golden Harvest 3586X	66.9	1	12.6
/Check	62.1		12.5
POWER PLUS 35C7TM* PS SD	S 62.7	4	12.4
Becks 3559X2	61.9	8	12.8
Monier 3457	60.7	13	12.7
Credenz C23383	65.2	2	12.4
Becks 3153X2	59.8	17	12.3
Credenz C23060	60.3	14	12.4
Pfister 29R25	57.7	21	12.6
Monier 2837	57.8	20	12.5
NuTech 7279	54.3	22	12.2
Golden Harvest GH2788X	58.5	19	12.4
Stine 26BA32	59.0	18	12.5
/Check	64.0		12.4
Average	61.0		12.7
Check Average	63.0		12.9



Kenny & Jeanna Rutter were named Shelbina, MO 2017 Farmers of the Year at the Shelbina Farmers Day.

## Burrus soybeans win big again this year

Place	Hybrid/Brand	Yield	Entries	Sponsor	Cooperator	County
1st	266LL	75.2	11	Independent	John Rokey	Woodford
1st	36A1X™*	73.2	12	Independent	North Posey FFA	Posey, IN
1st	25G8™*	68.3	17	Independent	Rowntree Farms	Racine, WI
2nd	28Q8™*	79.3	14	Independent	Matt Schlachter	Stephenson
2nd	384LL	74.1	11	Independent	John Rokey	Woodford
3rd	28Q8™*	66.9	17	Independent	Rowntree Farms	Racine, WI
4th	355LL	73.7	11	Independent	John Rokey	Woodford
4th	35C7™*	62.7	22	Independent	Peoria Co. Corn/Soy Promoters	Peoria

## **Insect pressures in 2017**

Josh Gunther, C.C.A.

The 2017 growing season brought with it some interesting insect pressures. While many of the common, annual insects were back again this year, we also experienced pressure from insects not typically seen in large numbers because of a mild winter.

Early in the season, we noted severe black cutworm pressure in portions of the Burrus footprint. This served as a good reminder of the increasing importance of seed treatments and traits. Keep in mind, black cutworms will completely chew off small seedling corn plants which will reduce the stand under severe pressure.

Another early season insect noticed was bean leaf beetle feeding on early planted soybean seedlings. Again, seed treatments have helped protect our soybeans from this pest. Burrus PowerShield® seed treatment contains Gaucho® 600, an insecticide that protects against early season bean leaf beetle feeding. We noted in our seed treatment study the difference between seed treatments that contained insecticides and ones that did not. Seed treatments without insecticides had much more severe feeding from bean leaf beetles whereas the PowerShield checks had only a few holes and dead bean leaf beetles could be seen beneath the plants.

One insect not typically seen in mass numbers came in very heavy this year in certain areas. This insect was the thistle caterpillar, also known as the painted lady butterfly in adult stages. When in larva form, this caterpillar feeds on soybean leaves, then forms a web by tying leaf margins together, giving it a safe place to feed. The cupped leaves with a web-like material inside is where the larva will feed until it is ready for a chrysalis,





Bean leaf beetle feeding on soybeans with seed treatment (left) and without (right).

which will hang from the soybean plant. Even though the threshold for this insect is very high, some growers had to use insecticides because they were over the threshold levels.

Perhaps the most devastating insect of 2017 was the Japanese beetle. With a mild winter last year across most of the Burrus footprint, we saw higher insect pressures this summer. Many growers noted a number, far above average, of white grubs when digging plants this year. Many of these white grubs were likely Japanese beetle larva.

Japanese beetle can be a devastating pest in both corn and soybeans. Japanese beetles can be the most overwhelming in corn during pollination time. Although these beetles will feed on corn leaves, they do the most damage to a corn crop when feeding on the silks. If Japanese beetles keep the silks cut short (under ½"), there can be pollination issues on that ear. Typically, silk clipping will be the worst on the field edges or near waterways. This is not a pest that can be scouted from a truck window. Walking the entire field is necessary to determine if an insecticide application must be made.

In soybeans, the main yield loss from Japanese beetles comes from leaf feeding. It is shocking how quickly these beetles can defoliate soybeans. The threshold level for Japanese beetles in soybeans is determined by figuring the defoliation percent of the crop. As in corn, Japanese beetle feeding will typically be the worst on the field edges, so it is important to walk the entire field before deciding to spray. Japanese beetles can be an economically damaging pest in both corn and soybeans. Growers need to continually scout fields during the summer months to keep an eye on these insects and be certain thresholds are not surpassed.



Japanese beetle defoliation on soybean plants.



Thistle caterpillar on soybeans.



Extreme Japanese beetle corn feeding.

#### **SANGAMON**

#### PowerShield® SDS yields

Curtis Biesenthal, New Berlin, IL

Planted: April 23 in 30" rows. Planting Population: 140,000. Harvested: September 30. Previous Crop: Corn. Fertilizer: N: 54, P: 138, K: 180. Herbicide: Boundry, Flex Star, Cadet. Soil Type: Medium loam. Weather: May-normal, June-normal, July-dry, August-dry.

	Du. Fei	/0
Brand/Product	Acre	Moisture
Cropland RX3556 Warden CX	83.3	8.4
POWER PLUS 36A1XTM* PS SDS	80.7	8.0
POWER PLUS 36R8™* PS SDS	79.7	8.0
POWER PLUS 35C7™* PS SDS	78.8	7.8
Cropland RX3896 Warden CX	77.8	7.8
POWER PLUS 36J3™* PS	76.8	7.9
POWER PLUS 38K6™* PS	76.7	8.0
POWER PLUS 36J3™* PS SDS	76.6	8.1
POWER PLUS 35C7™* PS	76.6	8.1
POWER PLUS 32D5™* PS	75.7	8.0
POWER PLUS 38K6™* PS SDS	74.8	7.9
POWER PLUS 41B8™* PS SDS	73.6	9.3
Average	77.6	8.1

#### **SHELBY**

#### PS SDS wins by 5.1 bu/a

Ron Schultz, Stewardson, IL

Planted: May 28 in 15" rows. Planting Population: 154,400. Harvested: October 16. Previous Crop: Corn. Herbicide: Liberty. Soil Type: Medium loam. Weather: May-wet, Junenormal, July-dry, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 384LL PS SDS	55.1	12.7
HOBLIT 405LL PS	54.7	13.3
HOBLIT 405LL PS	54.2	12.8
HOBLIT 418LL PS	52.9	12.9
HOBLIT 368LL PS SDS	52.7	13.3
HOBLIT 355LL PS	52.1	12.9
Becks 394LL	50.6	13.5
HOBLIT 384LL PS	50.0	13.1
HOBLIT 457LL PS	50.0	15.2
Average	52.5	13.3



PowerShield® SDS treatment topped the regular version by 5 bu/a in Shelby Co. for Kay & Ron Schultz.



# **Agronomy team members achieve CCA certification**

Two additional members of our agronomy team completed the Certified Crop Adviser (CCA) program to receive CCA certifications this year. Product Lead Josh Gunther and Research Coordinator Chip Turner both pursued and received the respected title. Considered a benchmark of professionalism by the American Society of Agronomy, achieving CCA accreditation is a challenging process. Applicants must pass two comprehensive exams, meet experience requirements, and agree to uphold the CCA Code of Ethics. Obtaining continued education credits is required to maintain the certification.

Josh Gunther joined the Burrus team in May of 2015. Originally from Camp Point, IL, Josh now resides in Jacksonville, IL with his wife, Brittany and 1-year-old daughter, Berkley. Serving as our Product Lead, Josh uses his Master of Science in Plant, Soil, and Agricultural Sciences with a specialty in Plant Breeding degree from Southern Illinois University to contribute to the production, research, and selection of Burrus Seed corn and soybean products.

Chip Turner has been a member of the Burrus agronomy team since October 2013. Growing up on his family's farm near Atlanta, IL, Chip attended the University of Illinois in Urbana-Champaign. Chip was one of the first students to graduate from the Technical Systems Management program with a Master of Science degree. Prior to joining Burrus, Chip farmed and worked five years for Central Illinois Ag, a Case IH dealership. As our Research Coordinator, Chip plans and manages our extensive product testing program as well as serving as our planting specialist. Chip now lives in Virginia, IL with his wife Rachel,

#### **STEPHENSON**

# Power Plus® 28Q8<sup>TM</sup>\* is second at 79.3 bu/a



Matt Schlachter, Kent, IL

Planted: June 1 in 30" rows. Planting Population: 130,000. Harvested: October 3. Previous Crop: Corn. Soil Type: Medium Clay. Weather: May-wet, June-wet, July-wet, Augustdry.

	Bu. Per	%
Brand/Product	Acre	Moisture
Asgrow AG26X8	80.9	15.9
POWER PLUS 28Q8™*	79.3	19.8
Asgrow AG21X7	79.2	11.3
FS Hisoy HS 23X70 Signum	78.3	12.2
FS Hisoy HS 23X70 Signum Force	78.0	12.8
Asgrow AG23X8	76.4	12.1
Asgrow AG24X7	76.1	13.4
POWER PLUS 24F8™*	75.2	11.8
FS Hisoy HS 25X70	74.5	15.1
POWER PLUS 25G8™*	74.4	16.4
POWER PLUS 20B7™*	74.2	10.8
Asgrow AG20X7	73.5	11.1
FS Hisoy HS 22X70	73.3	11.2
FS Hisoy HS 21X70	73.3	11.5
Average	76.2	13.2

daughter Angie (4), and twin sons David and Ethan  $(1 \frac{1}{2})$ .

It is important for us to back up the performance of our products with equally dependable staff support to growers. We are happy to have Josh and Chip on our team and are proud of their achievements.



Josh, Berkley & Brittany Gunther.



Chip (holding David), Angie, & Rachel (holding Ethan) Turner.

### TAZEWELL

#### **Nice yields**

Eddie Proehl, Manito, IL

Planted: May 18 in 30" rows. Planting Population: 140,000. Harvested: October 31. Previous Crop: Corn. Herbicide: Zidua, Roundup, Resource, Quadris. Soil Type: Medium Ioam. Weather: May-wet, June-wet, July-normal, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 36J3™* PS	80.0	11.0
POWER PLUS 36J3™* PS SDS	79.5	10.9
POWER PLUS 36J3™* PS	77.8	10.9
POWER PLUS 36J3™* PS SDS	75.6	10.8
Average	78.2	10.9



Hannah Sell won Open Show Grand Champion Market Lamb at both the Rock Island & Mercer Co. fairs. She is the daughter of Brant & Staci Sell.



Tom & Tami Moore of TNT Farms saw PS SDS add yield & give a positive ROI in Winnebago Co.



Burrus AM Donny Marnin, Bob Casner, Burrus Sales Agronomist Jamie Long, Kevin Casner & Burrus AM Riley Young were a team for MO Corn Growers Sporting Clays Shoot.



Tom Proehl saw Power Plus® 36J3<sup>TM\*</sup> PS hit 80 bu/a in his father, Eddie's Tazewell Co. plot.

# Check out burrusseed.com for more plot results!

#### **WHITESIDE**

# Upper 80's with Power Plus® 28Q8TM\* & Power Plus® 25A5TM\*



**Planted:** May 26 in 30" rows. **Harvested:** October 19. **Previous Crop:** Corn.

Prand/Product POWER PLUS 28Q8TM* POWER PLUS 25A5TM* HUGHES 555 POWER PLUS 30M8TM* POWER PLUS 20B7TM*	86.9 86.3 80.3 79.9 78.8	% Moisture 11.0 10.2 10.4 10.6 10.6
POWER PLUS 24F8 <sup>TM</sup> * POWER PLUS 26Z5 <sup>TM</sup> *	78.8 77.3 76.0	10.6 10.7 11.0
Average	80.8	10.6

#### **WINNEBAGO**

# PowerShield® SDS makes a positive difference



Planted: June 2 in 30" rows. Planting Population: 150,000. Harvested: October 2. Previous Crop: Corn. Soil Type: Medium loam. Weather: May-wet, June-wet, July-normal, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 25G8™* PS SDS	70.1	9.8
POWER PLUS 26Z5™* PS SDS	69.3	9.8
POWER PLUS 28Q8™* PS SDS	69.1	11.0
POWER PLUS 26Z5™* PS	68.1	10.2
POWER PLUS 28Q8™* PS SDS	67.8	10.6
POWER PLUS 26Z5™* PS	67.4	9.7
POWER PLUS 25G8™* PS SDS	66.5	9.6
POWER PLUS 20B7™* PS SDS	63.9	9.4
POWER PLUS 24F8™* PS SDS	63.2	9.7
Pioneer 25A70	63.1	9.6
POWER PLUS 24F8™* PS SDS	60.9	9.6
Average	66.3	9.9

Earl Williams Jr., Cherry Valley, IL

Planted: June 2 in 30" rows. Harvested: October 4. Previous Crop: Corn. Soil Type: Medium Ioam. Weather: May-wet, June-wet, July-normal, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 25A5TM* PS SDS	63.2	11.5
POWER PLUS 25A5™* PS	60.9	11.6
POWER PLUS 25A5™* PS	60.4	11.9
POWER PLUS 25A5™* PS SDS	59.7	12.0
POWER PLUS 25A5™* PS	59.2	11.6
Average	60.7	11.7

Scott Burkhart, Winnebago, IL

Planted: June 6 in 30" rows. Harvested: October 18. Previous Crop: Corn. Soil Type: Medium loam. Weather: May-wet, June-wet, July-wet, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 20B7™*	69.9	13.0
Pioneer 22T41	68.5	13.3
Average	69.2	13.2

# The Liberty® Weed Control Guarantee

Bayer CropScience and now BASF is offering a Liberty® Weed Control Guarantee again for the 2018 growing season. Hoblit and Hughes branded LibertyLink® soybeans are in hot demand and this program from Bayer/BASF provides growers peace of mind with proven crop safety on weed control issues. With many weeds showing resistance to the popular glyphosate herbicide, and the potential drift and volatility issues of other herbicide programs, the Liberty Weed Control Guarantee takes the guesswork out of which herbicide program to use. Bayer/BASF is dedicated to standing behind their Liberty herbicide product performance.

Bayer/BASF says Liberty herbicide is simply better weed control and a vast majority of growers agree. When you buy Liberty herbicide from an authorized Bayer retailer or distributor and apply it according to labeled rates and S.T.O.P. guidelines, Bayer guarantees it will meet commercially acceptable control. If commercially acceptable control is not met, talk to your retailer or local Bayer representative to ensure your satisfaction.





Jim Hughes, Tom Corbin & Josh Gunther, Burrus Product Lead evaluate a soybean research plot in Woodstock, IL.



Jamie Long, Burrus Sales Agronomist & Josh Gunther, Burrus Product Lead take notes on experimental soybean varieties near Centralia, MO.

#### To achieve optimal results, take the following actions:

- 1. Apply at recommended rates.
- 2. Follow all label directions.
- 3. Follow S.T.O.P. guidelines.
- 4. Follow regional and crop specific use guidelines and recommendations.

Talk to your retailer or local Bayer representative to get additional details for regional and crop specific use guidelines and recommendations.

- An authorized Bayer/BASF representative must be notified of a Liberty Weed Control Guarantee claim within 10 days of application and have a reasonable opportunity to inspect the sprayed area prior to making any rescue applications. The authorized Bayer representative must confirm inadequate control relative to commercially acceptable control.
- Only product purchased from a Bayer/BASF authorized retailer or Bayer/BASF distributor is eligible.
- All payments are subject to final approval by Bayer.
- Bayer reserves the right to audit all claims.
- Bayer reserves the right to change any or all features of the Liberty Weed Control Guarantee.

## More choices for you

At Burrus Seed, retaining our independent ownership grants us access to the industry's premier corn and soybean genetics to fit the way you farm. To ensure we are offering the best, we enter into strategic alliances with major companies and together, supply the best research answers for improving the corn and soybean yields for Burrus growers. Although our multi-brand strategy empowers growers with more choices and therefore higher profit potential, we maintain our responsive local service that you expect from the Burrus team.

The result of our multi-brand approach is simple; we give local growers access to the country's best germplasm and industry leading traits. While national giants can only offer the products that average the highest, Burrus provides the highest performing products for your acres. To ensure we can accomplish this we test on all soils, then, regression curves demonstrate the performance. By not restricting customers to a single trait platform, growers are able to rotate traits and genetics to increase their year-to-year yield potential.

Most single suppliers cannot match the choice of products and services available



Burrus Intern Griffin Greene installs Z-Traps to trap corn borer to evaluate for pressure.

through Burrus. Read the results in this publication and you will see our attention to detail adds performance. Preserve your farm for generations to come by rotating modes of action to avoid resistant weeds and insects. Depend on our team and products to help you create a sustainable model for your operation for the long haul.

When Tom and Todd Burrus drive past the farm their great-grandmother bought nearly 100 years ago, they hope their grandchildren will still be operating it for the next 100 years. This is a mindset that looks far beyond what the highest return will be this year. Our growers can relate to this mindset.

First started in 1935, Burrus family members are still running the company four generations later. It isn't easy to remain independently owned for over 80 years in an industry as competitive and unpredictable as the seed business, but at Burrus Seed, we know the value of our independence to both the success of our company and your growing operation. While the seed industry changes each year, what we stand for has not. Plant Burrus. Plant your legacy.



Burrus AM Cory Rimbey made a quick stop between grower visits to take in the solar eclinse



Liberty® herbicide, simply better weed control, handles tough-to-control and resistant weeds. It is the ONLY working nonselective herbicide to eliminate missed weeds and deliver real yields. Plus, now it comes backed by the Liberty Weed Control Guarantee."

#### Discover simply better weed control at Liberty.Bayer.us.

- \*Liberty's active ingredient is a Group 10 herbicide, which is the only broad-spectrum herbicide that effectively controls grasses and broadleaf weeds, and it has no known resistance in U.S. broadacre crops.
- \*\*To learn more about the Guarantee and guidelines for eligibility, see your Bayer representative or go to www.LibertyGuarantee.Bayer.us.

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#### **WOODFORD**

## Seed quality delivers vield



**Planted:** May 15 in 30" rows. **Harvested:** October 18. **Remarks:** Competitor Plot.

	Bu. Per	%
Brand/Product	Acre	Moisture
HUGHES 266LL	75.2	12.5
HOBLIT 384LL	74.1	10.4
Sun Prairie 354LL	73.9	11.1
HOBLIT 355LL	73.7	10.5
Stine 34LE32	73.7	11.4
Stine 36LE32	73.2	11.5
Sun Prairie 324LL	72.8	11.6
Beck's 366L4	72.7	11.3
Sun Prairie 284LL	72.6	11.4
Stine 38LF22	71.0	10.8
Sun Prairie 324LL	66.8	12.1
Average	72.7	11.3

#### James Zoss, Lowpoint, IL

Planted: May 13 in 30" rows. Planting Population: 145,000. Harvested: October 19. Previous Crop: Corn. Fertilizer: N: 10, P: 101, K: 105. Soil Type: Medium loam. ✓ Check Hybrid: Channel 3417R2X. Remarks: 12# Sulfur.

Brand/Product	Bu. Per Acre	Rank	% Moisture
CHECK	77.9	4.4	12.6
Channel 2918R2X FS HS 29X60	76.2 74.8	14 17	11.6 12.1
Beck 3153X2	74.0	23	12.1
Sun Prairie 31RX6	73.8	20	12.2
Channel 3318R2X	73.8	19	12.2
CHECK	74.8	13	12.1
LG Seeds C3333RX	77.5	10	11.9
Pioneer P33T19X	74.6	16	11.8
Asgrow AG 33X8	71.1	24	11.7
LG Seeds 3489RX	78.1	9	11.9
FS HS 34X60	79.7	5	11.7
✓ CHECK	77.4		12.0
Beck 3559X2	74.3	15	11.6
Stone 2RX3527	78.8	4	11.6
Sun Prairie 35RX6	75.3	11	11.5
LG Seeds C3550RX	75.1	13	11.8
Channel 3617R2X	75.2	12	11.6
<b>✓CHECK</b>	72.0		11.8
Pioneer P36T36X	68.2	21	11.5
Asgrow AG 36X6	76.8	3	11.5
POWER PLUS 36A1X™*	74.4	8	11.4
Channel 3718R2X	77.1	2	11.4
Beck 3779X2	70.6	18	11.5
Stone 2RX3827	68.0	22	11.6
<b>✓CHECK</b>	72.6		11.5
Channel 3917R2X	73.4	6	11.3
Pioneer P39T28X	77.8	1	11.4
Asgrow AG 39X7	73.1	7	11.7
<b>✓CHECK</b>	69.3		11.6
Average	74.4		11.7
Check Average	74.0		11.9



Burrus AM Donny Marnin provided the Blackwater, MO Midget League with Burrus

## Soybean systems

#### Jamie Long, C.C.A.

As an independent company, Burrus can offer multiple trait packages to help with managing weed issues in soybeans. Our current lineup includes LibertyLink®, dicamba tolerant (Roundup Ready 2 Xtend®), and glyphosate tolerant soybean varieties. We are also ready to supply a new technology, Enlist™ E3™ soybeans, pending approval

#### LibertyLink

Many Burrus customers currently utilize the LibertyLink system. These are soybeans tolerant to the Liberty® herbicide (active ingredient glufosinate), which has one mode-of-action effective against glyphosate resistant weed species. Liberty herbicide provides control of both grass and broadleaf species, but is a contact herbicide. Therefore, it needs adequate coverage to get full control. Coverage can be increased by selecting nozzles that produce a medium to coarse droplet size and by increasing the carrier volume or amount of water applied to 20 gallons per acre.

#### Pros:

- Liberty herbicide is non-selective, and therefore kills both grass and broadleaves.
- Bayer offers a Liberty Weed Control Guarantee.
- There are currently no resistant weed species in soybeans.

#### Cons:

- It is a contact herbicide and need proper coverage with medium to coarse water droplets and an increased water carrier.
- It will not control perennial weed species.
- Liberty can be weak on grasses because it cannot translocate to the growing point.

#### Keys to success:

- Tank mix a grass herbicide (i.e. clethodim) for added grass control.
- Use proper nozzles and carrier amounts for adequate coverage and control.
- Target small, actively growing weeds.

#### **Roundup Ready 2 Xtend**

Xtend soybeans are tolerant to postemergence applications of dicamba and glyphosate. The accompanying dicamba herbicides are XtendiMax®, FeXapan™, and Engenia®. This soybean technology offers two modes-of-action, one of which is effective against glyphosate resistant weeds. The dicamba herbicides only control broadleaf weed species; therefore, glyphosate is needed to control grass species. It is important to follow application restrictions when using these herbicides to avoid off-target movement to sensitive species. Follow the label, state restrictions, and the updated websites for each herbicide.

#### Pros:

- · It controls glyphosate resistant weeds.
- There is no plant back restriction between dicamba burndown and planting Roundup Ready 2 Xtend soybeans.
- It can control perennial species.

#### Cone.

- There are strict application restrictions.
- A possibility of not being able to apply dicamba in-season exists due to unknown state regulations.
- Off-target movement is a concern.

#### Keys to success:

- Be aware of your state's updated regulations regarding post-emergence dicamba applications.
- Understand how off-target movement occurs to reduce likelihood of injuring other plant/crop species.
- Current dicamba herbicides only include dicamba, so the addition of an approved tank mix partner is needed for grass control.

#### **Glyphosate tolerant**

Glyphosate tolerant soybeans are tolerant to applications of glyphosate (Roundup® products). Glyphosate has only one mode-of-action which is no longer effective on glyphosate resistant weed species. There are few application restrictions associated with herbicide applications in these soybeans. These soybeans are used throughout the Burrus footprint in areas where growers are still having success with controlling weeds.

#### Pros:

- If there is no current resistance, it controls all weed species.
- The system is easy to use.
- If using glyphosate in-season, growers save money by avoiding technology fees.

#### Cons

- Glyphosate resistant weeds continue to increase and spread.
- There is continued selection pressure on weeds that are not yet glyphosate resistant.
- The spread of glyphosate resistant weeds will likely lead to phasing out glyphosate tolerant soybeans.

#### Keys to success:

- Understand herbicide resistance on your farm and your neighbors' to know if glyphosate is still effective.
- Tank mix with other modes-of-action to achieve adequate control.
- Use alternative modes-of-action in corn to rotate technologies.

#### Enlist

Enlist E3™ soybeans are tolerant to 2,4-D, glufosinate (Liberty), and glyphosate, enabling three herbicide modes of action, two of which are effective against glyphosate tolerant weeds. The accompanying herbicides are Enlist  $\mathsf{Duo}^{\scriptscriptstyle{\circledR}}$  and Enlist  $\mathsf{One}^{\scriptscriptstyle{\intercal}}$  . Enlist  $\mathsf{Duo}$  is a pre-mix of 2,4-D choline and glyphosate with Colex-D®technology, which reduces drift and volatility. This herbicide can be applied to Enlist soybeans both prior to planting, with no plant back restriction, and through full bloom (R2 growth stage). Glufosinate can be applied in a separate application before or after Enlist Duo. Enlist One is a straight goods 2,4-D choline product and can be tank mixed with glufosinate and other products listed on EnlistTankMix.com.

#### Pros:

- It contains three herbicide tolerances, to enable two alternative herbicide modes-ofaction to control glyphosate resistant weeds.
- No plant back restrictions exist between burndown with an Enlist herbicide and planting Enlist soybeans.
- There are no buffer requirements between Enlist and non-Enlist soybeans.

#### Cons:

- There are application restrictions.
- Enlist E3 soybeans are awaiting import approval for some key import markets.

#### Keys to success:

- Follow application restrictions via www. enlist.com.
- Tank mix Enlist One (2,4-D choline) with Liberty (glufosinate) for multiple modes-ofaction on resistant weed species.
- Pay attention to tank mix partners, both contact and systemic, to avoid antagonism.

It is critical to properly steward all of these soybean systems to avoid future weed resistance issues. For more information on which system is best for your farm, contact your Burrus representative.



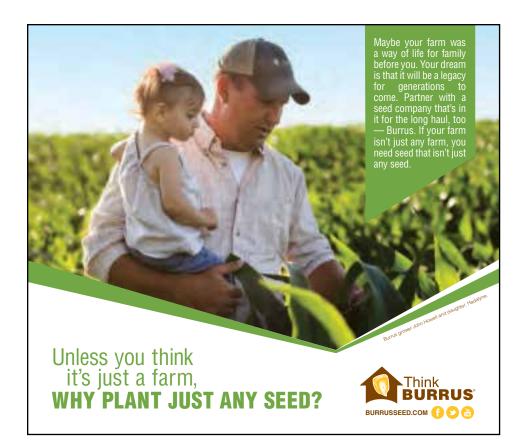
 ${\sf Enlist}^{\scriptsize \$}$  field demo at SM Tim Carmody's plot tour in Calhoun Co.



Andy Schmalshof, Burrus AMs Rick Urish & Jeff Hyde at ILSoy Advisor Field Day in Warren Co.



Burrus Interns Morgan McCormick & Mikayla Engeman erected field signs in MO.



#### **AUDRAIN**

# Big yields with the LiberyLink® system



Planted: April 27 in 30" rows. Planting Population: 140,000. Harvested: September 21. Previous Crop: Corn. Herbicide: Liberty. Soil Type: Medium Ioam. Weather: May-normal, June-normal, July-normal, August-normal.

Brand/Product	Bu. Per Acre	% Moisture
HOBLIT 384LL PS SDS	89.9	13.0
HOBLIT 384LL PS SDS	86.3	12.6
Average	88.1	12.8

#### **BOONE**

John & Zach Lorentzen, Sturgeon, MO

Planted: June 2 in 30" rows. Planting Population: 165,000. Harvested: October 7. Previous Crop: Corn. Herbicide: Liberty, Anthem Maxx. Soil Type: Medium loam. Weather: Maynormal, June-normal, July-dry, August-dry.

Brand/Product	Acre	Moisture
MFA 4222 Cruiser	57.6	11.5
HOBLIT 418LL PS SDS	55.7	11.9
HOBLIT 384LL PS	54.5	12.1
HOBLIT 384LL PS SDS	54.4	12.2
HOBLIT 368LL PS SDS	54.3	12.4
HOBLIT 405LL PS	54.0	11.9
HOBLIT 405LL PS SDS	53.3	12.1
HOBLIT 457LL PS SDS	44.5	12.0
Average	53.5	12.0

# Local research where you grow

To maximize profit and efficiency of scale, national companies must select products that perform across a wide geography rather than those more regional specific. We strive to bring whole-farm performance to our growers by maximizing the yield on each and every acre.

Burrus has an extensive testing program designed to identify the best products for our footprint. While many competitors focus testing on black soils, we test on the soil types you intend to plant. We have areas with high organic soils, stress prone soils, and everything in between in our test locations. Testing on all types of soil enables us to understand what products will work best on each farm

#### Predicting the future

We have sophisticated computer software that runs regression curves to predict future performance in many environments. We routinely utilize the best techniques to analyze data and are expanding our plant density studies to fine tune our Crop Optimization Planner. Put that tool to work on your farm



New Hoblit 418LL PS SDS made 55.7 bu/a in Boone Co., MO for Becky & John Lorentzen.

## detail during production creates a performance edge also. We don't cut corners

You will find, too, that Burrus production techniques are more meticulous than those of the competitors. In fact, performance studies show up to 18 bu/a greater performance with the highest quality seed compared to poor quality seed. Whether it is spraying Liberty® or Roundup® with our hooded sprayer to remove any plants not carrying the desired trait or double gravity and color sorting every unit, we cut no corners. Focusing on hybrids that provide superior performance in our footprint enables Burrus to provide exceptional products in areas where national companies can only offer an average performing product.

field-by-field and it can write a prescription by

soil type. It will adjust your planting population

In actuality, it is whole-farm yield that makes the difference in your profitability. Not only are

our testing methods better, our attention to

Sometimes you will hear the national companies say, "Distributors get our seconds."

#### **BUCHANAN**

# PowerShield®wins by 3.7 bu/a

Daryl Walkup, Gower, MO

**Planted:** May 15 in 20" rows. **Planting Population:** 142,000. **Harvested:** October 19. **Previous Crop:** Corn. **Weather:** May-normal, June-dry, July-normal, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 384LL PS SDS	76.0	13.4
HOBLIT 384LL PS	72.3	13.2
Average	74.2	13.3



Zach Whitehill, Burrus AM & Daryl Walkup saw Hoblit 384LL PS SDS spark a 3.7 bu/a advantage in Buchanan Co, MO.

#### Stalk us!









# 10 Reasons to "Believe-o" in (ILeVO®) PowerShield® SDS seed treatment

Stephanie Porter, C.C.A.

- Sudden death syndrome (SDS) is a major yield robbing disease that survives in the soil and on corn roots, meaning a corn after soybean rotation will not eliminate disease.
- 2. Even though some soybean varieties have higher disease scores for SDS, there is no variety that is completely resistant to SDS.
- 3. The pathogen that causes SDS infects roots early in the growing season and some soybean fields at higher risk are stressed, low-lying, poorly drained, compacted, or soybean cyst nematode infested.
- 4. Powershield® SDS (PS SDS) seed treatment not only reduces the risk of SDS, but

- also can provide early season control of soybean cyst nematodes.
- 5. Soybeans planted earlier or in cooler conditions ( $50-60^{\circ}$  F), can be more at risk for infection of the SDS pathogen, but earlier planting is the secret to higher soybean yields.
- **6.** We cannot predict the weather and ultimately, moisture from May until July can cause disease severity, but we also know rain makes grain.
- 7. If infected with the SDS pathogen, rainfall in late July or August can result in the translocation of the disease toxin, which causes SDS foliar symptoms to appear. But, the problem is plant roots can be

- infected with the SDS pathogen without foliar symptoms.
- 8. The higher rate of ILeVO® (.15 mg) is not a silver bullet for SDS, but a tool that can be used as an insurance policy along with other management strategies to combat disease.
- **9.** Many years of university and industry research has shown that the use of ILeVO can result in an increase of 2 to 10 bu/a depending on variables such as environment, soybean variety susceptibility, and foliar symptomology.
- **10.** Lastly, some growers just want the best seed treatment protection of PS SDS on 100% of their sovbean acres.

#### CARROLL

David & Robert Maasdam, Tina, MO

Planted: May 6 in 30" rows. Planting Population: 140,000. Harvested: October 17 Previous Crop: Corn. Fertilizer: P: 30, K: 40. Herbicide: Liberty, Prefix. Soil Type: Medium loam. Weather: May-normal, June-normal, Julynormal, August-normal. Remarks: 10 lbs of sul-

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 384LL PS	73.8	13.6
HOBLIT 384LL PS SDS	72.6	13.6
HOBLIT 384LL PS	72.0	13.6
Average	72.8	13.6

#### **CHARITON**

#### **Hoblit LibertyLink®** beans handle MorSoy



COMPARE McCormick Farms. Sumner, MO

Planted: May 15 in 30" rows. Planting Population: 150,000. Harvested: October 18. Previous Crop: Corn. Fertilizer: P: VRT, K: VRT. **Herbicide:** Matador, Liberty. **Soil Type:** Medium loam. Weather: May-normal, June-normal, Julydry, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 384LL PS	79.7	12.6
HOBLIT 405LL PS SDS	79.1	12.6
HOBLIT 384LL PS SDS	78.4	12.6
HOBLIT 368LL PS SDS	78.1	12.9
MorSoy 3973 CM	77.2	12.6
HOBLIT 418LL PS SDS	76.5	12.8
HOBLIT 405LL PS	75.0	12.6
HOBLIT 355LL PS	73.6	12.9
MorSoy 4222 CM	73.5	13.0
HOBLIT 457LL PS SDS	69.2	14.0
MorSoy 3944 CM	68.6	12.8
MorSoy 3759 CM	64.5	12.5
Average	74.4	12.8

McCormick Farms, Sumner, MO

Planted: May 10 in 30" rows. Planting Population: 150,000. Harvested: October 2 Previous Crop: Corn. Herbicide: Liberty. Soil Type: Medium Ioam. Weather: May-normal, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
HOBLIT 384LL PS SDS	61.5	10.3
HOBLIT 384LL PS	58.0	10.3
Average	59.8	10.3



Claire Marie enjoys spending time with her grandpa, David Dobson during harvest.

#### GRUNDY

#### PowerShield® SDS adds 1.9 bu/a in Grundy County



Aaron & Gary Bunnell/MG Kennedy, Trenton, MO

Planted: May 15 in 30" rows. Planting Population: 130,000. Harvested: October 18. Previous Crop: Corn. Soil Type: Medium loam. Weather: May-normal, June-wet, July-dry, August-dry. **Check Hybrid:** Hoblit 384LL PS.

Brand/Product	Acre	Rank	Moisture
<b>✓CHECK</b>	62.8		13.2
Hoblit 368LL PS SDS	60.9	4	13.0
Hoblit 384LL PS SDS	58.4	6	13.0
<b>✓CHECK</b>	62.2		12.9
Hoblit 418LL PS SDS	61.3	3	12.4
Hoblit 405LL PS	58.7	5	12.9
Hoblit 405LL PS SDS	63.7	1	12.5
Hoblit 457LL PS SDS	63.1	2	12.5
<b>✓CHECK</b>	59.1		12.7
Average	61.1		12.8
Check Average	61.4		12.9

#### **LAFAYETTE**

#### PowerShield® SDS adds 2.1 bu/a compared to PS

David Dobson. Lexington, MO

Planted: May 17 in 30" rows. Planting Population: 140,000. Harvested: October 19. Previous Crop: Corn. Herbicide: Liberty. Soil Type: Medium loam. /Check Hybrid: Hoblit

	Bu. Per		%
Brand/Product	Acre	Rank	Moisture
<b>√CHECK</b>	63.7		11.4
HOBLIT 355LL PS SDS	69.6	1	12.0
HOBLIT 368LL PS SDS	62.4	3	11.5
✓ CHECK	71.7		11.0
HOBLIT 384LL PS SDS	71.7	2	11.0
HOBLIT 405LL PS	62.7	6	11.0
HOBLIT 405LL PS SDS	62.7	6	11.0
HOBLIT 418LL PS SDS	66.4	4	11.2
HOBLIT 457LL PS SDS	65.6	5	11.2
✓ CHECK	74.0		11.0
Average	67.1		11.2
Check Average	69.8		11.1

Hibler Farms. Odessa, MO

Planted: May 9 in 30" rows. Planting Population: 150,000. Harvested: October 2. Previous Crop: Corn. Herbicide: Liberty. Soil Type: Medium Clay. Weather: May-normal, June-normal, July-wet, August-wet.

	Bu. Per	%
Brand/Product	Acre	Moisture
,	AGIG	moisture
HOBLIT 384LL PS SDS	54.3	9.5
HOBLIT 384LL PS	53.3	8.8
HOBLIT 405LL PS	52.6	8.6
Average	53.4	9.0

#### Your future is in the bag.

## **Enlist™ Field Forward™**

Through Burrus Seed's multi-brand strategy, we access genetics, products, and technologies from multiple suppliers enabling us to provide the very best products and services to our growers. One supplier we work with extensively is Dow AgroSciences. The 2017 growing season marked the second year a Burrus grower participated in the Enlist™ Field Forward™ program.

In 2016, Tony and Matt Bangert, of Scott Co., IL grew our Enlist E3 soybeans as part of the Field Forward program. When asked why participation in the Field Forward program was so beneficial, Tony replied, "The benefit is getting to see the actual results in a field I know, under the weed pressure I expect, and not having to rely on what someone else has told me to expect." Both Tony and Matt agreed the Enlist system controlled their weeds effectively without causing damage to neighboring crops.

In 2017, Burrus Dealer David Palmer and his daughter-in-law Kelby Palmer of Andrew Co., MO had the privilege of being Enlist Field Forward program participants. They planted a field of Enlist soybeans where they had previously experienced resistant weed issues with marestail, waterhemp, and lambsquarters. The program allowed them to apply Enlist Duo® herbicide to this field and monitor the results. Enlist Duo herbicide combines 2,4-D choline with glyphosate in a convenient herbicide blend for exceptional weed control designed to land and stay on target.

At the end of the growing season, they were very happy with the weed control achieved, especially on marestail, and are looking forward to it being commercially available! In addition to the control, they were pleased with the ease of use, lack of drift, and lack of damage to the neighboring soybeans after using Enlist Duo.

Growers across the country are tapping into the benefits of the Enlist weed control system to manage herbicide-resistant weeds. With the latest, high-yielding genetics, growers can use multiple herbicide modes of action for exceptional weed control. You can follow other growers' experiences with the advanced trait and herbicide technology of the Enlist system on www.enlist.com.



David Palmer inspects his Enlist soybeans with AM Zach Whitehill & Sales Agronomist Jamie Long.



David Palmer's clean Enlist soybean field treated with Enlist Duo in Andrew Co., MO.

## **Wear Burrus and** be rewarded

How would you like to earn an extra \$50? Brian Threkeld of Shelbina, MO wore his good looking Burrus polo when he was featured in AgWeb, powered by Farm Journal. It was an article featuring first generation farmers. What an easy way to add \$50 to your wallet!

If a photo of you wearing the Burrus, Hoblit, Hughes, or Power Plus® logo on a cap, jacket, or shirt is published in a print or online magazine or newspaper or appears on television, Burrus will send you a check. All you must do is wear your favorite seed supplier's name and send us the clipping explaining when and where it was published. Sorry, if your photo appears in a Burrus publication, it is not eligible for the reward.

Be sure to wear your favorite Burrus, Hoblit, Hughes, or Power Plus logo every day so you do not miss an opportunity. A \$50 reward is waiting!



Brian Threkeld of Shelby Co., MO. Courtesy of AgWeb

## What rot was hot in 2017?

#### Stephanie Porter, C.C.A.

For a disease to develop, a disease pathogen, susceptible host, and the right weather conditions must be present. During this growing season, the weather conditions varied greatly and several different diseases could be found. In early planted soybeans, many were worried about Pythium root rot thanks to the cool, wet weather. Later in May, I found a patch of Rhizoctonia root rot. The soybean stand appeared adequate, meaning this root infection took place after emergence when this area was wet and warm, and foliar symptoms appeared due to dry weather.

Many disease pathogens can infect soybeans early in the season with symptoms showing up later, usually in August. Over the last several years, usually in June, I have tried to make predictions on the likelihood of sudden death syndrome (SDS) showing up later in the season. This year, the likelihood of SDS was much more prevalent on soybeans planted early or in areas that had rain the first several months of the growing season. Diagnosis was difficult, because after splitting some stems, we found brown stem rot to be the culprit. This disease thrives in similar conditions as SDS and leaf symptoms can be easily confused with SDS. If it continued to be relatively dry and hot, charcoal rot infection would be more likely. In other areas, diseases such as white mold or stem canker could be found in August.

Again, a quick check of the stem was needed to make sure of a diagnosis.

Pay attention to environmental conditions, soybean varieties, and cultural practices to help identify, predict, and manage disease in your fields. Soybean varieties vary in their susceptibility to disease and there are often ratings for many of these diseases. Check with your agronomist for more information and soybean selection for your fields.

Seed treatments continue to be extremely important in helping to deter diseases, especially SDS. However, depending on environmental conditions, seed treatments can only provide 3 to 4 weeks of protection against many other root rots. Depending on the disease, lower plant populations may help to reduce conditions that cause diseases such as white mold and stem canker to develop. Some sources state that fungicide could help manage diseases such as stem canker or white mold, but timing of application is critical and control is not guaranteed. Depending on the label, fungicides for white mold are recommended at R1-R2 growth stages before infection occurs. Foliar fungicides can be applied during the early vegetative stages to help combat stem canker, but in most cases, it is not economical. Once these diseases show symptoms, fungicides are useless. For all of these rots, a multitude of management tools are needed to control disease and keep them from robbing yield in your fields.



Stem canker (right) with white mold (left) found in neighboring fields near Dane Co., WI.



Leaf and root symptoms of Rhizoctonia root rot found in research plot near Morgan Co.



Brown stem rot (stem and leaf symptoms) found near Edgar Co.

Early Season Soybean Disease Infection with Late Season Symptoms				
PATHOGEN	ENVIRONMENT	VARIETY	TREATMENT	
Charcoal rot	early wet / hot-dry later	partial resistance (ratings)	seed treatment / cultural	
Sudden death syndrome	early cool / wet later	partial resistance (ratings)	seed treatment / cultural / SCN	
Brown stem rot	early cool / wet / dry	gene marker resistance (ratings)	cultural / SCN	
Phytophthora root rot	wet	field tolerance and resistance genes (ratings)	seed treatment (early) / cultural	
Northern stem canker	early wet weather	resistance / partial resistance	seed treatment / cultural	
White mold	cool / wet at flower	partial resistance (ratings)	seed treatment / cultural	

Stephanie Porter, Burrus Seed Sales Agronomist

Conditions for Early Season Soybean Disease Development			
DISEASE	SOIL MOISTURE	SOIL TEMPERATURE	
Pythium	Flooded	Cool (50 - 60 F)	
Phytophthora	Flooded	Warm (70s F)	
Fusarium	Wet to dry	Cool to warm	
Rhizoctonia	Damp to wet	Warm (70 - 80 F)	

University of Wisconsin – UW Extension



Stephen & Daniel Ring soybean test plot got a good start in Johnson Co., MO.



check Hoblit soybeans from the sky in MO.



Burrus AM Jeff Hyde scouts soybeans and



Aaron Bunnell & MG Kennedy saw Hoblii 405LL PS SDS win in Grundy Co., MO.



#### **LEWIS**

Rick Durst, Durham, MO

**Planted:** May 5 in 15" rows. **Planting Population:** 165,000. **Harvested:** October 27. **Previous Crop:** Corn. **Weather:** May-normal, June-dry, July-dry, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 38K6™* PS	51.5	11.5
POWER PLUS 38K6™* PS SDS	51.4	11.5
Average	51.4	11.5

#### Larry & Scott Rutledge, Monticello, MO

Planted: May 10 in 30" rows. Planting Population: 150,000. Harvested: October 2. Previous Crop: Corn. Herbicide: Prefix, Liberty. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 405LL PS SDS	64.1	10.2
HOBLIT 355LL PS SDS	62.8	10.5
HOBLIT 418LL PS SDS	61.6	09.9
HOBLIT 384LL PS SDS	60.8	09.9
HOBLIT 368LL PS SDS	58.8	10.1
HOBLIT 384LL PS	57.3	10.3
Average	60.9	10.2

#### **MACON**

Jeff Bixenman, New Cambria, MO

Planted: May 15 in 30" rows. Planting Population: 160,000. Harvested: October 17. Previous Crop: Corn. Herbicide: Liberty. Soil Type: Medium loam. Weather: May-normal, June-wet, July-normal, August-dry.

Brand/Product	Acre	Moisture
HOBLIT 368LL PS SDS	68.7	11.9
HOBLIT 384LL	67.7	12.2
HOBLIT 384LL	65.4	07.6
HOBLIT 418LL PS SDS	65.4	11.8
HOBLIT 384LL PS	65.2	11.9
HOBLIT 405LL PS	64.6	12.0
HOBLIT 384LL PS SDS	64.1	11.9
HOBLIT 405LL PS SDS	63.0	11.8
HOBLIT 457LL PS SDS	62.6	11.6
Average	65.2	11.4

#### SALINE

Phil Henke, Gilliam, MO

Planted: May 14 in 30" rows. Planting Population: 140,000. Harvested: October 2. Previous Crop: Corn. Herbicide: Sonic, Liberty. Soil Type: Medium loam. Weather: May-normal, June-normal, July-normal, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 384LL PS	73.4	9.7
HOBLIT 384LL PS SDS	71.7	9.9
HOBLIT 384LL PS SDS	70.5	9.0
HOBLIT 384LL PS SDS	69.6	9.0
HOBLIT 368LL PS SDS	68.1	9.7
HOBLIT 405LL PS	67.5	9.7
HOBLIT 405LL PS SDS	66.2	9.8
HOBLIT 355LL PS SDS	65.8	9.9
HOBLIT 418LL PS SDS	64.1	9.7
HOBLIT 457LL PS SDS	58.3	11.5
Average	67.5	9.8

#### Heath and Jared Meyer, Gilliam, MO

Planted: May 16 in 30" rows. Planting Population: 135,000. Harvested: October 2. Previous Crop: Corn. Herbicide: Roundup, Prefix. Soil Type: Medium loam. Weather: Maynormal, June-normal, July-dry, August-dry.

Brand/Product	Bu. Per Acre	% Moisture
POWER PLUS 38K6™* PS SDS	66.2	9.0
POWER PLUS 38K6 <sup>TM</sup> * PS	65.4	09.0
POWER PLUS 38K6™* PS	54.9	09.0
Average	62.2	9.0

#### Roger Widel, Nelson, MO

Planted: May 22 in 30" rows. Planting Population: 145,000. Harvested: October 14. Previous Crop: Corn. Herbicide: 2,4-D, Roundup-burndown, Liberty. Soil Type: Light loam. Weather: May-wet, June-normal, Julynormal, August-normal.

	Bu. Per	%
Brand/Product	Acre	Moisture
HOBLIT 426LL PS	71.3	13.4
HOBLIT 457LL PS SDS	70.4	13.4
HOBLIT 457LL PS	67.5	13.6
Average	69.7	13.5

## Socialize with Burrus Seed

#### Olivia Rahe, Communications Associate

Keeping up with what is happening across the Burrus footprint is now easier than ever! Our home office, sales team, and agronomic staff use social media to share news, photos, and information with our growers. You can find us on Facebook and Twitter by searching @BurrusSeed. We use these platforms to share relevant articles, updates, and offers available from Burrus with our customers. We also have a YouTube page with marketing and agronomic videos, as well as footage from our company events. Search Burrus Seed to see our entire library of YouTube videos. These videos are also accessible through our website, under the Media tab.

We also invite you to subscribe to our Think Burrus blog. Written by our agronomy team, articles center on relevant agronomic topics they encounter on their constant travels across the Burrus footprint. Use the comment section to interact with the research team and get answers to questions of your own.

If you have not done so already, we encourage you to sign up for our Burrus Buzz electronic newsletter. We deliver timely agronomic articles, directly to your inbox, twice a month! You can subscribe on our website or by sending your email request to burrus.seed@burrusseed.com

Links to each of our social media sites are conveniently located on our website at www.burrusseed.com. Use #ThinkBurrus to join the conversation today!



Colin, Mason, & Dylan Bixenman like their dad's Hoblit soybeans in Mason Co., MO.

# The Burrus COP: The Power of You + Precision You Can Trust

#### Troy Horton, Precision Farming Specialist

The use of precision agriculture based, data driven, decision-making tools on farming operations to determine product placement and planting rates is becoming more common in agriculture. But, with increased use comes increased data collection. As companies involved in "bushels to bytes" solutions battle for your money, make sure you are asking the right questions regarding the ownership and rights of your data.

At Burrus, we stand with you in the belief that your data is your data. You have worked too hard to build your operation to entrust your data to just anyone. By partnering with an independent third party that does not sell seed or other strategic inputs, you can be assured that your field data is safe. Farm and map data stored in MyFarms<sup>SM</sup> which does not (and never will) price strategic inputs. This means your map, yield, and other operational data will not be shared with anyone else unless you choose to share it.

Burrus also starts with the premise that you know your land better than anyone. We know it is not just dirt to you, it's your future. With the Burrus COP, powered by the MyFarms system, your field knowledge is combined with years of our research data and proprietary product knowledge to create customized planting plans for each of your fields.

On average, Burrus COP-recommended products were 12.5 bu/a higher than the plot average. This is the equivalent of \$100 per unit of seed in additional value. In tight markets, where management decisions become

increasingly important, the Burrus COP delivers. COP is a whole farm management system designed to help you with all your farm planning and recording needs. You can create and share field maps, track rainfall and maturity, and even monitor for risk of disease.

The value proposition for you continues when you take advantage of our program to offer the Burrus COP to you free of charge. That's a \$500 value for continuing to be a loyal Burrus customer. This is all part of our desire to partner with you to make your farming operation more profitable.

Remember, your farm's data is one of the most valuable things you can harvest. Now more than ever, farmers need trusted advisors who can show them the way, who know how technologies work together for the benefit of the farmer, and who can communicate those strategies in a meaningful way. Talk to your local Burrus Account Manager today to learn how you can take advantage of the MyFarms system and be confident in the confidentiality of your data.



Kelby Palmer and AM Zach Whitehill work on 2018 planting plans in Andrew Co., MO.

#### **SHELBY**

## PowerShield® SDS adds 6.7 bu/a



Rutter Farms Inc., Shelbina, MO

Planted: May 28 in 15" rows. Planting Population: 165,000. Harvested: October 18. Previous Crop: Corn. Herbicide: Liberty, Authority. Soil Type: Medium loam. Weather: May-normal, June-dry, July-dry, August-dry.

	Du. I UI	/0
Brand/Product	Acre	Moisture
HOBLIT 418LL PS SDS	66.8	11.9
HOBLIT 368LL PS SDS	66.7	12.1
HOBLIT 384LL PS SDS	65.4	12.0
HOBLIT 405LL PS SDS	64.9	12.1
HOBLIT 457LL PS SDS	61.4	12.0
HOBLIT 384LL PS	58.7	12.0
Average	64.0	12.0



Rick Durst saw Power Plus® 38K6™\* be very consistent in Lewis Co., MO.



A 3.5 bu/a advantage for PS SDS treated beans means over a 2 to 1 return on investment for Larry Rutledge of Lewis Co., MO.



With little to no sudden death syndrome, the PS SDS comparison to PS is a tie in Macon Co., MO for Gail & Jeff Bixenman.

# Ten things to know about managing soybean cyst nematode (SCN)

Stephanie Porter, C.C.A.

- SCN is the #1 threat to soybean production worldwide.
- In cases of high SCN populations, SCN cysts may be visible on roots. Roots could also have poor nodulation and plants could be uneven, stunted, or have low numbers of pods or beans per pod.
- SCN can be confused with other problems such as root rot, nutrient issues, pests, or compaction. SCN, like other pests, will be located within patches of a field and symptoms may be more noticeable in seasons lacking adequate moisture due to root injury.
- Growers can test for SCN in the fall by submitting soil samples to university labs where they will sieve, process, and do SCN egg counts for a fee.
- We have been depending on the PI 88788 source of resistance in 95% of the U.S. seed market share. Other sources of resistance come from Peking, PI 437654, or combinations.
- SCN resistance to PI 88788 was documented in 2007 and 2008, by Mitchum et al and Niblack et al, respectively. As SCN presence within soil samples are screened at the university level, the problem appears to be getting worse

- Each nematode has different genes and those not affected by plant resistance can pass those genes to their offspring (200-500 eggs) by reproducing sexually, which only increases the number of SCN unaffected by PI 88788.
- If you want to confirm PI 88788
   resistance, there is a HG test that can
   be done by university labs. It is a 30-day
   greenhouse test which will determine a
   female index, the average number of SCN
   females produced on seven indicator lines
   relative to the number produced on a
   standard, susceptible soybean cultivar.
- Another control of SCN consists of an integrated management approach that includes crop rotation to help reduce populations and if possible, but not likely, see if you can use another source of SCN resistance such as Peking. In addition, the Illinois Soybean Association is seeking grower partners for a study next year to validate the hypothesis that wheat straw (or grass cover crops) can suppress SCN populations. For more information, visit www.ilsoyadvisor.com.
- Though not a total cure-all, we strongly recommend ILeVO®, included in our PowerShield® SDS seed treatment, for the early season control of SCN in conjunction with SCN management strategies.



Burrus AM Ross Kleinsteiber & Jason Zimmer discuss SCN during an agronomic field visit.



SCN cysts were found on the roots of this soybean variety which consisted of the PI 88788 source of SCN resistance.

Kenny & Jeanna Rutter saw PowerShield® SDS add 6.7 bu/a in Shelby Co., MO.



Burrus Agronomists Josh Gunther & Chip Turner evaluate a soybean plot to bring our growers the best lineup of soybean varieties.

# Disease alerts straight to your inbox

Jamie Long, C.C.A.

Many Burrus growers have taken advantage of the Crop Optimization Planner (COP) by MyFarms<sup>™</sup> to help with product selection and creating planting records. Entering useful field information using MyFarms can help alleviate the strain of summer scouting by using the gray leaf spot (GLS) alert system. This tool helps identify fields with a higher concern for the development of GLS and alerts the grower to scout the recommended fields via email. The GLS alert system categorizes fields by risk level of developing GLS: green (low risk), orange (medium risk), and red (high risk). An email alert is sent when a field crosses into the red zone, and based on different environmental conditions, a field can receive an alert more than once. The system considers the multiple aspects of the disease triangle based on your specific field and the Burrus product planted.

#### **DISEASE TRIANGLE:**

#### Susceptible host

To have disease development, there must be a susceptible host. Burrus researchers

assess GLS ratings for each corn hybrid which MyFarms uses to define how susceptible that hybrid is to GLS. It will also determine the expected growth stage using estimated growing degree days (GDDs) following the planting record.

#### • Pathogen

The pathogen that causes GLS overwinters on corn residue; therefore, MyFarms also considers the previous year's crop on the specific field and the volume of residue based on tillage practices.

#### • Environment

The fungal pathogen that causes GLS prefers wet weather and temperatures around 75 to 85 degrees F. MyFarms determines favorable weather conditions based on rainfall, humidity levels, and temperatures in the field.

Utilizing the GLS alert tool helps with time management during a busy time of year. Based on scouting, disease pressure, and the potential for wet weather, the grower can decide if a fungicide application is warranted.



#### **RACINE**

#### Power Plus® 25G8<sup>TM</sup> \* wins at 68.3 bu/a

Rowntree Farms, Kansasville, WI

Planted: May 31 in 30" rows. Harvested: October 4. Previous Crop: Corn. Herbicide: Prowl+Firstrate, Credit Extreme. Soil Type:

	Bu. Per	%
Brand/Product	Acre	Moisture
POWER PLUS 25G8™*	68.3	11.6
POWER PLUS 28Q8™*	66.9	11.9
AgriGold 2105	66.9	12.0
AgriGold 2405	66.6	11.6
AgriGold 2250	66.1	12.1
POWER PLUS 24F8™*	65.9	12.1
Curry 1252	65.9	11.9
AgriGold 2355	65.8	11.8
Credenz 2118EXP	65.8	12.0
Pioneer 25A70	64.5	11.8
Pioneer 25T51	64.1	12.6
Pioneer 25T51	63.1	11.9
Channel 2017	63.0	12.0
AgriGold 1850	62.9	12.2
Channel 2617	62.2	11.6
Curry 1227	60.5	12.1
Pioneer 22T41	60.0	12.1
Average	64.6	12.0

#### **POSEY**

#### Power Plus® 36A1XTM \* wins plot



COMPARE North Posey FFA, Poseyville, IN

Planted: May 23 in 8" rows. Planting Population: 160,000. Harvested: October 20. Previous Crop: Soybeans.

Bu. Per	%
Acre	Moisture
73.2	12.4
72.7	12.2
72.4	13.0
71.4	12.4
69.9	12.1
69.8	12.2
69.0	12.0
68.8	11.9
67.3	12.6
65.9	12.1
65.9	12.2
64.1	12.3
69.2	12.3
	73.2 72.7 72.4 71.4 69.9 69.8 69.0 68.8 67.3 65.9 65.9 64.1



Tom Sandahl, Burrus SM enjoyed being with grandsons Brock & Maddin.

## Hedge against drought with water optimization technologies

Chip Turner, C.C.A.

Intensive genetic, chemical, and management systems research has ushered in an era of unprecedented control over crop production for the 21st century farmer. While challenges still exist, today's growers have access to many tools designed to manage or control pests, weeds, and soil fertility. Two critical elements of production that remain outside a grower's control are temperature and rainfall. Sizable portions of the Burrus footprint experienced drought conditions this growing season as well as above 100 degree temperatures during pollination. Drought and elevated temperatures during flowering have had a negative impact on yields in these regions. Irrigated fields fared better, but irrigation isn't an option for everyone. We can't change the weather, but researchers have worked to change corn, developing hybrids that use water more efficiently and are more stress tolerant. Agrisure Artesian® and Optimum® AQUAmax® products are two of these technologies.

Agrisure Artesian was developed by Syngenta scientists by identifying genes associated with increased drought tolerance. They then selected plants containing these genes for use in testing and development. Resulting new hybrids were extensively tested in both water limited environments and under high yielding, low stress conditions. Only hybrids containing the specific genes coding for improved drought tolerance and yielding significantly better than check averages in both low stress and drought environments received the Artesian™ label. This process is on-going and Artesian hybrids are designed to maximize yield when it rains and increase yields when it doesn't.

Optimum AQUAmax products are the result of years of research and development by DuPont Pioneer. Researchers began by identifying lines that performed well under drought conditions and had a number of desirable agronomic traits. They then created a genetic fingerprint of these lines and developed new hybrids. This is what is referred to as marker assisted breeding. The new hybrids were tested to ensure the identified genes were inherited. If a hybrid inherited the genes coding for enhanced stress tolerance, it advanced to yield testing under drought conditions and

in high yielding environments. Those hybrids that exceeded check means under drought conditions and equaled or exceeded check means in high yielding environments were advanced for commercialization. Long story short, Optimum AQUAmax products bring great yields under normal, low stress growing conditions and offer improved performance under drought conditions.

Neither Agrisure Artesian nor Optimum AQUAmax products are transgenic traits. Both were developed utilizing genes native to corn and therefore it is possible to offer conventional hybrids carrying the labels. Both products are available in premier genetic packages, adding yield in normal, low stress growing seasons. Additionally, both technologies offer about a 10% increase in yield under drought conditions when compared to similar hybrids that do not have water optimization technology as part of their genetic make-up.

Through our multi-brand strategy, Burrus is able to offer growers both Optimum AQUAmax and Agrisure Artesian products to protect your bottom line when it rains and when it doesn't.

Product performance in water-limited environments is variable and depends on many factors such as the severity and timing of moisture deficiency, heat stress, soil type, management practices and environmental stress as well as disease and pest pressures. All hybrids may exhibit reduced yield under water and heat stress. Individual results may vary.



#### burrusseed.com MAKE IT YOUR HOMEPAGE!

#### **VERMILLION**

Kurt Hill, Clinton, IN

Planted: April 22 in 15" rows. Planting Population: 145,000. Harvested: September 17. Previous Crop: Corn. Herbicide: Matador, Liberty. Soil Type: Medium loam. Weather: May-wet, June-dry, July-normal, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
HUGHES 285LL PS SDS	70.0	12.0
HUGHES 285LL PS	70.0	12.0
Average	70.0	12.0

Ross Holbert, Dana, IN

Planted: April 22 in 15" rows. Planting Population: 157,000. Harvested: September 15. Previous Crop: Corn. Herbicide: Matador, Liberty. Soil Type: Medium loam. Weather: May-wet, June-dry, July-normal, August-dry.

	Bu. Per	%
Brand/Product	Acre	Moisture
HUGHES 285LL PS	72.3	11.6
HUGHES 285LL PS SDS	72.0	11.6
Δverage	72.2	11.6

# Production technique grows your profitability

For nearly 45 years, Burrus has used an interplant seed corn production system which allowed utilization of every acre for female rows. We planted a solid acreage of 38 inch female rows and split every other pair of females with a male row on 19 inch centers. Once pollination was completed, we would mow down the males and the border rows for isolation.

When some of our highest yielding hybrids were not getting enough sunlight for the males to function properly using the interplant system, the Burrus production staff worked to find a solution. They introduced a new wide row seed corn production system where all rows were 38 inches apart with each pair of female rows flanked by a male, allowing the male to perform much better especially when the males had to be delayed matching up with the female rows at pollination time.

In 2016 and again in 2017, we split the males 10 inches apart using one pusher planter and one trailing unit. Sometimes we make two plantings of male rows a few days apart to spread the pollen load. Another way we can widen the pollen shed window is by using a plant growth regulator called BioNik™. This seed treatment delays germination without the

risk of a potential rain delay. The new planting system proved to work even better than the previous attempts.

Innovation has long been a trademark at Burrus. Our new planting pattern allows us to economically produce high yielding hybrids that other companies cannot using a standard 30 inch corn planter in a 4:1 planting pattern. "This system does two very positive things for our customers; first, we don't have to allocate or limit how many units a customer can buy and second, seed field yields are high enough to make the products economically feasible," said Kevin Burrus.



Wide row seed production after male rows were destroyed and the females rows ready for harvest.

#### SOYBEAN PLANTING RATES

Row width	7.5 inch	15 inch	30 inch
Untreated	180 - 190	160 - 170	140 - 150
PowerShield® (fully treated)	165 - 175	145 - 155	125 - 135
PowerShield® SDS (ILeVO®)	165 - 175	145 - 155	125 - 135

#### 1,000 SEEDS PER ACRE

Use higher end of range in less than ideal conditions.

Great Plains Fluted-Feed Drills: to get the most accurate seed spacing, lower the gate setting and increase the drive speed.

A crowd gathers to tour Burrus SM Tim Carmody's plot at a Field Day in Calhoun Co.

#### **GUIDE TO ACCURATE SOYBEAN PLANTING**

GOIDE TO ACCORATE SOTBEAN PLANTING											
	SMALL TO NORMAL SEED SIZE		LARGE SEED SIZE								
	2500 seeds per pound or greater, 56 lbs. or	r less per 140k unit	2500 seeds per pound or less (1800 to 2500), 56 lbs. per 140k unit or more								
John Deere Non-Vac (Finger Pickup Type Corn Planters) *1 *4 *5	Using Kinze Brush Meters – (2200 seed 60 Cell Seed Metering Plate Using Radial Metering Bean Plate – (37 (2800 - 3700 seeds/lb) setting "B"	•	Using Kinze Brush Meters – (2200 seeds/lb or less) Blue Brush Type 48 Cell Seed Metering Plate Using Radial Metering Bean Plate – (2000 - 2800 seeds/lb) setting "C"								
Kinze Non-Vac *2 *1 *5	(2200 seeds/lb or more) Black Brush Ty	pe 60 Cell Seed Metering Plate	(2200 seeds/lb or less) Blue Brush Type	48 Cell Seed Metering Plate							
John Deere Vac Planters *3 *1 *5	Only one disc option – Vacuum setting a	at 8	Only one disc option – Vacuum setting at 9 (test and adjust accordingly)  If feeding problems persist – remove the elbow from the hose feeding the hopper								
John Deere ExactEmerge™ Meter *1 *8 Vacuum Level (in oz. water)	(3300-3100 seeds/lb) 8-10 (2900-2700 seeds/lb) 14-16	(3100-2900 seeds/lb) 10-14 (2700-2500 seeds/lb) 16-18	(2500-2300 seeds/lb) 18-19	(2300-2100 seeds/lb) 19-21							
Kinze Vac Planters *2 *1 *5	Use 60 cell plate - Singular setting at 5	- Vacuum setting at 10	Use 60 cell plate – Singular setting of 5 – Start vacuum setting at 10 (Test and adjust accordingly)								
Case IH Vac Planters *6 *1 *5	(2600-3500 seeds/lb) 193017A1 disc – S (3500-4500 seeds/lb) 87420630 disc or of Vacuum at 15-17" (2500-3500 seeds/lb) 87698875 disc or of Vacuum at 15-17"	omparable – Singulator setting at 8 –	" (2000-3500 seeds/lb) 87698875 disc or comparable – Singulator setting at 8 - Vacuum at 15-17"								
White Vac Planters *7 *1 *5	(3000-4500 seeds/lb) Use 7000722513 (2000-3500 seeds/lb) Use 852432 (120 ce (2000-3500 seeds/lb) Use 852433 (60 ce	ell) disc of 30" rows – Air pressure at 2-2.5"									

- \*1 Consult the operator's manual for additional talc/graphite recommendations
- \*2 One TBSP of graphite per hopper for a standard 2 bu hopper and 1-1.5 lbs of graphite per 50
- \*3 For central fill planters, use a 1/2 rate of talc for untreated beans and a full rate (corn rate) of talc with treated beans
- \*4 Add 3/8 TBSP of graphite per hopper
- \*5 Adjust speed as directed in the operator's manual

- \*6 Consult the operator's manual for seed disc RPM recommendations
- \*7 Do not exceed 35 RPM on seed disc
- \*8 Some seed sizes, shapes, and planting speed and seeding rate require vacuum levels be adjusted slightly

Always check the operator's manual.

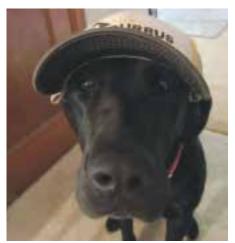
Always use SuperFLOW™ or talc/graphite, etc. according to the label for lubricant to avoid bridging in the planter box.



Burrus AM Ross Kleinsteiber holds Hoblit 384LL with 130 pods in Edgar Co.



Burrus Sales Agronomist Jamie Long discussed soybean varieties with Luke Schone of Triple S Pork Farm in Morgan Co.



Burrus Sales Agronomist Jamie Long's dog Gauge wore a Burrus cap for a quick photo.



Burrus Intern Andy Vanlanduyt makes a field visit in Iroqouis Co.











#### **Are there Chemicals to Avoid?**

Group	Brand	ALS Sulfonylureas	Plant Growth Regulators	HPPD Inhibitors	Glyphosate	Glufosinate	PPO Inhibitors
	Power Plus® 1S26AMXT™*	_	_	•		•	_
	Power Plus®1G48AMXT™*	_	_			•	<b>V</b>
	Power Plus® 2F91AMXT™*		_			•	<b>V</b>
	Power Plus® 2B77AMXT™*	_		<b>V</b>			
	Power Plus® 3H85AMX™*	<b>V</b>			•	•	<b>V</b>
	Power Plus® 4A67AMXT™*				•	•	•
	Power Plus® 4J95AMX™*		_	•	•	•	•
Above / Below Ground	Power Plus® 5C17AMXT™*	_				•	
Insect Control	Power Plus® 5K35AMX™*		_	<b>V</b>		•	<b>V</b>
	Catalyst 6216 3111A	<b>V</b>	<b>V</b>		•	•	
	Power Plus® 6L45AMT™*		<b>V</b>	<b>V</b>		•	
	Burrus 6Т54 зооодт	_		_	•	•	
	Power Plus® 6F74AMX™*	_		•	•	•	NA*
	Power Plus® 6P75AMX™*			<b>V</b>		•	
	Power Plus® 7A18 Q™*	_	_			•	
	Power Plus® 7V66AMXT™*					•	
	Hughes 9C24 3110A	<b>V</b>	<b>V</b>	<b>V</b>	•	•	
	Power Plus® 1G39AM™*	_	_		•	•	<b>V</b>
	Power Plus® 2Y06AM™*	_	•	_	•	•	_
	Power Plus® 2N82AM™*	_	_			•	NA*
	Power Plus® 4J93AM™*		_		•	•	
Above Ground Insect Control	Power Plus® 5K33AM™*		<b>V</b>	<b>V</b>	•	•	_
ilisect control	Power Plus® 6C41 S™*	_	_		•	•	
	Power Plus® 6P73AM™*			<b>V</b>	•	•	
	Power Plus® 6N83AM™*	_	_	•	•	•	NA*
	Catalyst 7577 3010	_	_	<b>V</b>		•	
	Power Plus®7M83AM™*	_	_	<b>V</b>	•	•	
	Power Plus® 2R63 R™*	<b>V</b>					_
Chunhanata Basistant	Power Plus® 4J99 R™*		_		•		
Glyphosate Resistant	Burrus 6T51 GT	▼	•	_	•	•	
	Power Plus® 6F71 R™*	_	_			•	NA*
	Hughes 3442		<b>  ▼</b>				NA*
	Power Plus® 2R67 <sup>™</sup> *	▼					NA*
	Power Plus® 4J90™*		<b>V</b>	•			
Conventional	Burrus 6R20	<b>V</b>	<b>V</b>				•
	Power Plus® 6C40™*	<b>V</b>	•				
	Burrus 6Q60	▼	<b> </b>				<b>V</b>
	Power Plus®7M80™*	<b>V</b>					•

#### GROUP NUMBER - TRADENAME

- 2 Accent® Q
- 2 Resolve® 2 - Steadfast® Q
- 2 Permit®
- 2 Basis®
- 2,4 Hornet® WDG
- 4 Banvel®
- 4 Clarity®
- **4** 2,4-D
- 4 Stinger®
- 27 Impact® 27 - Laudis®

27 - Balance Flexx®

27 - Callisto®

4, 19 - Status®

- 9 Roundup®
- 9 Generic glyphosate
- 10 Liberty®
- **14** Aim® 14, 15 - Verdict®
- 14 Sharpen® (Kixor)

#### KEY

Use

Vuse with caution

Do not use

\*Consult with your Account Manager when choosing a herbicide program.

#### HERBICIDE CLASSIFICATION BY GROUP NUMBER - SITE OF ACTION

- 1 ACC-ase (lipid synthesis)
- 2 ALS (amino acid synthesis)
- 3 Microtubule (seedling root growth) 4 - Synthetic auxins (growth regulators)
- 5 Photosystem II (different than 6 and 7)6 Photosystem II (different than 5 and 7)

- 7 Photosystem II (different than 5 and 6)
- 9 EPSP synthase (amino acid synthesis) 10 - Glutamine synthetase (nitrogen metabolism)
- 13 DOXP synthase (pigment)
- 14 PPO (cell membrane disruptor)
- 15 Long-chain fatty acid (seedling shoot growth)
- 19 Auxin transport (growth regulator) 22 - Photosystem I (cell membrane disruptor)
- 27 HPPD (pigment)



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Enlist E3 soybeans were jointly developed by Dow AgroSciences and MS Technologies.

Enlist Duo herbicide is not registered for sale or use in all states or counties. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your area. Always read and follow label directions. Enlist herbicides are the only 2,4-D products authorized for use on Enlist crops.

Herculex® Insect Protection technology by Dow AgroSciences and Pioneer Hi-Bred. ®Herculex and the HX logo are registered trademarks of Dow AgroSciences, LLC.

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Optimum® AQUAmax® product performance in water-limited environments is variable and depends on many factors such as the severity and timing of moisture deficiency, heat stress, soil type, management practices and environmental stress as well as disease and pest pressures. All hybrids may exhibit reduced yield under water and heat stress. Individual results may vary.

Bayer, the Bayer Cross, ILeVO®, Poncho®, VOTiVO®, Liberty®, LibertyLink® and the Water Droplet Design, are trademarks of Bayer. Bayer CropScience LP, 2 T.W. Alexander Drive, Research Triangle Park, NC 27709. Always read and follow label instructions. For additional product information call toll-free 1-866-99-BAYER (1-866-992-2937) or visit BayerCropScience.us. Seed products with the LibertyLink (LL) trait are resistant to the herbicide glufosinate ammonium, an alternative to glyphosate, and combine high yielding genetics with the powerful, non-selective, postemergent weed control of Liberty herbicide for optimum yield and excellent weed control

Important: Always read and follow label instructions. Some crop protection products may not be registered for sale or use in all states or counties. Avicta Complete Corn 250 and Avicta Duo 250 Corn are Restricted Use Pesticides. For use by certified applicators only. Growers planting Avicta treated seed are not required to be certified applicators. Avicta Complete Corn 500 is an on-seed application of Avicta Complete Corn 500 is an on-seed application of Avicta Complete Corn 500 in combination with sufficient Cruiser 5FS to deliver 0.50 mg a.i./seed of insecticide. Avicta technology is protected by U.S. Patent No. 6,875,727. Agrisure, Agrisure Artesian®, Agrisure Duracade®, Agrisure Viptera®, Artesian™, Avicta®, Catalyst®, Cruiser®, E-Z Refuge®, Maxim® and Vibrance® are trademarks of a Syngenta group company. Catalyst® is a Syngenta brand distributed by Burrus. Important: Always read and follow label and bag tag instructions. Consult bag tags for E-Z Refuge product herbicide options. Only those labeled GT/LL may be sprayed with glufosinate ammonium based herbicides.

Agrisure® Technology incorporated into these seeds

#### **Soybean Ratings and Characteristics**

Soybeans with glufosinate-tolerant gene	Maturity	Soybean Cyst Nematode	Emer- gence	Stand- ability	Shat- tering Score	Phytoph- thora (PRR)	Brown Stem Rot (BSR)	Sudden Death (SDS) Tolerance	Frogeye Leaf Spot Tolerance	White Mold	Iron Chlorosis	Canopy Width	Plant Height	Light Soils	Pubescend
Hughes Brand 236LL	2.3	PI88788	9	8	9	6	7	6	NR	6	8	7	7	7	L. Tawny
Hughes Brand 266LL	2.6	PI88788	9	9	9	6	8	7	NR	6	6	7	7	7	L. Tawn
Hoblit Brand 298LL	2.9	PI88788	10	8	9	8	8	7	8	7	8	7	8	7	Gray
Hoblit Brand 355LL	3.5	PI88788	10	9	9	8	8	7	6	7	8	8	7	8	L. Tawny
Hoblit Brand 368LL	3.6	PI88788	10	9	9	8	8	7	7	7	7	7	7	7	L. Tawny
Hoblit Brand 384LL	3.8	PI88788	9	9	9	8	8	5	6	NR	7	8	7	7	L. Tawny
Hoblit Brand 405LL	4.0	PI88788	10	9	9	8	8	7	8	7	7	7	7	8	L. Tawny
Hoblit Brand 418LL	4.1	PI88788	10	9	9	8	8	7	7	6	7	6	7	7	L. Tawny
Hoblit Brand 457LL	4.5	PI88788	10	9	9	8	8	8	6	NR	NR	7	7	8	L. Tawny
ROUNDUP READY 2 XTEND®															
Power Plus® Brand 36A1X™	3.6	PI88788	8	8	8	5	9	6	5	NR	5	7	7	7	Gray

GLYPHOSATE HERBICIDE TOLERANCE															
Soybeans with glyphosate-tolerant gene	Maturity	Soybean Cyst Nematode	Emer- gence	Stand- ability	Shat- tering Score	Phytoph- thora (PRR)	Brown Stem Rot (BSR)	Sudden Death (SDS) Tolerance	Frogeye Leaf Spot Tolerance	White Mold	Iron Chlorosis	Canopy Width	Plant Height	Light Soils	Pubescence
Power Plus® Brand 20B7™*	2.0	Peking	7	9	8	5	8	6	9	6	5	5	7	5	L. Tawny
Power Plus® Brand 24F8™*	2.4	PI88788	8	8	8	5	7	7	9	6	5	5	7	5	L. Tawny
Hughes Brand 555	2.5	PI88788	9	9	9	6	7	5	NR	6	3	6	7	7	L. Tawny
Power Plus® Brand 25G8™	2.5	Peking	8	9	6	5	7	8	9	6	5	7	6	6	L. Tawny
Power Plus® Brand 26Z5™*	2.6	PI88788	7	9	NR	5	9	5	7	7	6	6	8	8	L. Tawny
Power Plus® Brand 28Q8™	2.8	PI88788	8	9	8	5	9	6	5	6	5	6	7	7	L. Tawny
Power Plus® Brand 30M8™*	3.0	PI88788	8	8	8	7	8	8	9	6	6	8	7	7	L. Tawny
Power Plus® Brand 32D5™*	3.2	PI88788	9	8	NR	7	6	6	7	5	5	8	6	5	L. Tawny
Power Plus® Brand 35C7™	3.5	PI88788	8	8	8	6	9	7	4	5	5	8	7	8	L. Tawny
Power Plus® Brand 36J3™	3.6	PI88788	9	9	8	7	6	6	6	5	4	7	7	8	L. Tawny
Power Plus® Brand 36R8™*	3.6	PI88788	8	9	9	6	9	7	3	5	4	6	8	9	L. Tawny
Power Plus® Brand 38K6™*	3.8	PI88788	9	8	NR	5	9	7	5	5	5	7	8	9	L. Tawny
Power Plus® Brand 41B8™*	4.1	PI88788	7	8	8	7	9	6	5	5	2	7	8	7	L. Tawny
Power Plus <sup>®</sup> Brand 45L8 <sup>™</sup>	4.5	PI88788	9	9	NR	7	6	6	4	NR	5	7	7	8	L. Tawny

RATINGS: 10 = BEST, 1 = POOREST, NR = NOT RATED

Power Plus® brand seed is distributed by Burrus. Power Plus® is a registered trademark of Pioneer Hi-Bred.

Varieties with the Glyphosate Tolerant trait (including those designated by the letter "R" in the product number) contain genes that confer tolerance to glyphosate herbicides. Glyphosate herbicides will kill crops that are not tolerant to glyphosate.

IMPORTANT: Characteristic scores provide key information useful in selecting and managing products in your area. Information and ratings are based on comparisons with other products sold by Burrus. Information and scores are assigned by Burrus and are based on period-of-years testing through 2017 harvest and were the latest available at time of printing. Some scores may change after 2018 harvest. Scores represent an average of performance data across areas of adaptation, multiple growing conditions, and a wide range of both climate and soil types, and may not predict future results. Individual product responses are variable and subject to a variety of environmental, disease and pest pressures. Please use this information as only one component of your product positioning decision.

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Always follow grain marketing, stewardship practices and pesticide label directions. Roundup Ready® crops contain genes that confer tolerance to glyphosate,

product. Excellence Through Stewardship® is a registered trademark of Biotechnology Industry

the active ingredient in Roundup® brand agricultural herbicides. Roundup® brand agricultural herbicides will kill crops that are not tolerant to glyphosate.

Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Roundup Ready® crops contain genes that confer tolerance to glyphosate, the active ingredient in Roundup® brand agricultural herbicides. Roundup® brand agricultural herbicides will kill crops that are not tolerant to glyphosate. Genuity Design®, Genuity Icons, Genuity®, Roundup Ready 2 Technology and Design®, Roundup Ready 2 Yield®, Triple PRO®, Yieldgard, the YieldGard Corn Borer Design and YieldGard VT Triple® are trademarks of Monsanto Technology LLC. Liberty®, LibertyLink® and the Water Droplet Design are trademarks of Bayer Respect the Refuge and Corn Design® and Respect the Refuge® are registered trademarks of National Corn Growers Association.

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**B.t. products** may not yet be registered in all states. Check with your Monsanto representative for the registration status in your state.



Organization.



TEND SOYBEANS











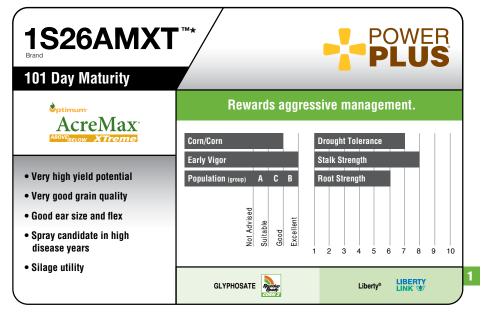


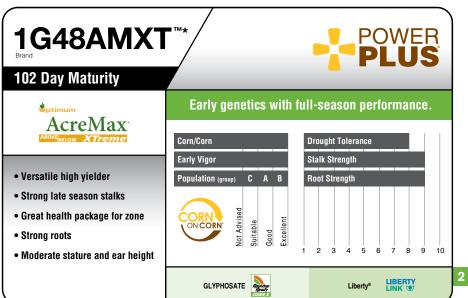




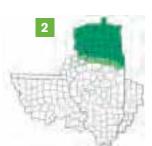
Before opening a bag of seed, be sure to read, understand and accept th stewardship requirements, including applicable refuge requirements for inserresistance management, for the biotechnology traits expressed in the seed a set forth in the technology agreement that you sign. By opening and using bag of seed, you are reaffirming your obligation to comply with the most receivements.







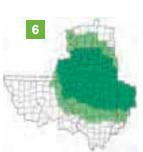


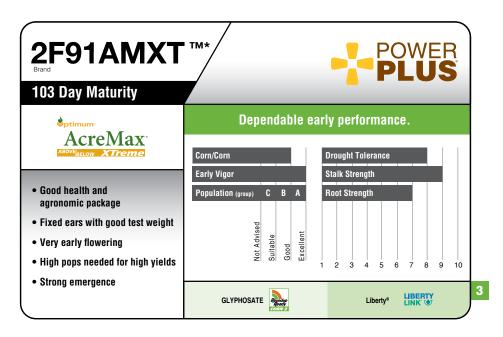


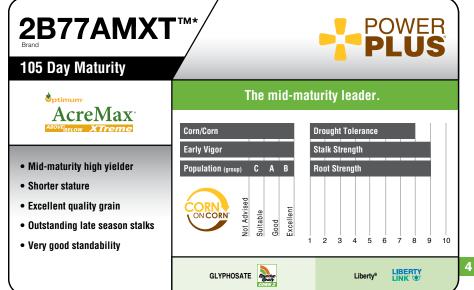


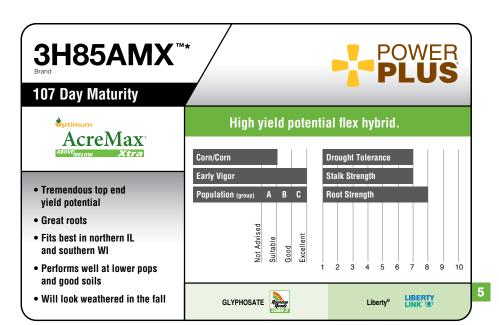


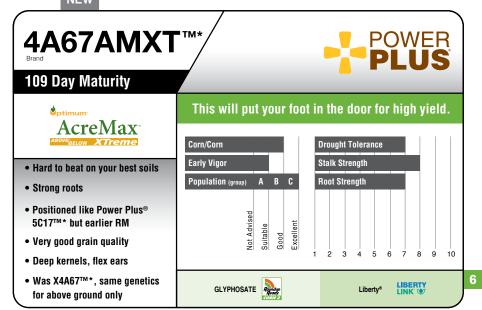






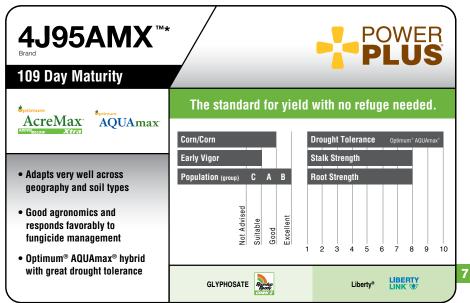


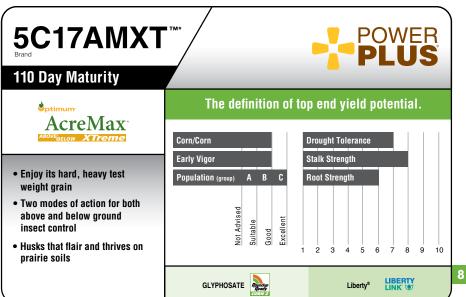


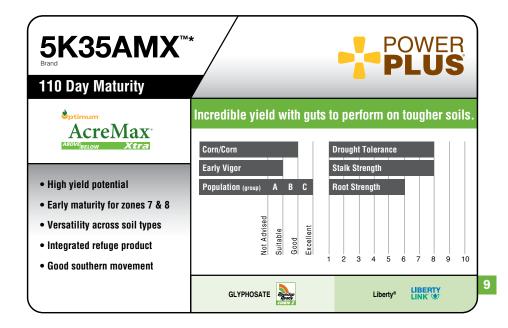


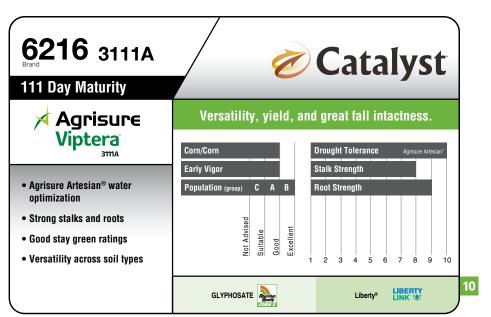












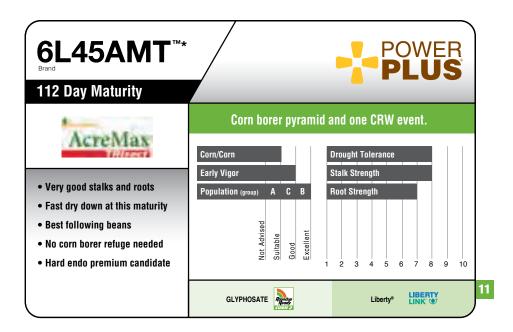


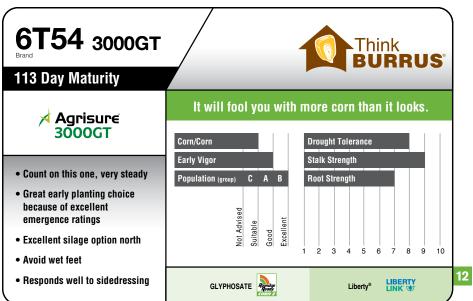


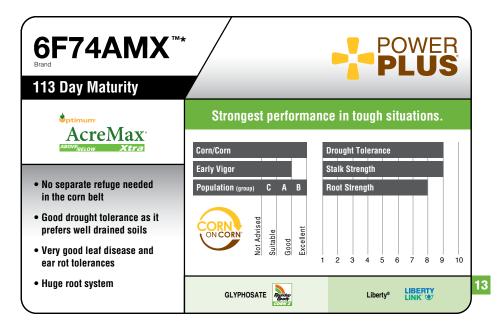


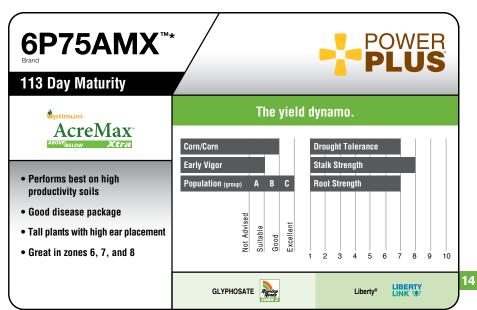












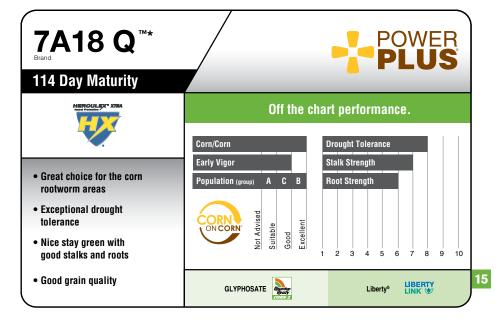


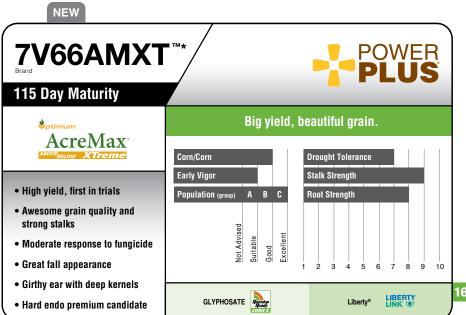






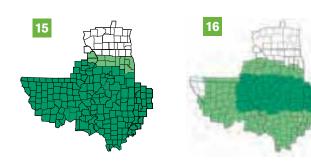


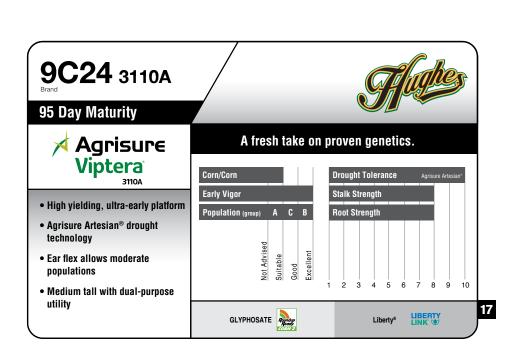


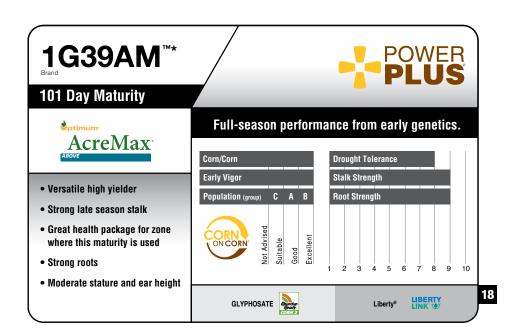


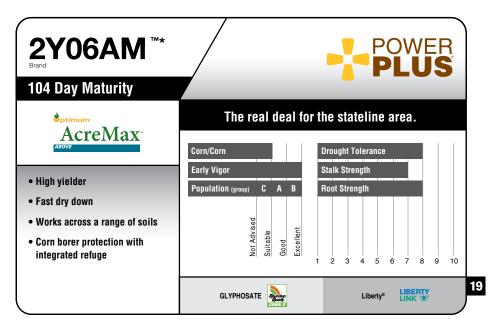
#### **ON FARM ASSESSMENTS**

To assess compliance, Burrus will use a third party to conduct IRM compliance assessments for a randomly selected set of customers who purchased Bt hybrids as well as Genuity® Roundup Ready 2 Yield® soybeans. Following each on-farm assessment, it will be determined if the grower is in compliance. If a grower is found to be out of compliance, Burrus will contact the grower prior to the next growing season to provide compliance assistance. Anyone found to be out of compliance will be checked the following two years. Repeated noncompliance can result in loss of access to these technologies.





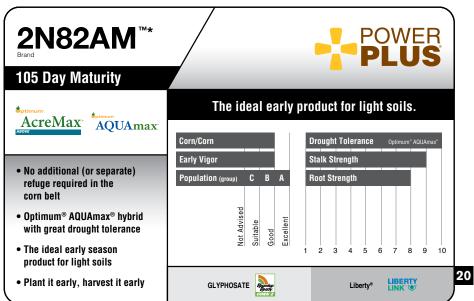


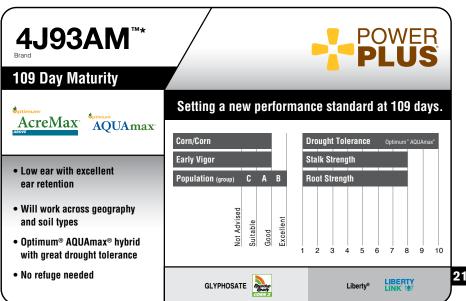


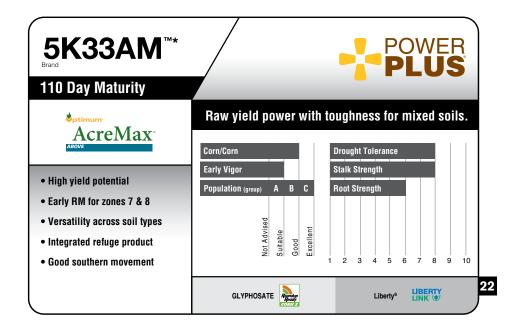


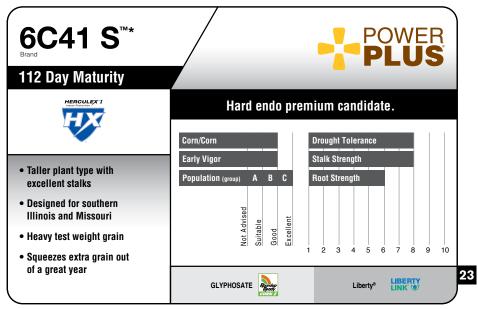












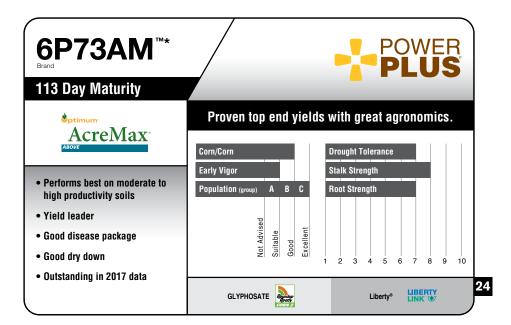


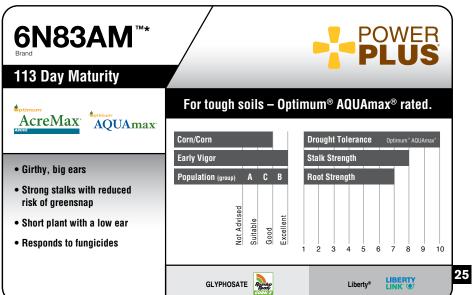


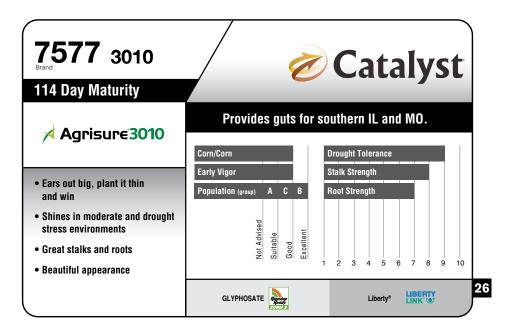


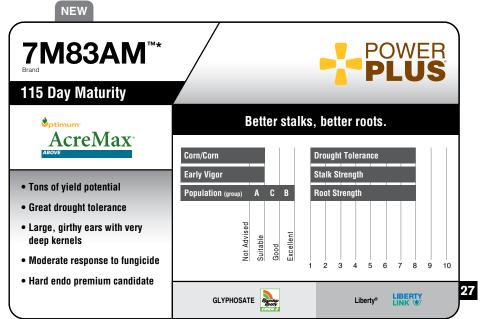












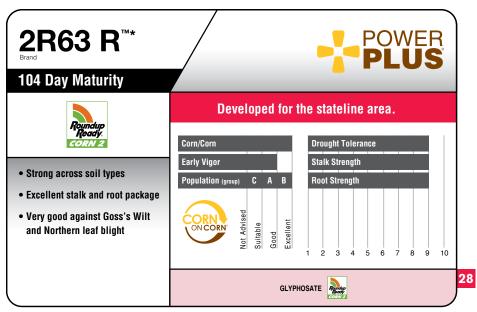


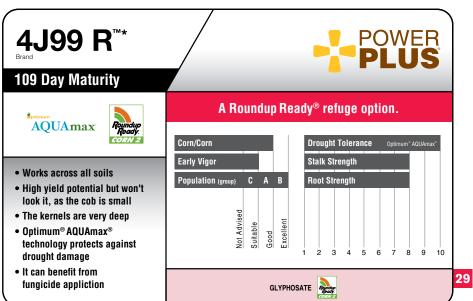


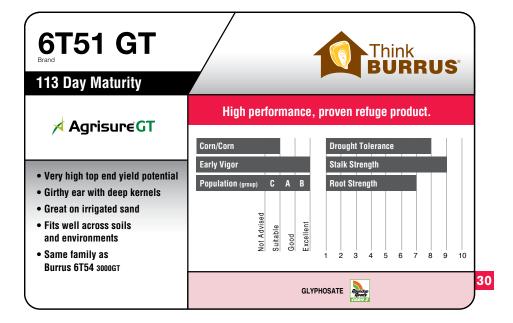


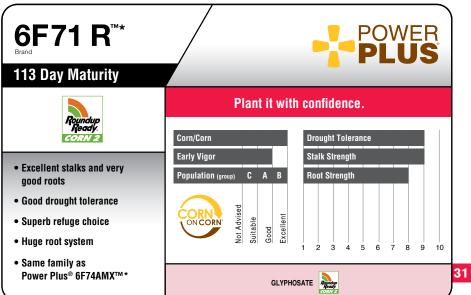


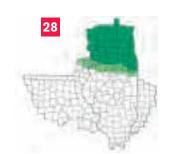














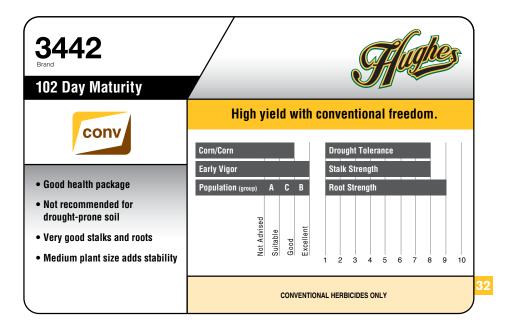


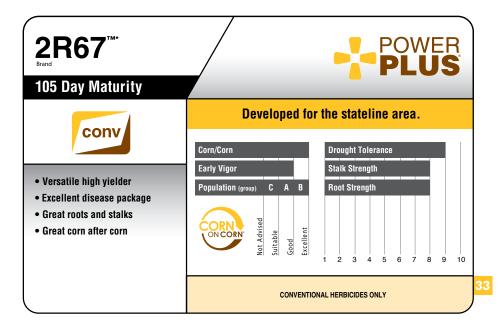


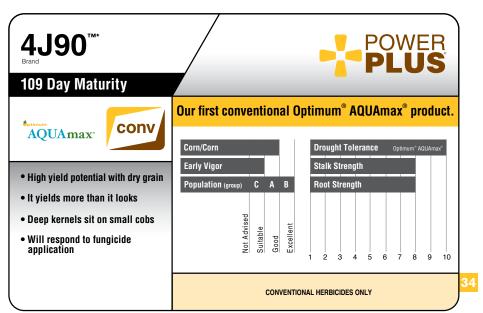


66

REDUCED COST FOR LARGE OR SMALL SEED SIZES.



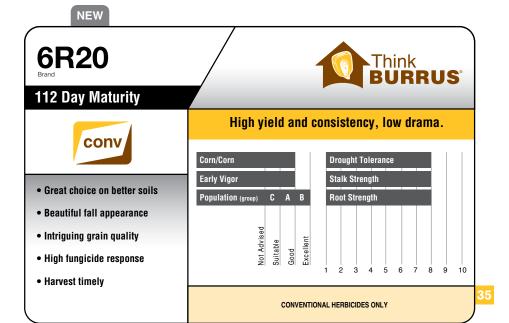


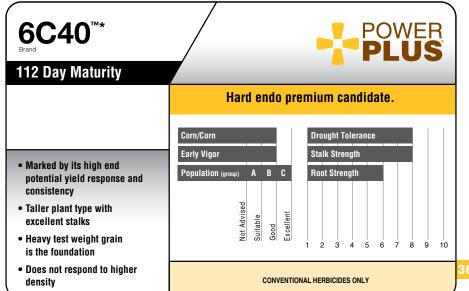


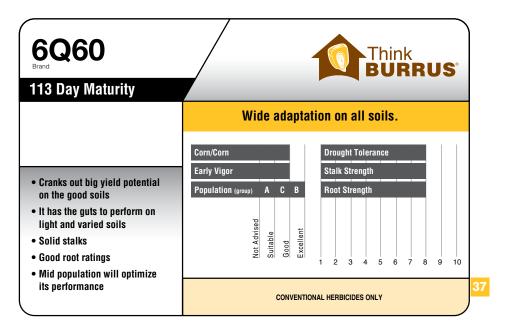


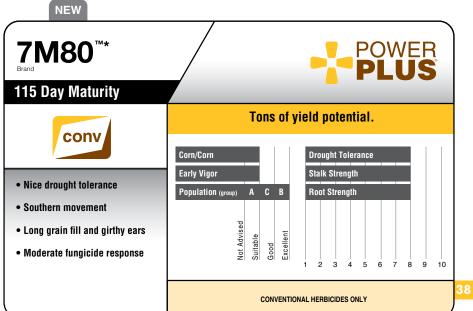


JNVENTIONAL







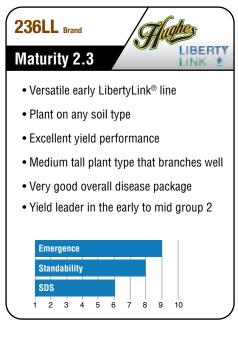














1 2 3 4 5 6 7

# Parameter Parame

1 2 3 4 5 6

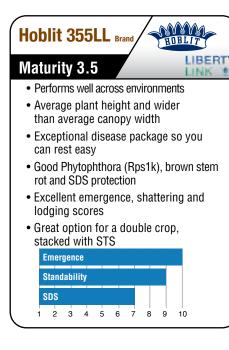
Standability

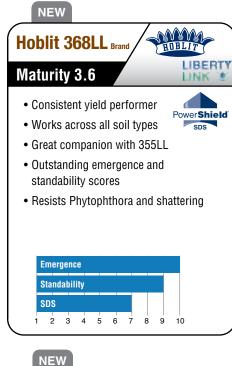
1 2 3 4 5 6 7

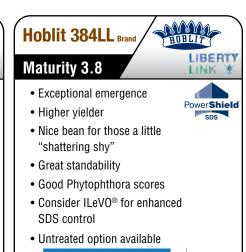
# THE LIBERTY® WEED CONTROL GUARANTEE Freedom from grasses and broadleaf weeds is here with Liberty® herbicide. Liberty is proven to effectively control even the toughest weeds, both grasses and broadleaf weeds, and Bayer CropScience is so confident in its performance

that they guarantee it.

- Specifically designed for all LibertyLink crops
- The ONLY working nonselective herbicide that is still effective on tough-to-control grasses and broadleaf weeds\*
- S.T.O.P.s tough-to-control and resistant weeds
- Neighbor-friendly and convenient to use, providing peace of mind and reducing the costliness of missed weeds
- 97% satisfaction rating among growers around the country



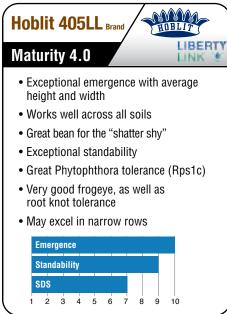


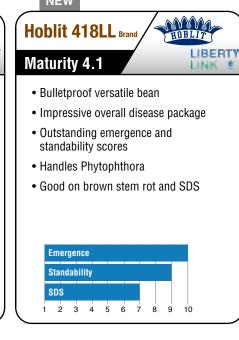
















PowerShield® SDS logo indicates those varieties are available in individual unit bags. All varieties are available in PS SDS EZ Load boxes.

\*Liberty's active ingredient is a Group 10 herbicide, which is the only broad-spectrum herbicide that effectively controls grasses and broadleaf weeds, and it has no known resistance in U.S. broadacre crops.

#### LibertyLink® Patent Statement

#### MINIMIZE WEEDS, MAXIMIZE YIELDS.

Built on the high yielding Genuity® Soybeans with Roundup Ready 2 Xtend® technology are the industry's first biotech-stacked soybean trait with both dicamba and glyphosate herbicide tolerance. With tolerance to glyphosate and dicamba, farmers will have access to additional tools to help control glyphosate-resistant broadleaf weeds. This technology offers the yield and quality potential that farms already know and trust from their Genuity Roundup Ready 2 Yield Soybeans.

#### Benefits include:

- The same yield and quality potential farmers already know and trust from their Genuity Roundup Ready 2 Yield Soybeans
- Control of glyphosate resistant broadleaf weeds such as Palmer amaranth, waterhemp and marestail, along with other tough-to-control broadleaf weeds such as lambsquarters and velvetleaf

DO NOT APPLY DICAMBA HERBICIDE IN-CROP TO SOYBEANS WITH Roundup Ready 2 Xtend® technology DO NOT APPLY DICAMBA HEMBICIDE IN-CROP TO SOYBEANS WITH HOUNDUP Heady 2 Xtend® technology unless you use a dicamba herbicide product that is specifically labeled for that use in the location where you intend to make the application. IT IS A VIOLATION OF FEDERAL AND STATE LAW TO MAKE AN IN-CROP APPLICATION OF ANY DICAMBA HERBICIDE PRODUCT ON SOYBEANS WITH Roundup Ready 2 Xtend® technology, OR ANY OTHER PESTICIDE APPLICATION, UNLESS THE PRODUCT LABELING SPECIFICALLY AUTHORIZES THE USE. Contact the U.S. EPA and your state pesticide regulatory agency with any questions about the approval status of dicamba herbicide products for in-crop use with soybeans with Roundup Ready 2 Xtend® technology.

Xtend® technology.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Soybeans with Roundup Ready 2 Xtend® technology contain genes that confer tolerance to glyphosate and dicamba. Glyphosate herbicides will kill crops that are not tolerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba.

#### **GLYPHOSATE TOLERANT SOYBEANS**



36A1XTM\*Bran TEND Maturity 3.6 Weed control option in mid-Group 3 maturity · Very good yield potential across soil types Outstanding SCN race 3 and 14 resistance

- Fantastic brown stem rot tolerance
- Has a 1c gene for Phytophthora with very good field tolerance
- · Untreated option available



POWER 20B7<sup>TM\*</sup>Branc Glyphosate Maturity 2.0 Yield potential is high · Peking source of SCN resistance · Well-rounded disease package · Great harvest standability · Very good against brown stem rot · Widely adapted line 1 2 3 4 5 6

NEW POWER PLUS 24F8 TM\* Brand Glyphosate Maturity 2.4 • Stands tall and stands up · Good on SDS · Place in all soil types · Excellent yield potential • Very strong emergence score 1 2 3 4 5 6 7

**555** Brand Glyphosate Maturity 2.5 Very showy appearance · Tremendous performance · Cyst resistance is very good · Excellent agronomics • Best choice for stress-prone areas · Plant in narrow rows • Untreated option available 1 2 3 4 5

NEW 25G8<sup>TM\*</sup>Brand **Glyphosate Maturity 2.5** · Top yield potential in Power**Shield** mid-group 2 maturity · Peking source of SCN resistance • Very good SDS ratings · Nice disease package · Versatile medium plant type · Untreated option available 1 2 3 4 5 6 7 8 9

Maturity 2.6 Great all-around performance potential • Plant in all environments · Good white mold rating Consider ILeVO® treatment for enhanced SDS tolerance · Brown stem rot tolerance is high · Tall plant type handles light soils 1 2 3 4 5 6

Glyphosate

26Z5 TM\* Brand

NEW 28Q8<sup>TM\*</sup>Brand Glyphosate Maturity 2.8 • Topped development trials · Highly versatile variety • Stands up well • Build your crop plan around this strong variety · Very good emergence score 1 2 3 4 5 6

30M8<sup>TM\*</sup>Brand Glyphosate Maturity 3.0 • Works in all environments · Consistent yielder • Broad disease package · Outstanding brown stem rot and SDS scores • Very good SCN race 3 and 14 resistance 1 2 3 4 5 6 7 8

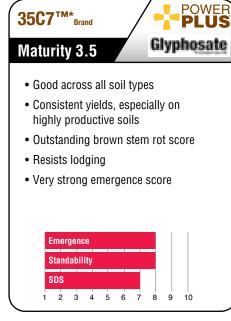
NEW



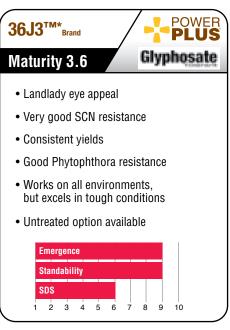


SDS EZ LOAD BOXES.

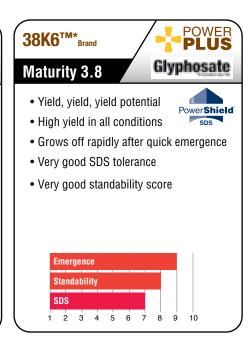


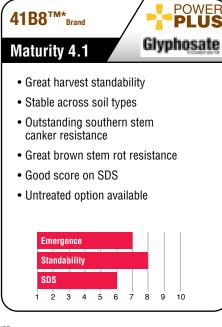


NEW









Maturity 4.5

• Durable bean for tough environments
• Very good SCN race 3 and 14 resistance
• Amazing emergence and standability scores
• Very good brown stem rot resistance
• Good score on SDS











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# YOUR NEIGHBORS WON'T GET YOUR DRIFT.

And that's a good thing.







