

### ThaNK you for reading

Welcome to the 2024 NK® Seeds Eastern Canada Seed Guide.

On behalf of the NK Seeds Canada Team, I would like to take a moment to thank you for taking the time to read our guide. Your success starts with selecting the right seed, and we sincerely appreciate you considering NK.

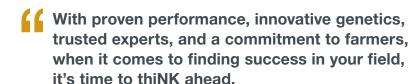
In the pages that follow you'll learn about NK corn and soybeans, including:

- What's new for the 2024 season
- The value of our genetics and trait technology
- What you can expect to see in your field when you grow NK

Plus, explore the Syngenta Seedcare™ offerings available to help protect your crop against insects and diseases.

We're here to help you grow your best corn and soybean crop on every acre.

Farmer success is why we exist. It's the driver behind every investment we make and every product we introduce. For corn, this means turning a decade of research and development into a proven portfolio that earns its every acre. For soybeans, it means bringing our high-performing, elite genetics with the traits farmers need to market faster. And for the NK Team, it means harnessing the speed, precision, and power of the Syngenta R&D engine to create a more personal seed experience that contributes directly to your success for the 2024 season.



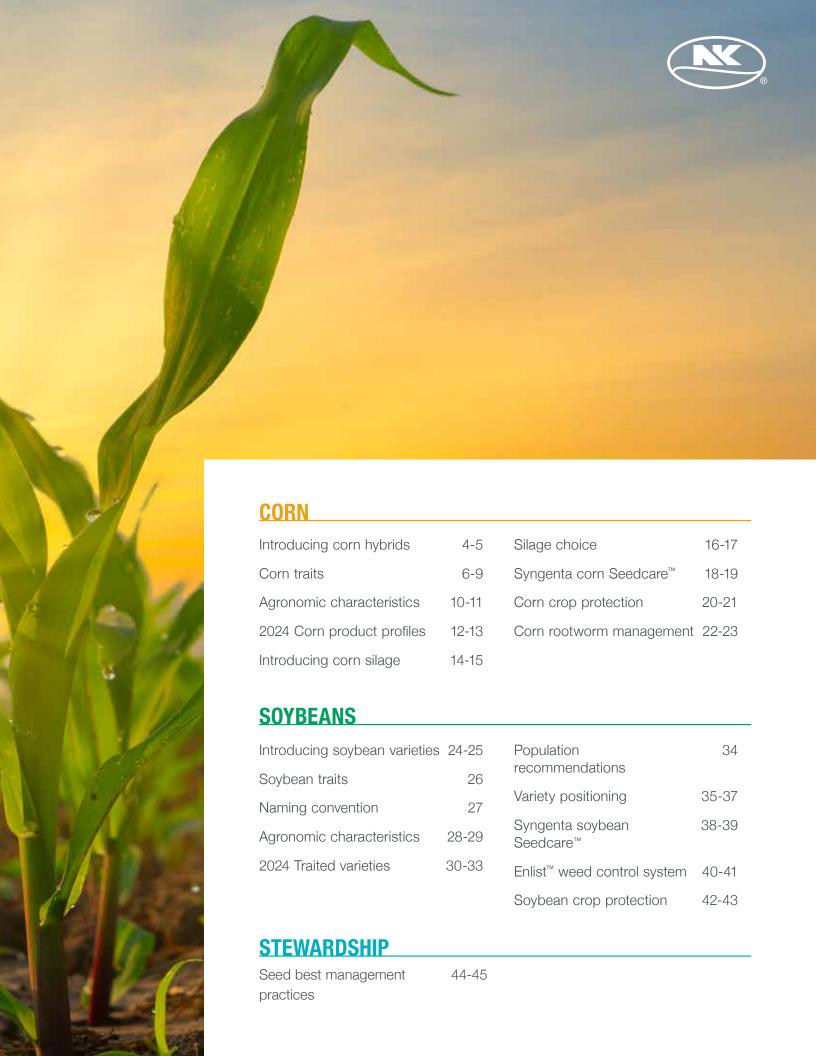
Let us show you why we're worth your acres.

Here's to a successful season together.

Best Regards,

Dan Wright
Head of Seeds, Canada











# A robust lineup of high performing hybrids ready for your field.

Proven performance and advanced genetics mean you can feel confident growing NK corn this season. Built on the corn trait platform from Syngenta, our hybrids feature the most comprehensive above and above & below ground insect protection package available in North America. Plus, the size and strength of our corn portfolio helps us find the right fit for every field. When it comes to success on your farm, it's time to thiNK ahead.

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### Corn trait stack names

Our corn trait stacks now have simplified names that leverage the brand equity already established in the market. Designators on hybrid names have also been simplified. This naming system was created to help you conveniently find the agronomic characteristics you need and feel confident in the seed you're putting in the ground.

Here is a detailed breakdown of the updated trait stack names and how to find your favourite NK hybrids:

	Non-Viptera	Viptera™
Above Ground	Agrisure Above  AA (Existing 3120)	Viptera  V (Existing 3220)
Above-Below Ground	Duracade⁻  D (Existing 5122)	Duracade Viptera DV (Existing 5222)

ABO	ABOVE GROUND TRAIT STACKS													
Simplified Trait Stack Brand Name	Designator	Former Products												
Agrisure® Above	AA	Agrisure® 3120 E-Z Refuge®												
Viptera™	V	Agrisure Viptera® 3220 E-Z Refuge												

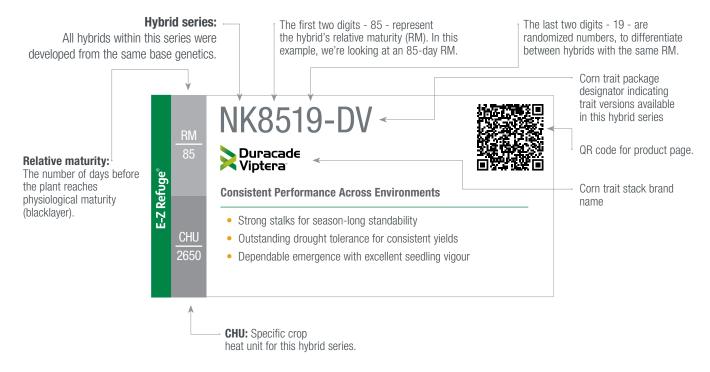
ABOVE &	BELOW GROUND TRAI	T STACKS
Simplified Trait Stack Brand Name	Designator	Former Products
Duracade™	D	Agrisure Duracade® 5122 E-Z Refuge
DuracadeViptera™	DV	Agrisure Duracade® 5222 E-Z Refuge

Moving to a short, simple, and straightforward naming system allowed us to clearly communicate the benefits of each trait stack. Our system uses as few words or letters as possible so you can easily spot the products you need, without worrying about numbers.

You may notice that the Artesian™ and E-Z Refuge names are no longer immediately visible. The Artesian allele discovery, allele incorporation into elite germplasm, product evaluation, and overall Artesian brand concept has continued. That said, the simplified stack designators do not contain an 'A' to indicate that stack is also Artesian. Instead, products are labeled as Artesian in areas such as agronomic characteristics and on the product bag tags. Integrated refuge products have become the industry standard and are expected. The stack names will not include the specific words E-Z Refuge but will still be noted on bag tags.



### **Description key**



### Corn traits stack characteristics:

### **Above-ground insect control:**



- E-Z Refuge
- Corn borer control
- Broad lepidopteran suppression
- Glyphosate and Glufosinate herbicide tolerance

### Above- and below-ground insect control:



- E-Z Refuge
- · Corn root worm control
- Corn borer control
- Broad lepidopteran supression
- Glyphosate and Glufosinate herbicide tolerance

### Viptera

- E-Z Refuge
- Corn borer control
- Broad lepidopteran control
- · Western bean cutworm
- Glyphosate and Glufosinate herbicide tolerance

### Duracade Viptera

- E-Z Refuge
- Corn root worm control
- Corn borer control
- Broad lepidopteran control
- Western bean cutworm
- · Glyphosate and Glufosinate herbicide tolerance

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### **Corn traits**

Syngenta is uniquely positioned in the market as the only company that offers a complete trait package of insect control technologies, providing comprehensive, season-long control of more corn pests.

		Above-ground insect	protection	Above- and below-gro	ound insect protection
Heat units	Relative maturity	Agrisure Above	Viptera •	Duracade:	Duracade Viptera
≤ 2550	≤ 82		NK7837-V NK8005-V NK8204-V		
2600-2700	83 - 87			NK8618-D	NK8519-DV
2725-2825	88 - 93			NK8920-D NK9347-D	NK9023-DV NK9175-DV
2850-2950	94 - 97		NK9535-V		NK9653-DV
2975-3400	99 - 104	NK0007-AA		NK9991-D NK0243-D <b>NEW!</b> NK0696-D	NK0472-DV

### Premium insect control

With Syngenta trait stacks, you get built-in control of yield-robbing pests.

#### Above-ground

### Agrisure Above

Agrisure® Above trait stack provides two modes of action against above-ground pests while also providing glyphosate tolerance.

### Above- and below-ground



Duracade  $^{\text{TM}}$  features a unique mode of action that controls corn rootworm differently than other traits on the market and acts as an excellent foundation for an effective corn rootworm control strategy.



The Viptera™ trait is the only trait currently available that effectively controls western bean cutworm and also protects the crop from key above-ground insects like corn earworm, cutworm and armyworm.



DurcadeViptera™ features a unique mode of action that controls corn rootworm differently than other traits on the market and it also has Viptera built-in for effective control of western bean cutworm and other key above-ground insects like corn earworm, black cutworm and armyworm.

### **Drought protection**

Many corn trait stacks are also available in hybrids with Artesian™ technology to maximize yield when it rains and increase yield when it doesn't.



Artesian includes scientifically selected genes for water optimization, raising the bar for drought tolerance versus standard hybrids. Growers can count on Artesian to maximize yield when it rains and increase yield by up to 15 percent when it doesn't.



### Control more insects for increased yield potential

### Viptera controls a broad spectrum of above-ground pests

	Viptera	Optimum <sup>®</sup> AcreMax <sup>®</sup>	Optimum® AcreMax® Leptra™ (AML)	Genuity® VT Double PRO® RIB Complete® (VT2P)	Trecepta <sup>®</sup> RIB Complete <sup>®</sup> (TRE)
Corn earworm	***	**	***	***	***
Black cutworm	***	***	***	*	***
Fall armyworm	****	*	***	***	***
Western bean cutworm	****	*	****	*	***
Common stalk borer	***	*	***	*	***
European corn borer	****	****	***	***	***

### Duracade trait stacks provide comprehensive above-and below-ground insect control

	Duracade Viptera	Duracade	Optimum® AcreMax® XTreme (AMXT)	Qrome <sup>®</sup> (Q)	Genuity® SmartStax® RIB Complete® (SS)
Corn earworm	****	**	**	**	***
Black cutworm	***	***	***	***	***
Fall armyworm	***	*	*	*	***
Western bean cutworm	***	*	*	*	*
Common stalk borer	***	*	*	*	*
European corn borer	***	***	***	***	***
Western and northern corn rootworm	***	***	***	***	***

**Legend** - None, \* Some, \*\* Good, \*\*\* Very good, \*\*\*\* Excellent

If you are concerned about trait-resistant insects, please contact your NK Rep to discuss which trait is right for you.

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(CO) R \ 2024 HYBRIDS \_\_\_\_\_\_\_

2024 HYBRIDS



### **Agronomic characteristics**

	PRODUCT						MATU INFORM	JRITY MATION				AGRO	NOMIC	/ PLAN	T CHAR	ACTER	ISTICS			
Hybrid	Trait	Artesian	E-Z-1 Refuge	LibertyLink®	Glyphosate tolerance	Relative maturity (RM)	CHU	RM to silk	RM to blacklayer	Emergence	Seedling vigour	Plant height	Ear height	Staygreen	Drydown	Test weight	Root strength	Stalk strength	Ear flex	
NK7837	V		1	1	1	78	2350	78	78	3	3	4	3	2	3	2	3	2	SF	
NK8005	V	✓	1	1	1	80	2400	78	77	3	3	5	4	1	4	2	3	3	SF	
NK8204	V		1	1	1	82	2550	84	82	3	2	4	4	4	2	4	2	4	SF	
NK8519	DV		1	1	1	85	2650	86	85	3	2	3	4	3	3	3	4	3	SF	
NK8618	D	1	1	1	1	86	2650	84	85	3	3	3	5	3	4	2	3	2	SF	
NK8920	D		1	1	1	89	2725	89	88	2	2	3	4	2	3	3	3	3	SF	
NK9023	DV		1	1	1	90	2725	91	90	3	3	2	2	3	3	3	4	3	SD	
NK9175	DV	✓	1	1	1	91	2750	91	91	2	2	3	4	4	3	3	5	4	SD	
NK9347	D		1	1	✓	93	2775	91	92	3	3	4	5	4	3	5	3	2	SF	
NK9535	V		1	1	1	95	2850	95	95	3	3	3	4	2	3	2	3	2	F	
NK9653	DV		1	1	1	96	2875	96	95	2	2	2	2	3	3	2	3	2	SF	
NK9991	D		1	1	1	99	2975	98	100	3	2	3	3	2	3	3	2	3	SF	
NK0007	AA	1	1	1	1	100	3000	99	100	2	2	5	5	2	3	3	2	3	SD	
NK0243	D		1	/	1	102	3075	101	102	3	3	5	5	1	3	5	3	2	F	
NK0472	DV		1	1	1	104	3100	103	100	2	2	3	4	3	4	2	2	2	SD	
NK0696 <b>NEW</b>	D		1	1	1	106	3175	107	107	2	2	5	4	3	3	4	2	3	SD	

	SEE	DING F	RATE		ADAPT YIE	ATION T LD ENVI	ATION TO SOIL TYPES/ LD ENVIRONMENTS			DISEA	SE TO	LERA	NCE		SILAGE RATINGS							
-20%	-10%	0	+10%	+20%	Drought prone	Highly productive	Variable soils	Poorly drained	Grey leaf spot	Northern com leaf blight	Anthracnose stalk rot	Fusarium crown rot	Eyespot	Tar spot	Yield (ton/ac)	NDF Dig. 30Hr (%)	Starch (% of DM)	NEL (Mcal/lb)	Milk (lbs/ton)	Milk (lbs/ac)	Beef (lbs/ton)	Beef (lbs/ac)
•	•	*	*	*	•	*	•	*	-	3	-	5	4	-	•	*	*	*	*	*	*	•
•	•	*	*	•	*	•	*	•	-	5	-	-	3	2	•	*	*	*	•	•	•	•
•	•	*	*	*	•	*	•	•	-	4	-	4	4	-	•	•	•	•	•	•	•	•
•	•	*	•	•	*	*	*	•	-	3	-	-	4	3	*	•	•	*	*	*	*	*
•	•	*	*	•	•	*	•	*	-	3	2	2	3	4	*	•	*	•	•	•	•	•
•	•	*	•	•	•	*	•	•	-	4	3	3	3	2	*	•	•	•	•	•	•	
•	•	*	•	•	•	*	*	•	-	3	3	3	-	4	•	•	•	•	•	•	•	•
•	*	*	*		*	*	*	*	-	3	4	5	3	3	*	*	*	*	*	*	*	*
•	*	*	*	•	•	*	*	*	3	4	2	3	-	4	*	•	*	*	*	*	*	*
•	*	*	*	•	*	*	*	*	4	5	3	3	2	4	*	*	*	*	*	*	*	*
•	•	*	*	•	*	•	•	*	3	2	3	2	3	2	*	•	•	•	•	*	•	*
•	•	*	•	•	•	*	•	*	2	2	3	4	3	4	•	•	•	•	•	•	•	•
•	•	*	*	•	*	*	*	*	3	3	3	3	-	4	*	•	*	*	*	*	*	*
•	•	*	*	•	*	*	*	*	3	4	-	2	3	4	*	*	*	*	*	*	*	*
•	•	*	*	•	•	*	•	*	4	5	-	2	3	3	•	•	•	•	•	•	•	•
	*	*	*		_	*	*	*	3	3	-	5	-	-	*		*	*	*	*		*

\_\_\_ 10 For more information, contact your NK Representative, our Customer Interaction Centre at 1-87-SYNGENTA (1-877-964-3682) or visit Syngenta.ca/NK

### Corn chart key

#### Tra

V = Viptera

D = Duracade

DV = DuracadeViptera AA = Agrisure Above

### Agronomic/Plant characteristic and disease tolerance ratings

1 = Best

9 = Worst

- = Under evaluation

D = Determinate SD = Semi-determinate

SF = Semi-flex

F = Flex

#### Seeding and adapation ratings

- ★ Above average performance
- Average performance
- Hybrid may not perform consistently
- Hybrid not recommended
- Data not available

#### Silage ratings

- ★ Greatest opportunity to maximize performance relative to other hybrids in maturity group
- Performs well relative to other hybrids in maturity group
- ▼ Performance is lower relative to other hybrids in maturity group
- ★ Performance is below desired levels relative to other hybrids in maturity group
- Data not available

This table provides silage quality and yield scores for selected NK hybrids based on actual tonnage and silage analysis values, and represents relative differences among hybrids of a similar maturity.

#### LIBERTY LINK W

Seed products with the LibertyLink® (LL) trait are resistant to the herbicide glufosinate ammonium, an alternative to glyphosate in corn, and combine high-yielding genetics with the powerful, non-selective, post-emergent weed control of Liberty® herbicide for optimum yield and excellent weed control.

Consult bag tags for E-Z Refuge product herbicide options. Only those labeled E-Z-1 may be sprayed with glufosinate ammonium based herbicides, including Liberty® herbicide.

NOTE: Hybrid characteristics such as staygreen and drought stress tolerance are also important to consider when selecting hybrids for silage. Digestibility ratings are based on NIR and in-vitro digestibility analysis. Milk performance estimates generated from University of Wisconsin equations. Comparisons should only be made among hybrids within a maturity group. Although actual silage yield and quality analysis of a hybrid will vary with environment, the relative ranking of a hybrid will be similar. These ratings are a relative performance guide. Conduct a laboratory test to determine actual silage quality when balancing a feed ration.

All hybrid chassis and/or chassis combinations are subject to change.

2350

2400

E-Z Refuge

CHU









**Broad Adaptation Across Yield Environments** 

- Very good emergence and vigour
- · Heavy test weight with good grain quality
- · Great drought tolerance for consistent yields





**Viptera Superior Yield Combined** 

NK8005-V



- Maximizes yield when it rains; increases yield potential when it doesn't
- · Early flowering for good northern adaptation
- · Heavy test weight



NK8204-V

**Viptera** 



- · Maximum yields on highly productive soils
- Verv strong roots
- · Strong emergence with great early vigour





NK8519-DV



**Consistent Performance Across Environments** 

- · Strong stalks for season-long standability
- Outstanding drought tolerance for consistent yields
- · Dependable emergence with excellent seedling vigour







**Elite Genetics with** Artesian Technology

- Maximizes yield when it rains; increases yield when it doesn't
- Strong stalks and roots
- · Heavy test weight

NK8920-D





**Exciting Yield with Broad Adaptation** 

- Excellent emergence and seedling vigour for a fast start
- Moderate stature with strong roots and stalks
- Superb staygreen and late-season plant health

### NK9023-DV

2725

E-Z Refuge

E-Z Refuge

2750





**Outstanding Yield Potential** in High Management Systems

- · Excellent emergence with good seedling vigour
- Strong stalks for season-long standability
- Great yield response to increased plant population and strong soil fertility

### NK9175-DV





**Top-end Yield Potential** with Broad Adaptation

- Exceptional early disease package and drought tolerance
- Consistent performance brings exciting yield levels to this maturity range
- Maximum yield potential when placed in-zone and south of zone





×X Miravis Neo





CHU



RM

CHU 2775 NK9347-D





- · Outstanding stalks and very good roots for season-long standability
- Best performance when placed in-zone and south of zone
- · Solid disease package with great late-season agronomics





### NK0007-AA



**Excellent Yield Potential with Strong Roots and Stalks** 

- · Outstanding emergence for an early planting option
- Leading drought tolerance powered by Artesian technology
- Semi-determinate ear type and strong standability support higher populations for maximum yield

CHU 2850 NK9535-V





**Exciting Yield Performance** 

- · Broad adaptation across yield environments
- Superb stalks for season-long standability
- · Solid agronomics for continuous corn acres





NK0243-D





**Proven Top-end Yield Potential** 

- · Exceptional drought tolerance
- · Very strong stalks, roots and stay green for season-long standability
- Full ear flex provides population flexibility

E-Z Refuge CHU 2875 NK9653-DV





**Consistent Yield with Improved Agronomics and Grain Quality** 

- · Excellent plant health with strong roots and stalks
- Consistent performance on poorly drained and variable soils
- · Broadly adapted hybrid with excellent test weight

RM

E-Z Refuge CHU NK0472-DV





**Excellent Test Weight and Grain Quality Allow Movement North of Zone** 

- Excellent stalks and roots support increased plant populations
- Solid emergence and early vigour for fast stand establishment
- Excels on fine textured soils including poorly drained environments

E-Z Refuge

CHU 2975 NK9991-D



**High-yielding Product with Strong Agronomics** 

- · Solid disease package for late season plant health
- · Excellent choice for medium- to high-yield environments
- · Broadly adapted hybrid with very good test weight



E-Z Refuge

CHU 3175 NK0696-D







Strong Performance with **Broad Adaptation** 

- · Solid agronomics for season-long standability
- Excellent early-season vigour for early planting
- Excels on variable to poorly drained soils







# Trusted NK quality with the flexibility to harvest for grain or silage.

Enjoy the same premium performance and genetics you expect from NK corn, the power of the corn trait platform from Syngenta, as well as enhanced flexibility of use at the end of the season. NK silage choice hybrids have strong agronomic traits with high yield potential, great neutral detergent fiber (NDF) digestibility, competitive digestible starch, and high milk and beef production per ton and per acre potential. Trust NK corn for your grain or silage needs this season and thiNK ahead.



### Silage choice

### High-quality hybrids make high-quality silage.

Explore your options and find the right fit for your farm.

PROI	DUCT		MATURITY II	NFORMATION		
Hybrid	Trait	Relative maturity (RM)	СНО	RM to silk	RM to blacklayer	
NK7837	V	78	2350	78	78	
NK8005	V	80	2400	78	77	
NK8519	DV	85	2650	86	85	
NK8618	D	86	2650	84	85	
NK9175	DV	91	2750	91	91	
NK9535	V	95	2850	95	95	
NK9653	DV	96	2875	96	95	
NK0007	AA	100	3000	99	100	
NK0243	D	102	3075	101	102	

This table provides silage quality and yield scores for selected NK hybrids based on actual tonnage and silage analysis vi	alues,
and represents relative differences among hybrids of a similar maturity.	

AGRONOMIC CHARACTERISTICS													
Yield (tons/acre)	Protein	NDF Dig. 30Hr (%)	Starch	Fat	NOT	NEL	Milk/ton	Milk/acre	Beef/ton	Beef/acre			
•	•	*	*	-	*	*	*	*	*	•			
•	•	*	*	-	•	*	•	•	•	•			
*	•	•	•	-	*	*	*	*	*	*			
*	•	•	*	*	▼	•	▼	•	▼	•			
*	•	*	*	-	•	*	*	*	*	*			
*	▼	*	*	*	*	*	*	*	*	*			
*	•	•	•	•	•	•	•	*	•	*			
*	*	•	*	*	*	*	*	*	*	*			
*	•	*	*	*	*	*	*	*	*	*			

NOTE: Hybrid characteristics such as staygreen and drought stress tolerance are also important to consider when selecting hybrids for silage. Digestibility ratings are based on NIR and in-vitro digestibility analysis. Milk performance estimates generated from University of Wisconsin equations. Comparisons should only be made among hybrids within a maturity group. Although actual silage yield and quality analysis of a hybrid will vary with environment, the relative ranking of a hybrid will be similar. These ratings are a relative performance guide. Conduct a laboratory test to determine actual silage quality when

### Silage chart key

#### **Traits**

V = Viptera

D = Duracade

DV = DuracadeViptera AA = Agrisure Above

#### Ratings

- ★ Greatest opportunity to maximize performance relative to other hybrids in maturity group
- Performs well relative to other hybrids in maturity group
- ▼ Performance is lower relative to other hybrids in maturity group
- ★ Performance is below desired levels relative to other hybrids in maturity group
- Data not available

Yield Calculated on a per-acre basis and adjusted to standard moisture.

NDF Dig. 30Hr (%) Measure of the indigestible and slowly digestible components of the silage at 30hr retention time.

**Starch** Indicates the percent of feed component that is starch.

**Fat** Indicates the percent of feed component that is fat.

Total digestible nutrients (TDN) Sum of the digestibility of different nutrients.

**Net energy lactation (NEL)** Feed effect on net energy for lactating cows based on acid detergent fiber (ADF).

**Milk/ton\*** An estimate of forage quality driven by starch content, starch digestibility and NDF.

Milk/acre\* Combines the estimate of forage quality (Milk/ton) and yield (Tons/acre) into a single term.\*\*

**Beef/ton\*** A proprietary estimate of forage quality driven by TDN.

Beef/acre\* Combines the estimate of forage quality (Beef/ton) and yield (Tons/acre) into a single term.

### LIBERTY LINK W

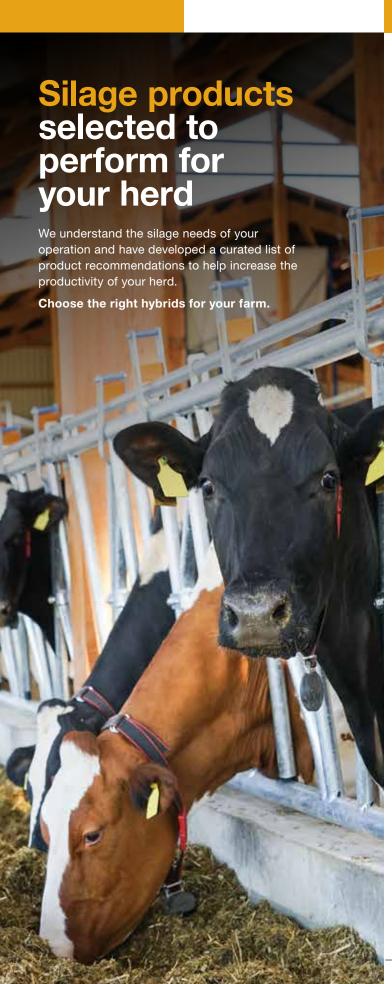
Seed products with the LibertyLink® (LL) trait are resistant to the herbicide glufosinate ammonium, an alternative to glyphosate in corn, and combine high-yielding genetics with the powerful, non-selective, post-emergent weed control of Liberty® herbicide for optimum yield and excellent weed control.

Consult bag tags for E-Z Refuge product herbicide options. Only those labeled E-Z-1 may be sprayed with glufosinate ammonium based herbicides, including Liberty® herbicide.

All hybrid chassis and/or chassis combinations are subject to change.

<sup>\*</sup>These ratings should not be used to estimate actual production per animal, but instead they should be used to determine relative overall silage quality and yield of each hybrid.

\*\*Milk/A: Combining yield and quality into a single term, https://fyi.uwex.edu/forage/files/2016/11/Milk-2016-Combining-Yield-and-Quality-into-a-Single-Term-2.pdf



### **Protect your investment**

Even the highest performing hybrids with industry-leading traits require an additional layer of protection to keep early-season threats at bay. For NK seed, we tap into the complete Seedcare™ portfolio from Syngenta, so you can manage the most challenging diseases and insects in your fields.

NK is offering a choice of two seed treatment options for corn seed.

		PES1	S CONTRO	LLED		D	ISEASES C	ONTROLLE	CAUSED E	Y
	Cutworm	European chafer	Wireworm	Seed corn maggot	Root knot nematode	Fusarium	Pythium	Rhizoctonia	Aspergillus	Penicillium
SEED TREATMENT 1										
<b>Wayantis</b> Xtra						•	•	•	•	•
SEED TREATMENT 2										
Fortenza Complete	•	•	•	•	•	•	•	•	•	•

### Legend

Control

Suppression

■ Partial suppression





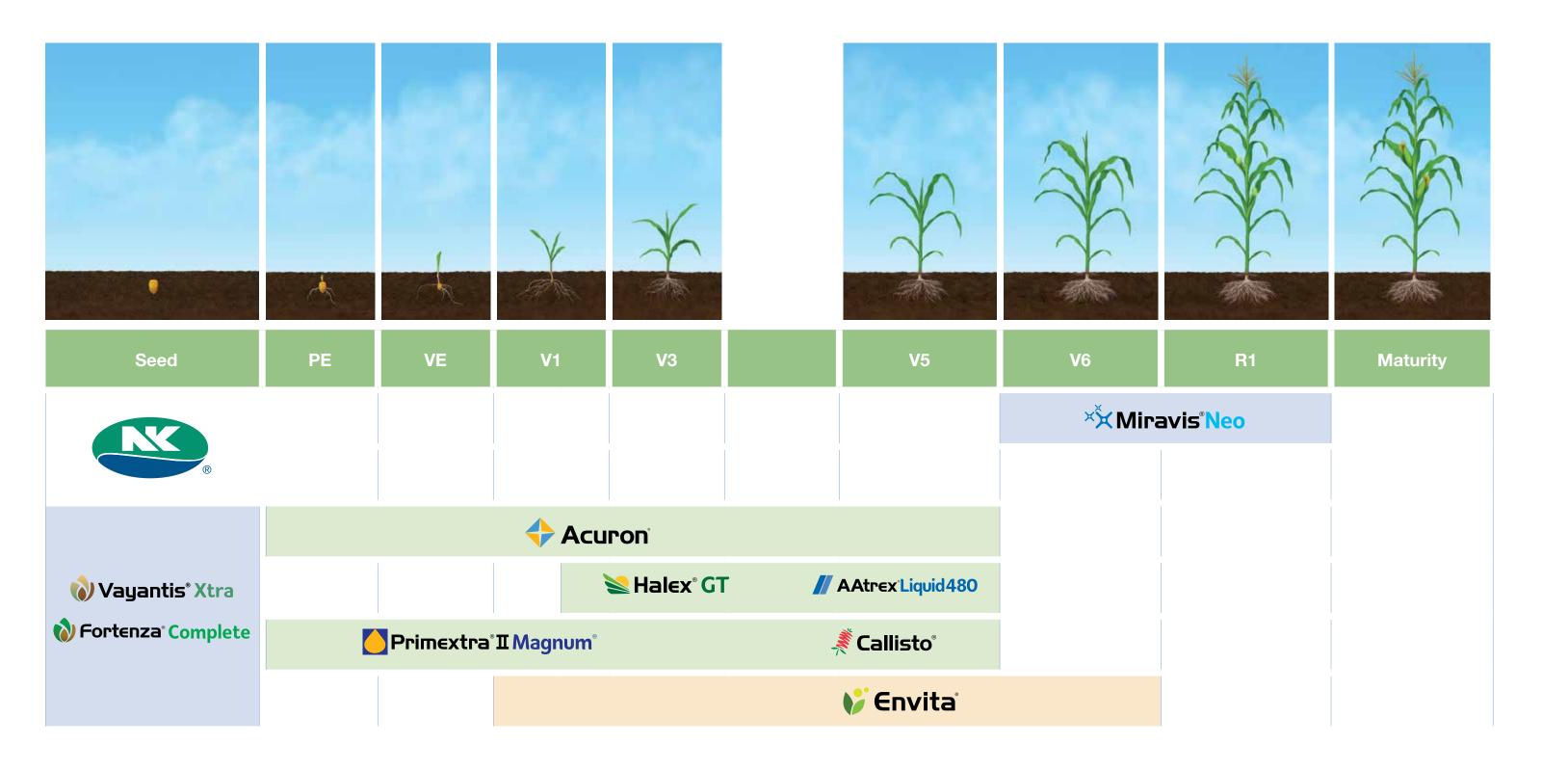
Vayantis® Xtra seed treatment provides the most comprehensive corn disease package, with control of multiple species of seed- and/or soil-borne pathogens by offering multiple modes of action. Vayantis Xtra combines Vayantis® with Maxim® Quattro, Vibrance®, and Draco™ to deliver six fungicides and a biological package. Experience enhanced Rhizoctonia control with Vibrance and the broadest spectrum of Pythium control with Vayantis. Draco complements existing genetics and synthetic seed treatments, and may help improve germination, water use efficiency, greening, vigour, and survival set in crops.



Fortenza® Complete seed treatment provides corn growers critical, early season protection from insects like European chafer, wireworm, seedcorn maggots, and cutworms, and also offers a fungicide solution against seed- and/or soil-borne pathogens in corn. Fortenza Complete contains six fungicides, an insecticide, and a biological bacteria package. Plus, it delivers an alternative, non-neonicotinoid insecticide belonging to the diamide class. Experience enhanced Rhizoctonia control with Vibrance and the broadest spectrum of Pythium control with Vayantis®. And Draco™ may help improve germination, water use efficiency, greening, vigour, and survival set in crops.







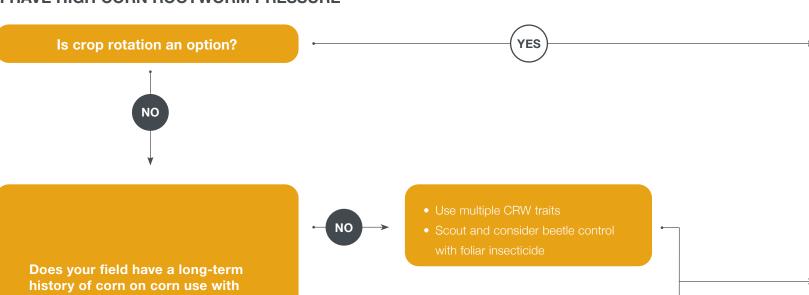


### **Corn rootworm management recommendations**

Monitoring corn fields for corn rootworm (CRW) beetles can help determine CRW pressure in the subsequent year. Gauge next year's CRW larval threat based on this year's beetle numbers. If scouting reveals 1-1 ½ beetles per plant, CRW larval feeding activity may be high the following year.

I HAVE LOW CORN ROOTWORM PRESSURE

### I HAVE HIGH CORN ROOTWORM PRESSURE



history of corn on corn use with CRW traits OR have you experienced any of the following with CRW traits:

- Unexpected damage observed
- Excessive root feeding
- Lodged corn not explained by environmental factors



- Rotate CRW traits
- Use multiple CRW traits + soil-applied insecticide
- Scout and consider beetle control with foliar insecticide
- Contact your Syngenta representative to discuss best options for your fields and consider Canadian Corn Pest Coalition recommendations\*

### If you experienced low larval feeding damage, low adult beetle population, and no rootworm-caused corn lodging issues in the prior year and:

- Will plant continuous corn: consider a single CRW trait, multiple CRW traits, or a non-CRW traited hybrid with Force® 3G soil insecticide.
- Will plant first year corn in areas with western CRW or northern CRW variant: consider a single CRW trait, multiple CRW traits, or a non-CRW traited hybrid with Force 3G.
- Will plant first year corn in areas without western CRW or northern CRW variant: consider a non-CRW traited hybrid with or without Force 3G.

### **CROP ROTATION**

- Rotate to a non-host crop such as soybeans, which provides the best opportunity to break the reproductive cycle of CRW.
- If you are concerned with the potential for the western CRW variant that may lay eggs in soybean fields, make sure to monitor soybeans for beetles to take action in next year's corn crop based upon beetle observations in previous year's soybeans. Alternatively, consider treating adult beetles in the soybean crop itself. When planting corn following soybeans in areas with western CRW variant consider a single CRW trait, multiple CRW traits, and/or Force 3G.
- If you are concerned with the potential for the northern CRW variant, rotate to multiple years of non-host crop or monitor/take action to treat CRW as needed. When planting corn in a corn-soybean rotation in areas with northern CRW variant consider a single CRW trait, multiple CRW traits, and/or Force 3G.

#### MODE OF ACTION ROTATION

Previous CRW trait usage and years in corn are important factors. It is always recommended to consult with your sales representative to discuss which of the below options will work best in your particular situation.



Durcade™ and DurcadeViptera™ trait stacks combine a unique mode of action for CRW
control with a second, proven mode of action against CRW. Both trait stacks also
provide a five percent integrated E-Z Refuge®.



- Force 3G, when used in combination with hybrids that contain single or multiple CRW trait combinations, drives yield.
- Secondary insects or other agronomic factors may influence the decision to use soil insecticide.

#### **HYBRID ROTATION**

- In cases where you are not satisfied with the traited control of CRW, consider rotating trait packages and growing corn with no CRW trait in your field.
- In this scenario, use of insecticides will be required for effective CRW control.

<sup>\*</sup>For more information on Canadian Corn Pest Coalition recommendations, please visit: https://fieldcropnews.com/2020/10/mitigation-measures-for-bt-resistant-corn-rootworm/







# Elite genetics with next-generation technology equals high-yielding varieties.

NK soybeans are developed from the industry's largest and most diverse germplasm pool, offering a sizable selection for a broad range of growing conditions. Featuring in-demand trait technology, a strong mix of agronomic characteristics, as well as the herbicide tolerances you need for success, there's a reason for our reputation in soybeans. It's time to thiNK ahead and grow NK soybeans.

### SOYBEANS

### Soybean trait index

NK Seeds offers trait choice and high-performing genetics to match your farm's needs.



### Enlist E3™ soybeans

NK soybeans with Enlist E3<sup>TM</sup> trait technology are tolerant to 2,4-D choline (Group 4), glyphosate (Group 9) and glufosinate (Group 10), enabling growers to meet ever-increasing weed challenges, including glyphosate resistance, and helping to maximize profit per acre.



### XtendFlex® soybeans

Combines our high-performing NK soybean genetics with triple-stacked herbicide tolerance to dicamaba (group 4), glyphosate (group 9) and glufosinate (group 10) for greater application flexibility for managing tough-to-control weeds, pre-emergence and postemergence.



### Roundup Ready 2 Yield® soybeans

NK soybean varieties bred with Roundup Ready 2 Yield® trait technology are tolerant to glyphosate (Group 9) herbicides.



### Roundup Ready 2 Xtend® soybeans

NK soybean varieties bred with Roundup Ready 2 Xtend® trait technology are tolerant to both glyphosate (Group 9) and dicamba (Group 4) herbicides, allowing growers to use multiple modes of action to help manage tough-to-control weeds, including glyphosate-resistant giant ragweed, common ragweed, and Canada fleabane.



### Sulfonylurea-tolerant soybeans (STS®)

The STS® trait is a native (non-genetically modified) trait that conveys tolerance to certain ALS herbicides, providing peace of mind when planting in fields where there may be carry-over of ALS herbicides. Look for an "S" at the end of the variety name to indicate this trait.



### Soybean cyst nematode solutions

NK offers two sources of resistance to soybean cyst nematode: Pl88788 and Peking. The source of resistance is indicated in the agronomic table.

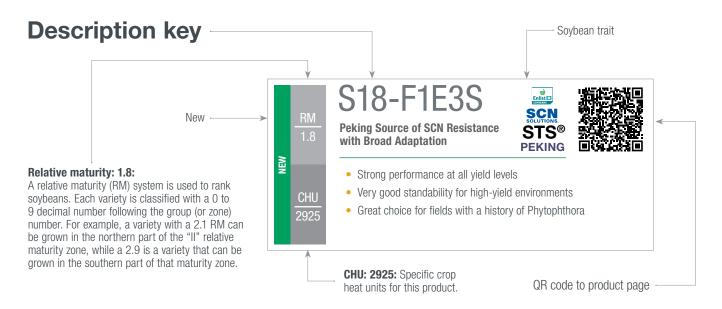


### **Naming convention**

#### S18-F1E3S

S	18	F1	E3S		
Syngenta NK Soybean Varieties	Indicates maturity group and relative maturity within the group, on a scale from 0-9 (0 = early; 9 = late).	Randomly designated letter and number.	Indicates herbicides technology E3 = Enlist E3™ XF = XtendFlex® X = Roundup Ready 2 Xtend® Letter and number combination = Roundup Ready 2 Yield® S= Sulfonylurea-tolerant soybeans		

Ratings are based on field observations collected by Syngenta from multiple locations over multiple years. They represent comparisons with NK products only.



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### **Agronomic characteristics**

PRODUCT	TRAIT	MAT	URITY		AG	RONOMIC/P	LANT CHAR	ACTERISTIC	cs		
Variety	Trait	Relative maturity	СНО	Emergence	Standability	Wide row	Plant height	Canopy index	Hilum colour	Seed size	
S0007-S1X	ROUNDUP READY 2 TEND SOYBEANS	0.007	2225	3	4	2	M	4.29	IMY	М	
S001-D8X	ROUNDUP READY 2 TEND SOYBEANS	0.01	2300	3	3	4	MT	3.96	IMY	М	
S003-R5X	ROUNDUP READY 2 TEND SOYBEANS	0.03	2325	3	3	2	MS	3.96	IMY	M	
S007-Y4	Roundup 2 YIELD	0.05	2350	3	2	1	M	4.62	IMY	М	
S007-Z1X	ROUNDUP READY 2 TEND SOYBEANS	0.07	2400	3	4	1	MT	6.27	BR	L	
S007-A2XS	ROUNDUP READY 2 TEND SOYBEANS / STS®	0.07	2425	3	3	2	MT	5.28	GR	S	
S008-N2	Roundup 2 YIELD	0.08	2450	3	3	1	MT	6.27	IMY	L	
S02-M4XF	SOYBEANS  SOYBEANS	0.2	2550	3	3	2	MT	5.28	BL	М	
S03-V5E3 <b>NEW</b>	Enlist E3	0.3	2600	2	3	1	MS	5.94	IMB	M	
S04-J6X	ROUNDUP READY 2 TEND SOYBEANS	0.4	2625	3	2	1	M	4.95	BL	М	
S06-A3XF <b>NEW</b>	TENDFLEX.	0.6	2675	2	3	2	M	4.95	GR	L	
S07-K5X	ROUNDUP READY 2 TEND SOYBEANS	0.7	2700	1	3	2	M	4.62	GR	L	
S09-B5XF <b>NEW</b>	**************************************	0.9	2775	2	3	1	M	5.28	GR	L	
S09-H7E3	Enlist E3	0.9	2775	3	2	1	MS	5.61	BF	M	
S10-W8XF	TENDFLEX.	1.0	2800	2	3	1	M	4.95	IMY	М	
S12-M5X	ROUNDUP READY 2 TEND SOYBEANS	1.2	2825	2	2	1	MS	5.28	BL	VL	
S13-Y4XF <b>NEW</b>	TENDFLEX.	1.3	2825	3	2	2	MT	4.95	BR	M	
S14-C7XF	**************************************	1.4	2850	3	3	1	MT	5.61	BR	M	
S14-W6E3	Enlist E3	1.4	2850	2	3	2	M	5.28	BF	М	
S16-K2X	ROUNDUP READY 2 TEND SOYBEANS	1.6	2875	2	3	1	М	4.95	BL	L	
S18-F1E3S <b>NEW</b>	Enlist E3 / STS®	1.8	2925	3	3	1	M	5.61	IMB	М	
S19-Y5E3	ENISTES SOTETANS POLINITIES PEADY 2	1.9	2950	3	3	1	MT	4.95	BL	М	
S20-L8X	ROUNDUP READY 2 TEND SOYBEANS	2.0	3025	2	3	2	M	4.95	BL	L	
S22-A2E3	Enlist E3	2.2	3075	3	2	1	M	5.28	IMB	М	
S22-J4X	ROUNDUP READY 2 TEMD SOYBEANS ROUNDUP READY 2	2.2	3075	3	3	2	M	4.95	BL	L	
S25-B6X	ROUNDUP READY 2 TEND SOYBEANS	2.5	3150	3	3	1	MT	7.26	BR	L	
\$25-G8E3 <b>NEW</b>	Enlist E3	2.5	3150	2	3	1	MT	5.94	BF	S	
\$26-E3	Enlist E3	2.6	3175	2	2	2	M	4.62	BF	S	
\$28-B9E3\$ <b>NEW</b>	EnlistE3 / STS®	2.8	3225	2	4	1	M	5.61	IMB	L	
\$29-R5X	ROUNDUP READY 2 TEND SOYBEANS	2.9	3250	2	4	1	MT	6.60	BR	M	
S32-J5XF <b>NEW</b>	TENDFLEX. SOYBEANS	3.2	3325	2	2	1	M	4.95	BL	M	

GRAIN (	QUALITY		DISEASES/PESTS						GI	ENERAL A	ADAPTAT	ION	
				РНҮТОРНТ	IORA								
Protein rating	Oil rating	SCN resistance source	Soybean cyst nematode	Gene resistance	Field tolerance	White mould	Sudden death syndrome	Brown stem rot (BSR)	Pod and stem blight	Drought prone soils	Highly productive soils	Variable environments	Poorly drained soils
High	Average	S	S	Rps1c,Rps3a	2	4	-	4	6		*		*
High	High	S	S	Rps1c	4	3	-	3	5	*	*	*	
High	Average	S	S	Rps1c	2	3	-	4	3	*	•	*	*
High	High	S	S	Rps1c	3	2	-	5	6		*	*	
Average	High	S	S	Rps1c	5	5	-	3	4	*	•	*	
Average	Average	S	S	S	4	4	-	3	5	*	*	*	•
Average	High	S	S	S	4	4	-	5	5	•	•	*	•
Average	High	PI88788	MR3	Rps1c	3	3	2	3	5	•	*	*	•
High	High	PI88788	MR3	Rps1c	3	5	-	3	7		*		*
High	Average	PI88788	MR3	Rps1c	3	4	-	3	4	*	*	*	*
High	High	PI88788	MR3,MR14	Rps1c,Rps3a	2	3	3	3	3	*	•	•	•
Very High	Average	S	S	Rps3a	3	3	-	3	4			*	
High	High	PI88788	MR3,MR14	Rps1c,Rps3a	2	3	3	3	4	*	•	•	*
Average	High	PI88788	MR3,MR14	Rps1k	2	5	3	3	5	*		*	*
High	Average	PI88788	R3	Rps1c	3	3	3	5	5	*	•		
Average	Ultra High	PI88788	MR3	Rps1k,Rps3a	2	3	2	2	2	*	*	*	*
High	Average	PI88788	MR3,MR14	Rps1c,Rps3a	1	2	3	3	3	*	*	*	*
High	High	PI88788	MR3	Rps1c	2	2	2	2	4		*	*	
High	High	Peking	MR1,R3,MR5	Rps1c,Rps3a	4	5	5	3	6	•	*	•	
High	Average	PI88788	MR3	Rps1k,Rps3a	2	4	5	3	5	*		*	*
High	High	Peking	MR1,MR3,MR5	Rps1k	3	4	4	3	5	*	*	*	*
High	High	PI88788	R3,MR14	Rps1k	4	3	3	-	4	•	*		
High	High	PI88788	R3,MR14	Rps1c	4	2	3	5	3		•		•
Average	Average	PI88788	MR3	Rps1c	2	3	2	3	2		*	*	*
High	High	PI88788	R3,MR14	Rps1c	4	3	3	5	3	<b>V</b>		<b>V</b>	*
High	Average	PI88788	R3,MR14	Rps1c	4	3	4	4	4			*	*
Average	Very High	PI88788	MR3,MR14	Rps1c	3	5	3	4	-			*	*
Average	High	Peking	-	Rps1k	4	4	3	4	-	•	*		
-	-	PI88788	MR3	Rps1c	3	4	3	3	-		•	*	*
Average	High	Peking	R1,R3,MR5	Rps1k	2	4	3	4	2	•	*	*	*
-	-	PI88788	R3	Rps1c	3	3	2	3	-	*	*	*	*

Performance results are based on North American field trials and are not necessarily consistent with Eastern Canadian recommendations on pages 34-37.

For more information, contact your NK Representative, our Customer Interaction Centre at 1-87-SYNGENTA (1-877-964-3682) or visit Syngenta.ca/NK

### Soybean chart key

#### **Relative maturity**

First number indicates maturity group, second set of numbers indicates within-group maturity rating on a 0-9 scale (0 = Early, 9 = Late).

Agronomic and Wide Row: disease ratings 1 = Best 4 = Worst 1 = Best

For more information on row width 9 = Worst refer variety plant types on page 34 – Under evaluation

Plant height Canopy index S = ShortIndex is calculated using plant

MS = Medium Short height, width and branching M = Medium characteristics. The larger the MT = Medium Tall number, the larger the plant. T = Tall

#### **Colour abbreviations**

BF = Buff, BR = Brown, BL = Black, GR = Grey IMB = Imperfect Black, Y = Yellow, IMY = Imperfect Yellow

#### Seed size

VL = Very Large = <2000 seeds/lb or <4400 seeds/kg L = Large = 2000-2275 seeds/lb or 4400-5000 seeds/kgM = Medium = 2275-2725 seeds/lb or 5000-6000 seeds/kgS = Small = >2725 seeds/lb or >6000 seeds/kg

Protein rating Oil rating Average = <40%Average = <22% High = 40-43%High = 22-23%Very high = 43-45%Very high = 23-24%Ultra high = >45%Ultra high = >24%Protein values fluctuate from year to year and field to field.

Protein and oil values are based on 0% moisture.

#### Resistance rating system

Indicates when a variety is resistant to a specific disease or pest. For varieties with soybean cyst nematode (SCN) resistance, it is specified which races of nematodes the line is resistant to. In the case of Phytophthora, it indicates the gene conveying the resistance.

#### Soybean cyst nematode (SCN) resistance source

S = Susceptible, Peking or Pl88788,

CMP/P = Confirmation of Peking by marker.

### Soybean cyst nematode (SCN) 1, 3, 5 and/or 14 = Specific race of soybean cyst nematode

R = Resistant, MR = Moderately Resistant, S = Susceptible

#### Phytophthora race resistance

The following information correlates gene resistance to the actual races of Phytophthora the plant is protected from:

S = Susceptible

Rps1a = Resistant to races 1, 2, 10, 11, 13–18, 24, 26, 27, 31, 32, 36, 38

Rps1c = Resistant to races 1-3, 6-11, 13, 15, 17, 21, 23, 24, 26, 28–30,32, 34, 36, 38, 44

Rps1k = Resistant to races 1–11, 13–15, 17, 18, 21–24, 26, 36–38, 44

Rps3a = Resistant to races 1–5, 8, 9, 11, 13, 14, 16, 18, 23, 25, 28, 29, 31-35, 39, 44, 45

Rps6 = Resistant to races 1-4, 8, 9, 10, 12, 14-16, 18-21, 25, 28, 33–35, 38, 39, 44, 45

### Phytophthora field tolerance

Usually not as complete as race-specific resistance, but it offers general protection. Numerical rating scale of 1-9; 1 = Excellent, 9 = Poor

#### **Adaptation ratings** ★ Above average performance

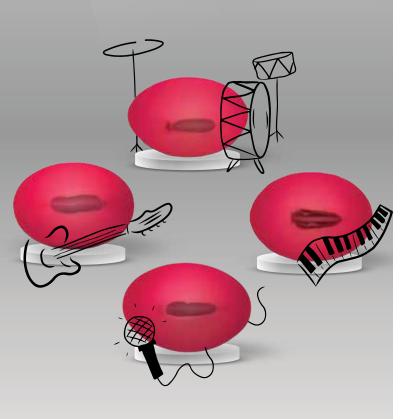
- Average performance
- Variety may not perform consistently
- X Variety not recommended

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### Four ways to rock early season disease

With four modes of action - including new breakthrough chemistry - you get next-level performance against a wide range of early season diseases, including Phytophthora. Plus – the added benefit of Rooting Power® helps build stronger roots, for a soybean stand that can get rockin', rollin' and yielding, even in tough spring conditions.

Visit Syngenta.ca/VayantisIV to see how Vayantis IV can help you have a smash hit start to the season.



### S0007-S1X











**Outstanding Performance Across Environments** with Great Top-end Yield Potential



- · Strong emergence and quick canopy closure in a short
- · Great performance to move south of zone as an early harvest option
- Large plant type that performs well across soil types and row widths

**Strong Agronomics with Great Yield Potential** 



• Rps1c/3a gene stack with very strong Phytophthora field tolerance · Very good standability with sound Soybean White Mould tolerance

• Strong performance across yield levels with excellent top-end yield potential



S001-D8X





**Excellent Yield with a Solid Agronomic Package** 

Very good standability and tolerance to Soybean White Mould



· Performs well across yield environments



S007-A2XS



**Outstanding Yield with Excellent Stress Tolerance** 



· Consistent performance across yield environments and soil types · Very good standability with good performance in all row widths

Maintains height on tough acres

S003-R5X

S007-Y4

with Broad Adaptation

**Recognized Yield Performer** 

Excellent standability for ease of harvest

Strong Phytophthora Root Rot field tolerance with the

Solid emergence with excellent Soybean White Mould tolerance





**Outstanding Yield with Broad-acre** Adaptability



- Rps1c with excellent tolerance to Phytophthora Root Rot
- Performs well across all yield environments and soil types
- Excellent standability with very good tolerance to Sovbean White Mould



S008-N2



**Strong Yield Performance Across Environments** 



- Large plant type with good canopy closure, even under stress
- Moves south of zone well
- Strong emergence for early-season establishment



S02-M4XF





CHU

**Known Genetics with Broad Adaptation** and Soybean Cyst Nematode Resistance

• Strong standability and Soybean White Mould tolerance • Rps1c gene with very good Phytophthora field tolerance

Good fit for highly productive and stress acres







CHU



0.3

CHU

ME

S03-V5E3

**Strong Performance Across** 

**Yield Environments** 





· Great choice for high yield environments

• Rps1c gene with solid field tolerance to Phytophthora Root Rot

Broadly adapted across soil types

Æ 2775 **S09-B5XF** 







**Exciting Disease and Agronomic Package** 

- · Medium plant type with excellent standability
- Rps1c/3a gene stack provides excellent Phytophthora protection
- Strong tolerance to Soybean White Mould

S04-J6X Strong Agronomics with





**Exceptional Performance Across Yield Levels** 

- Soybean cyst nematode resistance
- Excellent standability for the highly productive acre
- Maintains performance and height on lower yielding acres

CHU

2775

S09-H7E3





**Yield Stability Across Changing Environments** 

- · Excellent standability with top-end yield potential
- Very strong field tolerance to Phytophthora Root Rot with the Rps1k gene
- · Best positioned on mid to high yield acres

CHU

2625

CHU 2675

NEW

S06-A3XF

**Impressive Agronomics and** 

**Disease Package** 







- · Noticeable speed of emergence improving final stand on tougher soils
- Rps1c/3a gene stack with outstanding Phytophthora Root Rot field tolerance
- Excellent standability and strong Soybean White Mould tolerance

CHU

S10-W8XF





**Solid Agronomics and** Disease Tolerance

Broad adaptation across soil types

- Rps1c gene and solid field tolerance to Phytophthora Root Rot
- Excellent choice for variable acres maintaining plant height

S07-K5X







Strong Performance Across Yield

- **Environments Excelling on Tougher Acres** • Desired Rps3a Phytophthora Root Rot gene
- Taller plant with very good standability
- Strong Soybean White Mould tolerance

CHU

S12-M5X







- · Great performance across yield levels, excelling in high yield environments
- Excellent Phytophthora field tolerance with desired Rps1k/3a gene stack
- Best performance in and north of zone

CHU 2700

MEN

CHU

**S13-Y4XF** 





**Trusted Genetics with Impressive Agronomic and Disease Package** 

- · Ease of placement with broad adaptation across soil types
- Rps1c/3a Phytophthora Root Rot gene stack with strong performance in saturated soils
- Excellent standability and Soybean White Mould tolerance

CHU

MEW

S18-F1E3S

**Peking Source of SCN Resistance** with Broad Adaptation





- Strong performance at all yield levels
- · Very good standability for high-yield environments
- · Great choice for fields with a history of Phytophthora

S14-C7XF





**Consistent Yield with Complete Defensive Package** 

- Proven genetics that are broadly adapted across soil types
- Excellent standability with strong tolerance to Soybean White Mould
- Strong performance south of zone while holding plant height

CHU

S19-Y5E3





**Strong Performance Across Yield Levels and Soil Types** 

· Very good tolerance to Sudden Death Syndrome

- Very good Soybean White Mould tolerance
- Maintains plant height across acres with strong standability

CHU 2850

S14-W6E3







Stacked Rps1c,3a genes with very good tolerance to Phytophthora Root Rot

- · Performs well on variable acres
- Very good standability with excellent drydown for timely harvest

CHU

3025

S20-L8X





**Outstanding Stress Tolerance** with High Yield Potential

Soybean White Mould tolerance · Fast emergence under tough soil conditions

• Excellent Sudden Death Syndrome tolerance and

• Excels in lower yielding environments

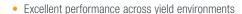
CHU 2850

S16-K2X

**Early Bean for Wheat Planting** with Strong Performance on **Clay Soils** 







- Desired Rps1k/3a Phytophthora gene stack
- · Great emergence and standability

S22-A2E3









3075

Excellent standability with very good Soybean White Mould

- Strong Sudden Death Syndrome tolerance
- Excellent Phytophthora field tolerance

CHU 2875

32



S22-J4X

**Top-end Yield** 



CHU

M

S28-B9E3S

**Great Choice for Any Acre Including Variable and Poorly Drained Soils** 





· Very good Sudden Death Syndrome tolerance

- Medium-bush canopy, excels in drought prone conditions
- Strong Phytophthora field tolerance

CHU 3075

Very good stress tolerance

S25-B6X **High-performing Soybean Across Many Yield Environments** 





Tall, bushy plant type provides fast canopy closure

 Excellent performance across most soil types • Excellent Sudden Death Syndrome tolerance

and Soybean White Mould tolerance

- Strong Soybean White Mould tolerance
- · Outstanding drought tolerance

CHU

3250

S29-R5X

Suitable for 2.7 to 3.1 Maturity with Peking Source of SCN Resistance





Excellent speed of emergence and larger plant type for early season establishment

- Outstanding Phytophthora Root Rot field tolerance with Rps1k genetic resistance
- · Very strong performance across soil types while maintaining plant height

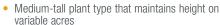
CHU S25-G8E3

Strong Disease Package with Top-end Yield Potential to **Maximize Performance** 









- Very good Sudden Death Syndrome tolerance
- Solid performance across soil types



CHU

S32-J5XF

**Broad Adaptation with Rock-solid Disease Package** 



- Excellent standability with strong Soybean White Mould tolerance
- Outstanding Sudden Death Syndrome tolerance
- Very good performance across soil types

S26-E3





• Strong Sudden Death Syndrome tolerance

- Great standability for the highly productive acre
- Best performance in mid- to high-yield environments

3175

### Population recommendations by management zone







#### **VARIETY PLANT TYPES**

Thin	Between	Branching
	S03-V5E3	
	S09-H7E3	
	S14-W6E3	
	S18-F1E3S	
	S19-Y5E3	
	S22-A2E3	
	S26-E3	
		S25-G8E3
	S28-B9E3S	

### TEND.

### **VARIETY PLANT TYPES**

Thin	Between	Branching
	S0007-S1X	
S001-D8X		
S003-R5X		
		S007-Z1X
	S007-A2XS	
	S04-J6X	
	S07-K5X	
		S12-M5X
	S16-K2X	
	S20-L8X	
	S22-J4X	
		S25-B6X
		S29-R5X

### **VARIETY PLANT TYPES**

Thin	Between	Branching
	S02-M4XF	
	S06-A3XF	
	S09-B5XF	
	S10-W8XF	
	S13-Y4XF	
	S14-C7XF	
	S32-J5XF	

**Thin** varieties perform best grown in row widths of 15" or less

Between varieties can be managed to act either thin or branching

**Branching** varieties excel in row widths of 20" or greater with performance across all row widths



#### **VARIETY PLANT TYPES**

Thin	Between	Branching
	S007-Y4	
		S008-N2

YIELD ENVIRONMENT (BU/AC)

SOIL TYPE	PLANT TYPE	> 60	40–60	< 40
Sand	Thin	150,000	175,000	200,000
Sanu	Branching	120,000	150,000	180,000
Clay	Thin	180,000	200,000	225,000
Glay	Branching	140,000	165,000	190,000
Loom	Thin	160,000	180,000	200,000
Loam	Branching	100,000	125,000	150,000

### Increase population by 10% over recommendations if:

- Field has poor drainage and history of early season establishment issues
- Field has history of soil crusting and early season establishment issues
- Planting soybeans later in the season (after June 15th)

### Decrease population by 10-20% under recommendations if:

· Field has a high risk or history of white mould

#### Row width considerations:

· Consider selecting between and branching varieties for row widths of 20" or greater

Population recommendations and variety positioning performance ratings are based on Eastern Canadian field trials and are not necessarily representative of the North American data provided on pages 34-37.



### **Genetics** x **Environment** x **Management** = High-yielding soybeans



### **Genetics**

**Seed:** Select high-performing seed bred for local conditions.

**SCN protection:** Guard against yield loss with pest-resistant seed.



X

#### **Environment**

**Pest management:** Protect crops against weeds, pests and diseases.

**Soil type:** Understand how to optimize growth by soil type.

**Weather:** Prepare for and respond to specific weather conditions.



### Management

**Fertility:** Monitor crop nutrition and take appropriate action.

**Stand establishment:** Make Seedcare™ and planting decisions to start off strong.

**Equipment:** Calibrate precision equipment for peak performance.

**Harvest management:** Maximize yield through timing and equipment.

### White mould

- Top yield-robbing disease in soybeans with losses of up to 75%.
- Our research capabilities help ensure growers have excellent solutions to white mould.

### How to manage:

- Select genetics with excellent tolerance where possible.
- In fields with white mould history and high-risk environments, reduce populations by 10% for varieties with an "excellent" rating and up to 20% for varieties with an "average" rating.
- Consider applying Allegro® fungicide as part of a white mould integrated pest management (IPM) strategy.







EXCELLENT	AVERAGE
	S03-V5E3
	S09-H7E3
	S14-W6E3
	S18-F1E3S
S19-Y5E3	
S22-A2E3	
	S26-E3
	S25-G8E3
	S28-B9E3S



**EXCELLENT** 

X

	S0007-S1X
S001-D8X	
S003-R5X	
	S007-Z1X
	S007-A2XS
	S04-J6X
S07-K5X	
S12-M5X	
	S16-K2X
S20-L8X	
S22-J4X	
S25-B6X	
	S29-R5X

AVERAGE



EXCELLENT	AVERAGE
S02-M4XF	
S06-A3XF	
S09-B5XF	
S10-W8XF	
S13-Y4XF	
S14-C7XF	
S32-J5XF	



### SOYBEANS VARIETY POSITIONING

### Pod and stem blight

- Small black raised dots (pycnidia) often in rows on the stem and no pattern on the pods.
- Fungus overwinters in seed and crop residue.
- Warm, wet or humid weather during pod fill favours disease development.

### How to manage:

- · Variety selection
- Fungicide application
- Residue management



**AVERAGE** 

S0007-S1X

S001-D8X

S007-Z1X

S007-A2XS

S04-J6X

S07-K5X

S16-K2X

S25-B6X

**EXCELLENT** 

S003-R5X

S12-M5X

S20-L8X

S22-J4X

S29-R5X







EXCELLENT	AVERAGE
	S02-M4XF
S06-A3XF	
S09-B5XF	
	S10-W8XF
S13-Y4XF	
S14-C7XF	



EXCELLENT	AVERAGE
	S007-Y4
	S008-N2



### Sudden death syndrome (SDS)

- · Caused by the fungal disease Fusarium virguliforme.
- Potentially linked with soybean cyst nematode (SCN), as nematode feeding allows the entry of secondary pathogens.
- · Leaf symptoms caused by toxins produced by the fungus.





EXCELLENT	AVERAGE	
S12-M5X		
	S16-K2X	
S20-L8X		
S22-J4X		
	S25-B6X	
S29-R5X		

EXCELLENT	AVERAGE
S09-H7E3	
	S14-W6E3
	S18-F1E3S
S19-Y5E3	
S22-A2E3	
S26-E3	
S25-G8E3	
S28-B9E3S	

EXCELLENT	AVERAGE
S02-M4XF	
S06-A3XF	
S09-B5XF	
S10-W8XF	
S13-Y4XF	
S14-C7XF	
S32-J5XF	

### How to manage:

- Choose varieties with SDS and SCN resistance
- Apply Saltro® seed treatment (see page 39)



Population recommendations and variety positioning performance ratings are based on Eastern Canadian field trials and are not necessarily representative of the North American data provided on pages 34-37



## Brown stem rot (BSR)

- Pathogen survives in crop debris.
- Infection occurs early in the season but foliar symptoms appear when pods begin to fill (R3-R4).
- Pith will show brown discolouration.

### How to manage:

- Rotation
- Residue management
- · Variety selection







EXCELLENT	AVERAGE
	S0007-S1X
S001-D8X	
	S003-R5X
S007-Z1X	
S007-A2XS	
S04-J6X	
S07-K5X	
S12-M5X	
S16-K2X	
	S20-L8X
	S22-J4X
	S25-B6X
	S29-R5X

EXCELLENT	AVERAGE	EXCELLENT	AVERAGE
S03-V5E3		S02-M4XF	
S09-H7E3		S06-A3XF	
S14-W6E3		S09-B5XF	
S18-F1E3S			S10-W8XF
S22-A2E3		S13-Y4XF	
	S26-E3	S14-C7XF	
	S25-G8E3	S32-J5XF	
S28-B9E3S			





# Phytophthora root rot (PRR) field tolerance

- Caused by soil-borne pathogen Phytophthora sojae.
- Most common on poorly drained soils.
- Can infect at all plant stages when conditions favour the pathogen.
- Symptoms usually become apparent two weeks after heavy rains.
- Genetic selection against PRR should include major genes – Rps genes and field tolerance.

### How to manage:

- Apply Vayantis® IV\* seed treatment
- · Variety selection
- Improve soil drainage



S29-R5X





SOYB.	EANS	SOYBEANS		SOI BEAL	W3
EXCELLENT	AVERAGE	EXCELLENT	AVERAGE	EXCELLENT	AVERAGE
S0007-S1X		S03-V5E3		S02-M4XF	
	S001-D8X	S09-H7E3		S06-A3XF	
S003-R5X			S14-W6E3	S09-B5XF	
	S007-Z1X	S18-F1E3S		S10-W8XF	
	S007-A2XS		S19-Y5E3	S13-Y4XF	
S04-J6X		S22-A2E3		S14-C7XF	
S07-K5X			S26-E3	S32-J5XF	
S12-M5X		S25-G8E3			
S16-K2X		S28-B9E3S			
	S20-L8X				
	S22-J4X	Roundup			



S25-B6X





"Vayantis® IV is an on-seed treatment of Vibrance® Trio fungicide seed treatment and Vayantis fungicide seed treatment

### SOYBEANS SYNGENTA SOYBEAN SEEDCARETM

### **Protect your investment**

With NK seed, we tap into the latest Seedcare™ innovations from Syngenta, so you can protect your investment against early-season insect and disease threats.

NK is offering a choice of two soybean Seedcare packages with the option to add Saltro® on select varieties.

	D	DISEASES CONTROLLED CAUSED BY						PESTS				•		
	Fusarium	Rhizoctonia	Pythium	Phomopsis	Phytophthora megaspema var. sojae	Sudden death syndrome	Bean leaf beetle	Black cutworm	European chafer	June beetle	Seed corn maggot	Soybean cyst nematode	Wireworm	
PACKAGE 1														
<b>∂</b> ) Vayantis° <b>™</b>	•	•	•	•	•									ROC PO
PACKAGE 2														
<b>(i)</b> Fortenza							•1	•	•	•	•		•	
<b>⊘</b> Vayantis° <u>™</u>	•	•	•	•	•									ROC
ADD-ON OPTION														
<b>W</b> Saltro°						•						•		

### Legend

Control

Suppression

<sup>&</sup>lt;sup>1</sup> Use for early season feeding damage from bean leaf beetle.





**Vayantis® IV** fungicide seed treatment protects soybeans against a wide range of early-season seed and seedling diseases, including Phytophthora, and offers the broadest spectrum of Pythium control on the market. Vayantis IV also provides a novel mode of action with no known cross-resistance, and the Rooting Power® of Vibrance® so soybeans can better defend against soil-borne diseases and get established and standing strong – faster.



**Fortenza**® is a Group 28 insecticide seed treatment that provides control of seed corn maggot, wireworm, European chafer and June beetle. Even under heavy insect pressure, Fortenza helps growers build a strong soybean stand with faster, more uniform growth.



For growers facing Sudden Death Syndrome (SDS) challenges in their soybeans, **Saltro**® fungicide seed treatment sets the new standard in efficacy against SDS and suppression of SCN without negatively impacting early season development, so they can prevent SDS confidently and protect their profit potential.





syngenta

### **SOYBEANS**





# The Enlist<sup>™</sup> weed control system will change how you think about weed management in soybeans.

Enlist E3<sup>™</sup> soybean varieties are now available. Using the Enlist weed control system, farmers can take control of resistant and hard-to-control weeds.

#### WHY USE THE ENLIST WEED CONTROL SYSTEM?

- A system with new traits providing herbicide tolerance in soybeans and corn
- Herbicide solutions built on an improved form of 2,4-D that lands and stays on target, enables management of hard-to-control and resistant weeds with Group 4 herbicides
- Enlist Stewardship resources that support the use of multiple modes of action to manage resistant weeds, provide training, and promote responsible and sustainable use

### Enlist E3™ Soybeans

Enlist E3 soybeans provide high-yielding soybean genetics and industry leading triple-mode of action herbicide tolerance.

#### WHY USE ENLIST E3 SOYBEANS?

- Enlist E3 soybeans are tolerant to 2,4-D, glyphosate and glufosinate herbicides, which are part of a strong resistance management strategy
- > Excellent crop tolerance enabling applications up to the R2 growth stage

### Enlist™ herbicides that land and stay on target



#### COMPLETE CONVENIENCE.

Enlist Duo provides the convenience of both 2,4-D choline and glyphosate in one formulation for control of grasses and broadleaf weeds including hard-to-control and resistant weeds.



#### FLEXIBILITY AND CHOICE.

Enlist 1, a stand-alone 2,4-D choline formulation, provides the flexibility to tank-mix and adjust the rates of glyphosate or Liberty® 200 SN (glufosinate) for hard-to-control and resistant weeds.

COLEX•D <sup>™</sup> technology							
		WHAT GO	ES INTO IT				
2,4-D choline Latest Proprietary with Colex-D formulation manufacturing Technology science process							
		WHAT IT	DELIVERS				
Near zero volatility	р	nimized otential physical drift	Low odour		Improved handling characteristics		



### Enlist Duo™ and Enlist™ 1 are powerful tools as part of the **Enlist™ Weed Control System**

- Colex-D technology helps ensure that Enlist herbicides land and stay on target
- Wide window of application from pre-plant burndowns up to the R2 stage (full flower).
- Designed to be used with complimentary herbicides as part of a Program Approach to manage a wide range of hard-to-control and resistant weeds like:
  - Canada fleabane
  - Common Lamb's-quarters
  - Common ragweed
  - > Eastern Black Nightshade
- Giant ragweed
- Pigweed species
- Velvetleaf
- Waterhemp

### **Program approach**

Start clean with tillage, burndown herbicide, or a soil residual herbicide

Enlist™ herbicides no plant-back restriction

PLANT ENLIST E3™



If not applied before planting, apply soil residual herbicide

Apply Enlist Duo™ or Enlist™ 1 herbicide No later than R2 or full flowering stage





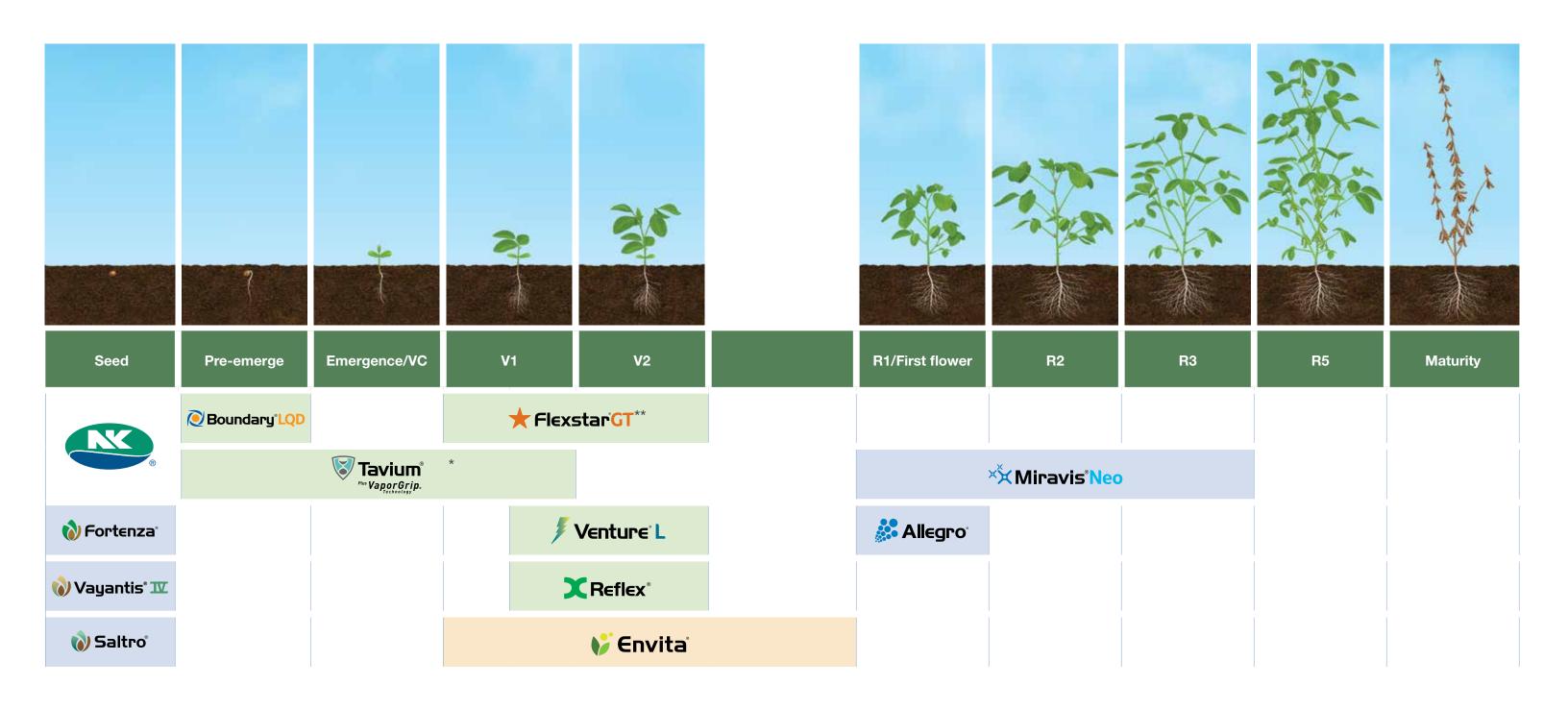
Apply Liberty® 200 SN herbicide No later than R1 or beginning bloom



### EnlistCanada.ca

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 $<sup>^{\</sup>star}$  Tavium Plus Vapor Grip® Technology is for Roundup Ready 2 Xtend® soybeans only.

<sup>\*\*</sup> Flexstar® GT is for glyphosate-tolerant soybeans only.



### The value of seed applied insecticides

Seed Applied Insecticides (SAIs) represent one of the most advanced forms of crop protection technology available, offering growers a targeted, environmentally sustainable means of pest management. Applied directly to the seed only where needed, SAIs require less active ingredient per acre compared to foliar and soil-applied pesticides, and minimize off-target drift, reducing the impact on nontarget organisms. For growers who require a fungicide-only seed treatment, NK soybean seed is available treated with Vayantis® IV, and NK corn seed is available treated with Vayantis® Xtra.

### Protecting pollinators on the farm

Syngenta is committed to protecting pollinators and continues work to develop and implement additional solutions to address dust generated when planting treated corn and soybean seed and to further efforts on other bee health issues.

Best management practices for the handling of seed treated with an insecticide are an important tool to help maximize the benefits of seed treatments and protect bees and other non-target insects at the same time.

#### For more information, please visit beehealth.ca

Always read and follow label directions.

### **Syngenta Stewardship**

Syngenta is committed to investing in new technologies and genetics to develop valuable agricultural advancements. We offer innovative tools and products, expert agronomic advice, and support best management practices designed to help Canadian growers produce their best crop.

We recognize that agriculture can only be sustainable if the products we develop are well-understood and well-handled throughout their lifecycle. Syngenta remains dedicated to the responsible and ethical management of our products.

Stewardship is an ethic that embodies the responsible planning and management of resources. Seed stewardship is the duty of everyone in the agricultural community.

All NK® Seeds Canada farmers are required to have an active Syngenta Stewardship Agreement in place, which provides a license to grow the technologies listed in this seed guide along with the genetics offered. The Syngenta Stewardship Agreement must be signed by an authorized grower prior to the delivery of any NK Seeds Canada products.

Please review and sign the Syngenta Stewardship Agreement online at www.syngenta.ca/stewardship\_agreement. If you have any questions or concerns, please do not hesitate to reach out to your NK Territory Sales Representative.

Please note, prior to opening a bag of NK seed or using the Trubulk® seed, be sure to read and understand the stewardship requirements applicable to the seed. By opening and using a bag of NK Seeds Canada seed, you are reaffirming your obligation to comply with those stewardship requirements.

### **STEWARDSHIP**

### Syngenta stewardship best management practices for corn

#### Insect Resistance Management (IRM)

Bt corn must have an insect resistance management plan. This is a requirement set by the Canadian Food Inspection Agency (CFIA). It is also a strategy endorsed by leading scientists to reduce the risk of insect populations developing resistance to Bt corn.

Syngenta is committed to following, supporting, and providing growers with relevant information to help them implement the IRM requirements set by the CFIA. Therefore, all growers must sign a Syngenta Stewardship Agreement before taking delivery of any Syngenta insect protected corn. Doing so will, in part, demonstrate their commitment to supporting the best management practices to reduce the potential risk of insects developing resistance to the Bt traits.

It is important to recognize that different products may have different insect resistance management requirements.

#### Failure to comply with refuge requirements may:

- Lead to insect resistance
- Slow down the introduction of new corn technologies that provide additional insect protection
- Affect grower access to Corn traited products

#### Scouting is essential!

Proper observation of your fields, as well as other integrated pest management strategies, will also aid in increasing the longevity of insect traits in the field. In order to first determine potential pest impact, a grower should consider pest populations in the area, crop damage from insect feeding seen in the previous year, and the rotation of the crop (to consider pest overwintering habitats).

Scout refuge plantings to determine the level of insect pressure in your field, then scout the Syngenta hybrids to note their effectiveness and look for signs of damage that may indicate resistance to either the Bt trait or the corn rootworm trait. If concerns arise, please contact your local Syngenta Representative immediately for further field investigation.

#### Growers should rotate every year if:

- Fields have been in long-term continuous corn systems
- Target insect populations are high
- There have been problems with insect-resistant trait performance

Rotation to crops such as soybeans, alfalfa or small grains will aid in removing the pests' food source and cause a population shift.

For more information about Syngenta corn stewardship, please visit: Syngenta.ca/seedstewardship





Before opening a bag of seed, be sure to read and understand the stewardship requirements, including applicable refuge requirements when planting insect protected traits as set forth in the Syngenta Stewardship Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with those stewardship requirements.

To view recommended planting layouts, maps and configurations, please visit the Canadian Corn Pest Coalition at cornpest.ca or request a Grower's Handbook at 1-800-756-7333.

## **CONTACT**

### Have questions?

### Your rep can help.

Your NK representative understands local conditions and has the experience and expertise to recommend the right seed and crop protection solutions for your farm.

### Not sure who to contact?









#### **Benefits of Certified Seed**

Sharing the Message - Success, Farmers Plant It

A purchase of Certified Seed opens the door to new opportunities for success:

- · Quality assurance
- · Access to new and improved varieties
- · Efficient use of inputs
- · New marketing opportunities
- Supports the development of new varieties for the future





HERCULEX® and the HERCULEX Shield are trademarks of Dow AgroSciences, LLC. HERCULEX Insect Protection technology by Dow AgroSciences.







The transgenic soybean event in Enlist E3<sup>™</sup> soybeans is jointly developed and owned by Corteva Agriscience and M.S. Technologies L.L.C. Enlist<sup>™</sup> and Enlist E3<sup>™</sup> are trademarks of Corteva Agriscience and its affiliated companies.







Bayer is a member of Excellence Through Stewardship® (ETS). Bayer products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Bayer's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. These products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from these products 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 these products. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

**ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.** It is a violation of federal law to use any pesticide product other than in accordance with its labeling. NOT ALL formulations of dicamba, glyphosate or glufosinate are approved for in-crop use with products with XtendFlex® Technology. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED AND APPROVED FOR SUCH USES. Contact the Pest Management Regulatory Agency with any questions about the approval status of dicamba herbicide products for in-crop use with Roundup Ready 2 Xtend® soybeans or products with XtendFlex® Technology.

Always read and follow label directions. Roundup Ready® 2 Technology contains genes that confer tolerance to glyphosate. Roundup Ready 2 Xtend® soybeans contains genes that confer tolerance to glyphosate and dicamba. Products with XtendFlex® Technology contain genes that confer tolerance to glyphosate, glufosinate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba. Glufosinate will kill crops that are not tolerant to glufosinate. Roundup Ready 2 Xtend®, Roundup Ready 2 Yield® and XtendFlex® are registered trademarks of Bayer Group. Used under license. Bayer CropScience Inc. is a member of CropLife Canada. © 2023 Bayer Group. All rights reserved.

Hybrid names, as opposed to variety names, are stated in this seed guide. Please contact Syngenta directly or consult the product's bag/tag to obtain the product's variety name.

Performance evaluations are based on internal trials, field observations and/or public information. Data from multiple locations and years should be consulted whenever possible. Individual results may vary depending on local growing, soil and weather conditions.

These are general considerations. Always consider the specific situation on your field and exercise good agronomic practices.

NK® soybean varieties are protected under granted or pending Canadian variety patents and other intellectual property rights, regardless of the trait(s) within the seed.

The seeds, traits, and technology contained herein, as well as the parental lines and progeny, are covered by intellectual property protection, which may include plant variety certificates, trade secrets and patents which may include, but are not limited to, patented germplasm, transgenic traits, native traits, transformation technologies, methods of use and breeding methods. The purchase/bailment/transfer of these seeds conveys no right under any intellectual property to use these seeds for any purpose. A conditional right for a specific use, including planting for a single commercial crop, must be first obtained by entering into a Syngenta Stewardship Agreement.

Always read and follow label directions. Maxim Quattro with Vibrance is an on-seed application of Maxim Quattro Seed Treatment fungicide and Vibrance 500FS Seed Treatment fungicide. Miravis® Neo refers to Miravis® Neo 300SE fungicide. Trivapro® is a co-pack of Trivapro® A fungicide and Trivapro® B fungicide. Vayantis IV is a co-pack of Vibrance Trio fungicide seed treatment and Vayantis fungicide seed treatment. AAtrex®, Acuron®, Agrisure®, Artesian™, Boundary®, Callisto®, Draco®, Duracade™, DuracadeViptera™, Endigo®, Envita®, E-Z Refuge®, Flexstar®, Fortenza®, Foundation Acre®, Halex®, IP Globe™, Magnum®, Maxim®, Mertect®, Miravis®, NK®, NK® and Design, Primextra®, Refex®, Rooting Power®, RTA®, Saltro®, SCN Solutions™, Seedcare™, Tavium®, Trivapro®, Vayantis®, Venture®, Vibrance®, Viptera™, Voliam Xpress® and the Syngenta logo are trademarks of a Syngenta Group Company. Allegro® is a trademark of ISK Biosciences Corporation. STS® is a trademark of Corteva Agriscience LLC. Respect the Refuge® is a trademark of the Canadian Seed Trade Association. Other trademarks are property of their respective owners. © 2023 Syngenta.

