



# Kauffman

SEEDS

2025



# PRODUCT GUIDE

CORN, SOYBEAN, WHEAT, SORGHUM, AND COVER CROPS



# 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





# 60 YEARS

## Kauffman Seeds

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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 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 in this new century of agriculture while also staying true to delivering locally adapted products for our customers.

In January 2023, we lost Tom unexpectedly to cancer. It feels different with Tom not around, but the products and services we provide our customers are not different. Along with this shift in our day-to-day, we also made another change in our business. We officially began selling our corn, soybeans, grain sorghum, and forage sorghum products under the Kauffman Seeds brand this past season, as the Midland Genetics® brand was retired. We continue to bring you the same great products adapted for our region, now in a Kauffman Seeds bag. Our focus is still the same today as it was in the beginning: providing the best-adapted quality products to meet your farm’s goals for success.

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# KAUFFMAN SEEDS NEW NUMBERING SYSTEM

## CORN HYBRIDS: 100-13 PR RIB

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

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

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

# KAUFFMAN SEEDS OLD NUMBERING SYSTEM

## CORN: 429 PR RIB

<b>4</b> Maturity 1 - 9	<b>2</b> Sequence 0 - 9	<b>9</b> Release Year	<b>PR RIB</b> Traits
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## SOYBEAN: 4621 XFS

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

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

### NOTES

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# CORN TECHNOLOGIES

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

# SOYBEAN TECHNOLOGIES

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

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













## 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](http://www.SyngentaUS.com/CMVibranceCereals)



**ROOTING  
POWER**  


 **CruiserMaxx® Vibrance®**  
Cereals 

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# CORN PRODUCTS

PRODUCT	RELATIVE MATURITY	TRAITS	GDD-BLACK LAYER	DRYDOWN	DROUGHT TOLERANCE	EARLY GROWTH	PLANT HEIGHT	EAR HEIGHT
100-13	100	C, PR, SS	2410	4	2	5	MT	M
<b>NEW!</b> 105-85	105	TRE	2546	3	3	4	M	M
240	105	PR	2520	3	4	3	MT	M
350	108	VA EZR GT/LL, DVA EZR GT	2592	3	3	3	MT	M
429	110	C, PR, SS	2660	4	4	3	MT	M
<b>NEW!</b> 110-75	110	C, PCE	2656	3	5	4	M	M
570	112	PR, SS	2688	7	3	5	M	M
112-34	112	C, PCE	2701	4	2	4	MT	M
<b>NEW!</b> 113-05	113	C, PCE	2709	5	5	4	MT	M
559	113	C, PWE	2736	8	3	3	T	MH
662	113	TRE	2712	3	4	4	MT	MH
<b>NEW!</b> 114-25	114	TRE	2764	3	4	5	MT	M
672	114	C, 3110, DV EZR GT	2752	7	4	4	T	MH
114-84	114	C, PCE	2736	5	6	4	MT	MH
<b>NEW!</b> 116-65	116	TRE	2796	4	5	4	MT	MH
117-23	117	PR, SS	2808	7	4	5	MT	MH
<b>NEW!</b> 118-95	118	TRE	2815	4	4	4	T	MH
822	118	VA EZR GT	2810	7	4	5	MT	M
832	118	3110	2830	7	6	4	T	M

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® 3110, AGRISURE® CB/LL, AND AGRISURE® GT, PCE = POWERCORE® ENLIST® REFUGE ADVANCED® CORN, PWE = POWERCORE® ENLIST®, VA EZR GT = VIPTERA® E-Z REFUGE® + ARTESIAN®, DVA EZR GT = DURACADEVIPTERA® E-Z REFUGE® + ARTESIAN®, DV EZR GT = DURACADE® E-Z REFUGE®

## NOTES

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EAR FLEX	TEST WEIGHT	STAY GREEN	STALK	ROOT	SILAGE	GREY LEAF SPOT	GOSS'S WILT	FUNGICIDE RESPONSE	GREENSNAP	PRODUCT
SF	5	6	4	4	3	6	5	1	4	100-13
SD	5	4	5	4	7	4	6	3	3	105-85 <b>NEW!</b>
SF	3	3	4	3	4	3	3	3	4	240
SF	5	4	4	4	4	3	4	4	4	350
SD	3	4	4	3	4	4	4	3	5	429
SF	5	4	2	3	3	4	4	3	3	110-75 <b>NEW!</b>
SF	2	3	2	2	5	3	3	2	4	570
SF	2	5	4	4	4	7	4	2	3	112-34
SF	3	4	2	3	2	3	4	3	3	113-05 <b>NEW!</b>
SF	6	4	3	4	2	3	3	3	4	559
SD	3	5	4	3	5	4	6	3	5	662
SF	4	3	3	5	5	3	5	3	5	114-25 <b>NEW!</b>
SF	3	3	4	4	3	3	4	4	3	672
SF	4	4	4	5	4	4	3	4	3	114-84
SF	3	3	3	2	2	5	5	2	5	116-65 <b>NEW!</b>
SF	2	4	2	3	2	4	5	4	4	117-23
SF	3	3	3	4	2	4	6	4	4	118-95 <b>NEW!</b>
SF	5	4	4	5	2	4	4	3	4	822
F	5	4	4	4	2	5	4	3	4	832

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

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PRODUCT	STS®	RM	HEIGHT	EMERGENCE	STANDABILITY	SHATTER	P.R.R.	S.D.S.	I.D.C.	CYST	HIGHLIGHT
<b>ENLIST E3® SOYBEANS   ENLIST E3® SOYBEANS WITH STS®</b>											
<b>NEW!</b> 38-15		3.8	MT	2	3	1	3	2	5	PI88788	New versatile product with salt "excluder" gene
<b>NEW!</b> 40-35		4.0	MT	3	4	1	2	5	-	-	New high yield performance on dryland and irrigated acres
42-34	✓	4.2	MT	2	3	1	4	5	-	PI88788	Enlist® variety with yield potential and solid traits
4660	✓	4.6	M	4	3	1	N/A	N/A	-	PI88788	Works on light soils, "stacked" with STS®, salt "excluder"
4880	✓	4.8	T	1	5	1	3	5	-	-	Good double crop option, "stacked" with STS®
<b>XTENDFLEX® SOYBEANS   XTENDFLEX® SOYBEANS WITH STS®</b>											
<b>NEW!</b> 36-05	✓	3.6	MT	2	3	1	5	4	5	PI88788	New salt "excluder" variety that is widely adapted product
39-23	✓	3.9	MT	4	4	1	5	4	5	PI88788	Salt "excluder" line adapted to irrigated and dryland
<b>NEW!</b> 41-25		4.1	MT	2	4	1	2	4	-	PI88788	New 4.1 with top end yield potential
42-24	✓	4.2	MT	2	3	1	5	3	4	PI88788	Salt "excluder" line with SDS tolerance and yield
<b>NEW!</b> 46-45	✓	4.6	MT	3	4	1	3	5	-	PI88788	New variety "stacked" with STS® that performs on dryland
<b>NEW!</b> 47-65	✓	4.7	T	3	4	1	4	5	5	PI88788	New salt "excluder" line that excels under irrigation
<b>NEW!</b> 48-85	✓	4.8	MT	2	4	1	4	6	5	PI88788	New salt "excluder" line adapted to dryland or irrigated
<b>VIRTUE™</b>											
V4921S	✓	4.9	MT	1.5	1.5	2.0	1.5	2.0	N/A	-	"Stacked" with STS®, excellent emergence rating

RATING SCALE: 1-9, 1 = BEST | VIRTUE RATING SCALE: 1-5, 1 = BEST | N/A = RATING NOT AVAILABLE | PLANT HEIGHT: T = TALL, MT = MEDIUM-TALL, M = MEDIUM

## NOTES

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# 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](https://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](https://cropsience.bayer.us/contact) or scan the QR code



Bayer is a member of the Seed Innovation and Protection Alliance. Visit [www.seedipalliance.com](http://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 ( $3 \times 10^8$ ) viable cells per gram.
- Exceed® PreCoat for True Clover and Alfalfa/True Clover Combination guarantees a minimum of 100 million ( $1 \times 10^8$ ) 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](http://visjonbiologics.com)

The Inoculant Experts

Visjon Biologics is a family owned and operated company.















PRODUCT	DAYS TO 1/2 BLOOM	RELATIVE MATURITY	HEIGHT	HEAD TYPE	GRAIN COLOR	STALK STRENGTH	DROUGHT STRESS	SCA TOLERANCE
<b>GRAIN SORGHUM</b>								
4595	56-58	95-100 Days	30-36	Semi-Open	Red	3	2	2
5563	56-58	100-105 Days	30-36	Semi-Open	Bronze	3	2	2
5482	58-60	100-105 Days	48-52	Semi-Open	Bronze	3	2	2
5583	56-58	100-105 Days	46-51	Semi-Open	Bronze	2	2	2
5603	58-60	100-105 Days	42-47	Semi-Open	Red	2	2	2
<b>NEW</b> 5605IG	59-61	100-105 Days	45-55	Semi-Compact	Red	4	2	4
5643	63-65	105-110 Days	44-49	Semi-Open	Bronze	2	2	2
5653IG	64-66	105-110 Days	36-44	Semi-Open	Red	3	2	2
5710	64-66	105-110 Days	49-53	Compact	Bronze	2	3	2
5727	70-74	110-115 Days	40-46	Semi-Open	Red	2	3	2
5730	69-71	110-115 Days	49-53	Compact	Red	3	2	2
<b>NEW</b> 5695	68-70	110-115 Days	53-57	Semi-Compact	Red	2	4	2
5740	70-72	110-115 Days	53-57	Compact	Red	3	4	2
<b>FOOD GRADE</b>								
5745W	58-62	100-105 Days	40-45	Semi-Open	White	3	2	4
5781W	66-68	110-115 Days	45-50	Semi-Compact	White	3	4	4

PRODUCT	TRAIT	USAGE	DAYS TO BOOT	MATURITY	AVERAGE SEED SIZE	PLANTING RATE	HEIGHT AT BOOT	HAY YIELD	SILAGE	DROUGHT	REGROWTH
<b>HAY AND GRAZING HYBRIDS</b>											
Super Sioux	Conventional	H, G	55-60	ME	18-22,000	20-30 lb.	5-6 ft	3	N/A	2	3
<b>NEW</b> Superb Graze	Conventional	H, G	65-70	M	20-24,000	15-25 lb.	7-8 ft	3	N/A	2	3
Gun Smoke II	Conventional	H, G, S	88-93	L	26-30,000	11-16 lb.	11-13 ft	2	N/A	1	2
Hay N Graze	Conventional	H, G, S	PPS	PPS	12-14,000	23-38 lb.	9-11 ft	1	1	2	2
Kritter Kandy II	BMR	H, G	55-65	ME	19-21,000	18-32 lb.	5-6 ft	3	N/A	2	3
Kandy Graz II	BMR	H, G, S	55-60	ME	14-16,000	17-30 lb.	5-6 ft	3	3	1	2
Shorty II	BMR	H, G, S	65-70	M	13-15,000	18-34 lb.	5-6 ft	3	3	1	1
Bossy Bites	BMR	H, G, S	85-90	L	16-18,000	20-34 lb.	8-9 ft	2	N/A	1	1
Big Bale III	BMR	H, G	75-80	ML	15-17,000	21-35 lb.	7-8 ft	2	N/A	1	3
Sensation	BMR PPS	H, G, S	PPS	PPS	13-15,000	18-32 lb.	9-11 ft	1	2	1	2
Guardian	BMR PPS	H, G, S	PPS	PPS	14-16,000	18-32 lb.	10-12 ft	1	1	2	1
<b>SILAGE HYBRIDS</b>											
808 II	BMR	S, GC	68-74	L	13-16,000	4-10 lb.	7-8 ft	2	1	2	5
814W	BMR	S, GC	60-65	ML	15-17,000	4-10 lb.	7-8 ft	3	1	1	5
<b>NEW</b> 815	BMR	S, GC	57-61	ME	17-19,000	4-10 lb.	5-6 ft	7	2	2	5
5790	Conventional	S, GC	60-65	M	14-16,000	4-10 lb.	4-6 ft	7	2	2	5
<b>HYBRID AND VARIETAL MILLET PRODUCTS</b>											
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 of 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**

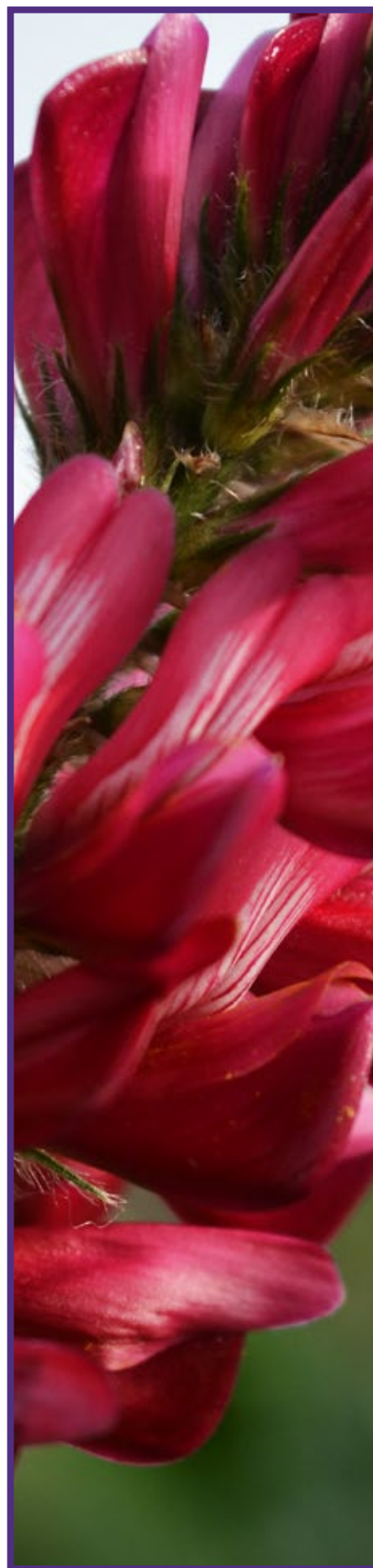
- Legume
- Perennial
- Upright plant
- Medium water use and poor salinity tolerance
- Forms arbuscular mycorrhizal associations
- Flowers attract pollinators

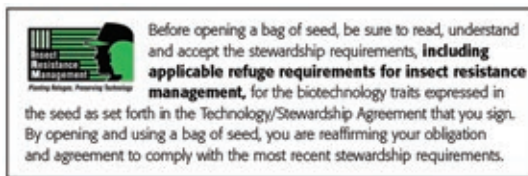
**Yellow Sweet Clover**

- 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





**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®, Agrisure Viptera®, DuracadeViptera™, E-Z Refuge® and Viptera® are trademarks of a Syngenta Group Company.

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

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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, post-emergent weed control of Liberty® herbicide for optimum yield and excellent weed control. LibertyLink®, Liberty® and the Water Droplet logo are registered trademarks of BASF.

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No dicamba may be used in-crop with seed with Roundup Ready® Xtend Technology, unless and until approved or specifically permitted. No dicamba formulations have been registered for such in-crop use at the time this material was published. Please follow <https://www.roundupreadyxtend.com/pages/xtendimaxupdates.aspx> for status updates.

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**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 products with XtendFlex® Technology.

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Refuge seed may not always contain the DroughtGard® trait. 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.



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 contains genes that confer tolerance to glyphosate, glufosinate and dicamba. Plants that are not tolerant to glyphosate may be damaged or killed if exposed to those herbicides. Plants that are not tolerant to glyphosate, dicamba, and/or glufosinate may be damaged or killed if exposed to those herbicides. Contact your seed brand dealer or refer to the Bayer Technology Use Guide for recommended weed control programs.

Seeds 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](http://tug.bayer.com). U.S. patents for Bayer technologies can be found at the following webpage: [cs.bayerpatents.bayer.com](http://cs.bayerpatents.bayer.com)

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Seeds containing the PowerCore® Enlist®, PowerCore® Enlist® Refuge Advanced®, and Enlist® Corn - REFUGE traits are protected under one or more U.S. patents which can be found at: [www.traitstewardship.com](http://www.traitstewardship.com). The purchase of this traited seed includes a limited license to produce a single crop in the United States. The use of seed from such a crop and/or the progeny thereof for propagation or seed multiplication or for production or development of a hybrid or different variety of seed is strictly prohibited. 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 Corteva Agriscience Technology Use Agreement and (ii) the Product Use Guides for all technologies in this seed, including the Herbicide Resistance Management (HRM), and Use requirements.

To plant PowerCore Enlist, PowerCore Enlist Refuge Advanced, and Enlist Corn - REFUGE seed, you must have a limited license from Corteva Agriscience (or other appropriate affiliates). In consideration of the foregoing, Corteva Agriscience grants to the Grower a 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.



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](http://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](http://www.corteva.us/Resources/trait-stewardship.html).

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Following burndown, 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® corn and soybeans. Consult Enlist® herbicide labels for weed species controlled. Enlist Duo and Enlist One herbicides are not registered for use or sale in all states and counties; are not registered in AK, CA, CT, HI, ID, MA, ME, MT, NH, NV, OR, RI, UT, VT, WA and WY; and have additional subcounty restrictions in AL, GA, TN and TX, while existing county restrictions still remain in FL. All users must check "Bulletins Live! Two" no earlier than six months before using Enlist One or Enlist Duo. To obtain "Bulletins," consult [epa.gov/essp](http://epa.gov/essp), call 1-844-447-3813, or email [ESSP@epa.gov](mailto:ESSP@epa.gov). You must use the "Bulletin" valid for the month and state and county in which Enlist One or Enlist Duo are being applied. Contact your state pesticide regulatory agency if you have questions about the registration status of Enlist® herbicides in your area. 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. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USE IN THE STATE OF APPLICATION. USE OF PESTICIDE PRODUCTS, INCLUDING, WITHOUT LIMITATION, 2,4-D-CONTAINING PRODUCTS NOT AUTHORIZED FOR USE WITH ENLIST CORN AND SOYBEANS, MAY RESULT IN OFF-TARGET DAMAGE TO SENSITIVE CROPS/AREAS AND/OR SUSCEPTIBLE PLANTS, IN ADDITION TO CIVIL AND/OR CRIMINAL PENALTIES. Additional product-specific stewardship requirements for Enlist crops, including the Enlist Product Use Guide, can be found at [www.traitstewardship.com](http://www.traitstewardship.com).

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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.

PowerCore® Enlist® corn products with HX1, VTP, ENL, LL, RR. A separate 5% corn borer refuge in the corn belt, and a separate 20% corn borer refuge in EPA-designated cotton-growing counties must be planted PowerCore Enlist products.

**STS®**  
herbicide tolerant trait

**PRODUCT USE STATEMENT:** This variety contains a trait providing enhanced tolerance to labeled specific sulfonylurea soybean herbicides. 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.

Not all herbicides are registered for sale or use in all states or counties in the United States or all provinces in Canada. Contact your local regulatory agency to determine if a product is registered for sale or use in your area. Always read and follow label directions.

**ACCIDENTAL APPLICATION OF INCOMPATIBLE HERBICIDES TO THIS VARIETY COULD RESULT IN TOTAL CROP LOSS.**

**YOU MUST SIGN A TECHNOLOGY USE AGREEMENT AND READ THE PRODUCT USE GUIDE PRIOR TO PLANTING.**

The purchase of these seeds includes a limited license to produce a single soybean crop in the United States (or other applicable country). The use of seed from such a crop or the progeny thereof for propagation or seed multiplication or for production or development of a hybrid or different variety of seed is strictly prohibited. Resale or transfer of the seed is strictly prohibited.

The transgenic soybean event in Enlist E3® soybeans is jointly developed and owned by Corteva Agriscience and M.S. Technologies, L.L.C.

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# 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 Runner**

-  Excellent Yield Potential
-  Well-rounded disease protection



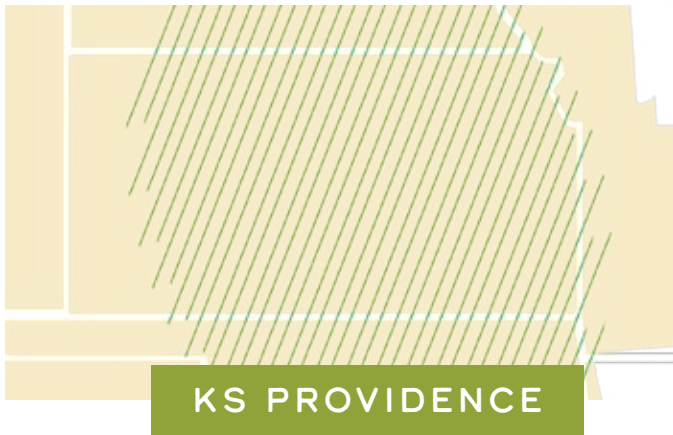
**LCS Valiant**

-  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](http://LimagrainsCerealSeeds.com/CP)

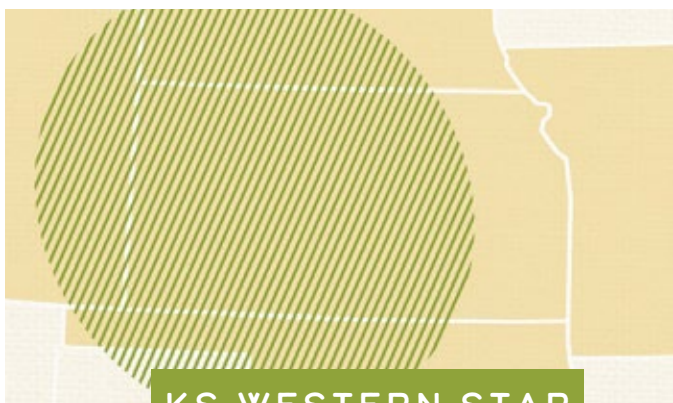






**KS PROVIDENCE**

- ✓ 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](http://KSWheatAlliance.org)

# Yield and Quality + Proven Performance

## OKLAHOMA GENETICS, INC.

NEW

WHEAT

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

### OGI PROVEN PERFORMERS

#### HIGH WHEAT PROTEIN

Butler's Gold      Skydance  
Doublestop CL+    Strad CL+

#### HESSIAN FLY RESISTANCE

Duster              OK Corral  
Gallagher          Showdown  
Green Hammer    Smith's Gold

#### GRAZING TOLERANCE

Bentley              Showdown  
Big Country        Smith's Gold  
Doublestop CL+    Strad CL+  
High Cotton        Uncharted  
OK Corral

#### BEST DISEASE PROTECTION

Big Country        Skydance  
Butler's Gold      Smith's Gold  
Doublestop CL+    Strad CL+  
OK Corral          Uncharted

#### BEST FUNCTIONALITY

Baker's Ann        Green Hammer  
Bentley              Ruby Lee  
Big Country        Skydance  
Butler's Gold      Smith's Gold  
Doublestop CL+    Strad CL+

#### ACID-SOIL TOLERANCE

Baker's Ann        Lonerider  
Bentley              Skydance  
Butler's Gold      Strad CL+  
Doublestop CL+    Uncharted  
Green Hammer



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**®

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# Kansas Wheat Farmers Plant What Works

## SY Monument—#1 for Planted Acres, Six-Years in a Row

Complete 2024 NASS report: <http://bit.ly/3y6OFbd>

Ask your Kauffman Seeds, Inc. Representative about these AgriPro brand wheat varieties:

### SY Monument

#### Time-Tested Consistency

- » Great choice if planting late after soybeans
- » Good forage production for grazing and silage
- » Acid soil tolerance

### AP Prolific

#### AgriPro puts the “Pro” in Prolific

- » Very good fusarium head blight (scab) tolerance
- » Excellent leaf and stripe rust tolerance
- » Low pH tolerance
- » High tillering

### SY Wolverine

#### Powerful Yield Potential

- » High yield potential across a wide range of environments
- » Great choice if planting late after soybeans
- » One of the top varieties from the AgriPro brand for WSMV tolerance

### AP Bigfoot

#### Leading Yield Potential

- » Acid soil tolerance
- » Very good leaf and stripe rust tolerance
- » Great choice if planting late after soybeans
- » One of the top varieties from the AgriPro brand for WSMV tolerance

AgriProWheat.com

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syngenta®





# 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 strains<sup>1</sup>; and includes multi-race resistance to Anthracnose<sup>2</sup>
- 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  
423TQ RR**



FALL DORMANCY: 4  
WINTERHARDINESS: 1

### High Quality Traffic Tested® Alfalfa with UltraCut™ Alfalfa Disease Package and Roundup Ready® Technology

- Highly resistant to multiple races of Aphanomyces for protection during establishment and early season cool and wet soil conditions
- Highly resistant to multiple races of Anthracnose for protection during warm and humid weather conditions

**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

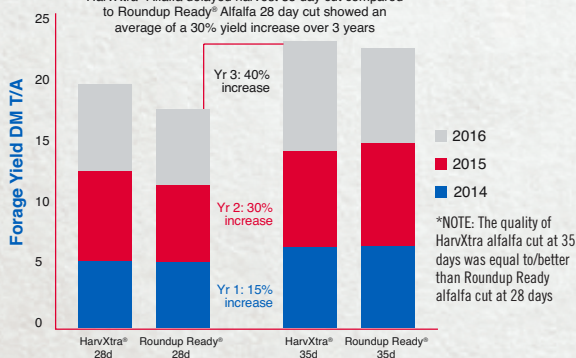
- Outstanding yield potential and agronomic performance under 4 to 5-cut harvest management systems (FD=4.4) in various locations throughout dormant alfalfa use areas
- A new day in disease resistance greatly affecting establishment and in-crop performance, AmeriStand 428TQ features the UltraCut™ alfalfa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



### 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  
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.

<sup>1</sup>Includes 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.

<sup>2</sup>Includes 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 <sup>1</sup>	Salt Tolerance <sup>2</sup>	Phytophthora Root Rot	Anthraco-nose Race 1	Anthraco-nose Race 5 <sup>3</sup>	Verticillium Wilt	Fusarium Wilt	Bacterial Wilt	Aphanomyces Root Rot Race 1	Aphanomyces Root Rot Race 2	Evolving Aphanomyces Strains <sup>4</sup>	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 423TQ RR	4	EX	Ger	HR	HR	HR	HR	HR	HR	HR	HR	HR	R	—	R	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

<sup>1</sup>In 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.

<sup>2</sup>Includes 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.

<sup>3</sup>Includes 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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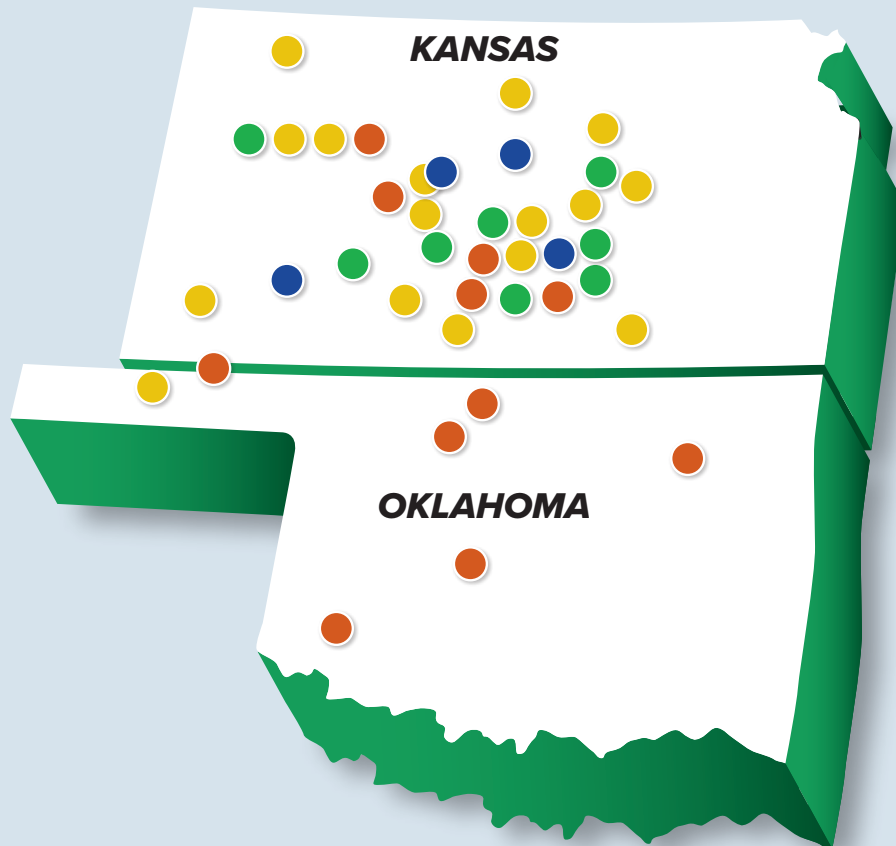


# Kauffman SEEDS, INC.

## Contact Us!

9218 S. Halstead Street, Hutchinson, KS 67501  
800.634.2836 | [info@kauffmanseed.com](mailto:info@kauffmanseed.com)  
[KauffmanSeed.com](http://KauffmanSeed.com)

### RESEARCH TRIAL LOCATIONS



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-  SOYBEAN LOCATIONS
-  SORGHUM LOCATIONS
-  MULTI CROP LOCATIONS