



2021

SEED GUIDE

CORN



Let's leave status quo in the dust.

It's time to tune out all the bluster and focus on what works. CROPLAN[®] by WinField United gives you the right tools to make the best agronomic decisions for your corn crop. CROPLAN[®] seed uses the latest data to recommend what hybrids to choose and where to place them to get optimal bang for your buck. And we're one of the only seed brands in the industry to offer zinc as a standard treatment on all commercial hybrids to promote early-season growth and root development. We'll work with you to determine how much, when and where to apply nutrients and crop protection products to generate the most yield and profit potential. Our expertise leads. And it yields.

KEY TAKEAWAYS

- 1 Be familiar with hybrid response to continuous corn (RTCC) and soil type.
- 2 Optimize yield potential by understanding hybrid response to population (RTP).
- 3 Use hybrid response-to-nitrogen (RTN) scores to maximize your nitrogen management plan.
- 4 Understand hybrid ROI potential with fungicide applications by knowing the response-to-fungicide (RTF) score.
- 5 Use quality data from WinField United to make informed decisions.

RESPONSE-TO SCORES DELIVER RESULTS YOU CAN HARVEST¹

Nine years of nationwide Answer Plot[®] data show that there is a **+97.6-bushel-per-acre average response** over the four different response-to scores (response to continuous corn, response to population, response to nitrogen, response to fungicide). By using response-to scores to choose hybrids that fit specific management conditions, there are potentially 97.6 bushels per acre at stake, with a range of 43 to 203.9 bushels per acre across the four input decisions.

Response to Cont. Corn
14.4 BU/A

Range: 5.8 to 36.7 bu/A

Response to Population
8.5 BU/A

Range: 0.84 to 21.9 bu/A

Response to Nitrogen
66.7 BU/A

Range: 30.8 to 104.9 bu/A

Response to Fungicide
14.3 BU/A

Range: 5.6 to 40.4 bu/A

MAKE CONTINUOUS CORN COUNT²

All hybrids have strengths and weaknesses that must be considered when determining how they will respond under different cropping systems and on various soil types.

- Matching hybrids to your cropping system will allow you to achieve optimal yield potential. Good management of residue, insects and disease in addition to vigilant scouting are all critical to sustaining an optimal corn-on-corn system.

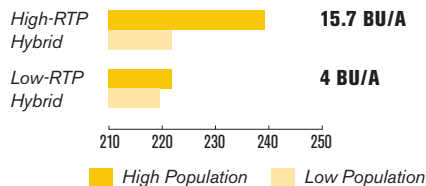
- For good emergence, plant corn at uniform depths and position stronger-emerging hybrids on continuous-corn fields with heavy residue.

► RTCC Average Response – 14.4 bu/A

TARGET POPULATIONS²

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.

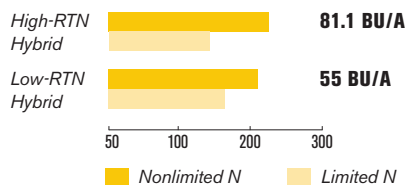
► RTP Yield Response Variance – 11.7 bu/A



LET NITROGEN NOURISH²

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.

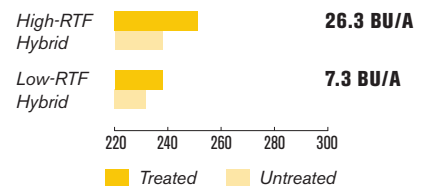
► RTN Yield Response Variance – 26.1 bu/A



LEVERAGE FUNGICIDES FOR PLANT HEALTH²

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 Points³

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. 2019 Answer Plot[®] trial data.
3. 1998–2019 Answer Plot[®] trial data.

CORN



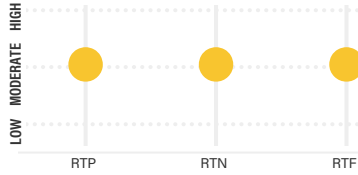
CROPLAN® TRAIT LETTERING FOR CORN HYBRIDS

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

KEY	HYBRID	TRAIT	LOGO
SS	SmartStax®; GENSS	YieldGard VT Rootworm, Herculex® RW, YieldGard VT PRO® Corn Borer and Herculex® protection, Roundup Ready® 2 Technology and LibertyLink®	
SS/RIB	SmartStax® RIB Complete® Corn Blend; GENSS	5% RIB, YieldGard VT Rootworm, Herculex® RW, YieldGard VT PRO® Corn Borer and Herculex® protection, Roundup Ready® 2 Technology and LibertyLink®	
VT2P	VT Double PRO®; GENVT2P	YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
VT2P/RIB	VT Double PRO® RIB Complete® Corn Blend; GENVT2P	5% RIB, YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
RR	Roundup Ready® Corn 2; RR2	Roundup Ready® Corn 2	
DGVT2P	DroughtGard® VT Double PRO® Corn Blend	DroughtGard® YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
DGVT2P/RIB	DroughtGard® VT Double PRO® RIB Complete® Corn Blend	5% RIB, DroughtGard® YieldGard VT PRO® Corn Borer protection, Roundup Ready® 2 Technology	
AS3000GT	Agrisure® 3000GT	Agrisure® Corn Borer and Rootworm protection, Glyphosate Tolerant and LibertyLink®	
AS3011A	Agrisure Artesian® 3011A	Agrisure Artesian® and Agrisure® Corn Borer, Rootworm, Glyphosate Tolerant and LibertyLink®	
AS3111	Agrisure Viptera® 3111	Agrisure® Corn Borer, Rootworm and Broad Lepidopteran protection, Glyphosate Tolerant and LibertyLink®	
GT	Agrisure® GT	Agrisure® Glyphosate Tolerant	
AS3122-EZ	Agrisure® 3122 E-Z Refuge®	Agrisure® E-Z Refuge®, Agrisure® Glyphosate Tolerant, Agrisure® Corn Borer and LibertyLink®, Agrisure® Rootworm Protection and Herculex® XTRA Insect Protection	
AS3220-EZ	Agrisure Viptera® 3220 E-Z Refuge®	Agrisure Viptera®, E-Z Refuge®, Corn Borer, Glyphosate Tolerant and Herculex® I Insect Protection	
AS3220A-EZ	Agrisure Viptera® 3220A E-Z Refuge®	Agrisure Artesian®, Agrisure® Corn Borer, Broad Lepidopteran protection, Glyphosate Tolerant and Herculex® I Insect Protection	

NEW**CROPLAN CP1756VT2P/RIB**

Relative Maturity: 77 Days

**Response Scores**

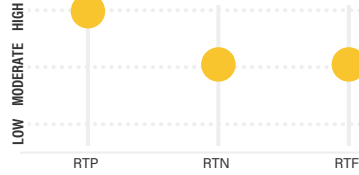
- Earliest CROPLAN® hybrid with early flowering date for maturity
- Medium-stature plant with strong test weight and staygreen
- Fixed-ear hybrid requiring medium to high populations
- Keep in relative maturity zone; doesn't move south well

Characteristics

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

CROPLAN CP2123VT2P/RIB

Relative Maturity: 81 Days

**Response Scores**

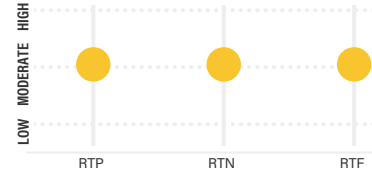
- Consistent yield potential and excellent emergence
- Very early flowering product with fast drydown
- Mostly fixed, girthy ear with good tip fill
- Excellent moisture-stress tolerance in cool environments

Characteristics

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

CROPLAN CP2180VT2P/RIB

Relative Maturity: 81 Days

**Response Scores**

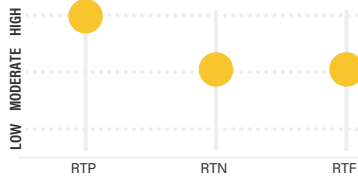
- Position in average to high-yield-potential acres
- Strong vigor, stalks and roots
- Yield stability at moderate populations
- Flowers early for RM, keep in zone

Characteristics

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

CROPLAN CP2288VT2P/RIB

Relative Maturity: 82 Days

**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	2
Drought Tolerance	2	2
Root Strength	2	1
Staygreen	2	2
Stalk Quality	2	2
Dry Down	2	2
Test Weight	2	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 CP2330VT2P/RIB
[RR]
Relative Maturity: 83 Days

VTDoublePRO

Response Scores

Characteristics

	Not Recommended		Excellent	
Seedling Vigor			2	
Drought Tolerance				1
Root Strength			2	
Staygreen			5	
Stalk Quality			3	
Dry Down			2	
Test Weight			3	

- Best kept north as a medium-season or full-season product
- Strong roots are paired with excellent drought tolerance
- Girthy ear type with some flex and consistent tip fill
- Early defensive complement to 2520 for low-yielding environments

CROPLAN CP2315VT2P/RIB
Relative Maturity: 83 Days

VTDoublePRO

Response Scores

Characteristics

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

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

CROPLAN CP2417VT2P/RIB
Relative Maturity: 85 Days

VTDoublePRO

Response Scores

Characteristics

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

- High-yield-potential product best-positioned in highly productive soils
- Medium-tall plant offers dual-purpose option
- Semi-flex, girthy ear allows flexibility in planting populations
- Acceptable emergence; not a "plant first" hybrid

CROPLAN CP2587VT2P/RIB
Relative Maturity: 85 Days

VTDoublePRO

Response Scores

Characteristics

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

- Strong yield potential across multiple soil types and yield environments
- Strong staygreen and root strength ratings
- Optimize yield with high population and nitrogen management
- Fungicide application recommended for gray leaf spot control

CROPLAN CP2692AS3011A
Relative Maturity: 86 Days

Agrisure Artesian

Response Scores

Characteristics

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

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

CROPLAN CP2790VT2P/RIB
Relative Maturity: 87 Days

VTDoublePRO

Response Scores

Characteristics

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

- 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

KEY

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

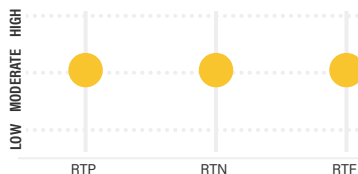
NEW

CROPLAN CP2851VT2P/RIB

Relative Maturity: 88 Days



Response Scores



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

Characteristics

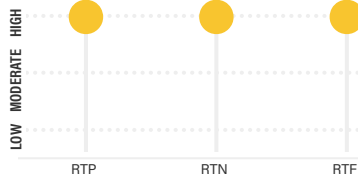
	Not Recommended	Excellent
Seedling Vigor	3	
Drought Tolerance	3	
Root Strength	2	
Staygreen	3	
Stalk Quality	2	
Dry Down	2	
Test Weight	2	

CROPLAN CP2845SS/RIB

[VT2P/RIB]*
Relative Maturity: 89 Days



Response Scores



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

Characteristics

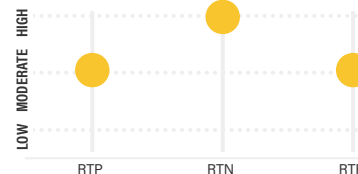
	Not Recommended	Excellent
Seedling Vigor		1
Drought Tolerance		1
Root Strength		1
Staygreen	3	
Stalk Quality	2	
Dry Down		1
Test Weight	3	

CROPLAN CP2965VT2P/RIB

[RR]
Relative Maturity: 89 Days



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 for additional yield on average to productive soils
- Acceptable Goss's wilt tolerance

Characteristics

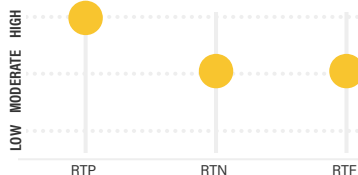
	Not Recommended	Excellent
Seedling Vigor		1
Drought Tolerance		2
Root Strength		2
Staygreen	3	
Stalk Quality		1
Dry Down		2
Test Weight		2

CROPLAN CP3146SS/RIB

[VT2P/RIB]*
Relative Maturity: 91 Days



Response Scores



- Defensive complement to products in maturity range; excels in moderate- to low-yield environments
- Excellent roots and strong stalks with medium plant height
- High response to population with consistent tip fill
- Manage for Goss's wilt

Characteristics

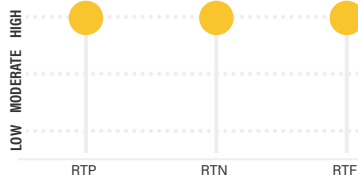
	Not Recommended	Excellent
Seedling Vigor		1
Drought Tolerance	3	
Root Strength		1
Staygreen	2	
Stalk Quality	2	
Dry Down	2	
Test Weight	3	

CROPLAN CP3240AS3220-EZ

Relative Maturity: 92 Days



Response Scores



- Agrisure Artesian® trait with excellent yield potential across all environments
- Medium-tall plant with strong stalks and late-season plant health
- High response to population for flexibility in planting
- Manage for Goss's wilt

Characteristics

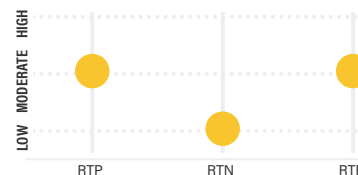
	Not Recommended	Excellent
Seedling Vigor		2
Drought Tolerance		1
Root Strength		2
Staygreen		2
Stalk Quality		2
Dry Down	4	
Test Weight		2

CROPLAN CP3314VT2P/RIB

Relative Maturity: 93 Days



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

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

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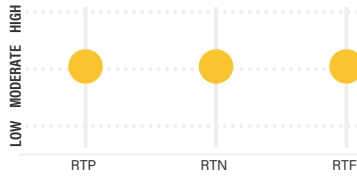
CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

CROPLAN CP3337VT2P/RIB

[RR]
Relative Maturity: 93 Days



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

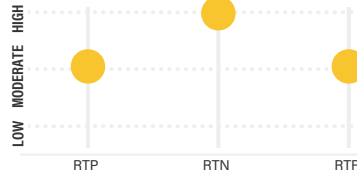
	Not Recommended	Excellent
Seedling Vigor	2	2
Drought Tolerance	1	1
Root Strength	1	1
Staygreen	3	
Stalk Quality	3	
Dry Down	2	
Test Weight	2	

CROPLAN CP3399SS/RIB

[VT2P/RIB]*
Relative Maturity: 94 Days



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

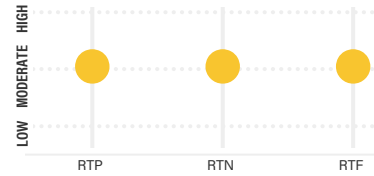
	Not Recommended	Excellent
Seedling Vigor	2	2
Drought Tolerance	2	2
Root Strength	2	2
Staygreen	2	2
Stalk Quality	2	2
Dry Down	2	2
Test Weight	2	2

CROPLAN CP3499VT2P/RIB

Relative Maturity: 94 Days



Response Scores



- Excellent consistency in all yield environments from east to west
- Offers strong roots, stalks and staygreen
- Some ear flex, although great stress tolerance allows for higher planting populations
- Medium-short hybrid with medium-low ear placement

Characteristics

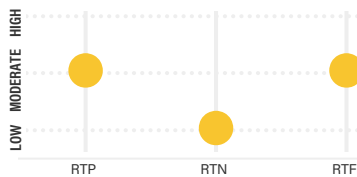
	Not Recommended	Excellent
Seedling Vigor	2	1
Drought Tolerance	2	1
Root Strength	2	2
Staygreen	2	2
Stalk Quality	2	2
Dry Down	3	
Test Weight	2	

CROPLAN CP3533VT2P/RIB

Relative Maturity: 95 Days



Response Scores



- Excellent choice for light, droughty soils
- Defensive companion to the 99 series with excellent heat-stress tolerance
- Moderate and low response scores for variable placement and management
- Use caution on heavy, sticky, poorly drained soils; not recommended for Goss's wilt acres

Characteristics

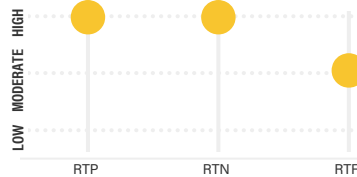
	Not Recommended	Excellent
Seedling Vigor	2	2
Drought Tolerance	1	1
Root Strength	1	1
Staygreen	3	
Stalk Quality	3	
Dry Down	2	
Test Weight	2	

CROPLAN CP3575SS/RIB

[VT2P/RIB*, CONV]
Relative Maturity: 95 Days



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	2
Drought Tolerance	3	
Root Strength	2	2
Staygreen	2	2
Stalk Quality	2	2
Dry Down	2	2
Test Weight	2	1

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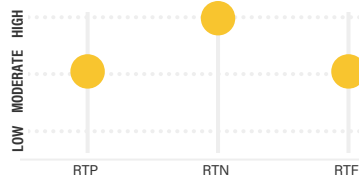
CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

CROPLAN CP3611SS/RIB

[VT2P/RIB]*
Relative Maturity: 96 Days



Response Scores



- Best-positioned on rotated acres
- Excellent roots and fast drydown
- Highly responsive to increased nitrogen fertility; moderate response to population
- Monitor in areas with heavy gray leaf spot and northern corn leaf blight

Characteristics

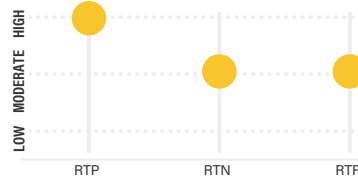
	Not Recommended			Excellent	
Seedling Vigor					1
Drought Tolerance				2	
Root Strength					1
Staygreen				2	
Stalk Quality			3		
Dry Down					1
Test Weight			3		

CROPLAN CP3614VT2P/RIB

Relative Maturity: 96 Days



Response Scores



- Tough-acre product ideal for low- to medium-yield environments
- Excellent roots and late-season intactness with strong test weight
- High response to population; also handles variable populations well
- Limited capability in high-yield environments

Characteristics

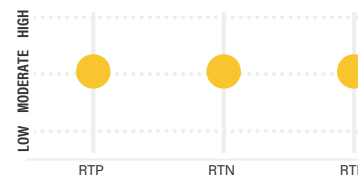
	Not Recommended			Excellent	
Seedling Vigor					1
Drought Tolerance			3		
Root Strength					1
Staygreen			3		
Stalk Quality			3		
Dry Down					2
Test Weight					2

CROPLAN CP3699RR

Relative Maturity: 96 Days



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

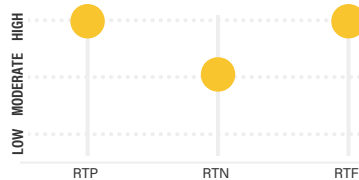
	Not Recommended			Excellent	
Seedling Vigor					1
Drought Tolerance				2	
Root Strength					1
Staygreen			3		
Stalk Quality					1
Dry Down			3		
Test Weight					2

CROPLAN CP3705SS/RIB

Relative Maturity: 97 Days



Response Scores



- Excels in both high- and moderate-yield environments
- Handles stress well; excellent stalks and strong seedling vigor
- High response to population and fungicide; able to handle corn-on-corn acres

Characteristics

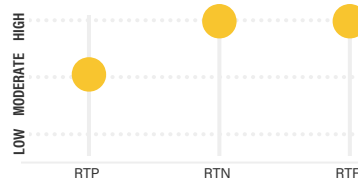
	Not Recommended			Excellent	
Seedling Vigor				2	
Drought Tolerance			3		
Root Strength			3		
Staygreen			3		
Stalk Quality					1
Dry Down			3		
Test Weight					2

CROPLAN CP3735SS/RIB

[VT2P/RIB]*
Relative Maturity: 97 Days



Response Scores



- Adaptable east to west; versatile hybrid for all yield environments
- Excellent test weight and emergence with solid defensive traits
- Plant at moderate to high densities; fungicide application is recommended
- Keep in RM zone

Characteristics

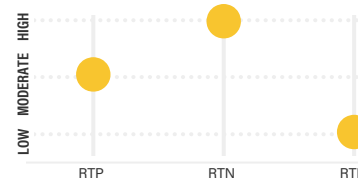
	Not Recommended			Excellent	
Seedling Vigor					1
Drought Tolerance			3		
Root Strength					2
Staygreen					2
Stalk Quality					2
Dry Down					2
Test Weight					1

CROPLAN CP3795VT2P/RIB

Relative Maturity: 97 Days



Response Scores



- Excellent consistency in all yield environments from east to west
- Improved Goss's wilt tolerance over 3899; strong stalks, roots and seedling vigor
- Optimize yield with enhanced nitrogen management
- Fast-die/fast-dry hybrid with an ear and a stick look late

Characteristics

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

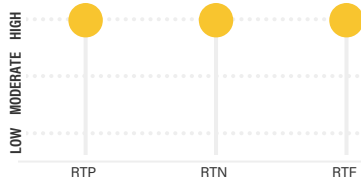


CP3899VT2P/RIB

Relative Maturity: 98 Days



Response Scores



- High yield performance across multiple environments and soils
- Medium-tall hybrid with excellent seedling vigor; strong stalks, roots and drought tolerance
- High response to intensive management, but not required
- Manage in areas with gray leaf spot and northern corn leaf blight

Characteristics

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

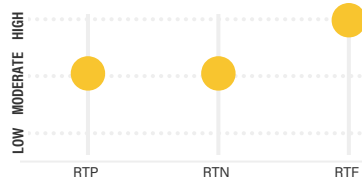


CP3909SS/RIB

[VT2P/RIB]*
Relative Maturity: 99 Days



Response Scores



- Stable yield potential across multiple environments; excellent hot-year response
- Early-flowering hybrid with excellent drydown; strong roots and stalks
- Performs well on moderately managed acres with high response to fungicide
- Manage on acres with heavy Goss's wilt pressure

Characteristics

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

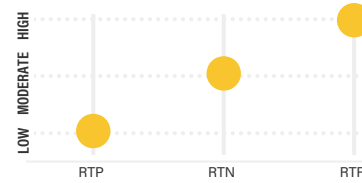


CP4020VT2P/RIB

Relative Maturity: 100 Days



Response Scores



- Tough-acre hybrid well-adapted to stressful growing conditions
- Large fibrous root system on medium-height plant
- Flex ear allows a variety of population options
- Not recommended for high-yield environments

Characteristics

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

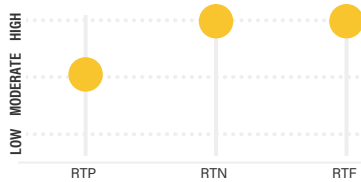


CP4079SS/RIB

[VT2P/RIB]*
Relative Maturity: 100 Days



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	1
Drought Tolerance	2	1
Root Strength	2	1
Staygreen	3	1
Stalk Quality	3	1
Dry Down	2	1
Test Weight	3	1

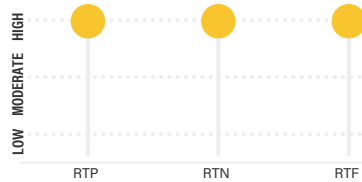


CP4099SS/RIB

Relative Maturity: 100 Days



Response Scores



- Solid product from east to west; consistent high-yield potential on most soil types
- 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	2	1
Drought Tolerance	2	1
Root Strength	2	1
Staygreen	3	1
Stalk Quality	2	1
Dry Down	3	1
Test Weight	3	1

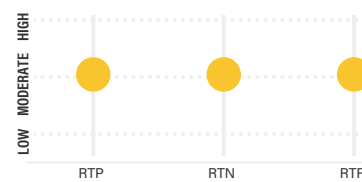


CP4188SS/RIB

[VT2P/RIB*, CONV]
Relative Maturity: 101 Days



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	2	1
Drought Tolerance	2	1
Root Strength	2	1
Staygreen	2	1
Stalk Quality	2	1
Dry Down	3	1
Test Weight	3	1

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

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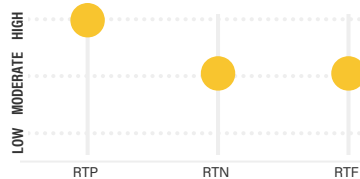
CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

CROPLAN CP4199SS/RIB

[VT2P/RIB]*
Relative Maturity: 101 Days



Response Scores



- Versatile product performs well in all yield environments
- Excellent stalks, roots, drought tolerance and seedling vigor with strong stress tolerance
- Responds to higher populations; has ability to flex in length
- Manage on acres with heavy Goss's wilt pressure

Characteristics

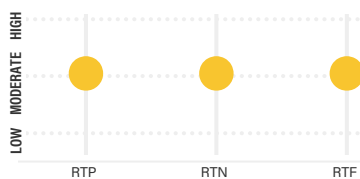
	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance						1
Root Strength						1
Staygreen			3			
Stalk Quality						1
Dry Down			3			
Test Weight			3			

CROPLAN CP5146SS/RIB

Relative Maturity: 101 Days



Response Scores



- Well-adapted across soil types; handles stress and maintains high yield potential
- Medium-height plant with solid agronomics
- Moderate response scores for flexible placement and management
- Manage for gray leaf spot

Characteristics

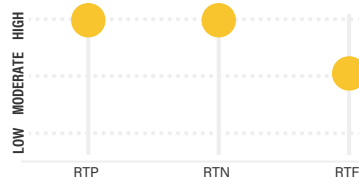
	Not Recommended			Excellent		
Seedling Vigor						2
Drought Tolerance						2
Root Strength						1
Staygreen						2
Stalk Quality						2
Dry Down						2
Test Weight						1

CROPLAN CP4203SS/RIB

[VT2P/RIB]*
Relative Maturity: 102 Days



Response Scores



- Widely adapted from Central U.S. to the West
- Tolerates heat well; excellent greensnap tolerance
- Performs best with enhanced nutrient management
- Fungicide is recommended when planted in a continuous-corn rotation

Characteristics

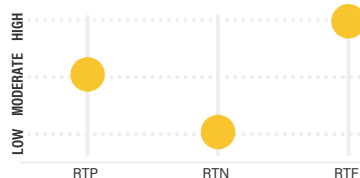
	Not Recommended			Excellent		
Seedling Vigor						
Drought Tolerance			3			
Root Strength						2
Staygreen						
Stalk Quality			3			
Dry Down						2
Test Weight						2

CROPLAN CP4242SS/RIB

[VT2P/RIB]*
Relative Maturity: 102 Days



Response Scores



- Excellent consistency from east to west
- Solid agronomics with acceptable staygreen; strong stalks, roots and Goss's wilt tolerance
- Has nice ear flex for low to medium densities
- Ear and stick look late; strong stalks maintain standability

Characteristics

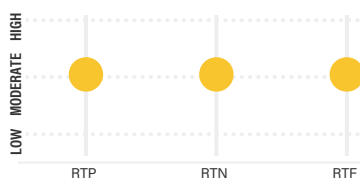
	Not Recommended			Excellent		
Seedling Vigor						2
Drought Tolerance						2
Root Strength						2
Staygreen			3			
Stalk Quality						2
Dry Down						2
Test Weight						1

CROPLAN CP4265VT2P/RIB

Relative Maturity: 102 Days



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

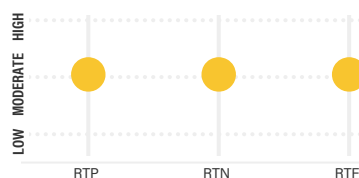
	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance			3			
Root Strength						1
Staygreen						
Stalk Quality			3			
Dry Down						2
Test Weight						1

CROPLAN CP4350SS/RIB

[DGV2P/RIB]*
Relative Maturity: 102 Days



Response Scores



- Versatile hybrid moves across yield environments and soil types
- Excellent roots, solid Goss's wilt and stress tolerance on medium-short plant
- Moderate response-to scores for flexible populations, placement and management
- Doesn't move south well; best-positioned in 100RM zone and north

Characteristics

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

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

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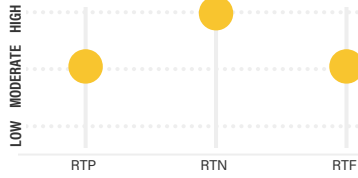


CP4819AS3000GT

Relative Maturity: 103 Days



Response Scores



- Excellent silage product
- Tall plant with medium ear placement and solid agronomics
- Highly responsive to increased nitrogen and fungicide application

Characteristics

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

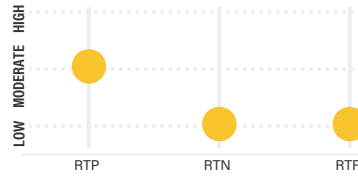


CP4822VT2P/RIB

Relative Maturity: 103 Days



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	2
Drought Tolerance	2	2
Root Strength	2	1
Staygreen	3	2
Stalk Quality	3	2
Dry Down	3	2
Test Weight	3	2

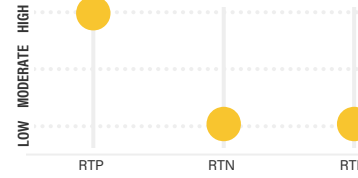


CP4444VT2P/RIB

Relative Maturity: 104 Days



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	2	1
Drought Tolerance	3	2
Root Strength	2	2
Staygreen	3	2
Stalk Quality	2	2
Dry Down	2	2
Test Weight	3	2

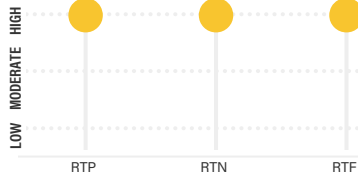


CP4488SS/RIB

Relative Maturity: 104 Days



Response Scores



- Exceptional yield potential best-positioned in high-yield environments
- Solid roots and Goss's wilt tolerance
- High response to population, nitrogen and fungicide; well-adapted to corn-on-corn acres
- Tall hybrid with acceptable stalks

Characteristics

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

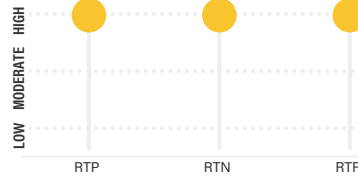


CP4549SS/RIB

[VT2P/RIB*, CONV]
Relative Maturity: 105 Days



Response Scores



- Handles stress well with ability to move across yield environments
- Tall plant with solid test weight and Goss's wilt tolerance
- Manage with nitrogen and fungicide; ear flexes to handle variable populations
- Acceptable staygreen, best if kept in rotation

Characteristics

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

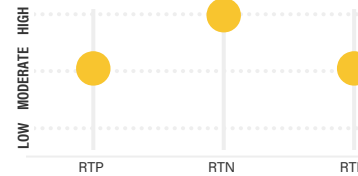


CP4676SS/RIB

Relative Maturity: 106 Days



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	2	1
Drought Tolerance	3	2
Root Strength	3	2
Staygreen	3	1
Stalk Quality	3	1
Dry Down	3	1
Test Weight	3	1

KEY Scale
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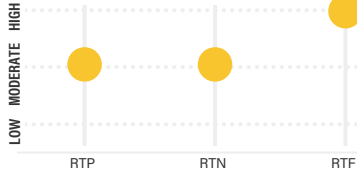


CP4644DGV2P/RIB

Relative Maturity: 106 Days



Response Scores



- Solid performance across multiple soil types; keep in RM zone
- Excellent emergence and seedling vigor; solid disease package
- Responds favorably to additional management; semi-flex ear
- Best-suited for rotation; fungicide application recommended for late-season stalk quality

Characteristics

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

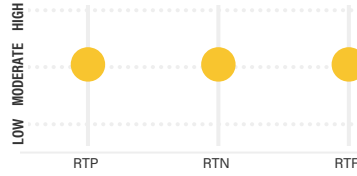


CP5412SS/RIB

[VT2P/RIB]*
Relative Maturity: 106 Days



Response Scores



- Great fit for western irrigated acres
- Excellent Goss's wilt and greensnap tolerance
- Requires moderate or high populations and fits corn-on-corn acres well

Characteristics

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

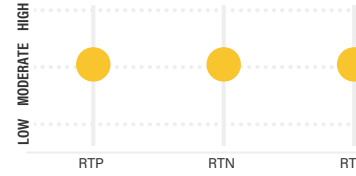


CP4791AS3111

[ASGT]
Relative Maturity: 107 Days



Response Scores



- Solid hybrid across yield environments and soil types; moves south of 110RM zone well; dual-purpose option
- Medium-tall plant with outstanding late-season intactness
- Strong ear flex; can handle variable populations; moderate response to fungicide
- Best-suited for rotated acres

Characteristics

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

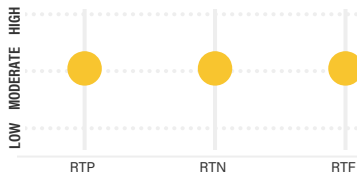


CP4895SS/RIB

[VT2P/RIB]*
Relative Maturity: 108 Days



Response Scores



- Consistent performance in medium soils
- Medium-height plant with solid agronomics and disease package
- High yield potential, especially at medium-to-high plant populations
- Not a "plant first" hybrid to ensure optimum emergence

Characteristics

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

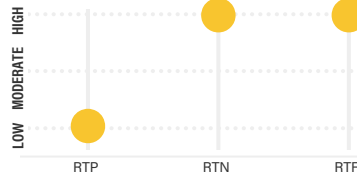


CP5887VT2P/RIB

Relative Maturity: 108 Days



Response Scores



- Versatile hybrid moves across soil types and yield environments
- Medium-height plant with strong ear flex; excellent drydown and test weight
- High response to nitrogen; manage fertility
- Manage stalk quality with medium-to-low seeding rate; fungicide is recommended

Characteristics

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

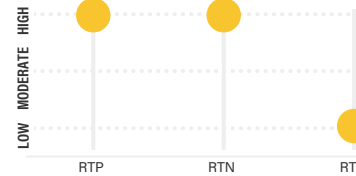


CP4997VT2P/RIB

Relative Maturity: 109 Days



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	

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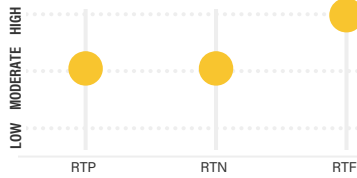
CROPLAN® corn silage hybrids that consistently perform for high-quality and high-tonnage in Answer Plot® trials.

CROPLAN CP5073SS/RIB

[VT2P/RIB]*
Relative Maturity: 110 Days



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

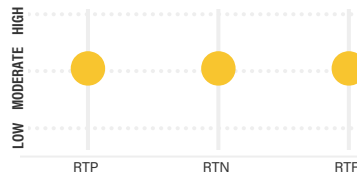
	Not Recommended			Excellent		
Seedling Vigor				2		1
Drought Tolerance				2		
Root Strength				2		
Staygreen				2		
Stalk Quality			3			
Dry Down				2		
Test Weight			3			

CROPLAN CP6110VT2P/RIB

Relative Maturity: 110 Days



Response Scores



- Best-suited for moderate-to-low yield environments
- Medium-height plant with above-average staygreen
- Best-positioned at moderate plant populations; doesn't flex in length
- Manage stalk quality with medium-to-low seeding rate

Characteristics

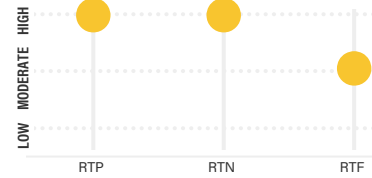
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		1
Root Strength						1
Staygreen				2		
Stalk Quality			3			
Dry Down				3		
Test Weight				3		

CROPLAN CP5115SS/RIB

[VT2P/RIB]*
Relative Maturity: 111 Days



Response Scores



- Best-suited for variable-to-tough acres
- Excellent emergence, seedling vigor and roots
- Semi-flex ear; plant at moderate populations
- Use caution on Goss's wilt acres

Characteristics

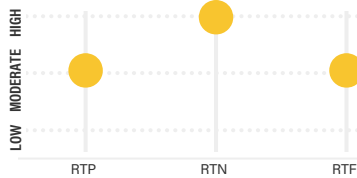
	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance					2	
Root Strength						1
Staygreen			3			
Stalk Quality					2	
Dry Down				3		
Test Weight						1

CROPLAN CP5252VT2P/RIB

Relative Maturity: 112 Days



Response Scores



- Consistent hybrid across a wide range of soil types and environments
- Medium-height plant with excellent staygreen and solid agronomic package
- Strong ear flex; plant at moderate to low densities; suitable for corn-on-corn acres
- Acceptable disease package; manage with fungicide application

Characteristics

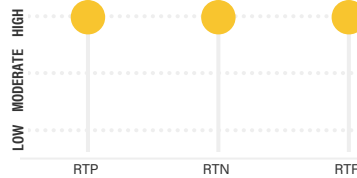
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength				2		
Staygreen						1
Stalk Quality				2		
Dry Down				2		
Test Weight				2		

CROPLAN CP5277AS3220-EZ

Relative Maturity: 112 Days



Response Scores



- Excellent agronomics; consistent product performance east to west
- Medium-tall plant with medium-high ear set
- High response-to-population score
- Enhanced fertility and fungicide application recommended

Characteristics

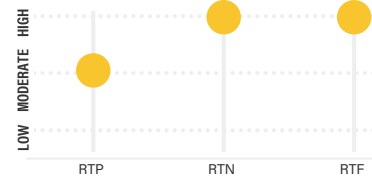
	Not Recommended			Excellent		
Seedling Vigor				2		
Drought Tolerance				2		
Root Strength						1
Staygreen				2		
Stalk Quality				2		
Dry Down				2		
Test Weight				2		

CROPLAN CP5290SS/RIB

[DGV2P/RIB*, CONV]
Relative Maturity: 112 Days



Response Scores



- Versatile hybrid that works across multiple yield environments; dual-purpose option
- Long, slender ear with good tip fill; food-grade quality with excellent test weight
- Optimize yield with nitrogen management and moderate populations
- High response to fungicide; timely harvest is recommended

Characteristics

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

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.

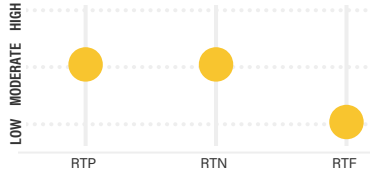


CP5340VT2P

Relative Maturity: 113 Days



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	2
Drought Tolerance	3	2
Root Strength	2	1
Staygreen	3	2
Stalk Quality	2	1
Dry Down	2	2
Test Weight	3	2

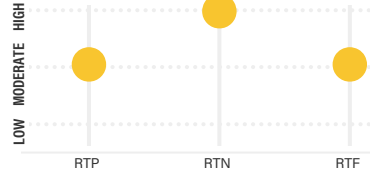


CP5335SS/RIB

[VT2P/RIB]*
Relative Maturity: 113 Days



Response Scores



- Consistent across variable environments
- Solid agronomics, including excellent 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	2
Drought Tolerance	2	2
Root Strength	2	2
Staygreen	2	2
Stalk Quality	2	1
Dry Down	2	2
Test Weight	2	1

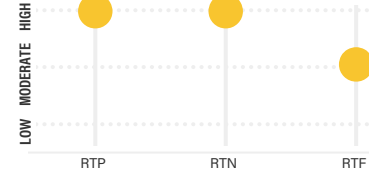


CP5370SS/RIB

[VT2P/RIB]*
Relative Maturity: 113 Days



Response Scores



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

Characteristics

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

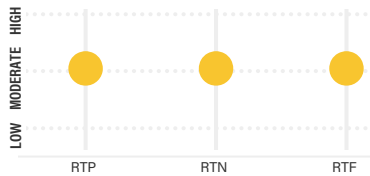


CP6594SS/RIB

[VT2P/RIB]*
Relative Maturity: 113 Days



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
- Versatility allows placement across variable acres
- Take advantage of fast drydown at harvest; keep in 110RM zones

Characteristics

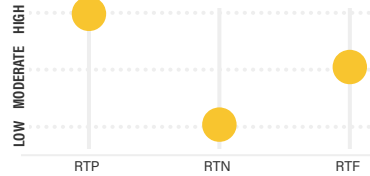
	Not Recommended	Excellent
Seedling Vigor	2	2
Drought Tolerance	2	2
Root Strength	2	1
Staygreen	2	2
Stalk Quality	2	1
Dry Down	2	2
Test Weight	2	2



CP6818 CONV

Relative Maturity: 114 Days

Response Scores



- Conventional hybrid with wide adaptability across yield environments
- Excellent roots, stalks and vigor; exceptional ability to silk and kernel fill under stress
- Great option for continuous-corn acres; semi-fixed ear will perform best at moderate-to-high plant densities

Characteristics

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

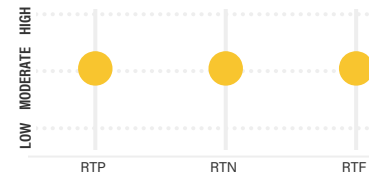


CP5550VT2P/RIB

Relative Maturity: 115 Days



Response Scores



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

Characteristics

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

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

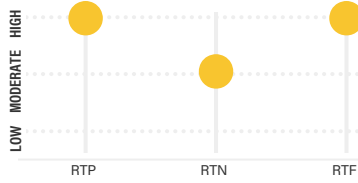


CP5570VT2P/RIB

Relative Maturity: 115 Days



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	

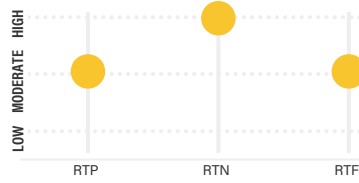


CP5678SS/RIB

[VT2P/RIB]*
Relative Maturity: 116 Days



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	2	
Dry Down	3	
Test Weight		1

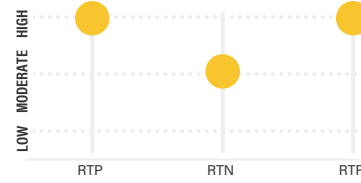


CP5789VT2P/RIB

Relative Maturity: 117 Days



Response Scores



- Versatile hybrid with strong stress tolerance; best-suited for narrow or twin rows
- Tall plant with excellent stalks, roots, staygreen and test weight; great dual-purpose option
- Position at medium-to-high populations; moderate response-to-nitrogen score
- Fungicide application recommended

Characteristics

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

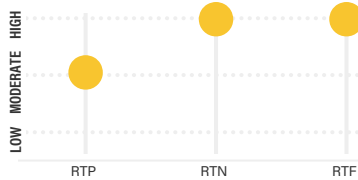


CP5814SS/RIB

Relative Maturity: 118 Days



Response Scores



- Broadly adapted across all yield environments
- Medium-height plant; strong roots and stalks; excellent staygreen
- Semi-flex ear; highly responsive to enhanced nitrogen management
- Fungicide recommended in areas with heavy gray leaf spot pressure

Characteristics

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

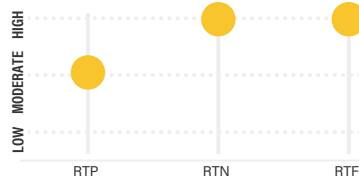


CP6027VT2P/RIB

Relative Maturity: 120 Days



Response Scores



- Broad Southern adaptability east to west; excellent silage potential
- Medium-tall plant with strong stalks, staygreen and seedling vigor
- Best performance at medium to medium-high populations
- Manage nitrogen for top-end yield potential; fungicide recommended in areas with heavy gray leaf spot pressure

Characteristics

	Not Recommended	Excellent
Seedling Vigor	2	
Drought Tolerance	4	
Root Strength	2	
Staygreen	2	
Stalk Quality	2	
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.

BRAND	Population (RTP) ¹	Nitrogen (RTN) ¹	Response to Corn (RCC) ¹	Response to Fungicide (RTF) ¹	GRU to Maturity	Plant Height ²	Ear Height ³	Cob Color	Ear Flex ⁴	Flower Date ⁵	Kernel Rows	Seeding Vigor	Stalk Quality	Root Strength	Staygreen ⁶	Drought Tolerance	Test Weight	Gray Leaf Spot	NCLB	SCLB	Common Rust	Anthracnose Stalk Rot	Goss's Wilt	Physoderma Node Breakage	Diplodia Ear Rot		
RM: 77-89																											
CP1756VT2P/RIB*	77	M	M	H	M	1758	M	M-L	RED	FX	Early	12-14	2	3	3	2	3	3	2	N/A	3	3	3	3	3	N/A	N/A
CP184RR	80	M	L	H	H	2000	M-T	M	PINK	FL	Early	16-18	2	3	2	2	4	3	1	N/A	3	N/A	3	5	N/A	N/A	
CP2123VT2P/RIB*	81	H	M	H	M	2020	M-T	M-L	RED	FL	Early	14-18	1	1	1	3	1	3	2	N/A	3	N/A	3	4	4	N/A	
CP2180VT2P/RIB*	81	M	M	M	M	2223	M	M	RED	SD	Medium-Early	18-20	2	2	2	3	2	3	3	N/A	2	N/A	N/A	3	3	N/A	
CP2268VT2P/RIB*	82	H	M	M	M	1967	M	M	RED	SF	Medium	16-18	2	2	1	2	2	2	1	N/A	2	N/A	N/A	2	3	N/A	
CP2330VT2P/RIB*	83	H	M	H	M	2147	M	M	RED	SF	Medium	16-18	2	3	2	3	2	1	3	N/A	N/A	2	4	4	N/A		
CP2315VT2P/RIB*	83	M	M	M	M	2254	M-T	M	RED	SF	Early	18-20	2	3	2	3	2	2	3	3	N/A	2	3	4	N/A		
CP2417VT2P/RIB*	85	M	M	M	H	2170	M-T	M	RED	SF	Medium	18-20	3	2	2	3	1	3	2	3	3	N/A	3	5	3	N/A	
CP2367VT2P/RIB*	85	H	H	H	M	2030	M-T	M	RED	SF	Medium	16-18	3	3	2	2	2	3	2	4	3	N/A	3	3	N/A		
CP2692AS3011A	86	L	M	M	M	2150	M-T	M	Red	SF	Medium	16-18	3	2	3	3	3	3	3	N/A	2	N/A	2	3	N/A		
CP2790VT2P/RIB*	87	L	H	M	H	2148	M	M	RED	SF	Early	16-18	1	3	2	3	2	1	2	3	2	2	3	4	3	N/A	
CP2851VT2P/RIB*	88	M	M	L	M	2407	M	M	RED	SD	Medium	16-18	3	2	2	3	2	3	2	3	3	3	3	3	3	N/A	
CP2845SS/RIB*	89	H	H	L	L	2290	M-T	M	RED	SF	Early	16-18	1	2	1	3	1	1	3	N/A	3	N/A	3	4	4	N/A	
CP2965VT2P/RIB*	89	M	H	L	M	2214	M	M	RED	SF	Medium	14-16	1	1	2	3	2	2	2	3	3	1	N/A	3	2	N/A	

KEY

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1 RTP/RTM/RTC/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

3 Ear Height

H = High
M = Medium
L = Low

4 Ear Flex

FL = Flex
SF = Semi-flex
FX = Fixed

5 Flower Date

L = Late
M = Medium
E = Early

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

BRAND	Population [RTP]	Nitrogen [RTN]	Response to Corn [RCC]	Response to Fungicide [RTF]	GRU to Maturity	Plant Height	Ear Height	Ear Color	Ear Flex	Flower Date	Kernel Rows	Seeding Vigor	Stalk Quality	Root Strength	Staygreen	Drought Tolerance	Test Weight	Gray Leaf Spot	NCLB	SCLB	Common Rust	Anthracnose Stalk Rot	Goss's Wilt	Physoderma Node Breakage	Diplodia Ear Rot	
RM: 90-99	[1]	[1]	[1]	[1]	[1]	[2]	[3]	[4]	[5]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	
CP3146SS/RIB*	91	H	M	M	M	2266	M	M	RED	FX	Medium	18-20	1	2	1	2	2	3	3	N/A	2	N/A	2	4	3	N/A
CP3240AS322D-EZ*	92	H	H	M	H	2300	M-T	M-H	RED	SF	Early	16-18	2	2	2	2	4	1	2	N/A	3	N/A	4	N/A	N/A	
CP3314VT2P/RIB*	93	M	L	M	M	2330	M	M	RED	FL	Medium	16-18	2	2	2	2	2	2	3	3	N/A	3	4	N/A	N/A	
CP3337VT2P/RIB*	93	M	M	L	M	2340	M	M	RED	FL	Early	16-18	2	3	1	3	2	1	2	4	2	4	2	5	3	N/A
CP3399SS/RIB*	94	M	H	M	M	2380	M	M	RED	SF	Medium	16-18	2	2	2	2	2	2	3	3	N/A	3	4	3	N/A	
CP3499VT2P/RIB*	94	M	M	M	M	2370	M-S	M-L	RED	SF	Late	16-18	1	2	2	2	3	2	2	3	3	N/A	3	3	N/A	
CP3533VT2P/RIB*	95	M	L	L	M	2390	M	M	RED	FL	Medium	16-18	2	3	1	3	2	1	2	N/A	3	3	5	N/A	N/A	
CP3575SS/RIB*	95	H	H	M	M	2358	M	M	RED	SF	Medium-Late	16-18	2	2	2	2	3	1	3	2	N/A	N/A	4	1	N/A	
CP3611SS/RIB*	96	M	H	L	M	2416	M-T	M	RED	SF	Medium	16-18	1	3	1	2	1	2	3	3	N/A	3	3	N/A	N/A	
CP3614VT2P/RIB*	96	H	M	L	M	2510	M	M	RED	SF	Medium	16-18	1	3	1	3	2	3	2	3	N/A	3	3	N/A	N/A	
CP3699RR	96	M	M	M	M	2430	M-T	M-H	RED	SF	Medium	16-18	1	1	1	3	3	2	2	3	3	N/A	3	3	N/A	
CP3705SS/RIB*	97	H	M	M	H	2244	M-T	M	RED	SF	Medium-Early	16-18	2	1	3	3	3	3	2	3	3	N/A	3	N/A	N/A	
CP3735SS/RIB*	97	M	M	M	H	2375	M	M	RED	SD	Medium	16-18	1	2	2	2	2	3	1	3	3	N/A	3	3	N/A	
CP3795VT2P/RIB*	97	M	H	M	L	2412	M-T	M-H	RED	SF	Medium-Late	16-18	2	2	2	2	3	1	1	2	3	2	2	2	N/A	
CP3899VT2P/RIB*	98	H	H	M	H	2400	M-T	M-H	PINK	SF	Late	16-20	1	2	2	2	2	2	2	4	4	N/A	3	3	N/A	
CP3909SS/RIB*	99	M	M	M	H	2400	M	M	RED	SF	Early	16-18	2	2	2	3	1	2	3	3	3	N/A	1	4	N/A	

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

2 Plant Height
 T = Tall
 M = Medium
 S = Short

3 Ear Height
 H = High
 M = Medium
 L = Low

4 Ear Flex
 FL = Flex
 SF = Semi-flex
 FX = Fixed

5 Flower Date
 L = Late
 M = Medium
 E = Early

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

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

BRAND	Relative Maturity	Response to Nitrogen [R/N] 1	Response to Corn [R/C] 1	Response to Fungicide [R/F] 1	GRU to Maturity	Plant Height 2	Ear Height 3	Ear Color	Ear Flex 4	Flower Date 5	Kernel Rows	Seeding Vigor	Stalk Quality	Root Strength 6	Staygreen 6	Drought Tolerance	Test Weight	Gray Leaf Spot	NCLB	SCLB	Common Rust	Anthracnose Stalk Rot	Goss's Wilt	Physoderma Node Breakage	Diplodia Ear Rot				
RM: 100-104																													
CP4020VT2P/RIB*	100	L	M	H	H	M	M	RED	FL	Medium	16-20	2	3	1	3	2	1	3	3	3	3	3	3	3	3	3	3	N/A	N/A
CP4079SS/RIB*	100	M	H	H	H	M-T	M	Red	SF	Medium	14-16	2	3	1	3	2	2	3	3	3	2	N/A	2	3	N/A	N/A			
CP4099SS/RIB*	100	H	H	M	2460	M-T	M	PINK	SF	Late	16-20	1	2	1	3	3	2	3	4	4	N/A	3	3	3	N/A	N/A			
CP4198SS/RIB*	101	M	M	L	2350	M	M	RED	SF	Medium	16-18	1	2	1	1	3	2	1	3	2	N/A	N/A	2	3	N/A	N/A			
CP4199SS/RIB*	101	H	M	M	2420	M	M	RED	SF	Late	16-18	1	1	1	3	3	1	3	3	N/A	3	4	2	N/A	N/A				
CP5146SS/RIB*	101	M	M	M	2510	M	M	RED	SF	Medium	16-18	2	2	1	2	2	2	1	4	3	3	3	3	2	N/A	N/A			
CP4203SS/RIB*	102	H	H	H	2443	M	M	RED	SD	Medium	14-16	3	2	2	3	2	2	2	3	3	3	3	1	3	N/A	N/A			
CP4242SS/RIB*	102	M	L	L	N/A	M-T	M	RED	FL	Medium	14-16	2	2	2	3	2	2	1	3	3	N/A	N/A	2	N/A	N/A				
CP4265VT2P/RIB*	102	M	M	M	2409	M	M	RED	SD	Medium-Late	16-18	1	2	1	3	1	3	3	3	3	2	N/A	2	3	3	3			
CP4350SS/RIB*	102	M	M	M	2430	M-S	M-L	RED	SF	Medium-Early	16-18	2	3	1	2	3	2	3	3	2	N/A	3	2	3	N/A	N/A			
CP4819AS3000GT*	103	M	H	M	2530	T	M-H		FL	Medium	16-18	2	3	2	3	2	2	3	3	2	3	3	1	N/A	N/A				
CP4822VT2P/RIB*	103	M	L	M	2605	M	M-H	RED	SF	Late	16-18	2	3	1	3	2	2	3	3	2	N/A	3	3	3	N/A	N/A			
CP4444VT2P/RIB*	104	H	L	M	2449	T	M-H	Red	SF	Medium-Late	14-16	1	2	2	2	3	2	3	3	3	2	N/A	3	3	3	3			
CP4488SS/RIB*	104	H	H	H	2465	T	M-H	RED	SF	Medium	16-18	3	3	3	2	3	2	2	3	3	2	2	2	3	3	3			

KEY

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1 R/P/R/TM/R/C/C/R/F Ratings

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H = High Response
TBD = To be tested in 2021.

2 Plant Height

T = Tall
M = Medium
S = Short

3 Ear Height

H = High
M = Medium
L = Low

4 Ear Flex

FL = Flex
SF = Semi-flex
FX = Fixed

5 Flower Date

L = Late
M = Medium
E = Early

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.

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



CORN



Relative Maturity	Response to Nitrogen [R/NP] 1	Response to Corn [R/CC] 1	Response to Fungicide [R/F] 1	GRU to Maturity	Plant Height 2	Ear Height 3	Cob Color	Ear Flex 4	Flower Date 5	Kernel Rows	Seeding Vigor	Stalk Quality	Root Strength 6	Staygreen 6	Drought Tolerance	Test Weight	Gray Leaf Spot	NCLB	SClB	Common Rust	Anthracnose Stalk Rot	Physoderma Node Breakage	Diplodia Ear Rot
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BRAND

RM: 105-109

CP4549SS/R/B*	105	H	H	L	H	2496	T	M-H	RED	SF	Medium-Early	16-18	1	3	2	3	3	3	2	3	3	2	2	N/A	N/A	3	3	5	3	
CP4676SS/R/B*	106	M	H	H	H	2559	M	M	Pink	SF	Medium	16-18	1	3	3	1	1	3	1	3	2	2	N/A	3	1	N/A	2			
CP4644DBVTZP/R/B*	106	M	M	L	H	2700	M-T	M	RED	SF	Medium	16-18	1	3	3	3	3	3	3	3	3	N/A	2	3	N/A	N/A	N/A			
CP5412SS/R/B*	106	M	M	H	M	2590	M	M	RED	SF	Medium	14-16	3	3	3	3	2	3	3	3	3	3	3	3	1	N/A	N/A	N/A		
CP4791AS3111	107	M	M	L	M	2680	M-T	M	Pink	SF	Medium	16-18	3	2	2	2	3	3	2	3	2	3	3	3	2	N/A	N/A	N/A		
CP4895SS/R/B*	108	M	M	L	M	2540	M	M-L	PINK	SF	Medium	16-18	4	2	1	3	2	2	3	3	3	1	2	4	2	N/A	3			
CP5887VTZP/R/B*	108	L	H	L	H	2580	M	M	RED	FL	Medium	14-18	3	3	2	3	1	2	1	4	3	3	3	2	3	3	3	N/A	4	
CP4997VTZP/R/B*	109	H	H	L	L	2550	T	M-H	RED	SF	Medium	16-18	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2

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

1 R/P/R/TM/R/TC/C/R/F Ratings

L = Low Response
M = Moderate Response
H = High Response
TBD = To be tested in 2020.

2 Plant Height

T = Tall
M = Medium
S = Short

3 Ear Height

H = High
M = Medium
L = Low

4 Ear Flex

FL = Flex
SF = Semi-flex
FX = Fixed

5 Flower Date

L = Late
M = Medium
E = Early

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.

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



CORN



- Population (RTP) **1**
- Nitrogen (RTN) **1**
- Response to Corn (RCC) **1**
- Response to Fungicide (RTF) **1**
- Response to Continuous Corn (RCC5) **1**
- 600 to Maturity **1**
- Plant Height **2**
- Ear Height **3**
- Cob Color **4**
- Ear Flex **4**
- Flower Date **5**
- Kernel Rows
- Seeding Vigor
- Stalk Quality
- Root Strength **6**
- Staygreen **6**
- Drought Tolerance
- Drydown
- Test Weight
- Gray Leaf Spot
- NCLB
- SCLB
- Common Rust
- Anthracnose Stalk Rot
- Goss's Wilt
- Physoderma Node Breakage
- Diplodia Ear Rot

BRAND

RM: 110-120

CP6073SS/R/B*	110	M	M	H	H	2640	M	M-H	RED	SF	Medium	16-18	1	3	2	2	2	2	2	3	3	3	2	1	N/A	3	3	N/A	N/A		
CP6110VT2P/R/B*	110	M	M	M	M	2600	M	M	RED	SF	Medium	16-18	2	3	1	2	3	1	3	4	2	2	4	3	3	3	3	N/A	3		
CP6115SS/R/B*	111	H	H	H	M	2624	M-T	M-H	RED	SF	Medium-Late	18-20	1	2	1	3	3	2	1	3	3	2	3	3	3	3	3	5	3		
NEW CP6252VT2P/R/B*	112	M	H	M	M	2750	M	M	RED	SF	Medium	14-18	2	2	2	1	2	2	2	2	2	3	3	3	3	3	3	N/A	N/A		
CP6277AS3220-EZ*	112	H	H	L	H	2660	M-T	M-H	White	SF	Early	14-16	2	2	2	1	2	2	2	2	2	3	2	2	2	2	2	N/A	N/A		
CP6290SS/R/B*	112	M	H	M	M	2610	M	M	RED	SF	Medium	14-16	1	3	3	3	2	3	1	2	3	3	3	3	3	1	3	N/A	N/A		
CP6340VT2P	113	M	M	M	L	2770	M-S	M	RED	FL	Medium	16-20	2	1	1	3	2	3	3	3	3	2	2	2	2	3	4	3	N/A	4	
CP6335SS/R/B*	113	M	H	H	M	2728	M-T	M	PINK	SF	Medium	16-18	2	1	2	2	2	2	1	3	2	2	2	2	2	N/A	2	N/A	2		
CP6370SS/R/B*	113	H	H	M	M	2730	T	M-H	Pink	SF	Medium	18-20	1	1	1	3	2	2	1	3	2	2	2	2	2	3	4	2	N/A	N/A	
CP6594SS/R/B*	113	M	M	H	M	2690	M	M	RED	SF	Medium	16-18	2	1	1	2	2	2	2	2	3	3	2	2	2	3	3	N/A	3		
CP6818 CONV	114	H	L	H	M	2830	M	M	RED	SF	Medium	16-18	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	N/A	N/A		
NEW CP6550VT2P/R/B*	115	M	M	L	M	2748	M-T	M-H	PINK	SF	Medium	14-16	2	2	2	2	2	2	2	2	3	3	3	2	2	N/A	3	1	N/A	3	
CP6570VT2P/R/B*	115	H	M	M	M	2630	M	M	RED	SF	Medium	16-18	3	2	2	2	3	2	3	3	3	3	2	2	N/A	3	3	N/A	3		
CP65678SS/R/B*	116	M	M	M	M	2790	M	M	RED	SF	Medium	14-16	2	2	3	3	3	3	2	1	3	2	2	2	N/A	3	3	3	3	3	
CP6798VT2P/R/B*	117	H	M	M	H	2738	T	M-H	RED	SF	Medium	16-18	2	1	1	1	1	3	2	1	3	2	1	3	1	2	N/A	4	3	N/A	3
CP6814SS/R/B*	118	M	H	M	M	2702	M	M	Red	SF	Medium-Early	16-18	2	2	2	1	2	1	2	4	1	4	2	N/A	N/A	3	2	N/A	N/A		
CP6027VT2P/R/B*	120	M	H	L	H	2790	M-T	M-H	RED	SF	Medium	16-18	2	2	2	2	2	2	3	4	2	4	1	2	N/A	2	3	N/A	N/A		

KEY

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

- 4 Ear Flex**
- FL = Flex
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- 5 Flower Date**
- L = Late
 - M = Medium
 - E = Early

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

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

CORN



Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

SOYBEAN

1 of 2



There's no good reason risk has to increase with yield.

We won't promise you the world. We will promise you an honest and insightful approach to maximizing your soybean yield potential. At WinField United, we use proven technologies to match the right soybean genetics and traits to your field's conditions. Plus, our CROPLAN® seed varieties are selected for disease tolerance that helps protect the soybean plant throughout all stages of growth. We know this is the best way to help you achieve optimal return on your seed and crop inputs.

KEY TAKEAWAYS

- 1 Use appropriate trait technology to achieve effective weed control.
- 2 Introduce stability to your fields 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.

	Glyphosate	Glufosinate	2,4-D Choline	Dicamba	HPPD Isoxaflutole
LIBERTYLINK®		X			
LIBERTYLINK® GT27™	X	X			X
ROUNDUP READY 2 YIELD®	X				
ROUNDUP READY 2 XTEND®	X			X	
ENLIST E3®	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
PLACEMENT	Average to below-average yield environments.	Best-suited to productive acres.
DISEASE PACKAGE	Strong soybean white mold and iron deficiency chlorosis (IDC) tolerance.	Excellent phytophthora root rot and frog-eye field tolerance.
AGRONOMICS	<ul style="list-style-type: none"> • Narrow canopy type • Tall height • Excellent standability 	<ul style="list-style-type: none"> • Bushy canopy type • Medium height • Average standability
STRESS TOLERANCE	Excellent stress tolerance.	Strong stress tolerance.

- 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.

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 the soybean herbicide-tolerant varieties available today. These traits offer some great postemergence options.

SOYBEAN

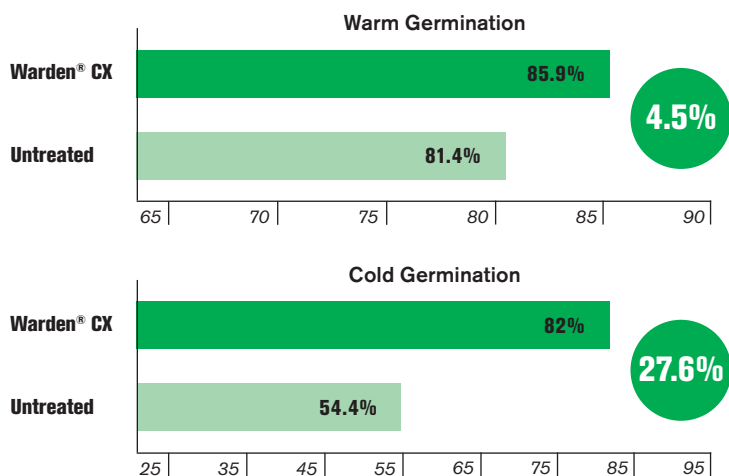
2 of 2



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



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

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.

SOYBEAN



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
L	LibertyLink®	Liberty® tolerant	
LG	LibertyLink® GT27™	Liberty® and glyphosate tolerant	
RR	Roundup Ready 2 Yield®	Roundup® tolerant	
X	Roundup Ready 2 Xtend®	Roundup® and dicamba tolerant	
E	Enlist E3®	Glyphosate, glufosinate and 2,4-D choline tolerant	
S	STS®	Sulfonylurea tolerant	N/A

CROPLAN **CP00319X**
BY WINFIELD UNITED
 Group: 0.03 Days

ROUNDUP READY 2 XTEND SOYBEANS

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				
SDS Tolerance				
SWM Tolerance				
BSR Tolerance				
Iron Chlorosis				

	M	Canopy Type	Int
Height	M	Canopy Type	Int
Stress Tolerance	N/A	Emergence	2
Standability	1		

- Earliest Roundup Ready 2 Xtend® soybean in lineup
- Best-suited for northern N.D. and Minn.
- Strong IDC tolerance with excellent standability
- Acceptable PRR tolerance

NEW
CROPLAN **CP00710X**
BY WINFIELD UNITED
 Group: 0.07 Days

ROUNDUP READY 2 XTEND SOYBEANS **WinPak®**
BY WINFIELD UNITED

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				
SDS Tolerance				
SWM Tolerance				
BSR Tolerance				
Iron Chlorosis				

	M	Canopy Type	-
Height	M	Canopy Type	-
Stress Tolerance	N/A	Emergence	2
Standability	2		

- WinPak® variety consisting of CP00777X and CP00711X
- Higher-yielding replacement for CP00700X
- Strong IDC tolerance with excellent standability

CROPLAN **CP00729E**
BY WINFIELD UNITED
 Group: 0.07 Days

EnlistE3®

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				
SDS Tolerance				
SWM Tolerance				
BSR Tolerance				
Iron Chlorosis				

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

- 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 **CP00847X**
BY WINFIELD UNITED
 Group: 0.08 Days

ROUNDUP READY 2 XTEND SOYBEANS

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				
SDS Tolerance				
SWM Tolerance				
BSR Tolerance				
Iron Chlorosis				

	MT	Canopy Type	-
Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	3		

- Strong yield potential across Red River Valley
- Strong performance on stressed ground
- Excellent IDC and BSR tolerance
- Acceptable SWM tolerance

CROPLAN **CP00926X**
BY WINFIELD UNITED
 Group: 0.09 Days

ROUNDUP READY 2 XTEND SOYBEANS

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				
SDS Tolerance				
SWM Tolerance				
BSR Tolerance				
Iron Chlorosis				

	M	Canopy Type	Int
Height	M	Canopy Type	Int
Stress Tolerance	3	Emergence	1
Standability	3		

- Strong yield potential for productive soils
- Broadly adaptive bean moves west well
- Strong IDC and BSR tolerance
- Not recommended in SCN-prone areas

CROPLAN **CP0200X**
BY WINFIELD UNITED
 Group: 0.2 Days

ROUNDUP READY 2 XTEND SOYBEANS **WinPak®**
BY WINFIELD UNITED

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				
SDS Tolerance				
SWM Tolerance				
BSR Tolerance				
Iron Chlorosis				

	M	Canopy Type	-
Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	2
Standability	3		

- WinPak® variety consisting of CP0268X and CP0337X
- WinPak variety designed for variable acres and all yield environments
- Acceptable IDC tolerance; solid disease package
- Acceptable SWM tolerance

KEY

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

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CROPLAN CP0264RR
Group: 0.2 Days

ROUNDUP READY 2 XTEND SOYBEANS

Characteristics

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance	N/A					
SWM Tolerance			3			
BSR Tolerance	N/A					
Iron Chlorosis	5					

Height	M	Canopy Type	Int
Stress Tolerance	1	Emergence	3
Standability	1		

- Offensive companion product to CP0200RR
- Excellent stress tolerance for westward movement
- Excellent standability with acceptable emergence
- Avoid high-IDC fields; utilize seed treatments to improve PRR field tolerance

CROPLAN CP0329E
Group: 0.3 Days

EnlistE3

Characteristics

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance	N/A					
SWM Tolerance			4			
BSR Tolerance	5					
Iron Chlorosis			3			

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

- Strong yield performance in 2019 Answer Plot® trials
- Acceptable IDC tolerance
- Strong stress tolerance
- Manage for SWM areas

CROPLAN CP0337X
Group: 0.3 Days

ROUNDUP READY 2 XTEND SOYBEANS

Characteristics

	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance	N/A					
SWM Tolerance			3			
BSR Tolerance		4				
Iron Chlorosis						1

Height	M	Canopy Type	Int
Stress Tolerance	1	Emergence	1
Standability	3		

- 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 CP0400X **NEW**
Group: 0.4 Days

ROUNDUP READY 2 XTEND SOYBEANS **WinPak®**

Characteristics

	Not Recommended			Excellent		
PRR Tolerance			2			
SDS Tolerance	N/A					
SWM Tolerance			3			
BSR Tolerance	N/A					
Iron Chlorosis						2

Height	M	Canopy Type	Int
Stress Tolerance	N/A	Emergence	2
Standability	1		

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

CROPLAN CP0426X
Group: 0.4 Days

ROUNDUP READY 2 XTEND SOYBEANS

Characteristics

	Not Recommended			Excellent		
PRR Tolerance						1
SDS Tolerance	N/A					
SWM Tolerance			3			
BSR Tolerance			4			
Iron Chlorosis						2

Height	M	Canopy Type	Int
Stress Tolerance	1	Emergence	1
Standability	1		

- 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 CP0520E **NEW**
Group: 0.5 Days

EnlistE3 **WinPak®**

Characteristics


	Not Recommended			Excellent		
PRR Tolerance			3			
SDS Tolerance	N/A					
SWM Tolerance			3			
BSR Tolerance			3			
Iron Chlorosis						2

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

- WinPak® variety consisting of CP0421E and CP0529E
- Strong IDC tolerance
- Acceptable SWM tolerance with strong standability

KEY
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CROPLAN **CP0700X**
BY WINFIELD UNITED
 Group: 0.7 Days

ROUNDUP READY 2 X-TEND SOYBEANS **WinPak**
BY WINFIELD UNITED

Characteristics

	Not Recommended			Excellent		
PRR Tolerance	■	■	■	■	■	■
SDS Tolerance	N/A	■	■	■	■	■
SWM Tolerance	■	■	■	■	■	■
BSR Tolerance	■	■	■	■	■	■
Iron Chlorosis	■	■	■	■	■	■

Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	2
Standability	2		

- WinPak® variety consisting of CP0678X and CP0878X
- A versatile WinPak variety for all yield environments tested
- Solid agronomic package suited for IDC and stressed acres
- Acceptable SWM tolerance

CROPLAN **CP0721E**
BY WINFIELD UNITED
 Group: 0.7 Days

Enlist

Characteristics

	Not Recommended			Excellent		
PRR Tolerance	■	■	■	■	■	■
SDS Tolerance	N/A	■	■	■	■	■
SWM Tolerance	■	■	■	■	■	■
BSR Tolerance	■	■	■	■	■	■
Iron Chlorosis	■	■	■	■	■	■

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	2		

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

CROPLAN **CP0819X**
BY WINFIELD UNITED
 Group: 0.8 Days

ROUNDUP READY 2 X-TEND SOYBEANS

Characteristics

	Not Recommended			Excellent		
PRR Tolerance	■	■	■	■	■	■
SDS Tolerance	N/A	■	■	■	■	■
SWM Tolerance	■	■	■	■	■	■
BSR Tolerance	■	■	■	■	■	■
Iron Chlorosis	■	■	■	■	■	■

Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

- Also available in WinPak® variety CP0970X
- Excellent PRR field tolerance and strong stress tolerance across variable acres
- Strong performance on IDC-prone acres
- Manage placement on acres with significant SWM history

CROPLAN **CP0820E**
BY WINFIELD UNITED
 Group: 0.8 Days

Enlist **WinPak**
BY WINFIELD UNITED

Characteristics

	Not Recommended			Excellent		
PRR Tolerance	■	■	■	■	■	■
SDS Tolerance	N/A	■	■	■	■	■
SWM Tolerance	■	■	■	■	■	■
BSR Tolerance	■	■	■	■	■	■
Iron Chlorosis	■	■	■	■	■	■

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	2		

- WinPak® variety consisting of CP0721E and CP0821E
- Rps1c,3a/NG PRR gene with strong PRR tolerance for PRR-prone acres
- Strong standability and acceptable IDC tolerance
- Acceptable SWM tolerance

CROPLAN **CP0957RR**
BY WINFIELD UNITED
 Group: 0.9 Days

Enlist

Characteristics

	Not Recommended			Excellent		
PRR Tolerance	■	■	■	■	■	■
SDS Tolerance	N/A	■	■	■	■	■
SWM Tolerance	■	■	■	■	■	■
BSR Tolerance	■	■	■	■	■	■
Iron Chlorosis	■	■	■	■	■	■

Height	M	Canopy Type	Int/Nar
Stress Tolerance	1	Emergence	1
Standability	1		

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

CROPLAN **CP0970X**
BY WINFIELD UNITED
 Group: 0.9 Days

ROUNDUP READY 2 X-TEND SOYBEANS

Characteristics

	Not Recommended			Excellent		
PRR Tolerance	■	■	■	■	■	■
SDS Tolerance	N/A	■	■	■	■	■
SWM Tolerance	■	■	■	■	■	■
BSR Tolerance	■	■	■	■	■	■
Iron Chlorosis	■	■	■	■	■	■


Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

- WinPak® variety consisting of CP0819X and CP0919X
- Consistent yield potential for variable environments
- Strong on IDC and PRR prone acres
- Acceptable SWM tolerance

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UPGRADED

CROPLAN **CP1100X**

Group: 1.1 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	N/A	
SWM Tolerance	3	
BSR Tolerance	3	
Iron Chlorosis	2	

Height	MT	Canopy Type	-
Stress Tolerance	N/A	Emergence	1
Standability	2		

- WinPak® variety consisting of CP1078X and CP1111X
- Consistent performance for all yield environments tested
- Solid agronomics with strong IDC tolerance
- Acceptable SWM tolerance

NEW

CROPLAN **CP1111X**

Group: 1.1 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance		1
SDS Tolerance	N/A	
SWM Tolerance	2	
BSR Tolerance	1	
Iron Chlorosis	2	

Height	M	Canopy Type	-
Stress Tolerance	N/A	Emergence	1
Standability	1		

- Also available in WinPak® variety CP1100X
- Well-suited for most yield environments
- Strong IDC and white mold tolerance; strong standability
- Strong PRR field tolerance supports the lack of PRR gene

NEW

CROPLAN **CP1120E**

Group: 1.1 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	N/A	
SWM Tolerance	3	
BSR Tolerance	3	
Iron Chlorosis	2	

Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

- WinPak® variety consisting of CP1021E and CP1121E
- Excellent yield potential over 2019 Enlist® products at the same maturity
- Acceptable white mold and strong IDC tolerance
- Manage PRR with seed treatment

NEW

CROPLAN **CP1121E**

Group: 1.1 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	N/A	
SWM Tolerance	3	
BSR Tolerance	4	
Iron Chlorosis	2	

Height	M	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	2		

- 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

CROPLAN **CP1200L**

Group: 1.2 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance		1
SDS Tolerance	2	
SWM Tolerance	4	
BSR Tolerance	3	
Iron Chlorosis	3	

Height	MT	Canopy Type	-
Stress Tolerance	N/A	Emergence	2
Standability	2		

- LibertyLink® WinPak® variety consisting of CP1225L and CP1384L
- Excellent yield potential and defensive package
- Strong PRR field tolerance
- Acceptable IDC and BSR tolerance

NEW

CROPLAN **CP1400X**

Group: 1.4 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	N/A	
SWM Tolerance	3	
BSR Tolerance	4	
Iron Chlorosis	3	

Height	M	Canopy Type	-
Stress Tolerance	N/A	Emergence	1
Standability	2		

- WinPak® variety consisting of CP1411X and CP1578X
- Replaces CP1450X to allow broader east-west movement
- Acceptable tolerance for IDC, SWM and PRR
- Use caution on BSR-prone areas

KEY

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

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NEW**CROPLAN CP1420E**

Group: 1.4 Days

**Characteristics**

	Not Recommended		Excellent	
PRR Tolerance	■	■	■	■ 2
SDS Tolerance	■	■ 4	■	■
SWM Tolerance	■	■	■ 3	■
BSR Tolerance	■	■	■	■ 1
Iron Chlorosis	■	■	■ 3	■

Height	MT	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

- WinPak® variety consisting of CP1329E and CP1421E
- Strong yield performance of CP1329E in 2019 Answer Plot® trials combined with solid agronomics of CP1421E
- Int/Bush plant type with strong standability
- Use caution on prolific IDC acres

NEW**CROPLAN CP1600X**

Group: 1.6 Days

**Characteristics**

	Not Recommended		Excellent	
PRR Tolerance	■	■	■	■ 2
SDS Tolerance	■	■ N/A	■	■
SWM Tolerance	■	■	■ 2	■
BSR Tolerance	■	■	■ 2	■
Iron Chlorosis	■	■	■ 3	■

Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	1		

- WinPak® variety consisting of CP1578X and CP1788X
- This combination offers high yield potential and excellent standability
- Excellent agronomics with strong disease package
- Manage on IDC hot spots

NEW**CROPLAN CP1611X**

Group: 1.6 Days

**Characteristics**

	Not Recommended		Excellent	
PRR Tolerance	■	■ 3	■	■
SDS Tolerance	■	■	■ 2	■
SWM Tolerance	■	■	■ 2	■
BSR Tolerance	■	■	■	■ 1
Iron Chlorosis	■	■ 3	■	■

Height	M	Canopy Type	-
Stress Tolerance	N/A	Emergence	1
Standability	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

CROPLAN CP1659LG

Group: 1.6 Days

**Characteristics**

	Not Recommended		Excellent	
PRR Tolerance	■	■ 3	■	■
SDS Tolerance	■	■ 4	■	■
SWM Tolerance	■	■	■ 2	■
BSR Tolerance	■	■	■	■ 1
Iron Chlorosis	■	■	■ 2	■

Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	1		

- Also available in WinPak® variety CP1780LG
- Broadly adaptive for multiple yield environments and soil types
- Excellent standability with strong SWM tolerance
- Manage on acres prone to SDS

NEW**CROPLAN CP1721E**

Group: 1.7 Days

**Characteristics**

	Not Recommended		Excellent	
PRR Tolerance	■	■	■ 2	■
SDS Tolerance	■	■ 3	■	■
SWM Tolerance	■	■	■ 2	■
BSR Tolerance	■ 5	■	■	■
Iron Chlorosis	■	■	■ 2	■

Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

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

NEW**CROPLAN CP1820E**

Group: 1.8 Days

**Characteristics**

	Not Recommended		Excellent	
PRR Tolerance	■	■	■ 2	■
SDS Tolerance	■	■ 3	■	■
SWM Tolerance	■	■	■ 2	■
BSR Tolerance	■	■ 4	■	■
Iron Chlorosis	■	■	■ 2	■

Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

- WinPak® variety consisting of CP1721E and CP1921E
- High yield potential plus solid agronomic package
- Strong SWM and IDC tolerance
- Manage in BSR-prone fields

KEY**Scale**

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

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NEW**CROPLAN CP1827X**

Group: 1.8 Days

**Characteristics**

	Not Recommended	3	2	1	Excellent
PRR Tolerance					
SDS Tolerance					
SWM Tolerance					
BSR Tolerance					
Iron Chlorosis					

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	1		

- Also available in WinPak® variety CP1960X
- Medium-tall plant type with upright canopy
- Excellent tolerance to BSR; contains Rps1a and Rps3a for PRR tolerance
- Acceptable SDS tolerance

CROPLAN CP1960X

Group: 1.9 Days

**Characteristics**

	Not Recommended	3	2	1	Excellent
PRR Tolerance					
SDS Tolerance					
SWM Tolerance					
BSR Tolerance					
Iron Chlorosis					

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	1		

- WinPak® variety consisting of CP1827X and CP2088X
- Medium-tall plant with excellent standability and emergence
- Strong tolerance to SWM
- Acceptable SDS tolerance

CROPLAN CP2021E

Group: 2 Days

**Characteristics**

	Not Recommended	3	2	1	Excellent
PRR Tolerance					
SDS Tolerance					
SWM Tolerance					
BSR Tolerance					
Iron Chlorosis					

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	2		

- Also available in WinPak® variety CP2120E
- Best suited for Central and Western environments
- Solid agronomics with strong IDC tolerance
- Acceptable SDS tolerance

NEW**CROPLAN CP2120E**

Group: 2.1 Days

**Characteristics**

	Not Recommended	3	2	1	Excellent
PRR Tolerance					
SDS Tolerance					
SWM Tolerance					
BSR Tolerance					
Iron Chlorosis					

Height	MT	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

- WinPak® variety consisting of CP2021E and CP2121E
- Broadly adapted from east to west
- Solid agronomics with high yield potential
- Acceptable BSR tolerance

CROPLAN CP2128X

Group: 2.1 Days

**Characteristics**

	Not Recommended	3	2	1	Excellent
PRR Tolerance					
SDS Tolerance					
SWM Tolerance					
BSR Tolerance					
Iron Chlorosis					

Height	M	Canopy Type	Int/Bush
Stress Tolerance	N/A	Emergence	2
Standability	1		

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

NEW**CROPLAN CP2200X**

Group: 2.2 Days

**Characteristics**

	Not Recommended	3	2	1	Excellent
PRR Tolerance					
SDS Tolerance	N/A				
SWM Tolerance	N/A				
BSR Tolerance	N/A				
Iron Chlorosis					

Height	M	Canopy Type	-
Stress Tolerance	N/A	Emergence	2
Standability	2		

- WinPak® variety consisting of CP2128X and CP2219X
- SWM tolerance combined with high yield potential
- Strong emergence and standability
- Acceptable IDC and PRR tolerance

KEY**Scale**

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- 5 = Not Recommended

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NEW**UPGRADED****CROPLAN CP2321E**

Group: 2.3 Days

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	2	
SWM Tolerance	2	
BSR Tolerance	1	
Iron Chlorosis	2	

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

- National line that can move east to west
- Great defensive package that moves across yield environments
- Strong SWM and IDC tolerance; excellent BSR resistance
- Strong SDS tolerance

CROPLAN CP2400X

Group: 2.4 Days

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	N/A	
SWM Tolerance	4	
BSR Tolerance	1	
Iron Chlorosis	3	

Height	MT	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

- 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

CROPLAN CP2520E

Group: 2.5 Days

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	3	
SWM Tolerance	N/A	
BSR Tolerance	3	
Iron Chlorosis	3	

Height	MT	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	3		

- WinPak® variety consisting of CP2521E and CP2529E
- Best-suited for productive prairie soils, strong performance across Iowa and Ill.
- Strong stress tolerance with excellent emergence
- Acceptable on IDC-prone acres

NEW**CROPLAN CP2521E**

Group: 2.5 Days

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	4	
SWM Tolerance	4	
BSR Tolerance	1	
Iron Chlorosis	1	

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	4		

- New Enlist E3® soybean with top end yield potential
- Excellent IDC and BSR tolerance
- Strong PRR field tolerance
- Use caution on SDS and SWM acres

CROPLAN CP2529E

Group: 2.5 Days

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	2	
SWM Tolerance	N/A	
BSR Tolerance	5	
Iron Chlorosis	4	

Height	MT	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	2		

- Also available in WinPak® variety CP2520E
- Top-end yield potential on prairie soils
- Peking SCN resistance with strong PRR and SDS tolerance
- Use caution on fields with history of IDC and BSR

CROPLAN CP2578X

Group: 2.5 Days

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	N/A	
SWM Tolerance	4	
BSR Tolerance	1	
Iron Chlorosis	2	

Height	MT	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	1		

- Also available in WinPak® variety CP2400X
- High-yield variety performs from east to west
- Excellent BSR tolerance, emergence and standability; strong IDC tolerance
- Acceptable PRR field tolerance; manage for areas with heavy SWM pressure

KEY

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CROPLAN **CP2700X**
Group: 2.7 Days

ROUNDUP READY 2 XTEND **WinPak**
SOYBEANS

Characteristics

	Not Recommended		Excellent	
PRR Tolerance			2	
SDS Tolerance		3		
SWM Tolerance	N/A			
BSR Tolerance			2	
Iron Chlorosis		3		

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	2		

- WinPak® variety consisting of CP2677X and CP2817X
- Central to Eastern variety best-positioned in well-drained, fertile soils
- Excellent emergence with strong BSR resistance; acceptable IDC rating and strong stress tolerance
- Manage for areas with heavy SWM pressure

CROPLAN **CP2708X**
Group: 2.7 Days

ROUNDUP READY 2 XTEND **WinPak**
SOYBEANS

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				1
SDS Tolerance	5			
SWM Tolerance		4		
BSR Tolerance			2	
Iron Chlorosis				1

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

- Roundup Ready 2 Xtend® variety for Nebraska and Western geographies
- Excellent IDC tolerance
- Medium plant height with excellent standability
- Caution on SWM- and SDS-prone fields

CROPLAN **CP2829E**
Group: 2.8 Days

Enlist

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				1
SDS Tolerance	N/A			
SWM Tolerance	N/A			
BSR Tolerance				1
Iron Chlorosis			2	

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	2
Standability	2		

- Also available in WinPak® variety CP2920E
- Excellent stress, BSR and PRR tolerance
- Strong IDC, standability and emergence
- Use appropriate seed treatment in areas prone to SDS

CROPLAN **CP2920E**
Group: 2.9 Days

Enlist **WinPak**
SOYBEANS

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				1
SDS Tolerance	N/A			
SWM Tolerance	N/A			
BSR Tolerance				1
Iron Chlorosis			2	

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	2
Standability	2		

- WinPak® variety consisting of CP2829E and CP2921E
- National variety moves east to west
- Excellent standability and plant integrity under stress
- Manage in areas with a history of SWM and SDS

CROPLAN **CP2960X**
Group: 2.9 Days

ROUNDUP READY 2 XTEND **WinPak**
SOYBEANS

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				
SDS Tolerance		3		
SWM Tolerance			2	
BSR Tolerance	N/A			
Iron Chlorosis			2	

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	2
Standability	2		

- WinPak® variety consisting of CP2817X and CP2977X
- Highly versatile WinPak variety designed for the East
- Solid disease and agronomic package
- Manage with seed treatment and use caution in IDC areas

CROPLAN **CP3057XS**
Group: 3 Days

ROUNDUP READY 2 XTEND **WinPak**
SOYBEANS

Characteristics

	Not Recommended		Excellent	
PRR Tolerance				
SDS Tolerance		4		
SWM Tolerance			2	
BSR Tolerance	N/A			
Iron Chlorosis				1

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

- 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
- HRpsic Phytophthora gene; manage with seed treatments

KEY

Scale

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

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CROPLAN CP3110X

Group: 3.1 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	3	1
SDS Tolerance	N/A	
SWM Tolerance	N/A	
BSR Tolerance	N/A	
Iron Chlorosis	3	

Height	MT	Canopy Type	-
Stress Tolerance	N/A	Emergence	2
Standability	2		

- WinPak® variety consisting of CP3119X and CP3299X
- Best kept in RM zone or south
- Excellent PRR field tolerance with solid defensive characteristics; strong standability and emergence
- Use caution in IDC-prone areas

CROPLAN CP3120E

Group: 3.1 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	4	2
SWM Tolerance	N/A	
BSR Tolerance	N/A	
Iron Chlorosis	2	

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	2
Standability	3		

- 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 CP3321E

Group: 3.3 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	2
SDS Tolerance	3	
SWM Tolerance	N/A	
BSR Tolerance	3	
Iron Chlorosis	2	

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

- Broadly adapted variety that moves east to west
- Strong IDC and PRR tolerance
- Excellent stress tolerance and emergence
- Acceptable standability, FELS and BSR tolerance

CROPLAN CP3360X

Group: 3.3 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	3	1
SDS Tolerance	3	
SWM Tolerance	N/A	
BSR Tolerance	3	
Iron Chlorosis	3	

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

- WinPak® variety consisting of CP3337X and CP3478X
- High-yield-potential variety moves across soil types and yield environments
- Excellent field tolerance; strong emergence, standability and stress tolerance
- Acceptable IDC tolerance

CROPLAN CP3429E

Group: 3.4 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	3	
SWM Tolerance	N/A	
BSR Tolerance	5	
Iron Chlorosis	5	

Height	MT	Canopy Type	Int/Nar
Stress Tolerance	1	Emergence	2
Standability	1		

- Best-suited for eastern Ill., Ind. and Ohio
- Excellent stress tolerance with top-end yield potential
- Excellent standability; strong emergence and PRR field tolerance
- Manage in areas with SDS history; use fungicide application to manage FELS

CROPLAN CP3450X

Group: 3.4 Days



Characteristics

	Not Recommended	Excellent
PRR Tolerance	3	
SDS Tolerance	3	
SWM Tolerance	N/A	
BSR Tolerance	2	
Iron Chlorosis	4	


Height	M	Canopy Type	-
Stress Tolerance	3	Emergence	2
Standability	2		

- WinPak® variety consisting of CP3457X and CP3556X
- Versatile product with high yield potential; optimize yield with management
- Medium height plant with strong standability
- Manage with seed treatment; acceptable PRR and SDS tolerance

KEY

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

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CROPLAN **CP3556X**
WINFIELD UNITED
 Group: 3.5 Days

ROUNDUP READY 2 XTEND SOYBEANS

Characteristics

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance			3			
SWM Tolerance	N/A					
BSR Tolerance				2		
Iron Chlorosis			3			

Height	M	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	2		

- Also available in WinPak® CP3450X
- Versatile variety with high yield potential
- Strong PRR and BSR tolerance
- Acceptable IDC and SDS tolerance

CROPLAN **CP3620E**
WINFIELD UNITED
 Group: 3.6 Days

WinPak
WINFIELD UNITED

Characteristics

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance			3			
SWM Tolerance	N/A					
BSR Tolerance				4		
Iron Chlorosis	N/A					

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

- WinPak® variety consisting of CP3621E and CP3629E
- High yield potential; moves well across soil types
- Strong stress tolerance and late-season standability
- Fungicide application recommended to maximize grain fill

CROPLAN **CP3629E**
WINFIELD UNITED
 Group: 3.6 Days

EnlistE3

Characteristics

	Not Recommended			Excellent		
PRR Tolerance				2		
SDS Tolerance			3			
SWM Tolerance	N/A					
BSR Tolerance				5		
Iron Chlorosis			4			

Height	MT	Canopy Type	Int/Nar
Stress Tolerance	2	Emergence	2
Standability	1		

- Offensive variety with a solid stress tolerance and defensive package
- National variety moves east to west
- Excellent FELS tolerance and standability
- Manage in areas with SDS history; use caution on BSR and IDC acres

CROPLAN **CP3747XS**
WINFIELD UNITED
 Group: 3.7 Days

ROUNDUP READY 2 XTEND SOYBEANS

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	-
Stress Tolerance	3	Emergence	2
Standability	3		

- Excluder variety also available in WinPak® variety CP3850X
- High yield potential with ability to handle variability
- Solid agronomics and disease package
- Manage with seed treatment and population; acceptable standability

CROPLAN **CP3806XS**
WINFIELD UNITED
 Group: 3.8 Days

ROUNDUP READY 2 XTEND SOYBEANS

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
Stress Tolerance	1	Emergence	2
Standability	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 **CP3821ES**
WINFIELD UNITED
 Group: 3.8 Days

EnlistE3

Characteristics

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


Height	M	Canopy Type	Bush
Stress Tolerance	1	Emergence	2
Standability	2		

- Durable STS®-tolerant variety best placed in Central and Western states
- Bushy plant type with the ability to handle stress
- Excellent FELS tolerance to maximize late-season grain fill
- Use caution on acres prone to BSR and IDC

KEY

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

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CROPLAN CP3850X

Group: 3.8 Days



Characteristics

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

Height	MT	Canopy Type	-
Stress Tolerance	3	Emergence	2
Standability	3		

- WinPak® variety consisting of CP3747XS and CP3819X
- Position and manage for top-end yield potential
- Solid PRR field tolerance and emergence
- Manage FELS with fungicide application; keep on rotated acres

CROPLAN CP3896X

Group: 3.8 Days



Characteristics

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

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

- Offers stable yield performance with good stress tolerance and top-end potential
- Works from the Midwest to the East Coast
- Excellent BSR and PRR field tolerance; quick canopy with CP4391RR background
- Manage for stem canker, RKN and in IDC areas

CROPLAN CP3920E

Group: 3.9 Days



Characteristics

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

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	1
Standability	2		

- WinPak® variety consisting of CP3921E and CP4029E
- Stable WinPak that performance across yield environments
- Excellent emergence and stress tolerance
- Manage for SDS and BSR in susceptible fields

CROPLAN CP3921E

Group: 3.9 Days



Characteristics

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

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

- High-yield-potential variety made for Ill. and moving east
- Moves well across yield environments north and south of zone
- Excellent SSC tolerance; strong standability late season
- Manage PPR with seed treatment in susceptible fields

CROPLAN CP4029E

Group: 4 Days



Characteristics

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

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

- Medium-tall line; intermediate canopy; solid standability
- National line that moves east to west and into Mid-South
- SSC resistance, solid FELS tolerance; excellent emergence and stress tolerance
- Use caution on acres prone to BSR and RKN

CROPLAN CP4117XS

Group: 4.1 Days

Characteristics

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

Height	M	Canopy Type	-
Stress Tolerance	1	Emergence	3
Standability	2		

- Also available in WinPak® variety CP4150XS
- Top-end yield potential; moves across soil types and yield environments
- Intermediate-bushy plant with strong standability and excellent stress tolerance
- Fungicide application recommended to manage FELS; manage for RKN

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.

This symbol indicates that there has been a new component added to the WinPak® variety in 2020.

NEW**CROPLAN CP4150XS**

Group: 4.1 Days

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	2	
Frogeye Leaf spot	4	
Southern Stem Canker	2	
Root-Knot Nematode	5	

Height	MT	Canopy Type	-
Stress Tolerance	1	Emergence	2
Standability	2		

- STS® WinPak® variety consisting of CP4117XS and CP4219XS
- Strong performance across soil types and yield environments
- Medium-tall variety with strong standability and solid agronomics
- Fungicide application highly recommended to optimize yield and manage FELLS

CROPLAN CP4220E

Group: 4.2 Days

**Characteristics**

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

Height	MT	Canopy Type	-
Stress Tolerance	N/A	Emergence	2
Standability	2		

- WinPak® variety consisting of CP4221E and CP4321E
- Versatile variety with strong performance from Kansas through the Mid-South
- Strong emergence and standability ratings as well as FELLS tolerance
- Avoid fields with a history of RKN or SSC

CP4316XS

Group: 4.3 Days

Characteristics

	Not Recommended	Excellent
PRR Tolerance	2	
SDS Tolerance	3	
Frogeye Leaf spot	3	
Southern Stem Canker	4	
Root-Knot Nematode	5	

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

- Nice width; covers row quickly
- Position east to west; stable performance across yield environments
- Excellent emergence with strong PRR field tolerance
- Manage populations; intermediate-bushy plant will canopy quickly and lodge if overpopulated

NEW**CROPLAN CP4331ES**

Group: 4.3 Days

**Characteristics**

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

Height	M	Canopy Type	Int
Stress Tolerance	N/A	Emergence	1
Standability	1		

- 4.3 STS® line with good agronomic package that can move south
- Medium plant type that fits well on lighter loam soils
- Excellent emergence and standability
- Manage placement on RKN-prone acres

CP4419XS

Group: 4.4 Days

**Characteristics**

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

Height	T	Canopy Type	Int
Stress Tolerance	2	Emergence	2
Standability	3		

- STS®-tolerant, tough-acre variety
- Moves north of zone; shows strong performance from Kan. to Ill.
- Excellent SSC tolerance; solid PRR, SDS and FELLS tolerance
- Manage populations to control standability and plant height

CROPLAN CP4516XS

Group: 4.5 Days

Characteristics

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

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

- STS® and excluder variety
- Widely adaptable across environments
- Intermediate line with excellent SSC and FELLS tolerance
- Manage populations to improve standability

NEW**CP4520XS**

Group: 4.5 Days

Characteristics

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

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

- WinPak® variety consisting of CP4516XS and CP4619XS
- Strong PRR, SDS and FELS tolerance
- Strong standability

NEW**CROPLAN CP4521E**

Group: 4.5 Days

**Characteristics**

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

Height	MT	Canopy Type	-
Stress Tolerance	N/A	Emergence	1
Standability	2		

- 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 CP4719XS

Group: 4.7 Days

**Characteristics**

	Not Recommended	Excellent
PRR Tolerance	4	
SDS Tolerance	2	
Frogeye Leaf spot	2	
Southern Stem Canker	2	1
Root-Knot Nematode	5	

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

- STS® variety; SSC resistant
- Excellent emergence and stress tolerance
- Strong FELS tolerance
- Tolerant rating for metribuzin

NEW**CROPLAN CP4810XS**

Group: 4.8 Days

**Characteristics**

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

Height	M	Canopy Type	-
Stress Tolerance	2	Emergence	2
Standability	2		

- STS®-tolerant WinPak® variety consisting of CP4719XS and CP4817XS
- Acceptable FELS and SSC tolerance; excluder variety
- Medium plant height; strong emergence and standability
- Manage placement in RKN-prone acres

CP4811XS

Group: 4.8 Days

**Characteristics**

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

Height	M	Canopy Type	Int
Stress Tolerance	N/A	Emergence	2
Standability	2		

- STS®-tolerant variety
- Strong SDS and stem canker tolerance
- Medium plant height; strong FELS tolerance
- Manage placement in RKN-prone acres

CROPLAN CP4825X

Group: 4.8 Days

**Characteristics**

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

Height	M	Canopy Type	Int
Stress Tolerance	1	Emergence	1
Standability	1		

- Versatile Roundup Ready 2 Xtend® variety with great top-end yield potential
- Highly adapted variety that moves across all soil types
- Excluder with excellent emergence and SSC tolerance; strong FELS tolerance
- Can have late-season green stems

NEW**NEW****CROPLAN CP4921ES**

Group: 4.9 Days

**Characteristics**

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

Height	MT	Canopy Type	-
Stress Tolerance	2	Emergence	1
Standability	3		

- Enlist E3® STS® variety designed for tough yield environments
- Strong FELS tolerance; excellent emergence in variable conditions
- Strong stress tolerance and acceptable standability
- Manage placement in RKN-prone acres

CROPLAN CP5010XS

Group: 5 Days

Characteristics

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

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

- STS® WinPak® variety consisting of CP5016XS and CP5019XS
- High yield potential; strong stress tolerance; handles variability
- Excellent SDS and SSC tolerance
- Manage for FELS and RKN-prone areas

CP5221X

Group: 5.2 Days

Characteristics

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

Height	M	Canopy Type	Nar
Stress Tolerance	N/A	Emergence	1
Standability	1		

- Medium-narrow plant adaptable across many soil types
- Strong emergence and standability
- Acceptable tolerance to PRR, SCN and SSC
- Acceptable tolerance to RKN

CROPLAN CP5427X

Group: 5.4 Days

Characteristics

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

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

- Determinate soybean with intermediate plant type
- Position on loams to mixed soil types in West and Delta
- Resistant to both southern and peanut RKN; excellent SSC and FELS tolerance; excellent standability
- Not recommended in SDS-prone areas

CROPLAN CP5548X

Group: 5.5 Days

Characteristics

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

Height	T	Canopy Type	Int/Bush
Stress Tolerance	1	Emergence	1
Standability	4		

- Determinate, excluder and Peking variety with top-end yield potential
- Best-suited for the Delta and East Coast across most soil types
- Resistant to both peanut and southern RKN; excellent FELS rating; tolerance to metribuzin
- Tall variety; manage populations to improve standability

CROPLAN CP5555LS

Group: 5.5 Days

**Characteristics**

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

Height	T	Canopy Type	-
Stress Tolerance	2	Emergence	2
Standability	2		

- Determinate; versatile LibertyLink® variety with great top-end yield potential
- STS®-tolerant stack that is an excluder
- Excellent stem canker rating
- Not recommended for fields with high PRR pressure

CROPLAN CP6208X

Group: 6.2 Days

Characteristics

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

Height	M	Canopy Type	Nar
Stress Tolerance	1	Emergence	3
Standability	1		

- Excluder; attractive tawny/tan determinate type
- Performs best in the Delta to the East Coast
- Narrow plant with excellent standability; resistance for RKN and SSC
- Acceptable FELS tolerance; manage with fungicide

CROPLAN CP6519XS

Group: 6.5 Days



Characteristics

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

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

- Excluder and STS*-tolerant variety
- Well-adapted for East Coast
- RKN resistant
- Acceptable FELS and PRR tolerance

CP7221X

Group: 7.2 Days

Characteristics

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

Height	M	Canopy Type	Int/Bush
Stress Tolerance	N/A	Emergence	1
Standability	2		

- Excellent uniform variety for East Coast
- Excluder with med/bushy plant type
- Excellent tolerance to RKN and SSC; acceptable FELS tolerance
- Medium plant height with strong standability

CROPLAN CP7516X

Group: 7.5 Days

Characteristics

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

Height	T	Canopy Type	Int
Stress Tolerance	3	Emergence	3
Standability	3		

- Determinate Roundup Ready 2 Xtend® variety
- Performs best in N.C.
- Moderately resistant to target spot
- Tolerance to metribuzin, but susceptible to saflufenacil

SOYBEAN



- WinPaK® Variety Components
- Determinate/Indeterminate
- Relative Maturity
- SCN Resistant Source **1**
- PRR Gene **2**
- Chloride Tolerance
- SDS Tolerance
- PPH Tolerance
- Southern Stem Ganker
- Iron Chlorosis
- Root-Knot Membrane **3**
- Frogeye Leaf Spot
- Emergence
- Stress Tolerance
- Canopy Type **4**
- Plant Height **5**
- Pubescence Type **6**
- Pod Color **7**
- Hilum Color **8**

ROUNDUP READY 2 XTEND®/ROUNDUP READY 2 YIELD® – RM: 0.0-0.9

CP00319X	CP00710X	CP00711X*	CP00711X*/CP00777X*	CP00847X	CP00926X	CP0200X	CP026ARR	CP026BX*	CP0337X	CP0400X	CP0411X*/CP0426X	CP0426X	CP0678X*	CP0700X	CP0819X	CP0878X*	CP0919X*	CP0957RR	CP0970X	CP0819X/CP0919X*
0.03	0.07	0.07	0.07	0.07	0.09	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.9
IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND
None	None	None	None	None	None	None/PI88,788	None	None	None	PI88,788	PI88,788	PI88,788	PI88,788	PI88,788	PI88,788	PI88,788	PI88,788	PI88,788	PI88,788	PI88,788
Rps1c	Rps1c	Rps1c	Rps1c	Rps1c	Rps1k	Rps3a/Rps1c	Rps1c	Rps3a	Rps1c	Rps3a/None	Rps3a/None	Rps3a	None	None/Rps1c	Rps1c:HRps3a	Rps1c	Rps1k,3a	Rps1c	Rps1c	Rps1c:HRps3a/None
3	2	3	3	1	3	3	3	2	3	2	2	1	1	2	1	3	2	2	2	2
M/A	M/A	NA	NA	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A
Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer
2	3	3	3	3	3	3	3	2	3	3	3	3	3	3	4	3	3	3	3	3
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Int	Int	Int/Bush	Int/Bush	Int/Nar	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int/Nar	Int	Int	Int
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
GR	TW/LTW	TW	TW	TW	TW	TW/LTW	TW/LTW	TW	TW	TW	TW	TW	TW	TW	TW	TW	GR	GR	GR	GR
BR	BR/TN	TN	TN	BR	BR	TN/BR	TN	TN	BR	BR/TN	BR/TN	BR	BR	BR	BR	BR	BR	BR	BR	BR
BF	BL/BR	BR	BR	BL	BL	BR	BL	BR	BR	BR	BL/BR	BR	BL	BL	BR	BR	BR	BR	BR	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 PRR Gene
Rps = Resistance to Phytophthora sojae
HRps = Heterozygous segregating Rps occurrence

3 Southern Stem Ganker and Root-Knot Membrane
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 Pubescence Type
GR = Gray
TW = Tawny
LTW = Light Tawny

8 Pod Color
TN = Tan
BR = Brown

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.

This symbol indicates that there has been a new component added to the WinPaK® variety for 2021.

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SOYBEAN

WinPak® Variety Components

Determinate/Indeterminate
Relative Maturity

SCN Resistant Source
PRR Gene

Chloride Tolerance
SDS Tolerance

SWM Tolerance
BSR Tolerance

Southern Stem Ganker
Iron Chlorosis

Root-Knot Nematode
Fogey/Leaf Spot

Emergence
Steadiness

Stress Tolerance
Canopy Type

Plant Height
Flower Color

Pubescence Type
Pod Color

Hilum Color

ROUNDUP READY 2 XTEND®/ROUNDUP READY 2 YIELD® – RM: 1.0-1.9

CP1078X*	1	IND	P88,788	None	2	M/A	Includer	3	4	1	M/A	N/A	1	2	1	Int	P	LTW	TN	BR	
CP1100X	CP1078X*/CP1111X	1.1	IND	P88,788	NG	2	M/A	Includer	3	3	2	N/A	N/A	1	2	N/A	P	LTW	BR/TN	BR	
NEW CP1111X		1.1	IND	P88,788	NG	1	M/A	Includer	2	1	2	N/A	N/A	1	1	Int	M	P	LTW	BR	
NEW CP1400X	CP1411X*/CP1578X*	1.4	IND	P88,788	Rps1c,1k3a/Hrps1c	3	M/A	Includer	3	4	3	N/A	N/A	1	2	N/A	Int/Bush	M	P	LTW	B/BR
NEW CP1411X*		1.4	IND	P88,788	Rps1c/1k3a	3	M/A	Includer	3	4	3	N/A	N/A	1	2	N/A	Int/Bush	M	P	L	BL
CP1578X*		1.5	IND	P88,788	Hrps1c	2	M/A	Includer	3	3	3	N/A	N/A	1	1	Int	M	P	LTW	BR	BL
CP1600X	CP1578X*/CP1788X*	1.6	IND	P88,788	Hrps1c	2	M/A	Includer	2	2	3	N/A	N/A	1	1	Int	M	P	LTW	BR	BL/BR
NEW CP1611X		1.6	IND	P88,788	Hrps1c/k	3	2	Includer	2	1	3	N/A	N/A	1	1	Int	M	P	GR	TN	IB
CP1788X*		1.7	IND	P88,788	Rps1c	2	M/A	Includer	1	1	2	N/A	N/A	1	1	Int	M	P	LTW	BR	BR
CP1827X		1.8	IND	P88,788	Rps1a,3a	3	3	Includer	2	1	2	N/A	N/A	1	1	Int/Nar	P	GR	BR	BR	BF
CP1960X	CP1827X/CP2088X*	1.9	IND	P88,788	Rps1a,3a	3	3	Includer	2	1	3	N/A	N/A	1	1	Int/Nar	P	GR	BR	BR	BF

KEY

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

- 1 = SCN Resistant Source**
Peking = These varieties contain SCN resistance genes from the Peking soybean breeding lines
P88,788 = These varieties contain SCN resistance genes from the P88,788 soybean breeding lines
- 2 = PRR Gene**
Rps = Resistance to Phytophthora sojae
Hrps = Heterozygous segregating Rps occurrence
- 3 = Southern Stem Ganker 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
Bus = Bushy
- 5 = 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

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▶ This symbol indicates that there has been a new component added to the WinPak® variety for 2021.

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- WinPak® Variety Components
- Determinable/Indeterminable
- Relative Maturity
- SCN Resistant Source 1
- PRR Gene 2
- Chloride Tolerance
- SDS Tolerance
- PPH Tolerance
- PRR Gene 2
- SWM Tolerance
- BSR Tolerance
- Southern Stem Ganker
- Iron Chlorosis
- Root-Knot Nematode 3
- Fogeye Leaf Spot
- Emergence
- Stress Tolerance
- Standability
- Canopy Type 4
- Plant Height 5
- Flower Color 6
- Pubescence Type 7
- Pod Color 8
- Hilum Color 9

ROUNDUP READY 2 XTEND®/ROUNDUP READY 2 YIELD® – RM: 2.0-2.9

CP2088X*	2	IND	P188,788	Rps1a, 3a	3	3	Includer	1	1	2	N/A	N/A	N/A	1	1	1	1	1	1	1	Int/Nar	P	GR	BR	BF
CP2128X	2.1	IND	P188,788	Rps1c	2	2	Includer	1	N/A	3	N/A	N/A	N/A	2	1	N/A	N/A	2	1	N/A	Int/Bush	M	LTW	BR	BL
NEW CP2200X	2.2	IND	P188,788	Rps1c/Rps1k	3	M/A	Includer	N/A	N/A	2	N/A	N/A	N/A	2	2	N/A	N/A	2	2	N/A	Int/Bush	M	GR/LTW	BR/TN	BL/IB
CP2219X*	2.1	IND	P188,788	Rps1k	3	M/A	Includer	N/A	1	1	N/A	N/A	N/A	2	2	N/A	N/A	2	N/A	N/A	Int	M	P	GR	TN
CP2400X	2.4	IND	P188,788	None/Rps1c	3	M/A	Includer	4	1	3	N/A	N/A	N/A	1	2	2	N/A	1	2	2	Int/Bush	P	GR/LTW	BR/TN	BL/IB
CP2487X*	2.4	IND	P188,788	None	3	3	Includer	4	1	3	N/A	N/A	N/A	1	3	1	1	3	1	1	Int	M	P	LTW	TN
CP2578X	2.5	IND	P188,788	Rps1c	3	M/A	Includer	4	1	2	N/A	N/A	N/A	1	1	2	N/A	1	2	2	Int/Bush	P	GR	BR	IB
CP2677X*	2.6	IND	P188,788	Rps1c	1	3	Includer	N/A	2	2	N/A	N/A	N/A	1	1	1	1	1	1	1	Int	P	GR	TN	IB
CP2700X	2.7	IND	P188,788	Rps1c	2	2	Includer	N/A	2	3	N/A	N/A	N/A	1	2	1	1	2	1	1	Int	P	GR	TN/BR	IB
CP2708X	2.7	IND	None	Rps3a, 1c	1	5	Includer	4	2	1	N/A	N/A	N/A	2	1	2	1	2	1	2	Int	M	P	GR	BR
CP2817X*	2.8	IND	P188,788	Rps1c	3	2	Includer	4	1	3	N/A	N/A	N/A	1	3	1	1	3	1	1	Int	P	GR	BR	IB
CP2960X	2.9	IND	P188,788	Rps1c	3	2	Includer	N/A	2	4	N/A	N/A	N/A	2	2	1	1	2	1	1	Int	P	GR	BR	IB
CP2977X*	2.9	IND	P188,788	Rps1c	2	2	Includer	N/A	2	4	N/A	N/A	N/A	2	1	1	1	2	1	1	Int	P	GR	BR	IB

KEY

- 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
Hpps = Heterozygous segregating Rps occurrence
- 3 Southern Stem Ganker 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
Bus = Bushy
- 5 Plant Height**
T = Tall
M = Medium
S = Short
- 6 Flower Color**
P = Purple
W = White
- 7 Pubescence Type**
GR = Gray
TN = 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

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SOYBEAN

- WinPak® Variety Components
- Determinative/Indeterminate
- Relative Maturity
- SCN Resistant Source 1
- PRR Gene 2
- Chloride Tolerance
- SDS Tolerance
- PPH Tolerance
- RPR Gene 2
- Chloride Tolerance
- SWM Tolerance
- BSR Tolerance
- Southern Stem Ganker
- Iron Chlorosis
- Root-Knot Membrane 3
- Fogeye Leaf Spot
- Emergence
- Stress Tolerance
- Standability
- Canopy Type 4
- Plant Height 5
- Flower Color 6
- Pubescence Type 7
- Pod Color 8
- Hilum Color 9

ROUNDUP READY 2 XTEND®/ROUNDUP READY 2 YIELD® – RM: 3.0-3.9																					
CP3057XS	3	IND	P88,788	HRps1c	4	2	Includer	N/A	1	1	N/A	N/A	2	3	1	Int	M	P	LTW	TN	BL
CP3110X	CP3119X*/CP3299X*	3.1	IND	P88,788	None/Rps1c	1	N/A	Includer	N/A	3	N/A	N/A	2	2	N/A	Int	M	P	GR/LTW	TN/BR	BL/IB
CP3119X*		3.1	IND	P88,788	None	1	2	Includer	N/A	4	N/A	1	N/A	2	2	Int	M	P	LTW	TN	BL
CP3299X*		3.2	IND	P88,788	Rps1c	1	M/A	Includer	N/A	1	2	N/A	N/A	1	2	Int	M	P	GR	BR	IB
CP3337X*		3.3	IND	P88,788	Rps1k,3a	1	2	Includer	N/A	2	3	N/A	N/A	3	3	Int	M	P	GR	BR	IB
CP3360X	CP3337X*/CP3478X*	3.3	IND	P88,788	Rps1k,3a/Rps1c	1	3	Includer	N/A	3	3	N/A	N/A	2	2	Int	M	P	GR	BR	IB
CP3450X	CP3457X*/CP3556X	3.4	IND	P88,788	Rps1c	3	3	Includer	N/A	2	4	N/A	N/A	2	2	Int/Bush	M	P	GR	BR	IB
CP3457X*		3.4	IND	P88,788	Rps1c	3	3	Includer	N/A	2	4	N/A	N/A	3	2	Int/Bush	M	P	GR	BR	IB
CP3478X*		3.4	IND	P88,788	Rps1c	1	3	Includer	N/A	3	3	N/A	N/A	1	1	Int	M	P	GR	BR	IB
CP3556X		3.5	IND	P88,788	Rps1c	2	3	Includer	N/A	2	3	N/A	N/A	1	2	Int/Bush	M	P	GR	BR	IB
CP3747XS		3.7	IND	P88,788	Rps1c	3	3	Excluder	N/A	N/A	N/A	2	N/A	2	3	Int/Bush	M	P	LTW	BR	BL
CP3806XS		3.8	IND	P88,788	Rps1c	4	2	Excluder	N/A	5	2	1	4	3	4	Int/Bush	M	P	GR	BR	IB
CP3819X*		3.8	IND	P88,788	Rps1c	1	M/A	Excluder	N/A	1	5	1	4	N/A	1	Int	M	P	LTW	BR	BL
CP3850X	CP3747XS/CP3819X*	3.8	IND	P88,788	Rps1c	2	M/A	Excluder	N/A	N/A	N/A	3	N/A	2	3	Int/Bush	M	P	LTW	BR	BL
CP3896X		3.8	IND	P88,788	Rps1c	1	3	Includer	N/A	1	4	4	3	4	4	Int/Bush	M	P	GR	TN	IB

KEY

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 Peking = These varieties contain SCN resistance genes from the Peking soybean breeding lines
 P88,788 = These varieties contain SCN resistance genes from the P88,788 soybean breeding lines

2 PRR Gene
 Rps = Resistance to Phytophthora sojae
 Hrips = Heterozygous segregating Rps occurrence

3 Southern Stem Ganker and Root-Knot Membrane
 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 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

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SOYBEAN



- WinPak® Variety Components
- Determinative/Indeterminate
- Relative Maturity
- SCN Resistant Source 1
- PRR Gene 2
- Chloride Tolerance
- SDS Tolerance
- PPH Tolerance
- Chloride Tolerance
- SWM Tolerance
- BSR Tolerance
- Southern Stem Ganker
- Iron Chlorosis
- Root-Knot Nematode 3
- Frogeye Leaf Spot 4
- Emergence
- Standability
- Stress Tolerance
- Canopy Type 4
- Plant Height 5
- Flower Color 6
- Pubescence Type 7
- Pod Color 8
- Hilum Color 9

ROUNDUP READY 2 XTEND®/ROUNDUP READY 2 YIELD® – RM: 4.0-4.9

CP4117XS	CP4150XS	CP4219XS*	CP4316XS	CP4419XS	CP4516XS	NEW CP4520XS	NEW CP4619XS*	CP4719XS	CP4810XS	NEW CP4811XS	NEW CP4817XS*	CP4829XS
4.1	4.1	4.2	4.3	4.4	4.5	4.5	4.6	4.7	4.8	4.8	4.8	4.8
IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND
P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788
None	None/Rps1c	Rps1c	Rps1c	Rps1c	Rps1a	Rps1c/Rps1a	Rps1c	HRps1c	Rps1c	Rps1c	Rps1c	Rps1a
1	2	3	2	3	2	2	2	4	3	3	2	1
2	2	2	3	3	2	2	1	2	2	1	2	1
Includer	Includer/Excluder	Excluder	Includer	Includer	Excluder	Excluder	Excluder	Excluder	Excluder	Excluder	Excluder	Excluder
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	2	1	4	3	1	1	1	1	2	1	3	1
5	5	5	5	5	5	5	5	5	5	5	5	5
3	2	1	2	2	2	2	2	1	2	2	2	1
2	2	1	1	5	2	2	2	2	2	2	2	1
2	1	1	2	3	2	2	2	1	2	2	2	1
Int/Bush	M	Int	Int/Bush	Int	Int	Int	Int	Int	Int	Int	Int/Bush	M
P	P	P	LTV	GR	TW	TW/LTV	M	P	M	M	M	P
GR	GR/LTV	BR/TN	BR	BR	BR	BR	TN	GR	BR	BR	BR	TN
TN	BL	BL	BL	BF	BL	BL	BL	BR	BR	BR	BR	BL

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3 Southern Stem Ganker 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 Pubescence Type
 GR = Gray
 TW = Tawny
 LTV = 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
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 TN = Tan

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SOYBEAN



WinPak® Variety Components

Determinative/Indeterminate
Relative Maturity

SCN Resistant Source
PRR Gene

Chloride Tolerance
SDS Tolerance
PPH Tolerance

SWM Tolerance
BSR Tolerance
Iron Chlorosis

Southern Stem Canker
Root-Knot Nematode
Frogeye Leaf Spot

Emergence
Stress Tolerance
Standability

Canopy Type
Plant Height
Flower Color

Pubescence Type
Pod Color
Hilum Color

ROUNDUP READY 2 XTEND®/ROUNDUP READY 2 YIELD® – RM: 5.0-7.9

CP5016XS*	CP5016XS*/CP5019XS*	5	IND	PI88,788	Rps1c/Rps1a	3	1	Includer	N/A	N/A	1	4	4	2	2	2	2	Int	LTW	TN/BR	BL	
CP5016XS*	CP5016XS*/CP5019XS*	5	IND	PI88,788	Rps1a	3	1	Includer	N/A	N/A	1	5	2	2	2	3	Int	P	LTW	BR	BL	
CP5019XS*	CP5019XS*	5	IND	PI88,788	Rps1c	2	1	Includer	N/A	N/A	1	2	5	2	2	1	Int	LTW	TN	TN	BL	
NEW CP5221X	CP5221X	5.2	DET	PI88,788	Rps1a	2	2	Includer	N/A	N/A	1	2	3	1	1	N/A	Nar	M	P	LTW	TN	BL
NEW CP5427X	CP5427X	5.4	DET	PI88,788	None	2	5	Includer/Excluder	N/A	N/A	1	1	1	2	1	3	Int	M	P	GR	TN	IB
CP5548X	CP5548X	5.5	DET	Peking	None	1	1	Excluder	N/A	N/A	2	1	1	1	4	1	Int/Bush	T	TW	TN	BL	
CP6208X	CP6208X	6.2	DET	None	Rps1a	1	N/A	Excluder	N/A	N/A	1	3	1	3	1	1	Nar	M	P	TW	TN	BL
CP6519XS	CP6519XS	6.5	DET	None	None	3	2	Excluder	N/A	N/A	1	3	1	1	2	1	Int/Bush	M	P	TW	TN	BL
NEW CP7221X	CP7221X	7.2	DET	PI88,788	None	3	2	Excluder	N/A	N/A	1	1	1	1	2	N/A	Int/Bush	M	TW	TN	BL	
CP7518X	CP7518X	7.5	DET	PI88,788	None	4	N/A	Includer	N/A	N/A	2	4	1	3	3	3	Int	T	P	TW	TN	BL

KEY

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- 2** PRR Gene
Rps = Resistance to Phytophthora sojae
Hpps = 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** 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

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SOYBEAN



- WinPak® Variety Components
- Determinate/Indeterminate
- Relative Maturity
- SCN Resistant Source ¹
- RRR Gene ²
- RRR Tolerance
- SDS Tolerance
- Chloride Tolerance
- SWM Tolerance
- BSR Tolerance
- Southern Stem Canker
- Iron Chlorosis
- Root-Knot Membrane ³
- Fogeyre Leaf Spot
- Emergence
- Steadability
- Stress Tolerance
- Canopy Type ⁴
- Plant Height ⁵
- Flower Color ⁶
- Pubescence Type ⁷
- Pod Color ⁸
- Hilum Color ⁹

ENLIST E3® – RM: 0.0-1.9

CP00729E	CP0329E	NEW CP0421E*	NEW CP0520E	NEW CP0529E*	NEW CP0721E	NEW CP0820E	NEW CP0821E*	NEW CP1021E*	NEW CP1120E	NEW CP1121E	NEW CP1329E*	NEW CP1421E*	NEW CP1421E*	NEW CP1721E	NEW CP1820E	NEW CP1921E*
0.07	0.3	0.4	0.5	0.5	0.7	0.8	0.8	1	1.1	1.1	1.3	1.4	1.4	1.7	1.8	1.9
IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND
P188,788	P188,788	None	P188,788/none	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788	P188,788
Rps1a	None	None	Rps3a/None	Rps3a	Rps1c/3a	Rps1c-3a/NG	NG	NG	NG	NG	Rps1c	Rps1c-1k	Rps1k	Rps1k	Rps1w/None	None
3	3	3	3	3	1	2	2	2	2	2	2	2	2	2	2	2
M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A
Includer	Includer	Includer	Includer	Includer	Includer	Includer	Includer	Excluder	Inc/Exc	Includer	Includer	Includer	Includer	Includer	Includer	Includer
2	4	3	3	4	2	3	3	2	3	3	4	4	4	2	2	2
3	5	3	3	3	5	3	3	1	3	4	1	1	1	5	4	3
2	3	1	2	2	2	2	2	1	2	2	2	3	3	2	2	2
M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A
1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
P	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR
BR	TN	BR	BR/TN	TN	BR	BR/TN	BR	BR	BR	BR	BR/TN	BR	BR	BR	BR	BR
BF	BF	YE	BF/YE	BF	IB	BF/IB	BF	GR	GR/IB	BR	IB	IB	IB	IB	IB	IB

KEY

- 1 SCN Resistant Source**
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P188,788 = These varieties contain SCN resistance genes from the P188,788 soybean breeding lines
- 2 RRR Gene**
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- 3 Southern Stem Canker and Root-Knot Membrane**
1 = Resistant
2 = Moderately Resistant
3 = Moderately Resistant-Moderately Susceptible
4 = Moderately Susceptible
5 = Susceptible
- 4 Canopy Type**
Nar = Narrow
Int = Intermediate
Bus = Bushy
- 5 Plant Height**
T = Tall
M = Medium
S = Short
- 6 Flower Color**
P = Purple
W = White
- 7 Pubescence Type**
GR = Gray
TN = Tan
LTM = Light Tan
- 8 Pod Color**
TN = Tan
BR = Brown
- 9 Hilum Color**
YE = Yellow/Clear
GR = Gray
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SOYBEAN



- WinPak® Variety Components
- Determinative/Indeterminate
- Relative Maturity
- SCN Resistant Source ¹
- RRR Gene ²
- RRR Tolerance
- SDS Tolerance
- Chloride Tolerance
- SWM Tolerance
- BSR Tolerance
- Southern Stem Ganker
- Iron Chlorosis
- Root Knot Nematode ³
- Frogeye Leaf Spot
- Emergence
- Steadability
- Stress Tolerance
- Canopy Type ⁴
- Plant Height ⁵
- Flower Color ⁶
- Pubescence Type ⁷
- Pod Color ⁸
- Hilum Color ⁹

ENLIST E3® – RM: 2.0-2.9

NEW	CP2021E	IND	P188,788	RpSHk	2	3	Includer	3	1	2	N/A	N/A	1	2	1	Int	P	TN	IB
NEW	CP2120E	IND	P188,788	RpSHk/RpSHk	2	3	Includer	3	3	3	N/A	N/A	1	2	2	Int	P	BR/TN	IB
NEW	CP2121E*	IND	P188,788	RpSHk	2	3	Includer	2	5	3	N/A	N/A	1	2	3	Int	P	GR	BR
NEW	CP2321E	IND	P188,788	RpSHk	2	2	Includer	2	1	2	N/A	N/A	1	2	2	Int/Bush	P	GR	TN
NEW	CP2520E	IND	P188,788/Peking	RpSHk/None	2	3	Includer	N/A	3	3	N/A	N/A	1	3	2	Int	P	GR	TN/BR
NEW	CP2521E	IND	P188,788	None	2	4	Includer	4	1	1	N/A	N/A	1	4	1	Int	P	GR	BR
	CP2529E	IND	Peking	RpSHk	2	2	Includer	N/A	5	4	N/A	N/A	1	2	2	Int	P	GR	TN
	CP2829E	IND	P188,788	RpSHk	1	M/A	Includer	N/A	1	2	N/A	N/A	2	2	1	Int/Bush	GR	GR	TN
	CP2829E/CP2921E*	IND	P188,788	None/RpSHk	1	M/A	Includer	N/A	1	2	N/A	N/A	2	2	1	Int/Bush	GR	GR	TN
NEW	CP2921E*	IND	P188,788	None	1	2	Includer	2	1	2	N/A	N/A	1	1	1	Int/Bush	P	GR	TN

KEY

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 RRR Gene
 Rps = Resistance to Phytophthora sojae
 Hbps = Heterozygous segregating Rps occurrence

3 Southern Stem Ganker 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 Pubescence Type
 GR = Gray
 TW = Tawny
 LTM = 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

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SOYBEAN



- WinPak® Variety Components
- Determinative/Indeterminate
- Relative Maturity
- SCN Resistant Source 1
- RRR Gene 2
- Chloride Tolerance
- SDS Tolerance
- PPH Tolerance
- SWM Tolerance
- BSR Tolerance
- Southern Stem Ganker
- Iron Chlorosis
- Root-Knot Membrane 3
- Fogey's Leaf Spot
- Emergence
- Stability
- Stress Tolerance
- Canopy Type 4
- Plant Height 5
- Flower Color 6
- Pubescence Type 7
- Pod Color 8
- Hilum Color 9

ENLIST E3® – RM: 3.0-4.9

NEW	CP3120E	CP3121E*/CP3131E*	3.1	IND	P88,788	None/Rps1c	2	4	Includer	N/A	N/A	2	1	3	N/A	2	3	1	Int/Bush	LTW/GR	BR	BR/BF	
NEW	CP3121E*		3.1	IND	P88,788	None	2	4	Includer	N/A	N/A	2	1	4	N/A	2	2	1	Int/Bush	LTW	BR	BR	
NEW	CP3131E*		3.1	IND	P88,788	Rps1c	1	3	Includer	N/A	N/A	3	2	1	1	N/A	1	3	Int/Bush	GR	BR	BF	
NEW	CP3321E		3.3	IND	P88,788	None	2	3	Includer	N/A	N/A	3	2	1	3	N/A	1	3	Int/Bush	P	LTW	BR	BR
NEW	CP3429E		3.4	IND	P88,788	Rps1c	2	3	Includer	N/A	N/A	5	5	M/A	3	N/A	2	1	Int/Nar	P	LTW	TN	BL
NEW	CP3620E	CP3621E*/CP3629E	3.6	IND	P88,788	None/Rps1k	2	3	Includer	N/A	N/A	4	N/A	2	N/A	2	2	2	Int/Bush	GR	BR/TN	BF/IB	
NEW	CP3621E*		3.6	IND	P88,788	Rps1k	2	2	Includer	4	1	N/A	1	4	N/A	2	2	1	Bush	P	GR	TN	IB
NEW	CP3629E		3.6	IND	P88,788	None	2	3	Includer	N/A	N/A	5	4	N/A	1	N/A	2	1	Int/Nar	GR	BR	BF	
NEW	CP3821ES		3.8	IND	P88,788	Rps1k	4	3	Includer	N/A	N/A	5	4	1	1	N/A	2	2	Bush	LTW	BR	BR	
NEW	CP3920E	CP3921E/CP4029E	3.9	IND	P88,788	None	3	3	Includer	N/A	N/A	5	3	1	N/A	N/A	1	2	1	Int	LTW/GR	BR	BR/BF
NEW	CP3921E		3.9	IND	P88,788	None	4	3	Includer	N/A	N/A	5	3	1	N/A	5	1	2	1	Int	LTW	BR	BR
NEW	CP4029E		4	IND	P88,788	None	2	2	Includer	N/A	N/A	5	2	1	2	N/A	1	2	1	Int	GR	BR	BF
NEW	CP4220E	CP4221E*/CP4321E*	4.2	IND	P88,788	Rps3a/None	M/A	M/A	Includer	N/A	N/A	3	2	2	5	2	2	N/A	Int/Bush	LTW	TN/BR	BR	
NEW	CP4221E*		4.2	IND	P88,788	Rps3a	M/A	M/A	Includer	N/A	N/A	5	2	2	5	2	2	N/A	Int/Bush	P	LTW	TN	BR
NEW	CP4321E*		4.3	IND	P88,788	None	3	2	Includer	N/A	N/A	N/A	1	1	5	2	2	1	Int	LTW	BR	BR	
NEW	CP4331ES		4.3	IND	P88,788	None	M/A	N/A	Includer	N/A	N/A	N/A	1	2	5	1	1	N/A	Int	M	GR	BR	BF
NEW	CP4521E		4.5	IND	P88,788	Rps1a	2	2	Includer	N/A	N/A	N/A	1	2	5	1	2	N/A	P	GR	TN	IB	
NEW	CP4921ES		4.9	IND	P88,788	None	3	3	Includer	N/A	N/A	N/A	1	1	5	1	3	2	Int/Nar	GR	BR	BF	

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 Nar = Narrow
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 Bush = Bushy

5 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
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SOYBEAN



WINPAK® Variety Components	Determinate/Indeterminate	Relative Maturity	SCN Resistant Source	PRR Gene	Chloride Tolerance	SDS Tolerance	Iron Chlorosis	Southern Stem Ganker	Root-Knot Nematode	Emergence	Stress Tolerance	Standability	Canopy Type	Plant Height	Flower Color	Pubescence Type	Pod Color	Hilum Color				
LIBERTYLINK®/ LIBERTYLINK® GT27™ – RM: 1.0-5.9																						
CP1225L*	CP1225L*/CP1384L*	1.2	IND	PI88,788	None/Rps1c	1	2	Includer	4	3	3	N/A	N/A	2	2	N/A	Int/Bush	P	LTW	TN	BL	
CP1225L*		1.2	IND	PI88,788	Rps1c	2	2	Includer	4	3	3	N/A	N/A	1	1	N/A	Int/Bush	P	LTW	TN	BL	
CP1384L*		1.3	IND	PI88,788	None	2	N/A	Includer	3	2	2	N/A	N/A	2	2	N/A	Int	M	P	LTW	TN	BL
CP1659LG		1.6	IND	PI88,788	Rps1k	3	4	Includer	2	1	2	N/A	N/A	1	1	2	Int	M	P	LTW	TN	BR
CP5555LS		5.5	DET	None	None	5	3	Excluder	N/A	N/A	N/A	1	2	3	2	2	Int	T	TW	TN	BL	

KEY

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- 2 PRR Gene**
Rps = Resistance to Phytophthora sojae
Hrips = Heterozygous segregating Rps occurrence
- 3 Southern Stem Ganker and Root-Knot Nematode**
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- 4 Canopy Type**
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- 5 Plant Height**
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P = Purple
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- 7 Pubescence Type**
GR = Gray
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Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

ALFALFA

1 of 2



Going the extra mile isn't extra to us.

Our dedication goes way beyond a handshake or a pat on the back. We're fully committed to you and the success of your alfalfa crop from day one.

That means we'll work closely with you to help you select the best genetics for your field – pairing new traits with the latest technologies to give you your very best chance to produce higher-quality feed and optimize tonnage.

Meeting your expectations? Heck, we're more interested in beating them.

KEY TAKEAWAYS

- 1 Choose varieties with the traits that fit your fields and management.
- 2 Use coated seed to help you improve stand establishment and seed efficiency.
- 3 Manage in-season by Reading the Stand and harvesting and 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.
- Varieties are now available with multi-race high resistance.
- 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

- Causes seedling stunting, reduced nodulation and poor root development.
- Race 1 is widely identified in the U.S.
- Race 2 is in more isolated areas of the Midwest, East and pockets of the Pacific Northwest.
- New race 2/3 is a more severe pathogen found in the same areas as race 2.

- Varieties are now available with multi-race high resistance.
- Commonly found in saturated, poorly drained and/or compacted soils.
- ▶ **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

- There are three methods to determine tolerance: the petri dish germination test, the forage greenhouse test and the field test. Salt-breeding nurseries provide varieties 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.

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

- Minimize leaf loss and added ash (dirt) content from overhandling during raking and merging.
- Wheel traffic can increase soil compaction and crown damage, leading to reduced crop regrowth and yield loss.

ALFALFA

2 of 2



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.¹

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.²
- ▶ **Apex™ Green**
- OMRI Listed® for organic use.
- Includes natural micronutrients and nitrogen-fixing rhizobia in an organic hydration coating that maximizes water absorption.

TRAITS

HARVXTRA® ALFALFA³

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 RFQ³ and NDFd³ than conventional varieties cut on the same day.
- Achieve up to 20% higher yield at harvest⁴ 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.

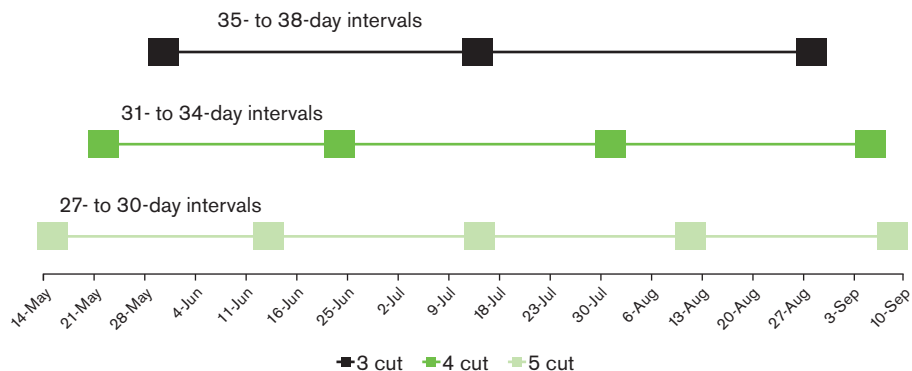
CONVENTIONAL ALFALFA

- 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 (non-GE) 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.
- May be approved for organic hay production when used with OMRI Listed® Apex™ Green coated seed option.

FLEXIBILITY OF HARVXTRA® 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.

HARVXTRA® CUTTING SCHEDULE



1. Alfalfa and Red Clover Stand Establishment Forage Management Day at Feldun-Purdue Agricultural Center, August 9, 2018. Seeding Date: May 2, 2018. Varieties: Magnum 7 for alfalfa and Durango for red clover, uncoated alfalfa seed, coated alfalfa seed, 2/3 rate uncoated, 2/3 rate coated, 4 reps with plots 2.5 by 20 feet. Counted 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 in 2014, 2015 and 2016 in Boone, Iowa; Mt. Joy, Pa; Nampa, Idaho; Touchet, Wash.; and West Salem, Wis. 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, with the three-cut system yielding 26% more over the life of the stand. Trials were seeded in 2013 and harvested in 2014, 2015 and 2016. Yield increase is directly correlated to the ability to delay harvest.

NEW

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		
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 HarvaTron

Regions: Central|East|North|West
 Dormancy: 3.9
 Winterhardiness: 2.1



Characteristics

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

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- H1 feed quality rating; harvest the benefits of superior forage quality potential with the HarvXtra® Alfalfa trait
- Great wet-soil-disease resistance; high resistance to aphanomyces root rot races 1 and 2
- Excellent option for 3- to 4-cut hay/haylage harvest system where quality is top of mind



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				2		
Nematode Resistance	5					

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- 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

NEW

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				1		
Nematode Resistance			3			

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- H2 feed quality rating; exceptional wet-soil-disease resistance for excellent seedling emergence and plant health over the life of the stand
- High resistance to aphanomyces root rot races 1, 2/3; multirace anthracnose resistance, including new race 5
- Excellent quality and yield potential with a 3- to 5-cut flexible harvest system



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				
Nematode Resistance			3			

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- 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: Central|East|North|West
 Dormancy: 7.9
 Winterhardiness: -



Characteristics

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

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- 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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Graze N Hay 3.10RR

Regions: North|West
Dormancy: 2.9
Winterhardness: 1.8



Characteristics

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

- Best-suited for Northern regions; exceptional winterhardness 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



RR Presteez

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



Characteristics

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

- Similar to the high-forage-quality conventional LegenDairy line with the added benefit of the Roundup Ready® trait
- 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



RR Vamoose

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



Characteristics

	Not Recommended			Excellent		
Yield Index			3			
Persistence Index						1
Feed Quality			3			
Disease 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



RR AphaTron 2XT

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



Characteristics

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

- Exceptional wet soil disease package, similar to the conventional Rebound line with the added benefit of the Roundup Ready® trait
- High resistance to multirace aphanomyces root rot disease (races 1, 2/3), ideal for the Midwest, East and West, where aphanomyces root rot disease can be a problem
- Provides high yield and excellent forage quality potential under a 4- to 5-cut haylage or aggressive hay management system



RR Stratica

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



Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index						2
Feed Quality			3			
Disease Resistance			3			
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 winterhardness; ideally suited for a 4- to 5-cut haylage or aggressive hay management system



RR Saltiva

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



Characteristics

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

- First commercial variety selected from our salt breeding nurseries
- Excellent pest-resistance package; high resistance to stem nematode and multispecies aphid resistance
- Exceptional performance in tough soils with high saline conditions; great for 5-cut intensive hay or haylage harvest systems

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.

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.



RR Tonnica

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



Characteristics

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

- Maximize yield potential all season long; similar to conventional Gunner with the added benefit of the Roundup Ready™ trait
- Well-rounded pest resistance package for wide-range adaptability from the East to the Great Plains and Southern Midwest
- Very early spring growth, fast regrowth and late fall growth; aggressive 5-cut schedule



RR 6 Shot Plus

Regions: South|West
Dormancy: 6
Winterhardiness: -



Characteristics

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

- Next generation of semidormant genetics that push yield potential to the next level; ideal in the High Plains, South, and 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



RR Desert Rose

Regions: South|West
Dormancy: 8.5
Winterhardiness: -



Characteristics

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



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			
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



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			
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



LegenDairy XHD

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			
Nematode Resistance			3			

- Excellent yield potential and high digestibility (XHD); good leaf retention and stem digestibility through three decades of conventional breeding selection
- Great winterhardiness and stand persistence for producers in Northern growing regions; moves well east to west
- Ideally suited for 3- to 4-cut baled hay or haylage harvest system. Great choice for producers who prefer mixed alfalfa-grass stands

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.

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.

NEW

LegenDairy AA

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



Characteristics

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

- The next generation of the LegenDairy line has leaped ahead in both yield and quality potential and now combined with the latest disease resistance package
- High resistance to both multirace aphanomyces root rot (race 1, 2/3) and multirace anthracnose diseases (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



Rebound AA

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



Characteristics

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

- Packs a punch with the latest disease resistance package and exceptional yield potential
- High resistance to both multirace aphanomyces root rot (race 1, 2/3) and multirace 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



Rebound 6XT

Regions: Central|East|North|West
 Dormancy: 4.3
 Winterhardness: 1.5



Characteristics

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

- Good disease resistance for wet soils with high resistance to aphanomyces root rot races 1 and 2
- Excellent option for the Upper Midwest, East and West, where pockets of aphanomyces root rot disease is a problem
- Very early spring growth with rapid regrowth after each cutting; best-suited for 4- to 5-cut haylage or aggressive hay management systems



TrailBlazer XHH

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



Characteristics

	Not Recommended		Excellent	
Yield Index			3	
Persistence Index			3	
Feed Quality			3	
Disease Resistance			3	
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



Gunner

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



Characteristics

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

- Optimize yield and performance 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



Nimbus

Regions: Central|North|West
 Dormancy: 5
 Winterhardness: 2.2



Characteristics

	Not Recommended		Excellent	
Yield Index				1
Persistence Index			2	
Feed Quality			2	
Disease 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

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.

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.



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						
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



Sun Quest®

Regions: South|West
Dormancy: 9
Winterhardiness: -

Characteristics

	Not Recommended			Excellent		
Yield Index						1
Persistence Index				2		
Feed Quality			3			
Disease Resistance	5					
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 S. Calif., Ariz. and N.M. with exceptional stand persistence for numerous harvests per year



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					
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



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	N/A					
Nematode Resistance	N/A					

- Similar to the conventional LegenDairy line with the added benefit of the Roundup Ready® trait
- Excellent salt-tolerance ratings in germination tests and superior performance in stand persistence trials
- Ideal for Upper Midwest and West as a 3- to 4-cut baled hay and/or haylage harvest system
- Exceptional leaf retention and stem quality for optimum digestibility
- Available in GroZone® plus Advanced Coating® Zn



RR Vamoose

Regions: Central|East|North|West
Dormancy: 2.9
Winterhardiness: 1.8



Characteristics

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

- Management is similar to TrailBlazer XHH with the added benefit of the Roundup Ready® trait
- 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
- Available in GroZone® plus Advanced Coating® Zn plus Stamina® fungicide seed treatment to provide additional early plant health



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	N/A					
Nematode Resistance	N/A					

- Management is similar to conventional Rebound line with the added benefit of the Roundup Ready® trait
- Excellent disease package; high resistance to aphanomyces root rot races 1, 2/3
- Designed specifically for the Midwest, East and West, where pockets of aphanomyces root rot disease can be a problem
- Provides high yield and excellent forage quality potential under a 4- to 5-cut haylage or aggressive hay management system
- Available in GroZone® plus Advanced Coating® Zn plus Stamina® fungicide seed treatment to provide additional early plant health

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.

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.



Sun Quest®

Regions: South|West
Dormancy: 9

Characteristics

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

- 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 S. Calif., Ariz. and N.M.
- Exceptional stand persistence for numerous harvests per year
- Available in GroZone® plus Advanced Coating® Zn

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.

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.



ALFALFA



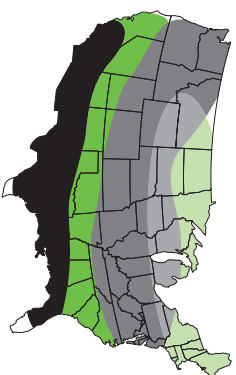
ALFALFA VARIETY PLACEMENT¹

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.

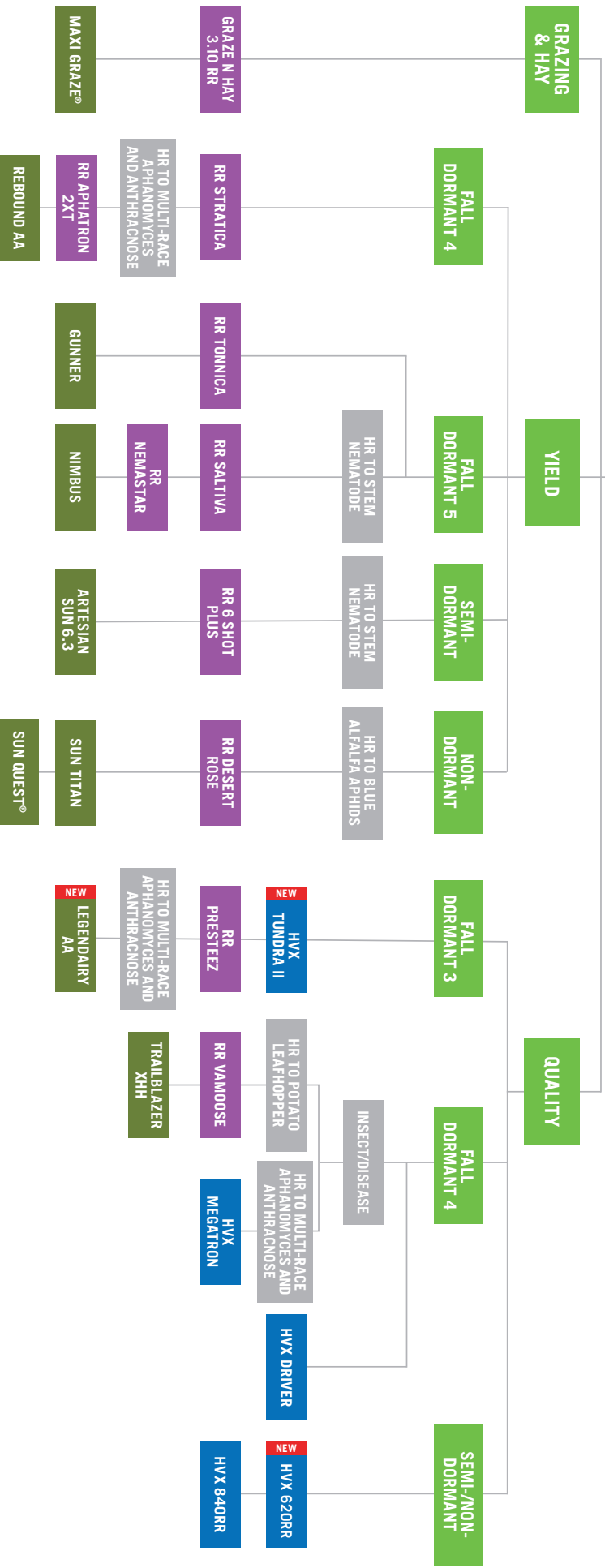
- ROUNDUP READY[®] VARIETIES
- CONVENTIONAL VARIETIES
- VARIETIES WITH ADDITIONAL INSECT AND DISEASE RESISTANCE
- HARVYTRA[®] ALFALFA VARIETIES

PRODUCT DORMANCY MAP²

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



- WINTERHARDY FD2/3
- WINTERHARDY FD3/4
- WINTERHARDY FD4/5
- SEMIDORMANT FD5/6/7
- NONDORMANT FD7/8/9



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.

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



ALFALFA

- Train
- Fall Dormancy
- Winterhardness
- Yield Index
- Feed Quality Index
- Grazing Tolerance **1**
- Baled Hay (Drydown)
- Haylage (Regrowth)
- Polytunnel or a Root Rot
- Potato Leafhopper
- Aphanomyces Race 1
- Aphanomyces Race 2
- Aphanomyces Multi-race
- Bacterial Wilt
- Anthracnose Race 1
- Anthracnose Multi-race
- Fusarium Wilt
- Verticillium Wilt
- Spotted Alfalfa Aphid
- Pea Aphid
- Blue Alfalfa Aphid
- Stem Nematode
- Northern Root-Knot Nematode
- Salt Tolerance **2**

FALL DORMANCY: 6.0-9.0

	HanXtra	6.0	2	2	H3	5	1	1	HR	-	R	-	-	MR	R	-	HR	-	HR	HR	-	R	-	-
NEW HVX 620RR Brand	HanXtra	6.0	2	2	H3	5	1	1	HR	-	R	-	-	MR	R	-	HR	-	HR	HR	-	R	-	-
HVX 840RR Brand	HanXtra	7.9	-	2	1	H3	5	1	R	-	-	-	-	R	R	-	R	-	R	HR	-	R	-	-
RR 6 Shot Plus	Roundup Ready	6.0	-	1	2	3	4	1	HR	-	R	-	-	R	HR	-	HR	HR	HR	HR	-	HR	-	-
RR Desert Rose	Roundup Ready	8.5	-	1	2	3	5	1	HR	-	-	-	-	MR	HR	-	HR	-	HR	HR	R	-	-	
Artesian Sun 6.3	Conventional	6.0	3.1	1	2	3	4	1	HR	-	HR	-	-	R	HR	-	HR	HR	-	HR	-	HR	-	-
Sun Titan	Conventional	8.4	-	1	1	2	5	1	HR	-	-	-	-	MR	R	-	HR	MR	HR	HR	HR	HR	-	-
Sun Quest®	Conventional	9.0	-	1	2	3	5	1	MR	-	-	-	-	MR	R	-	R	MR	HR	HR	HR	HR	-	G

KEY

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

1 Feed Quality Index

Feed quality ratings for HanXtra® 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, HanXtra® Alfalfa products can only be compared to other HanXtra® 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%)

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 Answer Pipe® trials and/or from the genetics supplier and may change as additional data is gathered.



Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

CORN SILAGE



Shortcuts. You don't take them; neither do we.

You have questions about how to improve corn silage yield. Together, we'll find the answers. We partner with you to select our Data Proven (high quality x high tonnage) silage products, diagnose pest problems and figure out your exact plant nutrition needs throughout the growing season. We understand the importance of having the right levels of quality nutrients in your silage. This is good news for you. It's even better news for your corn silage crop.

KEY TAKEAWAYS

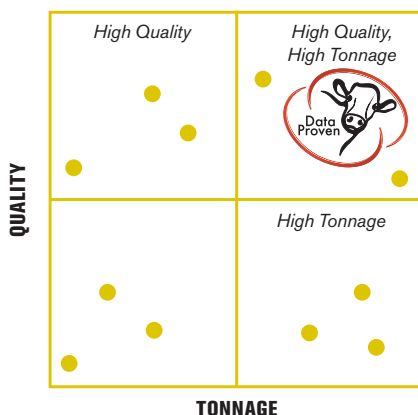
- 1 Select hybrids based on forage quality and tonnage needs.
- 2 Properly harvest and store your crop.

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 acre
- NDFD
- Starch

*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

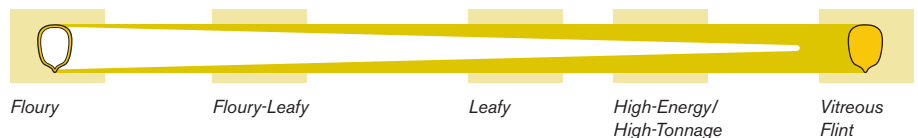
- Leafy stalks are thicker and more digestible, with larger ears to produce more energy.

FLOURY-LEAFY HYBRIDS

- At feedout, flourey-leafy products effectively bridge the gap between the previous year's corn silage pile and the current year's feed.
- Leafy and flourey-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 flourey-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 Days

Roundup Ready 2

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH NDFD

- 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	2
Drought Tolerance	3	
Root Strength	2	2
Tonnage Potential	2	
Milk/Acre	3	
Starch	4	

CROPLAN CP2692AS3011A
 Relative Maturity: 86 Days

Agrisure Artesian

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH NDFD

- Agrisure Artesian® trait with excellent tonnage potential that crosses multiple soil types
- Medium-tall plant with strong stalks; dual-purpose option
- Low response to population for success at lower planting densities
- Acceptable Goss's wilt tolerance

Characteristics

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

CROPLAN CP2845SS/RIB
 [VT2P/RIB]*
 Relative Maturity: 89 Days

SmartStax

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH NDFD

- 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		1
Milk/Acre	3	
Starch	3	2

CROPLAN CP2965VT2P/RIB
 Relative Maturity: 89 Days

VT Double PRO

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH NDFD

- High yield potential to complement 2845
- 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 CP3240AS3220A-EZ
 Relative Maturity: 92 Days

Agrisure Viptera

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH NDFD

- Highest yield (tons/acre) in 2018 S-90 trials
- Handles both droughty and highly productive fields; keep out of poorly drained soils
- Highly responsive to improved nitrogen management
- Manage for Goss's wilt

Characteristics

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

CROPLAN CP3300SRR
 Relative Maturity: 93 Days

Roundup Ready 2

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH NDFD

- Flouxy x leafy silage-only hybrid with very high tonnage
- White cob hybrid with large semi-flexed ears that can handle lower populations
- Highly responsive to nitrogen and fungicide applications

Characteristics

	Not Recommended	Excellent
Seedling Vigor		1
Drought Tolerance		2
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.

CROPLAN **CP3399SS/RIB**
WINFIELD UNITED
 [VT2P/RIB]*
 Relative Maturity: 94 Days

SmartStax
RIB COMPLETE

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH
LOW MODERATE HIGH
NDFD

- 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 **CP3499VT2P/RIB**
WINFIELD UNITED
 Relative Maturity: 94 Days

VTDoublePRO
RIB COMPLETE

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH
LOW MODERATE HIGH
NDFD

- Excellent consistency in all yield environments from east to west
- Offers strong roots, stalks and staygreen
- Some ear flex, although great stress tolerance allows for higher planting populations

Characteristics

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

CROPLAN **CP3575SS/RIB**
WINFIELD UNITED
 [VT2P/RIB]*
 Relative Maturity: 95 Days

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH
LOW MODERATE HIGH
NDFD

- 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		
Drought Tolerance	3	2
Root Strength		2
Tonnage Potential	3	
Milk/Acre	3	
Starch	3	

CROPLAN **CP3611SS/RIB**
WINFIELD UNITED
 [VT2P/RIB]*
 Relative Maturity: 96 Days

SmartStax
RIB COMPLETE

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH
LOW MODERATE HIGH
NDFD

- Best-positioned on a rotated acre
- Excellent roots
- Highly responsive to increased nitrogen fertility; moderate response to population
- Monitor in areas with heavy gray leaf spot and northern corn leaf blight

Characteristics

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

CROPLAN **CP3735SS/RIB**
WINFIELD UNITED
 [VT2P/RIB]*
 Relative Maturity: 97 Days

SmartStax
RIB COMPLETE

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH
LOW MODERATE HIGH
NDFD

- 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 **CP3795VT2P/RIB**
WINFIELD UNITED
 Relative Maturity: 97 Days

Tonnage vs NDFD

Tonnage

LOW MODERATE HIGH
LOW MODERATE HIGH
NDFD

- Large plant with good digestibility ratings
- Improved Goss's wilt tolerance over 3899; strong stalks, roots and seedling vigor
- Low response to fungicide
- Optimize yield potential with enhanced nitrogen management

Characteristics

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

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

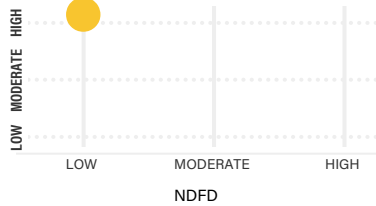
CP3899VT2P/RIB

Relative Maturity: 98 Days



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

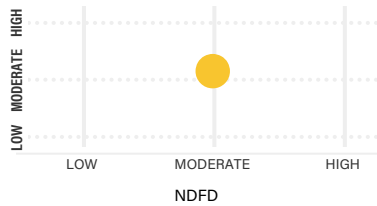
	Not Recommended		Excellent	
Seedling Vigor				1
Drought Tolerance			2	
Root Strength			2	
Tonnage Potential				1
Milk/Acre				1
Starch			2	

CROPLAN CP4099SS/RIB

Relative Maturity: 100 Days

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		

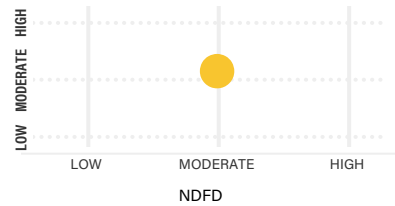
CROPLAN CP4079SS/RIB

[VT2P/RIB]*
Relative Maturity: 100 Days



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		

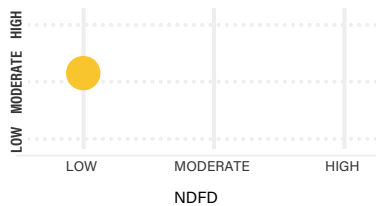
CP4100SVT2P/RIB

Relative Maturity: 101 Days



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				1
Drought Tolerance		5		
Root Strength			2	
Tonnage Potential			2	
Milk/Acre				1
Starch		4		

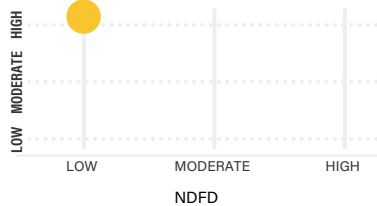
CROPLAN CP4188VT2P/RIB

Relative Maturity: 101 Days



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		

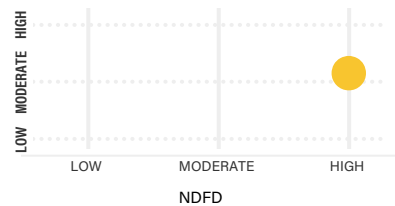
CROPLAN CP4199SS/RIB

[VT2P/RIB]*
Relative Maturity: 101 Days



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				
Milk/Acre		3		
Starch		3		

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

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

CP4242SS/RIB

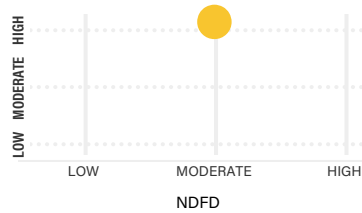
[VT2P/RIB]*

Relative Maturity: 102 Days



Tonnage vs NDFD

Tonnage



- Excellent consistency from east to west
- Solid agronomics with acceptable staygreen; strong stalks, roots and Goss's wilt tolerance
- Has nice ear flex for low-to-medium densities

Characteristics

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

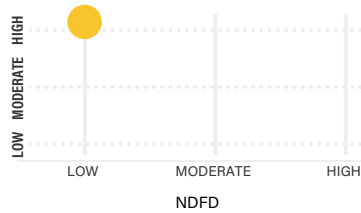
CROPLAN CP4203SS/RIB

Relative Maturity: 102 Days



Tonnage vs NDFD

Tonnage



- Medium-height hybrid with very high tonnage-potential
- Tolerates heat well; excellent greensnap tolerance
- Works well across most yield environments
- Optimize yield with enhanced nitrogen management

Characteristics

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

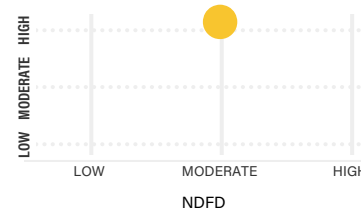
CROPLAN CP4819AS3000GT

Relative Maturity: 103 Days



Tonnage vs NDFD

Tonnage



- Tall hybrid with high tonnage potential
- Medium ear placement and solid agronomics
- Highly responsive to nitrogen fertility
- Excellent Goss's wilt tolerance

Characteristics

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

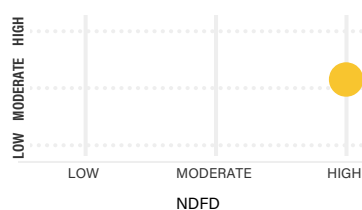
CROPLAN CP4444VT2P

Relative Maturity: 104 Days



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

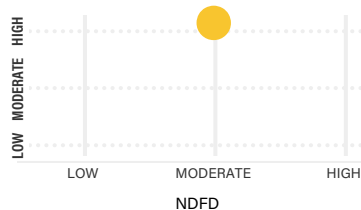
	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance			3			
Root Strength				2		
Tonnage Potential			3			
Milk/Acre			3			
Starch						1

CROPLAN CP4488SS/RIB

[VT2P/RIB]*
Relative Maturity: 104 Days

Tonnage vs NDFD

Tonnage



- Best-positioned in high-yield environments
- Solid roots and good Goss's wilt tolerance
- High response to population, nitrogen and fungicide; well-adapted to corn-on-corn acres
- Tall hybrid with acceptable stalks

Characteristics

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

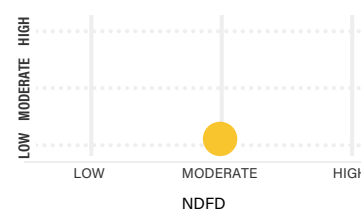
CROPLAN CP4676SS/RIB

Relative Maturity: 106 Days



Tonnage vs NDFD

Tonnage



- 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 with GLS pressure

Characteristics

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

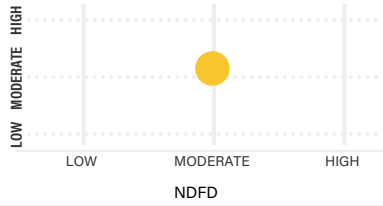
CP4600SSS/RIB

Relative Maturity: 106 Days



Tonnage vs NDFD

Tonnage



- Leafy top performer in Answer Plot® research plots for two years at 106-day maturity
- Very tall hybrid with erect dark-green leaves
- Large flex ears with soft kernels; best in productive, high-fertility soils

Characteristics

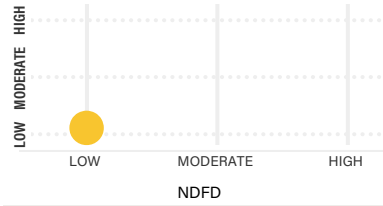
	Not Recommended	Excellent
Seedling Vigor	2	2
Drought Tolerance	3	
Root Strength	2	2
Tonnage Potential	2	2
Milk/Acre	2	2
Starch	4	

CP4791AS3111

[ASGT]
Relative Maturity: 107 Days

Tonnage vs NDFD

Tonnage



- Medium-tall silage hybrid with great late-staygreen agronomics
- Tough hybrid; semi-flexed ear handles 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	

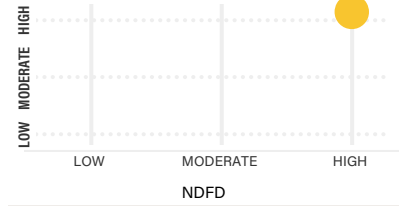
CROPLAN CP5887VT2P/RIB

Relative Maturity: 108 Days



Tonnage vs NDFD

Tonnage



- High tonnage potential; consistent dual-purpose hybrid
- Medium plant with strong ear flex
- High response to nitrogen; use aggressive fertility
- Manage stalk quality with medium-low seeding rate; fungicide is recommended

Characteristics

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

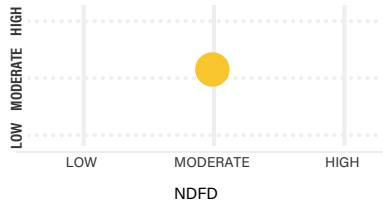
CROPLAN CP5000SAS3122-EZ

Relative Maturity: 110 Days



Tonnage vs NDFD

Tonnage



- Very tall hybrid with girthy stalks that deliver high tonnage potential
- Strong performer with medium-high population and high nitrogen rates
- Keep north of 109-day zone as full-season; best east of Iowa and the Pacific Northwest
- Avoid overpopulating and poorly drained heavy clay soils

Characteristics

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

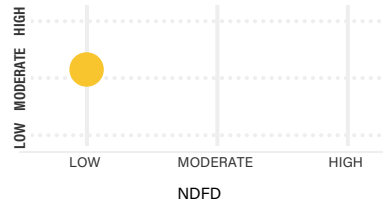
CROPLAN CP5073SS/RIB

[VT2P/RIB]*
Relative Maturity: 110 Days



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

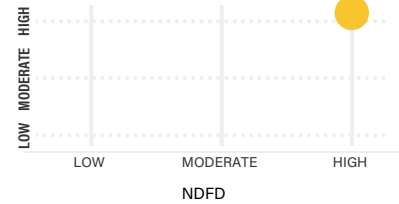
	Not Recommended	Excellent
Seedling Vigor		1
Drought Tolerance		2
Root Strength		2
Tonnage Potential		1
Milk/Acre		2
Starch		2

CROPLAN CP6110VT2P/RIB

Relative Maturity: 110 Days

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
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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

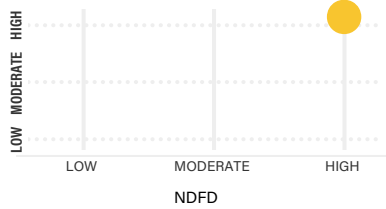
CP5115SS/RIB

[VT2P/RIB]*
Relative Maturity: 111 Days



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	

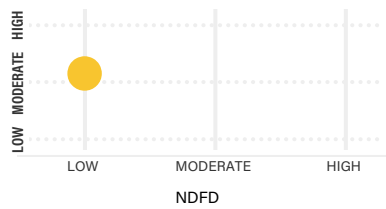
CP5290DGV2P/RIB

[SS/RIB]*
Relative Maturity: 112 Days



Tonnage vs NDFD

Tonnage



- Versatile hybrid allows for a range of populations and yield environments.
- High-tonnage hybrid with the DroughtGard* trait
- Excels at high populations with high nitrogen rates
- Very good agronomics, but will benefit from fungicides

Characteristics

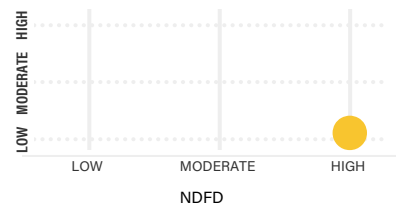
	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance			3			
Root Strength			3			
Tonnage Potential						1
Milk/Acre					2	
Starch			3			

CP5277AS3220-EZ

Relative Maturity: 112 Days

Tonnage vs NDFD

Tonnage



- Consistent high-yielding product has solid performance east to west
- Medium-tall plant with solid agronomics, plant health, staygreen and grain quality
- Optimize yield potential with moderate plus populations; needs fungicide and nitrogen management

Characteristics

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

NEW

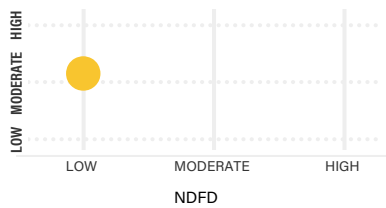
CP5290DGV2P/RIB

[SS/RIB]*
Relative Maturity: 112 Days



Tonnage vs NDFD

Tonnage



- Versatile hybrid allows for range of populations and yield environments.
- High-tonnage hybrid with the DroughtGard* trait
- Excels at high populations with high nitrogen rates
- Very good agronomics, but will benefit from fungicides

Characteristics

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

NEW

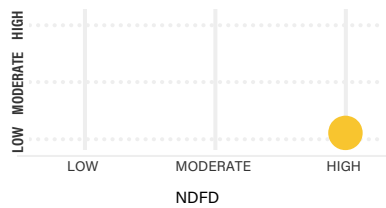
CP5277AS3220-EZ

Relative Maturity: 112 Days



Tonnage vs NDFD

Tonnage



- Consistent high-yielding product has solid performance east to west
- Medium-tall plant with solid agronomics, plant health, staygreen and grain quality
- Optimize yield with moderate plus populations; needs fungicide and nitrogen management

Characteristics

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

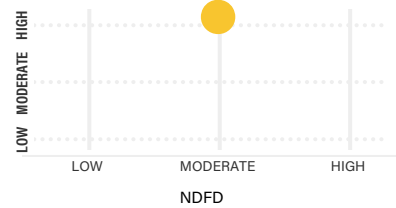
CP5370SS/RIB

[VT2P/RIB]*
Relative Maturity: 113 Days



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

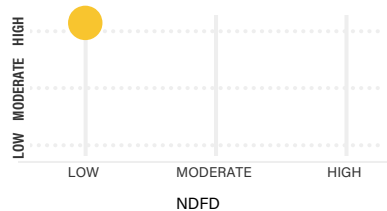
	Not Recommended			Excellent		
Seedling Vigor						1
Drought Tolerance					2	
Root Strength						1
Tonnage Potential					2	
Milk/Acre					2	
Starch					2	

NEW**CP5550VT2P/RIB**

Relative Maturity: 115 Days

**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				

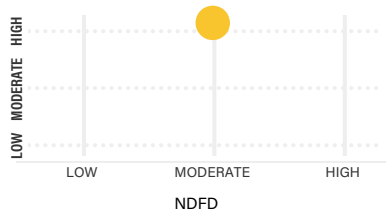
CP5678VT2P/RIB

[SS/RIB]*

Relative Maturity: 116 Days

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

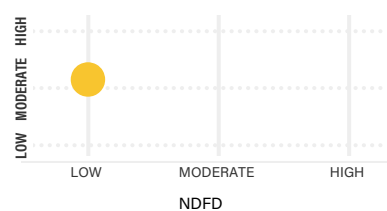
	Not Recommended			Excellent	
Seedling Vigor			3		
Drought Tolerance				2	
Root Strength			3		
Tonnage Potential				2	
Milk/Acre				2	
Starch			3		

CP5700SVT2P/RIB

Relative Maturity: 117 Days

Tonnage vs NDFD

Tonnage



- Top hybrid in silage trials for both tonnage 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

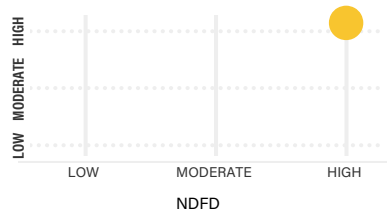
	Not Recommended			Excellent	
Seedling Vigor				2	
Drought Tolerance			3		
Root Strength				2	
Tonnage Potential					1
Milk/Acre					1
Starch	4				

CP5789VT2P/RIB

Relative Maturity: 117 Days

**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

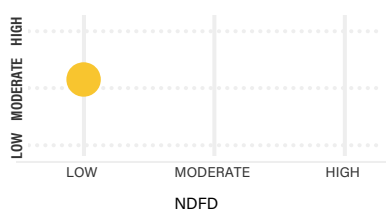
	Not Recommended			Excellent	
Seedling Vigor				2	
Drought Tolerance				2	
Root Strength					1
Tonnage Potential			3		
Milk/Acre			3		
Starch			3		

CP5900SVT2P/RIB

Relative Maturity: 119 Days

**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

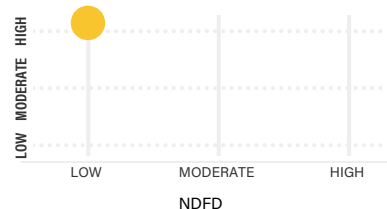
	Not Recommended			Excellent	
Seedling Vigor				2	
Drought Tolerance				2	
Root Strength			3		
Tonnage Potential					1
Milk/Acre					1
Starch	4				

CP6027VT2P/RIB

Relative Maturity: 120 Days

Tonnage vs NDFD

Tonnage



- Broad Southern adaptability east to west; excellent silage potential
- Medium-tall plant with strong stalks, staygreen and seedling vigor
- Best-suited at medium to medium-high populations
- Manage nitrogen for top-end yield; fungicide recommended in areas with heavy GLS pressure

Characteristics

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

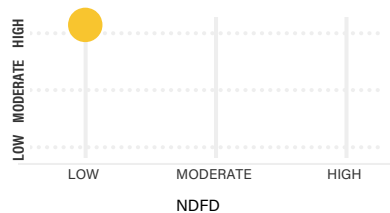
CP7000S

Relative Maturity: 130 Days



Tonnage vs NDFD

Tonnage



- Full season plant with very tall plant height and high protein levels
- Excellent agronomics and stress tolerance; excels in heat
- Extremely tall with wide dark leaves; maximum silage yield potential
- Utilize for dry cow rations with very low starch component

Characteristics

	Not Recommended	Excellent
Seedling Vigor	4	
Drought Tolerance		2
Root Strength	4	
Tonnage Potential		1
Milk/Acre	4	
Starch	5	



CORN SILAGE



BRAND	Relative Maturity	Plant Height 1	Ear Height 2	Ear Flex 3	Flower Date 4	Kernel Rows	Population [R/P]	Response to Nitrogen [R/P]	Response to Corn [R/C]	Response to Continuous Corn [R/C]	Fungicide [R/F]	Response to Seeding [R/P]	Root Strength	Drought Tolerance	Tonnage Potential	# Milk/Acre	% NDFD	% NDF	% Starch	% Crude Protein	Calibrate® Starch Rating	Fiber Rating 7	Calibrate® Starch Rating	TDN	Calibrate® Fiber Rating	
CP184RR		80	M-T	M	FL	E	16-18	M	L	H	M	M	2	2	2	3	3	3	3	4	3	4	3	4	S	-
CP2692AS3011A		86	M-T	M	SF	M	16-18	L	M	M	M	M	3	3	3	3	1	2	3	3	2	3	2	3	MS	
CP2845SS/R/B*		89	M-T	M	SF	E	16-18	H	H	L	L	H	1	1	3	1	3	3	4	3	2	3	2	4	MS	
CP2965VT2P/R/B*		89	M	M	SF	M	14-16	M	H	L	L	M	1	2	3	2	2	3	3	3	3	3	3	2	MF	
CP3240AS3220A-EZ*		92	T	M	SF	M	16-18	H	H	M	M	H	2	2	2	1	1	1	1	2	4	4	3	1	MF	
CP3300SRR		93	T	M-L	SF	M	16-18	N/A	N/A	N/A	N/A		1	2	2	1	1	1	2	4	3	3	3	3	MF	
CP3399SS/R/B*		94	M	M	SF	M	16-18	M	H	M	M	M	2	2	2	3	3	4	3	3	3	3	3	4	MS	
CP3499VT2P/R/B*		94	M-S	M-L	SF	L	16-18	M	M	M	M	M	1	2	2	2	2	3	3	3	3	3	3	2	MF	
CP3575SS/R/B*		95	M	M	SF	M-L	16-18	H	H	M	M	L	2	2	2	3	3	3	1	3	3	3	3	1	MS	
CP3611SS/R/B*		96	M-T	M	SF	M	16-18	M	H	L	L	M	1	1	2	2	3	3	3	3	3	3	2	3	M	
NEW CP3735SS/R/B		97	M	M	SF	M	16-18	M	H	M	M	H	1	2	2	3	2	1	1	3	3	3	2	1	MF	
CP3795VT2P/R/B*		97	M-T	M-H	SF	M-L	16-18	M	H	M	L	L	2	2	3	1	2	2	2	3	4	3	3	1	MS	
CP3899VT2P/R/B*		98	M-T	M-H	SF	L	16-20	H	H	M	M	H	1	2	2	2	1	1	3	3	2	3	3	3	MF	
CP4099SS/R/B*		100	M-T	M	SF	L	16-20	H	H	M	M	H	1	1	3	2	2	2	2	3	3	3	3	3	S	
CP4100SVT2P/R/B*		101	T	M	SF	M	16-18	NA	NA	NA	NA	M	3	2	2	1	1	2	3	4	3	3	2	2	MF	
CP4188VT2P/R/B*		101	M	M	SF	M	16-18	M	M	L	L	M	1	1	1	2	1	2	3	3	2	3	2	2	MS	
CP4199SS/R/B*		101	M	M	SF	M	16-18	H	M	M	M	M	1	1	3	1	3	2	2	3	3	3	2	2	MF	
CP4242SS/R/B*		102	M-T	M	FL	M	14-16	M	L	L	L	H	2	2	3	2	2	3	4	2	1	3	4	-	-	
CP4203SS/R/B*		102	M	M	SF	M	14-16	H	H	H	M	M	3	3	3	2	1	1	3	3	3	3	2	1	M	
CP4079SS/R/B*		100	M-T	M	SF	M	14-16	M	H	H	H	H	2	1	3	2	2	2	2	3	3	3	3	2	M	

KEY

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 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 R/P/R/N/R/C/C/R/F Ratings
 L = Low Response
 M = Moderate Response
 H = High Response
 TBD = To be tested in 2020.

6 Calibrate® Starch Rating
 Relative number digestibility of grain starch
 S = Slow
 M = Moderate
 F = Fast
 Ratings based on 2018-2019 silage samples.

7 Calibrate® Fiber Rating
 Relative number digestibility of fiber
 S = Slow
 M = Moderate
 F = Fast
 Ratings based on 2018-2019 silage samples.

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



CORN SILAGE



BRAND	Relative Maturity	Plant Height 1	Ear Height 2	Ear Flex 3	Flower Date 4	Kernel Rows	Population (R/P)	Nitrogen (R/P) 5	Response to Corn (R/TC) 5	Response to Continuous (R/TC) 5	Fungicide (R/TF) 5	Response to Seeding (R/TF) 5	Root Strength	Drought Tolerance	Tonnage Potential	# Milk/Acre	% NDFD	% NDF	% Starch	% Crude Protein	Calibrate® Starch Rating	TDN	Calibrate® Fiber Rating 6	Calibrate® Fiber Rating 7		
CP4819AS3000GT	103	T	M-H	FL	M	M	16-18	M	H	M	M	M	2	2	3	2	2	3	3	3	3	3	3	3	MF	-
CP4444VT2P	104	T	M-H	SF	M-L	M-L	14-16	H	L	H	H	L	1	2	3	3	3	2	1	1	4	3	3	3	MF	M
CP4488SS/RIB*	104	T	M-H	SF	M	M	16-18	H	H	H	H	H	3	2	3	2	2	4	3	1	3	3	3	3	MS	MF
CP4678SS/RIB*	106	M	M	SF	M	M	16-18	M	H	H	H	M	1	3	1	3	2	1	2	3	2	1	1	1	MF	F
CP4600SSS/RIB*	106	T	M	FL	M	M	16-18	N/A	N/A	N/A	N/A	N/A	2	2	3	2	2	4	4	4	3	3	3	3	M	MS
CP4791AS3111	107	M-T	M	SF	M	M	16-18	M	M	L	L	M	3	2	2	3	1	1	1	3	3	3	3	1	MF	M
CP3687VT2P/RIB*	108	M	M	FL	M	M	14-18	L	H	L	L	H	3	2	3	2	4	3	4	3	3	3	4	4	MS	-
CP5000SAS3122-EZ*	110	T	H	SF	M	M	14-16	N/A	N/A	N/A	N/A	H	2	4	1	2	2	2	2	2	2	2	2	2	MF	MF
CP5073SS/RIB*	110	M	M-H	SF	M	M	16-18	M	H	H	H	H	1	2	2	2	2	2	2	2	2	2	2	2	MF	MF
NEW CP5115SS/RIB*	111	M-T	M-H	SF	M-L	M-L	18-20	H	H	H	H	M	1	1	1	2	3	3	2	2	2	3	3	3	MS	M
CP6110VT2P/RIB*	110	M	M	SF	M	M	16-18	M	M	M	M	M	2	1	2	1	3	3	2	1	4	3	3	3	MF	MF
CP5290DEVT2P/RIB*	112	M	M	SF	M	M	14-16	H	H	M	M	H	1	3	3	3	1	2	2	3	3	3	3	3	M	MS
CP5277AS3220-EZ	112	M-T	M-H	SF	E	E	14-16	H	H	L	L	H	2	2	2	2	3	3	1	3	3	3	3	3	-	-
CP370SS/RIB*	113	T	M-H	SF	M	M	18-20	H	H	L	L	M	1	1	3	2	2	3	2	2	2	3	3	3	M	M
NEW CP5550VT2P/RIB*	115	M-T	M-H	SF	M	M	14-16	M	M	L	L	M	2	2	3	2	1	1	3	4	4	3	2	2	MS	M
CP3678VT2P/RIB*	116	M	M	SF	M	M	14-16	M	H	M	M	M	3	3	2	2	2	4	4	3	2	2	2	2	M	M
CP5700SVT2P/RIB*	117	M-T	M	SF	M	M	16-18	M	H	M	M	M	2	2	3	1	1	2	4	4	2	2	2	2	MF	MF
CP5789VT2P/RIB*	117	T	M-H	SF	M	M	16-18	H	M	M	M	H	2	1	1	2	3	4	3	3	3	3	3	3	M	M
CP5900SVT2P/RIB*	119	T	M-H	SF	M	M	16-18	M	H	H	H		2	3	1	1	1	2	3	4	1	1	2	2	MF	M
CP7000S	130	T	H	FL	N/A	N/A	14-16	N/A	N/A	N/A	N/A		4	4	1	2	1	4	4	5	5	1	4	4	-	-

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- 3 Ear Flex**
- FL = Flex
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- 5 R/P/R/TN/TC/CF/R/F Ratings**
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- 6 Calibrate® Starch Rating**
- Relative rumen digestibility of grain starch
 - S = Slow
 - M = Moderate
 - F = Fast
 - Ratings based on 2018-2019 silage samples.

- 7 Calibrate® Fiber Rating**
- Relative rumen digestibility of fiber
 - S = Slow
 - M = Moderate
 - F = Fast
 - Ratings based on 2018-2019 silage samples.

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

CORN SILAGE



Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

FORAGE SORGHUM



More tonnage potential and not an ounce of excuses.

You hear a lot of talk about how to improve tonnage. Soon enough, it all starts to sound the same. We know what you want most: bottom-line results. Our job is to help you get those results with the right forage sorghum genetics. It's how we deliver the best nutrition, high total plant digestibility, and the specific traits that optimize production and quality.

We put all of this expertise into a comprehensive, season-long plan that's long on results and never filled with excuses.

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.

► Sudan (multi-cut or grazing)

Shorter stature with fine stalks; more leaves than a sorghum x sudan. Multiple tillering ability and excellent regrowth.

► 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
- Traits available in the following forage types: forage sorghum, sudan hybrid, sorghum x sudan hybrid, pearl millet

BRACHYTIC TRAIT

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

PHOTOPERIOD SENSITIVITY TRAIT

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

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.¹

- 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.

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.

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.

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.

SUDAN

Optimal harvest timing is 40 days or 40 inches tall. Drydown is quicker than sorghum x sudan; provides ability for quicker pickup or dry hay option in areas that have been difficult in the past. Start summer grazing when plants reach 18 to 24 inches. Remove animals when two nodes are left above the ground.

PEARL MILLET

Optimal harvest timing is 40 days or 40 inches tall. Good choice for horse feed with lack of prussic acid and high digestibility; good for dry hay areas with high humidity during summer. Start summer grazing when plants reach 18 to 24 inches. Remove animals when there is six-inches of stubble height.

¹ Read all labels before application.



BMR 3211

Regions: Central|East|North|Double-crop
Maturity: Early

Characteristics

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

- 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

NEW



3401

Regions: Central|South|West
Maturity: Early|Mid

Characteristics

	Not Recommended	Excellent
Stress Tolerance		2
Forage Quality		2
Disease Tolerance		1
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



3501

Regions: Central|South|West
Maturity: Mid

Characteristics

	Not Recommended	Excellent
Stress Tolerance		2
Forage Quality		2
Disease Tolerance		1
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

NEW



3601

Regions: Central|South|West
Maturity: Mid

Characteristics

	Not Recommended	Excellent
Stress Tolerance		2
Forage Quality		2
Disease Tolerance		1
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



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
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)



Greentreat® 1731

Regions: Central|East|North|South|West
Maturity: Heads at ~60 days

Characteristics

	Not Recommended	Excellent
Stress Tolerance	3	
Forage Quality		2
Disease Tolerance		2
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
- Ideal for hay or grazing 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)

KEY

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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

Greentreat 1741AT

Regions: Central|East|North|South|West
Maturity: Heads at ~60 days

Characteristics

	Not Recommended	Manage	Acceptable	Strong	Excellent
Stress Tolerance				3	
Forage Quality				2	
Disease Tolerance				2	
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; ideal for hay or grazing 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)



Greentreat® 1923

Regions: Central|East|North|South|West
Maturity: photoperiod sensitive

Characteristics

	Not Recommended	Manage	Acceptable	Strong	Excellent
Stress Tolerance					2
Forage Quality				3	
Disease Tolerance					1
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)



PM 4611 BMR

Regions: Central|East|North|South|West
Maturity: Heads at ~50 days

Characteristics

	Not Recommended	Manage	Acceptable	Strong	Excellent
Stress Tolerance					1
Forage Quality					1
Disease Tolerance				2	
Hay					1
Silage	5				
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)

NEW

PM 4612 BMR

Regions: Central|East|North|South|West
Maturity: Heads at ~50 days

Characteristics

	Not Recommended	Manage	Acceptable	Strong	Excellent
Stress Tolerance					1
Forage Quality					1
Disease Tolerance				2	
Hay					1
Silage	5				
Grazing					1

- Leafy, compact structure; the BMR-6 gene provides exceptional 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)

NEW

PM 4507 PM

Regions: Central|East|North|South|West
Maturity: Heads at ~50 days

Characteristics

	Not Recommended	Manage	Acceptable	Strong	Excellent
Stress Tolerance				2	
Forage Quality					1
Disease Tolerance				2	
Hay					1
Silage	5				
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)

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



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	Hay	Balage	Stlage	Grazing	
FORAGE SORGHUM HYBRIDS																
BMR 3211	Early	60-70K seeds	1-1 1/2"	15.5	60	Y	1	2	3	2	-	3	2	5	5	5
NEW 3401	Early/Mid	50-60K seeds	1-1 1/2"	15	60	N	2	1	2	1	-	3	2	5	5	1
3501	Mid	50-60K seeds	1-1 1/2"	15	60	N	2	1	2	1	-	3	2	5	5	1
NEW 3601	Mid	50-60K seeds	1-1 1/2"	15	60	N	2	1	2	1	-	3	2	5	5	1
SORGHUM X SUDAN HYBRIDS																
Greentreat® 1531	Heads at ~50 days	20-25 lbs	1"	14	60	Y	1	1	1	2	-	3	3	1	1	3
Greentreat® 1731	Heads at ~60 days	20-25 lbs	1"	16.5	60	Y	2	3	3	2	-	3	3	1	1	3
NEW Greentreat 1741AT	Heads at ~60 days	20-25 lbs	1"	16.5	60	Y	2	3	3	2	1	3	3	1	1	3
NEW Greentreat® 1923	photoperiod sensitive	20-25 lbs	1"	14.5	60	Y	3	2	2	1	-	4	4	2	1	2
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	5
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	5
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	5

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 Fourth Number: Series number or new variety type

FORAGE SORGHUM



Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

SPRING CANOLA



The right plan never stops working.

There's no quit in you. And we've got some of the industry-leading innovations to make sure there's no quit in your spring canola crop. Like the latest solutions to disease issues, resistance to clubroot and blackleg, and the crop safety and weed-control features in TruFlex™ canola with Roundup Ready® Technology. Plus established products like Roundup Ready® Spring Canola deliver outstanding yield potential, excellent crop safety and easier management.

Sound like a plan?

KEY TAKEAWAYS

- 1 Pick the right genetics for your environment.
- 2 Take advantage of the latest resistance genes for blackleg and clubroot.
- 3 Leverage the enhanced weed management and crop safety features of TruFlex™ canola with Roundup Ready® Technology.
- 4 Evaluate your disease environment, crop rotation and other production practices.

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, like TruFlex™ canola, which offers outstanding crop safety.

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.

TruFlex
CANOLA

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.

Taking these steps can help slow the spread of clubroot:

- Clean equipment thoroughly.
- Control canola volunteers and other weeds that can host the disease.
- Plant CP955RR or CP9982RR, clubroot-resistant CROPLAN® hybrids.

5 TIPS FOR STRAIGHT-CUTTING CANOLA

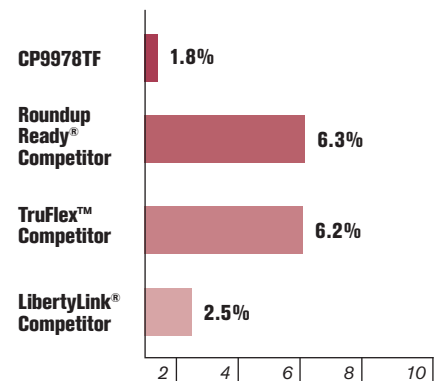
- 1 Select a hybrid with an adequate shatter score that's better suited for straight-cutting.
- 2 Control weeds and diseases in every field.
- 3 Ensure a uniform stand; proper seeding rates will help.
- 4 Harvest in a timely manner, as soon as the seed is dry enough to store.
- 5 If the field is variable when approaching harvest, consider desiccation.



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



Source: 2019 Canola Shattering 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

Roundup Ready **SC**

Characteristics

	Not Recommended			Excellent		
Oil Content						1
Drought Tolerance						1
Lodging						1
Straight Cutting					2	

- 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

CROPLAN **CP955RR**
Spring Canola

Roundup Ready **SC**

Characteristics

	Not Recommended			Excellent		
Oil Content						1
Drought Tolerance						2
Lodging						2
Straight Cutting						2

- Excellent yield potential in high-yield environments
- Outstanding oil content
- Good for straight-cutting; good shatter scores
- First clubroot-resistant CROPLAN® hybrid

CROPLAN **CP9919RR**
Spring Canola

Roundup Ready **SC**

Characteristics

	Not Recommended			Excellent		
Oil Content						2
Drought Tolerance						1
Lodging						3
Straight Cutting						2

- Earliest product in the CROPLAN® lineup
- High performance in heat- and/or moisture-stressed environments; pairs well with CP930RR
- Moves west very well
- Use with CP955RR to spread workload

CROPLAN **CP9982RR**
Spring Canola

Roundup Ready

Characteristics

	Not Recommended			Excellent		
Oil Content			3			
Drought Tolerance			3			
Lodging						1
Straight Cutting			3			

- New multigenic resistance to blackleg; Rlm4, QTL
- Provides multiple resistance genes for clubroot protection
- High yield potential with good standability
- Works well in higher-yield environments

CROPLAN **CP9978TF**
Spring Canola

TruFlex **SC**

Characteristics

	Not Recommended			Excellent		
Oil Content						2
Drought Tolerance						2
Lodging						2
Straight Cutting						1

- Excellent for straight-cutting with one of the industry's leading shatter and pod drop scores
- TruFlex™ hybrid for optimal crop safety at high rates and a wide application window
- Excellent yield potential
- LepR3, RlmS provide enhanced 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.

SC = Straight-Cutting



SPRING CANOLA

	Herbicide Tolerance Trait	Type	Common Seed Size Range	Days to Flower	Days to Maturity	Height (Inches)	Height Rating	Blackleg	Major Resistance Gene(s)*	Clubroot	Oil Content	Response to Population [RTP]	Wigor	Straight-Cutting Lodging	Drought Tolerance		
ROUNDUP READY® CANOLA																	
CP930RR	Roundup Ready	Hybrid	90-120,000	45	90	40	S	R	C	Rim3	S	1	1	L	1	2	1
CP955RR	Roundup Ready	Hybrid	100-115,000	46	93	44	M	R	C	Rim3	R-2, 3, 5, 6, 8	1	2	L	2	2	2
CP9919RR	Roundup Ready	Hybrid	110-115,000	43	88	37	S	R	A	Rim1, Rim3	S	2	1	M	3	2	1
CP9982RR	Roundup Ready	Hybrid	95-100,000	48	97	46	M-T	R	E1, X	Rim4, QTL	R-2, 3, 5, 6, 8	3	2	L	1	3	3
TRUFLEX™ CANOLA																	
CP9978TF	TruFlex	Hybrid	90-120,000	47	95	42	M-S	R	D, G	LepR3, RimS	S	2	1	M	2	1	2

KEY

Scale

- 1 = Excellent
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1 Height Ratings

- 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

4 Blackleg Major Resistance Gene(s)*

- Rim1 or LepR3
- Rim1
- Rim3
- LepR1
- Rim4
- Rim7
- Rim9
- RimS
- LepR2
- QTL
- Unknown

5 Clubroot

- R = Resistant; clubroot genes are effective against pathotypes 2, 3, 5, 6 and 8

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.

SPRING CANOLA



Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

WINTER CANOLA



Getting top yield takes hard work, not guesswork.

You work hard to reach the yield you want. We use local and national data to determine the best way for you to achieve winterhardy canola.

We offer two types of winter canola: Roundup Ready® Canola and Roundup Ready® Canola that is sulfonylurea residual tolerant (SURT®). These are two critical traits of winter canola that thrives in various cropping systems.

All that work is worth it. Sound like a plan?

KEY TAKEAWAYS

- 1 CROPLAN® seed offers a choice of two herbicide-tolerant trait systems.
- 2 Proper row spacing and plant-to-plant spacing are important.
- 3 Practice good nutrient management, especially with nitrogen, sulfur and boron.

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 provide improved crop safety from previous wheat crops with a long-residual sulfonylurea herbicide.
- Canola is susceptible to many broadleaf herbicides with a long residual life.

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.¹

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.





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® (sulfonylurea residual tolerant)
- Dependable variety; approved for first-time High Plains canola growers
- Handles low-pH soil better than other products



CP225WRR

Winter Canola



Characteristics

	Not Recommended			Excellent	
Oil Content					1
Drought Tolerance					1
Lodging				2	
Winterhardiness				2	

- Excellent potential for strong yield environments
- SURT® (sulfonylurea residual tolerant)
- Strong fall vigor; good for less-than-ideal seedbeds
- Strong winterhardiness; excels in Pacific Northwest and Mont.



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

KEY

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

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WINTER CANOLA

ROUNDUP READY® CANOLA

	Herbicide Tolerance Trait	Type	Common Seed Size Range	Maturity	Height (Inches)	Oil Content	Fall Winter	Winterhardiness	Lodging	Drought Tolerance
CP115WRR	Roundup Ready + SURT®	Open Pollinated	100,000-130,000	Medium	44	2	2	2	2	1
CP225WRR	Roundup Ready + SURT®	Open Pollinated	100,000-130,000	Medium	46	1	2	2	2	1
CP320WRR	Roundup Ready	Open Pollinated	100,000-130,000	Medium	45	1	1	1	2	2

KEY

Scale

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Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

SUNFLOWER



Target your markets and hold nothing back.

In the seed business, experience matters. CROPLAN® seed has been in the sunflower business for more than 20 years. That history and know-how allow us to offer you a broad spectrum of diverse sunflower genetics.

Because of extensive testing and screening conducted locally through the Answer Plot® program, we can help select the best sunflower seed genetics for your operation. The genetics we offer can help manage disease pressure in your fields, with hybrids that can be positioned based on specific field stresses. And we have the latest traits in our portfolio. That's technology – and experience – you can count on.

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.

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.*

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 a number of CROPLAN® sunflower varieties and offers:

- More seed size options per variety
- 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® H₂O) or preplant-incorporated herbicides (Framework®, Prowl® H₂O 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



CP432E

ExpressSun® Sunflower



Characteristics

	Not Recommended			Excellent		
Oil Content			3			
Dry down						1
Stalk Strength					2	
Phomopsis			3			

- 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



CP450E

ExpressSun® Sunflower



Characteristics

	Not Recommended			Excellent		
Oil Content			3			
Dry down					2	
Stalk Strength						1
Phomopsis					2	

- Excellent yield potential; great complement to CP455E
- Top performer in stressed environments
- Stronger standability compared to CP455E; good hybrid to plant early
- DMR PI 8; resistant to all common U.S. races of downy mildew



CP455E

ExpressSun® Sunflower



Characteristics

	Not Recommended			Excellent		
Oil Content					2	
Dry down						1
Stalk Strength						1
Phomopsis					2	

- 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



CP4909E

ExpressSun® Sunflower



Characteristics

	Not Recommended			Excellent		
Oil Content					2	
Dry down						1
Stalk Strength						1
Phomopsis			3			

- Top-end yield potential in high-yield environments
- Unique genetic diversity in the ExpressSun® lineup
- Short stature for excellent standability
- Great stalk strength but plant-to-plant spacing may reduce stalk strength



CP545CL

Clearfield® Sunflower



Characteristics

	Not Recommended			Excellent		
Oil Content			3			
Dry down					3	
Stalk Strength						1
Phomopsis					2	

- 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



CP549CL

Clearfield® Sunflower



Characteristics

	Not Recommended			Excellent		
Oil Content					2	
Dry down						2
Stalk Strength			3			
Phomopsis						1

- Excellent yield potential and disease tolerance
- DMR PI 15; resistant to all known races of downy mildew
- Excellent Phomopsis tolerance
- Potential to cross into both NuSun® and high oleic markets

KEY

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CROPLAN CP568CL

WINFIELD
WINFIELD

Clearfield® Sunflower



Characteristics

	Not Recommended		Excellent	
Oil Content				1
Dry down		3		
Stalk Strength			2	
Phomopsis				1

- High yield potential with a great upright head appearance
- Stable high oleic levels
- DMR PI 6; resistant to most common U.S. races of downy mildew
- Full maturity; best kept in S.D. through High Plains

CROPLAN CP3845

WINFIELD
WINFIELD

Conventional Sunflower

Characteristics

	Not Recommended		Excellent	
Oil Content				1
Dry down			2	
Stalk Strength			2	
Phomopsis		4		

- 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

WINFIELD
WINFIELD

Clearfield® Sunflower



Characteristics

	Not Recommended		Excellent	
Oil Content			2	
Dry down		3		
Stalk Strength			2	
Phomopsis				1

- 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; best kept in S.D. through High Plains

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.



SUNFLOWER

	High Oleic ¹	MusSun [®] ¹	Dehulling ¹	Common Planting Seed Size ¹	Downy Mildew Resistance ²	Phomopsis	Sclerotinia	Height	Oil Content	Starch Content	Drydown	Stalk Strength	Drought Tolerance		
EXPRESSSUN[®] SUNFLOWER															
CP43ZE	●	●	●	●	2,3,4	89	P1 8	3	3	Short	3	N/A	1	2	2
CP450E	●	●	●	●	2,3,4	94	P1 8	2	2	Med-Short	3	1	2	1	1
CP455E	●	●	●	●	2,3,4	94	P1 6	2	2	Med-Short	2	1	1	1	2
CP4909E	●	●	●	●	P3,3,4	91	-	3	2	Med-Short	2	N/A	1	1	3
CLEARFIELD[®] SUNFLOWER															
CP545CL	●	●	●	●	P3, 3, 4	94	P1 6	2	2	Medium	3	N/A	3	1	2
CP549CL	●	●	●	●	P3, 3, 4	95	P1 15	1	1	Med-Tall	2	3	2	3	1
CP568CL	●	●	●	●	3,4	99	P1 6	1	5	Med-Tall	1	2	3	2	1
CP7919CL	●	●	●	●	2,3,4	98	P1 6	1	3	Med-Tall	2	2	3	2	2
CONVENTIONAL SUNFLOWER															
CP3845	●	●	●	●	3,4	96	-	4	5	Medium	1	1	2	2	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

2 Downy Mildew Resistance

P1 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.

P1 6 gene = This gene is resistant to races prevalent before 2009; it is susceptible to races 314, 704, 714, 734 and 774.

P1 8 gene = This gene can get infected, but then stops downy mildew from advancing or having an economic impact on all common races.

P1 13 gene = This gene is exclusive to CROPLAN[®] hybrids and is resistant to all known races of downy mildew.

P1 P gene = Proprietary gene developed to control all known races of downy mildew.

SUNFLOWER



Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

HARD RED SPRING WHEAT



Managing for high performance leads to optimal results.

Our CROPLAN® seed spring wheat varieties have demonstrated phenomenal performance nationally. We can help you select the right genetics to manage a strong wheat crop. According to the most recent Answer Plot® data, spring wheat varieties respond differently to various management techniques, so be sure to manage the varieties you plant appropriately. What's more, targeted input applications support responsible land use by eliminating unnecessary treatments.

Starting with high-performing varieties, we help you bring it all together to make for a great ending to your season.

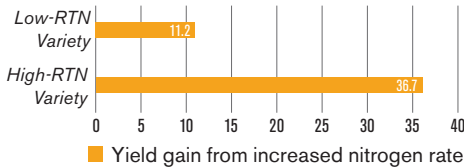
KEY TAKEAWAYS

- 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.

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.

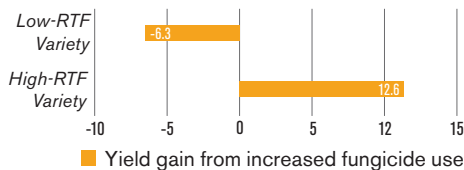
► RTN Yield Response Variance – 25.5 bu/A



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 fungicides may increase yield potential and protect ROI potential.

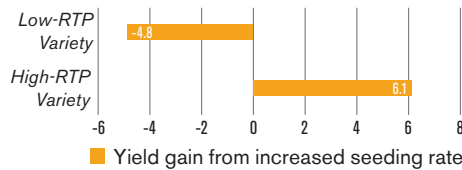
► RTF Yield Response Variance – 18.9 bu/A



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

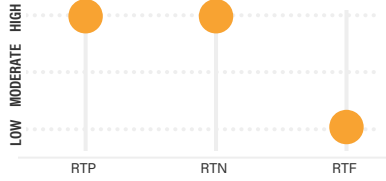
TOTAL PLANTING SEED ①	SEED SIZE: SEEDS PER POUND					FINAL STAND ②	PLANTS/SQ FT ③	
	0.8	1.0	1.2	1.4	1.6			
0.8	0.8	73	67	62	57	53	0.7	15.6
1.0	1.0	91	83	77	71	67	0.9	19.5
1.2	1.1	109	100	92	86	80	1.0	23.4
1.4	1.3	127	117	108	100	93	1.2	27.3
1.6	1.5	145	133	123	114	107	1.4	31.2
1.8	1.7	164	150	138	129	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

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 CP3419
Hard Red Spring

Response Scores



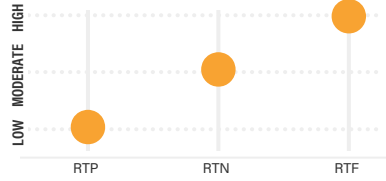
Characteristics

	Not Recommended		Excellent	
Standability	4	4	1	1
Fusarium Head Blight	4	4	2	1
Test Weight	4	3	1	1
Protein	4	1	1	1

- Outstanding yield potential under high-management and irrigated acres
- Excellent standability allows for increased nitrogen to maintain protein
- Solid disease package; best stripe rust tolerance in CROPLAN® lineup
- Later heading but finishes fast; head ripens faster than plant

CROPLAN CP3530
Hard Red Spring

Response Scores



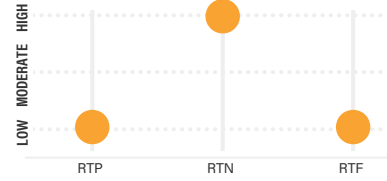
Characteristics

	Not Recommended		Excellent	
Standability	4	4	1	1
Fusarium Head Blight	4	4	2	1
Test Weight	4	3	1	1
Protein	4	2	1	1

- Excellent yield potential and strong protein variety
- Performs best at low-to-medium plant populations and with higher split-application nitrogen management
- Strong fusarium head blight and leaf disease tolerance; acceptable bacterial blight tolerance
- Strong standability for a taller plant

CROPLAN CP3915
Hard Red Spring

Response Scores



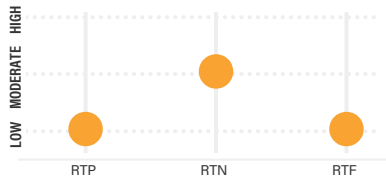
Characteristics

	Not Recommended		Excellent	
Standability	4	4	2	1
Fusarium Head Blight	4	3	1	1
Test Weight	4	2	1	1
Protein	4	2	1	1

- Best-suited for eastern Mont. through the Dakotas into northwestern Minn.
- Very good test weight; protein is an improvement over CP3888, similar to CP3616 and CP3530
- Medium height with good standability
- Low response to population; moderate response to nitrogen

CROPLAN CP3910
Hard Red Spring

Response Scores



Characteristics

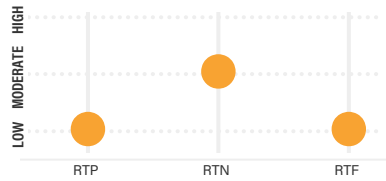
	Not Recommended		Excellent	
Standability	4	3	1	1
Fusarium Head Blight	4	3	1	1
Test Weight	4	3	1	1
Protein	4	3	1	1

- Top-end yield potential and acceptable protein rating
- Best performance on moderate- to higher-yielding ground
- Recommend moderate planting populations
- Medium-tall variety with very good standability

NEW

CROPLAN CP3903
Hard Red Spring

Response Scores



Characteristics

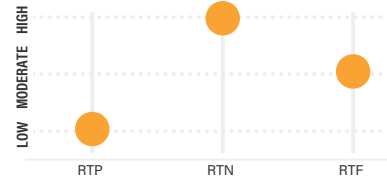
	Not Recommended		Excellent	
Standability	4	2	1	1
Fusarium Head Blight	4	2	1	1
Test Weight	4	2	1	1
Protein	4	2	1	1

- Excellent yield potential balanced with strong protein
- Best performance is on highly productive ground; performs well across management styles
- Shorter plant type with very good standability
- Lower response to population; moderate response to nitrogen, consider split N applications

NEW

CROPLAN CP3055
Hard Red Spring

Response Scores



Characteristics

	Not Recommended		Excellent	
Standability	4	4	1	1
Fusarium Head Blight	4	2	1	1
Test Weight	4	1	1	1
Protein	4	1	1	1

- Genetics new to the CROPLAN® lineup and the industry
- Extremely high yield potential with acceptable protein rating
- Strong disease package on a very large plant type; extremely large flag leaf
- High response to increased nitrogen; a great candidate for split-applications; very strong standability

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.

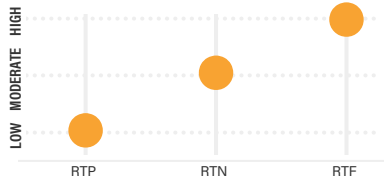
NEW



CP3099A

Hard Red Spring

Response Scores



Characteristics

	Not Recommended			Excellent	
Standability					1
Fusarium Head Blight				2	
Test Weight			3		
Protein	5				

- Genetics new to the CROPLAN® lineup and the industry; awnless style variety
- Excellent yield potential; lower protein
- Strong disease package; sturdy plant type; large flag leaf allows for high yield opportunity
- Excellent forage/dual-purpose potential as silage or dry hay

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	Days to Heading	Days to Maturity	Height	Standability	Test Weight	Protein	Baking Quality	Response to Population [RTP]	Shatter	Response to Nitrogen [RNP]	Response to Fungicide [RFN]	Placement on Irrigation	Fusarium Head Blight	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	Bacterial Leaf Streak	Wheat Stem Sawfly	
CP3419	Hard Red	58	85	M	1	3	4	4	4	4	H	H	L	1	2	3	1	1	2	5	N/A
CP3530	Hard Red	57	87	T	4	3	2	3	2	3	L	M	H	4	2	2	1	3	2	3	N/A
CP3915	Hard Red	55	86	M	2	2	2	2	2	2	L	H	L	1	3	3	2	N/A	3	1	3
CP3910	Hard Red	54	85	M	3	3	3	2	2	2	L	M	L	3	3	3	2	3	3	4	N/A
NEW CP3903	Hard Red	55	85	M	2	2	2	3	3	2	L	M	L	1	2	3	1	1	2	3	N/A
NEW CP3055	Hard Red	57	92	T	1	4	4	N/A	N/A	2	L	H	M	1	2	N/A	N/A	N/A	2	1	N/A
NEW CP3099A	Hard Red	57	92	T	1	3	5	N/A	N/A	2	L	M	H	1	2	N/A	N/A	N/A	2	1	N/A

KEY

Scale

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

RTP/RNM/RFN 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 _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

HARD RED WINTER WHEAT



Built tough to handle whatever comes your way.

Growing hard red winter wheat is not for the faint of heart. Good thing the varieties offered by CROPLAN® seed are built to handle the rugged conditions found in the Central Plains Wheat Belt. As an innovator with a 20-year history in this space, you can count on CROPLAN® seed as the solid constant in an often-chaotic hard red winter wheat marketplace. We're credible. We're innovative. And the quality of our seed performance is backed by solid data.

KEY TAKEAWAYS

- 1 Apply nitrogen strategically throughout the season.
- 2 Plant at the right population for optimal varietal performance.
- 3 Know your variety's response-to-fungicide score and manage that variety accordingly.

A NEW SYSTEM FOR ANNUAL GRASS WEED CONTROLS

CROPLAN® seed is pleased to introduce the CoAXium® Wheat Production System, which combines a patented herbicide-tolerant trait, elite varieties, a new herbicide brand (Aggressor®) and industry stewardship. Aggressor® herbicides provide effective, consistent, broad-spectrum control of problem grasses including *Bromus* species, feral rye, jointed goatgrass, wild oats and volunteer cereals. Aggressor® herbicides provide control of tough winter and spring annual grassy weeds, including Group 2-resistant biotypes (ALS inhibitors).



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 CHART¹

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%

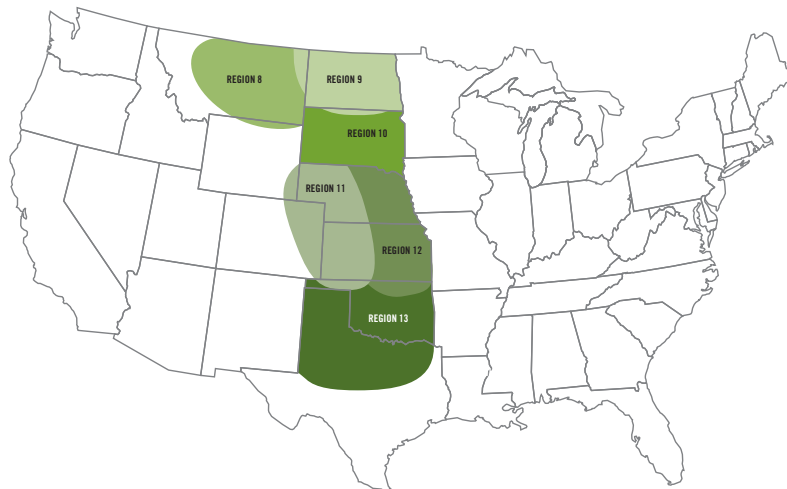
Survivability: 10%

Total stand loss: 15%

- ① MILLION SEEDS PER ACRE
- ② PLANTS PER ACRE
- ③ PLANTS PER SQUARE FOOT

TOTAL PLANTING SEED ①	SEED SIZE: SEEDS PER POUND						FINAL STAND ②	PLANTS/SQ FT ③
	PURE LIVE SEED ①	11,000	12,000	13,000	14,000	15,000		
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

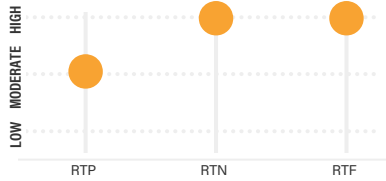
SEEDING RATE (LBS/A)



1. 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 CP7909**

Hard Red Winter

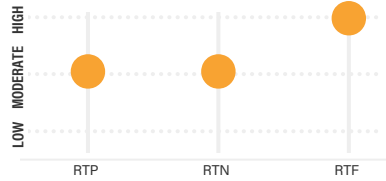
Response Scores**Characteristics**

	Not Recommended	Excellent
Standability	3	3
Fusarium Head Blight	4	3
Test Weight	3	3
Protein	3	1
Winterhardiness	3	1

- Excellent yield potential; 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

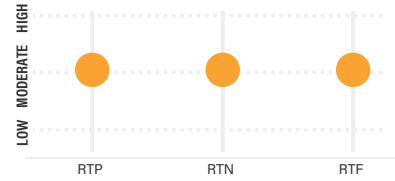
Response Scores**Characteristics**

	Not Recommended	Excellent
Standability	3	2
Fusarium Head Blight	3	3
Test Weight	3	2
Protein	3	3
Winterhardiness	3	2

- High yield potential matched with outstanding disease package
- Excellent standability; allows for pushing 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

CROPLAN CP7017AX

Hard Red Winter

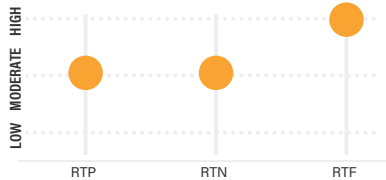
Response Scores**Characteristics**

	Not Recommended	Excellent
Standability	3	2
Fusarium Head Blight	3	1
Test Weight	4	3
Protein	3	3
Winterhardiness	3	1

- Strong yield potential with ability to handle stress; new CoAXium® wheat variety
- Strong tolerance to drought and acid soils; resistant to soilborne mosaic virus
- Medium maturity CoAXium® wheat variety with broad adaptability
- Use fungicide to manage in areas with history of leaf rust

NEW**CROPLAN CP7050AX**

Hard Red Winter

Response Scores**Characteristics**

	Not Recommended	Excellent
Standability	3	2
Fusarium Head Blight	3	2
Test Weight	3	2
Protein	3	2
Winterhardiness	3	3

- Excellent yield potential; early-maturing CoAXium® wheat variety
- Strong straw and test weight; tolerates acid soils; resistant to stripe rust and soilborne mosaic virus
- Better-suited for good dryland management or irrigated acres
- 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	Standability	Seed Size Range (Seeds/Lb)	Amins	Response to Population [RTp] 3	Response to Nitrogen [RTN] 3	Response to Fungicide [RTF] 3	Protein	Leaf Rust	Stripe Rust	Powdery Mildew	Septoria Leaf Resistance	Stagonospora Blume Blotch	Leaf Disease	Barley Yellow Dwarf	Fusarium Head Blight	Hessian Fly Resistance	Placement on Irrigation		
CONVENTIONAL WHEAT																							
CP7909	Hard Red	8, 10, 11, 13	3	MT	3	3	Y	N/A	1	M	H	H	1	3	4	N/A	N/A	2	N/A	N/A	4	N/A	1
CP7869	Hard Red	11, 12, 13	4	M	2	2	Y	N/A	2	M	M	H	3	1	1	N/A	N/A	1	N/A	N/A	3	N/A	1
NEW CP7010	Hard Red	11, 12, 13	4	MT	1	2	Y	N/A	3	M	M	H	2	2	3	4	N/A	N/A	3	N/A	3	3	1
COAXIUM® WHEAT																							
NEW CP7017AX	Hard Red	08, 10, 11, 12, 13	3	M	4	2	Y	N/A	1	M	M	M	3	3	2	N/A	N/A	2	N/A	N/A	1	N/A	2
NEW CP7050AX	Hard Red	10, 12, 13	1	M	2	2	Y	N/A	3	M	M	H	2	2	1	N/A	N/A	3	N/A	N/A	2	M/A	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.

1 Maturity

- 1 = Early
 5 = Late

2 Height

- 1 = Short
 5 = 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 _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

SOFT RED WINTER WHEAT



You don't get better yield by hoping for it.

If you grow soft red winter wheat, you know it's all about yield potential. At CROPLAN® seed, we have the Answer Plot® data to back up the performance of our soft red winter wheat varieties – disease-resistant racehorse varieties you can count on.

Each CROPLAN® soft red winter wheat variety has a response-to score, so you can choose the seed that'll help you achieve your yield goals. We're a legacy brand in the industry for notable soft red winter wheat performance. Let us help you reach your potential.

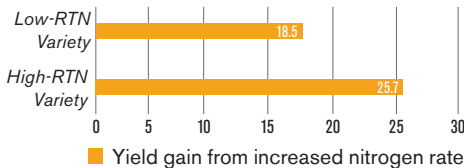
KEY TAKEAWAYS

- 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 score and manage that variety 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.

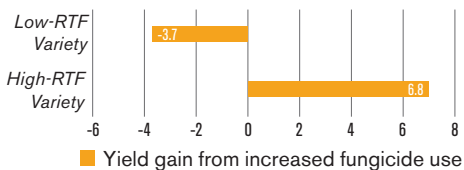
► RTN Yield Response Variance – 7.2 bu/A



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.

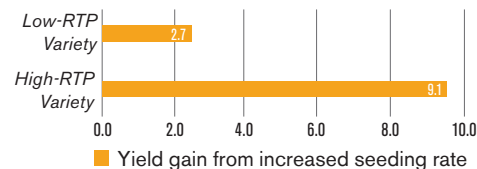
► RTF Yield Response Variance – 10.5 bu/A



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

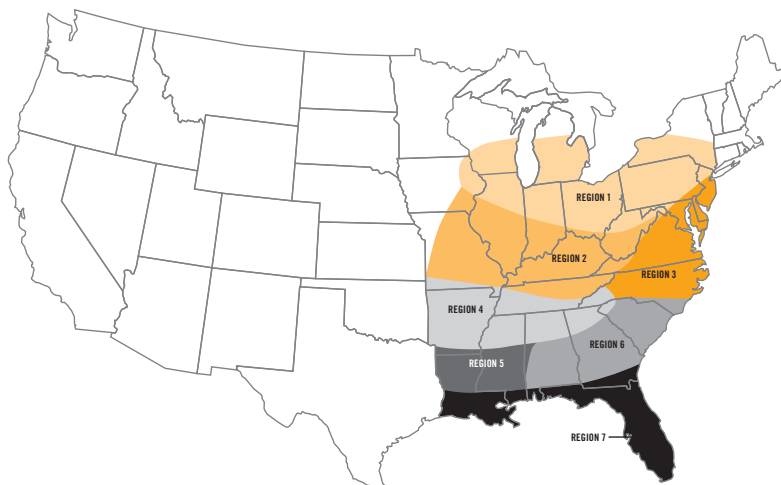
Example of how to use the chart:

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

TOTAL PLANTING SEED (1)	SEED SIZE: SEEDS PER POUND							FINAL STAND (2)	PLANTS/SQ FT (3)
	11,000	12,000	13,000	14,000	15,000	16,000	17,000		
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	



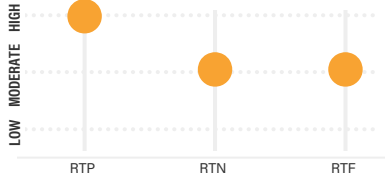
1. Response ranges show the importance of how varieties respond to each management practice to help ensure the highest yield potential. 2019 nationwide Answer Plot® data.

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

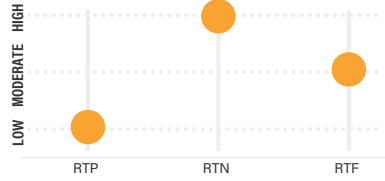
	Not Recommended			Excellent	
Standability	2	2	2	1	1
Fusarium Head Blight	2	2	2	2	2
Test Weight	2	2	3	2	2
Winterhardiness	2	2	2	2	2

- 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

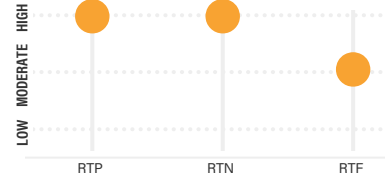
	Not Recommended			Excellent	
Standability	2	2	2	2	2
Fusarium Head Blight	2	2	2	2	1
Test Weight	2	2	2	2	1
Winterhardiness	2	2	2	2	2

- 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

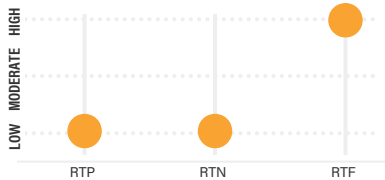
	Not Recommended			Excellent	
Standability	2	2	2	2	1
Fusarium Head Blight	2	2	3	2	2
Test Weight	2	2	3	2	2
Winterhardiness	2	2	2	2	1

- 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	2	2	2	2
Fusarium Head Blight	2	2	2	2	2
Test Weight	2	2	2	2	1
Winterhardiness	2	2	2	2	2

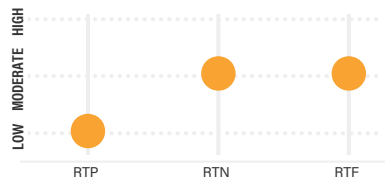
- High yield potential and excellent test weight
- Broad adaptation over a variety of soils and management regimes
- Native tolerance to fusarium head blight
- Smooth head and height make it a good straw choice

NEW

CROPLAN CP8081

Soft Red Winter

Response Scores



Characteristics

	Not Recommended			Excellent	
Standability	2	2	2	2	1
Fusarium Head Blight	2	2	2	2	2
Test Weight	2	2	2	2	2
Winterhardiness	2	2	2	2	2

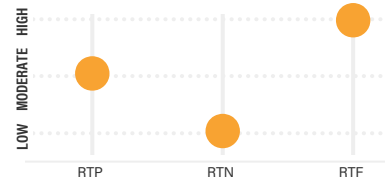
- Outstanding yield potential; broadly adapted over a variety of soils and management regimes
- Early-medium maturity with excellent winterhardiness; very good standability
- Native tolerance to fusarium head blight
- Excellent test weight; good broad-spectrum disease-resistance package

NEW

CROPLAN CP8022

Soft Red Winter

Response Scores



Characteristics

	Not Recommended			Excellent	
Standability	2	2	2	2	2
Fusarium Head Blight	2	2	2	2	1
Test Weight	2	2	2	2	2
Winterhardiness	2	2	2	2	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 tillage

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.



SOFT RED WINTER WHEAT



VARIETY	Wheat Class	Regions of Adaptation	Maturity 1	Height 2	Test Weight	Standardity	Seed Size Range (Seeds/Lb)	AMWS	Response to Population (RTT) 3	Winterhardness	Response to Nitrogen (RTN) 3	Response to Fungicide (RTF) 3	Leaf Rust	Septoria Leaf Rust Resistance	Powdery Mildew	Stripe Rust	Stagonospora Glume Blotch	Barley Yellow Dwarf	Fusarium Head Blight	Hessian Fly Resistance	Placement on Irrigation		
CP9606	Soft Red	1, 2, 3, 4	3	MS	3	1	Y	11,000-14,000	2	H	M	M	2	1	3	3	3	N/A	3	2	2	Biotype B, D, L, O	N/A
CP8550	Soft Red	1, 2, 3, 4	3	MT	1	2	Y	12,000-14,000	2	L	H	M	1	1	3	2	N/A	N/A	3	2	1	Biotype L	N/A
CP9415	Soft Red	1, 2, 3, 4	4	MS	3	1	Y	10,000-12,000	1	H	H	M	1	2	3	2	N/A	N/A	1	3	3	Biotype B, D, L, O	N/A
CP9203	Soft Red	1, 2	3	MS	1	2	N	10,000-13,000	2	L	L	H	2	1	5	4	N/A	N/A	2	2	2	Biotype L	N/A
NEW CP8081	Soft Red	1, 2, 3, 4	1	M	2	1	Y	11,000-14,000	2	L	M	M	1	2	4	2	N/A	N/A	2	1	2	Biotype B, D, L, O	N/A
NEW CP8022	Soft Red	1, 2, 3, 4	3	MS	2	2	Y	11,000-14,000	1	M	L	H	3	1	4	2	N/A	N/A	2	1	1	Native tol.	N/A

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 Maturity

- 1 = Early
- 5 = Late

2 Height

- 1 = Short
- 5 = Tall

3 RTP/RTM/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 _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

Product Name _____

Attributes _____

Placement _____

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

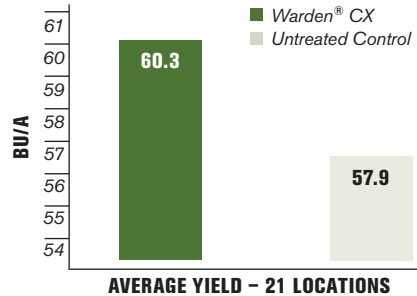
- Incorporates the active ingredient from Cruiser[®] insecticide, an industry standard for seed-applied insect protection, delivering the patented vigor effect (U.S. Patent number 6,753,296).
- Improves seed handling and flowability.

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[®] CX is a premier soybean seed treatment.



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 ROT

- *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.

SEED TREATMENTS

2 of 2



Fortivent® Plus

By WINFIELD UNITED

EARLY-SEASON INSECT AND DISEASE CONTROL WITH OPTIMIZED PLANT VIGOR

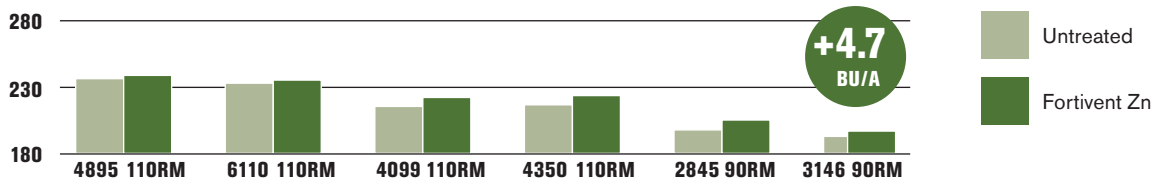
Fortivent® Plus seed treatment combines the early-season insect control of Poncho® VOTiVO® seed treatment, INTEGO® Solo fungicide for enhanced *Pythium* control and Fortivent Zn for early-season corn vigor. The Poncho® insecticide at a rate of 500 mg active ingredient combined with the nematode control 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® Signature hybrids come with Poncho® VOTiVO® seed treatment
- Provides enhanced *Pythium* control with INTEGO® Solo fungicide
- Includes Fortivent Zn for success in early-season growth and root development
- Includes 100% replant offering on all CROPLAN® Signature hybrids

YIELD ADVANTAGE

► Fortivent Zn – 2018 Answer Plot® Testing



Active Ingredients*	Rates
Insecticide	
Clothianidin	500
*Clothianidin	1,250
Base Fungicides (Acceleron® Seed Treatment)	
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 (INTEGO® Solo)	0.34 fl. oz./100 lbs. of seed
Nematicide	
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 the broadest 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 the broadest 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.
- VT Double PRO® RIB Complete® corn blend contains the first double-stacked trait with dual modes of action against aboveground insects and maximum protection against corn earworm. This extra protection helps increase yield potential while providing the simplicity and convenience of a single-bag refuge solution.
- DroughtGard® Hybrids provide farmers with a valuable tool for managing water-deficit risks.



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 the most 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.



TECHNOLOGY



THE TRULY SIMPLE REFUGE-IN-A-BAG SOLUTION

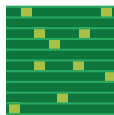
RIB Complete® is a single-bag refuge solution for farmers. With RIB Complete® corn blend, the refuge seed is distributed in the bag along with seeds containing B.t. traits, allowing farmers to plant an entire field with just one product. Farmers in the Corn Belt will no longer need to plant a structured refuge when they use RIB Complete® corn blend products.



20% refuge



5% refuge



5% refuge
in the bag



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.¹
- 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.



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.



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.

1. 2012 Monsanto GroundBreaker plot trial based on approximately 250 growers in the western Great Plains.

TECHNOLOGY



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.

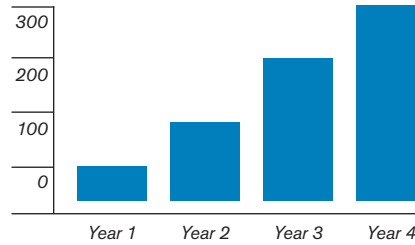
Research demonstrates a significant yield increase with Roundup Ready 2 Yield® soybeans over Roundup Ready® soybeans, with the same simple, dependable weed control as the Roundup Ready® Soybean System.¹

► 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.²

CUMULATIVE NUMBER OF ROUNDUP READY 2 YIELD® VARIETIES



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).

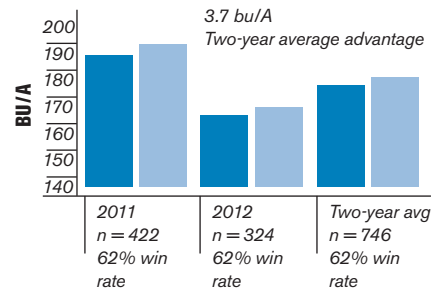
Disease-Fighting Protection: Excellent control of soilborne and seedborne disease, including *Fusarium*, *Rhizoctonia* and *Pythium*.

► 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



- Acceleron® Seed Applied Solutions for corn
- Acceleron® Seed Applied Solutions for corn with Poncho®/VOTiVO®

Source: 2011 and 2012 Internal Monsanto Commercial Field Trials. Individual results may vary.

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.

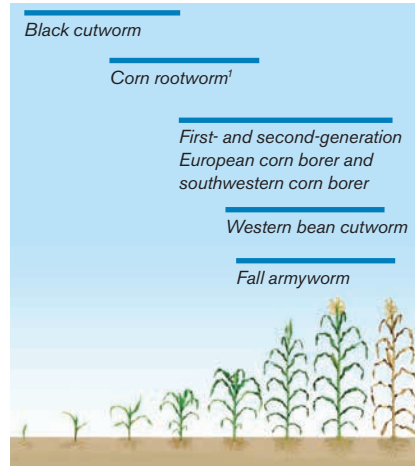
Herculex® XTRA is stacked with LibertyLink® technology, offering the ability to use a cost-effective, alternative weed-control option such as Liberty® herbicide or a conventional herbicide program. Herculex® XTRA is an effective corn insect management trait option for greater profit potential.



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



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.

1. Corn rootworm is only controlled with Herculex® XTRA *Insect Protection*. Follow IRM, grain marketing and all other stewardship practices and pesticide label directions.

CROP AND GRAIN MARKETING STEWARDSHIP

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

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 to download the latest Dow AgroSciences Corn Product Use Guide.

TECHNOLOGY



BREAKTHROUGH AGRISURE® TRAIT TECHNOLOGY

Agrisure® traits deliver corn insect control, water optimization technology and outstanding herbicide tolerance to optimize the yield potential of elite hybrids.

AGRISURE 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.

AGRISURE ARTESIAN® ADVANTAGE



Elkville, Ill., 2012

AGRISURE VIPTERA®

- More control of more insects for more yield potential.

Agrisure Viptera® trait stacks provide 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, the Agrisure Viptera® trait offers better crop stands and lower levels of disease, resulting in increased yield and profit potential.

► Agrisure Viptera® 3111

Above- and belowground insect control.

► Agrisure Viptera® 3220 E-Z Refuge®

Dual modes of action against aboveground insects, with a 5% single-bag refuge.

Trait stacks containing the Agrisure Viptera® trait are also available in combination with Agrisure Artesian® technology for maximized yield in water-stressed environments.

AGRISURE VIPTERA® TRAIT PERFORMANCE ON WESTERN BEAN CUTWORM¹



Hybrid with the Agrisure Viptera® trait

Hybrid without the Agrisure Viptera® trait

1. Agrisure Viptera® on western bean cutworm vs. competitive hybrid. Sterling, Colo., 2014.

TECHNOLOGY



ACHIEVE REAL YIELDS WITH THE LIBERTYLINK® SYSTEM

The LibertyLink® trait and Liberty® herbicide offer a broad-spectrum weed-control program and an effective resistance-management tool.

Farmers can preserve the value of glyphosate-tolerant crops by rotating them to the LibertyLink® trait and Liberty® herbicide. This efficient system is the only alternative crop technology available that maintains the simplicity of glyphosate-tolerant crop systems while controlling a wide spectrum of broadleaf weeds and grasses, including weeds resistant to glyphosate and other herbicide classes.

Liberty®

LIBERTY® HERBICIDE

Liberty® herbicide delivers superior weed control across enabled trait systems, with greater application flexibility, unmatched convenience and no known resistance in U.S. row crops. Liberty® provides:

- 98% control of a broad spectrum of broadleaf weeds and grasses¹
- Excellent control of resistant weeds, including key weeds like Palmer amaranth, waterhemp and marehail
- A unique herbicide site of action (Group 10), unlike any other active ingredient on the market²
- Plus, Liberty® is backed by the Liberty® Weed Control Guarantee

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.

LIBERTYLINK® SYSTEM



► LibertyLink® Soybeans¹

LibertyLink® soybeans provide \$33+/A more profit potential. With the 2+ bushel advantage over Asgrow® Roundup Ready 2 Xtend® soybeans, there is an \$18+/A profit potential on yield coupled with a \$15+/A potential in lower system input costs. That is smart math. The LibertyLink® system is simply the better solution for stronger yield and superior weed control.

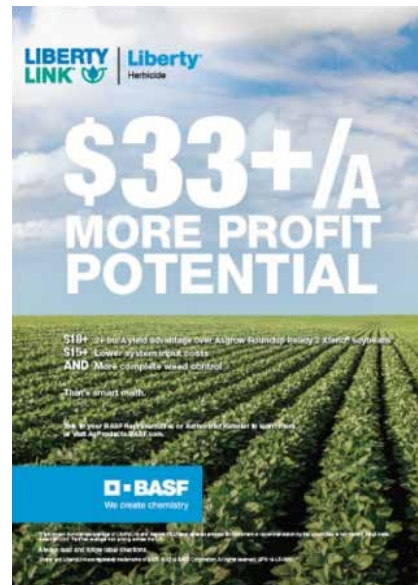
► LibertyLink® Corn

The LibertyLink® system enables growers to use powerful Liberty®, the only working nonselective herbicide that is effective on tough-to-control grasses and broadleaf weeds, for over-the-top use on over 50 million LibertyLink®-enabled corn hybrid acres with Herculex®, Genuity® SmartStax® and Agrisure® hybrids with corn-borer protection.² The LibertyLink® system is simply the better solution built upon high-performing genetics and superior weed control for a stronger yield.

1. Results based on five years of trials where Liberty® herbicide was applied according to S.T.O.P. Weeds with Liberty® herbicide guidelines and as part of a complete weed control program where an effective residual product was used, followed by Liberty® herbicide. Endorsement or recommendation by the universities is not implied. Seed costs based on survey of average trait pricing across the U.S. Herbicide costs based on 2017 grower pricing. No results guaranteed. Results may vary year to year and depending on rate of application, use, yield, geography, seed pricing and herbicide application costs.

2. The active ingredient in Liberty® is a Group 10 herbicide, which is the only broad-spectrum herbicide that effectively controls grasses and broadleaf weeds, and it has no known resistance in U.S. broadacre crops.

Seeds containing the LibertyLink® trait may be protected under one or more U.S. patents and may be planted only to produce one commercial crop in a single season, and only after signing a BASF Grower Technology Agreement. It is illegal to save seeds containing the LibertyLink® trait for use as planting seed or for transfer to others for use as planting seed.



TECHNOLOGY



CALIBRATE® TECHNOLOGIES

KNOW THE QUALITY OF YOUR FORAGES

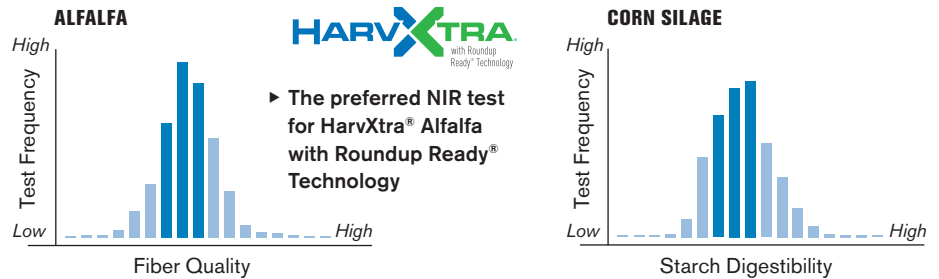
Variation in any dairy feeding program can cause underperformance: lost milk production, lower feed efficiency and lower profit potential. Calibrate® fiber and starch quality tests are designed to reduce the impact of nutrition variation in feedstuffs and allow more value to be obtained from forages, 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.

For more information, contact your local WinField United representative or go to 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 retaining 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 preserve 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).

INOCULANTS

- **Kem LAC[®] HD Bacterial Inoculant**
A blend of three lactic-acid-producing bacteria to rapidly drop the pH of ensiled crops. Applied to all ensiled crops before storage, Kem LAC[®] HD helps speed fermentation for better dry matter retention.
- **Kem LAC[®] LB 500 Bacterial Inoculant**
This combination product contains two strains of bacteria, one for producing high levels of lactic acid and a second to produce acetic acid. The result is better aerobic stability of the TMR during feedout.

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 both acid-based and inoculant-based solutions. The Kem LAC[®] line of silage inoculants is designed to work on a wide variety of forages. 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- and bacterial-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 or 515-559-5304. Additional product details are available online at kemin.com/feedquality.

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[®]™ Trademarks of Kemin Industries, Inc., U.S.A. Certain statements may not be applicable in all geographical regions. Product labeling and associated claims may differ based upon government requirements.

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.

THINK BEFORE YOU USE BIN-RUN SEED

► 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 varieties and Roundup Ready 2 Xtend® soybean varieties typically have a higher yield opportunity than Roundup Ready® soybean varieties.¹

► 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 commingled 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 for quality and meets U.S. Federal Seed Act requirements
- Free of seedborne diseases
- Properly stored and conditioned

SOYBEAN AND CANOLA PIRACY

Seed containing a patented trait can only be used to plant a single commercial crop from which seed cannot be saved and replanted. Examples of seed containing a patented trait include but are not limited to Roundup Ready 2 Yield® soybeans, Roundup Ready 2 Xtend® soybeans, Roundup Ready® spring canola and Roundup Ready® winter canola. Additional information and limitations on the use of these products are provided in the Monsanto Technology Stewardship Agreement and the Monsanto Technology Use Guide. U.S. patents for Monsanto technologies can be found at the following webpage: <http://www.monsantotechnology.com>.

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, Monsanto Technology LLC, Syngenta Crop Protection and Dow AgroSciences have developed IRM guidelines that must be incorporated by everyone purchasing and planting insect-protected crops.

CORN REFUGE OPTIONS

The refuge on each farm may be arranged in a number of configurations. These options offer the flexibility to easily incorporate an effective corn refuge into farm operations. Options include the following:

- Plant a corn refuge as a block within a traited cornfield.
- Split the planter to alternate at least four consecutive rows of corn refuge with traited corn.
- Plant field perimeters or end rows to a corn refuge.
- See product tag for specific refuge configurations.

1. 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.

TECHNOLOGY



CORN INSECT RESISTANCE MANAGEMENT OVERVIEW¹

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

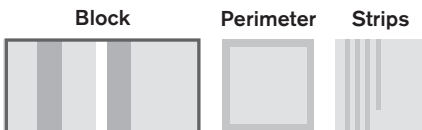
- 20% required for some B.t. products, such as VT Triple PRO[®] (20 acres of refuge for every 80 acres of B.t.)
- 5% only for SmartStax[®] and VT Double PRO[®] (5 acres of refuge for every 95 acres of B.t.)

► The Cotton-Growing Area

- 20% only for SmartStax[®], VT Triple PRO[®] 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.



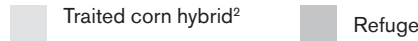
3 REFUGE PLANTING

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.

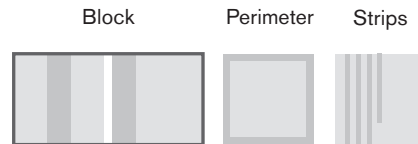
4 TREATMENT

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



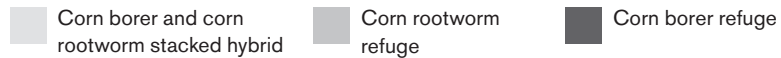
Minimum of four rows

► 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

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.

TECHNOLOGY



REFUGE REQUIREMENTS FOR BIOTECH CORN PRODUCTS^{1, 2}

	% NON-B.T. REFUGE	CONFIGURATIONS	REFUGE LOCATION
SMARTSTAX[®] RIB COMPLETE[®] CORN BLEND³	5% in the bag	–	No separate planted refuge is required
VT DOUBLE PRO[®] RIB COMPLETE[®] CORN BLEND	5% in the bag	–	No separate planted refuge is required
DROUGHTGARD[®] HYBRIDS WITH VT DOUBLE PRO[®] RIB COMPLETE[®] CORN BLEND	5% in the bag	–	No separate planted refuge is required
SMARTSTAX[®] CORN³	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
VT DOUBLE PRO[®] CORN	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
AGRISURE VIPTERA[®]	20% corn-growing areas	Block, Perimeter, Strips, Adjacent	Within or adjacent to Agrisure Viptera [®] field; if adjacent, may be separated by a road, path, ditch, etc., but not another field
AGRISURE[®] 3000GT, AGRISURE[®] CB/LL/RW	20% corn-growing areas; 50% cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within or adjacent to Agrisure [®] 3000GT or Agrisure [®] CB/LL/RW field; if adjacent, may be separated by a road, path, ditch, etc., but not another field
AGRISURE[®] GT/CB/LL, AGRISURE[®] CB/LL	20% corn-growing areas; 50% cotton-growing areas	Block, Perimeter, Strips, Adjacent	Within, adjacent to or within 1/2 mile from Agrisure [®] GT/CB/LL or Agrisure [®] CB/LL field
HERCULEX[®] XTRA INSECT PROTECTION	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
HERCULEX[®] I INSECT PROTECTION	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[®], 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.

EXCELLENCE THROUGH STEWARDSHIP

Monsanto Company and Forage Genetics International, LLC are members of Excellence Through Stewardship® (ETS). Their respective products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with their respective Policies for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Only 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.

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, Monsanto Technology LLC, 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.

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. SmartStax® RIB Complete® corn blend is not allowed to be sold for planting in the Cotton-Growing Area.

See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.

In DroughtGard® Hybrids with RIB Complete® corn blend, the refuge seed may not always contain DroughtGard® Hybrids trait. 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. SmartStax® RIB Complete® corn blend is not allowed to be sold for planting in the Cotton-Growing Area. See the IRM/Grower Guide for additional information.

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.

B.t. products may not yet be registered in all states. Check with your representative for the registration status in your state.

PLANTING REFUGE, PRESERVING TECHNOLOGY

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



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 Monsanto Technology/Stewardship Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation 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.

ALWAYS READ AND FOLLOW DIRECTIONS FOR USE ON PESTICIDE LABELING. 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 and cotton 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 and cotton with XtendFlex[®] Technology.

Roundup Ready 2 Xtend[®] soybeans and cotton with Xtend Flex[®] Technology contain genes that confer tolerance to glyphosate and dicamba. Cotton with Xtend Flex[®] Technology also contains genes that contain glufosinate. Nonselective herbicides, glyphosate, glufosinate and dicamba will kill crops that are not specifically tolerant to that herbicide. Contact your Monsanto dealer or refer to Monsanto's Technology Use Guide for recommended weed control programs.

Roundup Ready[®] Technology contains genes that confer tolerance to glyphosate, an active ingredient in Roundup[®] brand agricultural herbicides. Agricultural herbicides containing glyphosate will kill crops that are not tolerant to glyphosate.

COTTON

Bollgard[®] 3 XtendFlex[®] cotton and Bollgard II[®] XtendFlex[®] cotton contain genes that confer tolerance to glyphosate, dicamba and glufosinate. 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 Monsanto dealer or refer to Monsanto's Technology Use Guide for recommended weed control programs. Insect control technology provided by Vip3A is utilized under license from Syngenta Crop Protection AG.

IMPORTANT NOTICE CONCERNING ROUNDUP READY XTEND[®] CROP SYSTEM AND XTENDIMAX[®] HERBICIDE WITH VAPORGRIP[®] TECHNOLOGY

This notice updates or amends the information contained in this publication.

A 9th Circuit court ruling dated June 3rd, 2020, vacated the registration for XtendiMax[®] herbicide with VaporGrip[®] technology and certain other low-volatility dicamba products. The EPA is currently reviewing Bayer's submission in support of a new registration for XtendiMax[®] herbicide for the 2021 season and beyond. Bayer's submission included multiple new data and analyses, including by independent academics, which will allow EPA to make a science-based decision on a new XtendiMax[®] herbicide registration. Visit Bayer's XtendiMax[®] herbicide updates page for the latest information on the current registration status of XtendiMax[®] herbicide at

www.roundupreadyxtend.com/xtendimaxupdates

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 from which seed cannot be saved and replanted. Examples of seed containing a patented trait include but are not limited to Genuity[®] Roundup Ready 2 Yield[®] soybeans, Roundup Ready 2 Xtend[®] soybeans, Genuity[®] Roundup Ready[®] spring canola and Genuity[®] Roundup Ready[®] winter canola. Additional information and limitations on the use of these products are provided in the Monsanto Technology Stewardship Agreement and the Monsanto Technology Use Guide. U.S. patents for Monsanto 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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