



# 2023

## SEED GUIDE



# CORN

**Hybrids that help maximize the productivity on every acre, from your toughest ground to your most productive soil. All backed by Answer Plot® testing and data. CROPLAN® is also one of the only seed brands to offer zinc in the bag, to promote early season growth and root development. So when you want to maximize the potential of your corn acres, start with seed that puts you in control. CROPLAN.**

## KEY TAKEAWAYS

- 1 Optimize yield potential by understanding hybrid response to population (RTP).
- 2 Use hybrid response-to-nitrogen (RTN) scores to maximize your nitrogen management plan.
- 3 Understand hybrid ROI potential with fungicide applications by knowing the response-to-fungicide (RTF) score.
- 4 Use quality data from CROPLAN® to make informed decisions.
- 5 CROPLAN® hybrids come standard with Fortivent® Plus seed treatment, to protect and drive early season vigor.

## OPTIMIZE YOUR SEED ROI

You need more sophisticated data to unlock the potential of your seed investment. CROPLAN® seed is answering the call. New Answer Plot® research provides response-to data for all CROPLAN corn hybrids. So you're armed with Response-to-Nitrogen and Response-to-Fungicide intelligence for each hybrid, and can fine tune management plans to increase yield potential in the most economically efficient manner.

Response-to-Nitrogen data helps you identify the nitrogen strategy which will maximize ROI for each hybrid. Three levels of nitrogen testing creates a response curve for each hybrid.

- **Low** (.2#N/bu of expected yield)
- **Moderate** (.7#N/bu of expected yield)
- **High** (1.1#N/bu of expected yield)

Response to Fungicide data allows growers to make two key decisions in the most profitable manner:

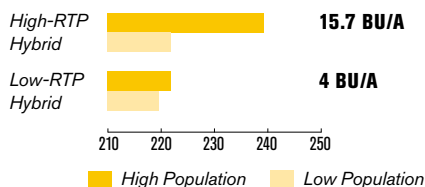
1. Which hybrids should receive a fungicide application to create maximum ROI potential.
2. Application timing that can help unlock the greatest yield response for each hybrid.

Combining these two testing strategies allows us to make sense of the almost infinite interactions between nitrogen levels, fungicide applications and hybrid response. And that means more confident, profitable decision making all year round. When it comes to seed, demand a brand that provides the intelligence you need to maximize ROI. Demand CROPLAN.

## TARGET POPULATIONS<sup>2</sup>

Planting each hybrid at the right population is key to optimizing its performance potential. A high RTP score identifies a hybrid that shows a potential yield gain with increased populations. A low RTP score indicates a hybrid that does not deliver high yield potential with increased populations.

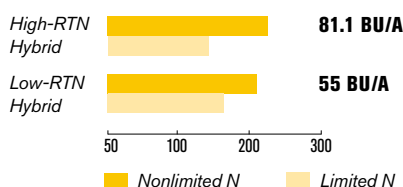
### ► RTP Yield Response Variance — 11.7 bu/A



## LET NITROGEN NOURISH<sup>2</sup>

Be sure to consider the RTN scores of the hybrids you choose. Select hybrids with high RTN scores if you are planning to apply additional or late-season nitrogen, and hybrids with moderate or low scores in limited nitrogen environments. Perform appropriate tissue testing to determine optimal application timing for nitrogen, which may help minimize the financial and environmental costs of applying too much.

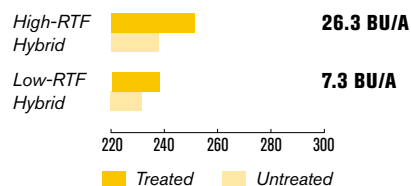
### ► RTN Yield Response Variance — 26.1 bu/A



## LEVERAGE FUNGICIDES FOR PLANT HEALTH<sup>2</sup>

Fungicides are another tool to help you optimize the yield potential of your corn crop. RTF scores help you understand where fungicides may increase yield potential and protect ROI potential.

### ► RTF Yield Response Variance — 19 bu/A



## TURN DATA INTO INSIGHTS

Trusted WinField United advisors help you connect various data sources, analyzing and interpreting different data sets to make personalized recommendations for your farm to achieve more yield and profit potential.

More Than  
6 Million  
Data Points<sup>3</sup>

20-Plus Years  
of Answer Plot®  
Expertise

Nationwide  
Answer Plot®  
Locations

Exceptional  
Data Accuracy  
(low LSDs)

1. Response ranges show the importance of how hybrids respond to each management practice to help ensure the highest yield potential. 2019 nationwide Answer Plot® data. Because of factors outside of WinField United's control, such as weather, product application and any other factors, results to be obtained, including but not limited to yields, financial performance or profits, cannot be predicted or guaranteed by WinField United.

2. 2020 Answer Plot® trial data.

3. 1998–2020 Answer Plot® trial data.

# CORN



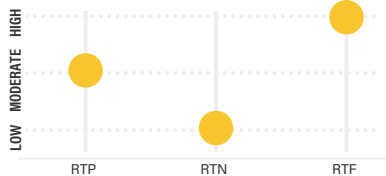
## CROPLAN® TRAIT LETTERING FOR CORN HYBRIDS

Descriptive hybrid numbering and trait lettering systems are used for CROPLAN® corn hybrids.

KEY	HYBRID	TRAIT	LOGO
<b>SS</b>	SmartStax®	YieldGard VT Rootworm, Herculex® RW, YieldGard VT PRO® Corn Borer and Herculex® protection, Roundup Ready® 2 Technology and LibertyLink®	
<b>SS/RIB</b>	SmartStax® RIB Complete® Corn Blend	5% RIB, YieldGard VT Rootworm, Herculex® RW, YieldGard VT PRO® Corn Borer and Herculex® protection, Roundup Ready® 2 Technology and LibertyLink®	
<b>VT2P</b>	VT Double PRO®	YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
<b>VT2P/RIB</b>	VT Double PRO® RIB Complete® Corn Blend	5% RIB, YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
<b>RR</b>	Roundup Ready® Corn 2	Roundup Ready® Corn 2	
<b>TRE/RIB</b>	Trecepta® RIB Complete® Corn Blend	5% RIB, Trecepta® Technology Corn Ear Worm Protection, YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
<b>TRE</b>	Trecepta®	Trecepta® Technology Corn Ear Worm Protection, YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
<b>DGVT2P</b>	DroughtGard® VT Double PRO® Corn Blend	DroughtGard® YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
<b>DGVT2P/RIB</b>	DroughtGard® VT Double PRO® RIB Complete® Corn Blend	5% RIB, DroughtGard® YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
<b>AS3000GT</b>	Agrisure® 3000GT	Agrisure® Corn Borer and Rootworm protection, Glyphosate Tolerant and LibertyLink®	
<b>AS3111</b>	Agrisure Viptera® 3111	Agrisure® Corn Borer, Rootworm and Broad Lepidopteran protection, Glyphosate Tolerant and LibertyLink®	
<b>GT</b>	Agrisure® GT	Agrisure® Glyphosate Tolerant	
<b>D</b>	Duracade™	Duracade™ Corn Borer and Rootworm protection, Glyphosate Tolerant, LibertyLink® and Herculex® I Insect Protection	

**CROPLAN CP184RR**

Relative Maturity: 80

**Response Scores**

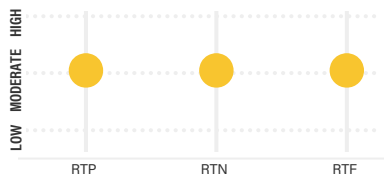
- Flint-dent hybrid for cool, northern maturity zones
- Medium-tall, aggressive-growing hybrid; excellent silage potential
- Large flex ear for wide adaptation to most soils and populations tested
- Silage-only product

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength				2		
Staygreen				2		
Stalk Quality			3			
Dry Down		4				
Test Weight						1

**CROPLAN CP2180VT2P/RIB**

Relative Maturity: 81

**Response Scores**

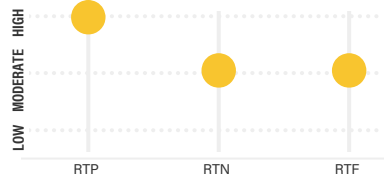
- Position in average to high yield potential acres
- Strong vigor, stalks and roots
- Maximize yield with moderate to high populations
- Flowers early for RM, keep in zone

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength				2		
Staygreen			3			
Stalk Quality				2		
Dry Down				2		
Test Weight			3			

**CROPLAN CP2288VT2P/RIB**

Relative Maturity: 82

**Response Scores**

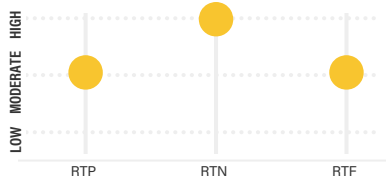
- Excellent yield stability across all environments; strong stress tolerance
- Excellent root strength with strong stalks and Goss's wilt tolerance
- Moderate response to enhanced nitrogen management
- Keep in relative maturity zone

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength					1	
Staygreen				2		
Stalk Quality				2		
Dry Down				2		
Test Weight						1

**CROPLAN CP2315VT2P/RIB**

Relative Maturity: 83

**Response Scores**

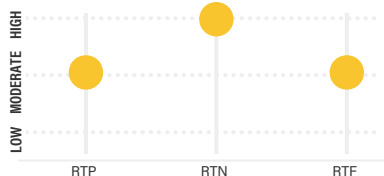
- Excellent drought tolerance to move across variable and tough acres
- Solid agronomics with strong defensive characteristics
- Manage with populations and fungicide application
- Flowers early for RM, keep in zone

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength				2		
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight			3			

**CROPLAN CP2585VT2P/RIB**

Relative Maturity: 85

**Response Scores**

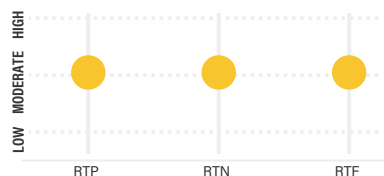
- Ideally placed on productive soils
- Strong seedling vigor for planting early
- High response to nitrogen hybrid that responds well to aggressive nitrogen management
- Use caution in drought-prone, low productive soils

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength			3			
Staygreen			3			
Stalk Quality				2		
Dry Down				2		
Test Weight			3			

**CROPLAN CP2520RR**

Relative Maturity: 86

**Response Scores**

- Strong stress tolerance on heavy and moderate soil types
- Excellent roots and drought tolerance
- Nice ear flex for lower populations
- Optimum emergence when planted in warm soils

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance					1	
Root Strength					1	
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight			3			

**KEY** Scale  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

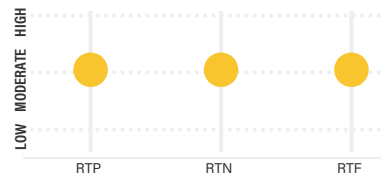


CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

NEW

**CROPLAN CP2692D**

Relative Maturity: 86

**Response Scores**

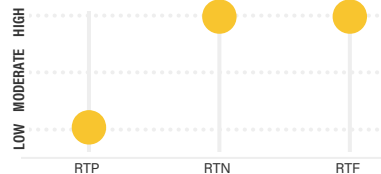
- Agrisure Duracade™ Artesian® trait with excellent yield potential; handles variability and multiple soil types
- Medium-tall plant with strong stalks; dual-purpose option
- Low response to population for success at lower plant densities
- Acceptable Goss's wilt tolerance; slower drydown due to girthy cob and tight husk

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance	N/A					
Root Strength					1	
Staygreen					1	
Stalk Quality					1	
Dry Down			3			
Test Weight			3			

**CROPLAN CP2790VT2P/RIB**

Relative Maturity: 87

**Response Scores**

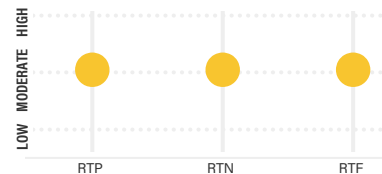
- High-yielding product with strong ear flex and drought tolerance
- Excellent seedling vigor for early planting
- Strong ear flex with a moderate response-to-nitrogen; can fit a broad range of growing conditions
- Manage for late-season stalks and Goss's wilt

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance					1	
Root Strength				2		
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight				2		

**CROPLAN CP2851VT2P/RIB**

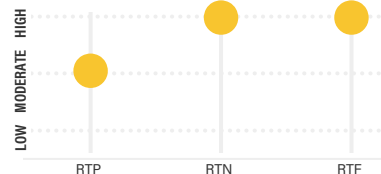
Relative Maturity: 88

**Response Scores**

- Great option for Red River Valley and East
- Solid stalks, roots, and emergence
- Semi-Determinate ear; keep plant densities moderate to high
- Keep on rotated acres

**Characteristics**

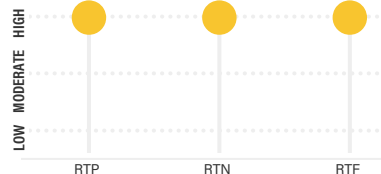
	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance			3			
Root Strength				2		
Staygreen			3			
Stalk Quality				2		
Dry Down				2		
Test Weight				2		

**CROPLAN CP2965VT2P/RIB**[RR]  
Relative Maturity: 89**Response Scores**

- Yield leader in 85-90 RM in 2018 Answer Plot® trials
- Excellent early vigor for early planting
- Moderate response-to-population and high response-to-nitrogen help drive additional yield on average to productive soils
- Acceptable Goss's wilt tolerance

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance				2		
Root Strength				2		
Staygreen			3			
Stalk Quality					1	
Dry Down				2		
Test Weight				2		

**CROPLAN CP2845SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 89**Response Scores**

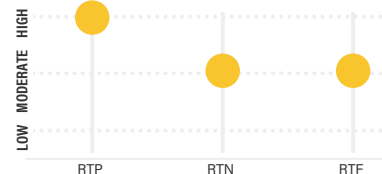
- High-yield-potential product for most soil types and environments
- Earlier flowering date and fast drydown
- High response-to-nitrogen and population optimizes yield potential
- Manage placement for Goss's wilt

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance					1	
Root Strength					1	
Staygreen			3			
Stalk Quality				2		
Dry Down					1	
Test Weight			3			

**CROPLAN CP3166VT2P/RIB**

Relative Maturity: 91

**Response Scores**

- Well adapted for planting across yield environments and soil types
- Strong early vigor and very good stress tolerance
- Good ear flex at low populations and maintains ear size at high populations
- Acceptable Goss's wilt tolerance

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor			2			
Drought Tolerance			2			
Root Strength			3			
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight			3			

**KEY**

**Scale**

1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

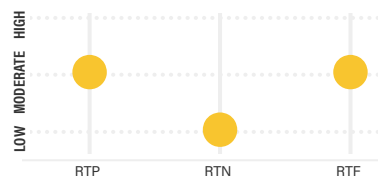
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CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

**CROPLAN CP3314VT2P/RIB**

Relative Maturity: 93

**Response Scores**

- Tough-acre hybrid for low-yielding environments
- Solid agronomic package
- Flex ear for variable planting populations
- Manage for Goss's wilt

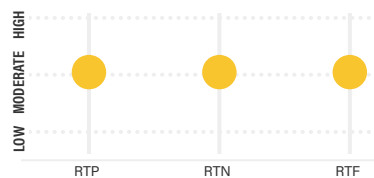
**Characteristics**

	Not Recommended				Excellent			
Seedling Vigor					2			
Drought Tolerance					2			
Root Strength					2			
Staygreen					2			
Stalk Quality					2			
Dry Down					2			
Test Weight					2			

**CROPLAN CP3337VT2P/RIB**

[RR]

Relative Maturity: 93

**Response Scores**

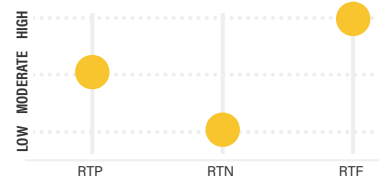
- Solid yield potential with early flowering enables northern movement
- Massive roots for coarse soil types and consistent silking under drought stress
- Moderate response-to-population handles variable plant densities
- Not recommended for acres with Goss's wilt history

**Characteristics**

	Not Recommended				Excellent			
Seedling Vigor					2			
Drought Tolerance							1	
Root Strength							1	
Staygreen				3				
Stalk Quality				3				
Dry Down					2			
Test Weight					2			

**CROPLAN CP3490VT2P/RIB**

Relative Maturity: 94

**Response Scores**

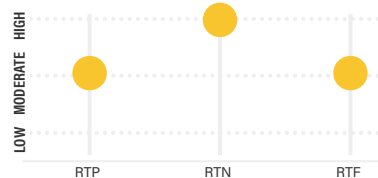
- High-yield potential hybrid with versatility
- Strong drought tolerance allows placement on drier acres
- Excellent emergence allows for early-plant option
- Acceptable drydown

**Characteristics**

	Not Recommended				Excellent			
Seedling Vigor							1	
Drought Tolerance					2			
Root Strength				3				
Staygreen				3				
Stalk Quality				3				
Dry Down				3				
Test Weight				3				

**CROPLAN CP3399SS/RIB**

Relative Maturity: 94

**Response Scores**

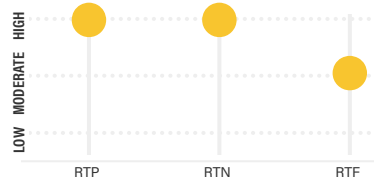
- Best-positioned in high-yield environments
- Medium-stature hybrid that has strong staygreen
- Optimize yield with enhanced nitrogen management
- Manage for Goss's wilt

**Characteristics**

	Not Recommended				Excellent			
Seedling Vigor					2			
Drought Tolerance					2			
Root Strength					2			
Staygreen					2			
Stalk Quality					2			
Dry Down					2			
Test Weight					2			

**CROPLAN CP3575VT2P/RIB**

Relative Maturity: 95

**Response Scores**

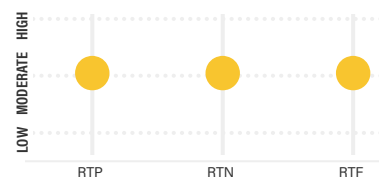
- Excels in moderate- to high-yield environments and moves across all soil types
- Strong stalk quality and root strength
- Has good ear flex for low plant densities, but will respond to higher management
- Manage for Goss's wilt

**Characteristics**

	Not Recommended				Excellent			
Seedling Vigor					2			
Drought Tolerance				3				
Root Strength				2				
Staygreen				2				
Stalk Quality				2				
Dry Down				2				
Test Weight							1	

**CROPLAN CP3699RR**

Relative Maturity: 96

**Response Scores**

- Adaptable across most soil types; able to move into low-yield environments
- Consistent hybrid handles stress well with excellent emergence, roots and stalks
- Moderate response-to scores provide versatility for positioning and managing this hybrid

**Characteristics**

	Not Recommended				Excellent			
Seedling Vigor							1	
Drought Tolerance					2			
Root Strength							1	
Staygreen				3				
Stalk Quality							1	
Dry Down				3				
Test Weight					2			

**KEY**

**Scale**

1 = Excellent

2 = Strong

3 = Acceptable

4 = Manage

5 = Not Recommended

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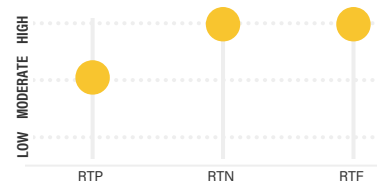


CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

**CROPLAN CP3735SS/RIB**

[VT2P/RIB]\*

Relative Maturity: 97

**Response Scores**

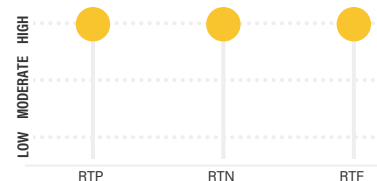
- Adaptable east to west; best suited for variable and tough acres
- Excellent test weight and emergence with solid defensive traits
- Plant at moderate to high densities; fungicide application is recommended
- Keep in RM zone

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance			3			
Root Strength				2		
Staygreen				2		
Stalk Quality				2		
Dry Down				2		
Test Weight						1

**CROPLAN CP3899VT2P/RIB**

Relative Maturity: 98

**Response Scores**

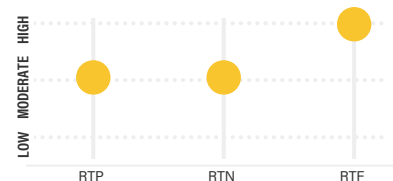
- Consistent high-yield performance potential across multiple environments and soil types
- Excellent seedling vigor; strong stalks, roots and drought tolerance
- High response to intensive management; can handle average acres
- Manage in areas with gray leaf spot and northern corn leaf blight

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance				2		
Root Strength				2		
Staygreen				2		
Stalk Quality				2		
Dry Down			3			
Test Weight				2		

**CROPLAN CP3980VT2P/RIB**

Relative Maturity: 99

**Response Scores**

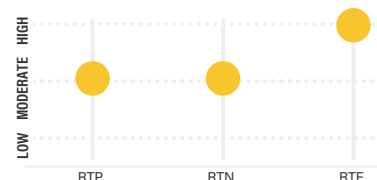
- High-yield potential hybrid that works across many acres
- Moderate management allows for versatile placement
- Acceptable stalks; can benefit from a fungicide application
- Use caution when applying growth regulator chemistries

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength						1
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight			3			

**CROPLAN CP4079VT2P/RIB**

Relative Maturity: 100

**Response Scores**

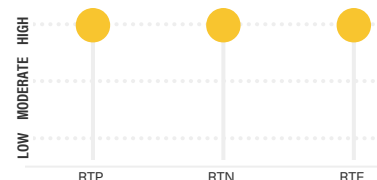
- Excellent option for all soil types and yield environments
- Medium-tall hybrid with strong Goss's wilt rating and seedling vigor; excellent roots
- Position at medium populations and manage nitrogen for high yield potential
- Acceptable test weight, stalks and staygreen

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength						1
Staygreen						
Stalk Quality			3			
Dry Down				2		
Test Weight			3			

**CROPLAN CP4099SS/RIB**

Relative Maturity: 100

**Response Scores**

- Solid product that shows consistency in most soil types with high-yield potential
- Late-flowering hybrid has excellent roots and seedling vigor
- High response to intensive management; can also handle average acres
- Manage in areas with gray leaf spot and northern corn leaf blight

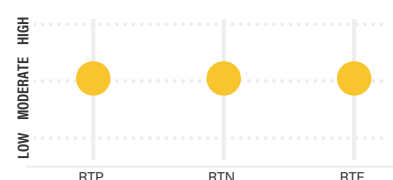
**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance				2		
Root Strength						1
Staygreen			3			
Stalk Quality				2		
Dry Down			3			
Test Weight			3			

**CROPLAN CP4188SS/RIB**

[VT2P/RIB\*, CONV]

Relative Maturity: 101

**Response Scores**

- Works east to west with a widely adapted footprint
- Very attractive plant type with solid agronomic package
- Semi-flex ear allows lower densities, but will respond when population is pushed
- Handles tough, variable and ideal yield environments

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance				2		
Root Strength						1
Staygreen						1
Stalk Quality						1
Dry Down			3			
Test Weight						1

**KEY Scale**  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

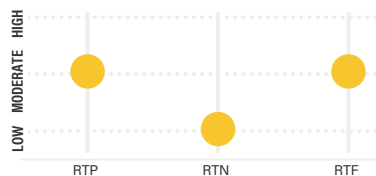
Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

**CROPLAN CP4265VT2P/RIB**

Relative Maturity: 102

**Response Scores**

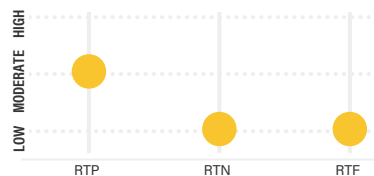
- Position in average to productive acres; dual purpose potential
- Excellent emergence and roots with solid stalks
- More fixed ear; keep at moderate to high populations
- Avoid areas with history of Physoderma node breakage

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance			3			
Root Strength						1
Staygreen			3			
Stalk Quality				2		
Dry Down						1
Test Weight			3			

**CROPLAN CP4822VT2P/RIB**

Relative Maturity: 103

**Response Scores**

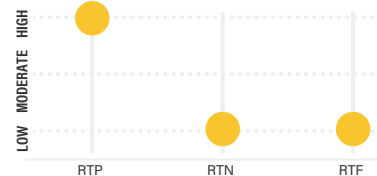
- Stress tolerance for challenging environments; flowers late, keep as earlier product in full-season zones
- Solid heat and drought tolerance; acceptable Goss's wilt tolerance
- Low response-to-nitrogen and fungicide; nice ear flex for variable populations

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength					1	
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight			3			

**CROPLAN CP4444VT2P/RIB**

Relative Maturity: 104

**Response Scores**

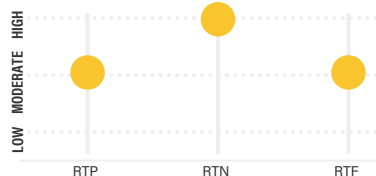
- Consistent and versatile hybrid to cover broad acres
- Excellent emergence and seedling vigor; strong stalks and roots
- Manage populations in high-yield environments
- Tall hybrid with acceptable anthracnose rating

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance			3			
Root Strength					2	
Staygreen			3			
Stalk Quality				2		
Dry Down					2	
Test Weight			3			

**CROPLAN CP4676SS/RIB**

Relative Maturity: 106

**Response Scores**

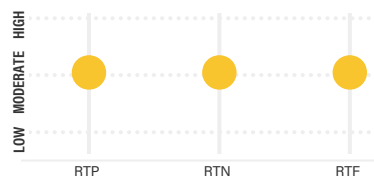
- Versatile hybrid, position and manage for high yield
- Medium-height hybrid with excellent emergence, seedling vigor and test weight
- Position at medium populations and manage nitrogen for high-yield-potential
- Fungicide application recommended in areas prone to gray leaf spot

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance			3			
Root Strength			3			
Staygreen				2		
Stalk Quality			3			
Dry Down						1
Test Weight						1

**CROPLAN CP4757VT2P/RIB**

Relative Maturity: 107

**Response Scores**

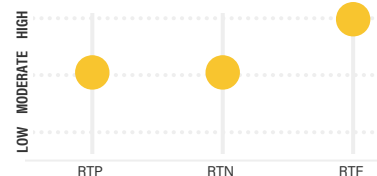
- Best performance potential on medium to highly productive acres
- Strong roots and test weight with high yield potential
- Moderate response to nitrogen and fungicide offers great flexibility
- Best suited for rotated acres

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance				2		
Root Strength				2		
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight				2		

**CROPLAN CP4880SS/RIB**

Relative Maturity: 108

**Response Scores**

- Best performance on high yield potential, well drained soils
- SmartStax® hybrid with exceptional top end yield potential
- Strong stalks and strong roots
- Acceptable Goss's Wilt tolerance

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength				2		
Staygreen			3			
Stalk Quality				2		
Dry Down			3			
Test Weight				2		

**KEY** Scale  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

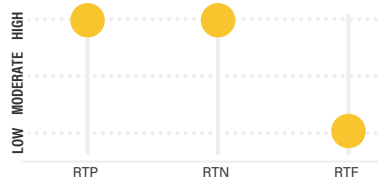
Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

**CROPLAN CP4997VT2P/RIB**

Relative Maturity: 109

**Response Scores**

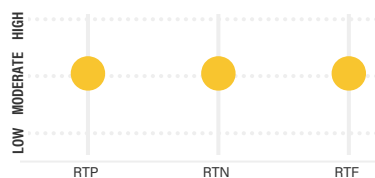
- Moves east to west; broadly adapted to soil types and yield environments
- Tall hybrid with strong stalks, roots and staygreen
- Manage nitrogen and population
- Best-suited for rotated acres; manage accordingly in corn-on-corn situations

**Characteristics**

	Not Recommended			Excellent
Seedling Vigor	■	■	■	2
Drought Tolerance	■	■	■	2
Root Strength	■	■	■	2
Staygreen	■	■	■	2
Stalk Quality	■	■	■	2
Dry Down	■	■	■	2
Test Weight	■	■	■	2

**CROPLAN CP4930DGV2P/RIB**

Relative Maturity: 109

**Response Scores**

- Strong western adaptation with good Goss's wilt and strong greensnap tolerance
- Exceptional top end yield potential
- Plant at moderate populations due to semi-flex ear
- Recommend a fungicide application in areas with high disease pressure

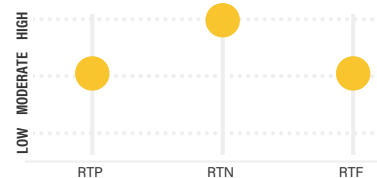
**Characteristics**

	Not Recommended			Excellent
Seedling Vigor	■	■	3	
Drought Tolerance	■	■	3	
Root Strength	■	■	3	
Staygreen	■	■	3	
Stalk Quality	■	■	3	
Dry Down	■	■		2
Test Weight	■	■	3	

**CROPLAN CP5073SS/RIB**

[VT2P/RIB]\*

Relative Maturity: 110

**Response Scores**

- Best performance on medium to highly productive acres
- Strong early plant vigor for reduced tillage and early planting
- Has nice flex for moderate densities; high response-to-nitrogen
- Utilize fungicide to enhance late-season health

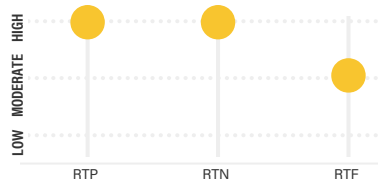
**Characteristics**

	Not Recommended			Excellent
Seedling Vigor	■	■	■	1
Drought Tolerance	■	■	■	2
Root Strength	■	■	■	2
Staygreen	■	■	■	2
Stalk Quality	■	■	3	
Dry Down	■	■	■	2
Test Weight	■	■	3	

**CROPLAN CP5115SS/RIB**

[VT2P/RIB]\*

Relative Maturity: 111

**Response Scores**

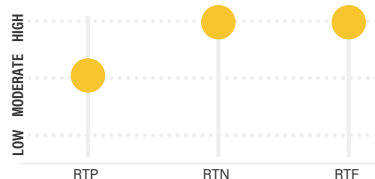
- Best suited for variable to tough acres
- Excellent emergence, seedling vigor and roots
- Semi-flex ear; plant at moderate populations
- Avoid areas with Goss's wilt history

**Characteristics**

	Not Recommended			Excellent
Seedling Vigor	■	■	■	1
Drought Tolerance	■	■	■	2
Root Strength	■	■	■	1
Staygreen	■	■	3	
Stalk Quality	■	■	■	2
Dry Down	■	■	3	
Test Weight	■	■	■	1

**CROPLAN CP5210SS/RIB**

Relative Maturity: 112

**Response Scores**

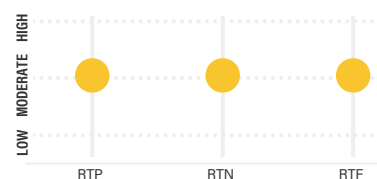
- Versatile hybrid with high yield potential
- Strong Goss's wilt and disease tolerance make it a fit for corn-on-corn acres
- Good ear flex; responds to fungicide and nitrogen management
- Acceptable roots and late season intactness

**Characteristics**

	Not Recommended			Excellent
Seedling Vigor	■	■	■	1
Drought Tolerance	■	■	3	
Root Strength	■	■	3	
Staygreen	■	■	3	
Stalk Quality	■	■	3	
Dry Down	■	■	3	
Test Weight	■	■	3	

**CROPLAN CP5244VT2P/RIB**

Relative Maturity: 112

**Response Scores**

- Versatile hybrid with high yield potential
- Strong root system and drought tolerance
- Responds to additional fungicide and nitrogen management, but not required
- Manage for greensnap in susceptible areas

**Characteristics**

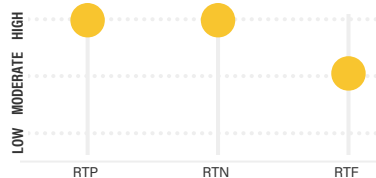
	Not Recommended			Excellent
Seedling Vigor	■	■	■	
Drought Tolerance	■	■	■	2
Root Strength	■	■	■	2
Staygreen	■	■	3	
Stalk Quality	■	■	3	
Dry Down	■	■	■	2
Test Weight	■	■	3	

**KEY** Scale  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

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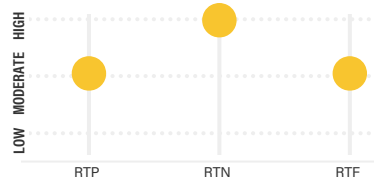
CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

**CROPLAN CP5370SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 113**Response Scores**

- Versatile, dual-purpose product; adapted across multiple yield environments
- Excellent stalks, roots and test weight; strong drydown
- Optimize yield potential with enhanced nitrogen management and mod-high plant densities
- Best positioned on rotated acres; ear tip back influenced by genetics

**Characteristics**

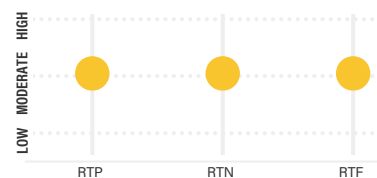
	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance				2		
Root Strength					1	
Staygreen					1	
Stalk Quality					1	
Dry Down			2			
Test Weight						1

**CROPLAN CP5335SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 113**Response Scores**

- Tremendous consistency across variable yield environments
- Excellent agronomics, including stalks and late-season intactness; improved Goss's wilt rating over 5370
- Acceptable ear flex for variable densities; strong plant health for continuous corn
- Benefits from enhanced nitrogen management

**Characteristics**

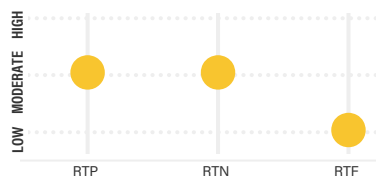
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength				2		
Staygreen				2		
Stalk Quality					1	
Dry Down			2			
Test Weight						1

**CROPLAN CP6594SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 113**Response Scores**

- Widely adapted east to west with excellent heat tolerance and high-yield-potential
- Solid agronomics; excellent stalks and roots; acceptable Goss's wilt tolerance
- Moderate response-to-nitrogen and population scores
- Take advantage of fast drydown at harvest; keep in 110RM zones

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength					1	
Staygreen				2		
Stalk Quality					1	
Dry Down			2			
Test Weight			2			

**CROPLAN CP5340VT2P**[CONV]  
Relative Maturity: 113**Response Scores**

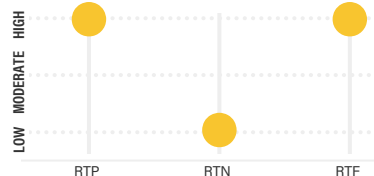
- Versatile hybrid with excellent heat tolerance and yield potential
- Medium-short hybrid with strong stalks and solid agronomics
- Position at moderate-to-low populations to maximize girthy flex ear
- Use caution in areas with high risk of greensnap

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength					1	
Staygreen			3			
Stalk Quality					1	
Dry Down			2			
Test Weight			3			

**CROPLAN CP5497VT2P/RIB**

Relative Maturity: 114

**Response Scores**

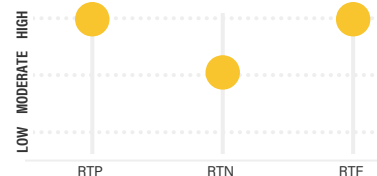
- Widely adapted east to west across multiple soil types and yield levels
- Strong roots and drought tolerance with excellent test weight
- Semi-flex ear and high response-to-population score allow positioning across yield environments
- Manage fields with history of Anthracnose and Southern rust

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength				2		
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight						1

**CROPLAN CP5570VT2P/RIB**

Relative Maturity: 115

**Response Scores**

- Excellent yield potential for eastern and southern environments
- Medium plant height and ear placement
- High response-to-population score to push populations and maximize yield potential; fungicide is highly recommended
- Use caution in areas with high risk of greensnap

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance				2		
Root Strength				2		
Staygreen				2		
Stalk Quality				2		
Dry Down			3			
Test Weight			3			

**KEY**

**Scale**  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

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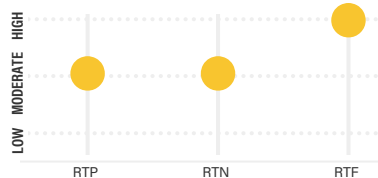
CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

## CROPLAN CP5588DGV2P/RIB

Relative Maturity: 115



### Response Scores



- Best performance in the central and eastern corn belt
- Top end yield potential with very good stress tolerance
- Excellent dual purpose silage potential
- Use caution in high Physoderma regions

### Characteristics

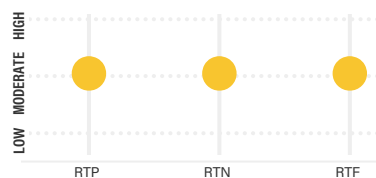
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength				2		
Staygreen				2		
Stalk Quality				2		
Dry Down				2		
Test Weight			3			

## CROPLAN CP5550VT2P/RIB

Relative Maturity: 115



### Response Scores



- Position in average to high yield potential acres; dual purpose option
- Solid agronomic and disease package
- Keep plant densities moderate to high
- Acceptable Goss's wilt tolerance

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance				2		
Root Strength				2		
Staygreen			3			
Stalk Quality				2		
Dry Down				2		
Test Weight			3			

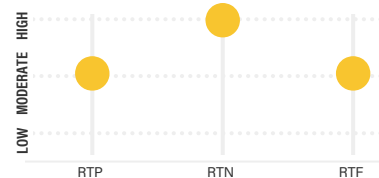
## CROPLAN CP5678SS/RIB

[VT2P/RIB, RR]\*

Relative Maturity: 116



### Response Scores



- Broadly adapted across yield environments; medium flower date offers north to south movement across maturity zones
- Medium-height plant with wide leaves and a girthy semi-flex ear
- Position at medium populations with enhanced nitrogen management for high-yield-potential

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength			3			
Staygreen			3			
Stalk Quality			3			
Dry Down			3			
Test Weight						1

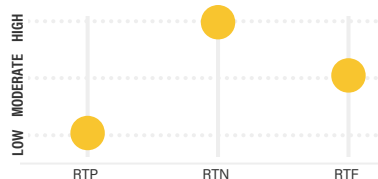
NEW

## CROPLAN CP5760TRE/RIB

Relative Maturity: 117



### Response Scores



- Outstanding performance potential from East to West
- Top end yield potential with good ear flex capabilities
- Versatile placement across soil types at moderate populations
- Fungicide recommended to enhance protection against Southern Rust

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength			3			
Staygreen			3			
Stalk Quality			3			
Dry Down				2		
Test Weight				2		

**KEY**

**Scale**  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

Response to Nitrogen [RTN] **1**  
Response to Fungicide [RTF] **1**  
GDU to Mid-pollination\*\*  
GDU to Maturity\*\*  
Flower Date **5**  
Plant Height **2**  
Ear Height **3**  
Cob Color  
Ear Flex **4**  
Kernel Rows  
Seedling Vigor  
Stalk Quality  
Root Strength  
Staygreen **6**  
Drought Tolerance  
Test Weight  
Grain Leaf Spot  
NCB  
SCB  
Common Rust  
Goss's Wilt  
Anthracnose Stalk Rot  
Physoderma Node Breakage  
Diplodia Ear Rot

BRAND

RM: 80-89

CP184RR	80	M	L	H	2000	1040	E	M-T	M	PINK	FL	16-18	2	3	2	2	4	3	1	NA	3	NA	3	5	NA	NA	NA
CP2180VT2P/RIB*	81	M	M	M	2025	1070	M-E	M	M	RED	SD	18-20	2	2	2	3	2	3	3	NA	2	NA	NA	3	3	NA	NA
CP2288VT2P/RIB*	82	H	M	M	2065	1090	M	M	M	RED	SF	16-18	2	2	1	2	2	2	1	NA	2	NA	NA	2	3	NA	NA
CP2315VT2P/RIB*	83	M	H	M	2075	1080	E	M-T	M	RED	SF	18-20	2	3	2	3	2	2	3	3	3	NA	2	3	4	NA	NA
NEW CP2585VT2P/RIB*	85	M	H	M	2125	1120	M	M	M	RED	SF	16-18	2	2	3	3	2	3	3	3	3	NA	NA	3	3	NA	NA
CP2520RR	86	M	M	M	2125	1120	M	M-T	M	RED	SF	16-20	3	3	1	3	2	1	3	3	3	NA	3	4	NA	NA	NA
NEW CP2692D	86	M	M	M	2160	1140	M	M-T	M	RED	SF	16-18	2	1	1	1	3	NA	3	NA	1	NA	1	1	NA	NA	NA
CP2790VT2P/RIB*	87	L	H	H	2175	1130	E	M	M	RED	SF	16-18	1	3	2	3	2	1	2	3	2	2	NA	4	3	NA	2
CP2851VT2P/RIB*	88	M	M	M	2200	1160	M	M	M	RED	SD	16-18	3	2	2	3	2	3	2	3	3	3	3	NA	3	3	NA
CP2845SS/RIB*	89	H	H	H	2210	1150	E	M-T	M	RED	SF	16-18	1	2	1	3	1	1	3	NA	3	NA	3	4	4	NA	NA
CP2965VT2P/RIB*	89	M	H	H	2235	1180	M-L	M	M	RED	SF	14-16	1	1	2	3	2	2	2	3	3	3	1	NA	3	2	NA

**KEY**

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

**1 RTP/RTM/RTF Ratings**

L = Low Response  
M = Moderate Response  
H = High Response  
TBD = To be tested in 2021

**2 Plant Height**

T = Tall  
M = Medium  
S = Short

**4 Ear Flex**

FL = Flex  
SF = Semi-flex  
FX = Fixed

**6 Staygreen**

Late-season health coming from strong leaf-disease resistance, enhancing hybrid standability.

These ratings reflect trends observed in research trials that change with variations in rainfall, temperature, crop production patterns and other factors. Ratings on new hybrids are based on limited data and may change as more data is collected.

\*\*GDUs published for each product are an estimate and the actual GDUs in a given year/location can vary based upon environmental factors.

**Scale**

1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

**3 Ear Height**

H = High  
M = Medium  
L = Low

**5 Flower Date**

L = Late  
M = Medium  
E = Early

\*Follow RM guidelines and refuge configurations to preserve the benefits and insect protection of these technology crops.

BRAND		Response to Nitrogen [RNP]		Response to Fungicide [RTF]		GDU to Mid-pollination**		GDU to Maturity**		Flower Date		Plant Height		Ear Height		Cob Color		Ear Flex		Kernel Rows		Seeding Vigor		Stalk Quality		Root Strength		Staygreen		Drought Tolerance		Test Weight		Gray Leaf Spot		NCB		SCB		Common Rust		Anthracnose Stalk Rot		Phyoderma Node Breakage		Diplodia Ear Rot	
		Response to	Population [RNP]	Response to	Population [RTF]	GDU to Mid-pollination**	GDU to Maturity**	Flower Date	Plant Height	Ear Height	Cob Color	Ear Flex	Kernel Rows	Seeding Vigor	Stalk Quality	Root Strength	Staygreen	Drought Tolerance	Test Weight	Gray Leaf Spot	NCB	SCB	Common Rust	Anthracnose Stalk Rot	Phyoderma Node Breakage	Diplodia Ear Rot																					
RM: 91-99																																															
CP3166VT2P/RIB*	91	H	M	M	2285	1180	E	M	M	RED	SF	16-18	2	3	3	3	2	2	3	3	3	NA	NA	3	2	NA	NA																				
CP3314VT2P/RIB*	93	M	L	M	2330	1210	M	M	M	RED	FL	16-18	2	2	2	2	2	2	2	3	3	NA	3	4	NA	NA																					
CP3337VT2P/RIB*	93	M	M	M	2310	1190	E	M	M	RED	FL	16-18	2	3	1	3	2	1	2	4	2	4	2	5	3	NA																					
CP3399SS/RIB*	94	M	H	M	2350	1220	M	M	M	RED	SF	16-18	2	2	2	2	2	2	2	3	3	NA	3	4	3	NA																					
CP3490VT2P/RIB*	94	M	L	H	2360	1230	M-L	M-T	M-H	RED	SF	18-20	1	3	3	3	3	2	3	3	3	3	NA	3	3	3	NA																				
CP3575VT2P/RIB*	95	H	H	M	2360	1240	M-L	M	M	RED	SF	16-18	2	2	2	2	2	3	1	3	2	NA	NA	4	1	NA	NA																				
CP3699RR	96	M	M	M	2400	1240	M	M-T	M-H	RED	SF	16-18	1	1	1	3	3	2	2	3	3	NA	3	3	3	NA	NA																				
CP3735SS/RIB*	97	M	H	H	2425	1250	M	M	M	RED	SD	16-18	1	2	2	2	2	3	1	3	3	NA	NA	3	3	3	NA																				
CP3899VT2P/RIB*	98	H	H	H	2450	1280	L	M-T	M-H	PINK	SF	16-20	1	2	2	2	3	2	2	4	4	NA	3	3	3	NA	NA																				
CP3980VT2P/RIB*	99	M	M	H	2475	1270	M	M-T	M-H	RED	SF	14-16	2	3	1	3	2	3	3	2	NA	NA	NA	3	3	4	NA																				

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

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BRAND		RM: 105-111																											
		Response to Nitrogen [RTN] <span>1</span>	Response to Fungicide [RTF] <span>1</span>	GDU to Maturity**	GDU to Mid-pollination**	Flower Date <span>5</span>	Plant Height <span>2</span>	Ear Height <span>3</span>	Cob Color	Ear Flex <span>4</span>	Kernel Rows	Seedling Vigor	Stalk Quality	Root Strength	Staygreen <span>6</span>	Drought Tolerance	Test Weight	Gray Leaf Spot	NCB	SCB	Common Rust	Goss's Wilt	Anthracnose Stalk Rot	Diplodia Ear Rot					
NEW	CP4676SS/RIB*	106	M	H	M	2650	1310	M	M	PINK	SF	16-18	1	3	3	2	1	3	1	3	2	2	NA	3	1	NA	2		
NEW	CP4757VT2P/RIB*	107	M	M	M	2675	1320	M	M	M-H	RED	SD	18-20	3	3	2	3	2	2	3	2	NA	NA	3	3	NA			
NEW	CP4880SS/RIB*	108	H	M	H	2700	1330	M	M-S	M	RED	SD	14-16	2	2	2	3	3	3	2	3	2	NA	3	3	NA			
	CP4930D6VT2P/RIB*	109	M	M	M	2725	1330	M	M-T	M-H	RED	SF	14-16	3	3	3	2	3	3	3	2	NA	2	3	3	NA			
	CP4997VT2P/RIB*	109	H	H	L	2725	1330	M	T	M-H	RED	SF	16-18	2	2	2	2	2	2	2	2	3	2	3	2	NA			
	CP5073SS/RIB*	110	M	H	M	2730	1340	M	M	M-H	RED	SF	16-18	1	3	2	2	2	2	3	3	2	1	NA	3	NA			
	CP5115SS/RIB*	111	H	H	M	2775	1350	M-L	M-T	M-H	RED	SF	18-20	1	2	1	3	3	2	1	3	2	3	NA	4	3	3		

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Relative Maturity	Response to																						
1	1	1	1	5	2	3	4	6	6	3	3	3	3	3	3	3	2	2	2	2	2	2	2

BRAND

RM: 112-120

CP5210SS/RIB*	112	M	H	H	2790	1340	M	M-T	M-H	RED	SF	16-18	1	3	3	3	3	2	2	NA	2	3	3	NA
CP5244VT2P/RIB*	112	M	M	M	2800	1360	M-L	M-T	M-H	RED	SF	16-18	2	3	2	2	3	3	2	2	NA	3	3	NA
CP5340VT2P	113	M	M	L	2825	1350	M	M-S	M	RED	FL	16-20	2	1	1	3	2	3	3	2	2	3	4	3
CP5333SS/RIB*	113	M	H	M	2820	1350	M	M	M	PINK	SF	16-18	2	1	2	2	2	1	3	2	2	NA	2	2
CP5370SS/RIB*	113	H	H	M	2830	1370	M	T	M-H	PINK	SF	18-20	1	1	1	2	2	1	3	2	2	3	4	2
CP6594SS/RIB*	113	M	M	M	2810	1350	M	M	M	RED	SF	16-18	2	1	1	2	2	2	3	3	2	2	3	3
CP5497VT2P/RIB*	114	H	L	H	2850	1350	M-E	M-T	M-H	RED	SF	14-16	2	3	2	3	2	2	1	2	3	2	NA	3
CP5550VT2P/RIB*	115	M	M	M	2850	1360	M	M	M	PINK	SF	14-16	3	2	2	3	2	3	3	2	2	NA	3	1
CP5570VT2P/RIB*	115	H	M	M	2875	1360	M	M	M	RED	SF	16-18	3	2	2	3	3	3	3	2	NA	3	3	NA
CP5580DV2P/RIB*	115	M	M	H	2875	1360	M	M-T	M-H	RED	SD	16-18	2	2	2	2	3	3	3	2	NA	3	3	5
CP5678SS/RIB*	116	M	H	M	2900	1360	M	M	M	RED	SF	14-16	2	2	3	3	3	2	1	3	2	2	NA	3
NEW CP5760TRE/RIB*	117	L	H	M	2925	1370	N/A	T	M-H	PINK	SF	16-18	2	3	3	3	3	2	3	2	3	3	2	NA

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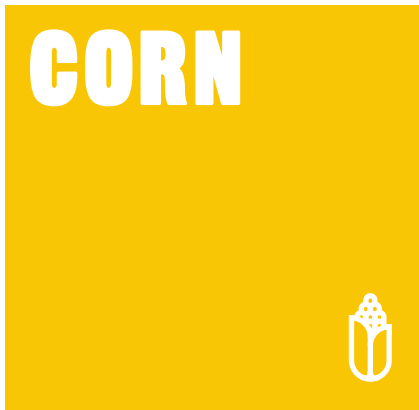
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**Product Name** \_\_\_\_\_  
**Attributes** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Placement** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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\_\_\_\_\_  
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\_\_\_\_\_

**Placement** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# SOYBEAN

We search the world over for high performing soybean genetics, then bring them to you with industry leading trait platforms. Because genetic diversity and trait flexibility mean innovative soybean products that fit the way you want to farm. This year, plant soybeans that have high yield potential and are built to perform in your local area. Plant CROPLAN.

1 of 2

## KEY TAKEAWAYS

- 1 Use appropriate trait technology to achieve effective weed control.
- 2 Introduce stability to your friends with CROPLAN® WinPak® soybean varieties.
- 3 Ensure optimal plant health at the start of the season with Warden® CX seed treatment.
- 4 Use the R7® Tool to help choose the right soybean varieties for your specific fields.
- 5 Select varieties for disease tolerance and manage them throughout the season.

## MANAGE WEEDS WITH TRAIT TECHNOLOGY

CROPLAN® soybean seed offers the newest genetics with multiple herbicide trait options developed to effectively manage your weed-resistance issues.



## SOYBEAN HERBICIDE TOLERANCE AND WEED CONTROL

Weed control in soybeans starts with seed selection. With several herbicide-tolerant traits now available and more on the way with full commercial approval, the number of tools in the toolbox is increasing. But as you face hard-to-control weeds, creating a plan for season-long weed management is critical. The chart outlines CROPLAN® soybean herbicide-tolerant varieties available today. These traits offer some great postemergence options.

	Glyphosate	Glufosinate	2,4-D Choline	Dicamba
<b>XTENDFLEX®</b>	X	X		X
<b>ROUNDUP READY 2 YIELD®</b>	X			
<b>ROUNDUP READY 2 XTEND®</b>	X			X
<b>ENLIST E3®</b>	X	X	X	

## REDUCE RISK WITH WINPAK® SOYBEAN VARIETIES

WinPak® soybean varieties from CROPLAN® seed are a unique combination of two varieties that provide an exceptional level of stability throughout the field. Designed to address field variability, WinPak® varieties have excellent yield potential on productive acres along with the ability to handle the stress of performing on more challenging acres.



## EXAMPLE OF HOW A WINPAK® VARIETY CAN BE FORMULATED

	VARIETY A EXAMPLE	VARIETY B EXAMPLE
<b>PLACEMENT</b>	Average to below-average yield environments.	Best-suited to productive acres.
<b>DISEASE PACKAGE</b>	Strong soybean white mold and iron deficiency chlorosis (IDC) tolerance.	Excellent phytophthora root rot and frogeye field tolerance.
<b>AGRONOMICS</b>	<ul style="list-style-type: none"> <li>▪ Narrow canopy type</li> <li>▪ Tall height</li> <li>▪ Excellent standability</li> </ul>	<ul style="list-style-type: none"> <li>▪ Bushy canopy type</li> <li>▪ Medium height</li> <li>▪ Average standability</li> </ul>
<b>STRESS TOLERANCE</b>	Excellent stress tolerance.	Strong stress tolerance.
<b>GENETIC BACKGROUND</b>	Germplasm pool A	Germplasm pool B

- WinPak® varieties are designed to mitigate risk across the whole field by offering more stability on variable acres, delivering high yield potential on productive acres and maintaining consistency on more challenging acres. They also provide an enhanced disease and agronomic package for the whole farm.

# SOYBEAN

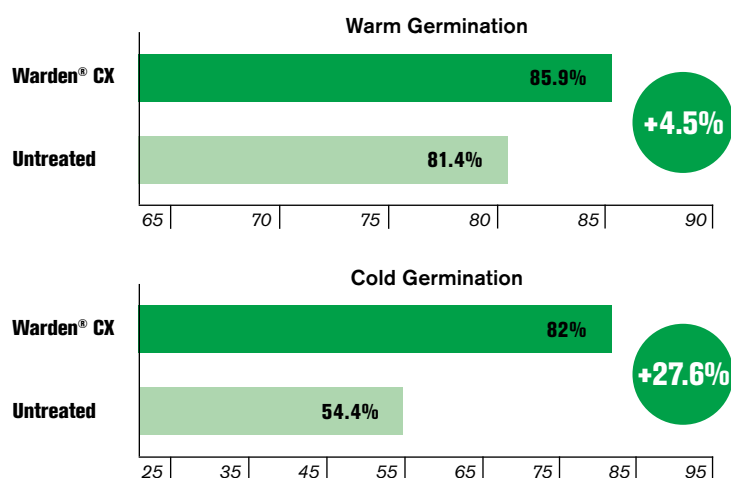
2 of 2



## PROTECT YIELD POTENTIAL WITH WARDEN® CX SEED TREATMENT

Guard high-value soybean seed from early-season disease and insect threats with Warden® CX seed treatment. In 2018, testing by an independent seed lab and the University of Minnesota Plant Disease Clinic indicated a positive response to soybean seed treated with Warden® CX seed treatment compared to an untreated control group. Compared to untreated seed, Warden® CX treated seed improved the warm germination test by +4.5% and the cold germination test by +27.6%.

### AVERAGE GERMINATION IMPROVEMENT: WARDEN® CX VS. UNTREATED



## MANAGE IN-SEASON

Select your disease package based on field conditions.

- Knowing where yield potential is falling behind alerts you to disease and other potential threats, allowing you to make in-season adjustments.
- Satellite imagery highlights field variability and indicates where appropriate crop inputs might help optimize yield potential.
- Use R7® Tool satellite imagery to monitor plant health.





## OPTIMAL CONDITIONS FOR DISEASE INFECTION

FUNGUS	DISEASE	TEMPERATURE (F) RANGE/OPTIMUM	MOISTURE
<i>Pythium</i>	Damping-off	50°–68°/<59°	Saturated
<i>Rhizoctonia</i>	Damping-off	60°–86°/80°	30%–60% water
<i>Phytophthora</i>	Damping-off	59°–86°/77°–80°	Saturated; weekly periodic rain
<i>Fusarium</i>	SDS and root rot	50°–86°/59°	Wet to saturated



## CROPLAN® TRAIT LETTERING FOR SOYBEAN VARIETIES

Descriptive variety numbering and trait lettering systems are used for CROPLAN® soybean varieties.

KEY	VARIETY	TRAIT HERBICIDE TOLERANCE	LOGO
<b>XF</b>	XtendFlex®	Roundup®, dicamba and glufosinate tolerant	
<b>RR</b>	Roundup Ready 2 Yield®	Roundup® tolerant	
<b>X</b>	Roundup Ready 2 Xtend®	Roundup® and dicamba tolerant	
<b>E</b>	Enlist E3®	Glyphosate, glufosinate and 2,4-D choline tolerant	
<b>S</b>	STS®	Sulfonylurea tolerant	N/A

**CROPLAN CP00312X**

Group: 0.03

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance						1
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance				2		
Iron Chlorosis				2		

Height	M	Canopy Type	Int
Emergence	2	Standability	1
BSR Tolerance	NA		

- Improved yield potential at a 0.03 RM
- Versatile placement for variable soils
- Excellent PRR tolerance and strong IDC tolerance
- Use caution on SCN-prone areas

**CROPLAN CP00777X**

Group: 0.07

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance						1
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis				2		

Height	M	Canopy Type	Int/Nar
Emergence	1	Standability	1
BSR Tolerance	5		

- Strong yield potential in a 0.07 RM
- Excellent PRR tolerance for wet soils
- Strong IDC
- Use caution in BSR-prone areas

**CROPLAN CP00729E**

Group: 0.07

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis				2		

Height	M	Canopy Type	Int
Emergence	1	Standability	3
BSR Tolerance	NG		

- Early Enlist E3® soybean for Group 00 market
- Position north of Highway 2
- Strong SWM tolerance; acceptable IDC and PRR tolerance
- Best-suited for narrow rows

**CROPLAN CP00842XF**

Group: 0.08

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance	N/A					
Iron Chlorosis				2		

Height	M	Canopy Type	Int
Emergence	2	Standability	2
BSR Tolerance	2		

- Strong yield potential variety
- A good fit for the northern North Dakota and Minnesota geographies
- Strong IDC and PRR tolerance
- Use caution in SWM-prone areas

**CROPLAN CP00926X**

Group: 0.09

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis			3			

Height	M	Canopy Type	Int
Emergence	1	Standability	3
BSR Tolerance	2		

- Strong yield potential on productive soils
- Broadly adaptive bean, moves west well
- Acceptable IDC and strong BSR tolerance
- Not recommended in SWM-prone areas

**CROPLAN CP0123E**

Group: 0.1

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance						1
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis				2		

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	2
BSR Tolerance	NA		

- Strong yield potential with excellent PRR package for wet soils
- Versatile placement across productive to stress soils
- Excellent PRR tolerance and strong IDC tolerance
- Use caution in SWM-prone areas

**NEW****KEY****Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

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This symbol indicates that there has been a new component added to the WinPak® variety.

**CROPLAN CP0242XF**

Group: 0.2

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	4	
SDS Tolerance	N/A	
Frogeye Leaf spot	N/A	
SWM Tolerance	2	
Iron Chlorosis	2	

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	4
BSR Tolerance	1		

- Strong IDC bean for IDC-prone areas
- Best placed on IDC-stressed soils
- Excellent tolerance to BSR
- Use caution on SCN-prone areas

**NEW****CROPLAN CP0243XF**

Group: 0.2

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	N/A	
Frogeye Leaf spot	N/A	
SWM Tolerance	2	
Iron Chlorosis	2	

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	1
BSR Tolerance	5		

- High yield potential with improved standability over CP0242XF
- Strong IDC tolerance for areas moderately prone to IDC
- Excellent standability and strong SWM tolerance
- Use caution in SWM-prone areas

**CROPLAN CP0320E**

Group: 0.3

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	N/A	
Frogeye Leaf spot	N/A	
SWM Tolerance	3	
Iron Chlorosis	3	

Height	M	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	1		

- WinPak® variety consisting of CP0322E and CP0329E
- Versatile placement for highly productive to stressed soils
- High yield potential with acceptable IDC and SWM tolerance
- Use caution in BSR-prone areas

**CROPLAN CP0337X**

Group: 0.3

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	N/A	
Frogeye Leaf spot	N/A	
SWM Tolerance	3	
Iron Chlorosis	1	

Height	M	Canopy Type	Int/Nar
Emergence	1	Standability	3
BSR Tolerance	4		

- Also available in WinPak® variety CP0200X
- Intermediate plant type with strong lateral expression for high-yield environments
- Excellent IDC tolerance, similar to CP0426X
- Acceptable PRR field tolerance with Rps1c gene

**CROPLAN CP0426X**

Group: 0.4

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	1	
SDS Tolerance	N/A	
Frogeye Leaf spot	N/A	
SWM Tolerance	3	
Iron Chlorosis	2	

Height	M	Canopy Type	Int
Emergence	1	Standability	1
BSR Tolerance	4		

- Also available in WinPak® variety CP0400X
- Strong performance across all yield environments
- Excellent PRR field tolerance with strong IDC tolerance
- Manage placement on acres with BSR history

**CROPLAN CP0400X**

Group: 0.4

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	N/A	
Frogeye Leaf spot	N/A	
SWM Tolerance	3	
Iron Chlorosis	2	

Height	M	Canopy Type	Int
Emergence	2	Standability	1
BSR Tolerance	NA		

- WinPak® variety consisting of CP0411X and CP0426X
- Better yield potential and SWM tolerance to replace CP0500X
- Strong IDC and PRR tolerance
- Manage in BSR prone areas

**KEY****Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended



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## CROPLAN CP0520E

Group: 0.5



WinPak®  
By WINFIELD UNITED

### Characteristics

		Not Recommended			Excellent	
PRR Tolerance						1
SDS Tolerance		N/A				
Frogeye Leaf spot		N/A				
SWM Tolerance			4			
Iron Chlorosis					2	
Height	M	Canopy Type			-	
Emergence	1	Standability			2	
BSR Tolerance	1					

- WinPak® variety consisting of CP0522E and CP0529E
- Strong IDC tolerance
- Acceptable SWM tolerance with strong standability
- Rps3a gene for strong PRR package

## CROPLAN CP0529E

Group: 0.5



### Characteristics

		Not Recommended		Excellent	
PRR Tolerance					1
SDS Tolerance		N/A			
Frogeye Leaf spot		N/A			
SWM Tolerance			4		
Iron Chlorosis				3	
Height	M	Canopy Type		Int/Bush	
Emergence	1	Standability		2	
BSR Tolerance	1				

- Also available in WinPak® variety CP0520E
- Rps3a gene for resistance to PRR
- Strong PRR package and acceptable IDC tolerance
- Use caution in SWM-prone areas

## CROPLAN CP0542XF

Group: 0.5



### Characteristics

		Not Recommended			Excellent		
PRR Tolerance		<div></div>	<div></div>	<div></div>	<div>2</div>	<div></div>	<div></div>
SDS Tolerance		<div></div>	<div></div>	<div>3</div>	<div></div>	<div></div>	<div></div>
Frogeye Leaf spot		<div>N/A</div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
SWM Tolerance		<div></div>	<div></div>	<div>3</div>	<div></div>	<div></div>	<div></div>
Iron Chlorosis		<div></div>	<div>4</div>	<div></div>	<div></div>	<div></div>	<div></div>
Height	MT	Canopy Type					-
Emergence	2	Standability					2
BSR Tolerance	4						

- Outstanding yield potential on productive soils
- Solid heat and drought stress tolerance allows western movement
- Strong PRR tolerance
- Avoid IDC-prone areas

## CROPLAN CP0721E

Group: 0.7



### Characteristics

		Not Recommended			Excellent	
PRR Tolerance						1
SDS Tolerance		N/A				
Frogeye Leaf spot		N/A				
SWM Tolerance		N/A			2	
Iron Chlorosis					2	
Height		MT	Canopy Type			Int
Emergence	1	Standability			2	
BSR Tolerance	NG					

- Strong yield potential on productive ground with excellent stress tolerance
- Strong IDC tolerance
- Excellent PRR package
- Not recommended for BSR areas

## CROPLAN CP0740XF

Group: 0.7



WinPak®  
By WINFIELD UNITED

### Characteristics

		Not Recommended			Excellent	
PRR Tolerance					2	
SDS Tolerance		N/A				
Frogeye Leaf spot		N/A				
SWM Tolerance				3		
Iron Chlorosis					2	
Height	MT	Canopy Type			Int	
Emergence	1	Standability			3	
BSR Tolerance	1					

- WinPak® variety consisting of CP0741XF and CP0751XF
- Versatile placement for highly productive to IDC-prone areas to PRR-prone soils
- Strong IDC tolerance and solid PRR package
- Average SWM tolerance

## CROPLAN CP0751XF

Group: 0.7



### Characteristics

		Not Recommended			Excellent	
PRR Tolerance					2	
SDS Tolerance		N/A				
Frogeye Leaf spot		N/A				
SWM Tolerance				3		
Iron Chlorosis					2	
Height	MT	Canopy Type			Int	
Emergence	1	Standability			3	
BSR Tolerance	1					

- Also available in WinPak® variety CP0740XF
- Ideally placed in areas prone to PRR
- Strong PRR package with strong IDC

## KEY

### Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended



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**CROPLAN CP0820E**

Group: 0.8

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance				2		
Iron Chlorosis				2		

Height	M	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	NG		

- WinPak® variety consisting of CP0721E and CP0822E
- Rps1c.3a/NG PRR gene with strong PRR tolerance for PRR-prone acres
- Strong SWM and IDC tolerance
- Use caution in BSR-prone areas

**CROPLAN CP0940XF**

Group: 0.9

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance				2		
Iron Chlorosis				2		

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	2
BSR Tolerance	4		

- WinPak® variety consisting of CP0942XF and CP1042XF
- Versatile placement for variable soils
- Strong SWM and IDC tolerance
- Use caution in BSR-prone areas

**CROPLAN CP0957RR**

Group: 0.9

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance	N/A					
Frogeye Leaf spot	N/A					
SWM Tolerance						1
Iron Chlorosis			3			

Height	M	Canopy Type	Int/Nar
Emergence	1	Standability	1
BSR Tolerance	3		

- Top-yielding variety year-over-year in Answer Plot® trials
- Peking soybean with excellent white mold tolerance
- Acceptable IDC tolerance; stacked gene for Phytophthora resistance

**UPGRADED****CROPLAN CP1120E**

Group: 1.1

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance				2		
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis				2		

Height	MT	Canopy Type	-
Emergence	1	Standability	3
BSR Tolerance	1/NG		

- WinPak® variety consisting of CP1023E and CP1121E
- Versatile placement for highly productive to stressed soils
- Strong PRR tolerance with Rps3a gene in one component
- Use caution in high SWM-prone areas

**CROPLAN CP1121E**

Group: 1.1

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance				2		
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis				2		

Height	MT	Canopy Type	Int
Emergence	1	Standability	3
BSR Tolerance	NG		

- Also available in WinPak® variety CP1120E
- Excellent yield performance in both high- and low-yield environments in 2019 supplier trials
- Average white mold tolerance is enhanced with strong standability
- Use caution on BSR-prone areas

**NEW****CROPLAN CP1123E**

Group: 1.1

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance				2		
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis				2		

Height	M	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	1		

- High yield potential with Peking SCN resistance
- Versatile placement for high productivity potential in areas prone to IDC and PRR
- Strong IDC and PRR tolerance with Rps3a gene resistance

**KEY****Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

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## UPGRADED

## CROPLAN CP1240XF

Group: 1.2



## Characteristics

	Not Recommended	Excellent
PRR Tolerance	<div></div>	<div>2</div>
SDS Tolerance	<div>3</div>	<div></div>
Frogeye Leaf spot	N/A	<div></div>
SWM Tolerance	<div>3</div>	<div></div>
Iron Chlorosis	<div></div>	<div>2</div>

Height	MT	Canopy Type	-
Emergence	2	Standability	2
BSR Tolerance	1/NA		

- WinPak® variety consisting of CP1242XF and CP1343XF
- Upgraded WinPak® variety that combines high yield potential and solid agronomics
- Strong IDC and PRR tolerance

## CROPLAN CP1430E

Group: 1.4



## Characteristics

	Not Recommended	Excellent
PRR Tolerance	<div></div>	<div>2</div>
SDS Tolerance	<div></div>	<div>2</div>
Frogeye Leaf spot	N/A	<div></div>
SWM Tolerance	<div>3</div>	<div></div>
Iron Chlorosis	<div>3</div>	<div></div>

Height	MT	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	1		

- WinPak® variety consisting of CP1422E and CP1522E
- Replaces CP1420E for improved agronomics and higher yield potential
- Excellent BSR tolerance and emergence
- Acceptable SWM and IDC tolerance

## NEW

## CROPLAN CP1443XF

Group: 1.4



## Characteristics

	Not Recommended	Excellent
PRR Tolerance	<div></div>	<div>2</div>
SDS Tolerance	<div></div>	<div>2</div>
Frogeye Leaf spot	N/A	<div></div>
SWM Tolerance	<div></div>	<div>1</div>
Iron Chlorosis	<div>3</div>	<div></div>

Height	MT	Canopy Type	-
Emergence	2	Standability	2
BSR Tolerance	2		

- Also available in WinPak® variety CP1540XF
- Excellent SWM tolerance with Strong SDS and IDC
- Double stack PRR gene with strong tolerance
- Medium-tall plant with strong standability

## NEW

## CROPLAN CP1540XF

Group: 1.5



## Characteristics

	Not Recommended	Excellent
PRR Tolerance	<div></div>	<div>2</div>
SDS Tolerance	<div>3</div>	<div></div>
Frogeye Leaf spot	N/A	<div></div>
SWM Tolerance	<div>2</div>	<div></div>
Iron Chlorosis	<div>3</div>	<div></div>

Height	MT	Canopy Type	Int
Emergence	2	Standability	2
BSR Tolerance	2		

- WinPak® variety consisting of CP1443XF and CP1542XF
- XtendFlex® WinPak® variety with agronomic strength to allow it to perform both West and East
- Strong PRR and SWM tolerance combined with acceptable IDC
- Use caution on fields with history of BSR

## CROPLAN CP1522E

Group: 1.5



## Characteristics

	Not Recommended	Excellent
PRR Tolerance	<div></div>	<div>1</div>
SDS Tolerance	<div></div>	<div>2</div>
Frogeye Leaf spot	N/A	<div></div>
SWM Tolerance	<div>3</div>	<div></div>
Iron Chlorosis	<div>3</div>	<div></div>

Height	M	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	1		

- Also available in WinPak® variety CP1430XF
- Best positioned on fields with PRR and BSR history
- Excellent emergence, BSR and PRR tolerance
- Acceptable SWM tolerance

## NEW

## CROPLAN CP1623E

Group: 1.6



## Characteristics

	Not Recommended	Excellent
PRR Tolerance	<div></div>	<div>2</div>
SDS Tolerance	<div></div>	<div>2</div>
Frogeye Leaf spot	N/A	<div></div>
SWM Tolerance	<div>3</div>	<div></div>
Iron Chlorosis	<div></div>	<div>2</div>

Height	MT	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	1		

- High potential variety with peking SCN and IDC tolerance
- Best positioned on fields with SCN pressure or IDC hot spots
- Excellent BSR and strong PRR tolerance
- Acceptable SWM tolerance

## KEY

## Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended



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**CP1611X**

Group: 1.6

### Characteristics

		Not Recommended	Excellent
PRR Tolerance		3	
SDS Tolerance		2	
Frogeye Leaf spot	N/A		
SWM Tolerance		2	
Iron Chlorosis		3	

	M	Canopy Type	Int
Emergence	1	Standability	1
BSR Tolerance	1		

- High-yield-potential variety that works east to west
- Great standability for high yield environments
- Strong SDS and SWM tolerance
- Acceptable IDC and PRR tolerance

**CP1720E**

Group: 1.7

### Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	3	
Frogeye Leaf spot	N/A	
SWM Tolerance	3	
Iron Chlorosis	3	

	MT	Canopy Type	-
Emergence	1	Standability	2
BSR Tolerance	3/NG		

- WinPak® variety consisting of CP1721E and CP1722E
- Versatility and stability will allow this WinPak to be planted on almost all acres
- High yield potential combined with strong agronomics
- Acceptable SWM and IDC tolerance

**CP1721E**

Group: 1.7

### Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	3	
Frogeye Leaf spot	N/A	
SWM Tolerance	2	
Iron Chlorosis	2	

	M	Canopy Type	Int
Emergence	1	Standability	1
BSR Tolerance	NG		

- Versatile Enlist E3® variety with solid agronomics
- Consistent performance from east to west
- Strong PRR, SWM, and IDC tolerance
- Not recommended on BSR-prone fields

**CP1742XF**

Group: 1.7

### Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	2	
Frogeye Leaf spot	N/A	
SWM Tolerance	2	
Iron Chlorosis	2	

	T	Canopy Type	Int/Nar
Emergence	2	Standability	1
BSR Tolerance	1		

- Also available in WinPak® variety CP1640XF
- Solid agronomic package works across a variety of acres
- Excellent standability
- Acceptable SWM tolerance

**CP1840XF**

Group: 1.8

### Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	2	
Frogeye Leaf spot	N/A	
SWM Tolerance	2	
Iron Chlorosis	2	

	T	Canopy Type	Int
Emergence	2	Standability	1
BSR Tolerance	1		

- WinPak® variety consisting of CP1742XF and CP1843XF
- Strong agronomic package for high yield potential
- Excellent standability and strong PRR, IDC and SWM tolerance
- Use caution on fields with history of BSR

**CP2030E**

Group: 2

### Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	3	
Frogeye Leaf spot	N/A	
SWM Tolerance	2	
Iron Chlorosis	3	

	MT	Canopy Type	-
Emergence	2	Standability	2
BSR Tolerance	2/NG		

- WinPak® variety consisting of CP1923E and CP2122E
- Works well on SWM and PRR prone fields
- Strong standability, emergence, SWM and PRR
- Acceptable IDC and SDS tolerance

## KEY

### Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

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NEW

## CROPLAN CP2128X

Group: 2.1



## Characteristics

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance				2		
Frogeye Leaf spot	N/A					
SWM Tolerance					1	
Iron Chlorosis			3			

Height	M	Canopy Type	Int/Bush
Emergence	2	Standability	1
BSR Tolerance	NA		

- Durable Roundup Ready 2 Xtend® variety with excellent standability and strong agronomics
- Excellent SWM tolerance
- Strong SDS and PRR tolerance
- Acceptable IDC tolerance

## CROPLAN CP2122E

Group: 2.1



## Characteristics

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance			3			
Frogeye Leaf spot	N/A					
SWM Tolerance				2		
Iron Chlorosis			3			

Height	M	Canopy Type	Int
Emergence	2	Standability	2
BSR Tolerance	2		

- Standalone variety excels in high yield environments
- Versatile product works across many acres
- Strong standability and emergence coupled with PRR, SWM and BSR tolerance
- Acceptable SDS and IDC tolerance

## CROPLAN CP2123E

Group: 2.1



## Characteristics

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance				2		
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis				2		

Height	MT	Canopy Type	Int
Emergence	1	Standability	3
BSR Tolerance	NA		

- Standalone variety with Peking SCN resistance
- Excellent stress tolerance
- Versatile product with strong IDC and SDS tolerance
- Acceptable standability and SWM

NEW

## CROPLAN CP2250XF

Group: 2.2



## Characteristics

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance			3			
Frogeye Leaf spot	N/A					
SWM Tolerance			3			
Iron Chlorosis			3			

Height	MT	Canopy Type	Int
Emergence	2	Standability	2
BSR Tolerance	1/NA		

- WinPak® variety consisting of CP2243XF and 2343XF
- Versatile product with strong standability and emergence
- Acceptable SWM, SDS, and IDC
- Acceptable PRR tolerance

## CROPLAN CP2220E

Group: 2.2



## Characteristics

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance			3			
Frogeye Leaf spot	N/A					
SWM Tolerance				2		
Iron Chlorosis				2		

Height	MT	Canopy Type	Int
Emergence	2	Standability	2
BSR Tolerance	2		

- WinPak® variety consisting of CP2222E and CP2232E
- Works well on BSR- and IDC-prone fields
- Strong standability, BSR and IDC tolerance
- Acceptable PRR, SDS and SWM tolerance

## CROPLAN CP2322E

Group: 2.3



## Characteristics

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance					1	
Frogeye Leaf spot	N/A					
SWM Tolerance				2		
Iron Chlorosis			3			

Height	M	Canopy Type	Int
Emergence	2	Standability	2
BSR Tolerance	2		

- Single line variety with solid agronomics
- Excellent SDS resistance
- Strong IDC, SWM and standability
- Strong emergence and PRR

## KEY

## Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended



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**CP2400X**

Group: 2.4

### Characteristics

		Not Recommended	Excellent
PRR Tolerance		3	
SDS Tolerance	N/A		
Frogeye Leaf spot	N/A		
SWM Tolerance	4		
Iron Chlorosis		3	

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	2
BSR Tolerance	1		

- WinPak® variety consisting of CP2487X and CP2578X
- Western variety best-positioned in well-drained, fertile soils
- Excellent emergence and BSR resistance; acceptable IDC rating and strong stress tolerance
- Manage for areas with heavy SWM pressure

**CP2520E**

Group: 2.5

### Characteristics

		Not Recommended	Excellent
PRR Tolerance		2	
SDS Tolerance	4		
Frogeye Leaf spot	N/A		
SWM Tolerance	4		
Iron Chlorosis		2	

Height	MT	Canopy Type	Int
Emergence	2	Standability	3
BSR Tolerance	1/NA		

- WinPak® variety consisting of CP2521E and 2523E
- Best suited for productive prairie soils, strong performance east to west
- Strong stress tolerance, IDC and emergence
- Manage for SWM and SDS in susceptible environments

**CP2540XF**

Group: 2.5

### Characteristics

		Not Recommended	Excellent
PRR Tolerance		2	
SDS Tolerance	3		
Frogeye Leaf spot	N/A		
SWM Tolerance	N/A		
Iron Chlorosis		2	

Height	MT	Canopy Type	Int/Bush
Emergence	2	Standability	2
BSR Tolerance	1		

- WinPak® variety consisting of CP2543XF and CP2652XF
- Excellent product from West to East with proven genetic backgrounds
- Strong IDC tolerance and acceptable SDS protection
- Manage for SWM in susceptible environments

**CP2743XF**

Group: 2.7

### Characteristics

		Not Recommended	Excellent
PRR Tolerance		2	
SDS Tolerance		2	
Frogeye Leaf spot	N/A		
SWM Tolerance	5		
Iron Chlorosis		3	

Height	T	Canopy Type	Int
Emergence	1	Standability	3
BSR Tolerance	NA		

- Offensive variety for high yield potential and stability
- Excellent height for hills and stressed acres
- Strong SDS tolerance with acceptable IDC tolerance
- Use caution on SWM prone fields

**CP2840XF**

Group: 2.8

### Characteristics

		Not Recommended	Excellent
PRR Tolerance		2	
SDS Tolerance		2	
Frogeye Leaf spot	N/A		
SWM Tolerance	4		
Iron Chlorosis		3	

Height	T	Canopy Type	Int
Emergence	2	Standability	3
BSR Tolerance	1/NA		

- WinPak® variety consisting of CP2743XF and CP2843XF
- Versatile product that can go across a variety of yield environments and soil types
- Very strong IDC and SDS tolerance
- Use caution on fields with SWM history

**CP2822E**

Group: 2.8

### Characteristics

		Not Recommended	Excellent
PRR Tolerance		2	
SDS Tolerance	3		
Frogeye Leaf spot	N/A		
SWM Tolerance	3		
Iron Chlorosis		3	

Height	MT	Canopy Type	Int/Bush
Emergence	2	Standability	2
BSR Tolerance	NG		

- Single line variety with solid agronomic package
- Strong PRR, stress tolerance and standability
- Acceptable IDC and SDS tolerance

## KEY

### Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

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This symbol indicates that there has been a new component added to the WinPak® variety.

**CROPLAN CP2920E**

Group: 2.9

**WinPak®**  
BY WINFIELD UNITED**Characteristics**

	Not Recommended	Excellent
PRR Tolerance		
SDS Tolerance		
Frogeye Leaf spot		
SWM Tolerance		
Iron Chlorosis		

Height	MT	Canopy Type	Int/Bush
Emergence	2	Standability	2
BSR Tolerance	1/NG		

- WinPak® variety consisting of CP2822E and CP2829E
- Versatile product with ability to go across wide range of yield environments and soil types
- Includes variety CP2822, which bring the RPS 3a gene for Phytophthora
- Manage for SWM in susceptible environments

**CROPLAN CP3057XS**

Group: 3

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance		
SDS Tolerance		
Frogeye Leaf spot		
SWM Tolerance		
Iron Chlorosis		

Height	M	Canopy Type	Int
Emergence	2	Standability	3
BSR Tolerance	1		

- Excellent IDC variety that works in multiple soils and yield environments
- Stress-tolerant line well-adapted from east to west
- Rugged, medium-height plant with SCN and BSR resistance
- HRp1c Phytophthora gene; manage with seed treatments

**CROPLAN CP3140XF**

Group: 3.1

**WinPak®**  
BY WINFIELD UNITED**Characteristics**

	Not Recommended	Excellent
PRR Tolerance		
SDS Tolerance		
Frogeye Leaf spot		
SWM Tolerance		
Iron Chlorosis		

Height	T	Canopy Type	Int/Bush
Emergence	2	Standability	2
BSR Tolerance	3		

- WinPak® variety consisting of CP3043XFS and CP3142XF
- Versatile product with high yield potential; solid defensive characteristics including stacked PRR genes
- Strong SDS tolerance; med-tall plant type to maintain height in stressed environments
- Manage for SWM and FELS in susceptible environments

**CROPLAN CP3120E**

Group: 3.1

**WinPak®**  
BY WINFIELD UNITED**Characteristics**

	Not Recommended	Excellent
PRR Tolerance		
SDS Tolerance		
Frogeye Leaf spot		
SWM Tolerance		
Iron Chlorosis		

Height	MT	Canopy Type	-
Emergence	2	Standability	2
BSR Tolerance	NA		

- WinPak® variety consisting of CP3121E and CP3131E
- Excellent stress tolerance allows movement east to west
- Strong IDC and PRR tolerance
- Acceptable standability and FELS tolerance

**CROPLAN CP3320E**

Group: 3.3

**WinPak®**  
BY WINFIELD UNITED**Characteristics**

	Not Recommended	Excellent
PRR Tolerance		
SDS Tolerance		
Frogeye Leaf spot		
SWM Tolerance		
Iron Chlorosis		

Height	MT	Canopy Type	Bush
Emergence	1	Standability	3
BSR Tolerance	NA		

- WinPak® variety consisting of CP3222E and CP3321E
- Stable, offensive variety paired with a new line for solid defensive characteristics and high yield potential
- Excellent stress tolerance and strong PRR tolerance
- Manage for BSR in susceptible environments

**CROPLAN CP3422E**

Group: 3.4

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance		
SDS Tolerance		
Frogeye Leaf spot		
SWM Tolerance		
Iron Chlorosis		

Height	MT	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	1		

- High yield potential single line with solid disease package and appearance late season
- Versatile variety that can perform nationally from the low- to high-end acre
- Excellent stress tolerance, strong PRR, SDS and IDC tolerance
- Acceptable FELS tolerance

**KEY****Scale**

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- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended



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NEW

**CROPLAN CP3540XF**

Group: 3.5

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	2	
Frogeye Leaf spot	2	
SWM Tolerance	3	
Iron Chlorosis	3	

Height	T	Canopy Type	Int/Bush
Emergence	1	Standability	2
BSR Tolerance	1/NA		

- WinPak® variety consisting of CP3443XF and CP3543XF
- Versatile variety that performs well in both low and high yield potential environments
- Excellent emergence and SSC; very strong SDS and FELS
- Acceptable PRR field tolerance with partial Rps1c gene

**CROPLAN CP3621E**

Group: 3.6

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	2	
Frogeye Leaf spot	4	
SWM Tolerance	4	
Iron Chlorosis	N/A	

Height	MT	Canopy Type	Bush
Emergence	2	Standability	2
BSR Tolerance	1		

- Single line variety also found in CP3620E WinPak®
- Versatile variety that performs well east to west
- Strong PRR, SDS, and stress tolerance
- Manage for FELS in susceptible environments

**CROPLAN CP3620E**

Group: 3.6

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	2	
Frogeye Leaf spot	4	
SWM Tolerance	4	
Iron Chlorosis	N/A	

Height	MT	Canopy Type	Int/Bush
Emergence	2	Standability	2
BSR Tolerance	1		

- WinPak® variety consisting of CP3621E and CP3622E
- Upgraded national product with improved overall yield potential, versatility and solid defensive characteristics
- Strong standability late season; strong PRR and SDS tolerance
- Manage for FELS in susceptible environments

**CROPLAN CP3822ES**

Group: 3.7

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	1	
Frogeye Leaf spot	1	
Southern Stem Canker	1	
Root-Knot Nematode	N/A	

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	2
BSR Tolerance	3		

- Standalone variety with dependable defensive package
- East to west performance with solid agronomic package
- Excellent tolerance to SDS, SSC and FELS
- Acceptable rating for white mold - manage areas with issues

NEW

**CROPLAN CP3723E**

Group: 3.7

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	2	
Frogeye Leaf spot	2	
Southern Stem Canker	1	
Root-Knot Nematode	N/A	

Height	M	Canopy Type	Int
Emergence	2	Standability	3
BSR Tolerance	NA		

- Versatile product with high yield potential and good emergence that will fit a broad acre
- Very good East to West movement, with good diversity in a Standalone product
- Standalone variety with strong SDS and FELS. Excellent Southern Stem Canker
- Acceptable standability, with a slight watch on PRR

NEW

**CROPLAN CP3753XF**

Group: 3.7

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	2	
Frogeye Leaf spot	1	
Southern Stem Canker	1	
Root-Knot Nematode	N/A	

Height	MT	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	1		

- Standalone variety with very good yield potential and agronomics
- Intermediate plant type that excels in driller or 15" row spacing
- Excellent BSR, FELS, SSC and emergence; strong SDS tolerance
- Acceptable PRR field tolerance rating

**KEY****Scale**

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- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended



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UPGRADED

**CROPLAN CP3806XS**

Group: 3.8

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	4	
SDS Tolerance		2
Frogeye Leaf spot	3	
Southern Stem Canker	4	
Root-Knot Nematode	4	

Height	M	Canopy Type	Int/Bush
Emergence	2	Standability	2
BSR Tolerance	2		

- Excluder variety with STS\* tolerance; well-suited for high-pH soils
- Strong performance from Neb. to the East Coast
- Offers strong emergence, disease tolerance and standability
- Manage for stem canker and RKN

**CROPLAN CP3920E**

Group: 3.9

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance		2
SDS Tolerance	3	
Frogeye Leaf spot	3	
Southern Stem Canker		1
Root-Knot Nematode	N/A	

Height	MT	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	NA		

- WinPak® variety consisting of CP4029E with upgrade to CP3922E
- Stable WinPak® variety that can perform across soil types and yield environments
- Excellent emergence and stress tolerance
- Manage for SDS and BSR in susceptible fields

**CROPLAN CP3940XF**

Group: 3.9

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance		1
Frogeye Leaf spot		2
Southern Stem Canker		1
Root-Knot Nematode	N/A	

Height	MT	Canopy Type	Int/Bush
Emergence	2	Standability	2
BSR Tolerance	NA		

- WinPak® variety consisting of CP3842XF and CP3943XF
- Broadly adapted East to West and across yield environments
- Excellent SDS, and SSC; strong emergence and FELS tolerance
- Acceptable PRR field tolerance; manage for average standability with moderate populations

**CROPLAN CP4122E**

Group: 4.1

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	3	
Frogeye Leaf spot		2
Southern Stem Canker	N/A	
Root-Knot Nematode	5	

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	2
BSR Tolerance	NA		

- High yield potential variety east to west and north to south
- Broadly adapted across soil types, yield environments and regions
- Excellent emergence; strong standability; acceptable tolerance to FELS
- Manage placement on RKN-prone acres

NEW

**CROPLAN CP4143XFS**

Group: 4.1

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	N/A	
SDS Tolerance	3	
Frogeye Leaf spot		2
Southern Stem Canker	N/A	
Root-Knot Nematode	5	

Height	M	Canopy Type	Int
Emergence	2	Standability	3
BSR Tolerance	NA		

- STS-tolerant, standalone with high yield potential
- Good southern movement with attractive reddish pubescence
- Excluder variety with strong FELS tolerance and emergence
- Manage for average SDS and standability

UPGRADED

**CROPLAN CP4320ES**

Group: 4.3

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance		2
Frogeye Leaf spot		2
Southern Stem Canker		1
Root-Knot Nematode	5	

Height	MT	Canopy Type	Int
Emergence	2	Standability	2
BSR Tolerance	NG/NA		

- WinPak® variety consisting of CP4331ES and CP4323ES
- Broadly adapted with ability to handle tougher conditions and various soil types
- Excellent emergence and standability
- Manage placement on RKN-prone acres

**KEY****Scale**

- 1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended



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NEW

**CROPLAN CP4323E**

Group: 4.3

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance				2		
Frogeye Leaf spot				2		
Southern Stem Canker					1	
Root-Knot Nematode	5					

Height	MT	Canopy Type	Int
Emergence	2	Standability	2
BSR Tolerance	NA		

- Direct replacement for CP4322ES
- Position from East to West, but has great track record west
- Acceptable SDS and strong FELS tolerance

NEW

**CROPLAN CP4343XF**

Group: 4.3

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance					1	
Frogeye Leaf spot					1	
Southern Stem Canker					1	
Root-Knot Nematode	N/A					

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	3
BSR Tolerance	1		

- Standalone variety with high yield potential
- Great hybrid option for southern corn belt and the mid-south
- Solid agronomic package with excellent SDS, emergence, BSR, FELS and SSC
- Acceptable standability; manage in high populations or under irrigation

UPGRADED

**CROPLAN CP4540XFS**

Group: 4.5

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance		4				
SDS Tolerance			3			
Frogeye Leaf spot	N/A					
Southern Stem Canker					1	
Root-Knot Nematode	5					

Height	T	Canopy Type	Int/Bush
Emergence	1	Standability	2
BSR Tolerance	NA		

- WinPak® variety consisting of CP4541XFS and CP4543XFS
- Broadly adopted East to West; high yield potential variety that has the plant structure to handle stressed acres
- Excellent emergence and SSC
- Acceptable PRR field tolerance and SDS combined with improved standability

**CROPLAN CP4521E**

Group: 4.5

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance				2		
Frogeye Leaf spot				2		
Southern Stem Canker					1	
Root-Knot Nematode	5					

Height	MT	Canopy Type	NA
Emergence	1	Standability	2
BSR Tolerance	NG		

- Broadly adapted variety that moves north and south well
- Acceptable FELS, SDS and SSC tolerance
- Medium height variety for clay soils with acceptable standability for lighter soils
- Manage placement in RKN-prone acres

**CROPLAN CP4529ES**

Group: 4.5

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance			3			
Frogeye Leaf spot				2		
Southern Stem Canker					1	
Root-Knot Nematode	5					

Height	MT	Canopy Type	Int/Bush
Emergence	2	Standability	3
BSR Tolerance	NG		

- Excluder variety with STS® tolerance
- Strong performance potential on clay soils
- Excellent stress tolerance
- Tall variety with acceptable standability

**CROPLAN CP4541XFS**

Group: 4.6

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance				2		
Frogeye Leaf spot	N/A					
Southern Stem Canker					1	
Root-Knot Nematode	5					

Height	T	Canopy Type	Int/Bush
Emergence	1	Standability	3
BSR Tolerance	NA		

- STS®-tolerant variety broadly adapted across soil types and yield levels
- Position broadly east to west and north to south on mixed to heavy soils
- Excluder with excellent emergence; SSC resistance
- Use caution with placement in sand on wide rows

**KEY****Scale**

- 1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

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NEW

**CROPLAN CP4843XFS**

Group: 4.8

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance					1	
Frogeye Leaf spot					1	
Southern Stem Canker					1	
Root-Knot Nematode	5					

Height	MT	Canopy Type	Int/Bush
Emergence	1	Standability	3
BSR Tolerance	NA		

- Replacement for CP4841XFS
- STS-tolerant and able to move east to west
- Strong standability, SDS and FELS tolerance

NEW

**CROPLAN CP4943XFS**

Group: 4.9

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance			3			
Frogeye Leaf spot			3			
Southern Stem Canker					1	
Root-Knot Nematode	5					

Height	MT	Canopy Type	Int
Emergence	3	Standability	3
BSR Tolerance	NA		

- New full season product that companion with CP4843XFS
- Broadly adapted to handle versatile soils, including clay soil types
- Strong standability and SDS tolerance
- Acceptable FELS tolerance

**CROPLAN CP4822ES**

Group: 4.9

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance			3			
Frogeye Leaf spot					2	
Southern Stem Canker	N/A					
Root-Knot Nematode	N/A					

Height	MT	Canopy Type	Int/Bush
Emergence	2	Standability	2
BSR Tolerance	NA		

- STS\*-tolerant excluder variety
- Broadly adapted east to west on most soil types including heavy clay soils
- Taller plant type with strong emergence and standability; excellent tolerance to Cercospora leaf spot
- Manage in areas with severe SDS and PRR

NEW

**CROPLAN CP4923ES**

Group: 4.9

**Characteristics**

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance					2	
Frogeye Leaf spot			3			
Southern Stem Canker					1	
Root-Knot Nematode	N/A					

Height	MT	Canopy Type	Int
Emergence	1	Standability	2
BSR Tolerance	NA		

- STS-tolerant variety that is a companion product to position with CP4822ES
- Excluder variety that is broadly adapted across acres
- Acceptable SDS and FELS tolerance

**KEY****Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

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- WinPak® Variety Components
- SCN Resistant Source
- Relative Maturity
- RRR Gene
- RRR Tolerance
- SDS Tolerance
- Chloride Tolerance
- SWM Tolerance
- BSN Tolerance
- Southern Stem Canker
- Iron Chlorosis
- Root-Knot Nematode
- Frageye Leaf Spot
- Emergence
- Stress Tolerance
- Standability
- Canopy Type
- Plant Height
- Flower Color
- Pod Color
- Hilum Color

ROUNDUP READY 2 XTEND®/XTENDFLEX®/ROUNDUP READY 2 YIELD® — RM: 0.0-1.0

CP00312X	0.03	IND	NG	Rps1c	1	NA	Includer	2	NA	2	1	NA	NA	NA	2	1	NA	Int	M	P	LTW	BR	IY
CP00777X*	0.07	IND	PI88.788	Rps1c	1	NA	Includer	3	5	2	NA	NA	NA	NA	1	1	2	Int/Nar	M	P	LTW	BR	BL
CP00842Xf	0.08	IND	PI88.788	Rps1c	2	NA	Includer	NA	2	2	NA	NA	NA	NA	2	2	NA	Int	M	P	LTW	TN	BL
CP00926X	0.09	IND	NG	Rps1k	3	NA	Includer	3	2	3	NA	NA	NA	NA	1	3	3	Int	M	P	TW	BR	BL
CP0242Xf	0.2	IND	NG	Rps1c	4	NA	NA	2	1	2	NA	NA	NA	NA	1	4	NA	Int/Bush	MT	P	TW	BR	BL
NEW CP0243Xf	0.2	IND	NG	Rps1k	3	NA	Includer	2	5	2	NA	NA	NA	NA	1	1	NA	Int/Bush	MT	P	TW	BR	BL
CP0337X	0.3	IND	PI88.788	Rps1c	2	NA	Includer	3	4	1	NA	NA	NA	NA	1	3	1	Int/Nar	M	P	TW	BR	BR
CP0400X	0.4	IND	PI88.788	Rps3a/NG	2	NA	Includer	3	NA	2	NA	NA	NA	NA	2	1	NA	Int	M	P	LTW	BR/TN	BL/BR
CP0411X*	0.4	IND	PI88.788	NG	2	NA	Includer	3	NA	2	NA	NA	NA	NA	2	1	NA	Int	MS	P	LTW	TN	BL
CP0426X	0.4	IND	PI88.788	Rps3a	1	NA	Includer	3	4	2	NA	NA	NA	NA	1	1	1	Int	M	P	LTW	BR	BR
CP0542Xf	0.5	IND	PI88.788	Rps1c	2	3	Includer	3	4	4	1	NA	NA	NA	2	2	NA	Int/Bush	MT	P	LTW	TN	IY
CP0678X*	0.6	IND	PI88.788	NG	1	NA	Includer	3	4	2	NA	NA	NA	NA	1	3	1	Int	MT	P	LTW	BR	BL
CP0740Xf	0.7	IND	PI88.788	Rps1c.3a/H3a	2	NA	Includer	3	1	2	NA	NA	NA	NA	1	3	NA	Int	MT	P	TW/LTW	BR	BL
CP0741Xf*	0.7	IND	PI88.788	HRps3a	2	NA	Includer	3	1	2	NA	NA	NA	5	1	3	2	Int	M	P	LTW	BR	BL
CP0751Xf*	0.7	IND	PI88.788	Rps1c.3a	2	NA	Includer	3	1	2	NA	NA	NA	NA	1	3	NA	Int	MT	P	TW	BR	BL
CP0940Xf	0.9	IND	PI88.788	HRps3a/NG	3	NA	Includer	2	4	2	NA	NA	NA	NA	1	2	NA	Int/Bush	MT	P	LTW	BR/TN	BR
CP0942Xf*	0.9	IND	PI88.788	NG	4	NA	Includer	2	5	1	NA	NA	NA	NA	1	2	NA	Int/Bush	MT	P	LTW	BR	BR
CP0957RR	0.9	IND	PEKING	Rps1k.3a	3	NA	Includer	1	3	3	NA	NA	NA	NA	1	1	1	Int/Nar	M	P	GR	BR	BF
CP1042Xf*	1.0	IND	PI88.788	HRps3a	2	NA	Includer	2	3	2	NA	NA	NA	NA	1	2	2	Int/Bush	MT	P	LTW	TN	BR

KEY

- 1

SCN Resistant Source

Peking = These varieties contain SCN resistance genes from the Peking soybean breeding lines

PI88.788 = These varieties contain SCN resistance genes from the PI88.788 soybean breeding lines
- 2

RRR Gene

Rps = Resistance to Phytophthora sojae

HRps = Heterozygous segregating Rps occurrence
- 3

Southern Stem Canker and Root-Knot Nematode

1 = Resistant

2 = Moderately Resistant

3 = Moderately Resistant–Moderately Susceptible

4 = Moderately Susceptible

5 = Susceptible
- 4

Canopy Type

Nar = Narrow

Int = Intermediate

Bush = Bushy
- 5

Plant Height

T = Tall

M = Medium

S = Short
- 6

Flower Color

P = Purple

W = White
- 7

Pubescent Type

GR = Gray

TW = Tawny

LTW = Light Tawny
- 8

Pod Color

TN = Tan

BR = Brown
- 9

Hilum Color

YE = Yellow/Clear

GR = Gray

BL = Black

IB = Imperfect Black

BR = Brown

BF = Buff

SL = Slate

TN = Tan

IY = Imperfect Yellow


These ratings reflect trends observed in research trials that change with variations in rainfall, temperature, crop production patterns and other factors. Ratings on new soybean varieties are based on limited data and may change as more data is collected.




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\*WinPak® seed components only. Not for sale individually.

<b>KEY</b>	<b>1 SCN Resistant Source</b> Peking = These varieties contain SCN resistance genes from the Peking soybean breeding lines	<b>2 PRR Gene</b> Rps = Resistance to <i>Phytophthora sojae</i> HRps = Heterozygous segregating Rps occurrence	<b>3 Southern Stem Canker and Root-Knot Nematode</b>	<b>4 Canopy Type</b> Mar = Narrow Int = Intermediate Bush = Bushy	<b>5 Flower Color</b> P = Purple W = White	<b>6 Pod Color</b> TN = Tan BR = Brown	<b>7 Pubescence Type</b> GR = Gray TW = Tawny LTW = Light Tawny	<b>8 Hilum Color</b> YE = Yellow/Clear BL = Gray BR = Black IR = Imperfect Black BR = Brown BF = Burt SL = Slate TN = Tan IV = Imperfect Yellow
	<b>Scale</b> 1 = Excellent 2 = Strong 3 = Acceptable 4 = Manage 5 = Not recommended N6 = No gene present	<b>P188,788</b> = These varieties contain SCN resistance genes from the P188,788 soybean breeding lines	1 = Resistant 2 = Moderately Resistant 3 = Moderately Resistant– Moderately Susceptible 4 = Moderately Susceptible 5 = Susceptible	<b>Plant Height</b> T = Tall M = Medium S = Short	<b>Pod Color</b> TN = Tan BR = Brown	<b>Hilum Color</b> YE = Yellow/Clear BL = Gray BR = Black IR = Imperfect Black BR = Brown BF = Burt SL = Slate TN = Tan IV = Imperfect Yellow	<p>These ratings reflect trends observed in research trials that change with variations in rainfall, temperature, crop production patterns and other factors. Ratings on new soybean varieties are based on limited data and may change as more data is collected.</p> <p> This symbol indicates that there</p>	

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# SOYBEAN

CROPLAN®

WinPak® Variety Components	SCN Resistant Source	PRR Gene	SDS Tolerance	RRR Tolerance	Chloride Tolerance	SWM Tolerance	BSR Tolerance	Southern Stem Canker	Iron Chlorosis	Root-Knot Nematode	Emergence	Steadability	Stress Tolerance	Canopy Type	Plant Height	Pubescence Type	Pod Color	Hilum Color
Relative Maturity	Determinate/Indeterminate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

## ROUNDUP READY 2 XTEND®/XTENDFLEX®/ROUNDUP READY 2 YIELD® — RM: 2.6-4.4

NEW	CP2652XF*	2.6	IND	P188.788	NG	2	3	Includer	NA	1	2	NA	NA	NA	2	2	2	Int/Bush	MT	P	GR	TN	BF
NEW	CP2743XF	2.7	IND	P188.788	NG	2	2	Includer	5	NA	3	1	NA	NA	1	3	NA	Int	T	P	LTW	BR	BL
NEW	CP2840XF	2.8	IND	P188.788	Rps1c/NG	2	2	Includer	4	1/NA	3	1	NA	5/NA	2	3	2/NA	Int	T	P	GR/LTW	BR/TN	BL/IB
NEW	CP2843XF*	2.8	IND	P188.788	Rps1c	2	2	Includer	2	1	2	1	NA	5	2	2	2	Int	MT	P	GR	TN	IB
NEW	CP3043XFS*	3.0	IND	P188.788	Rps1a	2	3	Includer	3	3	3	1	NA	5	2	2	2	Int/Bush	MT	P	LTW	BR	BL
NEW	CP3057XS	3.0	IND	P188.788	HRps1c	4	2	Includer	NA	1	1	NA	NA	NA	2	3	1	Int	M	P	LTW	TN	BL
NEW	CP3140XF	3.1	IND	P188.788	Rps1c,3a/1a	2/NA	2	Inc/Exc	3/NA	3	4	1	NA	5/NA	2	2	2/NA	Int/Bush	T	P	GR/LTW	BR	BL/IB
NEW	CP3142XF*	3.1	IND	P188.788	Rps1c,3a	NA	1	Excluder	NA	2	4	1	NA	NA	1	1	NA	Int/Bush	T	P	GR	BR	IB
NEW	CP3443XF*	3.4	IND	P188.788	NG	2	1	Includer	2	NA	2	1	1	NA	1	3	NA	Int/Bush	MT	P	LTW	BR	BL
NEW	CP3540XF	3.5	IND	P188.788	Rps1c/NG	3	2	Inc/Exc	3	1/NA	3	1	2	NA	1	2	NA	Int/Bush	T	P	GR/LTW	BR	BL/IB
NEW	CP3543XF*	3.5	IND	P188.788	Rps1c	4	2	Excluder	3	1	4	1	3	NA	1	1	NA	Int	T	P	GR	BR	IB
NEW	CP3753XF	3.7	IND	P188.788	NG	3	2	Includer	NA	1	3	1	1	NA	1	2	NA	Int	MT	P	LTW	BR	BL
NEW	CP3800XS	3.8	IND	P188.788	Rps1c	4	2	Excluder	5	2	1	4	3	4	2	2	1	Int/Bush	M	W	GR	BR	IB
NEW	CP3842XF*	4.0	IND	P188.788	NG	3	1	Includer	NA	NA	4	1	1	5	2	1	NA	Int/Bush	MT	P	LTW	BR	BL
NEW	CP3940XF	3.9	IND	P188.788	Rps1c/NG	3	1	Includer	NA	NA	3	1	2	5/NA	2	2	NA	Int/Bush	MT	P	GR/LTW	BR	BL/IB
NEW	CP3943XF*	3.9	IND	P188.788	Rps1c	3	1	Includer	NA	NA	2	1	2	NA	2	2	NA	Int/Bush	MT	P	GR	BR	IB
NEW	CP4143XFS	4.1	IND	P188.788	Rps1a	NA	3	Excluder	NA	NA	3	NA	2	5	2	3	NA	Int	M	P	LTW	BR	BL
NEW	CP4343XF	4.3	IND	P188.788	Rps1c	2	1	Includer	NA	1	4	1	1	NA	1	3	NA	Int/Bush	MT	W	LTW	TN	BL

## KEY

Scale	1 = Excellent 2 = Strong 3 = Acceptable 4 = Manage 5 = Not Recommended NB = No gene present	1 SCN Resistant Source Peking = These varieties contain SCN resistance genes from the Peking soybean breeding lines P188.788 = These varieties contain SCN resistance genes from the P188.788 soybean breeding lines	2 PRR Gene Rps = Resistance to Phytophthora sojae Hrps = Heterozygous segregating Rps occurrence	3 Southern Stem Canker and Root-Knot Nematode 1 = Resistant 2 = Moderately Resistant 3 = Moderately Resistant-Moderately Susceptible 4 = Moderately Susceptible 5 = Susceptible	4 Canopy Type Nar = Narrow Int = Intermediate Bush = Bushy	5 Plant Height T = Tall M = Medium S = Short	6 Flower Color P = Purple W = White	8 Pod Color TN = Tan BR = Brown	9 Hilum Color YE = Yellow/Clear GR = Gray BL = Black IB = Imperfect Black BR = Brown BF = Buff SL = Slate TN = Tan IY = Imperfect Yellow
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Winpak® Variety Components		SCN Resistant Source		PRR Gene		PRR Tolerance		SDS Tolerance		Chloride Tolerance		SWM Tolerance		BSR Tolerance		Iron Chlorosis		Southern Stem Canker		Frogeye Leaf Spot		Root-Knot Nematode		Emergence		Stress Tolerance		Canopy Type		Plant Height		Pubescence Type		Pod Color		Hilum Color	
Determinate/Indeterminate		Relative Maturity		PRR Gene		PRR Tolerance		SDS Tolerance		Chloride Tolerance		SWM Tolerance		BSR Tolerance		Iron Chlorosis		Southern Stem Canker		Frogeye Leaf Spot		Root-Knot Nematode		Emergence		Stress Tolerance		Canopy Type		Plant Height		Pubescence Type		Pod Color		Hilum Color	
1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19	
ROUNDUP READY 2 XTEND®/XTENDFLEX®/ROUNDUP READY 2 YIELD® — RM: 4.5-5.0																																					
CP4540XFS	CP4541XFS/CP4543XFS*	4.5	IND	PI88.788	Rps1c	4	3	Excluder	NA	NA	5/NA	1	5/NA	5	1	2	NA	Int/Bush	T	P	LTW	BR/TN	BL														
CP4541XFS		4.6	IND	PI88.788	Rps1c	3	2	Excluder	NA	NA	NA	1	NA	5	1	3	NA	Int/Bush	T	P	LTW	BR	BL														
NEW CP4543XFS*		4.5	IND	PI88.788	Rps1c	4	3	Excluder	NA	NA	5	1	5	5	1	1	NA	Int/Bush	MT	P	LTW	TN	BL														
NEW CP4843XFS		4.8	IND	PI88.788	Rps1a	3	1	Includer	NA	NA	5	1	1	5	1	3	NA	Int/Bush	MT	P	LTW	BR	BL														
NEW CP4943XFS		4.9	IND	NG	NG	3	3	Excluder	NA	NA	NA	1	3	5	3	3	NA	Int	MT	W	LTW	TN	BR														

KEY

Scale

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- 2 = Strong
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- 4 = Manage
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- NE = No gene present

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1 SCN Resistant Source

**Peking** = These varieties contain SCN resistance genes from the Peking soybean breeding lines  
**PI88.788** = These varieties contain SCN resistance genes from the PI88.788 soybean breeding lines

2 PRR Gene

**Rps** = Resistance to Phytophthora sojae  
**HRRs** = Heterozygous segregating Rps occurrence

3 Southern Stem Canker and Root-Knot Nematode

- 1 = Resistant
- 2 = Moderately Resistant
- 3 = Moderately Resistant-Moderately Susceptible
- 4 = Moderately Susceptible
- 5 = Susceptible

4 Canopy Type

**Nar** = Narrow  
**Int** = Intermediate  
**Bush** = Bushy  
**Plant Height**  
**T** = Tall  
**M** = Medium  
**S** = Short

6 Flower Color

**P** = Purple  
**W** = White

7 Pubescence Type

**GR** = Gray  
**TW** = Tawny  
**LTW** = Light Tawny

8 Pod Color

**TN** = Tan  
**BR** = Brown

9 Hilum Color

**YE** = Yellow/Clear  
**GR** = Gray  
**BL** = Black  
**IB** = Imperfect Black  
**BR** = Brown  
**BF** = Buff  
**SL** = Slate  
**TN** = Tan  
**IY** = Imperfect Yellow

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CROPLAN

SGN Resistant  
Determinate/Indeterminate  
Relative Maturity

PRR Gene 2

Chloride Tolerance  
SDS Tolerance  
PRR Tolerance

BSR Tolerance  
SWM Tolerance

- Root
- Frogeye
- Southern Stem Canker
- Iron Chlorosis
- Tolerance

Root-Knot Nem  
Frogeye Leaf Spot  
3

3  
Emergence  
Stress Tolerance  
Canopy

Plant Height  
Flower Color  
Pubescence Type

Pod Color 8  
Hilum Color 9

ENLIST E3<sup>®</sup> – RM: 0.0-1.5

KEY	
1	<b>SN Resistant Source</b> Peking = These varieties contain SN resistance genes from the Peking soybean breeding lines P188,788 = These varieties contain SN resistance genes from the P188,788 soybean breeding lines
2	<b>PRR Gene</b> Rps = Resistance to Phytophthora sojae HRRs = Heterozygous segregating Rps occurrence
3	<b>Southern Stem Canker and Root-Knot Nematode</b> 1 = Resistant 2 = Moderately Resistant 3 = Moderately Resistant–Moderately Susceptible 4 = Moderately Susceptible 5 = Susceptible
4	<b>Canopy Type</b> Nar = Narrow Int = Intermediate Busl = Bustly
5	<b>Plant Height</b> T = Tall M = Medium S = Short
6	<b>Flower Color</b> P = Purple W = White
7	<b>Pubescent Type</b> GR = Gray TW = Tawny LTW = Light Tawny
8	<b>Pod Color</b> TN = Tan BR = Brown
9	<b>Hilum Color</b> YE = Yellow/Clear GR = Gray BL = Black IB = Imperfect Black BR = Brown BR = Broom SI = Slate TN = Tan IV = Imperfect Yellow

## 1 SCN Resistant Source

## 2 PRR Gene

### 3 Southern Stem Canker and Root-Knot Nematode

#### 4 Canopy Type

## 6 Flower Color

### 8 Pod Color

## 9 Hilum Color

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CROPLAN

Wrip 3k® Variety Components	
Determinate/Indeterminate	
SCN Resistant Source	
Relative Maturity	
PRR Gene	1
Chloride Tolerance	2
SDS Tolerance	
PRR Tolerance	
SWM Tolerance	
BSR Tolerance	
Iron Chlorosis	
Southern Stem Canker	
Root Knot Nematode	3
TronEye Leaf Spot	4
Emergence	
Stress Tolerance	
Stability	
Canopy Type	5
Plant Height	
Flower Color	6
Pubescent Type	7
Pod Color	8
Hilum Color	9

<b>KEY</b>	<b>1</b> <b>SCN Resistant Source</b>	<b>Peking</b> = These varieties contain SCN resistance genes from the Peking soybean breeding lines
	<b>2</b> <b>PRR Gene</b>	<b>Rps</b> = Resistance to <i>Phytophthora sojae</i> <b>HRRs</b> = Heterologous segregating Rps occurrence
	<b>3</b> <b>Southern Stem Canker and Root-Knot Nematode</b>	1 = Resistant 2 = Moderately Resistant 3 = Moderately Resistant–Moderately Susceptible 4 = Moderately Susceptible 5 = Susceptible
	<b>4</b> <b>Canopy Type</b>	Nar = Narrow Int = Intermediate Bus = Busty
	<b>5</b> <b>Plant Height</b>	T = Tall M = Medium S = Short
	<b>6</b> <b>Flower Color</b>	P = Purple W = White
	<b>8</b> <b>Pod Color</b>	TN = Tan BR = Brown
	<b>9</b> <b>Hilum Color</b>	YE = Yellow/Clear BL = Gray BL = Black IB = Imperfect Black BR = Brown BR = Buff SL = Slate TN = Tan
	<b>7</b> <b>Pubescence Type</b>	GR = Gray TW = Tawny LTW = light Tawny
	<b>Scale</b>	1 = Excellent 2 = Strong 3 = Acceptable 4 = Manage 5 = Not Recommended NG = No gene present
product descriptions and ratings		



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WinPak® Variety Components

Determinate/Indeterminate  
Relative Maturity

SCN Resistant Source  
PRR Gene

Chloride Tolerance  
SDS Tolerance  
PRR Tolerance

SWM Tolerance  
BSR Tolerance  
Iron Chlorosis

Root-Knot Nematode  
Frogeye Leaf Spot  
Emergence

Stress Tolerance  
Stability  
Canopy Type

Plant Height  
Flower Color  
Pod Color

Hilum Color

## ENLIST E3® – RM: 3.1-4.0

CP3120E	CP3121E*/CP3131E*	3.1	IND	PI88.788	Rps1c/NG	2	4	Includer	4	NA	2	1	3	NA	2	3	1	Int/Bush	MT	W	GR/LTW	BR	BF/BR
CP3121E*		3.1	IND	PI88.788	NG	2	4	Includer	3	NG	2	1	3	NA	2	2	1	Int/Bush	MT	W	LTW	BR	BR
CP3131E*		3.1	IND	PI88.788	Rps1c	1	3	Includer	4	3	2	1	1	NA	1	2	1	Int/Bush	MT	W	GR	BR	BF
CP3222E*		3.2	IND	PI88.788	NG	2	2	Includer	4	NG	3	NA	2	NA	1	2	1	Bush	MT	P	GR	TN	IB
CP3320E	CP3222E*/CP3321E*	3.3	IND	PI88.788	NG	2	3	Includer	4	NA	3	NA	3	NA	1	3	1	Bush	MT	P	GR/LTW	BR/TN	BR/IB
CP3321E*		3.3	IND	PI88.788	NG	2	3	Includer	4	3	2	1	3	NA	1	3	1	Bush	MT	P	LTW	BR	BR
CP3422E		3.4	IND	PI88.788	NG	2	2	Includer	3	1	2	NA	3	NA	1	2	1	Int	MT	P	LTW	BR	BL
CP3620E	CP3621E/CP3622ES*	3.6	IND	PI88.788	Rps1k	2	2	Includer	4	1	NA	NA	4	NA	2	2	2	Int/Bush	MT	P	GR/LTW	BR/TN	BL/IB
CP3621E		3.6	IND	PI88.788	Rps1k	2	2	Includer	4	1	NA	1	4	NA	2	2	1	Bush	MT	P	GR	TN	IB
CP3622ES*		3.6	IND	PI88.788	Rps1k	2	2	Includer	4	1	3	NA	2	NA	2	2	2	Int	MT	P	LTW	BR	BL
<b>NEW</b> CP3723E		3.7	IND	PI88.788	HRps1k	3	2	Includer	NA	NA	NA	1	2	NA	2	3	NA	Int	M	P	GR	TN	IB
CP3822ES		3.7	IND	PI88.788	Rps1c	2	1	Excluder	5	3	2	1	1	NA	1	2	NA	Int/Bush	MT	W	GR	TN	BF
CP3920E	CP3922E*/CP4029E*	3.9	IND	PI88.788	Rps1k/NG	2	3	Includer	NA	NA	2	1	3	NA	1	2	2	Int	MT	W	GR/LTW	BR/TN	BF/BR
CP3922E*		3.9	IND	PI88.788	Rps1k	2	3	Includer	NA	NG	2	1	3	NA	1	1	2	Int	MT	W	LTW	TN	BR
CP4029E*		4.0	IND	PI88.788	NG	2	2	Includer	NA	5	2	1	2	NA	1	2	1	Int	MT	W	GR	BR	BF

## KEY

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**Rps** = Resistance to Phytophthora sojae  
**HRRps** = Heterozygous segregating Rps occurrence

### 3 Southern Stem Canker and Root-Knot Nematode

- 1 = Resistant
- 2 = Moderately Resistant
- 3 = Moderately Resistant-Moderately Susceptible
- 4 = Moderately Susceptible
- 5 = Susceptible

### 4 Canopy Type

**Nar** = Narrow  
**Int** = Intermediate  
**Bush** = Bushy  
**Plant Height**  
**T** = Tall  
**M** = Medium  
**S** = Short

### 6 Flower Color

**P** = Purple  
**W** = White

### 8 Pod Color

**TN** = Tan  
**BR** = Brown

### 9 Hilum Color

**YE** = Yellow/Clear  
**GR** = Gray  
**BL** = Black  
**IB** = Imperfect Black  
**BR** = Brown  
**BF** = Buff  
**SL** = Slate  
**TN** = Tan  
**IY** = Imperfect Yellow



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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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# ALFALFA

**We're here to help you select the best genetics for your field. And by pairing new traits with the latest technologies, you'll stand the best chance to produce high-quality feed and optimize tonnage.**

1 of 2

## KEY TAKEAWAYS

- 1 Choose varieties with the traits and pest resistance package to fit your fields.
- 2 Use coated seed to help you improve stand establishment and seed efficiency with the traits and pest resistance package to fit your fields
- 3 Manage in-season by Reading the Stand and harvesting/storing properly.

## VARIETY SELECTION

### FALL DORMANCY (FD) AND WINTERHARDINESS (WH)

- A higher FD number equals higher yield potential. A lower WH number equals more cold tolerance and stand persistence.
- Independent of breeding efforts, lower FD (more dormant) provides a significant increase in fiber digestibility potential.

### PEST RESISTANCE

#### ► Anthracnose Disease

- A severe stem and crown disease that causes defoliation. Multiple races, including a new race 5, can be present in late season.
- It occurs most often under warm, moist conditions.
- It causes yield loss of up to 25%.
- Susceptible plants have large, sunken oval-to diamond-shaped lesions.
- Lesions can enlarge to girdle or kill plant. Girdled stems can exhibit a shepherd's hook.

#### ► Aphanomyces Root Rot Disease

- Infects roots causing seedling stunting, reduced nodulation and poor root development.
- Commonly found in soils that are saturated, poorly drained, compacted or have limited water dispersal.
- Visual symptoms can include gray, water-soaked roots, yellowed cotyledons, and stunted growth that can result in limited yield production or stand failure.

### CROPLAN AA ALFALFA:

#### ► Advanced disease resistance packages

- New varieties are available that offer disease resistance to multiple races of both Aphanomyces root rot and Anthracnose
- The combination of healthy roots and healthy stems lead to higher alfalfa yield potential.
- Below ground, alfalfa roots gather water and nutrients.
- Above ground, stems and leaves produce and transport plant energy to make valuable forage.
- Diseases can limit these plant processes.
- An enhanced multi-pathogen disease package helps protect alfalfa stems and crowns that transport valuable plant energy.

#### ► Potato Leafhopper (PLH)

- Small, light-green insect that feeds on alfalfa plants, causing leaf tips to display a V-shaped yellowing.
- Varieties with glandular hairs provide natural nonpreference feeding for PLH.
- Commonly found in the Plains, Midwest and East; most severe in new seedings and summer regrowth that causes yield reduction.

#### ► Nematodes

- Microscopic roundworms (several identified species) that live in the soil, surface irrigation water, alfalfa roots and crown tissue.
- Can reduce yield and stand life and cause secondary infections from other diseases. Control them by planting a high-resistance alfalfa variety.
- Commonly found throughout most of the West and Plains.

#### ► High-Salinity Soils

- Greenhouse tests provide baseline indicators of a varieties ability to germinate in high salinity conditions. Salt breeding nurseries

provide greater insights to variety selection based on its ability to mitigate high-salinity stress conditions with more predictable performance for on-farm potential.

- Soils vary. Saline: high soluble salts. Sodic: high sodium ion content. Alkaline: soil pH that is higher than optimum (pH>8.0).
- Commonly found in the western half of the U.S.

#### ► Aphids

- Can be a problem in dry periods; controlled by other predators in cool and/or wet periods.
- The blue aphid is the most damaging in the Southern Plains to the Southwest.

## IN-SEASON MANAGEMENT

### NEW SEEDING AND STAND ESTABLISHMENT

- Plant into a firm seedbed to control seed depth; seed-to-soil contact is crucial.
- Planting rates do not need to be adjusted for coated seed since bulk density is higher.
- The planting rate for alfalfa varies from region to region, but generally 18 to 20 lbs. per acre is recommended with a goal of about 25 plants per square foot at the end of the seeding year.

### ESTABLISHED STANDS: READING THE STAND

- Each spring, determine potential winter damage or winterkill.
- Follow the Reading the Stand program to evaluate the alfalfa stand density and crown health of each field to determine current and future yield potential.

### WEED CONTROL

- Control weeds early for a high-producing pure alfalfa stand. Roundup Ready® Alfalfa provides farmers with more flexible management strategies.

### INSECT AND DISEASE CONTROL

- Control insects such as aphids (spotted, blue, pea, cowpea), alfalfa weevils and leafhoppers.
- Manage foliar leaf diseases and anthracnose.
- Choose alfalfa varieties with built-in resistance and use a spray application to control as necessary.

# ALFALFA

2 of 2



## NUTRIENT MANAGEMENT

- Alfalfa requires a neutral soil pH (6.8 to 7.2) for high production. Take soil and plant tissue tests to monitor macronutrients and micronutrients.
- A healthy alfalfa plant will have a luxury supply of potassium, boron, sulfur and phosphorus.

## HARVEST MANAGEMENT

- Manage leaf loss in-season with fungicide application and during harvest from over-handling during raking, merging, chopping or baling. New Leaf Percentage Test available to estimate leaf content in your alfalfa. See your CROPLAN® alfalfa dealer for more information.
- Wheel traffic can increase soil compaction and crown damage, leading to reduced crop regrowth and yield loss.

## COATED SEED

### IMPROVE SEEDLING EFFICIENCY WITH COATED SEED

- Provides an ideal microenvironment with better imbibition (water uptake) and germination.
- Facilitates and enhances the addition of seed treatments/inoculants, which are applied by weight, not per seed; therefore, higher rates are applied on coated seed.
- Keeps treatments/inoculants close to or bound to the seed for more complete coverage.
- Increases vigor under disease pressure.
- Purdue reported an average 30% increase in seedling success for coated seed.<sup>1</sup>

## SEED COATING

### ► GroZone® plus Advanced Coating® Zn 34%

- Rhizobium bacteria to fix nitrogen.
- Micronutrient package to provide zinc and manganese.
- Ascend® PGR to promote early seedling growth.
- Apron XL® fungicide to help protect seedlings from root diseases such as phytophthora during establishment.
- Stamina® fungicide to provide additional protection to multiple races of aphanomyces root rot disease.
- Provides an average 30% increase in resistance to aphanomyces root rot as compared to standard treated commercial 9% coat.<sup>2</sup>

## TRAITS

### HARVXTRA® ALFALFA<sup>3</sup>

HarvXtra® Alfalfa with Roundup Ready® Technology is one of the most advanced alfalfa traits currently available, providing extra flexibility when it comes to cutting without sacrificing forage quality or yield potential.

- Gives you a more flexible cutting window to help manage your operation, putting you in control of your cutting schedule.
- Delivers a higher RFQ<sup>3</sup> and NDFd<sup>3</sup> than conventional varieties cut on the same day.
- Achieve up to 20% higher yield at harvest<sup>4</sup> by lengthening your cutting window up to 10 days.

### ROUNDUP READY® ALFALFA

- Offers application flexibility for greater weed-control options.
- Helps deliver a higher percentage of pure alfalfa for more high-quality hay and haylage.
- Delivers exceptional weed control and crop safety.

### CONVENTIONAL ALFALFA

- Conventional alfalfa breeding techniques have provided strong advancements in yield production, stand persistence, and insect and disease resistance.
- For more than three decades, alfalfa breeders have used conventional alfalfa breeding techniques to select for improved fiber digestibility (e.g., LegenDairy and RR Presteez lines).
  - These varieties show an incremental improvement in fiber digestibility when compared to nonselected varieties.

### ALFALFA FOR ORGANIC FORAGE PRODUCTION

- Alfalfa products that were developed through conventional breeding and were not the result of genetic engineering.\*
- Approved varieties meet industry standards for LLP (low-level presence of bio-tech traits) and are noted on our variety detail pages.



### APEX™ GREEN SEED COATING

- OMRI Listed® for organic use.
- Includes natural micronutrients and nitrogen-fixing rhizobia in an organic hydration coating that maximizes water absorption.

### FLEXIBILITY OF HARVXTRA® ALFALFA HAS NEVER BEEN MORE IMPORTANT

With unpredictable weather patterns, you need the ability to alter your cutting plans quickly. HarvXtra® Alfalfa lets you maximize your growing season by providing the flexibility to space out cuttings so that each harvest optimizes ROI and yield potential.

- Harvest first cutting ~28" (to avoid lodging), usually around May 25-30 in the Midwest.
- Delay summer cutting(s).
- Timely final harvest improves stand persistence; last cutting around Sept. 1 in northern regions and Sept. 5 in southern regions allow at least 500 growing degree days (GDD) before experiencing a killing frost of ≤25°F.
- Avoid mid-late October cuttings.

1. Alfalfa and Red Clover Stand Establishment Forage Management Day at Feldun-Purdue Agricultural Center, August 9, 2018. Seeding Date: May 2, 2018. Data collected on June 29, 2018.

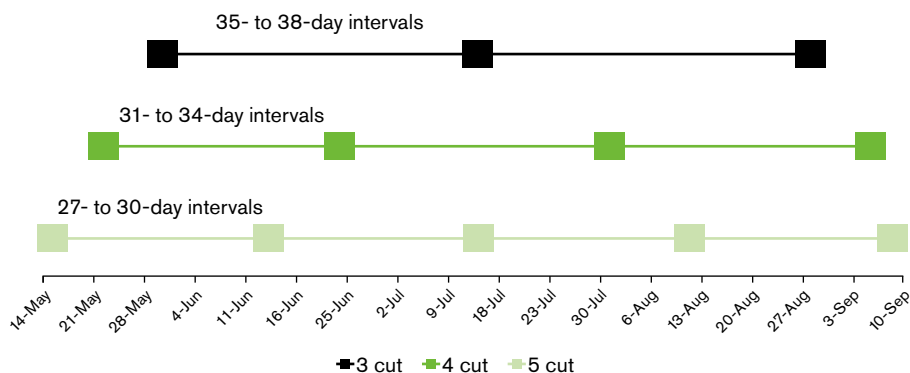
2. Data from FGI trials in West Salem, Wis., 2018.

3. Data from FGI trials comparing HarvXtra® Alfalfa with Roundup Ready® Technology 2017 FD4 commercial varieties to FD4 commercial checks. Trials were seeded in 2013 and harvested 2014-2016 at five locations across the U.S. Yield increase is directly correlated to the ability to delay harvest.

4. Data from an FGI trial in West Salem, Wis., comparing three cuttings at 35-day intervals to four cuttings at 28-day intervals. Trials were seeded in 2013 and harvested in 2014-2016. Yield increase is directly correlated to the ability to delay harvest.

\*WinField® United does not guarantee forage harvested from stands established with this seed will be GMO-free. Check with your local organic certifying organization before planting.

### HARVXTRA® CUTTING SCHEDULE



CROPLAN



## HVX Tundra II

Regions: East|North|West  
Dormancy: 3.3  
Winterhardiness: 1.2



### Characteristics

	Not Recommended			Excellent		
Yield Index				2		
Persistence Index					1	
Feed Quality*					1	
Disease Resistance				2		
Insect Resistance		4				
Nematode Resistance			3			

\*Feed quality ratings for HarvXtra® Alfalfa are represented on a separate scale than Roundup Ready® and conventional alfalfa varieties and are signified with an "H." Because there is a significant improvement in Forage quality, HarvXtra Alfalfa products can only be compared to other HarvXtra Alfalfa products.

- H1 feed quality rating; highest forage quality potential in our lineup; on average, 24% higher NDFD than Roundup Ready® check varieties
- Ideal for Northern growing regions or high elevation; good disease and pest package for east to west adaptation
- Versatile harvest options: ideal for a 2- to 3-cut baled hay management system or great for a 1- or 2-cut hay harvest followed by grazing



## HVX Driver

Regions: Central|East|North|West  
Dormancy: 4  
Winterhardiness: 2



### Characteristics

	Not Recommended			Excellent		
Yield Index				2		
Persistence Index					1	
Feed Quality*					1	
Disease Resistance		4				
Insect Resistance			3			
Nematode Resistance	5					

\*Feed quality ratings for HarvXtra® Alfalfa are represented on a separate scale than Roundup Ready® and conventional alfalfa varieties and are signified with an "H." Because there is a significant improvement in Forage quality, HarvXtra Alfalfa products can only be compared to other HarvXtra Alfalfa products.

- H2 feed quality rating; maximize harvest flexibility; excellent yield or forage quality potential with the HarvXtra® Alfalfa trait
- Good disease package provides exceptional ability to perform well across multiple geographies
- Great option for 3- to 5-cut flexible hay/haylage harvest system with quick regrowth after cutting



## HVX MegaTron

Regions: Central|East|North|West  
Dormancy: 4.2  
Winterhardiness: 1.7



### Characteristics

	Not Recommended			Excellent		
Yield Index					1	
Persistence Index					1	
Feed Quality*					1	
Disease Resistance				2		
Insect Resistance		4				
Nematode Resistance			3			

\*Feed quality ratings for HarvXtra® Alfalfa are represented on a separate scale than Roundup Ready® and conventional alfalfa varieties and are signified with an "H." Because there is a significant improvement in Forage quality, HarvXtra Alfalfa products can only be compared to other HarvXtra Alfalfa products.

- H2 feed quality rating; exceptional soil disease resistance to help improve root and plant health
- Highest resistance (HR+) rating to multi-race Aphanomyces root rot disease (races 1, 2 and EMR); resistant (R) to multi-race anthracnose (including new race 5)
- Excellent quality and yield potential with a 3- to 5-cut flexible harvest system based on geography

NEW



## HVX MegaTron AA

Regions: Central|East|North|West  
Dormancy: 4.4  
Winterhardiness: 1.4



### Characteristics

	Not Recommended			Excellent		
Yield Index					1	
Persistence Index					1	
Feed Quality*					1	
Disease Resistance					1	
Insect Resistance			3			
Nematode Resistance			3			

\*Feed quality ratings for HarvXtra® Alfalfa are represented on a separate scale than Roundup Ready® and conventional alfalfa varieties and are signified with an "H." Because there is a significant improvement in Forage quality, HarvXtra Alfalfa products can only be compared to other HarvXtra Alfalfa products.

- H2 feed quality rating; exceptional root and plant health with the AA disease resistance package to support highest yield and quality potential
- Highest resistance (HR+) rating to multi-race Aphanomyces root rot disease (races 1, 2 and EMR); HR+ to multi-race anthracnose disease (including race 5)
- Exceptional yield and quality potential; ideal with a 3- to 5-cut flexible harvest system based on geography



## HVX 620RR Brand

Regions: South|West  
Dormancy: 6  
Winterhardiness: -



### Characteristics

	Not Recommended			Excellent		
Yield Index				2		
Persistence Index				2		
Feed Quality*					1	
Disease Resistance		4				
Insect Resistance				2		
Nematode Resistance			3			

\*Feed quality ratings for HarvXtra® Alfalfa are represented on a separate scale than Roundup Ready® and conventional alfalfa varieties and are signified with an "H." Because there is a significant improvement in Forage quality, HarvXtra Alfalfa products can only be compared to other HarvXtra Alfalfa products.

- H3 feed quality rating; HarvXtra® Alfalfa harvest flexibility now available in a semidormant variety to maximize yield and quality potential
- Excels in the transition regions of the High Plains, South and Southwest; high resistance to pea and spotted alfalfa aphid
- Very early spring growth, fast regrowth and late fall growth; plan for 6-cut harvest system



## HVX 840RR Brand

Regions: South|West  
Dormancy: 7.9  
Winterhardiness: -



### Characteristics

	Not Recommended			Excellent		
Yield Index				2		
Persistence Index					1	
Feed Quality*					1	
Disease Resistance		4				
Insect Resistance				2		
Nematode Resistance			3			

\*Feed quality ratings for HarvXtra® Alfalfa are represented on a separate scale than Roundup Ready® and conventional alfalfa varieties and are signified with an "H." Because there is a significant improvement in Forage quality, HarvXtra Alfalfa products can only be compared to other HarvXtra Alfalfa products.

- Exceptional nondormant variety provides improved yield and forage quality potential with the HarvXtra® Alfalfa trait
- Strong disease package provides protection against pea and spotted alfalfa aphids and stem nematodes
- Flexible harvest management for 5+ cuttings for superior yield or improved forage quality potential

## KEY

### Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

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## CROPLAN Graze N Hay 3.10RR

Regions: North|West  
Dormancy: 2.9  
Winterhardiness: 1.8



### Characteristics

	Not Recommended			Excellent		
Yield Index			3			
Persistence Index						1
Feed Quality			3			
Disease Resistance			3			
Insect Resistance		4				
Nematode Resistance	5					

- Best-suited for Northern regions; exceptional winterhardiness and stand persistence
- Withstands hoof or wheel traffic; weed control with the Roundup Ready® trait improves stand establishment on dryland acres or in limited water conditions
- Excellent variety where 1 or 2 cuttings of hay will be harvested mechanically followed by grazing

## CROPLAN RR Presteez

Regions: Central|East|North|West  
Dormancy: 3.2  
Winterhardiness: 1.2



### Characteristics

	Not Recommended			Excellent		
Yield Index				2		
Persistence Index						1
Feed Quality						1
Disease Resistance			3			
Insect Resistance				2		
Nematode Resistance		4				

- High forage quality potential ideal for baled hay or haylage harvest
- Excellent salt-tolerance ratings in germination tests and exceptional performance in stand persistence trials
- Ideal for Upper Midwest and West as a 3- to 4-cut baled hay and/or haylage harvest system

## CROPLAN RR Vamoose

Regions: Central|East|North  
Dormancy: 3.9  
Winterhardiness: 1.8



### Characteristics

	Not Recommended			Excellent		
Yield Index			3			
Persistence Index						1
Feed Quality			3			
Disease Resistance			3			
Insect Resistance			3			
Nematode Resistance		4				

- Performs well in the Upper Midwest and East where high resistance to potato leafhopper (PLH) may be necessary
- PLH resistance provides improved yield potential, high-quality feed and stand persistence
- Outstanding agronomics; PLH resistance offers reduced-spray or no-spray options; best-suited in a 3- to 4-cut system

NEW

## CROPLAN RR AphaTron AA

Regions: Central|East|North|West  
Dormancy: 4.4  
Winterhardiness: 1.4



### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index						1
Feed Quality				2		
Disease Resistance						1
Insect Resistance			3			
Nematode Resistance	N/A					

- The newest addition in the AA disease resistance package; exceptional root and plant health to support top notch yield potential
- Highest resistance (HR+) rating to multi-race Aphanomyces root rot disease (races 1, 2 and EMR); HR+ to multi-race anthracnose disease (including race 5)
- Provides exceptional yield and forage quality potential under a 4- to 5-cut haylage or aggressive hay management system

## CROPLAN RR AphaTron 2XT

Regions: Central|East|North|West  
Dormancy: 4  
Winterhardiness: 1.5



### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index						1
Feed Quality				2		
Disease Resistance			3			
Insect Resistance			3			
Nematode Resistance			3			

- Great soil disease resistance to help improve root and plant health
- High resistance (HR) to Aphanomyces root rot disease races 1 and 2; resistant (R) to EMR
- Provides high yield potential and good forage quality potential under a 4- to 5-cut haylage or aggressive hay management system

## CROPLAN RR Stratica

Regions: Central|East|North|West  
Dormancy: 4.3  
Winterhardiness: 2



### Characteristics

	Not Recommended			Excellent		
Yield Index						
Persistence Index				2		
Feed Quality			3			
Disease Resistance			3			
Insect Resistance				2		
Nematode Resistance			3			

- Exceptional ability to perform well across multiple geographies and growing conditions
- Features a good disease-resistance package for soils east to west
- High-forage yield potential, fast regrowth and good winterhardiness; ideally suited for a 4- to 5-cut haylage or aggressive hay management system

**KEY**

**Scale**  
1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

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## CROPLAN RR Saltiva

Regions: Central|North|West  
Dormancy: 4.8  
Winterhardiness: 2.5



### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index				2		
Feed Quality			3			
Disease Resistance			3			
Insect Resistance						1
Nematode Resistance						1

- Exceptional performance in tough soils with high saline conditions
- Exceptional pest-resistance package; high resistance to stem nematode and multi-species aphid resistance
- Excels in a 5-cut intensive hay or haylage harvest systems

## CROPLAN RR NemaStar

Regions: West  
Dormancy: 4.9  
Winterhardiness: 2.8



### Characteristics

	Not Recommended			Excellent		
Yield Index				2		
Persistence Index				2		
Feed Quality						1
Disease Resistance			3			
Insect Resistance			3			
Nematode Resistance						1

- Management and growth pattern is similar to Nimbus with the added benefit of the Roundup Ready® trait
- Developed and tested for high performance in field trials heavily infested with nematodes; high resistance to stem nematode
- Excellent salt-tolerance ratings in germination tests
- Rapid regrowth and very good forage quality potential; ideal for haylage or baled hay intensive harvest systems

## CROPLAN RR Tonnica

Regions: Central|East|North|South|West  
Dormancy: 5  
Winterhardiness: 2



### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index				2		
Feed Quality			3			
Disease Resistance			3			
Insect Resistance		4				
Nematode Resistance			3			

- Maximize yield potential all season long
- Well-rounded pest resistance package for wide-range adaptability from east to west
- Very early spring growth, fast regrowth and late fall growth; aggressive 5-cut schedule

## CROPLAN RR 6 Shot Plus

Regions: South|West  
Dormancy: 6  
Winterhardiness: -



### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index				2		
Feed Quality			3			
Disease Resistance		4				
Insect Resistance				2		
Nematode Resistance						1

- Next generation of semidormant genetics that push yield potential to the next level; ideal in the High Plains, the South and the Southwest
- High resistance to spotted alfalfa and pea aphid as well as to stem nematode
- Very early spring growth, fast regrowth and late fall growth; plan for 6-cut harvest system

## CROPLAN RR Desert Rose

Regions: South|West  
Dormancy: 8.5  
Winterhardiness: -



### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index				2		
Feed Quality			3			
Disease Resistance		4				
Insect Resistance						1
Nematode Resistance			3			

- Exceptional nondormant variety with very high yield potential; dark-green plant with excellent leaf retention
- High resistance to spotted alfalfa, pea and blue alfalfa aphids; ideal for the Southwest region
- Great when harvested as dry baled hay, haylage or greenchop; fast recovery after cutting; excellent stand persistence for numerous cuttings per year

## CROPLAN Maxi Graze®

Regions: North|West  
Dormancy: 2  
Winterhardiness: 2



### Characteristics

	Not Recommended			Excellent		
Yield Index			3			
Persistence Index						1
Feed Quality			3			
Disease Resistance		4				
Insect Resistance	5					
Nematode Resistance	5					

- Recessed crown provides excellent durability for grazing or high-traffic fields; exceptional winterhardiness and stand persistence
- Great yield and quality potential for northern regions or high elevations; ideal for 1- or 2-cut mechanical harvest followed by grazing
- Excellent option for mixed grass and alfalfa pastures

**KEY** Scale  
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## CROPLAN MP 1000 Brand

Regions: Central|East|North|West  
Dormancy: 3  
Winterhardiness: 3

### Characteristics

	Not Recommended			Excellent		
Yield Index			3			
Persistence Index			3			
Feed Quality			3			
Disease Resistance		4				
Insect Resistance	5					
Nematode Resistance	5					

- Premium multifoliate blend with wide geographic adaptation
- Good forage yield and quality potential
- Works well in a 3- to 4-cut hay or haylage management system
- Available with Apex™ Green Seed Coating; OMRI Listed® for organic use

## CROPLAN LegenDairy AA

Regions: Central|East|North|West  
Dormancy: 3.4  
Winterhardiness: 1.1

### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index						1
Feed Quality						1
Disease Resistance						1
Insect Resistance				2		
Nematode Resistance	5					

- The next generation of LegenDairy; the added AA disease resistance has advanced yield potential to new levels
- Highest resistance (HR+) rating to multi-race Aphanomyces root rot disease (races 1, 2, and EMR); HR+ to multi-race anthracnose disease (including race 5)
- Excellent choice for producers in northern growing regions east to west; ideal for 3- to 4-cut baled hay or haylage harvest system
- Available with Apex™ Green Seed Coating; OMRI Listed® for organic use

## CROPLAN TrailBlazer XHH

Regions: Central|East|North  
Dormancy: 4  
Winterhardiness: 3

### Characteristics

	Not Recommended			Excellent		
Yield Index			3			
Persistence Index			3			
Feed Quality			3			
Disease Resistance			3			
Insect Resistance					2	
Nematode Resistance	5					

- Excellent resistance to potato leafhopper (PLH); improved yield potential; high-quality feed and stand persistence
- PLH resistance offers reduced-spray or no-spray options
- Great option for the Upper Midwest and East; best suited in a 3- to 4-cut hay/ haylage harvest system
- Available with Apex™ Green Seed Coating; OMRI Listed® for organic use

## CROPLAN Rebound AA

Regions: Central|East|North|West  
Dormancy: 4.4  
Winterhardiness: 1.7

### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index						1
Feed Quality					2	
Disease Resistance						1
Insect Resistance			3			
Nematode Resistance	5					

- Packs a punch with AA disease resistance providing exceptional yield potential
- Highest resistance (HR+) rating to multi-race Aphanomyces root rot disease (races 1, 2 and EMR); HR+ to multi-race anthracnose disease (including race 5)
- Best-suited for 4- to 5-cut haylage or aggressive hay management systems in the Upper Midwest and East; great for baled hay in the West where pockets of Aphanomyces root rot disease is a problem
- Available with Apex™ Green Seed Coating; OMRI Listed® for organic use

NEW

## CROPLAN Gunner AA

Regions: Central|East|North|South|West  
Dormancy: 4.8  
Winterhardiness: 1.2

### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index						1
Feed Quality					2	
Disease Resistance						1
Insect Resistance			3			
Nematode Resistance						1

- Outstanding AA disease resistance combined with maximum yield potential
- High resistance (HR+) to multi-race Aphanomyces root rot disease (races 1, 2, and EMR); HR+ to multi-race anthracnose disease (including race 5)
- Very early spring growth, fast regrowth and late fall growth; ideal for aggressive 5- to optional 6-cut hay or haylage harvest schedule

## CROPLAN Gunner

Regions: Central|East|North|South|West  
Dormancy: 4.9  
Winterhardiness: 1.2

### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index						1
Feed Quality					2	
Disease Resistance			3			
Insect Resistance		4				
Nematode Resistance						1

- Optimize yield potential with very early spring growth, fast regrowth and late fall growth
- Good disease resistance package allows this variety to move well in the East as haylage to the West as dry hay
- Plan for aggressive 5- to optional 6-cut hay or haylage harvest schedule
- Available with Apex™ Green Seed Coating; OMRI Listed® for organic use

**KEY**

**Scale**  
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3 = Acceptable  
4 = Manage  
5 = Not Recommended

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## Nimbus

Regions: Central|North|West

Dormancy: 5

Winterhardiness: 2.2

### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index				2		
Feed Quality				2		
Disease Resistance			3			
Insect Resistance			3			
Nematode Resistance						1

- Developed for the western areas of the U.S. where problematic soils, including high-salinity soils, can reduce alfalfa production
- Great performance in field trials heavily infested with nematodes; high resistance to both stem and northern root-knot nematodes
- Exceptional yield potential with optimum production under 5- to optional 6-cut haylage or baled hay harvest systems
- Available with Apex™ Green Seed Coating; OMRI Listed® for organic use



## Artesian Sun 6.3

Regions: South|West

Dormancy: 6

Winterhardiness: 3.1

### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index				2		
Feed Quality			3			
Disease Resistance			3			
Insect Resistance			3			
Nematode Resistance						1

- Excellent conventional variety that is dark green, very high multifoliate expression and good leaf retention
- Outstanding pest-resistance package; versatile product can move from western to southern U.S. semidormant regions
- Strong stand persistence for intensive harvest management; fast recovery and regrowth after cutting provides excellent yield potential in a 6+ cut system
- Available with Apex™ Green Seed Coating; OMRI Listed® for organic use



## Sun Titan

Regions: South|West

Dormancy: 8.4

Winterhardiness: -

### Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index						1
Feed Quality				2		
Disease Resistance	5					
Insect Resistance						1
Nematode Resistance						1

- Exceptional yield potential with strong stand persistence and very fast recovery after cutting
- Excellent pest resistance ratings with high resistance to pea, blue alfalfa and spotted alfalfa aphids
- Best suited for maximum yield production in the traditional western and southwestern nondormant zones



## Sun Quest®

Regions: South|West

Dormancy: 9

Winterhardiness: -

### Characteristics

	Not Recommended			Excellent		
Yield Index				2		
Persistence Index				2		
Feed Quality			3			
Disease Resistance	5					
Insect Resistance						1
Nematode Resistance						1

- A high-yield-potential, nondormant conventional variety with an excellent pest-resistance package
- High resistance to pea, spotted and blue alfalfa aphids and to stem nematodes; excellent salt-tolerance ratings in germination and forage tests
- Specifically developed for Southern California, Arizona and New Mexico with exceptional stand persistence for numerous harvests per year

## KEY

### Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

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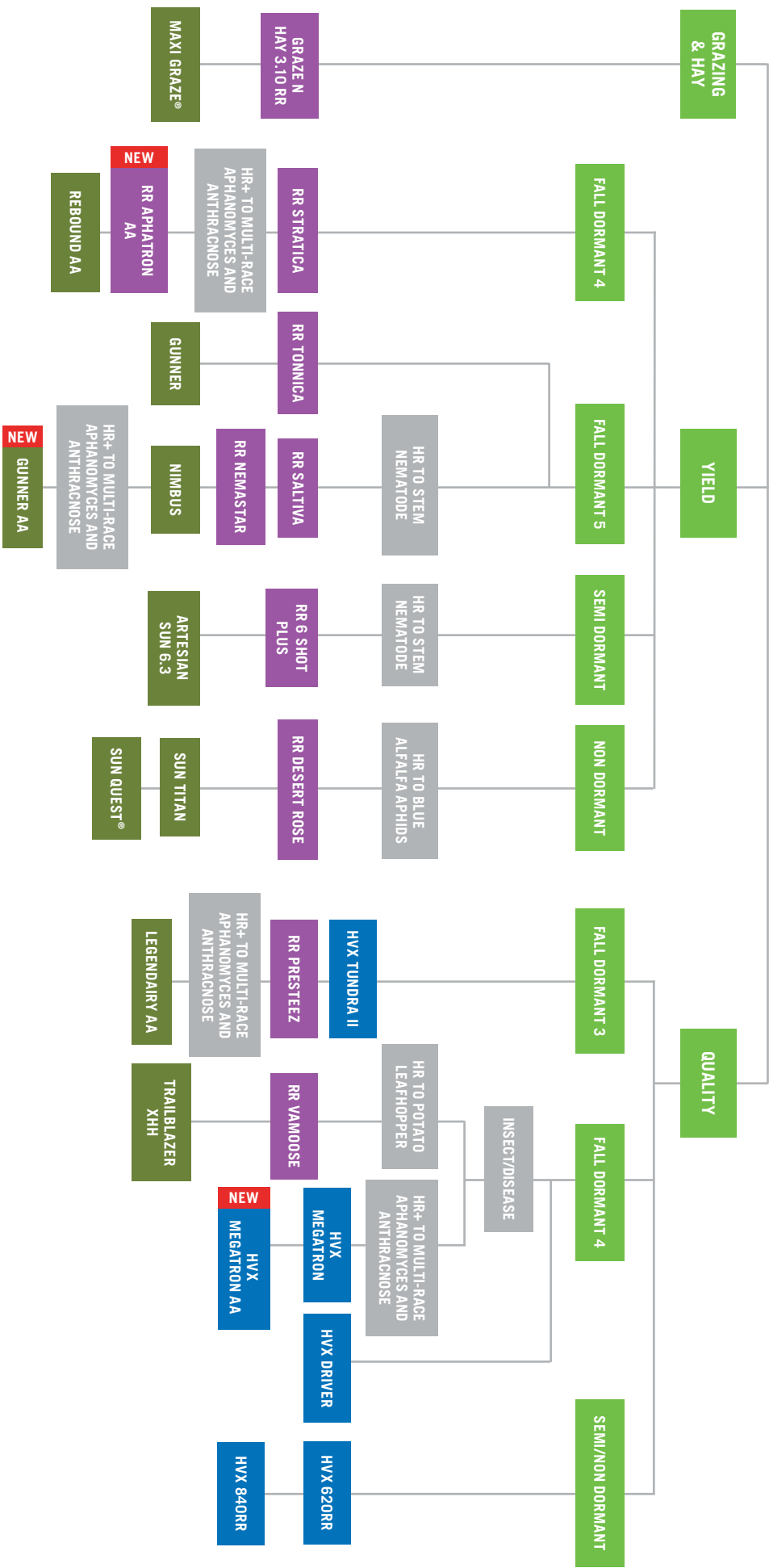
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# ALFALFA

## ALFALFA VARIETY PLACEMENT<sup>1</sup>

The map can be used to determine which alfalfa varieties are recommended for your area's climate challenges. Also, use the chart below to place the recommended variety to help manage common diseases and pests in your area, and to match quality to your desired cutting frequency.

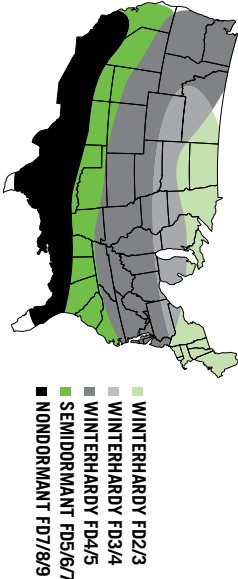
- HARVXTRA<sup>®</sup> ALFALFA VARIETIES
- ROUNDUP READY<sup>®</sup> VARIETIES
- CONVENTIONAL VARIETIES
- VARIETIES WITH ADDITIONAL INSECT AND DISEASE RESISTANCE



1. This chart is provided as an illustration only. Planting decisions are complex and any implementation of the placement described above is your decision. Because of factors outside of our control, such as weather and product application, results to be obtained, including but not limited to yields, cannot be predicted or guaranteed by Winfield United.

## PRODUCT DORMANCY MAP<sup>2</sup>

Fall dormancy and winterhardness are important considerations in alfalfa seed selection. This map shows CROPLAN<sup>®</sup> seed varieties that match fall dormancy and winterhardness zones in various regions of the United States.



2. Fall dormancy (FD) and winterhardness (WH): Higher FD number = higher yield potential; lower WH number = more cold tolerant and stand persistent.



Trait	HARVXTRA®/ROUNDUP READY® ALFALFA																								Northern Salt Germination Tolerance	Disease Resistance	Insect Resistance	Nematode Resistance		
	Fall Dormancy	Winter Hardiness	Feed Quality Index	Persistence Index	Grazing Tolerance	Baled Hay (Dr-Yellow)	Phytolithoria Root Rot	Potato Leafhopper	Aphanomyces Race 1	Aphanomyces Race 2	Multi-Race (CMR)	Bacterial Wilt	Anthracnose Wilt	Anthracnose Multi-Race	Fusarium Wilt	Verticillium Wilt	Spotted Alfalfa Aphid	Blue Alfalfa Aphid	Pea Aphid	Stem Nematode										
HARVXTRA®/ROUNDUP READY® ALFALFA																														
HVX Tundra II	HarvXtra	3.3	1.2	2	1	H1	3	1	2	HR	-	HR	R	R	HR	HR	-	HR	HR	R	-	R	-	G	2	4	3			
HVX Driver	HarvXtra	4.0	2.0	2	1	H2	4	2	1	HR	-	HR	-	-	HR	HR	-	HR	HR	R	-	-	-	G	4	3	5			
HVX Megatron	HarvXtra	4.2	1.7	1	1	H2	4	2	1	HR	-	HR+	HR+	HR+	HR	HR+	R	HR	HR	R	-	R	-	G	2	4	3			
NEW HVX Megatron AA	HarvXtra	4.4	1.4	1	1	H2	4	2	1	HR	-	HR+	HR+	HR+	HR	HR+	HR+	HR	HR	R	HR	-	R	-	-	1	3	3		
	HarvXtra	6.0	-	2	2	H3	5	1	1	HR	-	R	-	-	MR	R	-	HR	-	HR	HR	-	R	-	-	4	2	3		
HVX 840RR Brand	HarvXtra	7.9	-	2	1	H3	5	1	1	R	-	-	-	-	R	R	-	R	-	R	HR	-	R	-	-	4	2	3		
Graze N Hay 3.10RR	Roundup Ready	2.9	1.8	3	1	3	1	1	4	HR	-	HR	-	-	HR	HR	-	HR	HR	R	-	-	-	G	3	4	5			
RR Presteez	Roundup Ready	3.2	1.2	2	1	1	3	1	2	HR	-	HR	-	-	HR	HR	-	HR	HR	R	HR	-	MR	-	G	3	2	4		
RR Vamoose	Roundup Ready	3.9	1.8	3	1	3	2	1	4	HR	HR	HR	-	-	HR	HR	-	HR	HR	R	MR	-	MR	-	G	3	3	4		
NEW RR Aphatron AA	Roundup Ready	4.4	1.4	1	1	2	4	2	1	HR	-	HR+	HR+	HR+	HR	HR+	HR+	HR	HR	R	R	-	-	-	1	3	-			
	RR Aphatron 2XT	Roundup Ready	4.0	1.5	1	1	2	4	2	1	HR	-	HR	HR	R	HR	HR	-	HR	HR	-	HR	-	R	-	G	3	3		
RR Stratica	Roundup Ready	4.3	2.0	2	2	3	4	2	1	HR	-	HR	-	-	HR	HR	-	HR	HR	-	HR	HR	R	-	R	-	G	3	2	3
RR Saliva	Roundup Ready	4.8	2.5	1	2	3	4	1	1	HR	-	HR	-	-	HR	HR	-	HR	HR	R	MR	HR	-	G	3	1	1			
RR NemaStar	Roundup Ready	4.9	2.8	2	2	1	3	2	1	HR	-	HR	-	-	HR	HR	-	HR	HR	R	-	HR	R	G	3	3	1			
RR Tonnica	Roundup Ready	5.0	2.0	1	2	3	4	2	1	HR	-	HR	-	-	HR	HR	-	HR	HR	-	R	-	R	-	G	3	4	3		
RR 6 Shot Plus	Roundup Ready	6.0	-	1	2	3	4	1	1	HR	-	R	-	-	R	HR	-	HR	HR	HR	HR	-	HR	-	G	4	2	1		
RR Desert Rose	Roundup Ready	8.5	-	1	2	3	5	1	1	HR	-	-	-	-	MR	HR	-	HR	HR	-	HR	HR	R	-	G	4	1	3		

KEY

Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

1 Feed Quality Index

Feed quality ratings for HarvXtra® Alfalfa are represented on a separate scale than Roundup Ready® and conventional alfalfa varieties and are signified with an "H." Because there is a significant improvement in forage quality, HarvXtra® Alfalfa products can only be compared to other HarvXtra® Alfalfa products.

2 Salt Tolerance

6 = Variety tolerance for germination under high saline conditions in a petri dish  
F = Variety tolerance for forage growth under high saline conditions as a potted plant in the greenhouse

Resistance Ratings

- S = Susceptible (0–5%)
- LR = Low Resistance (6–14%)
- MR = Moderate Resistance (15–30%)
- R = Resistance (31–51%)
- HR = High Resistance (>50%)
- HR+ = Highest Resistance available on the market (>50%)

Note: Field tests are currently being used to select and validate true salt-tolerant varieties. Many soils that are high in salinity also have other problematic conditions. Therefore, germination and forage salt-tolerant ratings may not predict field performance.

Product descriptions and ratings are generated from AnswerPipe® trials and/or from the genetics supplier and may change as additional data is gathered.

Train  
 Fall Dormancy  
 Winter Hardiness  
 Feed Quality Index  
 Persistence Index  
 Grazing Tolerance  
 Bred Hay (Dr-Yellow)  
 Haylage (Regrain)  
 Phytonhlor A Root Rot  
 Potato Leafhopper  
 Aphanomyces Race 1  
 Aphanomyces Race 2  
 Multi-Race (CM)  
 Bacterial Wilt  
 Anthracnose Multi-Race  
 Anthracnose Race 1  
 Fusarium Wilt  
 Verticillium Wilt  
 Spotted Alfalfa Aphid  
 Blue Alfalfa Aphid  
 Pea Aphid  
 Northern Root-Knot Nematode  
 Stem Nematode  
 Salt Germination Tolerance  
 Disease Resistance  
 Insect Resistance  
 Nematode Resistance

CONVENTIONAL ALFALFA																															
Maxi Graze®	Conventional	2.0	2.0	3	1	3	1	1	4	HR	-	R	-	-	HR	R	-	HR	R	-	-	-	-	-	4	5	5				
MP 1000 BRAND	Conventional	3.0	3.0	3	3	3	3	2	3	HR	-	R	-	-	HR	HR	-	HR	R	-	-	-	-	-	4	5	5				
LEGENDARY AA	Conventional	3.4	1.1	1	1	1	3	1	1	HR	-	HR+	HR+	HR+	HR	HR+	HR+	HR	HR	R	HR	R	R	-	G	1	2	5			
TRAILBLAZER XHH	Conventional	4.0	3.0	3	3	3	4	1	3	HR	HR	HR	-	-	HR	HR	-	HR	HR	R	HR	R	-	-	-	3	2	5			
REBOUND AA	Conventional	4.4	1.7	1	1	2	4	2	1	HR	-	HR+	HR+	HR+	HR	HR+	HR+	HR	HR+	HR	R	R	-	R	-	G	1	3	5		
NEW GUNNER AA	Conventional	4.8	1.2	1	1	2	4	2	1	HR	-	HR+	HR+	HR+	HR	HR+	HR+	HR	HR	R	HR	-	HR	-	-	1	3	1			
GUNNER	Conventional	4.9	1.2	2	1	2	4	2	1	HR	-	HR	-	-	HR	HR	-	HR	HR	-	HR	HR	-	R	-	R	HR	G	3	4	1
NIMBUS	Conventional	5.0	2.2	1	2	2	4	1	1	HR	-	HR	-	-	HR	HR	-	HR	R	-	HR	-	R	HR	G/F	3	3	1			
ARTESIAN SUN 6.3	Conventional	6.0	3.1	1	2	3	4	1	1	HR	-	HR	-	-	R	HR	-	HR	HR	-	HR	HR	-	HR	-	G	3	3	1		
SUN TITAN	Conventional	8.4	-	1	1	2	5	1	1	HR	-	-	-	-	MR	R	-	HR	MR	HR	HR	HR	HR	HR	-	G	5	1	1		
SUN QUEST®	Conventional	9.0	-	2	2	3	5	1	1	MR	-	-	-	-	MR	R	-	R	-	HR	HR	HR	HR	HR	-	G	5	1	1		

# KEY

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

**Placement** \_\_\_\_\_

**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

**Placement** \_\_\_\_\_

**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

**Placement** \_\_\_\_\_

**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

**Placement** \_\_\_\_\_



# CORN SILAGE

**We work with you to select our Data Proven (high quality x high tonnage) silage products, diagnose pest problems and figure out the right levels of quality nutrients in your silage throughout the growing season.**

## KEY TAKEAWAYS

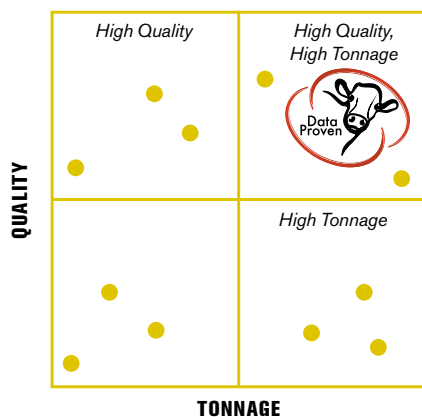
- 1 Select hybrids based on forage quality and tonnage needs.
- 2 Properly harvest and store your crop.

## SELECT HYBRIDS FOR QUALITY AND TONNAGE

This scatter graph illustrates yield as tonnage per acre on the horizontal axis and milk per ton as quality on the vertical axis. The lines through the center represent the trial average.

Each year, replicated corn silage trials are planted at Answer Plot® locations nationwide. After harvest, data is compiled and summarized over multiple years and locations to provide a performance snapshot.

Considering both nutrient requirements and agronomic factors during hybrid selection is an important risk-management tool for corn silage products. CROPLAN® corn silage hybrids that consistently perform in this high-quality and high-tonnage quadrant are marked with the Data Proven logo.



Your nutritionist can determine the parameters for nutrient needs, and your WinField United representative can use Answer Plot® data in the R7® Tool to help position each hybrid for optimal performance based on multiple variables.

## SEE HOW SEED MEASURES UP

The CHT function of the R7® Tool uses Answer Plot® program data to compare CROPLAN® seed products, as well as seed from other major companies, to see how they are projected to perform in fields like yours. CHT charts show how various hybrids are projected to perform at high and low plant populations when compared to the following categories:\*

- Yield
- Milk per ton
- NDFD

*\*Other categories are available.*

## SILAGEFIRST® SEED LINE DELIVERS

The SilageFirst® seed line of products from CROPLAN® seed is specifically designed for high-producing dairy and beef cattle. There are three types of SilageFirst® hybrids.

### LEAFY HYBRIDS

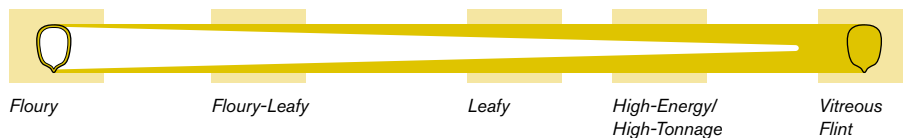
- Leafy stalks are thicker and more digestible, with larger ears to produce more energy.

### FLOURY-LEAFY HYBRIDS

- At feedout, floury-leafy products effectively bridge the gap between the previous year's corn silage pile and the current year's feed.
- Leafy and floury-leafy hybrids may not contain a high level of total starch, but have a softer kernel texture that is easily broken during the chopping, storage and chewing process. This allows starch to be readily digested for more available energy.

### HIGH-ENERGY/HIGH-TONNAGE HYBRIDS

- These hybrids have more flexibility in harvest and feedout as grain or high-energy/high-tonnage silage when used in combination with leafy and floury-leafy hybrids.
- These are appropriate for feeding after the 120+ day post-ensiling period, when they reach optimum starch and fiber digestibility.

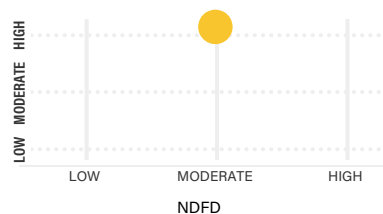


**CROPLAN CP184RR**

Relative Maturity: 80

**Tonnage vs NDFD**

Tonnage



- High tonnage potential in an early-maturing hybrid
- Tall aggressive-growing hybrid
- Large flex ear for wide adaptation to all soils and populations
- Manage for early harvest due to flinty type grain and average standability

**Characteristics**

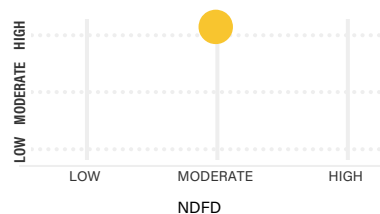
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength				2		
Tonnage Potential				2		
Milk/Acre			3			
Starch		4				

**CROPLAN CP2692D**

Relative Maturity: 86

**Tonnage vs NDFD**

Tonnage



- Duracade™ and Artesian® traits with CRW protection; handles variability and multiple soil types well
- Medium-tall plant with strong stalks; dual-purpose option
- Low response to population score, for good potential at lower plant densities

**Characteristics**

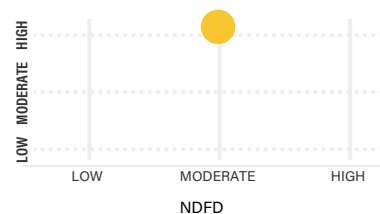
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance	N/A					
Root Strength					1	
Tonnage Potential					1	
Milk/Acre				2		
Starch			3			

**CROPLAN CP2790VT2P/RIB**

Relative Maturity: 87

**Tonnage vs NDFD**

Tonnage



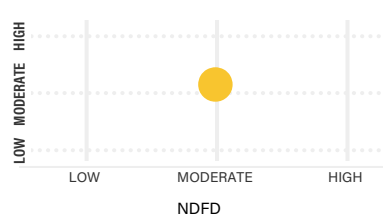
- High-tonnage potential with strong ear flex and drought tolerance
- Excellent seedling vigor for early planting
- Strong ear flex with a moderate response-to-nitrogen; can fit a broad range of growing conditions
- Manage for late-season stalks and Goss's wilt

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance					1	
Root Strength				2		
Tonnage Potential				2		
Milk/Acre		3				
Starch					1	

**CROPLAN CP2845SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 89**Tonnage vs NDFD**

Tonnage



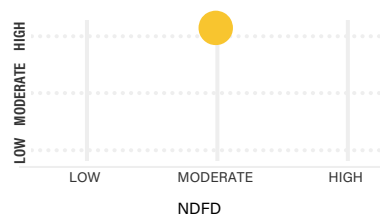
- High yield potential across all soil types and environments
- Plant early, great emergence in cooler soils; excellent conservation-till hybrid
- High response to nitrogen and population optimizes yield potential
- Manage placement for Goss's wilt

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance					1	
Root Strength					1	
Tonnage Potential			3			
Milk/Acre			3			
Starch				2		

**CROPLAN CP2965VT2P/RIB**[RR]  
Relative Maturity: 89**Tonnage vs NDFD**

Tonnage



- High yield potential to complement CP2845
- Excellent early vigor for early planting
- Moderate RTP and high RTN boost yield potential on average-to-productive soils
- Acceptable Goss's wilt tolerance

**Characteristics**

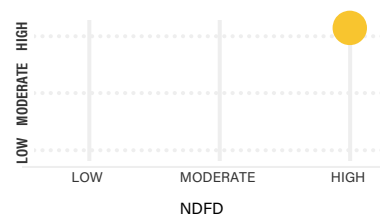
	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance				2		
Root Strength				2		
Tonnage Potential				2		
Milk/Acre				2		
Starch			3			

**CROPLAN CP3200SRR**

Relative Maturity: 93

**Tonnage vs NDFD**

Tonnage



- Flourey x leafy silage-only hybrid with very high tonnage potential
- Tall plant with large flex ears that contribute to above average starch
- Highly responsive to nitrogen and fungicide applications
- Best positioned at lower seeding rates to maximize tonnage and agronomics

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength				2		
Tonnage Potential					1	
Milk/Acre					1	
Starch				2		

**KEY** Scale  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

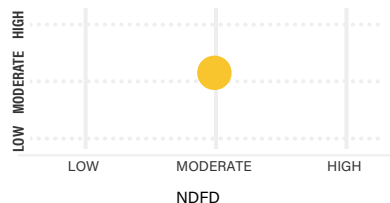
**CROPLAN CP3399SS/RIB**

[VT2P/RIB]\*

Relative Maturity: 94

**Tonnage vs NDFD**

Tonnage



- Good combination of high tonnage potential and early maturity
- Above-average heat and moisture-stress tolerance
- Exceptional continuous corn-on-corn hybrid
- Some ear flex, although great stress tolerance allows for higher planting populations

**Characteristics**

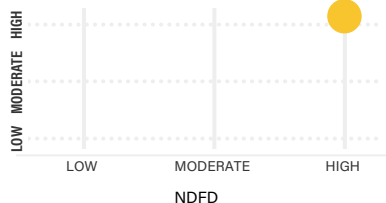
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength				2		
Tonnage Potential			3			
Milk/Acre			3			
Starch			3			

**CROPLAN CP3490VT2P/RIB**

Relative Maturity: 94

**Tonnage vs NDFD**

Tonnage



- Consistent tonnage with stability across wide range of environments
- Strong roots deliver strong drought tolerance and performance in poor soils
- Semi-flex ear and strong stalks
- Harvest timely because staygreen is below average

**Characteristics**

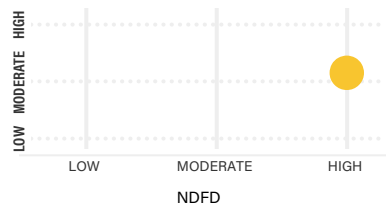
	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance				2		
Root Strength			3			
Tonnage Potential					1	
Milk/Acre					1	
Starch				2		

**CROPLAN CP3575VT2P/RIB**

Relative Maturity: 95

**Tonnage vs NDFD**

Tonnage



- Dual-purpose hybrid with above-average NDFD and starch content
- Excels in moderate- to high-yield environments and moves across all soil types
- Has good ear flex for low plant densities, but will respond to higher management
- Manage for Goss's wilt

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength				2		
Tonnage Potential			3			
Milk/Acre			3			
Starch			3			

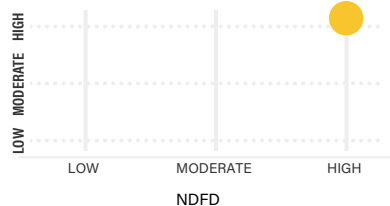
**CROPLAN CP3735SS/RIB**

[VT2P/RIB]\*

Relative Maturity: 97

**Tonnage vs NDFD**

Tonnage



- Medium-height dual-purpose hybrid with excellent NDFD
- Excellent test weight and emergence with solid defensive traits
- Plant at moderate-to-high densities; fungicide application is recommended
- Keep in RM zone

**Characteristics**

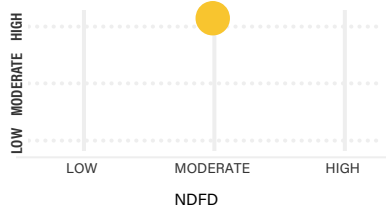
	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance			3			
Root Strength				2		
Tonnage Potential				2		
Milk/Acre					1	
Starch			3			

**CROPLAN CP3899VT2P/RIB**

Relative Maturity: 98

**Tonnage vs NDFD**

Tonnage



- Tall hybrid with consistently high tonnage potential and above-average digestibility
- Late-flowering with excellent heat and moisture stress tolerance
- Works well in both hot or cool growing seasons
- Excellent yield potential across all yield environments

**Characteristics**

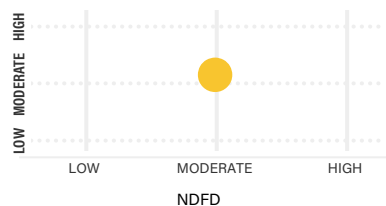
	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance				2		
Root Strength				2		
Tonnage Potential					1	
Milk/Acre					1	
Starch				2		

**CROPLAN CP3980VT2P/RIB**

Relative Maturity: 99

**Tonnage vs NDFD**

Tonnage



- Tall hybrid with strong grain yield potential drive high tonnage potential
- Excellent roots and good drought tolerance allow for high seeding rates and high tonnage
- Moderate response to nitrogen provides consistent performance across variable soils
- Harvest timely to avoid excess drydown

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength					1	
Tonnage Potential			3			
Milk/Acre			3			
Starch					1	

**KEY**

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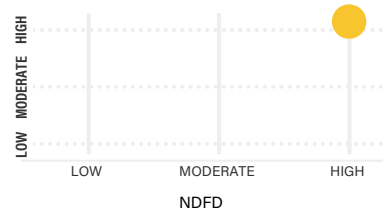
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CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

**CROPLAN CP4079SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 100**Tonnage vs NDFD**

Tonnage



- Dual-purpose option for most soil types and yield environments
- Medium-tall hybrid with strong Goss's wilt rating and seedling vigor; excellent roots
- Position at medium populations and manage nitrogen for high yield potential

**Characteristics**

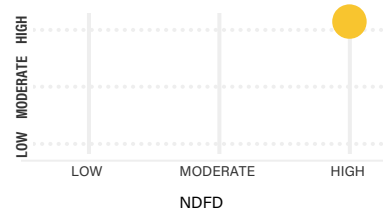
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength					1	
Tonnage Potential				2		
Milk/Acre				2		
Starch			3			

**CROPLAN CP4099SS/RIB**

Relative Maturity: 100

**Tonnage vs NDFD**

Tonnage



- Tall hybrid with consistently high tonnage potential and above-average digestibility
- Late-flowering hybrid with excellent roots and seedling vigor for early planting
- High response to intensive management; can also handle average acres
- Manage in areas with gray leaf spot and NCLB

**Characteristics**

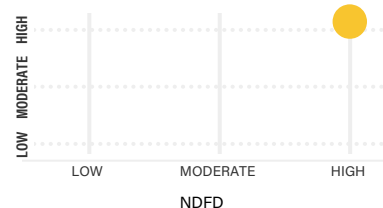
	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance				2		
Root Strength					1	
Tonnage Potential				2		
Milk/Acre				2		
Starch			3			

**CROPLAN CP4100SVT2P/RIB**

Relative Maturity: 101

**Tonnage vs NDFD**

Tonnage



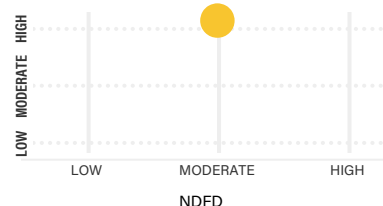
- Highly digestible leafy-type silage hybrid with high yield potential
- Tall white cob hybrid does best in medium-high populations
- Excellent performance for high tonnage and high-quality potential
- Average seedling vigor

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance				2		
Root Strength				2		
Tonnage Potential					1	
Milk/Acre					1	
Starch		4				

**CROPLAN CP4188VT2P/RIB**[SS/RIB\*, CONV]  
Relative Maturity: 101**Tonnage vs NDFD**

Tonnage



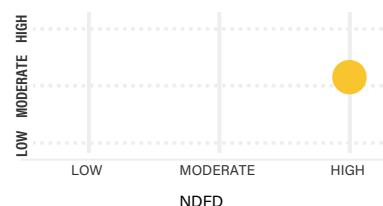
- Healthy, versatile, high tonnage dual-purpose hybrid
- Very attractive plant type with solid agronomic package
- Semi-flex ear allows lower densities, but will respond when population is pushed
- Handles tough, variable and ideal yield environments

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance				2		
Root Strength					1	
Tonnage Potential					1	
Milk/Acre				2		
Starch			3			

**CROPLAN CP4199SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 101**Tonnage vs NDFD**

Tonnage



- Dual-purpose hybrid adapted to fields with variable soils
- Excellent heat and drought tolerance
- Offensive product also performs well in lower-yielding environments
- Offers a bit more ear flex than 4099

**Characteristics**

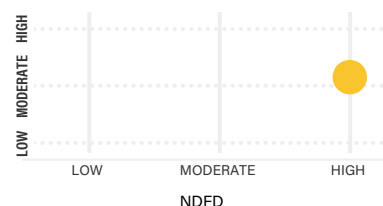
	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance					1	
Root Strength					1	
Tonnage Potential			3			
Milk/Acre				2		
Starch			3			

**CROPLAN CP4444VT2P**

Relative Maturity: 104

**Tonnage vs NDFD**

Tonnage



- Consistent, versatile hybrid to cover broad acres
- Excellent emergence and seedling vigor; strong stalks and roots
- Manage population in high-yield environments

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance			3			
Root Strength				2		
Tonnage Potential			3			
Milk/Acre			3			
Starch					1	

**KEY** Scale

1 = Excellent

2 = Strong

3 = Acceptable

4 = Manage

5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

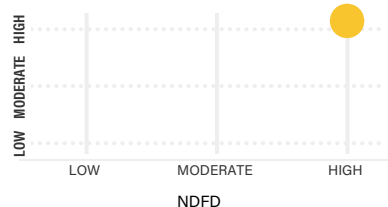
## CROPLAN CP4676SS/RIB

Relative Maturity: 106



### Tonnage vs NDFD

Tonnage



- Versatile hybrid; position and manage for high yield potential
- Medium-height hybrid with excellent emergence, seedling vigor and test weight
- Position at medium populations and manage nitrogen for high yield potential
- Fungicide application recommended in areas with GLS pressure

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance			3			
Root Strength			3			
Tonnage Potential				2		
Milk/Acre				2		
Starch			3			

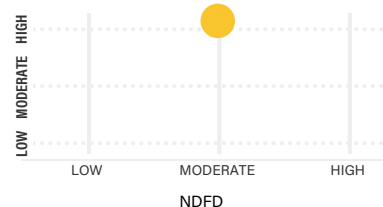
## CROPLAN CP4757VT2P/RIB

Relative Maturity: 107



### Tonnage vs NDFD

Tonnage



- Great tonnage hybrid, combined with high quality potential
- Strong roots and test weight with high yield potential
- Moderate response to nitrogen and fungicide scores offer flexibility
- Best suited for rotated acres

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance				2		
Root Strength				2		
Tonnage Potential					1	
Milk/Acre					1	
Starch			3			

## CROPLAN CP4791AS3111

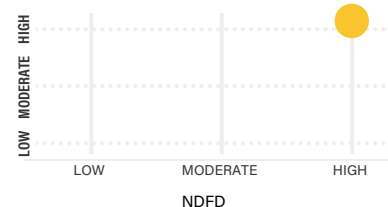
[ASGT]

Relative Maturity: 107



### Tonnage vs NDFD

Tonnage



- Medium-tall silage hybrid with great late-staygreen agronomics
- Tough hybrid; semi-flexed ear can handle droughty soils and corn-on-corn acres
- High-starch hybrid; doesn't need high populations
- Excellent disease package, including for gray leaf spot and Goss's wilt

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance			3			
Root Strength				2		
Tonnage Potential					1	
Milk/Acre					1	
Starch			3			

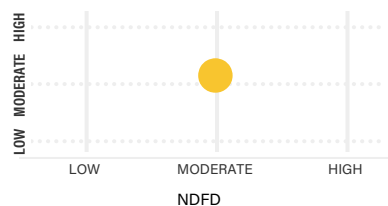
## CROPLAN CP4880SS/RIB

Relative Maturity: 108



### Tonnage vs NDFD

Tonnage



- Best performance on high yield potential and well drained soils
- SmartStax® hybrid with exceptional top end yield potential
- Strong stalks and roots
- High tonnage potential, despite being a medium-short statured hybrid

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength				2		
Tonnage Potential			3			
Milk/Acre				2		
Starch				2		

## CROPLAN CP5073SS/RIB

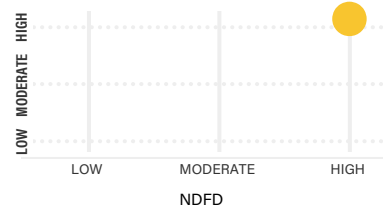
[VT2P/RIB]\*

Relative Maturity: 110



### Tonnage vs NDFD

Tonnage



- Medium height dual-purpose hybrid with soft floury grain type
- Strong early plant vigor for reduced tillage and early planting
- Has nice flex for moderate densities; high response to nitrogen
- Utilize fungicide to enhance late-season health

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance				2		
Root Strength				2		
Tonnage Potential					1	
Milk/Acre				2		
Starch				2		

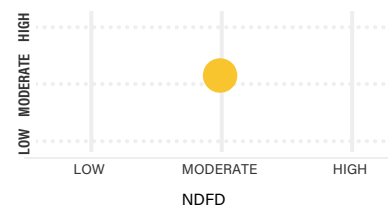
## CROPLAN CP6110VT2P/RIB

Relative Maturity: 110



### Tonnage vs NDFD

Tonnage



- Tough high-tonnage silage hybrid for lower-yielding environments
- Keep north of the 110-day zone as a full-season silage hybrid
- Great for irrigated ground; excels with fungicides

### Characteristics

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance						1
Root Strength						1
Tonnage Potential			3			
Milk/Acre			3			
Starch						1

**KEY**

**Scale**

1 = Excellent

2 = Strong

3 = Acceptable

4 = Manage

5 = Not Recommended

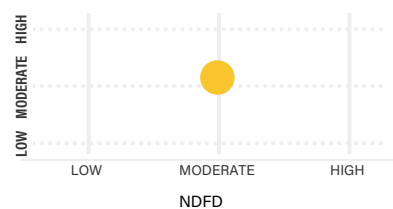
Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

**CROPLAN CP5115SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 111**Tonnage vs NDFD**

Tonnage



- Medium-tall, dual-purpose hybrid with high tonnage potential at higher seeding rates
- Excellent emergence, seedling vigor and roots
- Semi-flex ear; plant at moderate populations
- Use caution on Goss's wilt acres; keep in RM zone

**Characteristics**

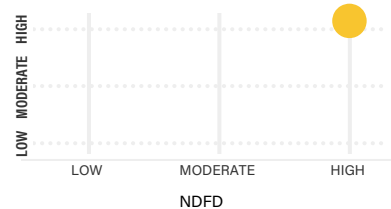
	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance				2		
Root Strength					1	
Tonnage Potential			3			
Milk/Acre			3			
Starch				2		

**CROPLAN CP5244VT2P/RIB**

Relative Maturity: 112

**Tonnage vs NDFD**

Tonnage



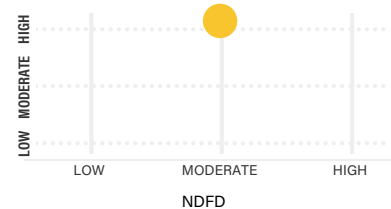
- High tonnage potential adapted for many soil types and yield levels
- Robust plant with strong heat and drought tolerance allow broad use of this high-starch dual-purpose hybrid
- Ear flex and stress tolerance drive performance in a wide range of populations and soil types
- Fungicide application increases staygreen and harvest flexibility

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength				2		
Tonnage Potential					1	
Milk/Acre					1	
Starch					1	

**CROPLAN CP5370SS/RIB**[VT2P/RIB]\*  
Relative Maturity: 113**Tonnage vs NDFD**

Tonnage



- Tall hybrid with very high tonnage potential and above average starch content
- Excellent stalks and roots
- Optimize yield potential with nitrogen management and plant densities
- Best positioned on rotated acres; ear tip back influenced by genetics

**Characteristics**

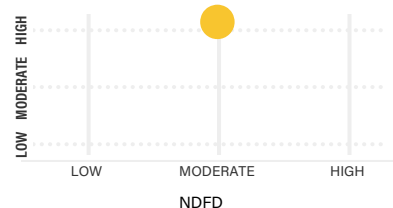
	Not Recommended			Excellent		
Seedling Vigor					1	
Drought Tolerance				2		
Root Strength					1	
Tonnage Potential				2		
Milk/Acre				2		
Starch				2		

**CROPLAN CP5550VT2P/RIB**

Relative Maturity: 115

**Tonnage vs NDFD**

Tonnage



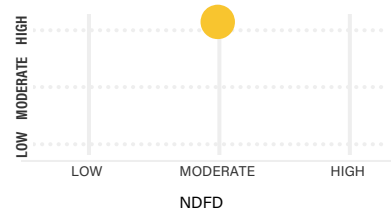
- Position in average to high-yield-potential acres; dual-purpose option
- Solid agronomic and disease package
- Semi-flex ear for moderate to moderately high planting densities
- Acceptable Goss's wilt tolerance

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength					2	
Tonnage Potential					1	
Milk/Acre					1	
Starch		4				

**CROPLAN CP5678VT2P/RIB**[SS/RIB]\*  
Relative Maturity: 116**Tonnage vs NDFD**

Tonnage



- Medium-height hybrid with wide leaves and girthy stalk that contributes to solid tonnage potential
- Tough hybrid; good stress tolerance; has a semi-flex ear
- Full-season dual-purpose hybrid with great stalks and roots
- Excels with high nitrogen and fungicides, and medium-high populations

**Characteristics**

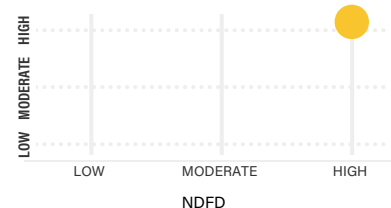
	Not Recommended			Excellent		
Seedling Vigor			3			
Drought Tolerance				2		
Root Strength			3			
Tonnage Potential				2		
Milk/Acre				2		
Starch			3			

**CROPLAN CP5700SVT2P/RIB**

Relative Maturity: 117

**Tonnage vs NDFD**

Tonnage



- Exceptionally high tonnage potential and digestibility
- Performs extremely well in the Midwest, Southeast, West and Pacific Northwest
- Takes heat and stress at a wide range of populations
- Needs high rates of nitrogen/manure for optimal yield potential; high response to fungicides

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength				2		
Tonnage Potential					1	
Milk/Acre					1	
Starch		4				

**KEY** Scale  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

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CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

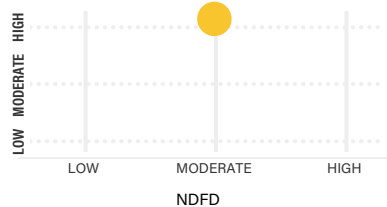
NEW

**CROPLAN CP5760TRE/RIB**

Relative Maturity: 117

**Trecepla**  
RIB COMPLETE**Tonnage vs NDFD**

Tonnage



- Outstanding performance potential from East to West
- High tonnage potential combined with high quality
- Versatile placement across soil types at moderate populations
- Fungicide recommended to enhance protection against Southern Rust

**Characteristics**

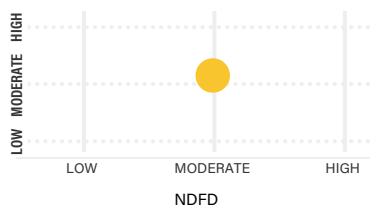
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance			3			
Root Strength			3			
Tonnage Potential					1	
Milk/Acre					1	
Starch		4				

**CROPLAN CP5789VT2P/RIB**

Relative Maturity: 117

**VTDoublePRO**  
RIB COMPLETE**Tonnage vs NDFD**

Tonnage



- Taller dual-purpose hybrid with high tonnage potential across multiple environments
- Tall plant with excellent stalks, roots, staygreen and test weight
- Position at medium-high populations with moderate nitrogen management
- Fungicide application recommended

**Characteristics**

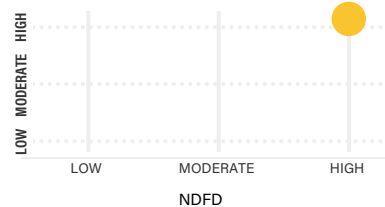
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength					1	
Tonnage Potential			3			
Milk/Acre			3			
Starch			3			

**CROPLAN CP5900SVT2P/RIB**

Relative Maturity: 119

**VTDoublePRO**  
RIB COMPLETE**Tonnage vs NDFD**

Tonnage



- Tall silage hybrid with very high tonnage potential and above-average digestibility
- Strong heat tolerance; exceptional high pH soil tolerance
- Very good southern rust tolerance; good for corn-on-corn acres
- Decrease populations in heavy soils prone to flooding

**Characteristics**

	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength			3			
Tonnage Potential					1	
Milk/Acre					1	
Starch		4				

**KEY****Scale**

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2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

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CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.



Trait	Relative Maturity
Relative Maturity	1
Plant Height	2
Ear Height	3
Ear Flex	4
Flower Date	5
Kernel Rows	6
Population R/P	7
Response to Nitrogen (R/N)	8
Response to Fungicide (R/F)	9
Response to Seeding Wigor	10
Root Strength	11
Stalk Quality	12
Gray Leaf Spot	13
NCLB	14
Drought Tolerance	15
Tonnage Potential	16
# Milk/Acre	17
% NDF	18
% Starch	19
% Crude Protein	20
Calibrate® Starch Rating	21
Calibrate® Fiber Rating	22

NEW	CP184RR	80	M-T	M	FL	E	16-18	M	L	M	2	2	3	NA	3	5	3	2	3	3	4	3	4	S	NA
	CP2692D	86	M-T	M	SF	M	16-18	M	M	M	2	1	1	NA	1	1	NA	1	2	3	2	3	2	NA	
	CP2790VP/2/RIB*	87	M-T	M	SF	E	16-18	L	M	H	1	2	3	3	2	4	1	2	3	3	1	3	3	NA	
	CP2845SS/RIB*	89	M-T	M	SF	E	16-18	H	H	H	1	1	2	NA	3	4	1	3	3	4	3	2	4	MS	
	CP2965V12P/RIB*	89	M	M	SF	M	14-16	M	H	H	1	2	1	3	3	3	2	2	2	3	3	3	2	MF	
NEW	CP320DSRR	93	T	M	FL	M	14-16	L	H	H	2	2	2	3	3	2	2	1	1	2	2	2	3	MF	
	CP339SSS/RIB*	94	M	M	SF	M	16-18	M	H	M	2	2	2	3	3	4	2	3	3	4	3	3	4	MS	
	CP3490V12P/RIB	94	M-T	M-H	SF	M-L	18-20	M	L	H	1	3	3	3	3	3	2	1	1	2	3	2	3	M	
	CP3575V12P/RIB*	95	M	M	SF	M-L	16-18	H	H	L	2	2	2	3	2	4	3	3	3	1	3	3	1	M	
	CP3735SS/RIB*	97	M	M	SF	M	16-18	M	H	H	1	2	2	3	3	3	3	2	1	1	3	3	2	1	
NEW	CP3899V12P/RIB*	98	M-T	M-H	SF	L	16-20	H	H	H	1	2	2	4	4	3	2	1	1	3	3	2	3	MF	
	CP3980V12P/RIB	99	M-T	M-H	SF	M	14-16	M	M	H	2	1	3	2	NA	3	3	3	3	2	1	3	3	MS	
	CP4079SS/RIB*	100	M-T	M	SF	M	14-16	M	M	H	2	1	3	3	3	2	2	2	2	2	3	3	2	MF	
	CP4099SS/RIB*	100	M-T	M	SF	L	16-20	H	H	H	1	1	2	4	4	3	2	2	2	2	3	3	3	S	
	CP4100SV12P/RIB*	101	T	M	SF	M	16-18	H	NA	M	3	2	2	3	3	2	2	1	1	2	3	4	3	2	
NEW	CP4188V12P/RIB*	101	M	M	SF	M	16-18	M	M	M	1	1	2	3	2	2	2	1	2	3	2	3	2	MS	
	CP419SSS/RIB*	101	M	M	SF	M	16-18	H	M	M	1	1	1	3	3	4	1	3	2	2	3	3	2	MF	
	CP4444V12P	104	T	M-H	SF	M-L	14-16	H	L	L	1	2	2	3	3	3	3	3	3	2	1	1	4	3	
	CP4676SSS/RIB*	106	M	M	SF	M	16-18	M	H	M	1	3	3	3	3	2	3	3	2	1	2	3	2	1	
	CP4757V12P/RIB*	107	M	M-H	SD	M	18-20	M	M	M	3	2	3	3	3	2	NA	2	1	1	3	3	3	2	

Scale	Product descriptions and ratings are generated from AnswerPlus®
1	Plant Height
2	Ear Height
3	Ear Flex
4	Flower Date
5	RT/P/RTM/RTF Ratings
6	Calibrate® Starch Rating
7	Calibrate® Fiber Rating

**7 Calibrate® Fiber Rating**  
Relative rumen digestibility of fiber  
S = Slow  
M = Moderate  
E = Fast

These ratings reflect trends observed in research trials that change with variations in rainfall, temperature, crop production patterns and other factors. Ratings on new hybrids are based on limited data and may change as more data is collected.



# CORN SILAGE

CROPLAN

- Relative Maturity
- Plant Height **1**
- Ear Height **2**
- Ear Flex **3**
- Flower Date **4**
- Kernel Rows
- Population (RTP)
- Nitrogen Response to (RTN) **5**
- Fungicide Response to (RTF) **5**
- Seeding Response to Weigh **5**
- Root Strength
- Stalk Quality
- Grain Leaf Spot
- Drought Tolerance
- Gross's Will
- NCB
- Tonnage Potential
- # Milk/Acre
- % NDF
- % NDF
- % Starch
- % Crude Protein
- Calibrate® Starch Rating
- Calibrate® Fiber Rating **6**
- TDN
- Calibrate® Fiber Rating **7**

## BRAND

	CF4791AS3111	107	M-T	M	SF	M	16-18	M	M	M	3	2	2	3	2	2	3	1	1	3	3	1	MF	MF			
NEW	CP4880SS/RIB*	108	M-S	M	SD	M	14-16	H	M	H	2	2	2	3	3	NA	3	3	2	3	5	2	3	1	M	M	
	CP5073SS/RIB*	110	M	M-H	SF	M	16-18	M	H	H	1	2	3	3	2	3	2	1	2	2	2	1	2	MF	MF		
	CP5115SS/RIB*	111	M-T	M-H	SF	M-L	18-20	H	H	M	1	1	2	3	2	4	2	3	3	2	2	3	3	MS	M	M	
	CP6110VT2P/RIB*	110	M	M	SF	M	16-18	M	M	M	2	1	3	4	2	3	1	3	3	3	2	1	4	3	MF	MF	
	CP5244VT2P/RIB	112	M-T	M-H	SF	E	16-18	M	M	M	2	2	3	3	2	3	2	1	1	2	2	1	3	3	M	MF	
	CP5370SS/RIB*	113	T	M-H	SF	M	18-20	H	H	M	1	1	1	3	2	4	2	2	2	3	2	3	3	M	M	M	
	CP550VT2P/RIB*	115	M-T	M-H	SF	M	14-16	M	M	M	2	2	2	3	3	3	3	2	1	1	3	4	4	3	2	MS	MS
	CP5678VT2P/RIB*	116	M	M	SF	M	14-16	M	H	M	3	3	2	3	2	3	2	2	2	4	4	3	2	2	M	M	
	CP5700SVT2P/RIB*	117	M-T	M	SF	M	16-18	M	H	M	2	2	NA	NA	NA	NA	3	1	1	2	4	4	2	2	MF	MF	
NEW	CP5760TRE/RIB*	117	T	M-H	SF	NA	16-18	L	H	M	2	3	3	3	3	NA	3	1	1	3	2	4	5	3	M	M	
	CP5789VT2P/RIB*	117	T	M-H	SF	M	16-18	H	M	H	2	1	1	3	1	4	2	3	3	4	3	3	3	3	M	M	
	CP5900SVT2P/RIB*	119	T	M-H	SF	M	16-18	M	H	NA	2	3	NA	NA	NA	NA	2	1	1	2	3	4	1	2	M	M	

## KEY

### Scale

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- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

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### 1 Plant Height

- XT = Extra Tall
- T = Tall
- M = Medium
- S = Short

### 2 Ear Height

- H = High
- M = Medium
- L = Low

### 3 Ear Flex

- FL = Flex
- SF = Semi-Flex
- FX = Fixed

### 4 Flower Date

- L = Late
- M = Medium
- E = Early

### 5 RTP/RTN/RTF Ratings

- L = Low Response
- M = Moderate Response
- H = High Response
- TBD = To be tested in 2021

### 6 Calibrate® Starch Rating

Relative rumen digestibility of grain starch

- S = Slow
- M = Moderate
- F = Fast

Ratings based on 2018-2021 silage samples.

### 7 Calibrate® Fiber Rating

Relative rumen digestibility of fiber

- S = Slow
- M = Moderate
- F = Fast

Ratings based on 2018-2021 silage samples.

These ratings reflect trends observed in research trials that change with variations in rainfall, temperature, crop production patterns and other factors. Ratings on new hybrids are based on limited data and may change as more data is collected.

\*Follow IRM guidelines and refuge configurations to preserve the benefits and insect protection of these technology crops.



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

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# FORAGE SORGHUM

We use our expertise to provide you with a comprehensive, season-long plan that can help you get results with the right forage sorghum genetics. It's how we deliver the best nutrition and high total plant digestibility for optimal production and quality.

## KEY TAKEAWAYS

- 1 Select the right forage type for your operation.
- 2 Choose a hybrid that has the traits you need.
- 3 Practice in-season management for optimal production.

## SELECT THE RIGHT FORAGE TYPE

### ► Forage Sorghum (single-cut silage)

Tall plant that has a sweet stalk and small grain head with limited regrowth potential.

### ► Sorghum x Sudan (multi-cut or grazing)

Strong tillering and regrowth ability, which is ideal for multiple harvests with increased tonnage potential.

### ► Pearl Millet (multi-cut or grazing)

Brachytic plant stature with finer stalks and prolific tillering.

## SELECT THE HYBRID WITH THE TRAIT YOU NEED

### BROWN MIDRIB-6 TRAIT

- Excellent forage quality and agronomics.
- The nutritional value potential is comparable to corn silage.
- Trait available in the following forage types: forage sorghum, sorghum x sudan, pearl millet.

### BRACHYTIC TRAIT

- Shorter stature and high leaf-to-stem ratio due to reduced internode length.
- Excellent standability and tillering.
- Trait available in the following forage types: forage sorghum, sorghum x sudan, pearl millet.

### PHOTOPERIOD SENSITIVITY TRAIT

- Extended harvest window.
- Remains vegetative until day length falls below 12 hours and 20 minutes; it will then enter the reproductive stage.
- Trait available in the following forage types: forage sorghum, sorghum x sudan.

## SUGARCANE APHID (SCA)

- Use a tolerant hybrid to slow down the rate of infestation.
- Use seed treatment for early control.
- Plant as early as soil temperature allows. An earlier-maturity variety may help avoid late-season infestations.
- Scout early and often; treat as soon as threshold is reached.
- Avoid use of pyrethroids and other insecticides that are harmful to beneficials (SCA natural enemies include lady beetles, hover fly and green lacewing). Insecticides may cause SCA numbers to increase rapidly.

## IN-SEASON MANAGEMENT

### TREATED SEED

#### ► Seed Safener Treatment

Helps protect seed against preemergence herbicide applications, some herbicide carry-over or residual, and some grass herbicides.

#### ► Systemic Insecticide Treatment

Effective on aboveground insects, such as early sugarcane aphid, for roughly 40 days.

#### ► Base Seed Treatment

Pearl millet hybrids include a base seed treatment only.

## WEED CONTROL

Herbicides for forage sorghums are limited to bromoxynil, atrazine, metolachlor or 2,4-D.<sup>1</sup>

- Metolachlor, by itself or in combination with atrazine, is the recommended preemergence herbicide.
- There are no postemergence grass herbicides.
- Broadleaf postemergence herbicides include 2,4-D, bromoxynil and Huskie® herbicide.
- The best way to control weeds is to start with clean ground and get the crop up and shading the soil as quickly as possible.

## FERTILITY

- Sorghums require 1 to 1.25 units of nitrogen per growing day. Apply at a 5:1 ratio of nitrogen to sulfur to help the plant convert nitrogen to protein.
- Stressed plants will not convert nitrate into usable protein, resulting in high concentrations of nitrates in the plant. High nitrates can be toxic if fed to cattle.

## FEEDING/HARVEST MANAGEMENT

### FORAGE SORGHUM

- Harvest at late-milk to soft-dough stage.
- Single-cut for silage when plant reaches 67% to 72% whole plant moisture.
- Forage sorghums can be harvested after frost in the North for silage.
- Manage harvest moisture to meet operational needs, consider swath and wilt method in order to chop at the proper whole plant moisture.

### SORGHUM X SUDAN

- Optimal harvest timing is 40 days or 40 inches tall.
- Dry hay in the Plains, West, South and Southwest; haylage or baleage in the Midwest, East and Southeast.
- Start summer grazing when plants reach 18 to 24 inches. Remove animals when two nodes are left above the ground.
- Forage quality and yield can be maximized at flag leaf stage.

### PEARL MILLET

- Optimal harvest timing is 40 days or 40 inches tall.
- No prussic acid and high digestibility make this a great choice for horse feed.
- Fine stalks allow the ability to make dry hay in areas with high summer humidity.
- Start summer grazing when plants reach 18 to 24 inches. Remove animals when there is six-inches of stubble height. Forage quality and yield can be maximized at flag leaf stage.

1. Read all labels before application.

NEW

**CROPLAN BMR 3211**Regions: Central|East|North|Double-crop  
Maturity: Early**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance			3			
Forage Quality						1
Disease Tolerance				2		
Dry Hay		4				
Silage						1
Grazing		4				

- Early-maturing forage sorghum hybrid with excellent yield potential
- BMR-6 trait with excellent forage quality potential; great for lactating cows
- Strong disease resistance; moves well north and east; excellent option for double-cropping in the Central Plains regions
- Avoid overwatering and excessive populations; plants can reach 8 feet tall
- Recommended seeding rate: 60,000 to 70,000 seeds per acre at 1 to 1 1/2 inches deep, depending on soil moisture

**CROPLAN IQ 3501**Regions: Central|South|West  
Maturity: Mid**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance				2		
Forage Quality				2		
Disease Tolerance						1
Dry Hay		5				
Silage						1
Grazing		5				

- New line of genetics; the IQ (improved quality) series is selected for higher forage quality potential than conventional hybrids
- Extremely flexible hybrid; excellent disease and drought tolerance allow for placement across most of the U.S.
- Excellent yield potential; similar to a late-season hybrid
- Excellent standability; plants can reach 7 to 8 feet tall; manage water and fertility for a mid-maturity hybrid
- Recommended seeding rate: 50,000 to 60,000 seeds per acre at 1 to 1 1/2 inches deep, depending on soil moisture

**CROPLAN 3531 BMR Leafy**Regions: Central|South|West  
Maturity: Mid**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance				2		
Forage Quality						1
Disease Tolerance						1
Dry Hay		5				
Silage						1
Grazing		5				

- Excellent forage quality of the BMR-6 gene paired with the brachytic dwarf trait for high leaf-to-stem ratio
- Extremely flexible hybrid; excellent disease and drought tolerance allow for placement across most of the U.S.
- Mid-maturity variety with excellent combination of yield potential and quality
- Combining the brachytic dwarf traits with excellent stalks, standability is excellent with a 6 to 7 foot plant height
- Recommended seeding rate: 60,000 to 100,000 seeds per acre at 1 to 1 1/2 inches deep, depending on soil moisture

NEW

**CROPLAN 3681 AT**Regions: Central|South|West  
Maturity: Mid/Late**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance				2		
Forage Quality			3			
Disease Tolerance						1
Dry Hay		5				
Silage						1
Grazing		5				

- Conventional hybrid with excellent tolerance to sugarcane aphid (SCA); SCA may be on plant in low numbers, plant handles stress well
- Extremely flexible hybrid; excellent disease and drought tolerance allow for placement across Central and Southern U.S.
- Very high leaf expression and great stalks deliver good yield potential
- Excellent standability; plants can reach 8 to 9 feet tall; manage water and fertility for a mid-maturity hybrid
- Recommended seeding rate: 60,000 to 70,000 seeds per acre at 1 to 1 1/2 inches deep, depending on soil moisture

NEW

**CROPLAN 3731 BMR Leafy**Regions: Central|South|West  
Maturity: Late**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance				2		
Forage Quality						1
Disease Tolerance						1
Dry Hay		5				
Silage						1
Grazing		5				

- Excellent forage quality of the BMR-6 gene paired with the brachytic dwarf trait for high leaf-to-stem ratio
- Extremely flexible hybrid; excellent disease and drought tolerance allow for placement across most of the U.S.
- Late maturity variety with excellent combination of yield potential and quality requiring a full growing season
- Combining the brachytic dwarf traits with excellent stalks, standability is excellent with a 6 to 7 foot plant height
- Recommended seeding rate: 60,000 to 100,000 seeds per acre at 1 to 1 1/2 inches deep, depending on soil moisture

**CROPLAN Greentreat® 1531**Regions: Central|East|North|South|West  
Maturity: Heads at ~50 days**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance						1
Forage Quality						1
Disease Tolerance				2		
Dry Hay						1
Silage			3			
Grazing						1

- Excellent forage quality of the BMR-6 gene paired with the brachytic dwarf trait for lower cutting height and high leaf-to-stem ratio
- A best-in-class variety for drought tolerance and heat stress; strong disease package for humid areas and those at risk for anthracnose
- Dry stalk (~5% less) paired with fine stems allows for easier transition into dry hay use
- Requires proper harvest management or forage quality may be compromised (40 days or 40 inches); harvest prior to 50 days before head is initiated
- Recommended seeding rate: 20 to 25 pounds per acre at 1 inch (by drill is recommended)

**KEY**

**Scale**

1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

**Hybrid Number System**

**First Number:** 1 = Sorghum x Sudan; 2 = Sudan; 3 = Forage Sorghum; 4 = Pearl Millet

**Second Number:** 1 = very early; 2 = early; 3-4 = mid-early; 5 = mid; 6-7 = mid-late; 8 = late; 9 = PPS

**Third Number:** 0 = No special features; 1 = BMR; 2 = BMR and photoperiod;  
3 = BMR and brachytic; 5 = Conventional dwarf, not a brachytic; 8 = Photoperiod

**Fourth Number:** Series number or new variety type

NEW

**CROPLAN** **Dynamo II**Regions: Central|East|North|South|West  
Maturity: Heads at ~75 days**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance			3			
Forage Quality					1	
Disease Tolerance			3			
Dry Hay					1	
Silage			3			
Grazing					1	

- Brachytic dwarf provides great forage quality when combined with the BMR-6 gene
- Delayed flowering/head emergence allows for very flexible cutting schedules
- Extended cutting window ideal for all forage systems, fast growing and quick recovery after cutting
- Harvest at 40 days or 40 inches, whichever comes first; for grazing, start when plants reach 18 to 24 inches, remove animals when two nodes are left aboveground
- Recommended seeding rate: 20 to 25 pounds per acre at a depth of 1 inch (by drill is recommended)

NEW

**CROPLAN** **GUARDIAN AT**Regions: Central|East|North|South|West  
Maturity: Heads at ~60 days**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance			3			
Forage Quality				2		
Disease Tolerance			3			
Dry Hay					1	
Silage			3			
Grazing					1	

- Great forage quality with the BMR-6 gene; moves well across growing regions
- The brachytic dwarf trait provides shortened internode length for lower harvest height and greater leaf-to-stem ratio
- Sugarcane aphid tolerance offers in-plant crop protection; can handle more cuttings with confidence
- Harvest at 40 days or 40 inches, whichever comes first; for grazing, start when plants reach 18 to 24 inches, remove animals when two nodes are left aboveground
- Recommended seeding rate: 20 to 25 pounds per acre at a depth of 1 inch (by drill is recommended)

NEW

**CROPLAN** **DYNAMIC**Regions: Central|East|North|South|West  
Maturity: photoperiod sensitive**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance				2		
Forage Quality				2		
Disease Tolerance			3			
Dry Hay				2		
Silage				2		
Grazing				2		

- Brachytic dwarf is combined with Photoperiod sensitivity and BMR 6 for great forage quality
- Photoperiod sensitive trait allows the plant to remain in the vegetative state with a minimum of 12 hours and 20 minutes of daily sunlight, then head formation starts
- Fits any forage system: graze, bale, baleage, haylage, standing or swathed stockpile winter feed
- Versatile product for grazing, baled hay or silage with excellent regrowth; easier to dry when cut at 40 days or 40 inches
- Recommended seeding rate: 20 to 25 pounds per acre at a depth of 1 inch (by drill is recommended)

NEW

**CROPLAN** **Greentreat® 1923**Regions: Central|East|North|South|West  
Maturity: photoperiod sensitive**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance				2		
Forage Quality			3			
Disease Tolerance			3			
Dry Hay				2		
Silage				2		
Grazing				2		

- High yield potential product with the BMR trait for excellent warm-season accumulation of highly digestible fiber
- Photoperiod sensitive trait allows the plant to remain in the vegetative state with a minimum of 12 hours and 20 minutes of daily sunlight; then head formation starts
- Excellent disease tolerance; strong drought and heat tolerance; moves well east to west and north to south
- Versatile product for grazing, baled hay or silage with excellent regrowth; easier to dry when cut at 40 days or 40 inches
- Recommended seeding rate: 20 to 25 pounds per acre at a depth of 1 inch (by drill is recommended)

**CROPLAN** **Honey Sweet AT**Regions: Central|East|North|South|West  
Maturity: heads at ~50 days**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance				2		
Forage Quality		4				
Disease Tolerance				2		
Dry Hay				2		
Silage				2		
Grazing					1	

- In-plant sugarcane aphid tolerance
- Conventional Sorghum x Sudan for an economic choice
- Experience multiple cuttings in SCA areas with confidence
- Great germination and vigor

**CROPLAN** **PM 4611 BMR**Regions: Central|East|North|South|West  
Maturity: Heads at ~50 days**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance					1	
Forage Quality					1	
Disease Tolerance				2		
Dry Hay					1	
Silage		3				
Grazing					1	

- Leafy, compact structure; the BMR-6 gene provides superior forage digestibility
- Extremely uniform in maturing height with high yield potential and quick drydown; ideal for baled hay
- Resistant to sugarcane aphid; good disease tolerance and well-adapted for use in all growing areas
- Great for horses as dry hay or grazing with no prussic acid; harvest at 40 days or 40 inches
- Recommended seeding rate: 10 to 15 pounds per acre at a depth of 3/4 inch (by drill is recommended)

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**Third Number:** 0 = No special features; 1 = BMR; 2 = BMR and photoperiod;  
 3 = BMR and brachytic; 5 = Conventional dwarf, not a brachytic; 8 = Photoperiod  
**Fourth Number:** Series number or new variety type

NEW

CROPLAN

**PM 4612 BMR**

Regions: Central|East|North|South|West

Maturity: Heads at ~50 days

**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance					1	
Forage Quality					1	
Disease Tolerance				2		
Dry Hay					1	
Silage			3			
Grazing					1	

- Will eventually replace 4611 BMR, with no major differences; leafy, compact structure; the BMR-6 gene provides exceptional forage digestibility potential
- Extremely uniform in maturing height with high yield potential and quick drydown; ideal for baled hay
- Resistant to sugarcane aphid; good disease tolerance and well-adapted for use in all growing areas
- Great for horses as dry hay or grazing with no prussic acid; harvest at 40 days or 40 inches
- Recommended seeding rate: 10 to 15 pounds per acre at a depth of 3/4 inch (by drill is recommended)

NEW

CROPLAN

**PM 4507 PM**

Regions: Central|East|North|South|West

Maturity: Heads at ~50 days

**Characteristics**

	Not Recommended			Excellent		
Stress Tolerance				2		
Forage Quality					1	
Disease Tolerance				2		
Dry Hay					1	
Silage			3			
Grazing					1	

- Leafy, compact structure with extremely uniform maturing height
- Excellent yield potential and quick drydown; ideal for baled hay
- Resistant to sugarcane aphid; good disease tolerance and well-adapted for use in all growing areas
- Great for horses as dry hay or grazing with no prussic acid; harvest at 40 days or 40 inches
- Recommended seeding rate: 10 to 15 pounds per acre at a depth of 3/4 inch (by drill is recommended)

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**Fourth Number:** Series number or new variety type



# FORAGE SORGHUM

	Maternity	Seeding Rate per Acre	Seeding Depth	Average Seeds per Lb (x1000)	Soil Temperature at Planting	Forage Quality	Drought Stress	Heat Stress	Sugarcane Aphid Tolerance	Cold Tolerance	Wet Soils	Dry Hay	Baleage	Silage	Grazing		
FORAGE SORGHUM HYBRIDS																	
BMR 3211	Early	60-70K seeds	1-1 1/2"	15.5	60	Y	1	2	3	2	-	3	2	4	3	1	4
1Q 3501	Mid	50-60K seeds	1-1 1/2"	15	60	N	2	1	2	1	-	3	2	5	3	1	5
NEW 3531 BMR Leafy	Mid	60-100K seeds	1-1 1/2"	15	60	Y	1	1	2	1	-	3	2	5	3	1	5
NEW 3681 AT	Mid/Late	60-70K seeds	1-1 1/2"	15	60	N	3	1	2	1	2	3	2	5	3	1	5
NEW 3731 BMR Leafy	Late	60-100K seeds	1-1 1/2"	15	60	Y	1	1	2	1	-	3	2	5	3	1	5
SORGHUM X SUDANGRASS HYBRID																	
Greentreat® 1531	Heads at ~50 days	20-25 lbs	1"	14	60	Y	1	1	1	2	-	3	3	1	1	3	1
NEW Dynamo II	Heads at ~75 days	20-25 lbs	1"	15	60	Y	1	3	3	3	-	3	3	1	1	3	1
NEW GUARDIAN AT	Heads at ~60 days	20-25 lbs	1"	16.5	60	Y	2	3	3	3	1	3	3	1	1	3	1
NEW DYNAMIC	photoperiod sensitive	20-25 lbs	1"	14.5	60	Y	2	2	2	3	-	4	4	2	1	2	2
Greentreat® 1923	photoperiod sensitive	20-25 lbs	1"	14.5	60	Y	3	2	2	3	-	4	4	2	1	2	2
NEW Honey Sweet AT	Heads at ~50 days	20-25 lbs	1"	15	60	N	4	2	2	2	1	3	3	2	1	2	1
PEARL MILLET																	
PM 4611 BMR	Heads at ~50 days	10-15 lbs	3/4"	60	65	Y	1	2	1	2	1	4	3	1	2	3	1
NEW PM 4612 BMR	Heads at ~50 days	10-15 lbs	3/4"	60	65	Y	1	2	1	2	1	4	3	1	2	3	1
NEW PM 4507 PM	Heads at ~50 days	10-15 lbs	3/4"	60	65	N	1	2	2	2	1	4	3	1	1	3	1

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**Fourth Number:** Series number or new variety type



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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# GRAIN SORGHUM

We provide you with tough, stable genetics for consistent results, backed by diverse germplasm for a wide variety of conditions and varying landscapes. Plus, our grain sorghum can break insect and disease cycles with crop rotation benefits.

## KEY TAKEAWAYS

- 1 Select the right product for your operational needs.
- 2 Choose a hybrid that has the traits you're looking for.
- 3 Practice in-season management for optimal production.

## PRODUCT SELECTION FOR MAXIMIZING YIELD POTENTIAL

There are many factors to consider:

### ► Finding the correct plant maturity

- Growing season length
- Elevation
- Scheduling
- Crop rotation

### ► Knowing the limits and potentials of each acre also makes a difference. Consider traditional weather patterns and average first frost date:

- **Early** – 60 days (or earlier to mid bloom)
- **Medium/Early** – 61-65 days
- **Medium** – 66-70 days
- **Medium/Late** – 71-75 days
- **Late** – 76 days (or longer)

Average of 40 additional days to reach harvest maturity.

## DISEASE TOLERANCE PACKAGE

Different diseases can be found in different areas and under specific conditions. Knowing whether you're in an area with a history of diseases (Charcoal rot in dry areas or Anthracnose in humid areas) can help you select the genetics you need.

## YIELD POTENTIAL

Choosing a hybrid that performs in your field type is crucial to maximizing your yield on every acre. While each product is designed for specific conditions, select the longest maturity variety suited to your area or taller plant stature to correlate to higher yield potentials.

## SELECT THE HYBRID WITH THE TRAIT YOU NEED

Our product provides traits that have made great progress in protecting plants from insect damage and reducing competition from weeds.

### SUGARCANE APHID TOLERANCE (SCA)

- Use a tolerant hybrid to slow down the rate of infestation. For example, geographies in the northern tier of grain sorghum production are less likely to have SCA infestations. Plant as early as soil temperature allows. And while many commercially available products have high levels of sugarcane aphid tolerance, an earlier-maturity variety may help avoid late-season infestation in areas of high concern.
- Scout early and often. And use approved Sugarcane Aphid approved insecticide as soon as threshold is reached.
- Insecticides may cause SCA numbers to increase rapidly. Make sure to avoid using pyrethroids and other insecticides that are harmful to beneficials (SCA natural enemies include lady beetles, hover fly and green lacewing).

## IN-SEASON MANAGEMENT

### TREATED SEED

#### ► Seed Safener Treatment

Helps protect seed against preemergence herbicide applications, some herbicide carryover or residual and some grass herbicides.

#### ► Systemic Insecticide Treatment

Effective on a range of pests that can inhibit seedling germination, emergence and early growth such as (but not limited to) wireworm, grub and ants.

Limited effect on aboveground insects (such as sugarcane aphid) for roughly 40 days after plant emergence.

## FERTILITY

Recommended to conduct regular soil sampling to determine the soil fertility levels of fields as a fertility planning tool. Sorghum for grain will require roughly 2 lbs. of actual N for every 100 lbs. of grain yield expected (example: 8,000 lb. yield will need to have 160 lbs. of actual Nitrogen).

## WEED CONTROL

Many options are commercially available and labeled for use in grain sorghum (both pre-emerge and post-emerge chemistries). Safened seed must be used in combination with Metolachlor based products, allowing seed to germinate and produce active seedlings. While new trait technologies have been introduced for herbicide tolerance, keep rotational restrictions/plans in mind as you select any pre-emerge herbicide.

## POST EMERGENT APPLICATION

Multiple product options are accessible for over-the-top application for weed control. For example, igrowth® herbicide tolerant hybrids are now available for use for over-the-top application of IMIFLEX™ herbicide for select grass and broadleaf weed control.

NEW

**CROPLAN CP5811A**

Adaptation: SD, NE, KS, CO, OK, TX  
Maturity To Mid-Bloom: 58

**Characteristics**

	Not Recommended		Excellent	
Yield To Maturity			2	
Head Exertion			2	
Seedling Vigor				1
Test Weight			2	
Stalk Strength				1
Root Strength				1

- Good potential for stressed acres in the High Plains
- Very good at handling stress loads prior to flowering to maintain yield potential
- Stable performance potential in low yield environments with good potential on higher yielding soils with water and management
- This is a grower friendly, tough dryland product for the Western Plains - SD, central/western Neb., central/western Kan., eastern CO)
- Medium plant height to help standability; semi-open head to assist in grain dry down

NEW

**CROPLAN CP5921A**

Adaptation: SD, NE, KS, CO, OK, TX  
Maturity To Mid-Bloom: 59

**Characteristics**

	Not Recommended		Excellent	
Yield To Maturity				1
Head Exertion				1
Seedling Vigor			2	
Test Weight				1
Stalk Strength			2	
Root Strength			2	

- Great dryland product where conditions are very tough
- Can handle variable soils where high pH can cause issues
- Works well in narrower rows
- Very stable product across tough acres or low yield environments where consistency is very important
- Works well in SD, western Neb., western Kan., eastern Colo. environments when you need a tough, consistent product when achieving top yield potential is a challenge

NEW

**CROPLAN CP6011**

Adaptation: SD, NE, KS, CO, OK, TX  
Maturity To Mid-Bloom: 60

**Characteristics**

	Not Recommended		Excellent	
Yield To Maturity				1
Head Exertion		3		
Seedling Vigor		3		
Test Weight			2	
Stalk Strength				1
Root Strength				1

- Excellent drought tolerance to handle pre-and post-flower stresses on tough dryland acres in the Western Plains
- Moderate plant height with great stalk and root strength
- Manage appropriately in areas where you have a history of or heavy Anthracnose pressure
- Well suited for no-till and dryland acres where an early harvest is desired
- Early maturing variety with consistent yield potential product on tough acres with limited rainfall - western So. Dak., Neb., Kan. and eastern Col.

NEW

**CROPLAN CP6021A**

Adaptation: SD, NE, KS, CO, OK, TX  
Maturity To Mid-Bloom: 60

**Characteristics**

	Not Recommended		Excellent	
Yield To Maturity				1
Head Exertion			2	
Seedling Vigor			2	
Test Weight			2	
Stalk Strength			2	
Root Strength			2	

- Great product for tough dryland areas where moisture stress is common
- Uniform product that has a strong yield potential for its maturity
- Sugarcane Aphid tolerant
- Tough hybrid that can handle placement on a dryland area where earlier varieties might be a little short season

NEW

**CROPLAN CP6211A**

Adaptation: SD, NE, KS, CO, OK, TX,  
Midwest, East  
Maturity To Mid-Bloom: 62

**Characteristics**

	Not Recommended		Excellent	
Yield To Maturity			2	
Head Exertion		3		
Seedling Vigor				1
Test Weight				1
Stalk Strength			2	
Root Strength				1

- Very consistent and stable performance potential across geographies
- Stable DW3 for low mutation frequency and a uniform grain sorghum experience
- Medium statured plant with excellent seedling vigor and great roots
- Watch in charcoal areas
- Grower friendly product that is very tough with low risk

NEW

**CROPLAN CP6367ig**

Adaptation: SD, NE, KS, CO, OK, TX  
Maturity To Mid-Bloom: 63

**Characteristics**

	Not Recommended		Excellent	
Yield To Maturity				1
Head Exertion				1
Seedling Vigor				1
Test Weight				1
Stalk Strength			2	
Root Strength			2	

- iGrowth® herbicide tolerant hybrid to aid in weed control
- Well adapted to the tough dryland acre and limited irrigation; highly suited for no-till
- Great head exertion allows less material to be processed; beautiful appearance and uniformity in the field
- Moderate SCA tolerance, monitor and manage as needed in areas prone to SCA
- Increase management to find the top-end yield potential

**KEY Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

**1 Downy Mildew:**

- A = Sugarcane Aphid tolerance  
ig = igrowth  
S = Susceptible  
T = Tolerant

**Hybrid Number System**

First & Second Number = Maturity to Mid-Bloom  
Third & Fourth Numbers = Sequential Trait Lettering

NEW

**CROPLAN CP6664igA**

Adaptation: SD, NE, KS, CO, OK, TX,  
Midwest, East  
Maturity To Mid-Bloom: 66

**Characteristics**

	Not Recommended			Excellent		
Yield To Maturity						1
Head Exertion						1
Seedling Vigor				2		
Test Weight						1
Stalk Strength						1
Root Strength				2		

- iGrowth® herbicide tolerant hybrid to aid in weed control
- Tremendous looking variety that can perform well across multiple geographies
- Place along I-35 corridor and east with better soils and moisture for top-end yield potential
- Can move east across Kan. and Okla.
- Strong Sugarcane Aphid tolerance

NEW

**CROPLAN CP6811**

Adaptation: SD, NE, KS, CO, OK, TX  
Maturity To Mid-Bloom: 68

**Characteristics**

	Not Recommended			Excellent		
Yield To Maturity				2		
Head Exertion			3			
Seedling Vigor				2		
Test Weight				2		
Stalk Strength				2		
Root Strength						1

- Med-tall hybrid with very good uniformity in the field
- Above average drought tolerance
- Good on saline type soils
- Great full season dryland product for placement in Okla., Tex., central/eastern Kan. and south-central Neb.
- Manage appropriately in areas prone to anthracnose

NEW

**CROPLAN CP7011A**

Adaptation: SD, NE, KS, CO, OK, TX,  
Midwest, East  
Maturity To Mid-Bloom: 70

**Characteristics**

	Not Recommended			Excellent		
Yield To Maturity						1
Head Exertion						1
Seedling Vigor						1
Test Weight				2		
Stalk Strength				2		
Root Strength				2		

- New hybrid addition for 2023 planting
- Great semi-open head hybrid with excellent test weight and beautiful red grain
- Very high yield potential product with consistent performance
- Strong sugarcane aphid tolerance helps protect yield potential in SCA prone areas

**KEY****Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

**1 Downy Mildew:**

- A = Sugarcane Aphid tolerance
- ig = igrowth
- S = Susceptible
- T = Tolerant

**Hybrid Number System**

First & Second Number = Maturity to Mid-Bloom  
Third & Fourth Numbers = Sequential Trait Lettering



## GRAIN SORGHUM

### BRAND

BRAND	Maturity to Mid-Bloom	Seeding Depth	Average Seeds/lb (x1000)	Soil Temp at Planting	(SD, ME, KS, CO, OK, TX)	Midwest/East Adaptation	Plant Height	High End Yield to Maturity	Low End Yield Response	Head Erection	Seeding Vigor	Test Weight	Stalk Strength	Root Strength	Threshold	Fusarium Head Smut	Anthracnose	Downy Mildew					
	NEW CP5811A	58	1-1 1/2"	17	60	Y	Y	NA	47-50"	2	2	1	2	1	1	2	NA	3	NA	S			
	NEW CP5921A	59	1-1 1/2"	15	60	Y	Y	NA	31-35"	1	1	1	1	2	1	2	NA	2	NA	S			
	NEW CP6011	60	1-1 1/2"	14	60	N	Y	NA	38-42"	1	1	1	3	3	2	1	1	2	4	3	4	T	
	NEW CP6021A	60	1-1 1/2"	14	60	Y	Y	NA	31-35"	1	2	1	2	2	2	2	1	2	NA	2	NA	S	
	NEW CP6211A	62	1-1 1/2"	15	60	Y	Y	Y	50-53"	2	2	2	3	1	1	2	1	2	2	2	NA	NA	S
	NEW CP6367ig	63	1-1 1/2"	14	60	N	Y	NA	46-50"	1	1	2	1	1	1	2	2	1	NA	NA	NA	NA	
	NEW CP6664iga	66	1-1 1/2"	14	60	Y	Y	Y	36-43"	1	1	2	1	2	1	1	2	1	NA	NA	NA	NA	
	NEW CP6811	68	1-1 1/2"	14	60	N	Y	NA	50-55"	2	1	2	3	2	2	2	1	2	4	3	3	S	
	NEW CP7011A	70	1-1 1/2"	15	60	Y	Y	Y	53-57"	1	1	2	1	1	2	2	2	1	2	2	NA	NA	S

### KEY Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

### 1 Downy Mildew:

- S = Susceptible
- T = Tolerant

### Hybrid Number System

First & Second Number = Maturity to Mid-Bloom  
Third & Fourth Numbers = Sequential  
Trait Lettering: A = Sugarcane Aphid tolerance; Ig = Igrowth herbicide tolerance



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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# SPRING CANOLA

**As one of the industry leaders, our innovations include the latest solutions to help reduce shatter, resistance to clubroot and blackleg and crop safety/ weed-control features, delivering outstanding yield potential and easier management.**

## KEY TAKEAWAYS

- 1 Pick the right genetics for your environment.
- 2 Utilize the latest resistance genes for blackleg and clubroot.
- 3 Leverage the LibertyLink® system and TruFlex™ canola with Roundup Ready® Technology for enhanced weed management and crop safety features.
- 4 Take advantage of products with straight-cut (SC) and straight-cut plus (SC+) technology to help provide increased shatter tolerance in straight-cut systems.

## CHOOSE THE RIGHT GENETICS AND TRAITS FOR YOUR ENVIRONMENT

- ▶ The CROPLAN® seed canola portfolio brings genetic diversity to the farm with the latest weed-control options such as the LibertyLink® canola system and TruFlex™ canola, which offers outstanding crop safety.

**TruFlex™**  
CANOLA



### LIBERTYLINK® CANOLA SYSTEM

- Liberty® herbicide use on canola hybrids with the LibertyLink® trait provides an excellent means for growers to rotate non-selective herbicide systems to effectively manage tough to control weeds.
- Provides an alternative herbicide tolerance system.
- Unique mode of action.

### THE TRUFLEX™ WITH ROUNDUP READY® TECHNOLOGY SYSTEM HELPS YOU:

- Have the ability to spray up to first flower.
- Manage both annual weeds and tough-to-control perennials, including Canada thistle, dandelion and wild buckwheat.

- Be flexible with the Roundup PowerMAX® herbicide application rate to get the job done using 44 fluid oz. per acre or applying sequential rates of 22 fluid oz. per acre.
- Achieve better weed control and crop safety compared to Roundup Ready® Canola for improved yield potential.

## MANAGE DISEASE

Optimizing canola performance includes evaluating cropping system elements such as disease environment, crop rotation and other production practices.

### BLACKLEG

- Select hybrids that are rated "R" (most resistant) for this disease.
- Rotation is very important in keeping disease inoculum levels low.
- Rotation of blackleg-resistant groups can also be beneficial.
- Tank mixing a fungicide with an early weed-control application at the 2- to 3-leaf stage can potentially reduce your risk of yield loss.

### CLUBROOT

- Clubroot hinders the canola plant root from developing and utilizing soil moisture and nutrients.
- It can be mistaken for other diseases, such as sclerotinia or blackleg, so it is important to dig up suspected plants.
- It is more difficult for clubroot to thrive when soils have a pH above 7.0.
- To avoid the spread of clubroot, clean equipment thoroughly.

### LUMIDERM™ INSECTICIDE SEED TREATMENT

- Improved 30-day control of flea beetle and cutworm.
- Giving your crop a leg up on flea beetles and cutworms during this period provides it with the opportunity to experience increases in stand establishment, plant vigor and biomass.

## TIPS FOR STRAIGHT-CUTTING CANOLA

- 1 Utilize straight-cut hybrids offering shatter and standability assurance.
- 2 Ensure a uniform stand. Proper seeding rates will help.
- 3 Harvest in a timely manner (as soon as the seed is dry enough to store).
- 4 Control weeds and diseases in every field.



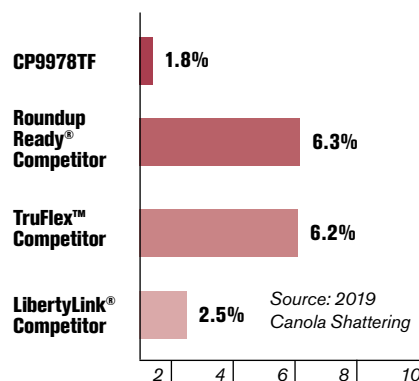
SC designates these products have met the minimum requirements for

standability and reduced shatter to be considered a straight-cut hybrid. SC+ indicates a hybrid has met the highest level of requirements for optimum straight-cut performance.

## CROPLAN® SEED DELIVERS AN EXCELLENT SHATTER SCORE¹

CROPLAN® seed TruFlex™ canola (CP9978TF) showed a lower shatter score than competitive checks in a recent study from Roseau, MN.

### % OF YIELD LOSS TO SHATTER



Variety Trial.

Northern Resources, Roseau, Minn.

1. Results not statistically significant and may vary. Because of factors outside of WinField United's control, such as weather, product application and any other factors, results to be obtained, including but not limited to yields, financial performance or profits, cannot be predicted or guaranteed by WinField United.

**CROPLAN CP930RR**

Spring Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content					1	
Drought Tolerance					1	
Lodging					1	
Straight Cutting			3			

- Industry-leading oil content
- Excellent yield potential for early maturity; strong stress tolerance
- Good for straight-cutting; good shatter scores
- Strong vigor; for less-than-ideal seedbeds and no-till

**NEW****CROPLAN CP9221TF**

Spring Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content				2		
Drought Tolerance					1	
Lodging					1	
Straight Cutting				2		

- Strong yield potential at an early maturity
- Excellent choice for stressed environments or as an earlier product to manage workload in timely straight cut systems
- TruFlex™ hybrid that offers crop safety at higher rates and a wider application window
- Strong disease package with resistance to both clubroot and blackleg

**CROPLAN CP9978TF**

Spring Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content				2		
Drought Tolerance				2		
Lodging					1	
Straight Cutting					1	

- Excellent for straight-cutting with one of the industry's leading shatter and pod drop tolerance hybrids
- TruFlex™ hybrid that offers crop safety at higher rates and a wider application window
- Excellent yield potential, especially in moderate- to higher-yielding environments
- LepR3, RlmS provide enhanced blackleg resistance

**CROPLAN CP7130LL**

Spring Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content			3			
Drought Tolerance				2		
Lodging				2		
Straight Cutting				2		

- Liberty® herbicide tolerance provides an excellent alternative herbicide system
- Top yield potential LibertyLink® product with very good shatter scores in 2020 Answer Plot® trial testing
- Very good standability along with good shatter for straight cut systems
- Blackleg and clubroot resistance

**NEW****CROPLAN CP7250LL**

Spring Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content				2		
Drought Tolerance			3			
Lodging				2		
Straight Cutting				2		

- High yield potential hybrid in moderate- to higher-yielding environments
- Excellent shatter/pod drop resistance in stressed 2021 evaluation trials
- Taller plant type but very good lodging scores
- Brings sclerotinia, clubroot and blackleg resistance

**KEY****Scale**

- 1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



	Herbicide Tolerance Trait	Common Seed Size Range	Type	Days to Flower	Relative Maturity	Height <sup>1</sup>	Resistance Group <sup>2</sup>	Major Resistance Gene(s) * <sup>3</sup>	Clubroot <sup>5</sup>		Response to Population (RTP) <sup>6</sup>	Oil Content	Vigor	Lodging	Drought Tolerance	Straight-Cutting	
ROUNDUP READY® CANOLA																	
CP930RR	Roundup Ready	Hybrid	90-120,000	45	90	S	R	C	Rlm3	S		1	1	L	1	3	1
TRUFLEX™ CANOLA																	
NEW CP9221TF	TruFlex	Hybrid	90-120,000	43	88	M-S	R	Multi	Multi	R - SOURCE A/B		2	1	NA	1	2	1
CP9978TF	TruFlex	Hybrid	100-115,000	46	92	M-S	R	A, G	LepR3, RlmS	S		2	1	M	1	1	2
LIBERTYLINK® CANOLA																	
CP7130LL	LibertyLink	Hybrid	90-120,000	48	91	M	R	Multi	Multi	R - 2, 3, 5, 6, 8		3	1	NA	2	2	2
NEW CP7250LL	LibertyLink	Hybrid	90-120,000	50	94	M	R	Multi	Multi	R - 2, 3, 5, 6, 8		2	1	NA	2	2	3

**KEY**

**Scale**

- 1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

**1 Height**

- T = Tall  
M = Medium  
S = Short

**2 Blackleg Field Resistance**

- R = Resistant  
MR = Moderately Resistant  
MS = Moderately Susceptible  
S = Susceptible

**3 Blackleg Resistance Group**

- A  
B  
C  
D  
E1  
E2  
F  
G  
H  
X  
Multi

**4 Blackleg Major Resistance Gene(s)\***

- Rlm1 or LepR3  
Rlm1  
Rlm3  
LepR1  
Rlm4  
Rlm7  
Rlm9  
RlmS  
LepR2  
QTL  
Unknown  
Multi

**5 Clubroot**

- R = Resistant; clubroot genes are effective against pathotypes 2, 2B, 3, 3A, 5, 5X, 6, 8 and Source A/B  
S = Susceptible

**6 RTP Ratings**

- L = Low Response  
M = Moderate Response  
H = High Response

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.  
\*Major resistance gene groups are subject to change.



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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# WINTER CANOLA

**We use local and national data to determine the best way for you to reach the yield potential you want with four types of winter canola that provide varying trait offerings, allowing it to thrive in your preferred cropping system.**

## KEY TAKEAWAYS

- 1 Choose from two of our herbicide-tolerant systems, as well as rotational flexibility with G2Flex™ technology.
- 2 Provide proper row spacing and plant-to-plant spacing.
- 3 Practice good nutrient management, especially with nitrogen, sulfur and boron.
- 4 Implement planting for winterhardiness strategies.

## USE CUTTING-EDGE WEED CONTROL

CROPLAN® seed offers two herbicide management systems.

### ROUNDUP READY® WINTER CANOLA

- Strong on cheat, feral rye and other tough grasses.
- Optimal control with Class Act® NG® and InterLock® adjuvants.
- Excellent crop safety with Roundup® brand agricultural herbicide for in-crop applications.

### ROUNDUP READY® WINTER CANOLA WITH SURT

- Review the crop protection history of previous wheat crops.
- In field trials, SURT products provided improved crop safety from previous wheat crops with a long-residual sulfonyleurea herbicide.
- Canola is susceptible to many broadleaf herbicides with a long residual life.



## NEW CANOLA ROTATIONAL OPPORTUNITY

Group 2 Flexible (G2Flex™) residual tolerance technology allows canola to be planted right behind wheat in soils with Group 2 herbicide residuals, including imidazolinones, sulfonyleureas, sulfonamides and triazopyrimidines.

Pursuit® and Beyond® herbicides, two Group 2 products commonly used in both pulse and wheat production, often prohibit canola from being added to a rotation. And many wheat-fallow rotations have traditionally utilized Group 2 products like Ally® and Glean® herbicide, which can prevent growers from working canola into their rotation for more than 4 years. G2Flex™ canola has been successfully cultivated in field trials where a Group 2 herbicide was applied on the previous wheat crop, in the same soils where other oilseeds failed to produce. This will allow more producers the opportunity to try winter canola.

WinField® United is the exclusive provider of the only canola variety with the G2Flex™ trait—CROPLAN® CP1022WC winter canola.



## PLANT AT THE RIGHT POPULATION

Low plant densities can cause yield and weed-control problems.

Evaluations at Answer Plot® trials have led us to recommend a seeding rate of 4 to 5 lbs. per acre to establish 8 to 12 plants per square foot. In poor planting conditions, however, the seeding rate should be increased.<sup>1</sup>

## TIPS ON ROW SPACING

- The most common spacing is 6 to 10 inches, which is often higher-yielding.
- Plug every other row of the seeder to make 12- to 20-inch rows and to increase stand establishment.
- Using a 30-inch planter is another option; however, 30-inch rows can reduce yield potential. Reduce crowding by decreasing the seeding rate to around 4 lbs. per acre.

## MONITOR NUTRIENT LEVELS

The fertility required for a 2,000 lb. canola crop is:

- 100 to 130 lbs. of nitrogen
- 50 lbs. of phosphorus
- 100 lbs. of potassium
- 30 lbs. of sulfur

► **Use caution when applying nutrients at seeding because canola is sensitive to fertilizer salts. Applying nutrients through top-dressing or prior to seeding is the safest method.**

## TIPS ON PLANTING FOR WINTERHARDINESS

1. Canola should be planted six weeks before the first killing frost date for the area (less than 25 degrees Fahrenheit).
2. Seeding date is important to establishing a crop that has sufficient growth for good winterhardiness.
3. Late planting does not allow for sufficient root reserves to maximize winter survival.
4. Better winterhardiness can be achieved by planting into a clean seedbed that's free of crop residue. Crop residue can elevate plant crowns and expose them to more temperature fluctuations and winterkill.

*1. Because of factors outside of WinField United's control, such as weather, product application and any other factors, results to be obtained, including but not limited to yields, financial performance or profits, cannot be predicted or guaranteed by WinField United.*

**CROPLAN CP115WRR**

Winter Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content				2		
Drought Tolerance					1	
Lodging				2		
Winterhardiness				2		

- Strong yield potential and excellent stress tolerance for multiple environments
- SURT (sulfonyleurea residual tolerant)
- Dependable variety; approved for first-time High Plains canola growers
- Handles low-pH soil better than other products

**CROPLAN CP225WRR**

Winter Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content					1	
Drought Tolerance				2		
Lodging				2		
Winterhardiness				2		

- Excellent potential for strong yield environments
- SURT (sulfonyleurea residual tolerant)
- Strong fall vigor; good for less-than-ideal seedbeds
- Strong winterhardiness; excels in Pacific Northwest and Mont.

**CROPLAN CP320WRR**

Winter Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content					1	
Drought Tolerance				2		
Lodging				2		
Winterhardiness					1	

- Excellent yield potential in highly productive environments
- Best winterhardiness in CROPLAN® lineup; excels in all regions
- Strong fall vigor
- Roundup Ready®-only tolerance

**CROPLAN CP1022WC**

Winter Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content					1	
Drought Tolerance					1	
Lodging				2		
Winterhardiness					1	

- G2FLEX™ (Group-2 Flexible) residual tolerance technology allows canola to be planted in soil with Group 2 herbicide residuals
- Extremely winter-hardy conventional with excellent yield potential for northern environments
- Consistent yield performance across environments
- Very good standability for harvest flexibility

**CROPLAN CP1077WC**

Winter Canola

**Characteristics**

	Not Recommended			Excellent		
Oil Content					1	
Drought Tolerance				2		
Lodging				2		
Winterhardiness				2		

- Excellent yield potential in more offensive environments
- Excellent pod shatter resistance for straight-cut opportunities
- Excels across multiple northern regions
- Taller product with good standability

**CROPLAN CP1066WC**

Winter Canola

**Characteristics**


	Not Recommended			Excellent		
Oil Content					1	
Drought Tolerance				2		
Lodging					1	
Winterhardiness					1	

- Excellent yield potential; very good performance across 2020 National Winter Canola Variety Trials
- Excellent winterhardiness ratings, among the top in the industry
- Very good lodging tolerance
- Consistent performer across environments and management styles

**KEY**

**Scale**  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

Herbicide Tolerance Trait		Type		Common Seed Size Range		Maturity		Height 		Oil Content		Fall Vigor		Winterhardness		Lodging		Drought Tolerance	
ROUNDUP READY® WINTER CANOLA																			
CP320WRR	Roundup Ready	Open Pollinated	100,000-130,000	Medium	M	1	1	1	2	2									
ROUNDUP READY® + SURT WINTER CANOLA																			
CP115WRR	Roundup Ready + SURT	Open Pollinated	100,000-130,000	Medium	M-S	2	2	2	2	2									
CP225WRR	Roundup Ready + SURT	Open Pollinated	100,000-130,000	Medium	M	1	2	2	2	2									
CONVENTIONAL WINTER CANOLA																			
CP1077WC	Conventional Winter Canola	Hybrid	100,000-130,000	Medium	T	1	1	2	2	2									
CP1066WC	Conventional Winter Canola	Open Pollinated	100,000-130,000	Medium	M	1	1	1	1	2									
CONVENTIONAL + G2FLEX™ WINTER CANOLA																			
CP1022WC	G2FLEX™	Open Pollinated	100,000-130,000	Medium	T	1	1	1	2	2									

**KEY**

**Scale**

1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Manage  
5 = Not Recommended

Product descriptions and ratings are generated from Answer Pkg® trials and/or from the genetics supplier and may change as additional data is gathered.

**1 Height Ratings**

T = Tall  
M = Medium  
S = Short



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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\_\_\_\_\_

**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

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# SUNFLOWER

**We're making great strides in improving sunflower insights and recommendations by doubling our number of research locations, developing extensive hybrid management testing, along with screening many new products from the world's top breeders. Because with the right hybrids and our expertise, we can help you manage pressures in your fields for an optimized ROI.**

## KEY TAKEAWAYS

- 1 Understand your market options.
- 2 Gain access to new genetics.
- 3 Choose traits designed to manage weed pressure.
- 4 Implement an effective weed-control strategy.
- 5 Experience double crop opportunities for pest management using your own ground equipment with our short statured, ultra-early hybrid.

## ACHIEVE YOUR MARKETING OBJECTIVES

Sunflower has become a market segmented by grain uses, and any single hybrid might fit one or more market options. Sunflower markets include:

### OIL-TYPE SUNFLOWER

#### ► High Oleic

Specific oil levels trending above 85% oleic based on market requirements.\*

#### ► NuSun®

Standard for the oil market.

#### ► Hulling

All oil types that have proper seed size and ease of shell removal.

#### ► Birdseed

Regional markets throughout the United States for all oil types.

*\*Contracting buyers' current high oleic percent rate.*

## NEW SUNFLOWER PRODUCT LINE: SHORT STATURED, ULTRA-EARLY HYBRIDS

- Double crop opportunities to wider geographies
- In-season opportunities for pest management using your own ground equipment
- Wider window opportunity for planting or replant

## CONSIDER SEED SIZE AND COATING

### SUNFLOWER SEED SIZE

Plant-to-plant spacing is important, and seed size can play a role in achieving the correct spacing and population in sunflower crops.

### PROSUN™ PRECISE SEED COATING

Prosun™ precise seed coating is available on select CROPLAN® sunflower hybrids and offers:

- More seed size options per hybrid
- Consistent seed size, which helps optimize yield potential
- Uniformity in stand establishment
- Even growth for optimal weed, disease and insect management

## CHOOSE THE RIGHT TRAITS

We have a long history of offering farmers the DuPont™ ExpressSun® and the Clearfield® Production System traits. Both provide good weed-control options to farmers.

## CONTROL WEEDS

### BEYOND® AND EXPRESS® HERBICIDES

- Both traits have advanced yield potential.
- Both require preemergence herbicide treatments (Spartan® Charge, BroadAxe® or Prowl® H<sub>2</sub>O) or preplant-incorporated herbicides (Framework®, Prowl® H<sub>2</sub>O or Sonalan®) to combat kochia and Russian thistle.
- Both are a Group 2 herbicide mode of action.
- The DuPont™ ExpressSun® trait is tolerant to Express® herbicide.
- The Clearfield® Production System is tolerant to Beyond® herbicide.

ACTIVITY	BEYOND® HERBICIDE	EXPRESS® HERBICIDE
Activity on grass	Yes	No
Recommended Section® Three herbicide tank mix	Yes	Yes
Residual control	Yes	No
Better control of cocklebur, nightshade, lanceleaf sage, smartweed and grasses	Yes	No
Better control of Canada thistle, lambsquarters and wild buckwheat	No	Yes
Can be applied across a broader crop stage, from one leaf to bud	No	Yes
Can be applied a second time for later flushes	No	Yes

**CROPLAN CP432E**

ExpressSun® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality				2		
Root Strength			3			
Phomopsis				2		
Oil Content		4				
Dry down					1	

- High yield potential for early maturity
- Shorter plant height; very uniform
- DMR PI 8; resistant to all common U.S. races of downy mildew
- Nice seed size for dehulling option

**CROPLAN CP450E**

ExpressSun® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality					1	
Root Strength					1	
Phomopsis				2		
Oil Content			3			
Dry down				2		

- Excellent yield potential; great compliment to CP455E
- Top performer in stressed environments
- Stronger standability than CP455E; good hybrid to plant early
- DMR PI 8; resistant to all common U.S. races of downy mildew

**CROPLAN CP455E**

ExpressSun® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality				2		
Root Strength			3			
Phomopsis				2		
Oil Content				2		
Dry down					1	

- Excellent yield potential; top performer in CROPLAN® lineup
- Widely adapted across regions and field conditions
- Medium-short plant with excellent drydown
- DMR PI 6; resistant to most common U.S. races of downy mildew

**CROPLAN CP4909E**

ExpressSun® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality				2		
Root Strength			2			
Phomopsis			3			
Oil Content				2		
Dry down					1	

- Top-end yield potential in high-yield environments; use caution on droughty soils
- Unique genetic diversity in the ExpressSun® lineup
- Short stature for excellent standability
- Great stalk strength but doubles/triples may cause lodging

**NEW****CROPLAN CP5220CLSS**

Clearfield® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality					1	
Root Strength					1	
Phomopsis				1		
Oil Content		4				
Dry down					1	

- Very early, extremely short-statured hybrid
- Excellent stalks, roots and late season standability
- Ultra-early hybrid with DMR for the high oleic crush/birdseed market
- Excellent option for late-planting or double-crop acres with in-season ground applications possible

**NEW****CROPLAN CP5045CL**

Clearfield® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality					1	
Root Strength					1	
Phomopsis			3			
Oil Content				2		
Dry down			3			

- Very high yield potential with excellent agronomics
- PI 6 & PI 17 DMR for industry-best downy mildew tolerance
- Excellent stalks and roots; medium plant height for excellent late-season standability
- Increased staygreen and slower drydown in cooler environments - a good candidate for desiccation

**KEY**

**Scale**  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

**CROPLAN CP545CL**

Clearfield® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality					1	
Root Strength					1	
Phomopsis			3			
Oil Content				2		
Dry down			3			

- Outstanding yield and high oil-per-acre potential
- Mid-maturity with strong overall disease package
- DMR PI 6; resistant to most common U.S. races of downy mildew
- Increased staygreen and slower drydown in cooler environments

**CROPLAN CP3845**

Conventional Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality				2		
Root Strength			3			
Phomopsis		4				
Oil Content					1	
Dry down				2		

- Strong yield potential in higher-yielding environments
- Consistent performance across multiple environments
- One of the top oil content products in the CROPLAN® lineup
- Plant at higher populations for best results

**CROPLAN CP7919CL**

Clearfield® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality				2		
Root Strength				2		
Phomopsis					1	
Oil Content				2		
Dry down			3			

- High yield potential, oil and oleic levels
- Above-average disease tolerance
- DMR PI 6; resistant to most common U.S. races of downy mildew
- Full maturity; plant early when utilizing north of I-94 in Minnesota, North Dakota and Montana

**CROPLAN CP4157E**

ExpressSun® Sunflower

**Characteristics**

	Not Recommended			Excellent		
Stalk Quality				2		
Root Strength		4				
Phomopsis					1	
Oil Content				2		
Dry down				2		

- Very high yield potential with best performance in offensive environments
- Excellent Phomopsis tolerance
- Good roots and stalks on a medium-tall stature provide solid late-season standability
- DMR PI 6; resistant to most common U.S. races of downy mildew

**KEY****Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

	High Oleic <sup>1</sup>	NuSun® <sup>1</sup>	Dehilling <sup>1</sup>	Birdseed <sup>1</sup>	Days to Maturity	Downy Mildew Resistance <sup>2</sup>	Phenopsis	Sclerotinia	Height	Root Strength	Stalk Quality	Drydown	Drought Tolerance	Oil Content	Common Planting Seed Size
<b>EXPRESSSUN® SUNFLOWER</b>															
CP432E	•	•	•	•	89	Pl 8	2	3	Short	3	2	1	2	4	NA 2, 3, 4
CP450E	•	•	•	•	94	Pl 8	2	2	Medium	1	1	2	1	3	2 2, 3, 4
CP455E	•	•	•	•	94	Pl 6	2	2	Medium	3	2	1	2	2	1 2, 3, 4
CP4909E	•	•	•	•	91	-	3	2	Short	2	2	1	3	2	NA 2, P3, 3, 4
CP4157E	•	•	•	•	TBD	Pl 6	1	2	Medium	4	2	2	4	2	NA 3, 4
<b>CLEARFIELD® SUNFLOWER</b>															
<b>NEW</b> CP5220CLSS	•	•	•	•	TBD	Pl 6	1	NA	Super Short	1	1	1	1	1	4 3
<b>NEW</b> CP5045CL	•	•	•	•	TBD	Pl 6,17	3	2	Med-Short	1	1	3	1	2	NA
CP545CL	•	•	•	•	94	Pl 6	3	2	Short	1	1	3	2	2	NA 2, P3, 3, 4
CP7919CL	•	•	•	•	98	Pl 6	1	3	Med-Tall	2	2	3	2	2	2 2, 3, 4
<b>CONVENTIONAL SUNFLOWER</b>															
CP3845	•	•	•	•	96	-	4	5	Med-Short	3	2	2	3	1	1 3, 4

## KEY

### Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

### 1 Market Options

Grain not guaranteed to be sold in your area.

Due to factors outside our control, WinField United does not guarantee oleic levels.

TBD = still in testing.

### 2 Downy Mildew Resistance

**Pl 2 gene** = This gene is resistant to some of the early races of downy mildew, but it is susceptible to most of the common races found today.

**Pl 6 gene** = This gene is resistant to races prevalent before 2009; it is susceptible to races 314, 704, 714, 734 and 774.

**Pl 8 gene** = This gene can get infected, but then stops downy mildew from advancing or having an economic impact on all common races.

**Pl 15 gene** = This gene is exclusive to CROPLAN® hybrids and is resistant to all known races of downy mildew.

**Pl P gene** = Proprietary gene developed to control all known races of downy mildew.

**Pl 17 gene** = Advanced control, resistant to all known races of downy mildew.

# SUNFLOWER



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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# HARD RED SPRING WHEAT

Backed by Answer Plot® data, research and the right genetics, we can help you manage a strong wheat crop. By ensuring you manage your varieties appropriately, you'll support responsible land use and deliver high performance potential.

1 of 2

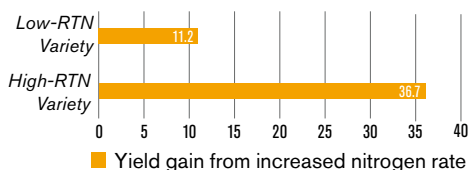
## KEY TAKEAWAYS

- 1 Top-dress nitrogen on responsive genetics for added potential.
- 2 Plant at the right population for optimal varietal performance.
- 3 Know how to manage your variety to best enable its response-to-fungicide (RTF) score.
- 4 Use new CoAXium® varieties to an innovative, comprehensive solution for controlling tough, grassy weeds.

## MANAGE YOUR VARIETY'S RESPONSE-TO-NITROGEN (RTN) SCORE¹

Customize nitrogen rate by variety to capture ROI potential. Optimize yield potential on more productive acres with higher nitrogen management by planting varieties with higher RTN scores. Protect yield potential on tougher acres by utilizing lower RTN score varieties on acres with lower-productivity soils or less nitrogen management.

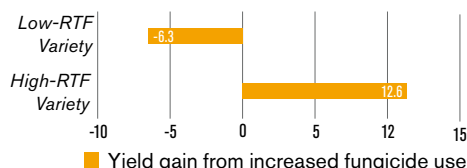
### ► RTN Yield Response Variance — 25.5 bu/A



## USE RESPONSE-TO-FUNGICIDE (RTF) SCORES TO AID DECISION-MAKING¹

Fungicides are another tool to help you optimize the yield potential of your wheat crop. RTF scores help you understand where premium fungicides may increase yield potential and protect ROI potential.

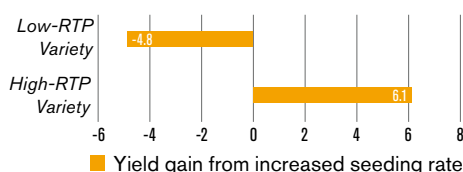
### ► RTF Yield Response Variance — 18.9 bu/A



## OPTIMIZE SEEDING RATE BY VARIETY¹

Each CROPLAN® variety has its own response to population (RTP). Managing population correctly will help you optimize yield potential and help increase standability. Use seed size when determining optimal seeding rates. For more uniform emergence, use Warden® Cereals seed treatments plus Ascend® plant growth regulators.

### ► RTP Yield Response Variance — 10.9 bu/A



## SEEDING RATE CHART²

Example of how to use the chart:

1. Select total planting seed.  
Example: 1.4 million seeds per acre
2. Select seeds per pound.  
Example: 13,000
3. Determine recommended seeding rate.  
Example: 108 lbs. per acre

Calculation assumptions:

Germ: 95%

Survivability: 10%

Total stand loss: 15%

① MILLION SEEDS PER ACRE

② PLANTS PER ACRE

③ PLANTS PER SQUARE FOOT

SEED SIZE: SEEDS PER POUND									
TOTAL PLANTING SEED ①	PURE LIVE SEED ①	11,000	12,000	13,000	14,000	15,000	FINAL STAND ②	PLANTS/SQ FT ③	
0.8	0.8	73	67	62	57	53	0.7	15.6	
1.0	1.0	91	83	77	71	67	0.9	19.5	
1.2	1.1	109	100	92	86	80	1.0	23.4	
1.4	1.3	127	117	108	100	93	1.2	27.3	
1.6	1.5	145	133	123	114	107	1.4	31.2	
1.8	1.7	164	150	138	129	120	1.5	35.1	
2.0	1.9	182	167	154	143	133	1.7	39.0	
2.2	2.1	200	183	169	157	147	1.9	42.9	
SEEDING RATE (LBS/A)									

1. Response ranges show the importance of how varieties respond to each management practice to help ensure the highest yield potential. 2019 nationwide Answer Plot® data.

2. Because of factors outside of WinField United's control, such as weather, product application and any other factors, results to be obtained, including but not limited to yields, financial performance or profits, cannot be predicted or guaranteed by WinField United.

# HARD RED SPRING WHEAT

2 of 2



## REVOLUTIONARY GRASSY WEED CONTROL

CROPLAN® seed is pleased to offer one CoAXium® variety. Created in part by wheat farmers for wheat farmers, the CoAXium® Wheat Production System provides cost-effective, excellent control of annual and perennial grasses, higher quality grain, and increased yield potential.

This system combines elite wheat varieties, the AXigen® trait and Aggressor® herbicide with an industry-wide stewardship program. AXigen® is an ACCase herbicide-tolerant trait that protects wheat varieties from Aggressor® herbicide, which delivers effective, consistent, broad-spectrum control of problem grasses.



## A WINNING EQUATION

ELITE VARIETIES

+

PATENTED HERBICIDE-TOLERANT TRAIT

+

NEW HERBICIDE

+

STEWARDSHIP PROGRAM

=

A REVOLUTIONARY SYSTEM

## SMART SOLUTION FOR THE TOUGHEST WEEDS

When used in conjunction with CoAXium® varieties, Aggressor® herbicide is a valuable new tool for consistent control of tough weeds in wheat, including ALS-resistant biotypes. Aggressor® provides systemic and selective broad-spectrum control of these problem grasses:

- Barnyard grass
- Bromus species, including ALS-resistant biotypes
- Feral and cereal rye
- Jointed goatgrass, including ALS-resistant biotypes
- Wild oats (non-resistant Group 1)
- Volunteer cereals

## TECHNOLOGY WORTH PRESERVING

To ensure the success of the system, farmers are required to adhere to the CoAXium® Wheat Production System Grower Stewardship Agreement, which outlines policies on product rates, crop rotation, best practices and product use limitations over time. Policies include:

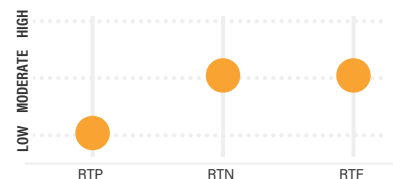
- Do not use the CoAXium® Wheat Production System more than two years in a row, and rotate with Group 2 or Group 15 herbicide modes of action in annual crop winter wheat.
- Rotate herbicide modes of action between crop cycles, especially between Glyphosate, Group 1 and Group 2 herbicides.
- Herbicide-tolerance traits in cereals are not cross tolerant, so good farm management and record keeping is required.
- Do not allow grassy weed escapes to go to seed.
- The use of Certified Seed is required.

## FOLLOW THESE MANAGEMENT PRACTICES

1. Aggressor® herbicide is the only legal and registered Group 1 ACCase inhibitor for use in CoAXium® wheat.
  - » Do not use Clethodim herbicide on CoAXium® wheat.
2. Group 1 modes of action benefit from:
  - » Good spray coverage: Spray with minimum 15gpa carrier with medium droplet size to get deep coverage on tough to cover grass. Delivering more droplets in the ideal droplet diameter spectrum.
  - » Oil adjuvants: 0.5gal Superb® HC/100gal water OR 0.5gal Destiny® HC/100gal water OR 0.5gal StrikeLock®/100gal water
  - » Deposition: 2 to 4oz InterLock®/Acre OR 6.4oz MasterLock®/Acre
3. To avoid possible crop injury, do not apply Aggressor® to CoAXium® Wheat Production System and varieties with the AXigen® trait when extreme cold temperatures (less than 40° F maximum daytime temperature) are expected within 1 week of application.
4. Do not tank-mix MCPA amine, 2,4-D amine or Metribuzin with Aggressor® herbicide.
5. Make sure that the broadleaf herbicides are approved to be used with MSO or COC's.

**CROPLAN CP3530**

Hard Red Spring

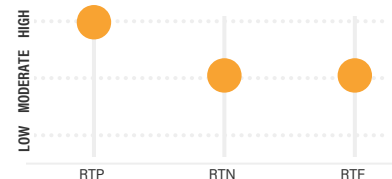
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability			4			
Fusarium Head Blight					2	
Test Weight				3		
Protein					2	

- Excellent yield potential and strong protein
- Performs best at low-to-medium populations and split-application nitrogen management
- Strong fusarium head blight and leaf disease tolerance; acceptable bacterial blight tolerance
- Utilize moderate to low populations on highly productive soils

**CROPLAN CP3915**

Hard Red Spring

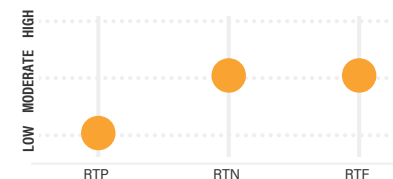
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability					2	
Fusarium Head Blight					2	
Test Weight					2	
Protein					2	

- High yield and protein potential that can increase with additional N
- Excellent agronomics, very good BLS tolerance and straw strength
- Excels under higher yield environments; stable in lower yielding environments
- High response to population, recommended @ 1.4-1.7 M seeds/Ac

**CROPLAN CP3099A**

Hard Red Spring

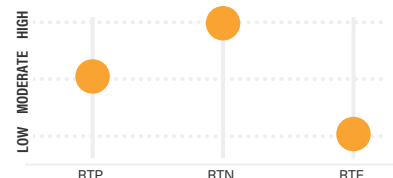
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability						1
Fusarium Head Blight					2	
Test Weight			3			
Protein	5					

- Awnless genetics, unique background to the industry
- Extremely high yield potential – among the highest yielding products in 2020 Answer Plot testing
- Lower protein, but additional nitrogen may increase both yield potential and total protein per acre
- Excellent forage/dual-purpose potential as silage or dry hay

**CROPLAN CP3119A**

Hard Red Spring

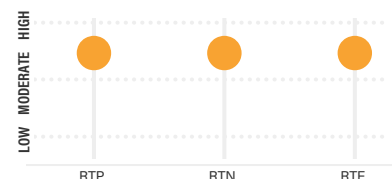
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability						1
Fusarium Head Blight					2	
Test Weight			4			
Protein			4			

- Full-season awnless product with very high yield potential
- Very large, healthy plant; good standability and large flag leaf to drive grain fill
- High yield potential; lower-protein can be improved with N management
- Extended-season wheat with longer grain-fill gives higher yield potential

**NEW****CROPLAN CP3201AX**

Hard Red Spring

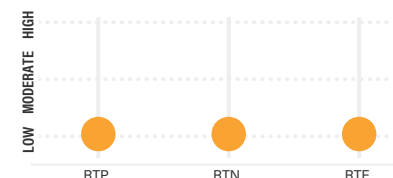
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability					2	
Fusarium Head Blight	N/A					
Test Weight					2	
Protein						1

- Can control resistant weeds by utilizing CoAXium® technology driven by Aggressor® herbicide using an ACCase inhibitor
- Nicely balanced product for both yield and protein potential, for success across markets
- Good agronomics and yield potential, especially in moderate to higher yielding environments
- Medium-late maturity with earlier flowering and longer grain fill; medium plant height

**CROPLAN CP3188**

Hard Red Spring

**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability			3			
Fusarium Head Blight					2	
Test Weight					2	
Protein		4				

- Out-yielded all commercial checks in 2020 Answer Plot® testing
- Excellent performance on tough acres (lower OM, drought)
- Low response to population; seeding at 1.3M or below can help maintain yield and protect standability
- Low response to nitrogen drives stability across environments

**KEY**

**Scale**  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



**HARD RED SPRING WHEAT**

VARIETY	Wheat Class															Wheat Stem Sawfly			
	Days to Heading	Days to Maturity	Height 	Standability	Test Weight	Baking Quality	Response to Population (RTP) 	Response to Nitrogen (RTN) 	Placement on Irrigation 	Fusarium Head Blight	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease					
CONVENTIONAL WHEAT																			
CP3530	Hard Red	57	87	T	4	3	2	3	L	M	M	4	2	2	1	3	2	3	3
CP3915	Hard Red	55	86	M	2	2	2	2	H	M	M	1	2	1	1	NA	3	1	3
CP3188	Hard Red	55	85	T	3	2	4	NA	L	L	M	3	2	2	2	NA	2	3	3
CP3099A	Hard Red	61	92	T	1	3	5	NA	L	M	M	2	2	2	2	NA	2	3	3
CP3119A	Hard Red	62	96	T	1	4	4	NA	M	H	L	2	2	2	2	NA	2	2	2
COAXIUM® WHEAT																			
NEW CP3201AX	Hard Red	55	87	M	2	2	1	NA	NA	NA	NA	2	NA	NA	NA	NA	NA	NA	3

**KEY Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

**1 RTP/RTM/RTF Ratings**

- L = Low Response
- M = Moderate Response
- H = High Response

**2 Height**

- S = Short
- M = Medium
- T = Tall

The comparison ratings are with CROPLAN® wheats only. These ratings reflect trends observed in research trials, which will change based on various factors, including variations in rainfall, temperature and production patterns.



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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# HARD RED WINTER WHEAT

**We're more than credible and innovative. The quality of our seed performance is backed by data, which translates to wheat that's built for the rugged, chaotic conditions of the Central and Northern Plains Wheat Belt.**

1 of 2

## KEY TAKEAWAYS

- 1 Use CoAXium® varieties to provide an innovative, comprehensive solution for controlling tough, grassy weeds.
- 2 Apply nitrogen strategically throughout the season.
- 3 Plant at the right population for optimal varietal performance.
- 4 Know your variety's response-to-fungicide (RTF) score and manage it accordingly.

## REVOLUTIONARY GRASSY WEED CONTROL

CROPLAN® seed is pleased to offer two CoAXium® varieties. Created in part by wheat farmers for wheat farmers, the CoAXium® Wheat Production System provides cost-effective, excellent control of annual and perennial grasses, higher quality grain, and increased yield potential.

This system combines elite wheat varieties, the AXigen® trait and Aggressor® herbicide with an industry-wide stewardship program. AXigen® is an ACCase herbicide-tolerant trait that protects wheat varieties from Aggressor® herbicide, which delivers effective, consistent, broad-spectrum control of problem grasses.



## A WINNING EQUATION

ELITE VARIETIES

+

PATENTED HERBICIDE-TOLERANT TRAIT

+

NEW HERBICIDE

+

STEWARDSHIP PROGRAM

=

A REVOLUTIONARY SYSTEM

## SMART SOLUTION FOR THE TOUGHEST WEEDS

When used in conjunction with CoAXium® varieties, Aggressor® herbicide is a valuable new tool for consistent control of tough weeds in wheat, including ALS-resistant biotypes. Aggressor® provides systemic and selective broad-spectrum control of these problem grasses:

- Bromus species, including ALS-resistant biotypes
- Feral and cereal rye
- Jointed goatgrass, including ALS-resistant biotypes
- Wild oats (non-resistant Group 1)
- Volunteer cereals

## TECHNOLOGY WORTH PRESERVING

To ensure the success of the system, farmers are required to adhere to the CoAXium® Wheat Production System Grower Stewardship Agreement, which outlines policies on product rates, crop rotation best practices and product use limitations over time. Policies include:

- Do not use the CoAXium® Wheat Production System more than two years in a row, and rotate with Group 2 or Group 15 herbicide modes of action in annual crop winter wheat.
- Rotate herbicide modes of action between crop cycles, especially between Glyphosate, Group 1 and Group 2 herbicides.
- Herbicide-tolerance traits in cereals are not cross tolerant, so good farm management and record keeping is required.
- Do not allow grassy weed escapes to go to seed.
- The use of Certified Seed is required.

## FOLLOW THESE MANAGEMENT PRACTICES

1. Aggressor® herbicide is the only legal and registered Group 1 ACCase inhibitor for use in CoAXium® wheat.
  - » Do not use Clethodim herbicide on CoAXium® wheat.
2. Group 1 modes of action benefit from:
  - » Good spray coverage: Spray with minimum 15gpa carrier with medium droplet size to get deep coverage on tough to cover grass. Delivering more droplets in the ideal droplet diameter spectrum.
  - » Oil adjuvants: 0.5gal Superb® HC/100gal water OR 0.5gal Destiny® HC/100gal water OR 0.5gal StrikeLock®/100gal water
  - » Deposition: 2 to 4oz InterLock®/Acre OR 6.4oz MasterLock®/Acre
3. To avoid possible crop injury, do not apply Aggressor® to CoAXium® Wheat Production System and varieties with the AXigen® trait when extreme cold temperatures (less than 40° F maximum daytime temperature) are expected within 1 week of application.
4. Do not tank-mix MCPA amine, 2,4-D amine or Metribuzin with Aggressor® herbicide.
5. Make sure that the broadleaf herbicides are approved to be used with MSO or COC's.

# HARD RED WINTER WHEAT

2 of 2



## MANAGE YOUR VARIETY'S RESPONSE-TO-NITROGEN (RTN) SCORE

Customize nitrogen rate by variety to capture ROI potential. Optimize yield potential on more productive acres with higher nitrogen management by planting varieties with higher RTN scores. Protect yield potential on tougher acres by utilizing lower RTN score varieties on acres with lower-productivity soils or less nitrogen management.

## USE RESPONSE-TO-FUNGICIDE (RTF) SCORES TO AID DECISION-MAKING

Fungicides are another tool to help you optimize the yield potential of your wheat crop. RTF scores help you understand where fungicides may increase yield potential and protect ROI potential.

## OPTIMIZE SEEDING RATE BY VARIETY

Each CROPLAN® variety has its own response to population (RTP). Managing that correctly will help you optimize yield potential and help increase standability. Use seed size when determining optimal seeding rates. For more uniform emergence, use Warden® Cereals seed treatments.

### SEEDING RATE CHART<sup>1</sup>

Example of how to use the chart:

1. Select total planting seed.  
*Example: 1.4 million seeds per acre*
2. Select seeds per pound.  
*Example: 13,000*
3. Determine recommended seeding rate.  
*Example: 108 lbs. per acre*

Calculation assumptions:

Germ: 95%

Survivability: 10%

Total stand loss: 15%

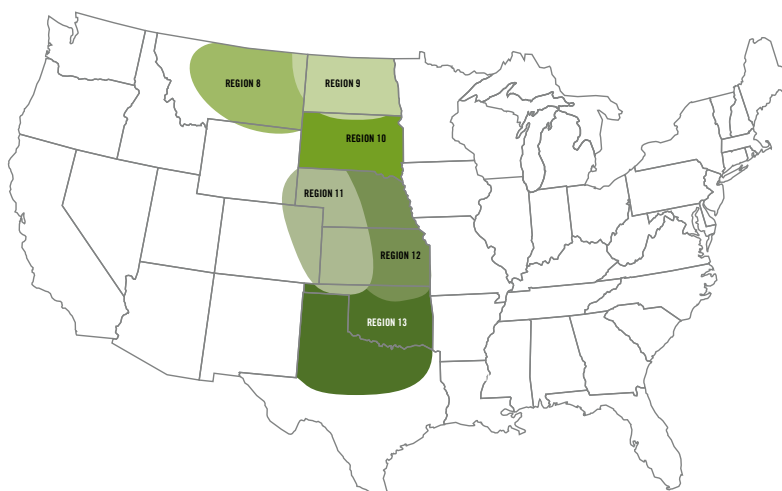
① MILLION SEEDS PER ACRE

② PLANTS PER ACRE

③ PLANTS PER SQUARE FOOT

SEED SIZE: SEEDS PER POUND									
TOTAL PLANTING SEED ①	PURE LIVE SEED ①	11,000	12,000	13,000	14,000	15,000	FINAL STAND ②	PLANTS/SQ.FT. ③	
0.8	0.8	73	67	62	57	53	0.7	15.6	
1.0	1.0	91	83	77	71	67	0.9	19.5	
1.2	1.1	109	100	92	86	80	1.0	23.4	
1.4	1.3	127	117	108	100	93	1.2	27.3	
1.6	1.5	145	133	123	114	107	1.4	31.2	
1.8	1.7	164	150	138	129	120	1.5	35.1	
2.0	1.9	182	167	154	143	133	1.7	39.0	
2.2	2.1	200	183	169	157	147	1.9	42.9	
SEEDING RATE (LBS/A)									

SEEDING RATE (LBS/A)

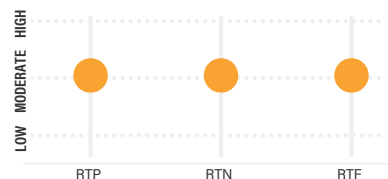


1. Because of factors outside of WinField United's control, such as weather, product application and any other factors, results to be obtained, including but not limited to yields, financial performance or profits, cannot be predicted or guaranteed by WinField United.

NEW

**CROPLAN CP7220**

Hard Red Winter

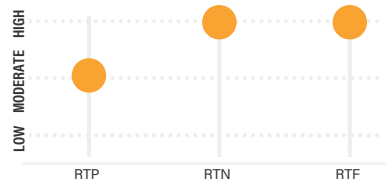
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability				2		
Fusarium Head Blight			3			
Test Weight					1	
Protein				2		
Winterhardiness				2		

- Broadly adapted for Northern Neb. through the Dakotas and into Mont.
- Very good standability and stress tolerance allows for placement from high to low yield potential acres
- Strong baking qualities
- Fungicide recommended in areas with Leaf and Stripe Rust

**CROPLAN CP7909**

Hard Red Winter

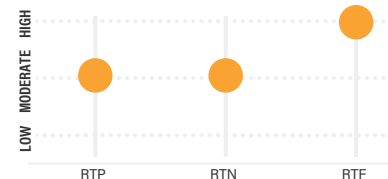
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability				3		
Fusarium Head Blight		4				
Test Weight			3			
Protein					1	
Winterhardiness					1	

- Excellent yield potential with high protein potential
- Very good winterhardiness
- Broad adaptation over a variety of conditions; outstanding yield potential in high-yield environments
- Excellent soilborne mosaic virus resistance

**CROPLAN CP7869**

Hard Red Winter

**Response Scores****Characteristics**

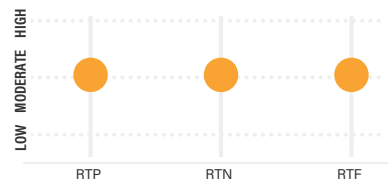
	Not Recommended			Excellent		
Standability				2		
Fusarium Head Blight			3			
Test Weight					2	
Protein					2	
Winterhardiness					2	

- High yield potential and strong stress tolerance
- Excellent standability; push nitrogen to maintain adequate protein
- Best fit is on well-managed dryland or irrigated acres
- Acceptable fusarium head blight tolerance; excellent stripe, stem and leaf rust tolerance

NEW

**CROPLAN CP7266AX**

Hard Red Winter

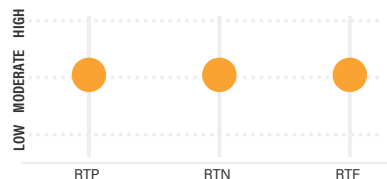
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability				2		
Fusarium Head Blight				2		
Test Weight				2		
Protein				2		
Winterhardiness				2		

- Excellent yield potential in a medium maturity product
- Very good standability for more productive acres
- Very good dryland fit, but data also showed success on irrigated acres in the record heat of 2021
- Very good overall disease package, but fungicide is recommended in areas with Stem Rust

**CROPLAN CP7017AX**

Hard Red Winter

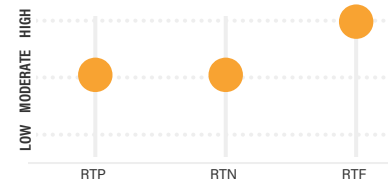
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability				2		
Fusarium Head Blight					1	
Test Weight			3			
Protein			3			
Winterhardiness					1	

- Medium maturity CoAXium® variety with excellent yield potential
- Resistant to soilborne mosaic virus; strong tolerance to tough soils and lower pH
- Broadly adapted for high yield potential across multiple environments
- Use fungicide to manage in areas with history of leaf rust

**CROPLAN CP7050AX**

Hard Red Winter

**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability				2		
Fusarium Head Blight				2		
Test Weight				2		
Protein					1	
Winterhardiness					2	

- Strong yield potential; early-maturing CoAXium® wheat variety
- Strong straw and test weight; tolerates acid soils; resistant to stripe rust and soilborne mosaic virus
- Consistent performance potential across environments and management zones
- Fungicide recommended in areas with stem rust

**KEY****Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



HARD RED WINTER WHEAT



		Wheat Class	Regions of Adaptation			Maturity 1	Height 2	Test Weight	Stability	Seeds	Seed Size Range (Seeds/Lb)	Response to P Population (RTP) 3	Response to Nitrogen (RTN) 3	Response to Fungicide (RTF) 3	Protein	Leaf Rust	Stripe Rust	Septoria Leaf Resistance	Stagonospora Glume Disease	Leaf Disease	Barley Yellow Blotch	Fusarium Head Blight	Hessian Fly Resistance	Wheat Stem Sawfly	Placement on Irrigation	
CONVENTIONAL WHEAT																										
NEW	CP7220	Hard Red	8, 9, 10, 11, 12, 13	3	M	1	2	Y	NA	2	M	M	M	2	4	3	4	NA	3	NA	NA	3	NA	NA	1	
	CP7909	Hard Red	8, 9, 10, 11, 13	3	MT	3	3	Y	NA	1	M	H	H	1	3	4	NA	NA	2	NA	NA	4	NA	NA	1	
	CP7869	Hard Red	8, 10, 11, 12, 13	5	M	2	2	Y	NA	2	M	M	H	2	1	1	NA	NA	1	NA	NA	3	NA	NA	1	
COAXIUM® WHEAT																										
NEW	CP7266AX	Hard Red	8, 9, 10, 11, 12, 13	3	MT	2	2	Y	NA	2	M	M	M	2	1	2	NA	NA	1	NA	NA	2	NA	NA	1	
	CP7017AX	Hard Red	8, 9, 10, 11, 12, 13	3	M	3	2	Y	NA	1	M	M	M	3	3	2	NA	NA	2	NA	NA	1	NA	NA	1	
	CP7050AX	Hard Red	8, 9, 10, 11, 12	1	M	2	2	Y	NA	2	M	M	H	1	2	1	NA	NA	3	NA	NA	2	NA	NA	2	

KEY

Scale

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

1 Maturity

- 1 = Early
- 5 = Late

2 Height

- S = Short
- M = Medium
- T = Tall

3 RTP/RTN/RTF Ratings

- L = Low Response
- M = Moderate Response
- H = High Response

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

The comparison ratings are with CROPLAN® wheats only. These ratings reflect trends observed in research trials, which will change based on various factors, including variations in rainfall, temperature and production patterns.



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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\_\_\_\_\_

**Placement** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# SOFT RED WINTER WHEAT

We're a legacy brand in the industry for notable soft red winter wheat performance, providing you with Answer Plot® data to back up our disease-resistant racehorse varieties with response-to scores to help you achieve your yield goals.

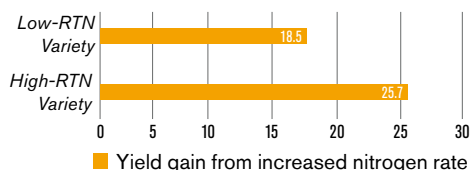
## KEY TAKEAWAYS

- 1 Top-dress nitrogen on responsive genetics for added potential.
- 2 Plant at the right population for optimal varietal performance.
- 3 Know your variety's response-to-fungicide (RTF) score and manage it accordingly.

## MANAGE YOUR VARIETY'S RESPONSE-TO-NITROGEN (RTN) SCORE¹

Customize nitrogen rate by variety to capture ROI potential. Optimize yield potential on more productive acres with higher nitrogen management by planting varieties with higher RTN scores. Protect yield potential on tougher acres by utilizing lower RTN score varieties on acres with lower-productivity soils or less nitrogen management.

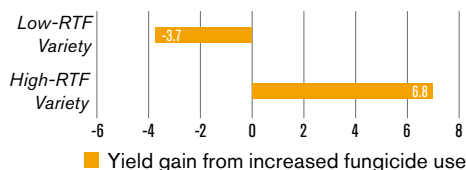
### ► RTN Yield Response Variance — 7.2 bu/A



## USE RESPONSE-TO-FUNGICIDE (RTF) SCORES TO AID DECISION-MAKING¹

Fungicides are another tool to help you optimize the yield potential of your wheat crop. RTF scores help you understand where fungicides may increase yield potential and protect ROI potential.

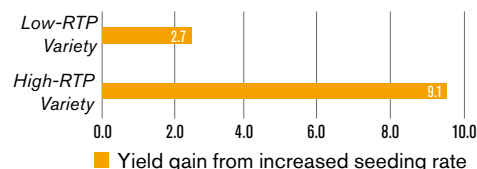
### ► RTF Yield Response Variance — 10.5 bu/A



## OPTIMIZE SEEDING RATE BY VARIETY¹

Each CROPLAN® variety has its own response to population (RTP). Managing that correctly will help you optimize yield potential and help increase standability. Use seed size when determining optimal seeding rates. For more uniform emergence, use Warden® Cereals seed treatments.

### ► RTP Yield Response Variance — 6.4 bu/A



## SEEDING RATE CHART²

Example of how to use the chart:

1. Select total planting seed.  
Example: 1.4 million seeds per acre
2. Select seeds per pound.  
Example: 13,000
3. Determine recommended seeding rate.  
Example: 108 lbs. per acre

Calculation assumptions:

Germ: 95%

Survivability: 10%

Total stand loss: 15%

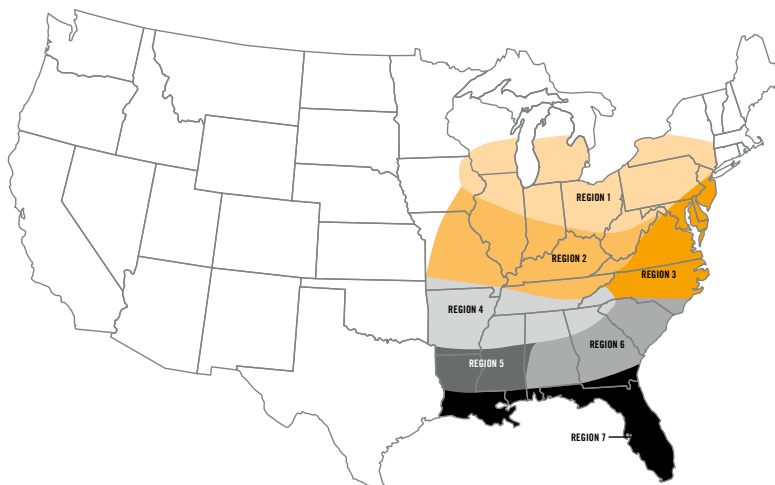
① MILLION SEEDS PER ACRE

② PLANTS PER ACRE

③ PLANTS PER SQUARE FOOT

		SEED SIZE: SEEDS PER POUND								
		11,000	12,000	13,000	14,000	15,000				
TOTAL PLANTING SEED ①	PURE LIVE SEED ①						FINAL STAND ②	PLANTS/SQ FT ③		
0.8	0.8	73	67	62	57	53	0.7	15.6		
1.0	1.0	91	83	77	71	67	0.9	19.5		
1.2	1.1	109	100	92	86	80	1.0	23.4		
1.4	1.3	127	117	108	100	93	1.2	27.3		
1.6	1.5	145	133	123	114	107	1.4	31.2		
1.8	1.7	164	150	138	129	120	1.5	35.1		
2.0	1.9	182	167	154	143	133	1.7	39.0		
2.2	2.1	200	183	169	157	147	1.9	42.9		

SEEDING RATE (LBS/A)

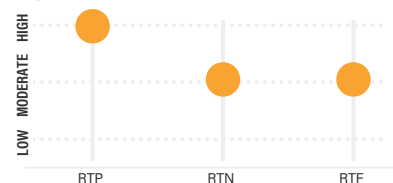


1. Response ranges show the importance of how varieties respond to each management practice to help ensure the highest yield potential. 2019 nationwide Answer Plot® data.

2. Because of factors outside of WinField United's control, such as weather, product application and any other factors, results to be obtained, including but not limited to yields, financial performance or profits, cannot be predicted or guaranteed by WinField United.

**CROPLAN CP9606**

Soft Red Winter

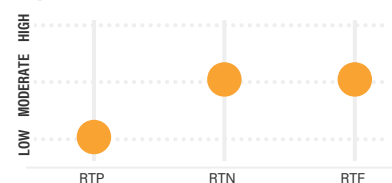
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability						1
Fusarium Head Blight					2	
Test Weight			3			
Winterhardiness				2		

- Outstanding yield potential; unique wheat
- Native tolerance to fusarium head blight; good broad-spectrum disease-resistance package
- Excellent stripe rust resistance and standability
- Responds well to increased population

**CROPLAN CP8550**

Soft Red Winter

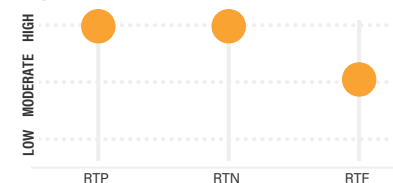
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability						2
Fusarium Head Blight					1	
Test Weight					1	
Winterhardiness				2		

- State-of-the-art fusarium head blight resistance
- Excellent yield potential; responds to lower populations and higher nitrogen
- Outstanding test weight and stripe rust tolerance
- Tall variety has good straw yield potential, but is awned

**CROPLAN CP9415**

Soft Red Winter

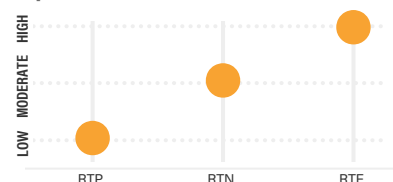
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability						1
Fusarium Head Blight			3			
Test Weight			3			
Winterhardiness						1

- Excellent yield potential in highly productive environments
- Responds well to nitrogen; exceptional standability
- Strong disease-tolerance package
- Medium height; fits well in double-crop system

**CROPLAN CP9203**

Soft Red Winter

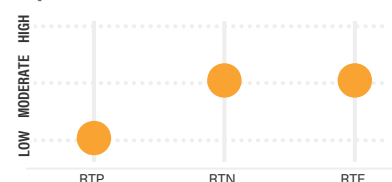
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability					2	
Fusarium Head Blight					2	
Test Weight						1
Winterhardiness				2		

- High yield potential and excellent test weight
- Broad adaptation over a variety of soils and management regimes
- Native tolerance to fusarium head blight
- Smooth head and height make it a good straw choice

**CROPLAN CP8081**

Soft Red Winter

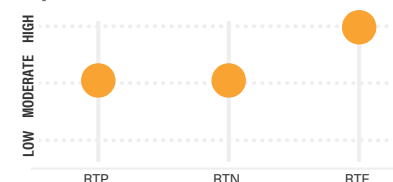
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability						1
Fusarium Head Blight					2	
Test Weight					2	
Winterhardiness				2		

- Outstanding yield potential; broadly adapted over a variety of soils and management regimes
- Early-medium maturity with excellent winterhardiness; very good standability
- Native tolerance to fusarium head blight
- Excellent test weight; good broad-spectrum disease-resistance package

**CROPLAN CP8022**

Soft Red Winter

**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability					2	
Fusarium Head Blight						1
Test Weight					2	
Winterhardiness						1

- Excellent yield potential in highly productive environments
- State-of-the-art fusarium head blight resistance
- Excellent test weight and stripe rust resistance
- Plant on time to encourage tilling

**KEY**

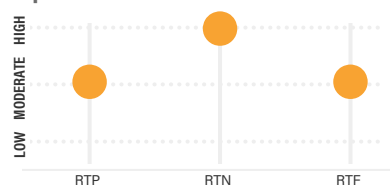
**Scale**  
 1 = Excellent  
 2 = Strong  
 3 = Acceptable  
 4 = Manage  
 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.

NEW

**CROPLAN CP8007**

Soft Red Winter

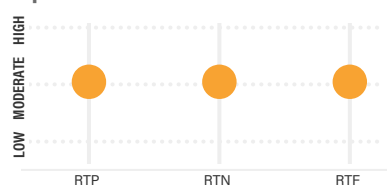
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability						1
Fusarium Head Blight			3			
Test Weight			3			
Winterhardiness				2		

- Outstanding yield potential
- Very stiff and short straw that can handle high N-rates
- Strong test weight
- Best performance in northern regions

**CROPLAN CP8045**

Soft Red Winter

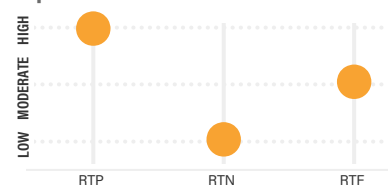
**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability				2		
Fusarium Head Blight				2		
Test Weight			3			
Winterhardiness					1	

- Outstanding yield potential; broadly adapted over a variety of soils
- Strong disease-tolerance package

**CROPLAN CP8118**

Soft Red Winter

**Response Scores****Characteristics**

	Not Recommended			Excellent		
Standability						1
Fusarium Head Blight			3			
Test Weight			3			
Winterhardiness				2		

- Very early maturing variety for double crop opportunity
- Solid disease package and average test weight
- Low response to nitrogen
- Keep in southern regions to avoid risk from early frost injury due to early maturity

**KEY****Scale**

- 1 = Excellent
- 2 = Strong
- 3 = Acceptable
- 4 = Manage
- 5 = Not Recommended

Product descriptions and ratings are generated from Answer Plot® trials and/or from the genetics supplier and may change as additional data is gathered.



VARIETY	Regions of Adaptation										Seed Size Range (Seeds/Lb)										Response to Fungicide [RTN] (%)										Placement on Irrigation									
	Wheat Class					Regions of Adaptation					Seed Size Range (Seeds/Lb)					Response to Fungicide [RTN] (%)					Placement on Irrigation																			
	Maturity (1)					Height (2)					Standability					Winterhardness					Lead Rust					Stagonospora Glume Blotch					Fusarium Head Blight					Hessian Fly Resistance				
	Test Weight					Awns					Response to Nitrogen [RTN]					Powdery Mildew					Leaf Disease					Barley Yellow Dwarf					Bacterial Leaf Blight					Bacterial Leaf Blight				
CP#606	Soft Red	1, 2, 3, 4	3	MS	3	1	Y	11,000-14,000	2	H	M	M	2	1	3	3	NA	3	2	2	Biotype B, D, L, O	NA																		
CP#550	Soft Red	1, 2, 3, 4	3	MT	1	2	Y	12,000-14,000	2	L	M	M	1	1	3	2	NA	3	2	1	Biotype L	NA																		
CP#415	Soft Red	1, 2, 3, 4	4	MS	3	1	Y	10,000-12,000	1	H	H	M	1	2	3	2	NA	1	3	3	Biotype B, D, L, O	NA																		
CP#203	Soft Red	1, 2	3	MS	1	2	N	10,000-13,000	2	L	M	H	2	1	5	4	NA	2	2	2	Biotype L	NA																		
CP#081	Soft Red	1, 2, 3, 4	1	M	2	1	Y	11,000-14,000	2	L	M	M	1	2	4	2	NA	2	1	2	Biotype B, D, L, O	NA																		
CP#022	Soft Red	1, 2, 3, 4	3	MS	2	2	Y	11,000-14,000	1	M	M	H	3	1	4	2	NA	2	1	1	Native tol.	NA																		
CP#007	Soft Red	1, 2	4	S	3	1	N	11,000-14,000	2	M	H	M	2	2	2	4	NA	2	NA	3	NA	NA																		
CP#045	Soft Red	1,2,3,4	3	M	3	2	Y	11,000-14,000	1	M	M	M	2	2	2	2	NA	2	NA	2	NA	NA																		
NEW CP#118	Soft Red	3, 6	1	M	3	1	N	11,000-14,000	2	H	L	M	2	2	2	3	NA	3	2	3	Biotype B, D, L, O	NA																		

**KEY**  
**Scale**  
1 = Excess

**Scale**

1 = Excellent  
2 = Strong  
3 = Acceptable  
4 = Marginal  
5 = Not Recommended

Product descriptions and ratings are generated from Answer Pro<sup>®</sup> trials and/or from the genetics supplier and may change as additional data is gathered.

## 1 Maturity

1 = Early  
5 = Late

## 2 Height

**S** = Short  
**M** = Medium  
**T** = Tall

### 3 RTP/RTN/RTF Ratings

**L** = Low Response  
**M** = Moderate Response  
**H** = High Response

The comparison ratings are with CROPLAN® wheats only. These ratings reflect trends observed in research trials, which will change based on various factors, including variations in rainfall, temperature and production patterns.



**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Placement** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

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**Product Name** \_\_\_\_\_

**Attributes** \_\_\_\_\_

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# SEED TREATMENTS

1 of 2

## Warden® CX

By WINFIELD UNITED

### WARDEN® CX SEED TREATMENT HELPS PROTECT YIELD POTENTIAL FROM THE START

Warden® CX insecticide-fungicide seed treatment is designed to protect high-value seed from yield-robbing seedling disease and insect pests. Containing three fungicides for multiple modes of action, Warden® CX seed treatment can help provide optimal protection against *Fusarium*, *Rhizoctonia*, *Phytophthora* and *Pythium*. With Cruiser® insecticide for unmatched defense against seed and foliar-feeding insects, Warden® CX seed treatment is the first step toward high yield and profit potential.

### EARLY-SEASON ADVANTAGES

Warden® CX seed treatment features the following crop protection advantages over untreated seed:

- Increases plant stands, promotes quick canopy closure and can improve yield potential.
- Helps improve root health and provides industry-leading *Rhizoctonia* protection.
- Contains sedaxane, the first fungicide developed exclusively for use as a seed treatment.
- Warden® CX includes one of the highest available rates of Apron XL® fungicide available in the industry. This allows for extended *Phytophthora* control in tough growing conditions.

### ADDITIONAL ADVANTAGES

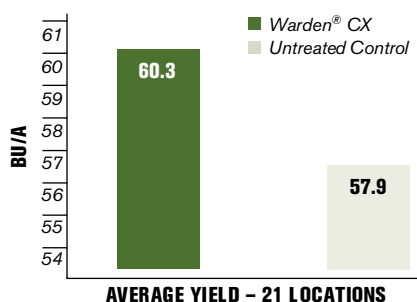
- Incorporates the active ingredient from Cruiser® insecticide, an industry standard for seed-applied insect protection, delivering the patented vigor effect (U.S. Patent number 6,753,296).
- Improves seed handling and flowability.

### OUTSTANDING DISEASE PROTECTION

Warden® CX seed treatment contains sedaxane, a fungicide designed exclusively as a seed treatment. Creating strong, healthy root systems, it also provides *Rhizoctonia* protection. Warden® CX seed treatment has a high rate of mefenoxam, providing *Pythium* and *Phytophthora* seed and young seedling protection.

### WARDEN® CX SEED TREATMENT HAS BEEN SHOWN TO IMPROVE PLANT STANDS, REGARDLESS OF PLANTING DATE¹

Data from these trials showed that Warden®



Source: 21 locations across key soybean-growing states; trials conducted with independent contract researchers.

1. Because of factors outside of WinField United's control, such as weather, product application and any other factors, results to be obtained, including but not limited to yields, financial performance or profits, cannot be predicted or guaranteed by WinField United.

### DISEASES AND INSECTS CONTROLLED

Warden® CX seed treatment is designed to control a broad spectrum of destructive diseases, including the following:

#### DAMPING-OFF AND SEED ROTS

- *Fusarium*
- *Pythium*
- *Phytophthora*
- *Rhizoctonia*

#### ROOT ROT

- *Phomopsis*\*
- *Sclerotinia*\*
- *Phytophthora*

\*Suppression only.

Warden® CX seed treatment is also designed to control a wide variety of destructive insects, including the following:

- Aphids
- Bean leaf beetles
- Grape colaspis
- Leafhoppers
- Leaf miners
- Mexican bean beetles
- Seedcorn maggots
- Threecornered alfalfa hoppers
- Thrips
- White grubs
- Wireworms

### PAIR WARDEN® CX WITH AN INOCULANT

Help meet the nitrogen needs of soybean crops by adding a microbial inoculant. These symbiotic rhizobia bacteria fix atmospheric nitrogen, improving modulation and boosting plant-available nitrogen.



## Fortivent® Plus

By WINFIELD  
UNITED

### EARLY-SEASON INSECT AND DISEASE CONTROL WITH OPTIMIZED PLANT VIGOR

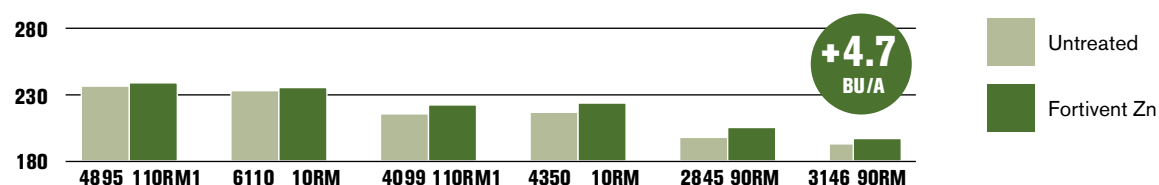
Fortivent® Plus seed treatment combines the early-season insect control of Poncho® VOTiVO® seed treatment, ethaboxam fungicide for enhanced Pythium control and Fortivent Zn for early-season corn vigor. The Poncho® insecticide at a rate of 500 mg active ingredient combined with the nematode control of VOTiVO® seed treatment is designed to help control insects, while Fortivent Zn aids in early corn development, including stand establishment and enhanced yield potential.

#### ► Fortivent® Plus Features and Benefits

- All CROPLAN® hybrids come with Poncho® VOTiVO® seed treatment
- Provides enhanced Pythium control with ethaboxam fungicide
- Includes Fortivent Zn for success in early-season growth and root development
- Includes 100% replant offering on all CROPLAN® hybrids

#### YIELD ADVANTAGE

##### ► Fortivent Zn — 2018 Answer Plot® Testing



Active Ingredients*	Rates
<b>Insecticide</b>	
Clothianidin5	500
*Clothianidin1	1250
<b>Base Fungicides (Acceleron® Seed Treatment)</b>	
Fluoxastrobin	0.24 fl. oz./100 lbs. of seed
Prothioconazole	0.24 fl. oz./100 lbs. of seed
Metalaxyl	0.10 fl. oz./100 lbs. of seed
Ethaboxam	0.20 fl. oz./100 lbs. of seed
<b>Nematicide</b>	
Poncho® VOTiVO® - 500	2.7 fl. oz./80,000 seeds

\*Always read and follow label instructions.



# TECHNOLOGY

## INNOVATIVE TECHNOLOGY

Traits include SmartStax® corn technology with a broad spectrum of control for above- and belowground insects, along with herbicide tolerance. DroughtGard® Hybrids are available with risk-management benefits for corn hybrids facing drought stress.

## CORN TRAITS

- Farmers choose their level of insect protection field by field.
- SmartStax® RIB Complete® corn blend offers a broad spectrum of above- and belowground insect protection with the simplicity and convenience of a single-bag refuge solution. Two modes of action against corn earworm and corn rootworm help optimize yield potential.
- As the first double-stacked corn trait with two ways to help control ear-feeding insects, VT Double PRO® corn delivers a broad spectrum of protection against above-ground pests, including European corn borer, southwestern corn borer, fall armyworm and corn earworm.
- DroughtGard® Hybrids provide farmers with a valuable tool for managing water-deficit risks.
- Trecepta® hybrids are built on the proven performance of VT Double PRO® technology to help promote cleaner ears with broad spectrum control of above-ground pests, including corn borer, corn earworm, fall armyworm, black cutworm and western bean cutworm.

SmartStax® technology helps protect corn against ear-feeding insects.



## SMARTSTAX® RIB COMPLETE® CORN BLEND

- It includes a 5% structured refuge, the lowest in the corn-growing area.
- Roundup Ready® 2 Technology and LibertyLink® herbicide tolerance provide weed control.
- This corn trait platform is achieved through best-in-class trait integration to help provide the highest level of whole-farm success.



## ► Aboveground Control

SmartStax® technology controls aboveground insects by uniting *Bacillus thuringiensis* (B.t.) proteins with multiple modes of action from VT Triple PRO® and Herculex®. It stops stalk-feeding insects, such as corn borers, and protects against ear-feeding insects, including western bean cutworm, corn earworm and black cutworm. This protection has the potential to help improve grain quality.

## ► Belowground Control

Belowground, SmartStax® technology combines high-performing VT Triple PRO® trait protection with complementary Herculex® XTRA rootworm protection. This unique combination of B.t. technologies provides season-long control of corn rootworm, a primary pest.

## ► Roundup Ready® 2 Technology and LibertyLink® Traits Together

In addition to above- and belowground insect control traits, SmartStax® products include standard-setting weed control — the Roundup Ready® 2 Technology and LibertyLink® systems — for unprecedented weed management.

## ► The First Single-Bag Refuge Solution

SmartStax® RIB Complete® corn blend products are a single-bag refuge solution for farmers — the first of its kind on the market. With SmartStax® RIB Complete® corn blend, the refuge seed is distributed in the bag along with seeds containing the SmartStax® trait, allowing farmers to plant an entire field with just one product. Farmers in corn-growing areas will no longer need to plant a separate, structured refuge when they use SmartStax® RIB Complete® corn blend.

## ► SmartStax® RIB Complete® Corn Blend Benefits

- Controls key above- and belowground insects.
- Provides optimal yield protection with two ways to control corn rootworm and corn earworm.
- Includes a blend of 95% traited and 5% refuge seed with no separate, structured refuge required in the corn-growing area.
- Offers a truly simple refuge-in-a-bag solution — just fill your planter and go.

## ► Bringing New Germplasm to Market Faster

SmartStax® RIB Complete® corn blend products are developed using best-in-class trait integration that can bypass traditional slower breeding processes. This allows seed brands to bring new germplasm to market sooner. With all-in-one protection, seed brands will now be able to better evaluate each product's true performance in the field.



## VT DOUBLE PRO® RIB COMPLETE® CORN BLEND

VT Double PRO® RIB Complete® corn blend allows you to plant the most traited acres fencerow to fencerow with the simplicity of a single-bag solution. There's no need to calculate or plant a separate structured refuge ever again. VT Double PRO® RIB Complete® corn includes 95% traited seed and 5% refuge seed. You get all the benefits of the VT Double PRO® trait plus the convenience of 5% refuge seed interspersed in every bag.

## ► VT Double PRO® RIB Complete® Corn Blend Benefits

- Optimal yield protection with two ways to control corn earworm.
- A blend of 95% traited and 5% refuge seed with no separate, structured refuge required in corn-growing areas.
- The truly simple refuge-in-a-bag solution — just fill your planter and go.

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# TECHNOLOGY



## THE TRULY SIMPLE REFUGE-IN-A-BAG SOLUTION

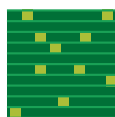
RIB Complete® is a single-bag refuge solution for farmers. With RIB Complete® corn blend, the refuge seed is distributed in the bag along with seeds containing B.t. traits, allowing farmers to plant an entire field with just one product. Farmers in the Corn Belt will no longer need to plant a structured refuge when they use RIB Complete® corn blend products.



20% refuge



5% refuge



5% refuge in the bag



## TRECEPTA® RIB COMPLETE® CORN BLEND

Trecepta® Technology helps reduce yield loss by protecting your corn crop from a wide range of above-ground pests. Built on the proven VT Double PRO® Technology, Trecepta Technology gives you more complete control against corn borers (European and southwestern), fall armyworm, western bean cutworm, black cutworm and corn earworm.

### ► 3 Modes of Action to Protect Against Above-Ground Pests

By controlling insects through multiple modes of action, Trecepta® Technology helps protect your yield potential and reduce the likelihood of resistance issues developing

### ► Control Weeds with Glyphosate Applications

Trecepta contains Roundup Ready 2 Technology which allows the corn plant to withstand glyphosate treatments used to prevent weeds from competing with corn.



## ROUNDUP READY® CORN 2 SYSTEM

Whether you follow a pre- and postemergence spray program or only spray postemergence, Roundup Ready® Corn 2 will fit your system. Designed to work with Roundup® agricultural herbicides, the Roundup Ready® Corn 2 System provides outstanding yield potential without the crop injury other postemergence herbicides can cause.



## DROUGHTGARD® HYBRIDS

DroughtGard® Hybrids are part of a system to help farmers manage risk by mitigating yield loss due to drought. The system offers farmers improved genetics, agronomic practice recommendations and the drought-tolerant biotech trait. DroughtGard® Hybrids can help increase hydroefficiency under drought stress, which can result in increased kernel numbers and reduced frequency of barren plants, providing the opportunity to reduce yield loss in certain drought conditions. DroughtGard® Hybrids are available for sale in all states.

### ► Traits Available With DroughtGard® Hybrids

DroughtGard® Hybrids will be available with the following corn traits: VT Double PRO® corn, VT Double PRO® RIB Complete® corn blend and Roundup Ready® Corn 2.

### ► Advantages of DroughtGard® Hybrids

- In drought-stress conditions that caused damaging yield losses, comparisons demonstrated a 5-bushel-per-acre performance advantage with DroughtGard® Hybrids over commercially available competitive check products.<sup>1</sup>
- Ongoing research indicates that products with the drought-tolerant biotech trait have had more kernels per ear and can use less water during severe drought stress.
- DroughtGard® Hybrids have the potential to maintain top-end yield in well-watered conditions and provide a valuable tool for managing water-deficit risks.

1. Based on approved EPA herbicide labels for the herbicides recommended for use in each system as of 10/28/2020.

2. Results may vary, depending on rain fall and soil type. Always use dicamba with residual herbicides in pre-emergence and post-emergence applications that have different, effective sites of action, along with other Diversified Weed Management Practices.

3. 2012 Monsanto GroundBreaker plot trial based on approximately 250 growers in the western Great Plains.



## UNLOCK MORE PROFITABILITY POTENTIAL

Built on the high-yielding Roundup Ready 2 Xtend® technology, XtendFlex® soybeans offer proven performance potential and herbicide tolerance to dicamba, glyphosate and glufosinate. These three modes of action give farmers control over 337 weeds<sup>1</sup> and up to 14 days of soil activity on certain small-seeded broadleaf weeds from XtendiMax® herbicide and VaporGrip® Technology, a restricted use pesticide.<sup>2</sup>

XtendFlex® soybean varieties are bred with the latest genetics to improve yield potential. Herbicide application flexibility and outstanding agronomic benefits give farmers more opportunity to improve their bottom line.



## AN EASY FIT FOR YOUR OPERATION

Enlist E3® soybeans offer the most advanced trait technology available in soybeans, providing a new standard for weed control and yield performance. Farmers gain access to more herbicides featuring effective sites of action for better weed control.

Enlist E3® soybeans offer resistance to 2,4-D choline, glyphosate and glufosinate and have no plant-back restrictions after using an Enlist™ herbicide for burndown. Enlist E3® soybeans are compatible with nearby crops, such as soybeans without the Enlist™ trait, alfalfa, corn, peanuts, sorghum, rice and wheat. Farmers can apply Enlist™ herbicides on Enlist E3® soybeans planted right next to these compatible crops with no wind directional restrictions.

This technology gives farmers the confidence to take down tough weeds such as Palmer amaranth, common and giant ragweed, waterhemp, and marestail, along with other tough-to-control broadleaf weeds such as lambsquarters and velvetleaf.

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# TECHNOLOGY



## ROUNDUP READY 2 XTEND® SOYBEANS

Built on high-yielding Roundup Ready 2 Yield® soybean technology, Roundup Ready 2 Xtend® soybeans contain the industry's first biotech-stacked soybean trait with both dicamba and glyphosate herbicide tolerance.

This tolerance gives farmers access to additional tools to help control glyphosate-resistant broadleaf weeds such as Palmer amaranth, waterhemp and marestail, along with other tough-to-control broadleaf weeds such as lambsquarters and velvetleaf.

This technology offers the yield and quality potential that farmers already know and trust from Roundup Ready 2 Yield® soybeans.



## ROUNDUP READY 2 YIELD® SOYBEANS

With more three-, four- and five-bean pods, Roundup Ready 2 Yield® soybeans offer a proven yield advantage over the competition. With more beans per pod and more bushels per acre, Roundup Ready 2 Yield® soybeans also provide more profit potential.

Research demonstrates a significant yield increase with Roundup Ready 2 Yield® soybeans over Roundup Ready® soybeans, with the same simple, dependable weed control as the Roundup Ready® Soybean System.<sup>1</sup>

### ► Powerful Performance

Roundup Ready 2 Yield® soybeans contain in-plant tolerance to Roundup® agricultural herbicides, allowing farmers to spray Roundup® agricultural herbicides on crops from emergence through flowering.

The occurrence of more three-, four- and five-bean pods per plant is contributing to the increased yields seen with Roundup Ready 2 Yield® soybeans. These soybeans have demonstrated a clear yield advantage opportunity over the competition by delivering an average of 4.5 bushels per acre more than original Roundup Ready® soybeans.<sup>2</sup>

1. Roundup Ready 2 Yield® soybeans yield higher than Roundup Ready® soybeans, based on 73 Monsanto field trials (17 to 20 per year) from 2004 to 2007. The four-year average percentage increase for Roundup Ready 2 Yield® equals 8.63, with a 95% confidence interval of 6.8% to 10.5% advantage from Roundup Ready 2 Yield®.

2. Data as of October 29, 2012. Includes all breeding and commercial strip trial data. All head-to-head comparisons are within a +/-0.4 day maturity. Data represents the top-performing Roundup Ready 2 Yield® products (with a minimum of 30 comparisons per product) versus competitive Pioneer® and NK® brands with Roundup Ready® by state.

## ACCELERON® PROMOTES STRONG EARLY-SEASON GROWTH



### ACCELERON® SEED APPLIED SOLUTIONS FOR CORN

Acceleron® Seed Applied Solutions help corn seedlings emerge strong by providing superior protection against seed and seedling diseases as well as early-season insects and pests. With protection from Acceleron® Seed Applied Solutions at planting, high-yielding seed develop more uniform, vigorous plant stands for high yield potential.

### ► Insect and Disease Protection for Corn

**Insect Protection:** Protection from early-season pests such as wireworms, seedcorn maggots, white grubs, grape colaspis and black cutworms (suppression).

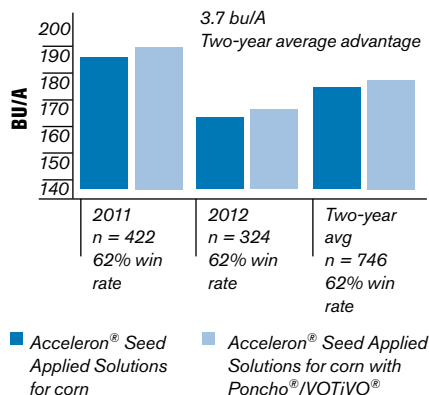
**Disease-Fighting Protection:** Excellent control of soilborne and seedborne disease, including *Fusarium*, *Rhizoctonia* and *Pythium*.

### ► Poncho®/VOTiVO® for Corn, Soybeans and Cotton

Acceleron® Seed Applied Solutions paired with Poncho®/VOTiVO® helps protect against seed and seedling diseases and early-season pests.

- **For corn:** Offers a unique biological mode of action for nematode management. Protects against damage from a range of nematode species and early-season insects, from planting through early development.
- **For soybeans:** Can provide the maximum level of protection against seed and seedling diseases; early-season insects; and nematodes including soybean cyst, reniform and root-knot.
- **For cotton:** Controls early-season insects such as thrips and aphids, and also protects against damage from nematodes including reniform and root-knot.

### ► Two-Year Performance



Source: 2011 and 2012 Internal Monsanto Commercial Field Trials. Individual results may vary.

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# TECHNOLOGY



## ECONOMICAL, CONSISTENT HERCULEX® YIELD PROTECTION

Herculex® *Insect Protection* technology helps top-performing hybrids achieve their highest performance potential.



### HERCULEX® XTRA

**Herculex® XTRA *Insect Protection*** combines Herculex® *I Insect Protection* and Herculex® *RW Rootworm Protection* for powerful protection above- and belowground. It enables top-performing hybrids to reach their optimal yield potential by combining high-yielding genetics with consistent, season-long control of European corn borer, corn rootworm and black cutworm.

Herculex® XTRA is stacked with LibertyLink® technology, offering the ability to use a cost-effective, alternative weed-control option such as Liberty® herbicide or a conventional herbicide program. Herculex® XTRA is an effective corn insect management trait option for greater profit potential.



### HERCULEX® I

If you don't need corn rootworm protection, **Herculex® *I Insect Protection*** gives full-plant protection all season long against European corn borer, black cutworm and other yield-robbing, aboveground pests. All Herculex® *I* hybrids contain LibertyLink® technology, making them resistant to over-the-top applications of Liberty® herbicide.

## HERCULEX® XTRA AND HERCULEX® I DELIVER A WIDE WINDOW OF PROTECTION

*Black cutworm*

*Corn rootworm<sup>1</sup>*

*First- and second-generation  
European corn borer and  
southwestern corn borer*

*Western bean cutworm*

*Fall armyworm*



## CROP AND GRAIN MARKETING STEWARDSHIP

Corteva Agriscience is a member of Excellence Through Stewardship® (ETS). Corteva Agriscience products are commercialized in accordance with ETS Product Launch Stewardship Guidance and in compliance with the Corteva Agriscience policies regarding stewardship of those products. In line with these guidelines, our product launch process for responsible launches of new products includes a longstanding process to evaluate export market information, value chain consultations, and regulatory functionality. Growers and end-users must take all steps within their control to follow appropriate stewardship requirements and confirm their buyer's acceptance of the grain or other material being purchased. For more detailed information on the status of a trait or stack, please visit [www.biotradestatus.com](http://www.biotradestatus.com).

Properly managing trait technology is key to preserving it as a long-term crop protection tool. Growers who fail to comply with insect resistance management (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 B.t. technology, including refuge examples and important information on the use of insecticides on refuge and B.t. corn acres, please consult the 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 Dow AgroSciences Corn Product Use Guide.

Herculex® *Insect Protection* technology by Dow AgroSciences and Pioneer® Hi-Bred. Herculex® and the Herculex® logo are trademarks of The Dow Chemical Company ("Dow") or an affiliated company of Dow. Bayer CropScience LP, 2 T.W. Alexander Drive, Research Triangle Park, NC 27709. Always read and follow label instructions. Liberty®, LibertyLink® and the Water Droplet Design are registered trademarks of Bayer. Liberty® is not registered in all states. For additional product information, call toll-free 1-866-99-BAYER (1-866-992-2937) or visit our website at [www.BayerCropScience.us](http://www.BayerCropScience.us).

<sup>1</sup> Corn rootworm is only controlled with Herculex® XTRA *Insect Protection*. Follow IRM, grain marketing and all other stewardship practices and pesticide label directions.

## ExpressSun® trait

### EXPRESSSUN®

The ExpressSun® trait provides exceptional weed control of many broadleaf weeds, including Canada thistle—and gives you the flexibility to apply herbicides from burndown to bud formation.

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# TECHNOLOGY



## BREAKTHROUGH CORN TRAIT TECHNOLOGY

Agrisure® trait stacks deliver corn insect control, water optimization technology and outstanding herbicide tolerance to optimize the yield potential of elite hybrids.

### ARTESIAN™

- Maximize yield potential when it rains and increase yield potential when it doesn't.

Built using scientifically selected genes, this elite class of high-performing hybrids can respond to water stress with multiple genes and at virtually any stage of growth — managing gaps in rainfall throughout the season. Artesian™ corn hybrids can help manage the unpredictability of weather and improve yield consistency by converting water to grain more efficiently than other hybrids.

### ARTESIAN™ ADVANTAGE (LEFT)



Elkville, Ill., 2012

## VIPTERA™ TRAIT STACKS

- More control of more above-ground insects for more yield potential.

Viptera™ provides the most comprehensive corn insect control, reducing insect feeding damage to ears and the subsequent development of molds and mycotoxins. By controlling major leaf-, stalk- and ear-feeding corn insects, Viptera™ offers better crop stands and lower levels of disease, resulting in increased yield and profit potential. The Viptera™ trait stack offers dual modes of action against above-ground insects, with a 5% single-bag refuge, and is available in combination with Artesian™ technology for maximized yield in water-stressed environments.

## VIPTERA™ PERFORMANCE ON WESTERN BEAN CUTWORM¹

1. Viptera™ on western bean cutworm vs. competitive



Hybrid with Viptera™ trait    Hybrid without Viptera™

hybrid. Sterling, Colo., 2014.

## DURACADE™

The Duracade™ trait stack provides multiple modes of action against corn rootworm and corn borer, as well as suppression of ear-feeding insects. This trait stack includes a novel, alternate mode of action to help preserve trait durability and delay insect adaptation for long-term field health, and the convenience of an integrated E-Z Refuge® seed blend.

**Pests controlled:** European corn borer, southwestern corn borer, black cutworm, beet armyworm, southern cornstalk borer, lesser cornstalk borer, sugarcane borer, western corn rootworm, northern corn rootworm and Mexican corn rootworm.

**Pests suppressed:** Corn earworm, western bean cutworm, fall armyworm and common stalk borer.

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. For grain marketing information, visit <http://www.biotradestatus.com/>.

Content on this page provided by Syngenta Group Company, please contact Syngenta Group Company for more information. Due to factors such as weather, crop production patterns, product application and other factors, results to be obtained, including but not limited to yields or financial performance, cannot be predicted or guaranteed by Syngenta Group Company or WinField United. Actual results may vary.

## Liberty®

**Talk to your retailer to learn how you can qualify for the Liberty® Guarantee** as well as to learn more about your local S.T.O.P. Weeds application guidelines for maximum weed control.

**LIBERTY  
LINK®** 



**Liberty**  
Herbicide

**LIBERTY LINK** 

**LIBERTY LINK**  **GT27**

 **ExtendFlex**  
Soybeans

**FREEDOM FOR USE ON:**

**Your Land. Your Legacy. Your Liberty.**

Liberty herbicide is here to help your soybean fields flourish with:

- **Trait Flexibility:** Across LibertyLink® GT27, Enlist®, and XtendFlex® trait systems
- **Excellent Weed Control:** Providing unmatched convenience and greater application flexibility
- **Backed by the Liberty Herbicide Weed Control Guarantee:** Proven formulation, proudly formulated & packaged in the USA

**To learn more, visit: [yourliberty-herbicide.com](http://yourliberty-herbicide.com)**

**• BASF**  
We create chemistry

Results based on five years of trials where Liberty® herbicide is applied according to SCD®. Results with Liberty herbicide guidelines and as part of a herbicide weed control program where an effective residual control is used. Results by Liberty herbicide, similar application methods, combined as part of an integrated weed management program. Always read and follow label directions. Liberty and LibertyLink are registered trademarks of BASF. SCD is a registered trademark of Bayer Crop Science. Enlist and XtendFlex are trademarks of Dow AgroSciences. Weed and flexibility are registered trademarks of Bayer Crop Science. Use of ExtendFlex trademark does not imply any affiliation with or endorsement by Bayer Crop Science. © 2011 BASF Corporation. All rights reserved.

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# TECHNOLOGY



## CALIBRATE® TECHNOLOGIES

### KNOW THE QUALITY OF YOUR FORAGES

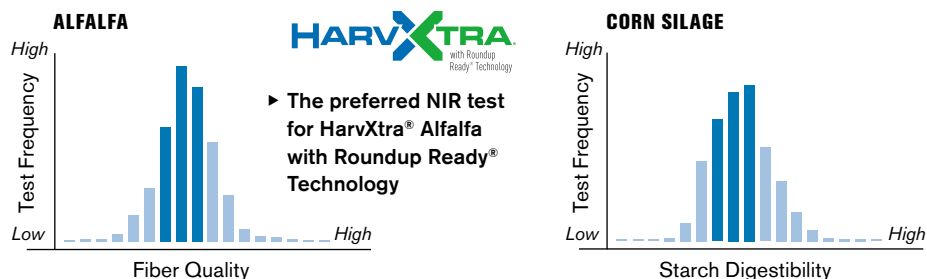
Variation in any dairy feeding program can cause underperformance: lost milk production, lower feed efficiency and lower profit potential. Calibrate® fiber and starch quality tests are designed to reduce the impact of nutrition variation in feedstuffs and allow more value to be obtained from forages, grown or purchased.

Calibrate® patented forage quality tests are designed to:

- Feed homegrown forages more effectively.
- Assist in making informed decisions when purchasing hay.
- Enable and assist your nutritionist to further improve rations.
- Confidently feed highly digestible forages in the ration and maximize ROI potential.
- Get optimal performance out of lower-quality forages.
- Determine if forage quality is a limiting factor to milk production.
- Provide more peace of mind because better decisions are made with available feedstuffs.

## WITH HIGH- OR LOW-QUALITY FORAGES, CALIBRATE® TESTS DELIVER RELIABLE ACCURACY

Laboratory analysis can be less accurate when forage quality is not average. In the quality graphs below, the light bars represent where fiber and starch digestibility is either high or low. The analysis accuracy of these extremes is financially critical to forage growers and dairy farmers. Calibrate® forage quality tests maintain their accuracy as feeds drift toward the extremes.



## CALIBRATE® PATENTED FORAGE QUALITY TESTS OFFER EXCEPTIONAL DIGESTIBILITY INFORMATION

Calibrate® technology provides forage analysis testing with improved accuracy for forages of all qualities. Designed to eliminate the necessity of an in vitro analysis (wet chem), Calibrate® forage analysis tests were developed using in vitro results from over 125,000 samples and 15 years of research, representing a wide range of forage quality from across the U.S. The volume of samples tested and the emphasis on samples of extreme quality (high and low) make Calibrate® forage analysis more precise.

### CALIBRATE® HIGH QUALITY FORAGE ANALYSIS FOR ALFALFA

In addition to starch and fiber digestibility values for feed and forage feedstuffs, Calibrate® also offers the Calibrate® HQ Forage Analysis specifically targeted at alfalfa. This test provides crude protein, ash, NDF and NDFD, as well as calculated values for summative TDN, RFV and RFQ. 2021 brought the addition of a value for Leaf Percentage to help understand how the leaf to stem ratio affects alfalfa quality.

For more information, contact your local WinField United representative or go to [www.calibratetechnologies.com](http://www.calibratetechnologies.com).



# TECHNOLOGY



## THE KEMIN® NUTRISAVE® SYSTEM HELPS OPTIMIZE FORAGE QUALITY

The Kemin® NutriSAVE® Forage Management System is a complete forage management approach to preserving quality in the forages you grow for use in dairy or beef production. The products and support offered through the NutriSAVE® System aid producers in helping maintain forage quality by reducing shrinkage and spoilage, resulting in better nutrition. The NutriSAVE® System includes management recommendations from harvest to storage and through feeding. The system's crop- and condition-specific products include the latest technology and are backed by current research and experts in the forage management field.

### ACID-BASED PRODUCTS

- **Fresh CUT® Plus Liquid Hay Preservative**  
Applied to hay baled at up to 25% moisture. The blend of acids helps control the growth of mold and wild yeast, preventing bale heating and preserving nutrients.
- **Silage SAVOR® Plus Liquid and Silage SAVOR® Dry Silage Preservatives**  
These forage preservatives are applied to ensiled crops before storage. The acid blends are used to prevent mold and wild yeast growth, allowing for improved fermentation.
- **Myco CURB® Liquid and Dry Mold Inhibitors**  
Designed to prevent mold growth on stored grain, feed and feed ingredients. For more than 35 years, Myco CURB® has been the gold standard for mold control.
- **Ultra CURB® Liquid and Dry Mold Inhibitors**  
These products contain a powerful blend of four organic acids designed to control heating in total mixed rations (TMRs).

### BENEFITS OF THE NUTRISAVE® PROGRAM AND PRODUCTS

The minute forages are harvested, the race against time begins. The crop quickly deteriorates after cutting, and the quality CROPLAN® seed that was so carefully selected can fail to deliver the nutrients expected without proper preservation. Forage quality can have a huge impact on your operation's profitability and performance. That is why generating the most value from the forages you grow is important. High-quality forage optimizes productivity and herd health.

The NutriSAVE® Forage Management System features acid-based solutions. The blended organic acid products work to reduce mold and wild yeast growth to widen harvest windows, enhance fermentation and increase aerobic stability, both before and after storage. The flexibility to offer the ideal solution for nearly every forage management challenge is why producers have relied on the NutriSAVE® Forage Management System for decades.

### KEY FEATURES OF USING NUTRISAVE® PRODUCTS

- Acid-based products for all forage applications.
- Helps reduce shrinkage and spoilage of dry matter.
- Reduces growth of mold and wild yeast.
- Promotes faster fermentation or curing.
- Extends aerobic stability at feedout.
- Supports optimal animal performance.

### PROVEN PERFORMANCE WITH NUTRISAVE® PRODUCTS AND PROGRAMS

Extensive laboratory, university and field trials show that NutriSAVE® products can outperform other additives. By using the tools and resources available, NutriSAVE® programs can help you achieve a greater potential return on your forage investment. For more information about the Kemin® NutriSAVE® Forage Management System, talk with your WinField United representative or contact Kemin® at [KeminAg@kemin.com](mailto:KeminAg@kemin.com) or 515-559-5304. Additional product details are available online at [kemin.com/feedquality](http://kemin.com/feedquality).

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CROPLAN

# TECHNOLOGY



## PROPER MANAGEMENT PROTECTS TECHNOLOGY'S VALUE

Sound management practices and compliance with stewardship requirements will help protect the benefits and value of biotech trait seed technology for future generations.

### INSECT RESISTANCE MANAGEMENT

Insect-protected crops are genetically improved to provide in-plant protection against selected insect pests. Beneficial insects are not affected. To preserve the benefits and insect protection of these technology crops, Bayer CropScience, Syngenta Crop Protection and Corteva Agriscience have developed IRM guidelines that must be incorporated by everyone purchasing and planting insect-protected crops.



**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](http://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 Rd., Suite 150, Creve Coeur, MO 63141
3. Submit a contact request at [cropsience.bayer.us/contact](http://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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Rev 01/2022

Roundup Ready 2 Yield® soybeans and Roundup Ready 2 Xtend® soybeans are covered by different patents than original Roundup Ready® soybeans and cannot be saved and planted. For more information about seed innovation and intellectual property protection, please visit [www.seedipalliance.com](http://www.seedipalliance.com).

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# TECHNOLOGY



## CORN INSECT RESISTANCE MANAGEMENT OVERVIEW<sup>1</sup>

### QUICK COMPLIANCE GUIDE FOR DEALERS AND FARMERS

#### 1 REFUGE SIZE

Plant the correct size refuge for the area and corn product.

##### ► The Corn-Growing Area

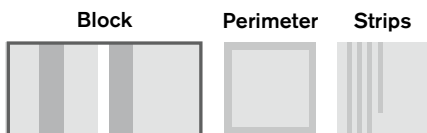
- 20% required for some B.t. products (20 acres of refuge for every 80 acres of B.t.)
- 5% only for SmartStax®, Trecepta® and VT Double PRO® (5 acres of refuge for every 95 acres of B.t.)

##### ► The Cotton-Growing Area

- 20% only for SmartStax® and VT Double PRO® (20 acres of refuge for every 80 acres of B.t.)

#### 2 REFUGE LOCATION

Plant the required refuge within each field that contains B.t. insect-protected corn. There are other options, but an in-field refuge is always accepted. The refuge should always be a minimum of four contiguous rows wide.



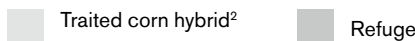
#### 3 REFUGE PLANTING

In each field, plant your refuge first before planting any insect-protected corn. This will ensure that the minimum refuge size requirement is met should unforeseen circumstances (e.g., adverse weather) alter your planting schedule and strategy. Use a refuge product that contains no B.t. insect-protection traits (e.g., Roundup Ready® or conventional corn are acceptable). Growers must read the IRM/Grower Guide for complete refuge planting requirements.

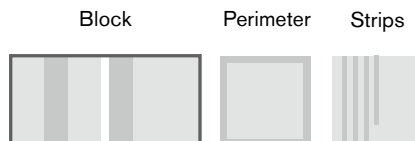
#### 4 TREATMENT

If you need to treat your refuge with a non-B.t. foliar insecticide, you may have to treat the B.t. technology in a similar manner. Growers must read the IRM/Grower Guide for complete treatment options.

#### COMMON REFUGE CONFIGURATIONS



##### ► In-Field Configuration Examples



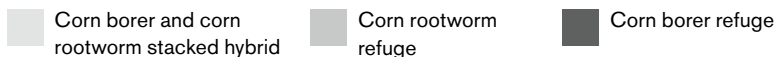
Minimum of four rows

##### ► Adjacent-Field Configuration Examples



Separated by road, path, ditch, etc., but not by another field

#### SEPARATE REFUGE CONFIGURATIONS



##### ► Block



≤ 1/2 mile

≤ 1/2 mile

##### ► Perimeter



≤ 1/2 mile

≤ 1/2 mile

##### ► Strips



1. Provided as a summary only. Farmers must read the IRM/Grower Guide prior to planting for important information on planting and insect resistance management.

2. Traited = B.t., RW or B.t./RW.

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# TECHNOLOGY



## REFUGE REQUIREMENTS FOR BIOTECH CORN PRODUCTS<sup>1, 2</sup>

	% NON-B.T. REFUGE	CONFIGURATIONS	REFUGE LOCATION
<b>SMARTSTAX® RIB COMPLETE® CORN BLEND<sup>3</sup></b>	5% in the bag	—	No separate planted refuge is required
<b>VT DOUBLE PRO® RIB COMPLETE® CORN BLEND<sup>3</sup></b>	5% in the bag	—	No separate planted refuge is required
<b>DROUGHTGARD® HYBRIDS WITH VT DOUBLE PRO® RIB COMPLETE® CORN BLEND<sup>3</sup></b>	5% in the bag	—	No separate planted refuge is required
<b>TRECEPTA® RIB COMPLETE® CORN BLEND</b>	5% in the bag	—	No separate planted refuge is required
<b>SMARTSTAX® CORN</b>	5% corn-growing areas; 20% cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within or adjacent to SmartStax® field; if adjacent, may be separated by a road, path, ditch, etc., but not another field
<b>VT DOUBLE PRO® CORN</b>	5% corn-growing areas; 20% cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within, adjacent to or within 1/2 mile from VT Double PRO® field
<b>AGRISURE® TOTAL</b>	5% in the bag, 20% supplemental cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within or adjacent to Agrisure® Total
<b>VIPTERA™</b>	5% in the bag 20% supplemental cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within, adjacent to or within 1/2 mile away from Vipitera™ field
<b>DURACADE™</b>	5% in the bag 20% supplemental cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within or adjacent to Duracade™ field
<b>AGRISURE VIPTERA® 3111</b>	20% corn- and cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within or adjacent to Agrisure Vipitera® 3111 field; if adjacent, may be separated by a road, path, ditch, etc., but not another field
<b>AGRISURE® 3000GT</b>	20% corn-growing areas; 50% cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within or adjacent to Agrisure® 3000GT field; if adjacent, may be separated by a road, path, ditch, etc., but not another field
<b>HERCULEX® XTRA INSECT PROTECTION</b>	20% corn-growing areas; 50% cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within or adjacent to Herculex® XTRA field; if adjacent, may be separated by a road, path, ditch, etc., but not another field
<b>HERCULEX® I INSECT PROTECTION</b>	20% corn-growing areas 50% cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within, adjacent to or within 1/2 mile from Herculex® field

1. All refuge configurations require a minimum of four rows.

2. Provided as a summary only. Farmers must read the IRM/Grower Guide prior to planting.

3. SmartStax® RIB Complete®, Trecepta® RIB Complete, VT Double PRO® RIB Complete® and DroughtGard® Hybrids with VT Double PRO® RIB Complete® corn blends are each a blend of 95% traited seed and 5% refuge seed interspersed in the bag and do not require a separate structured refuge in corn-growing areas.

For more detailed refuge requirements please visit: <https://traits.bayer.com/stewardship/Pages/Insect-Resistance-Management.aspx>

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.

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.

**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® and Vipitera™ are trademarks of a Syngenta Group Company.

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## EXCELLENCE THROUGH STEWARDSHIP

**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.

**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. Any crop or material produced from this product can only be exported to, or used, processed or sold only in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotechnology 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 biotradestatus.com for any updated information on import country approvals. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

## INSECT RESISTANCE MANAGEMENT

**IMPORTANT IRM INFORMATION: Always read and follow IRM requirements.** Insect-protected crops are genetically improved to provide in-plant protection against selected insect pests. Beneficial insects are not affected. To preserve the benefits and insect protection of these technology crops, Bayer, Syngenta Crop Protection and Dow AgroSciences have developed insect resistance management (IRM) guidelines that must be incorporated by everyone purchasing and planting insect-protected crops.

**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.

**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: RIB Complete®** corn blend products do not require the planting of a structured refuge **except** in the Cotton-Growing Area where corn earworm is a significant pest. **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.** **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. **Herculex®** is a registered trademark of Dow AgroSciences LLC. **Agrisure Viptera®** is a registered trademark of a Syngenta group company. **LibertyLink®** and the **Water Droplet Design®** is a trademark of BASF Corporation. **Respect the Refuge and Corn Design®** and **Respect the Refuge®** are registered trademarks of National Corn Growers Association. **Acceleron®, DroughtGard®, RIB Complete®, Roundup Ready 2 Technology and Design™, Roundup Ready 2 Xtend®, Roundup Ready 2 Yield®, Roundup Ready®, SmartStax®, Trecepta®, TruFlex™, VT Double PRO® and XtendFlex®** are trademarks of Bayer Group.

**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®** Technology incorporated into these seeds is commercialized under license from Syngenta Seeds, Inc. **Herculex®** Technology incorporated into these seeds is commercialized under license from Dow AgroSciences LLC. **HERCULEX®** and the **HERCULEX shield** are registered trademarks of Dow AgroSciences LLC.

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 Corporation.



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.



## GENERAL DISCLAIMERS

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 growers' fields.

**Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your local extension service to ensure registration status.**

Please know that, despite the challenges, Bayer stands fully behind XtendiMax® herbicide and will continue working with the EPA, growers, academics, and others to provide long-term access to this important herbicide.

However, no dicamba may be used in-crop with seed in the Roundup Ready® Xtend Crop System, unless and until approved or specifically permitted by the U.S. EPA and the appropriate state agency for such use. As of July 13, 2020, no dicamba formulations are currently registered by the U.S. EPA for in-crop use with seed in the Roundup Ready® Xtend Crop System in the 2021 season. Current stocks of low-volatility dicamba herbicides XtendiMax® herbicide, Engenia® herbicide, and FeXapan® herbicide previously approved for in-crop use with seed in the Roundup Ready® Xtend Crop System may not be used after July 31, 2020. Dicamba may harm crops that are not tolerant to dicamba. 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 seed in the Roundup Ready® Xtend Crop System.

**NOTICE: DO NOT APPLY ANY HERBICIDE TO SEED IN THE ROUNDUP READY® XTEND CROP SYSTEM UNLESS IT HAS A PRODUCT LABEL SPECIFICALLY AUTHORIZING THAT USE. TO USE A HERBICIDE IN ANY MANNER INCONSISTENT WITH ITS LABELING IS A VIOLATION OF FEDERAL LAW. REFER TO THE BAYER TECHNOLOGY USE GUIDE FOR DETAILS AND RECOMMENDATIONS ON USING APPROVED HERBICIDES ON SEED IN THE ROUNDUP READY® XTEND CROP SYSTEM.**

## SOYBEAN AND CANOLA PIRACY

Seed containing a patented trait can only be used to plant a single commercial crop. It is unlawful to save and replant seed from that crop. Examples of seed containing a patented trait include but are not limited to Roundup Ready 2 Yield® soybeans, Roundup Ready 2 Xtend® soybeans, XtendFlex® soybeans, Roundup Ready® spring canola, Roundup Ready® winter canola, and TruFlex™ canola with Roundup Ready® Technology. Additional information and limitations on the use of these products are provided in the Technology Stewardship Agreement and the Bayer Technology Use Guide: <https://tug.bayer.com>. U.S. patents for Bayer technologies can be found at the following webpage: <http://www.monsantotechnology.com>

## ALFALFA

HarvXtra® Alfalfa with Roundup Ready® Technology: 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 following 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. 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.

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