



Kauffman

SEEDS



2024 PRODUCT
GUIDE

CORN, SOYBEAN, WHEAT, SORGHUM, AND COVER CROPS



Introduction

KAUFFMAN SEEDS, INC.

Kauffman Seeds entered the seed business in 1965, when founder Edward Kauffman began an alfalfa seed cleaning business. It was not long after its inception that Edward’s daughter Lois and her husband Jerry Wyse took over in 1972, adopting new products to meet customer needs. Certified seed wheat was the first and arguably the most important addition to our business. Soybeans were added in the next decade to add more customer seed choices from a local seed source. The products we added in the early years of our business paved the way for us to better serve our local customer base.

Production in agriculture began to venture into new biological technologies for farmers by the mid-1990s. Kauffman Seeds was involved in the very beginning of these new product launches. Our partnership with other seed companies allowed us to form Midland Genetics. Through this partnership, we were able to bring Roundup Ready® soybeans to local farmers in genetics that performed locally. That partnership also allowed us to bring the newest technologies and genetics to corn, grain sorghum, and forages. It was a true game-changer for us and our customers.

More changes came a decade later, as Tom Clayman and Dustin Miller purchased the business. Striving to bring new innovations that our customers needed for their success, cover crops were the next transformation for us and our customers. This allowed us to provide seed products that met the seed needs of our customers’ entire farming operations. This diversity has allowed us to meet the changing landscape of this new century of agriculture while also staying true to delivering locally adapted products for our customers.

Sadly, this past winter, we lost Tom to cancer. His years of wisdom and know-how in the seed industry in this region will be missed by many. As we all know, Tom would not want us to feel sad for him. No, he would want us to keep pushing on like Kauffman Seeds always has, growing and adapting to the changing times. Most importantly, he would want us to take care of the people who have made Kauffman Seeds great: you, our customers. So, as we move forward this year, we will be doing it as we always have, meeting the needs of our customers in an ever-changing agricultural landscape.

TABLE OF CONTENTS

Kauffman Seeds Numbering System.....	3	Sorghum Products	19
Technology/Herbicide Trait Tolerances.....	4	Sorghum Chart.....	24
Corn Products	5	Cover Crop Products	25
Corn Chart.....	9	Legal.....	27
Soybean Products.....	11	Wheat.....	29
Soybean Chart.....	15	Alfalfa	33



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Kauffman

SEEDS



Current or past wheat or cover crop customers:

Receive a 5% discount on your corn, soybeans, or grain sorghum orders.

Cash and volume discounts available for qualifying early orders.

We also offer John Deere Financial options for your seed purchases.



JOHN DEERE
FINANCIAL



KAUFFMAN SEEDS NEW NUMBERING SYSTEM

CORN HYBRIDS: 100-13 PR RIB

100 First Three Digits is Relative Maturity of Hybrid	1 Random Number	3 Signifies Last Digit in Year of Release	PR RIB Trait Package
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SOYBEAN VARIETIES: 42-24 XFS

42 Signifies Maturity of the Soybean is a 4.2 RM, scale of 00-70	2 Random Number	4 Signifies Last Digit in Year of Release	XFS Trait Package
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GRAIN SORGHUM: 5583

5 Highly Tolerant to Sugar Cane Aphid Grain Sorghum	58 Days to Mid Bloom	3 Signifies Last Digit in Year of Release
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All Other Grain Sorghums Starting Numeral is "4" (*Sugar Cane Aphid Susceptible to Moderately Tolerant*)

KAUFFMAN SEEDS OLD NUMBERING SYSTEM

CORN: 429 PR RIB

4 Maturity 1 - 9	2 Sequence 0 - 9	9 Release Year	PR RIB Traits
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SOYBEAN: 4621 XFS

46 Signifies Maturity of the Soybean is a 4.6 RM, scale of 00-70	2 Sequence 0 - 9	1 Release Year	XFS Traits
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GRAIN SORGHUM: 5710

5 Grain Sorghum	7 Sequence 0 - 9	1 Sequence 0 - 9	0 Release Year
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All Other Grain Sorghums Starting Numeral is "4" (*Sugar Cane Aphid Susceptible to Moderately Tolerant*)

NOTES

CORN TECHNOLOGIES

		Glyphosate Tolerance	Glufosinate Tolerance
AGRISURE VIPTERA® 3110 / 3110 Agrisure Viptera®, Agrisure® CB/LL, and Agrisure® GT		✓	✓
VIPTERA® E-Z REFUGE® + ARTESIAN® / VA EZR GT Viptera® E-Z Refuge® + Artesian®		✓	✓
DURACADEVIPTERA™ E-Z REFUGE® / DVA EZR GT DuracadeViptera™ E-Z Refuge®		✓	✓
TRE RIB / TRE Trecepta® RIB Complete® Corn Blend		✓	✗
PR RIB / PR VT Double PRO® RIB Complete® Corn Blend		✓	✗
SS RIB / SS SmartStax® RIB Complete® Corn Blend		✓	✓
POWERCORE ENLIST / PCE PowerCore® Enlist® Refuge Advanced® Corn		✓	✓

SOYBEAN TECHNOLOGIES

		Glyphosate Tolerance	Glufosinate Tolerance
XFS XtendFlex® Soybeans with STS®		✓	✓
XF XtendFlex® Soybeans		✓	✓
E3S Enlist E3® Soybeans with STS®		✓	✓
E3 Enlist E3® Soybeans		✓	✓
Virtue™ Soybeans with STS®		✗	✗

CONTACT YOUR KAUFFMAN SEEDS, INC. REPRESENTATIVE TO ASK ANY OTHER QUESTIONS ON HERBICIDE TOLERANCES FOR SPECIFIC CORN OR SOYBEAN TRAITS.

112-34 112 DAYS AVAILABLE AS: C, PCE



- » New 112 RM hybrid
- » Widely adapted to Western Cornbelt Environments
- » Great Ear Flex potential and Test Weight
- » Built to handle stressful dryland conditions and still move onto irrigated acres
- » Good Goss's Wilt and greensnap Tolerance

CHARACTERISTICS		ENVIRONMENT	
STALK	4	CENTRAL DRYLAND	✓
ROOT	4	WESTERN DRYLAND	✓
EARLY GROWTH	4	LIMITED IRRIGATION	✓
STAY GREEN	5	FULL IRRIGATION	✓

559 113 DAYS AVAILABLE AS: C, PCE

- » Outstanding yield performance across multiple years
- » Highly tolerant to Goss's Wilt and Southern Rust
- » Widely adapted with very good southern movement
- » Medium-long ear with good kernel flex 18-20 around
- » Adapts well to moderate seeding populations

CHARACTERISTICS		ENVIRONMENT	
STALK	3	CENTRAL DRYLAND	✓
ROOT	4	WESTERN DRYLAND	✓
EARLY GROWTH	3	LIMITED IRRIGATION	✓
STAY GREEN	4	FULL IRRIGATION	✓

662 113 DAYS AVAILABLE AS: TRE

- » Trecepta® hybrid that excels in Central Kansas
- » Most consistent yielding and highest performance in Kansas dryland trials the last 3 years
- » Medium-tall plant type with medium-high ear placement
- » Very good roots and good stalks; excels in moderate plant populations
- » Semi-determinate ear that is 16-18 kernels around on average
- » Does not move into Western Kansas with average Goss's Wilt and greensnap rating

CHARACTERISTICS		ENVIRONMENT	
STALK	4	CENTRAL DRYLAND	✓
ROOT	3	WESTERN DRYLAND	✓
EARLY GROWTH	4	LIMITED IRRIGATION	✓
STAY GREEN	5	FULL IRRIGATION	✓

672 114 DAYS AVAILABLE AS: 3110

- » High yield potential hybrid with Agrisure Viptera® trait
- » Able to move across moderate to high yielding environments well
- » Semi-flex ear hybrid that is a tall, robust plant
- » Very good stalks and roots; greensnap rating is historically good for this hybrid
- » Very good ratings for continuous corn and Goss's Wilt
- » Drought tolerance is good but will perform better under irrigation in the west

CHARACTERISTICS		ENVIRONMENT	
STALK	4	CENTRAL DRYLAND	✓
ROOT	4	WESTERN DRYLAND	✓
EARLY GROWTH	4	LIMITED IRRIGATION	✓
STAY GREEN	3	FULL IRRIGATION	✓

NOTES



Early-season protection with unmatched power.

When it comes to defending against the biggest early-season threats soybeans face, CruiserMaxx® APX is a force to be reckoned with. It harnesses the most powerful *Pythium* and *Phytophthora*-fighting molecule in existence, plus proven broad-spectrum disease and insect protection. Bottom line, planting early or planting late, you can expect stronger plants, healthier roots, faster speed-to-canopy and higher potential yield with the supercharged protection of CruiserMaxx APX. Talk to your Syngenta retailer today.



See Supercharged Protection in Action

 **CruiserMaxx® APX** 

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WHAT HAPPENS BELOW THE GROUND IS JUST AS IMPORTANT AS WHAT HAPPENS ABOVE.

Bare patches and poor stands are signs of seedlings under attack. CruiserMaxx® Vibrance® cereals seed treatment harnesses the power of Cruiser® insecticide to fight insects, increase seedling vigor and improve stand establishment. Vibrance, a third fungicide, boosts crop establishment and enables faster growing plants through its RootingPower™, while paying particular attention to controlling Rhizoctonia. To learn more about CruiserMaxx Vibrance cereals, visit www.SyngentaUS.com/CMVibranceCereals



ROOTING POWER


 **CruiserMaxx® Vibrance®** Cereals 

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Corn Chart

	PRODUCT	RM	TRAITS	GDD-BLACK LAYER	DRYDOWN	DROUGHT TOLERANCE	EARLY GROWTH	PLANT HEIGHT	EAR HEIGHT	EAR FLEX
NEW	100-13	100	C, PR, SS	2410	4	2	5	MT	M	SF
	240	105	PR	2520	3	4	3	MT	M	SF
	350	108	VA EZR GT/LL, DVA EZR GT	2592	3	3	3	MT	M	SF
	429	110	C, PR, SS	2660	4	4	3	MT	M	SD
	442	111	TRE	2664	7	3	3	M	M	SF
	570	112	PR, SS	2649	7	3	5	M	M	SF
NEW	112-34	112	C, PCE	2688	4	2	4	MT	M	SF
	559	113	C, PCE	2736	8	3	3	T	MH	SF
	656	113	C, PR	2640	3	3	3	M	M	SF
	662	113	TRE	2712	3	4	4	MT	MH	SD
	672	114	3110	2752	7	4	4	T	MH	SF
	689	114	PR, SS	2750	4	3	3	MT	MH	SF
NEW	114-84	114	C, PCE	2736	5	6	4	MT	MH	SF
	757	115	PR	2780	4	3	3	MT	M	SF
NEW	117-23	117	PR, SS	2808	7	4	5	MT	MH	SF
	822	118	VA EZR GT	2810	7	4	5	MT	M	SF
	832	118	3110	2830	7	6	4	T	M	F

NUMBER RATINGS: 1-2 = EXCELLENT, 3-4 = GOOD, 5-6 = AVERAGE, 7-8 = FAIR, 9 = POOR N/A = RATING NOT AVAILABLE
 PLANT HEIGHT: T = TALL, MT = MEDIUM-TALL, M = MEDIUM
 EAR HEIGHT: MH = MEDIUM-HIGH, M = MEDIUM
 EAR FLEX: SD = SEMI-DETERMINATE, SF = SEMI-FLEX, F = FULL-FLEX

NOTES

TEST WEIGHT	STAY GREEN	STALK	ROOT	SILAGE	GREY LEAF SPOT	GOSS'S WILT	FUNGICIDE RESPONSE	GREEN SNAP	PRODUCT
5	6	4	4	3	6	5	1	4	100-13 NEW
3	3	4	3	4	3	3	3	4	240
5	4	4	4	4	3	4	4	4	350
3	4	4	3	4	4	4	3	5	429
4	4	4	4	5	4	7	3	4	442
2	3	2	2	5	3	3	2	4	570
2	5	4	4	4	7	4	2	3	112-34 NEW
6	4	3	4	2	3	3	3	4	559
3	4	3	4	4	4	4	2	4	656
3	5	4	3	5	4	6	3	5	662
3	3	4	4	3	3	4	4	3	672
2	3	3	3	4	4	4	4	4	689
4	4	4	5	4	4	3	4	3	114-84 NEW
3	4	3	3	4	4	4	3	4	757
2	4	2	3	2	4	5	4	4	117-23 NEW
5	4	4	5	3	4	4	3	4	822
5	4	4	4	3	5	4	3	4	832

TECH TRAITS: PR = VT DOUBLE PRO® RIB COMPLETE® CORN BLEND, TRE = TRECEPTA® RIB COMPLETE® CORN BLEND, SS = SMARTSTAX® RIB COMPLETE® CORN BLEND, C = CONVENTIONAL, 3110 = AGRISURE VIPTERA®, AGRISURE® CB/LL, AND AGRISURE® GT, PCE = POWERCORE® ENLIST® REFUGE ADVANCED® CORN, VA EZR GT = VIPTERA® E-Z REFUGE® + ARTESIAN®, DVA EZR GT = DURACADEVIPTERA® E-Z REFUGE® + ARTESIAN®, A = ARTESIAN® TECHNOLOGY FOR DROUGHT TOLERANCE; ONLY AVAILABLE IN CORN WITH AGRISURE® TRAITS

NOTES

A CLOSER LOOK AT THE ENLIST® WEED CONTROL SYSTEM FOR CORN.



2,4-D choline | Glyphosate | Glufosinate | FOP Herbicides

Enlist Duo® and Enlist One® herbicides with Colex-D® technology are the only herbicides containing 2,4-D that are authorized for preemergence and postemergence use on PowerCore® Enlist® corn crops.

On-Target Application

- 90% less drift than traditional 2,4-D
- 96% less volatile than 2,4-D ester



- Convenient proprietary blend of 2,4-D choline and glyphosate
- The two sites of action work together to deliver control of yield-robbing weeds and help prevent resistance



- Straight-goods 2,4-D choline with additional tank-mix flexibility
- Provides additional tank-mix flexibility with Liberty® herbicide and other qualified tank-mix products, allowing for a customized weed control program to fit each farm

A CLOSER LOOK AT THE ENLIST® WEED CONTROL SYSTEM FOR SOYBEANS



2,4-D choline | Glyphosate | Glufosinate

Enlist Duo® and Enlist One® herbicides with Colex-D® technology are the only herbicides containing 2,4-D that are authorized for preemergence and postemergence use with Enlist E3® soybean crops.

On-Target Application

- 90% less drift than traditional 2,4-D
- 96% less volatile than 2,4-D ester



- Convenient proprietary blend of 2,4-D choline and glyphosate
- The two sites of action work together to deliver control of yield-robbing weeds and help prevent resistance



- Straight-goods 2,4-D choline with additional tank-mix flexibility
- Provides additional tank-mix flexibility with Durango® DMA® herbicide, Liberty® herbicide and other qualified tank-mix products, allowing for a customized weed control program to fit each farm

NOTES

3642 3.6 RM XTENDFLEX® SOYBEANS

- » Mid Group III Maturity
- » Medium-tall plant type
- » Has salt "excluder" gene
- » Strong early emergence after planting
- » Very good rating for standability



CHARACTERISTICS

HEIGHT	MT	P.R.R.	4.0
EMERGENCE	3.0	S.D.S.	6.0
STANDABILITY	3.0	I.D.C.	6.0
SHATTER	1.0	CYST	R3

38-63 3.8 RM XTENDFLEX® SOYBEANS WITH STS®

- » Late Group III Maturity
- » Medium-tall plant type
- » Solid agronomic trait package
- » Yield history in maturity zone has been high and consistent
- » Tends to set a lot of pods for potential yield upside



CHARACTERISTICS

HEIGHT	MT	P.R.R.	4.0
EMERGENCE	3.0	S.D.S.	4.0
STANDABILITY	4.0	I.D.C.	N/A
SHATTER	1.0	CYST	R3, MR14

39-23 3.9 RM XTENDFLEX® SOYBEANS WITH STS®

- » Late Group III Maturity
- » Medium-tall plant type
- » Has shown ability to excel on narrow row spacing
- » Reliable performance in Kansas since testing in '20
- » Ability to be used on dryland and irrigated acres



CHARACTERISTICS

HEIGHT	MT	P.R.R.	5.0
EMERGENCE	4.0	S.D.S.	4.0
STANDABILITY	4.0	I.D.C.	5.0
SHATTER	1.0	CYST	R3

41-53 4.1 RM XTENDFLEX® SOYBEANS WITH STS®

- » Early Group IV Maturity
- » Medium plant type
- » Widely adaptable genetic that performs in Kansas
- » Solid agronomic ratings for the region
- » Yield upgrade over initial XtendFlex® soybean lines in RM



CHARACTERISTICS

HEIGHT	M	P.R.R.	3.0
EMERGENCE	3.0	S.D.S.	4.0
STANDABILITY	4.0	I.D.C.	5.0
SHATTER	1.0	CYST	R3, MR14

NOTES

42-24 4.2 RM XTENDFLEX® SOYBEANS WITH STS®

NEW

- » NEW Early Group IV Maturity
- » Medium-tall plant type
- » Has salt "excluder" gene and good IDC score
- » Tolerance to Sudden Death Syndrome
- » Agronomic package makes it attractive to Kansas



CHARACTERISTICS

HEIGHT	MT	P.R.R.	5.0
EMERGENCE	2.0	S.D.S.	3.0
STANDABILITY	3.0	I.D.C.	4.0
SHATTER	1.0	CYST	R3

4621 4.6 RM XTENDFLEX® SOYBEANS WITH STS®

- » Mid Group IV Maturity
- » Attractive plant type with high yield potential
- » Has salt "excluder" gene
- » Medium-bush type plant
- » Standability is a little above average



CHARACTERISTICS

HEIGHT	T	P.R.R.	5.0
EMERGENCE	3.0	S.D.S.	4.0
STANDABILITY	4.0	I.D.C.	4.0
SHATTER	1.0	CYST	R3

47-03 4.7 RM XTENDFLEX® SOYBEANS WITH STS®

- » Late Group IV Maturity
- » Tall plant type
- » Has salt "excluder" gene
- » Excellent double crop option
- » Compliment to 4621



CHARACTERISTICS

HEIGHT	T	P.R.R.	4.0
EMERGENCE	2.0	S.D.S.	6.0
STANDABILITY	4.0	I.D.C.	4.0
SHATTER	1.0	CYST	R3

48-43 4.8 RM XTENDFLEX® SOYBEANS WITH STS®

- » Late Group IV Maturity
- » Medium-tall plant type
- » Has salt "excluder" gene
- » High yield potential with good agronomics
- » Excellent option for double crop acres



CHARACTERISTICS

HEIGHT	MT	P.R.R.	5.0
EMERGENCE	2.0	S.D.S.	4.0
STANDABILITY	3.0	I.D.C.	5.0
SHATTER	1.0	CYST	R3

NOTES

PRODUCT	STS®	RM	HEIGHT	EMERGENCE	STANDABILITY	SHATTER	P.R.R.	S.D.S.	I.D.C.	CYST	HIGHLIGHT	
ENLIST E3® SOYBEANS ENLIST E3® SOYBEANS WITH STS®												
		3.9	MT	1.0	2.0	1.0	2.0	3.0	-	R3, MR14	Consistent performer across multiple environments	
NEW	42-34E3S	✓	4.2	MT	2.0	3.0	1.0	4.0	5.0	-	R3, MR14	New early 4.0 Enlist line that improves yield performance
	4660E3S	✓	4.6	M	4.0	3.0	1.0	N/A	N/A	-	R3, MR14	Works on light soils, "stacked" with STS®, salt "excluder"
	4880E3S	✓	4.8	T	1.0	5.0	1.0	3.0	5.0	-	-	Good double crop option, "stacked" with STS®
XTENDFLEX® SOYBEANS XTENDFLEX® SOYBEANS WITH STS®												
	3642XF		3.6	MT	3.0	3.0	1.0	4.0	6.0	6	R3	Salt "excluder" gene with yield potential
	38-63XFS	✓	3.8	MT	3.0	4.0	1.0	4.0	4.0	N/A	R3, MR14	Solid agronomic ratings and yield potential
	39-23XFS	✓	3.9	MT	4.0	4.0	1.0	5.0	4.0	5	R3	Salt "excluder" line adapted to irrigated and dryland
	41-53XFS	✓	4.1	M	3.0	4.0	1.0	3.0	4.0	5	R3, MR14	Salt "excluder" line for early 4.0 RM market
NEW	42-24XFS	✓	4.2	MT	2.0	3.0	1.0	5.0	3.0	4	R3	New salt "excluder" line with SDS tolerance and yield
	4621XFS	✓	4.6	T	3.0	4.0	1.0	5.0	4.0	4	R3	Excellent yield history in testing, "stacked" with STS®
	47-03XFS	✓	4.7	T	2.0	4.0	1.0	4.0	6.0	4	R3	New salt "excluder" line for late 4.0 RM market
	48-43XFS	✓	4.8	MT	2.0	3.0	1.0	5.0	4.0	5	R3	New salt "excluder" line for late 4.0 RM market
VIRTUE™												
	V3720S	✓	3.7	M	2.0	1.5	1.5	1.5	2.5	N/A	-	"Stacked" with STS®, good yield potential on better soils
	V4122S	✓	4.1	M	1.5	1.5	1.5	N/A	2.0	N/A	R3, MR14	"Stacked" with STS®, has salt "excluder" gene
	V4520S	✓	4.5	M	1.5	1.5	1.5	2.0	2.0	N/A	-	"Stacked" with STS®, great defensive package with yield
	V4720S	✓	4.7	M	1.5	2.0	1.5	2.0	2.0	N/A	-	"Stacked" with STS®, exceptional yield potential
	V4921S	✓	4.9	MT	1.5	1.5	2.0	1.5	2.0	N/A	-	"Stacked" with STS®, excellent emergence rating

Think Before You Bin Run



Verification Required The last patent on the original Roundup Ready® soybean trait expired a few years ago and U.S. farmers may legally plant saved seed from some varieties of soybean containing the Roundup Ready® soybean trait. However, it is important that you check with your seed supplier to determine if a specific Roundup Ready® soybean variety is covered by other intellectual property rights, and if so, the policy for saving seed of that variety.

Higher Seeding Rate A higher seeding rate may be required for bin-run Roundup Ready® soybeans compared to new branded seed.

Yield Loss Roundup Ready 2 Yield® soybean, Roundup Ready 2 Xtend® soybean, and XtendFlex® soybean varieties typically have a higher yield opportunity than Roundup Ready® soybean varieties.

Cleanout Loss Loss of seed and/or shrink occurs during the seed cleaning and handling processes for bin-run seed.

Seed Treatment Costs Treating your seed will add costs—both the cost of the treatment and the application of that treatment.

Lost Income Every bushel of saved seed you plant is a bushel you're not selling as commodity grain.

Increased Seed Management If you plan to save and bin-run Roundup Ready® soybeans for planting, you will have to manage your harvest operations and grain storage so that the seed isn't co-mingled with other seed that's covered by intellectual property rights.

High Value of New Branded Seed

Latest Technology

- // High-yielding soybean technologies
- // Better variety options
- // Leading seed treatment options

Customer Service

- // Dealer agronomic support before and after the sale
- // Replant policy support
- // Convenient packaging and delivery

Reliable Germination and Quality

- // Rigorously tested and meets U.S. Federal Seed Act requirements
- // Free of seed-borne diseases
- // Properly stored and conditioned

For a list of Bayer's trait patents go to cs.bayerpatents.bayer.com

For questions regarding seed intellectual property, or to anonymously report a saved seed tip, you can contact Bayer in the following ways:

1. Call 1-866-99-BAYER
2. Send a letter: Trait Stewardship, 622 Emerson Road, Suite 150, Creve Coeur, MO 63141
3. Submit a contact request at cropsience.bayer.us/contact or scan the QR code



Bayer is a member of the Seed Innovation and Protection Alliance. Visit www.seedipalliance.com to learn more. SIPA™ is a trademark of the Seed Innovation and Protection Alliance.

Bayer is a member of Excellence Through Stewardship® (ETS). Bayer products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Bayer's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Commercialized products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. It is a violation of federal and state law to use any pesticide product other than in accordance with its labeling. NOT ALL formulations of dicamba or glyphosate are approved for in-crop use with Roundup Ready 2 Xtend® soybeans. NOT ALL formulations of dicamba, glyphosate or glufosinate are approved for in-crop use with products with XtendFlex® Technology. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USES AND APPROVED FOR SUCH USE IN THE STATE OF APPLICATION. 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 Roundup Ready 2 Xtend® soybeans or products with XtendFlex® Technology.

Roundup Ready® Technology contains genes that confer tolerance to glyphosate. **Roundup Ready® 2 Technology** contains genes that confer tolerance to glyphosate. **Roundup Ready 2 Xtend® soybeans** contain genes that confer tolerance to glyphosate and dicamba. **Products with XtendFlex® Technology** contain genes that confer tolerance to glyphosate, glufosinate and dicamba. **Glyphosate** will kill crops that are not tolerant to glyphosate. **Dicamba** will kill crops that are not tolerant to dicamba. **Glufosinate** will kill crops that are not tolerant to glufosinate. Contact your seed brand dealer or refer to the Bayer Technology Use Guide for recommended weed control programs.

Contact your Bayer retailer, refer to the Bayer Technology Use Guide, or call the technical support line at 1-888-283-6847 for recommended Roundup Ready® Xtend Crop System weed control programs.

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EXCEED®

Superior Legume Inoculant

Soybeans

Exceed® SAR for Soybeans

- An increase of 3.8 bushels over the non-inoculated control was demonstrated in replicated Midwest trial locations.
- By disrupting the life cycle of the J1 and J2 soybean cyst nematode, Exceed® SAR can alter the effect the nematode has on young soybean plants.
- Enables the seed to germinate quickly and stimulates plant hormones responsible for root formation and development.
Package size: 1x500, 2x250 and 4x50

Exceed® Traditional Liquid for Soybeans

- Excellent choice for superior inoculation.
- Boasts one of the highest bacteria counts in the industry to maximize soybean yields.
Package size: 1x200 and 4x50



Exceed® Granulated Peat for Soybeans

- The first choice for virgin soils to soybeans, high pH soils, or climates with limited rainfall or irrigation.
- Applied directly into the seed trench furrow.
- Specially formulated to flow evenly and consistently through application equipment.
Package size: 40 lb bag and 520 lb tote

Exceed® STIC for Soybeans

- Created to increase seed adhesion, thus improving nodulation and performance in the field.
Package size: 1500# and 300# Treat size

Exceed® Peat for Soybeans

Package size: 1500# and 300# Treat size



Pulse Crops

Exceed® for Garbanzo Beans

- By disrupting the life cycle of the nematode, Exceed® SAR can alter the effect the nematode has on young garbanzo plants.
- The Exceed® SAR mode of action enables the seed to germinate quickly and stimulates plant hormones responsible for root formation and development.
Package size: 1x200 and 4x50

Exceed® Traditional Liquid for Peas & Lentils

- Excellent choice for superior inoculation.
- Boasts one of the highest bacteria counts in the industry to maximize pea & lentil yields.
Package size: 1x200 and 4x50



Exceed® Granulated Peat for Pulse Crops

- The first choice for virgin soils to pulse crops, high pH soils, or climates with limited rainfall or irrigation.
- Applied directly into the seed trench furrow.
- Specially formulated to flow evenly and consistently through application equipment.
Package size: 40 lb bag and 520 lb tote

Exceed® STIC for Pulse Crops

- Created to increase seed adhesion, thus improving nodulation and performance in the field.
Package size: 1500# and 100# Treat size

Exceed® Peat for Pulse Crops

Package size: 1500# and 100# Treat size



Made In USA

RELIABLE TRUSTED QUALITY

With EXCEED® brand inoculants you can always count on quality, reliable products at a great price with exceptional service.

Whichever crop you are planting, Visjon Biologics manufactures inoculant formulations for all legumes.



Forage Crops

Exceed® PreCoat

Advantages of Exceed® PreCoat

- Increased yields
- Increased nutrient use efficiency
- Superior seed adhesion

Specifications of Exceed® PreCoat

- EXCEED® PreCoat for Alfalfa guarantees a minimum of 300 million (3×10^8) viable cells per gram.
- Exceed® PreCoat for True Clover and Alfalfa/True Clover Combination guarantees a minimum of 100 million (1×10^8) viable cells per gram.
- Compatible with most fungicide and insecticide seed treatment chemistries.
- Compatible with commercial seed treaters.
- Available for: Alfalfa Sweet Clover, True Clover, Alfalfa/True Clover Combination both in Bulk and *100# treat size to increase your flexibility when ordering.

Package size: 5,000# and *100# Treat Size

*Alfalfa/True Clover Combination Only



Exceed® Peat

EXCEED® Peat for Alfalfa, True Clover, Bird's Foot Trefoil, Arrowleaf, Subterranean Clover, Sainfoin, Garden Combination, Lupine and Crownvetch. All Visjon Biologics Peat products, excluding Lupine and Crownvetch, are OMRI Listed. *Specialty strains also available.*

Package size: Varies by product



visjonbiologics.com

The Inoculant Experts

Visjon Biologics is a family owned and operated company.



5563

NEW

100-105 DAYS

- » Medium-early maturity
- » Excellent Sugar Cane Aphid tolerance
- » Semi-open bronze to cream head type in in medium-short height plant
- » Bred to handle tough environments
- » Keep populations 10-15% higher in heavy residue with cooler soil temperatures

CHARACTERISTICS

STALK STRENGTH	Good
DROUGHT STRESS	Excellent
SCA TOLERANCE	Excellent

5482

100-105 DAYS

- » Medium-early maturity
- » Excellent Sugar Cane Aphid tolerance
- » Semi-open bronze head type in a medium height plant type
- » Best yield performance is in tougher, dry conditions for Western Kansas
- » Very good roots, good stalks, with above average head exertion

CHARACTERISTICS

STALK STRENGTH	Good
DROUGHT STRESS	Excellent
SCA TOLERANCE	Excellent

5583

NEW

100-105 DAYS

- » Medium-early maturity
- » Excellent Sugar Cane Aphid tolerance
- » Semi-open bronze head type in a medium height plant type
- » Excels in tougher yield environments
- » Stalks and roots are excellent

CHARACTERISTICS

STALK STRENGTH	Excellent
DROUGHT STRESS	Excellent
SCA TOLERANCE	Excellent

5603

NEW

100-105 DAYS

- » Medium-early maturity
- » Excellent Sugar Cane Aphid tolerance
- » Excellent stalk strength; thrives in tougher environments
- » Semi open head type with above average head exertion
- » Potential for double crop in South Central Kansas

CHARACTERISTICS

STALK STRENGTH	Excellent
DROUGHT STRESS	Excellent
SCA TOLERANCE	Excellent

NOTES

5643

NEW

105-110 DAYS

- » Medium maturity
- » Excellent Sugar Cane Aphid tolerance
- » Excellent standability and early seedling vigor
- » Good performance in stressful environments
- » Semi open head type with good test weight

CHARACTERISTICS

STALK STRENGTH	Excellent
DROUGHT STRESS	Excellent
SCA TOLERANCE	Excellent

5653IG

NEW

105-110 DAYS

- » Medium maturity igrowth® hybrid
- » Excellent Sugar Cane Aphid tolerance
- » Tolerant to Imiflex™ herbicide for pre or post control of labeled grassy weeds
- » Moves well from tougher yield environments to better producing soils
- » Excellent yield history across Kansas in testing

CHARACTERISTICS

STALK STRENGTH	Good
DROUGHT STRESS	Excellent
SCA TOLERANCE	Excellent

5710

105-110 DAYS

- » Medium maturity
- » Highly tolerant to Sugar Cane Aphids
- » Excellent top-end yield potential for maturity
- » Excellent stalks and roots; FHB tolerance

CHARACTERISTICS

STALK STRENGTH	Excellent
DROUGHT STRESS	Good
SCA TOLERANCE	Excellent

5730

110-115 DAYS

- » Medium-late maturity
- » Sugar Cane Aphid tolerance
- » Strong yield performance in higher yield potential trials
- » Excellent test weight history; very good stalk and root rating

CHARACTERISTICS

STALK STRENGTH	Good
DROUGHT STRESS	Excellent
SCA TOLERANCE	Excellent

NOTES

5745W

100-105 DAYS

- » Medium-early maturity
- » White grain
- » Excellent drought tolerance
- » Food grade hybrid with tan plant color
- » Very good choice for double crop

CHARACTERISTICS

STALK STRENGTH	Excellent
DROUGHT STRESS	Excellent
SCA TOLERANCE	Good

Super Sioux

MEDIUM-EARLY

- » Sorghum-Sudangrass
- » 55 days to boot stage
- » Juicy, semi-sweet stalks
- » Excellent regrowth
- » Great quality for haying or grazing

CHARACTERISTICS

HAY YIELD	3
SILAGE	N/A
DROUGHT	2
REGROWTH	3

Gun Smoke II

NEW

LATE

- » Sorghum-Sudangrass
- » 60 days to boot stage
- » Good leaf to stem ratio
- » Works well planted late
- » Has good salt tolerance

CHARACTERISTICS

HAY YIELD	2
SILAGE	N/A
DROUGHT	1
REGROWTH	2

Hay N Graze

NEW

PPS

- » Photoperiod sensitive Sorghum-Sudangrass
- » Excellent forage producing product for hay, grazing, or silage
- » Drought tolerance is excellent
- » Excellent choice to utilize for a one cut system
- » Works well for a grazing system; performs better in rotational grazed versus continuous

CHARACTERISTICS

HAY YIELD	1
SILAGE	1
DROUGHT	2
REGROWTH	2

NOTES

Kritter Kandy II BMR

MEDIUM-EARLY

- » BMR Sorghum-Sudangrass
- » 50-60 days to boot stage
- » Excellent forage quality
- » Excellent regrowth

CHARACTERISTICS

HAY YIELD	3
SILAGE	N/A
DROUGHT	2
REGROWTH	3

Kandy Graz II BMR

MEDIUM-EARLY

- » BMR 6 Sorghum-Sudangrass
- » 50-60 days to boot stage
- » Highly palatable
- » Low water requirements

CHARACTERISTICS

HAY YIELD	3
SILAGE	3
DROUGHT	1
REGROWTH	2

Shorty II BMR

MEDIUM-LATE

- » BMR 6 Sorghum-Sudangrass
- » Brachytic dwarf for maximum leaf area and standability
- » Medium-late maturity
- » Newest generation BMR for improved digestibility and palatability
- » Produces equal or higher tonnage than taller hybrids

CHARACTERISTICS

HAY YIELD	3
SILAGE	3
DROUGHT	1
REGROWTH	1

Sensation BMR PPS

NEW

PPS

- » Photoperiod sensitive Sorghum-Sudangrass
- » BMR 6 for improved hay quality and digestibility
- » Excellent drought tolerance
- » Works well for hay, graze, or even a silage option

CHARACTERISTICS

HAY YIELD	1
SILAGE	2
DROUGHT	1
REGROWTH	2

NOTES

Guardian BMR PPS

NEW

PPS

- » Photoperiod sensitive Sorghum-Sudangrass
- » Excellent forage producing product for hay, grazing, or silage
- » Drought tolerance is excellent
- » Tolerant to Sugar Cane Aphids
- » Combines tonnage with quality plus great agronomic traits for a great all around product

CHARACTERISTICS

HAY YIELD	1
SILAGE	1
DROUGHT	2
REGROWTH	1

808 II BMR

LATE

- » BMR 6 Sorghum Bicolor
- » High yields
- » Newest generation of BMR quality
- » Brachytic dwarf for maximum leaf area and standability
- » Very high leaf to stem ratio along with excellent drought tolerance

CHARACTERISTICS

HAY YIELD	2
SILAGE	1
DROUGHT	2
REGROWTH	5

814W BMR

NEW

MEDIUM-LATE

- » BMR 6 Forage Sorghum
- » Medium-late maturity cream grain
- » Typically ready to chop in 105 days
- » Tall plant type with lots of leaf area
- » Proven record of high tonnage and excellent quality forage product

CHARACTERISTICS

HAY YIELD	3
SILAGE	1
DROUGHT	1
REGROWTH	5

815 BMR

NEW

MEDIUM EARLY

- » BMR 6 Forage Sorghum
- » Short statured early maturing silage product
- » Excellent standability
- » Great option for double crop silage

CHARACTERISTICS

HAY YIELD	7
SILAGE	2
DROUGHT	2
REGROWTH	5

NOTES

PRODUCT	DAYS TO 1/2 BLOOM	RELATIVE MATURITY	HEIGHT	HEAD TYPE	GRAIN COLOR	STALK STRENGTH	DROUGHT STRESS	SCA TOLERANCE			
GRAIN SORGHUM											
4590	50-52	85-90 Days	42-48	Semi-Open	Red	Good	Excellent	Good			
4595	56-58	95-100 Days	30-36	Semi-Open	Red	Good	Excellent	Excellent			
NEW 5563	56-58	100-105 Days	30-36	Semi-Open	Bronze	Good	Excellent	Excellent			
5482	58-60	100-105 Days	48-52	Semi-Open	Bronze	Good	Excellent	Excellent			
NEW 5583	56-58	100-105 Days	46-51	Semi-Open	Bronze	Excellent	Excellent	Excellent			
NEW 5603	58-60	100-105 Days	42-47	Semi-Open	Red	Excellent	Excellent	Excellent			
NEW 5643	63-65	105-110 Days	44-49	Semi-Open	Bronze	Excellent	Excellent	Excellent			
NEW 5653IG	64-66	105-110 Days	36-44	Semi-Open	Red	Good	Excellent	Excellent			
5710	64-66	105-110 Days	49-53	Compact	Bronze	Excellent	Good	Excellent			
5790	68-70	110-115 Days	48-54	Semi-Open	Red	Average	Good	Excellent			
5727	70-74	110-115 Days	40-46	Semi-Open	Red	Excellent	Good	Excellent			
5730	69-71	110-115 Days	49-53	Compact	Red	Good	Excellent	Excellent			
5740	70-72	110-115 Days	53-57	Compact	Red	Good	Good	Excellent			
FOOD GRADE											
5745W	58-62	100-105 Days	40-45	Semi-Open	White	Excellent	Excellent	Good			
5781W	66-68	110-115 Days	45-50	Semi-Compact	White	Excellent	Good	Good			
PRODUCT	TRAIT	USAGE	DAYS TO BOOT	MATURITY	AVERAGE SEED SIZE	PLANTING RATE	HEIGHT AT BOOT	HAY YIELD	SILAGE	DROUGHT	REGROWTH
HAY AND GRAZING HYBRIDS											
Super Sioux	Conventional	H, G	55-60	ME	18-22,000	15-30 lb.	5-6 ft	3	N/A	2	3
NEW Gun Smoke II	Conventional	H, G, S	88-93	L	26-30,000	11-16 lb.	11-13 ft	2	N/A	1	2
NEW Hay N Graze	Conventional	H, G, S	PPS	PPS	12-14,000	15-30 lb.	9-11 ft	1	1	2	2
Kritter Kandy II	BMR	H, G	55-65	ME	19-21,000	15-30 lb.	5-6 ft	3	N/A	2	3
Kandy Graz II	BMR	H, G, S	55-60	ME	14-16,000	15-30 lb.	5-6 ft	3	3	1	2
Shorty II	BMR	H, G, S	65-70	ML	13-15,000	15-30 lb.	5-6 ft	3	3	1	1
Bossy Bites	BMR	H, G, S	85-90	L	16-18,000	15-30 lb.	8-9 ft	2	N/A	1	1
Big Bale III	BMR	H, G	75-80	ML	15-17,000	8-15 lb.	7-8 ft	2	N/A	1	3
NEW Sensation	BMR PPS	H, G, S	PPS	PPS	13-15,000	15-30 lb.	9-11 ft	1	2	1	2
NEW Guardian	BMR PPS	H, G, S	PPS	PPS	14-16,000	15-30 lb.	10-12 ft	1	1	2	1
SILAGE HYBRIDS											
808 II	BMR	S, GC	68-74	L	13-16,000	6-10 lb.	7-8 ft	2	1	2	5
NEW 814W	BMR	S, GC	60-65	ML	15-17,000	6-10 lb.	7-8 ft	3	1	1	5
NEW 815	BMR	S, GC	57-61	ME	17-19,000	5-8 lb.	5-6 ft	7	2	2	5
HYBRID AND VARIETAL MILLET PRODUCTS											
Hybrid Pearl Millet	Conventional	H, G	40-60	ME	50-60,000	8-15 lb.	5-6 ft	2	N/A	1	2
Graze King BMR HPM	BMR	H, G	40-65	ME	50-60,000	8-15 lb.	4-6 ft	2	N/A	1	2
German "R" Millet	Conventional	H, G	40-50	E	180-250,000	7.5-20 lb.	2-5 ft	4	N/A	1	9

SPRING

Spring Triticale

- Cool season grass
- Upright plant
- High water use and good salinity tolerance
- Excellent regrowth
- Very good forage quality and quantity
- Will form arbuscular mycorrhizal associations

Spring Barley

- Cool season grass
- Upright plant
- Low water use and good salinity tolerance
- Benefits from arbuscular mycorrhizal association
- Very good forage production
- Very good nitrogen scavenger

Black Oats

- Cool season grass
- Winter cereal for Zone 8 and warmer
- Very fibrous root mass and tillers well
- Very good biomass production
- Works as a spring planted crop in colder climates
- Very durable residue when it reaches maturity

Spring Oats

- Cool season grass
- Upright plant
- Medium water use and fair salinity tolerance
- Will form arbuscular mycorrhizal associations
- Very good nitrogen scavenger
- Very good forage quality

Safflower

- Warm season broadleaf
- Upright plant
- High water use and good salinity tolerance
- Deep rooting plant that can aid in reducing soil compaction
- Effective at reclaiming mobile nutrients deep in the soil profile
- Will form arbuscular mycorrhizal associations and flowers attract pollinators

Lentils

- Cool season legume
- Upright and spreading plant
- Low water use
- Poor salinity tolerance
- Forms arbuscular mycorrhizal associations
- Self pollinated, but flowers may attract pollinators

Yellow Field Peas

- Cool season legume
- Upright plant
- Low water use
- Poor salinity tolerance
- Flowers attract pollinators
- Forms arbuscular mycorrhizal associations

Spring Forage Peas

- Cool season legume
- Upright plant
- Low water use
- Poor salinity tolerance
- Flowers attract pollinators
- Forms arbuscular mycorrhizal associations

AC Greenfix (chickling vetch)

- Cool season legume
- Very good nitrogen producer
- Good forage production
- Very efficient with moisture
- Short season plant, can produce up to 134# at 72 days of growth

SUMMER

Sunn Hemp

- Warm season legume
- Upright plant
- Tolerates poor, sandy, droughty soils and requires good drainage
- Has a strong taproot with many well-developed lateral roots
- Very good nitrogen producer
- Can produce 6-7 tons dry matter per acre

Laredo Soybeans

- Warm season legume
- Upright and spreading plant
- Medium water use
- Black seeded, pure forage soybean
- Self pollinated, but flowers may attract pollinators
- Forms arbuscular mycorrhizal associations

Cowpeas

- Warm season legume
- Upright and spreading plant (vine)
- Low water use
- Poor salinity tolerance
- Flowers attract pollinators
- Forms arbuscular mycorrhizal associations

Mungbeans

- Warm season legume
- Upright and spreading plant (vine)
- Low to medium water use
- Poor salinity tolerance
- Forms arbuscular mycorrhizal associations
- Self pollinated

Sunflowers

- Warm season broadleaf
- Upright plant
- High water use and fair salinity tolerance
- Deep rooting plant that can aid in reducing soil compaction
- Effective at reclaiming mobile nutrients deep in the soil profile
- Will form arbuscular mycorrhizal associations and flowers attract pollinators

Sorghum Sudangrass

- Warm season grass
- Upright plant
- Medium water use
- Fair salinity tolerance
- Benefits from arbuscular mycorrhizal associations
- Self pollinated by the wind

Pearl Millet

- Warm season grass
- Upright plant
- Low water use
- Good protein content
- Self pollinated by the wind
- Will form arbuscular mycorrhizal associations

Guar

- Warm season legume
- Very good heat tolerance and drought tolerance
- 90-120 day maturity
- Good salinity tolerance
- Forms arbuscular mycorrhizal associations

German "R" Millet

- Warm season, grass
- Annual
- Upright plant type
- Low water use
- Poor salinity tolerance
- Forms arbuscular mycorrhizal associations

FALL

Subterranean Clover

- Legume
- Reseeding cool season annual
- Excellent weed and erosion suppressor
- Prostrate very dense plant growth
- Forms seed pods at, or below ground level

Annual Ryegrass

- Cool season grass
- Annual or perennial types
- Medium water use
- Fair salinity tolerance
- Will form arbuscular mycorrhizal associations
- Very good nitrogen scavenger

Phacelia

- Cool season broadleaf
- Upright plant
- Low water use and low salinity tolerance
- Very fibrous roots and good nitrogen catch crop
- Will form arbuscular mycorrhizal associations
- Attracts beneficial insects

Buckwheat

- Cool season broadleaf with warm season growth characteristics
- Upright plant
- Medium water use and poor salinity tolerance
- Enhances soil P availability
- Does not form arbuscular mycorrhizal associations
- Attracts pollinators very well

Oil Seed Radish

- Cool season broadleaf (Brassica)
- Upright and spreading plant
- High water use and poor salinity tolerance
- Very good nitrogen scavenger
- Can aid in reducing compaction
- Does not form arbuscular mycorrhizal associations

Turnips

- Cool season broadleaf (Brassica)
- Upright and spreading plant
- High water use and poor salinity tolerance
- Good at scavenging nitrogen
- Good forage production
- Does not form arbuscular mycorrhizal associations

Dwarf Essex Rape

- Cool season broadleaf
- Belongs to the cabbage family
- High protein and high energy level feed
- Very cold, heat and drought tolerant
- Valuable feed source when other crops are in a summer slump
- Good nutrient scavenger

Hybrid Forage Brassicas

- Works well in fall and spring plantings, as well as summer
- High protein and high energy level feed
- Usually very cold, heat, and drought tolerant
- Bred specifically for forage production and grazing
- Very good regrowth after grazing
- Very good RFV

Ethiopian Cabbage

- Unique multipurpose brassica cultivar
- Very good biofumigant
- Very fast growing
- Generally flowers in 60 days
- Effective taproot
- Up to 5,000 lb. DM/acre

WINTER**Austrian Winter Peas**

- Cool season legume
- Upright plant
- Low water use
- Poor salinity tolerance
- Flowers attract pollinators
- Forms arbuscular mycorrhizal associations

Common Vetch

- Cool season legume
- Annual or biennial
- Prostrate plant
- Low to medium water use and poor salinity tolerance
- Forms arbuscular mycorrhizal associations
- Flowers attract pollinators

Hairy Vetch

- Cool season legume
- Annual or biennial
- Prostrate plant
- Low to medium water use and poor salinity tolerance
- Forms arbuscular mycorrhizal associations
- Flowers attract pollinators

Lupins

- Cool season legume
- Upright plant
- Low water use
- Prefers acid soils
- Flowers attract pollinators
- Does not form arbuscular mycorrhizal associations

Winter Barley

- Cool season grass
- Upright plant
- Low water use and good salinity tolerance
- Benefits from arbuscular mycorrhizal associations
- Very good forage production
- Very good nitrogen scavenger

Winter Triticale

- Cool season grass
- Upright plant
- High water use and good salinity tolerance
- Excellent regrowth
- Very good forage quality and quantity
- Will form arbuscular mycorrhizal associations

Winter Oats

- Cool season grass
- Walken oats have enough cold tolerance to survive our winters for the last 6 years
- Very good early and late forage production
- Medium water use and fair salinity tolerance
- Very good nitrogen scavenger
- Will form arbuscular mycorrhizal associations

Cereal Rye

- Cool season grass
- Upright plant
- High water use and good salinity tolerance
- Will form arbuscular mycorrhizal associations
- Very good nitrogen scavenger
- Very good residue builder

Canola

- Cool season broadleaf
- Annual and biennial
- Upright and spreading plant
- Medium water use and good salinity tolerance
- Very good at scavenging nitrogen and other nutrients from the soil
- Flowers attract pollinators, and it does not form arbuscular mycorrhizal associations

PERENNIAL**Alfalfa**

- Perennial legume
- Upright plant
- High water use and poor salinity tolerance generally
- Non-dormant cultivators can perform like an annual
- Forms arbuscular mycorrhizal associations
- Flowers attract pollinators

Red Clover

- Legume
- Biennial or short lived perennial
- Upright plant
- Medium water use and poor salinity tolerance
- Forms arbuscular mycorrhizal associations
- Flowers attract pollinators

Crimson Clover

- Legume
- Annual or biennial
- Upright plant
- Thrives well on both well-drained sandy soils and clay type soils
- Does not do well in extreme cold or heat
- Good quick producer of nitrogen

White Clover

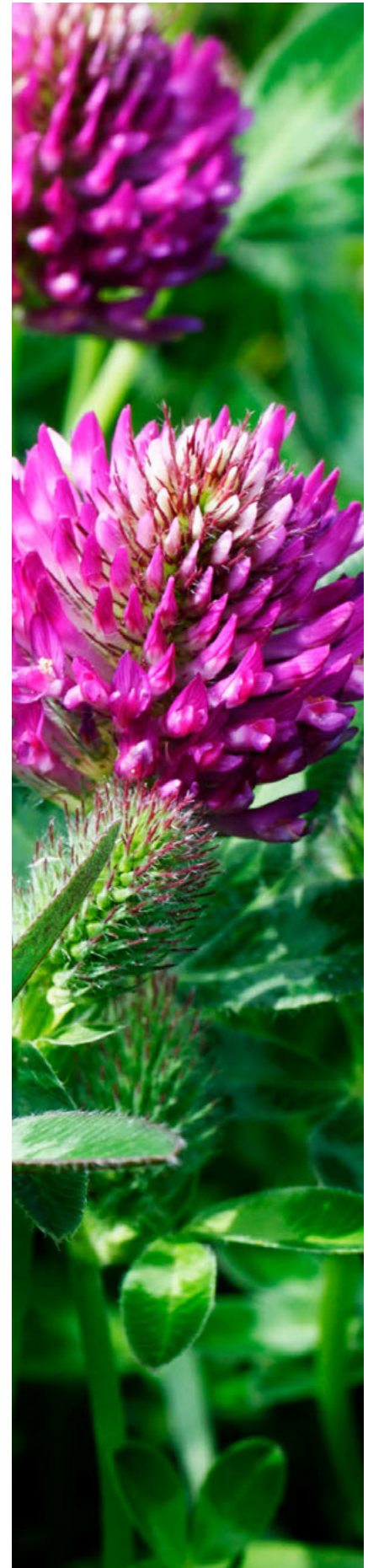
- Legume
- Perennial
- Upright plant
- Medium water use and poor salinity tolerance
- Forms arbuscular mycorrhizal associations
- Flowers attract pollinators


Yellow Sweet Clover

- Legume
- Annual/biennial
- Upright plant
- Moderate water use and fair salinity tolerance
- Forms arbuscular mycorrhizal associations
- Flowers attract pollinators

Chicory

- Warm season broadleaf
- Perennial
- Upright and spreading plant (vine)
- Will form arbuscular mycorrhizal associations
- Attracts Pollinators it does not form arbuscular mycorrhizal associations





Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, including applicable refuge requirements for insect resistance management, for the biotechnology traits expressed in the seed as set forth in the Technology/Stewardship Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation and agreement to comply with the most recent stewardship requirements.

Bayer is a member of Excellence Through Stewardship® (ETS). Bayer products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Bayer's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Commercialized products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations here import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. B.t. products may not yet be registered in all states. Check with your seed brand representative for the registration status in your state.

IMPORTANT IRM INFORMATION: Certain products are sold as RIB Complete® corn blend products, and do not require the planting of a structured refuge except in the Cotton-Growing Area where corn earworm is a significant pest. Products sold without refuge in the bag (non-RIB Complete) require the planting of a structured refuge. See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Roundup Ready® 2 Technology contains genes that confer tolerance to glyphosate. Glyphosate will kill crops that are not tolerant to glyphosate.

Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. It is a violation of federal and state law to use any pesticide product other than in accordance with its labeling. NOT ALL formulations of dicamba, glyphosate or glufosinate are approved for in-crop use with products with XtendFlex® Technology. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USES AND APPROVED FOR SUCH USE IN THE STATE OF APPLICATION. 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 Roundup Ready 2 Xtend® soybeans or products with XtendFlex® Technology.

Products with XtendFlex® Technology contains genes that confer tolerance to glyphosate, glufosinate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba. Glufosinate will kill crops that are not tolerant to glufosinate. Contact your seed brand dealer or refer to the Bayer Technology Use Guide for recommended weed control programs.






Insect control technology provided by Vip3A is utilized under license from Syngenta Crop Protection

AG. Acceleron®, DroughtGard®, RIB Complete and Design®, RIB Complete®, Roundup Ready 2 Technology and Design®, Roundup Ready®, Roundup®, SmartStax and Design®, SmartStax®, Trecepta®, Trecepta® RIB Complete®, VT Double PRO®, Roundup Ready 2 Xtend®, Roundup Ready 2 Yield®, Roundup Ready PLUS®, SR and Design®, TruFlex™, VaporGrip®, XtendFlex® and XtendiMax® are trademarks of Bayer Group. LibertyLink® and the Water Droplet Design® are registered trademarks of BASF Corporation. Herculex® is a registered trademark of Dow AgroSciences LLC. Agrisure Viptera® is a registered trademark of Syngenta. Respect the Refuge and Corn Design® and Respect the Refuge® are registered trademarks of National Corn Growers Association. All other trademarks are the property of their respective owners.

Seed containing a patented trait can only be used to plant a single commercial crop. It is unlawful to save and replant Roundup Ready 2 Yield® soybeans, Roundup Ready 2 Xtend® soybeans, and XtendFlex® soybeans. Additional information and limitations on the use of these products are provided in the Technology Stewardship Agreement and the Bayer Technology Use Guide: tug.bayer.com. U.S. patents for Bayer technologies can be found at the following webpage: cs.bayerpatents.bayer.com

Important: Always read and follow label and bag tag instructions; only those labeled as tolerant to glufosinate may be sprayed with glufosinate ammonium based herbicides. Agrisure®, Artesian®, DuracadeViptera™, Viptera®, and E-Z Refuge® are trademarks of a Syngenta Group Company.

More information about Duracade® is available at <http://www.biotradestatus.com/>.


YieldGard YieldGard VT Pro® is a registered trademark used under license from the Bayer Group.

LIBERTY LINK Seed products with the LibertyLink® (LL) trait are resistant to the herbicide glufosinate ammonium, an alternative to glyphosate in corn, and combine high-yielding genetics with the powerful, non-selective, postemergent weed control of Liberty® herbicide for optimum yield and excellent weed control. LibertyLink®, Liberty® and the Water Droplet logo are registered trademarks of BASF.

HERCULEX Corn trait technology incorporated into these seeds is commercialized under license from Syngenta Seeds, LLC. Herculex® Technology incorporated into these seeds is commercialized under license from Corteva Agriscience, LLC. HERCULEX® and the HERCULEX Shield are trademarks of Corteva Agriscience, LLC.

Seeds containing the Enlist, Herculex and PowerCore traits are protected under numerous US patents. Seeds containing patented traits can only be used to plant a single commercial crop and cannot be saved or replanted. You acknowledge and agree to be bound by the terms and conditions of the following documents in effect at the time of planting of this seed: (i) the Technology Use Agreement and (ii) the Product Use Guides for all technologies in this seed, including the Herbicide Resistance Management (HRM), and Use requirements detailed therein (www.corteva.us/Resources/trait-stewardship.html). To plant Enlist, Herculex and PowerCore seed, you must have a limited license from Corteva Agriscience. In consideration of the foregoing, Corteva Agriscience grants to the Grower the limited license to use its technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the Technology Use Agreement in effect at the time of planting of this seed.

Always read and follow herbicide label directions prior to use: Enlist® products contain the Enlist trait that provides crop safety for use of labeled over-the-top applications of glyphosate, glufosinate and 2,4-D herbicides featuring Colex-D® technology when applied according to label directions. Following burndown, the only 2,4-D containing herbicide products that may be used with Enlist™ crops are products that feature Colex-D technology and are expressly labeled for use on Enlist crops. 2,4-D products that do not contain Colex-D technology are not authorized for use in conjunction with Enlist products. Enlist corn contains genes that confer tolerance to 2,4-D and -fop herbicides. 2,4-D and -fop herbicides will damage or kill crops that are not tolerant to 2,4-D or -fops.




Properly managing trait technology is key to preserving it as a long-term crop protection tool. Growers who fail to comply with IRM requirements risk losing access to this product. To help preserve the effectiveness of B.t. corn technologies, growers planting B.t. corn technologies are required to follow an IRM Plan. Consult the Corn Product Use Guide for appropriate refuge configuration options. Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, including applicable refuge requirements for insect resistance management, for the biotechnology traits expressed in the seed as set forth in the Technology Use Agreement and Product Use Guide. By opening and using a bag of seed, you are reaffirming your obligation to comply with the most recent stewardship requirements. For complete details on IRM requirements for hybrids with Bt technology, including refuge examples and important information on the use of insecticides on refuge and Bt corn acres, please consult appropriate Product Use Guide. Go to www.corteva.us/Resources/trait-stewardship.html to download the latest Corteva Agriscience Corn Product Use Guide.

Enlist E3® soybean seeds containing the Enlist® trait can only be used to plant a single commercial crop. It is unlawful to save and replant Enlist E3® soybeans. Additional information and limitations on the use of these products are provided in the Corteva Agriscience Technology Use Agreement and Enlist® Soybean Product Use Guide. U.S. patents for Corteva Agriscience technologies can be found at the following webpage: www.corteva.us/Resources/trait-stewardship.html.

Enlist Duo® and Enlist One® herbicides are 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. Enlist Duo and Enlist One are the only 2,4-D products authorized for use with Enlist crops. Consult Enlist herbicide labels for weed species controlled. Always read and follow label directions. Enlist E3® soybeans were jointly developed by Corteva Agriscience and MS Technologies, LLC. ®™ Enlist, Enlist E3, the Enlist E3 logo, and Colex-D are trademarks of Corteva Agriscience. PowerCore® multi-event technology developed by Corteva Agriscience and Monsanto. Roundup®, Roundup Ready®, Roundup Ready 2 Technology and Design, and PowerCore® are registered trademarks of Monsanto Technology LLC. Liberty Link® and the Water Droplet Design® are registered trademarks of BASF. Enlist®, Colex-D®, and Refuge Advanced® are trademarks of Corteva Agriscience and its affiliated companies. Excellence Through Stewardship is a registered trademark of Excellence Through Stewardship.

PowerCore® Enlist® Refuge Advanced® corn products with HX1, VTP, ENL, LL, RR2. Contains a single-bag integrated refuge solution for above-ground insects. In EPA-designated cotton-growing counties, a 20% separate corn borer refuge must be planted with PowerCore Enlist Refuge Advanced products.

Corteva Agriscience is a member of Excellence Through Stewardship® (ETS). Corteva Agriscience products are commercialized in accordance with ETS product launch stewardship guidance Corteva Agrisciences Product Launch Stewardship Policy. No crop or material produced from this product can be exported to, used, processed or sold across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. For further information about your crop or grain marketing options, contact DAS at 877-4-TRAITS (877-487-2487). Information regarding the regulatory and market status of agricultural biotechnology products can be found at: www.biotradestatus.com.



The transgenic soybean event in Enlist E3® soybeans is jointly developed and owned by Corteva Agriscience and M.S. Technologies, L.L.C. ®™ Enlist, Enlist E3, the Enlist E3 logo, and Colex-D are trademarks of Corteva Agriscience and its affiliated companies. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

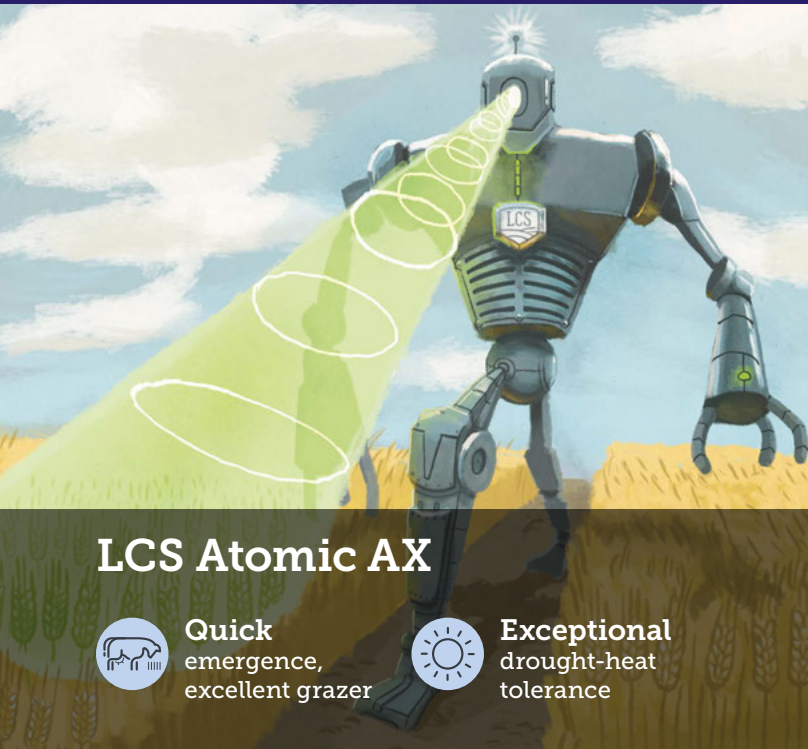
STS® STS® is a registered trademark of Corteva Agriscience and its herbicide tolerant trait affiliated companies.

HERBICIDE STATEMENT: This variety contains a trait providing enhanced tolerance to specific sulfonylurea soybean herbicides such as Synchrony® XP and Classic® and any additional herbicides to be developed and as clearly noted on their herbicide label. **YOU MUST SIGN A TECHNOLOGY USE AGREEMENT, READ THE PRODUCT USE GUIDE PRIOR TO PLANTING.** The STS® gene will not safeguard this variety against other herbicide chemistries which are labeled to be used only over-the-top of crops that have a different and specified herbicide resistant gene. Always read and follow herbicide directions prior to use. ACCIDENTAL APPLICATION OF INCOMPATIBLE HERBICIDES TO THIS VARIETY COULD RESULT IN TOTAL CROP LOSS.





Maximize your wheat acres

Say goodbye to feral rye, cheatgrass and other grassy weeds with CoAXium® varieties



LCS Atomic AX

-  **Quick** emergence, excellent grazer
-  **Exceptional** drought-heat tolerance



LCS Steel AX

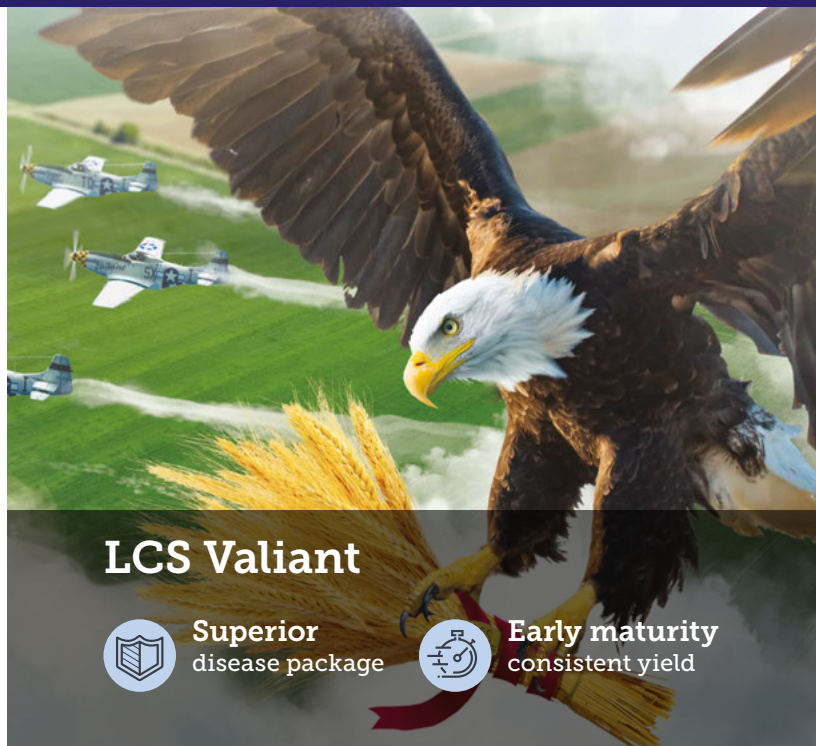
-  **Similar** to LCS Chrome
-  **Very good** straw strength

Conventional lines for grain and grazing, bred for a wide variety of growing conditions





LCS Julep

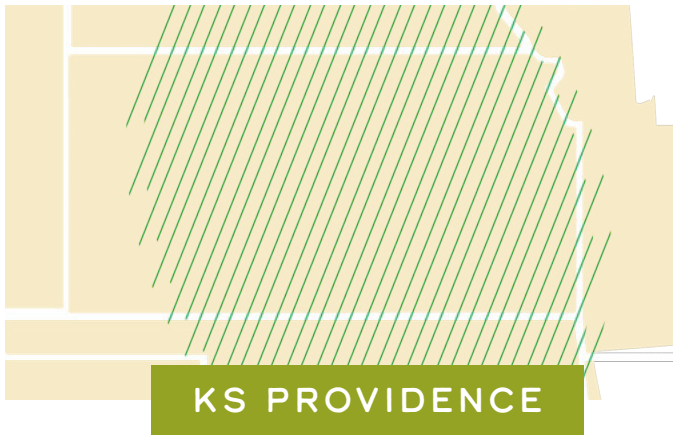
-  **Large head** size, good tillering
-  **5 bushel** increase over LCS Mint



LCS Valiant

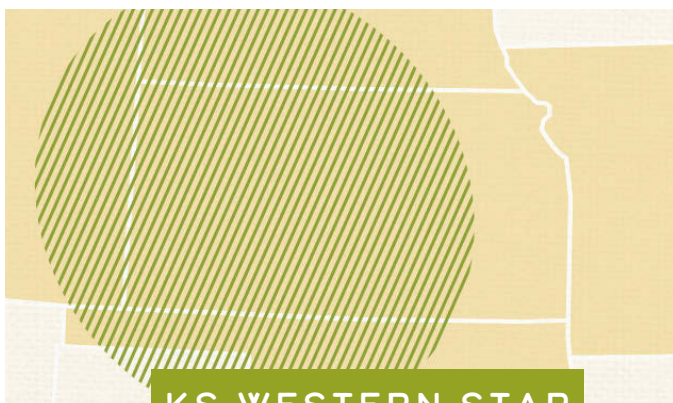
-  **Superior** disease package
-  **Early maturity** consistent yield

Reserve your **LCS seed today**, including LCS Helix AX, LCS Galloway AX and LCS Chrome. Dig into the data at LimagrainsCerealSeeds.com/CP



KS PROVIDENCE

- ✓ HIGH YIELD POTENTIAL
- ✓ GREAT DISEASE PACKAGE
- ✓ VERY CONSISTENT PERFORMANCE ACROSS THE REGION



KS WESTERN STAR

- ✓ HIGH YIELD POTENTIAL
- ✓ VERY GOOD DROUGHT TOLERANCE
- ✓ RESISTANCE TO WHEAT CURL MITE



KANSAS
WHEAT ALLIANCE

Our
GENETICS.
Your
LEGACY.




K-STATE
Research and Extension

WHEAT ALLIANCE

KSWheatAlliance.org

Yield and Quality + Proven Performance

OKLAHOMA GENETICS, INC.

NEW

WHEAT

- ★ **DOUBLESTOP CL+**
- ★ **STRAD CL+**
- ★ **BUTLER'S GOLD**
- ★ **GREEN HAMMER**
- ★ **HIGH COTTON**
- ★ **OK CORRAL**

OGI PROVEN PERFORMERS

HIGH WHEAT PROTEIN

Butler's Gold
Doublestop CL+
Green Hammer

Skydance
Strad CL+

HESSIAN FLY RESISTANCE

Duster
Gallagher
Green Hammer

OK Corral
Showdown
Smith's Gold

GRAZING TOLERANCE

Bentley
Big Country
Doublestop CL+
High Cotton
OK Corral

Showdown
Smith's Gold
Strad CL+
Uncharted

BEST DISEASE PROTECTION

Big Country
Butler's Gold
Doublestop CL+
OK Corral

Skydance
Smith's Gold
Strad CL+
Uncharted

BEST FUNCTIONALITY

Baker's Ann
Bentley
Big Country
Butler's Gold
Doublestop CL+

Green Hammer
Ruby Lee
Skydance
Smith's Gold
Strad CL+

ACID-SOIL TOLERANCE

Baker's Ann
Bentley
Butler's Gold
Doublestop CL+
Green Hammer

Lonerider
Skydance
Strad CL+
Uncharted



From farmer to consumer, OGI varieties are proven performers every year. Our wheat varieties provide the quality characteristics end-users and consumers desire, and they provide the agronomics wheat producers require. We strive to create diverse, high-quality and resilient wheat varieties that the entire wheat foods chain can trust and rely upon.

WB4401 | WB4422 | WB4523 | WB4699

TOUGH BY KANSAS STANDARDS. EXCELLENT BY YOURS.



Kansas has high standards for wheat. It needs to stand strong and get results. With varieties like WB4401 providing excellent yield potential and forage yield potential, WB4422 and WB4523 providing excellent standability and WB4699 providing tolerance to fungal diseases like Fusarium head blight, trust WestBred® to endure the region's toughest challenges — and meet your standards for excellence.


WestBred[®]
WESTBRED.COM

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The Most-Planted Wheat Varieties in Kansas

#1 SY Monument

#2 Bob Dole

#3 SY Wolverine

Kansas Wheat Farmers Plant What Works

Complete 2023 NASS report: <https://bit.ly/3GkI910>

AgriPro® Brand Hard Red Winter Wheat	Agronomics							Disease and Pest								
	Test Weight	Straw Strength	Relative Maturity	Plant Height	Winter Hard.	Alum. Tol. (Low pH)	Leaf Rust	Stripe Rust	Soil Borne Complex	BYDV	Leaf Blotch	Tan Spot	Powdery Mildew	Bacterial Leaf Disease	Wheat Streak Mosaic	FHB*
New! AP Prolific	2	5	4	5	4	1	2	2	1	4	4	4	—	4	4	4
AP Bigfoot	1	2	3	4	3	3	2	4	5	5	4	5	—	4	4	6
AP EverRock	2	2	3	3	3	2	2	4	1	3	5	6	2	6	5	5
SY Wolverine	2	2	3	3	3	8	2	6	1	4	2	3	6	2	4	7
Bob Dole	2	4	4	7	4	2	2	1	1	6	4	4	4	5	6	6
SY Monument	3	5	6	5	2	2	1	3	2	4	4	3	5	5	7	8
SY Rugged	2	4	3	2	4	3	3	1	5	7	6	—	3	6	6	7

General:

1-2 = Excellent
3-4 = Very Good
5 = Good

6-7 = Fair
8-9 = Poor

— = Not available

Relative Maturity:

1 = Earliest
9 = Latest

Plant Height:

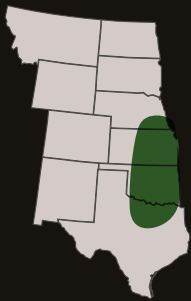
1 = Shortest
9 = Tallest

* Everest has a fusarium head blight (FHB) rating of four.

Visit [AgriProWheat.com](https://www.agriprowheat.com) for complete comparison chart.

New! AP Prolific

AgriPro puts the “Pro” in Prolific



Area of primary adaptation

- » Excellent yield potential
- » Best-in-class fusarium head blight (scab) tolerance
- » Excellent leaf and stripe rust tolerance
- » Excellent aluminum tolerance (low pH soils)
- » High tillering
- » Very good wheat streak mosaic virus tolerance



VARIETY LINEUP



**AmeriStand
481 HVXRR**



FALL DORMANCY: 4.0
WINTERHARDINESS: 1.9

A Technology Powerhouse: HarvXtra® Alfalfa Paired with the UltraCut™ Alfalfa Disease Package

- Latest advancement in disease resistance, featuring the UltraCut™ alfalfa disease package with a DRI of 39/40, which includes High Resistance to Aphanomyces Root Rot Race 1, 2 and evolving strains¹; and includes multi-race resistance to Anthracnose²
- HarvXtra® Alfalfa gives growers the ability to better manage the yield-versus-quality tradeoff. It offers more flexibility in cutting schedule to achieve improved forage quality or greater yield potential, when compared to conventional alfalfa at the same stage of maturity

**AmeriStand
457TQ RR**



FALL DORMANCY: 4.2
WINTERHARDINESS: 1.8

High Quality Traffic Tested® Alfalfa with Roundup Ready® Technology

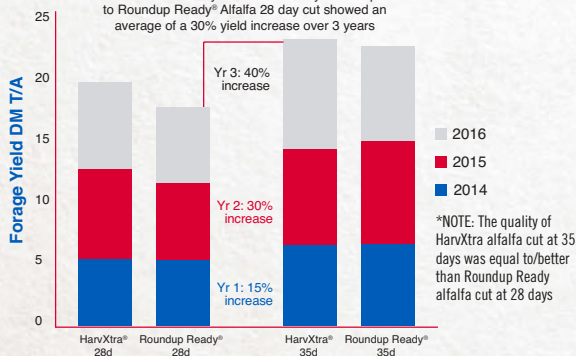
- Excellent forage quality for optimal animal performance
- Perfect disease resistance score of 35/35 DRI with HR for both races 1 and 2 of Aphanomyces
- Very fast recovery for frequent harvest schedules under intensive management



28 DAY VS. 35 DAY FORAGE YIELD

3 YEAR SUMMARY | WEST SALEM, WI (F13 SEEDING)

HarvXtra® Alfalfa delayed harvest 35 day cut compared to Roundup Ready® Alfalfa 28 day cut showed an average of a 30% yield increase over 3 years



**AmeriStand
446NT**



FALL DORMANCY: 4.4
WINTERHARDINESS: HARDY

Excellent Yield Potential with High Nematode Resistance

- Ideal 4 to 5 cut variety adapted for western US areas with nematode pressure
- High resistance to diseases and pests, including stem nematode
- Excellent rotation variety for nematode resistance

**AmeriStand
428TQ**



FALL DORMANCY: 4.4
WINTERHARDINESS: 1.3

UltraCut™ Alfalfa Disease Package Ups Ante on Yield and Persistence Leader

- Outstanding yield potential and agronomic performance under 4 to 5-cut harvest management systems (FD=4.4) in various locations throughout dormant alfalfa use areas
- A new day in disease resistance greatly affecting establishment and in-crop performance, AmeriStand 428TQ features the UltraCut™ alfalfa disease package with a perfect Disease Resistance Index (DRI) of 40/40 including HR (high resistance) to aphanomyces race 1, race 2, and evolving strains¹, and HR to anthracnose race 1 and race 5²
- Superb winterhardiness (WH=1.3); AmeriStand 428TQ delivers excellent cold tolerance and persistence

**AmeriStand
518NT**



FALL DORMANCY: 5.2
WINTERHARDINESS: 2

High Yield Potential with Nematode Resistance

- Widely adapted variety with excellent winter hardiness
- High resistance to yield-robbing diseases and pests
- Very fast recovery for frequent harvest schedules under intensive management



The UltraCut™ alfalfa disease package helps you grow a healthy alfalfa crop even in field conditions susceptible to Anthracnose and Aphanomyces disease strains.

The UltraCut alfalfa disease package can help deliver an advantage through improved agronomic performance and yield potential.

*In tests established by the NAAIC Review Board, this variety demonstrated improved salt tolerance of germinating seeds (Ger) as compared to the industry salt tolerant checks in each category. References available upon request.

¹Includes race 1 and race 2 protection. In addition, Forage Genetics International, LLC (FGI) has identified a novel source of Aphanomyces resistance in the greenhouse and field that visibly outperforms unrelated varieties on the market when grown under natural or artificial disease pressure. FGI researchers have been working cooperatively with universities collecting and testing the most virulent strains of Aphanomyces to help determine the level of resistance to this novel source.

²Includes race 1 protection, along with Anthracnose Race 5, which was recently confirmed by USDA's Agricultural Research Service.

Use these tips to help you establish a great stand of high yielding, high quality alfalfa.

SOIL SELECTION

- Choose a field with good drainage
- Test the soil for pH and fertility
- Soils should have a pH of 6.5 or above
- If soil pH is below 6.5, an application of lime may be required 12 months ahead of seeding to raise soil pH

SOIL TEST

- Soil test for phosphorus (P), potassium (K) and other elements like sulfur
- Your local soil testing lab can make best recommendations for fertility
- P and K can be applied anytime prior to and/or at seeding
- Soil and plant tissue tests can also guide ongoing topdressing ratios throughout the life of the stand

SEEDING

- With proper management, alfalfa can be seeded conventionally, into reduced tillage or into no-till
- Seed a minimum of 15 pounds per acre
- Spring seedings can begin as soon as frost is out of the ground, seeding early will help improve first year yields
- Fall seedings should occur at least 6 weeks before the historic freeze date for performance the following year

SEEDING DEPTH

- Start with a firm seed bed
- Seed to soil contact and proper seeding depth makes the difference in stand performance
- Plant 1/4 to 1/2 inch deep in heavier soils
- Plant 1/2 to 3/4 inch deep in sandy soils

HARVEST

- Cut first year spring seeded stands at early to mid-bloom (about 70-80 days after seedings)
- Subsequent harvests can be made 25 to 28 days later
- Established stands (second year or older) can be harvested more frequently without severe stand damage
- Most growers like to start first harvest on established stand with a bud cut and following harvests at early bloom (about 26-30 days in most areas)
- Traffic Tested® varieties have been proven to withstand more frequent harvests

Variety Characteristics	Fall Dormancy	Traffic Tested ¹	Salt Tolerance ²	Phytophthora Root Rot	Anthracoense Race 1	Anthracoense Race 5 ³	Verticillium Wilt	Fusarium Wilt	Bacterial Wilt	Aphanomyces Root Rot Race 1	Aphanomyces Root Rot Race 2	Evolving Aphanomyces Strains ⁴	Stem Nematode	Root Knot Nematode	Pea Aphid	Spotted Alfalfa Aphid
AmeriStand 481 HVXRR	4.0	—	Ger	HR	HR	R	HR	HR	HR	HR	HR	HR	R	—	R	R
AmeriStand 457TQ RR	4.2	EX	Ger	HR	HR	—	HR	HR	HR	HR	HR	—	R	—	HR	R
AmeriStand 446NT	4.4	EX	Ger	HR	HR	—	HR	HR	HR	R	—	—	HR	—	HR	R
AmeriStand 428TQ	4.4	EX	Ger	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	—	R	R
AmeriStand 518NT	5.2	EX	Ger	HR	HR	—	HR	HR	HR	HR	—	—	HR	HR	HR	HR

HR = >51% Resistance, R = 31-50% Resistance, MR = 15-30% Resistance, LR = 6-14% Resistance

¹In tests established by the NAAMC Review Board, this variety demonstrated improved salt tolerance of germinating seeds (Ger) as compared to the industry salt tolerant checks in each category. References available upon request.

²Includes race 1 and race 2 protection. In addition, Forage Genetics International, LLC (FGI) has identified a novel source of Aphanomyces resistance in the greenhouse and field that visibly outperforms unrelated varieties on the market when grown under natural or artificial disease pressure. FGI researchers have been working cooperatively with universities collecting and testing the most virulent strains of Aphanomyces to help determine the level of resistance to this novel source.

³Includes race 1 protection, along with Anthracnose Race 5, which was recently confirmed by USDA's Agricultural Research Service.

In the following states, purchase and use of HarvXtra® Alfalfa with Roundup Ready® Technology is subject to a Seed and Feed Use Agreement, requiring that products of this technology can only be used on farm or otherwise be used in the United States: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming. In addition, due to the unique cropping practices do not plant HarvXtra® Alfalfa with Roundup Ready® Technology in Imperial County, California, pending import approval and until Forage Genetics International, LLC (FGI) grants express permission for such planting.

Forage Genetics International, LLC ("FGI") is a member of Excellence Through Stewardship® (ETS). FGI products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with FGI's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. As of June 2017, HarvXtra® Alfalfa with Roundup Ready® Technology has pending import approvals. GROWERS MUST DIRECT ANY PRODUCT PRODUCED FROM HARVXTRA® ALFALFA WITH ROUNDUP READY® TECHNOLOGY SEED OR CROPS (INCLUDING HAY AND HAY PRODUCTS) ONLY TO UNITED STATES DOMESTIC USE. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Growers should refer to <http://www.biotechstatus.com/> for any updated information on import country approvals. Excellence Through Stewardship® is a registered trademark of Biotechnology Industry Organization.

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Kauffman SEEDS, INC.

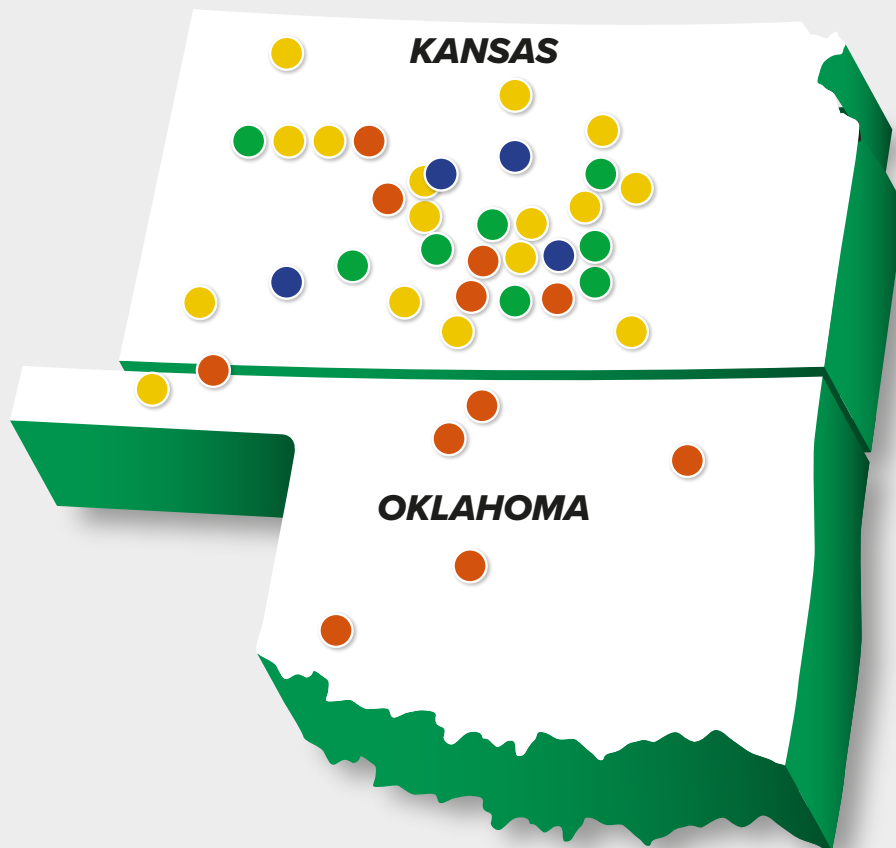
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CORN
LOCATIONS


SOYBEAN
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SORGHUM
LOCATIONS


MULTI CROP
LOCATIONS