



2023 Western Canada
Seed Guide

THINK AHEAD

syngenta®

ThaNK you for reading

Welcome to the 2023 NK® Seeds Canada Western Seed Guide.

In the pages that follow you'll learn about NK soybeans and corn – what's new for 2023, the innovative power of our traits and genetics, which varieties and hybrids are exceling in field, the Syngenta Seedcare™ offerings available to help protect your field against diseases and insects, and much more.

But first, 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 seed guide. Your success starts with selecting the right seed, and we sincerely appreciate you considering NK.

We recognize the need to earn your time, trust, and field.

NK continues to invest in significant advancements to strengthen our portfolio and better support the success of all our growers. To date, we have spent over \$1.4 billion in global R&D – specifically putting \$30 million into a corn trait introgression facility, as well as doubling the size of our soybean experimental class and tripling the size of our corn experimental class.

Science is just one of our strengths. Talent is another.

NK Seeds Canada is very excited about our highly skilled team that is fully focused and dedicated to seed. Our Agronomists bring insights to every conversation, our Territory Sales Representatives are deeply connected to their regions, and everyone on our team spends their time thinking about bringing value to growers.

“ With proven performance, innovative genetics, trusted experts, and a renewed commitment to farmers, it's time to thiNK again.

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 large background image showing a vast green soybean field in the foreground, stretching towards a horizon under a bright blue sky with large, white, fluffy clouds. The sun is low on the horizon, creating a warm, golden glow on the clouds and the field.

SOYBEANS

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SOYBEANS

Our **soybean varieties** are a
stalk you want to invest in
– trust us!

A vertical photograph of a lush green soybean field under a clear blue sky, positioned on the left side of the page.

Soybean varieties

NK draws on proprietary genetics to breed unique, high-yielding soybean varieties. Our soybeans are developed from the industry's largest and most diverse germplasm pool, offering a sizeable selection for a broad range of growing conditions. By doubling the size of our soybean experimental class and increasing our field data points by 40% in the last two years, we've been able to deliver the options you need with the performance you expect.

Take advantage of an unmatched combination of elite genetics, next-generation technology, and leading herbicide traits. Find the perfect mix of agronomic characteristics and herbicide tolerance to help you succeed on your farm.

Soybean trait index

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



Roundup Ready 2 Xtend® soybeans

Roundup Ready 2 Xtend® trait technology provides tolerance to both glyphosate (Group 9) and dicamba (Group 4) herbicides, allowing growers to use multiple modes of action to help manage tough weeds like redroot pigweed, wild buckwheat and glyphosate-resistant kochia. Look for an "X" near the end of the variety name to indicate this trait.



Roundup Ready 2 Yield® soybeans

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

STS®

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.

Naming convention

S0009-F2X

We've changed our naming convention for 2023. Here's an example:

S	0009	F2	X
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 X = Roundup Ready 2 Xtend® Letter and number combination = Roundup Ready 2 Yield® S = Sulfonylurea-tolerant soybeans (STS®)


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

Description key

CHU: 2275: Specific crop heat units for this product.


QR code to product page

S0009-F2X



CHU:
2275

RM:
0.009













Narrow leaf variety with strong yield potential

- Excellent iron deficiency chlorosis tolerance
- Best performance on medium to coarse textured soils
- Rps1c with good field tolerance to Phytophthora root rot

Herbicide tolerant trait

Relative maturity: 0.009:
A relative maturity (RM) system is used to rank soybeans. Each variety is classified with a 0 to 9 decimal number following the group (or zone) number. For example, a variety with a 2.1 RM can be grown in the northern part of the "II" relative maturity zone, while a 2.9 is a variety that can be grown in the southern part of that maturity zone.

Agronomic characteristics

PRODUCT				AGRONOMIC/PLANT CHARACTERISTICS											
Variety	Herbicide Tolerant Trait	Relative maturity	Canadian Prairies CHU	Emergence	Canopy type	Plant height	Standability	Narrow rows	Wide row	Pubescence colour	Flower colour	Pod colour	Hilum colour	Seed Size	
S0007-S1X NEW		0.007	2225	3	M	M	4	1	2	LTW	PUR	TN	IMY	S	
S0009-F2X		0.009	2275	3	MT	M	3	1	4	LTW	PUR	TN	BR	S	
S0009-M2		0.009	2275	3	MT	M	4	1	4	LTW	PUR	BR	IMY	M	
S001-D8X		0.01	2300	3	MT	MT	3	1	4	TW	PUR	BR	IMY	S	
S003-R5X		0.03	2325	3	M	M	2	1	2	LTW	PUR	BR	IMY	M	
S003-Z4X		0.03	2325	2	M	M	2	1	3	GR	PUR	BR	BF	M	
S005-C9X		0.05	2350	2	M	M	3	1	2	LTW	PUR	TN	BL	M	
S007-Y4		0.05	2350	3	M	M	2	2	2	LTW	PUR	TN	IMY	L	
S006-K3X NEW		0.06	2375	3	M	M	3	2	1	GR	PUR	TN	BF	S	
S007-A2XS		0.07	2400	3	M	MT	3	2	2	LTW	PUR	BR	GR	S	

	ADAPTION TO SOIL					PESTS AND DISEASES				
	Drought Prone	High pH	Highly Productive	Variable	Poorly Drained	Soybean cyst nematode races	Phytophthora race resistance	Phytophthora field tolerance	White mould	Iron deficiency chlorosis
	2	2	1	2	1	S	Rps1c,Rps3a	2	4	3
	2	1	1	2	2	S	Rps1c	4	4	2
	2	2	1	2	2	S	Rps6	3	3	3
	1	2	1	1	1	S	Rps1c	4	3	3
	1	3	2	1	1	S	Rps1c	2	3	4
	2	2	1	2	3	S	Rps1c	4	4	3
	2	4	1	1	1	S	Rps1c	2	3	5
	2	2	1	1	2	S	Rps1c	3	2	3
	1	2	1	2	1	MR3	Rps1c	3	4	3
	1	2	1	1	2	S	S	4	4	3

Soybean chart key

Herbicide-tolerant trait

RR2X = Roundup Ready 2 Xtend®

RR2Y = Roundup Ready 2 Yield®

STS® = Sulfonylurea-tolerant soybean

Relative maturity

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

Emergence, standability, narrow row and wide row ratings

Numerical rating scale of 1 – 9
1 = Best, 9 = Worst, – = Under evaluation

Canopy type

T = Thin, MT = Medium Thin, M = Medium
MB = Medium Bush, B = Bush

Plant height

T = Tall, MT = Medium Tall, M = Medium
MS = Medium Short, S = Short

Colour abbreviations

BL = Black, BR = Brown, GR = Grey
PUR = Purple, TN = Tan, TW = Tawny
LTW = Light Tawny, IMY = Imperfect Yellow
BF = Buff

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. S = Susceptible

Phytophthora race resistance

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

Resistant to races:

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

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

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

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

Phytophthora root rot

Usually not as race specific, but offers overall general protection for enhanced season long Phytophthora protection. Resistance is not expressed in early stages of plant development.

Numerical rating scale of 1–9

1 = Best, 9 = Worst, – = Under evaluation

White mould and iron deficiency chlorosis (IDC)

Numerical rating scale of 1—9

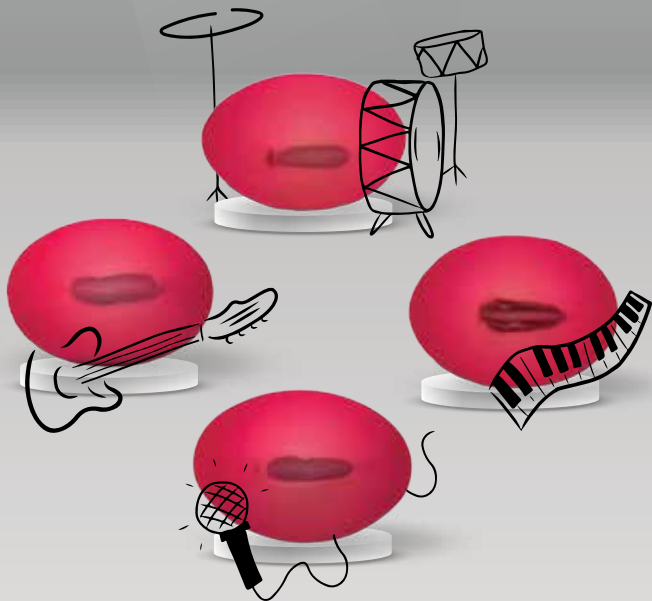
1 = Best, 9 = Worst, – = Under evaluation

Four ways to rock early season disease

Dig the sweet new sound of Vayantis® IV soybean seed treatment!

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.



 **Vayantis® IV**

 **syngenta®**

Population recommendations by management zone:

YIELD ENVIRONMENT (BU/AC)				
Soil type	Plant type	> 55'	35-55'	< 35'
Sand	Thin	150,000	160,000	175,000
	Branching	135,000	150,000	160,000
Clay	Thin	160,000	175,000	185,000
	Branching	150,000	160,000	170,000
Loam	Thin	150,000	160,000	175,000
	Branching	135,000	150,000	160,000

Increase population by 10-20% over recommendations above if:¹

- Field has poor drainage and/or large amounts of surface crop residue.
- Field has history of soil crusting and early season establishment issues.
- Planting soybeans later in the season (after May 30th).

¹Under high mortality conditions, an increase of more than 20% may be required.

VARIETY PLANT TYPES		
Thin varieties have a row width of 15" or less	Between varieties can be managed to act as either thin or branching	Branching varieties have a row width of 20" or greater
S0009-F2X	S0007-S1X	
S0009-M2	S003-R5X	
S001-D8X	S003-Z4X	
	S005-C9X	
	S007-Y4	
	S006-K3X	
	S007-A2XS	

Between varieties:

- These varieties can be managed to act as either thin or branching.
- Row widths of 15 inches or less – consider them thin plant type.
- Row widths of 20 inches or more – consider them branching plant type.

PLANTING GUIDE				
Seeds (per acre)/desired seeding rate (per acre)	Row width (inches)			
	7.5	15	20	30
	Seeds (per foot of row)			
120,000	1.7	3.4	4.6	6.9
130,000	1.9	3.7	5.0	7.5
140,000	2.0	4.0	5.4	8.0
150,000	2.2	4.3	5.7	8.6
160,000	2.3	4.6	6.1	9.2
170,000	2.4	4.9	6.5	9.8
180,000	2.6	5.2	6.9	10.3
190,000	2.7	5.5	7.3	10.9
200,000	2.9	5.7	7.7	11.5
210,000	3.0	6.0	8.0	12.1
220,000	3.2	6.3	8.4	12.6
230,000	3.3	6.6	8.8	13.2
240,000	3.4	6.9	9.2	13.8

For seed count information, consult bag or tote placard.



S0007-S1X



NEW

CHU:
2225

RM:
0.007



Strong agronomics with great yield potential

- Rps1c/3a gene stack with very strong Phytophthora field tolerance
- Solid tolerance to iron deficiency chlorosis with good standability
- Strong performance across yield levels with excellent top-end yield potential

ADAPTATION TO SOIL TYPES

Drought prone	●
High pH*	●
Highly productive	●
Moderate/variable environments	●
Poorly drained	★

DISEASE RATINGS

Iron deficiency chlorosis	3
Phytophthora root rot	2
White mould	4

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★Best choice ●Good choice ▼Average to slightly below average ✖Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

- Exceptional yield potential for its maturity
- Strong agronomic package
- Ultra early option for Western Manitoba and Saskatchewan

What to manage

- High management and tight rotation scenarios can increase chance of white mould. Consider reducing planting population to manage.

Where to plant

- Best performance on 20" and narrower row spacings
- Competitive on a wide range of soil types but excels on fine textures
- Strong Phytophthora package allows placement on poorly drained fields
- Performs well in all yield environments



S0009-F2X



CHU: 2275 RM: 0.009



Narrow leaf variety with strong yield potential

- Excellent iron deficiency chlorosis tolerance
- Best performance on medium to coarse textured soils
- Rps1c with good field tolerance to Phytophthora root rot

ADAPTATION TO SOIL TYPES	
Drought prone	●
High pH*	★
Highly productive	★
Moderate/variable environments	●
Poorly drained	●

DISEASE RATINGS							
Iron deficiency chlorosis							
Phytophthora rot rot							
White mould							
9	8	7	6	5	4	3	2 BEST

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★ Best choice ● Good choice ▼ Average to slightly below average ✖ Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

- Narrow leaf Roundup Ready 2 Xtend® variety with very good yield potential
- Very strong tolerance to iron deficiency chlorosis
- Good tolerance to Phytophthora root rot with the Rps1c gene
- Good companion product to S0009-M2

What to manage

- High management and tight rotation scenarios can increase chance of white mould

Where to plant

- Good performance on high pH soils or fields with a history of iron deficiency chlorosis
- Competitive on a wide range of soil types
- Performs best in narrow rows



S0009-M2



CHU: 2275 RM: 0.009



High yield potential with very good stress tolerance

- Maintains medium plant height across variable environments
- Dependable Phytophthora root rot field tolerance with Rps6 gene
- Strong iron deficiency chlorosis

ADAPTATION TO SOIL TYPES	
Drought prone	●
High pH*	★
Highly productive	★
Moderate/variable environments	●
Poorly drained	●

DISEASE RATINGS	
Brown stem rot	4
Iron deficiency chlorosis	3
Phytophthora root rot	3
White mould	3

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★Best choice ●Good choice ▼Average to slightly below average ✖Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

- Consistent performance across Western Canada
- A good fit if spring challenges force late planting decisions
- Low risk early maturity variety for growers in Saskatchewan
- Highly adaptive, most versatile variety in the western NK portfolio
- Very adaptable to different maturity areas

What to manage

- High management and tight rotation scenarios can increase chance of white mould

Where to plant

- Utilizes early summer moisture



S001-D8X



CHU: 2300
RM: 0.01



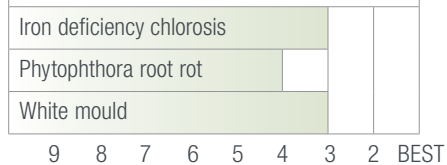
Excellent yield with a solid agronomic package

- Very good standability and tolerance to white mould
- Strong stress tolerance allows performance across a range of soil types
- Performs well across yield environments

ADAPTATION TO SOIL TYPES

Drought prone	★
High pH*	●
Highly productive	★
Moderate/variable environments	★
Poorly drained	●

DISEASE RATINGS



1-9 Scale: 1 = Best, 9 = Worst, - = Under evaluation

★ Best choice ● Good choice ▼ Average to slightly below average ✖ Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

- Outstanding yield potential
- Good stress tolerance and performance on variable soils
- Solid agronomic package

What to manage

- Manage standability on light soils and in high yield environments

Where to plant

- Competitive on a wide range of soil types but performs best on heavy soils
- Very good performance across yield environments
- Narrow leaf variety that is best suited to narrow rows



S003-R5X



CHU:
2325 RM:
0.03



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 white mould

ADAPTATION TO SOIL TYPES	
Drought prone	★
High pH*	●
Highly productive	●
Moderate/variable environments	★
Poorly drained	★

DISEASE RATINGS	
Iron deficiency chlorosis	4
Phytophthora root rot	2
White mould	3
	9 8 7 6 5 4 3 2 BEST

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★Best choice ●Good choice ▼Average to slightly below average ✖Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

- Excellent agronomic package
- Very good stress tolerance
- Exceptional yield potential

What to manage

- Expect lower plant height on heavy clay soils with high pH

Where to plant

- Reliable performance across all yield environments
- Competitive on a wide range of soil types with best performance on fine to medium textures
- Well suited for wide and narrow row spacings
- Strong Phytophthora package allows placement on poorly drained fields



S003-Z4X

 ROUNDUP READY 2
X TEND
 SOYBEANS

 CHU:
 2325

 RM:
 0.03


Consistent performance with top-end yield potential

- Excellent standability and good tolerance to white mould
- Contains Rps1c Phytophthora root rot gene
- Best performance on medium to coarse textured soils

ADAPTATION TO SOIL TYPES

Drought prone	●
High pH*	●
Highly productive	★
Moderate/variable environments	●
Poorly drained	▼

DISEASE RATINGS

Brown stem rot	4
Iron deficiency chlorosis	3
Phytophthora root rot	4
White mould	3

9 8 7 6 5 4 3 2 BEST

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★Best choice ●Good choice ▼Average to slightly below average ✖Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

- Strong agronomics with top-end yield
- Very good standability with good tolerance to White Mould
- Contains Rps1c Phytophthora root rot gene
- Good companion product to S007-Y4 in western Manitoba and Saskatchewan

What to manage

- Plant on fields with low to moderate Phytophthora pressure

Where to plant

- Competitive on a wide range of soil types
- Good stress tolerance and performance in drought conditions
- Flexible growth that is suited to all row spacings
- Performs well in high yield environments



S005-C9X



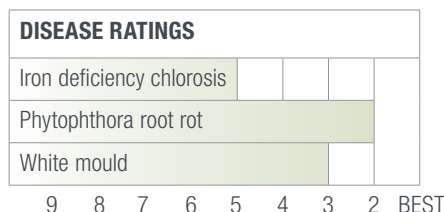
CHU: 2350
RM: 0.05



Solid performer that excels in high-yield environments

- Very strong Phytophthora root rot tolerance combined with the Rps1c gene
- Solid standability and white mould tolerance
- Good stress tolerance and performance across soil types

ADAPTATION TO SOIL TYPES	
Drought prone	●
High pH*	✗
Highly productive	★
Moderate/variable environments	★
Poorly drained	★



1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★Best choice ●Good choice ▼Average to slightly below average ✗Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

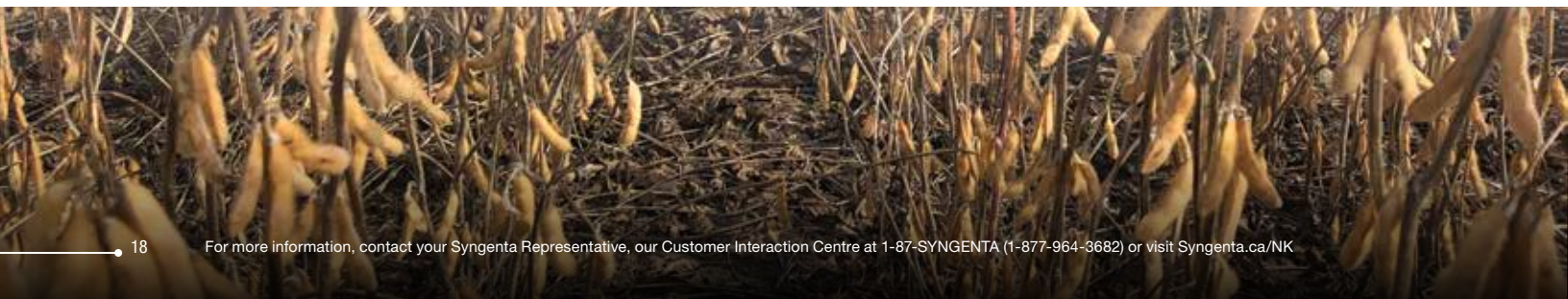
- Consistent performance across yield environments
- Rps1c gene with very good tolerance to Phytophthora root rot
- Dependable standability and tolerance to white mould

What to manage

- Avoid fields with high sodium content or a history of high iron deficiency chlorosis

Where to plant

- Excellent performance in high yield environments
- Competitive on a wide range of soil types, with best performance on medium textured soils
- Plant structure allows this variety to be grown in most row spacings
- Good stress tolerance and performance in droughty conditions



S007-Y4



CHU: 2350
RM: 0.05



Recognized yield performer with broad adaptation

- Excellent standability for ease of harvest
- Strong Phytophthora root rot field tolerance with the Rps1c gene
- Solid emergence with excellent white mould tolerance

ADAPTATION TO SOIL TYPES	
Drought prone	●
High pH*	●
Highly productive	★
Moderate/variable environments	★
Poorly drained	●

DISEASE RATINGS	
Brown stem rot	5
Iron deficiency chlorosis	3
Phytophthora root rot	3
White mould	2
	9 8 7 6 5 4 3 2 BEST

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★ Best choice ● Good choice ▼ Average to slightly below average ✖ Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

- Consistently high performing variety
- Very consistent from eastern to western growing conditions
- Very adaptable to different maturity areas

What to manage

- Performs best at higher seeding rate due to plant architecture and disease tolerance
- Expect lower plant height in heavy clay soils with high pH

Where to plant

- Well suited for heavy, poorly drained soils with a strong Phytophthora package
- Strong choice for fields with a history of white mould
- Very positive yield response to high management practices



S006-K3X



NEW

CHU:
2375

RM:
0.06



Excellent agronomics with Soybean Cyst Nematode (SCN) resistance

- Branchy bean with performance in all yield environments and row widths
- Very good Phytophthora Root Rot tolerance combined with the Rps1c gene
- Strong standability and tolerance to Iron Deficiency Chlorosis

ADAPTATION TO SOIL TYPES

Drought prone	▼
High pH*	●
Highly productive	★
Moderate/variable environments	★
Poorly drained	★

DISEASE RATINGS

Iron deficiency chlorosis	3								
Phytophthora root rot	3								
White mould	4								
	9	8	7	6	5	4	3	2	BEST

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★Best choice ●Good choice ▼Average to slightly below average ✖Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

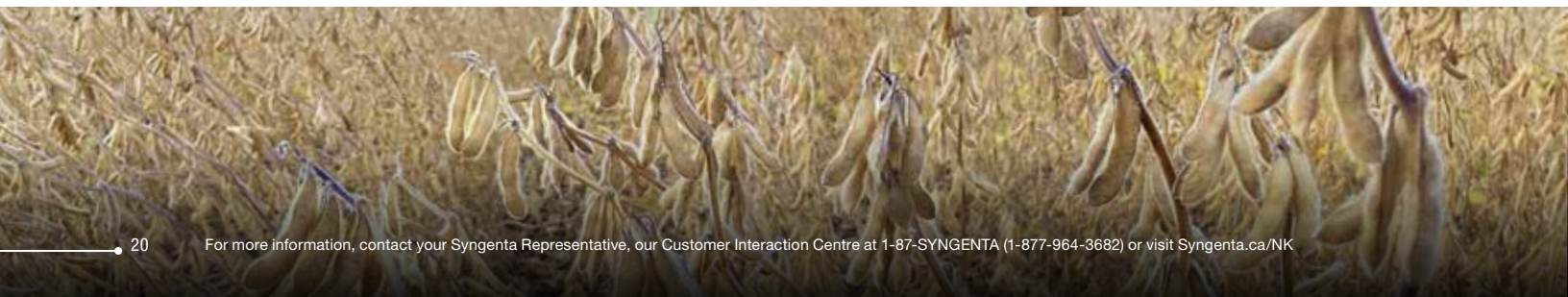
- Consistent performance in all yield environments
- Strong combination of Phytophthora and IDC tolerance
- Good standability with SCN resistance

What to manage

- Consider lowering populations on light textured soils to manage white mould

Where to plant

- Competitive on a wide range of soil types with best performance on fine to medium textures
- Well suited for wide and narrow row spacings
- Good choice for variable and poorly drained soils



S007-A2XS

STS®


CHU:
2400RM:
0.07

Outstanding yield with excellent stress tolerance

- Consistent performance across yield environments and soil types
- Solid tolerance to iron deficiency chlorosis
- Very good standability with good performance in all row widths

ADAPTATION TO SOIL TYPES

Drought prone	★
High pH*	●
Highly productive	★
Moderate/variable environments	★
Poorly drained	●

DISEASE RATINGS

Iron deficiency chlorosis	3								
Phytophthora root rot	4								
White mould	4								
	9	8	7	6	5	4	3	2	BEST

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

★ Best choice ● Good choice ▼ Average to slightly below average ✖ Not recommended

*Rating represents an assessment of stand establishment, chlorosis severity and yield performance.

Why to plant

- Strong agronomics with top-end yield
- Very good emergence and performance on heavy soils
- Good tolerance to white mould

What to manage

- Plant on fields with low to moderate Phytophthora pressure
- Manage standability on light soils and in high yield environments

Where to plant

- Good stress tolerance and performance on variable soils
- Medium plant type that is suited to all row spacings
- Performs well in high yield environments



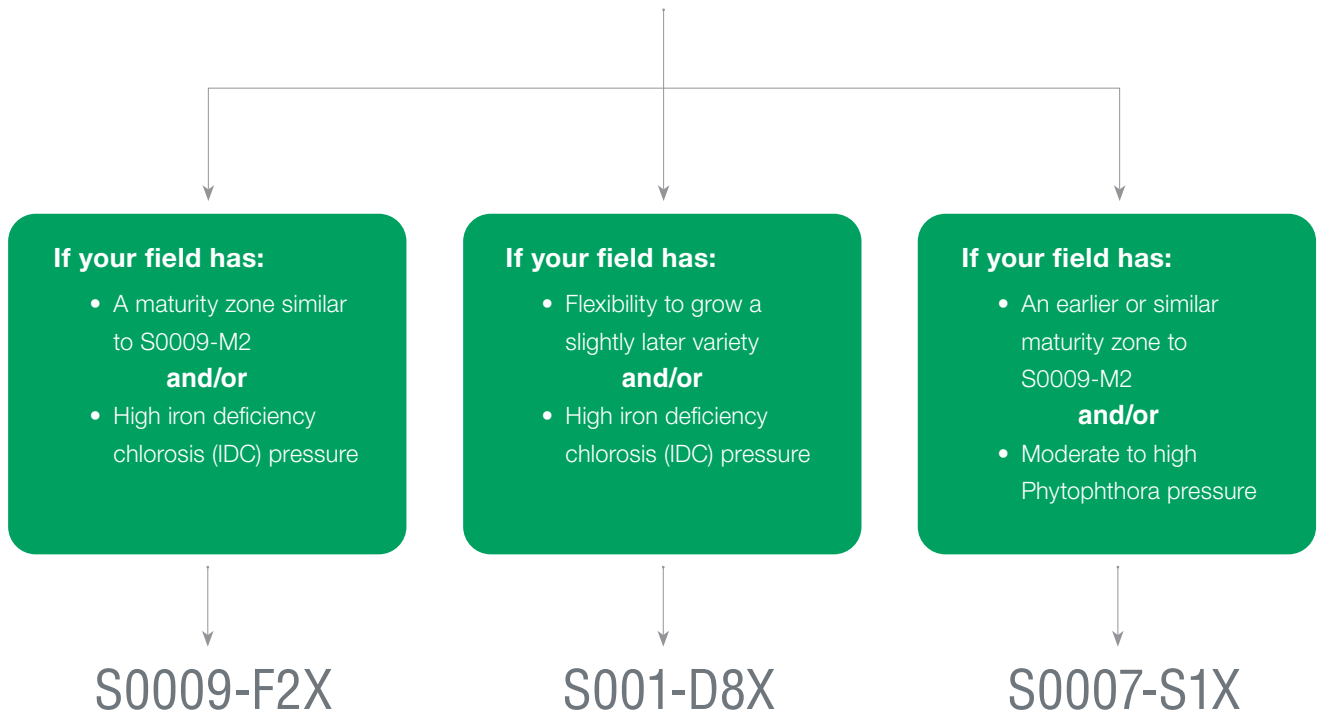
Want to try a new variety, but not sure which one will suit your farm?

If you're a fan of S007-Y4, consider the following companion varieties.



If you're a fan of S0009-M2, consider the following companion varieties.

S0009-M2



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.

	COMPLETE BASE OFFER	INSECTICIDE-ONLY OFFERS	
	 Vayantis® IV <small>ROOTING POWER</small>	 Cruiser® 5FS	 Fortenza®
Active ingredients	Metalaxyl-M Sedaxane Fludoxonil Picarbutrazox	Thiamethoxam	Cyantraniliprole
Fungicide groups(s)	4, 7, 12, U17	Group 4 insecticide	Group 28 insecticide
Inoculant compatibility	Yes	Yes	Yes
Application rate (mL/100 kg seed)	100+6.25 ¹	50-83 ⁴	41.5-83 ⁵
DISEASES/PATHOGENS			
<i>Pythium spp.</i>	★		
<i>Fusarium spp.</i>	●		
<i>Rhizoctonia spp.</i>	●		
Phytophthora root rot	★		
Phomopsis pod and stem blight ²	●		
Sudden death syndrome			
Soybean cyst nematode			
INSECTS			
White grubs ³		●	●
Wireworm		●	●
Seedcorn maggot		●	●
Cutworm			●
Bean leaf beetle		●	●
Aphid		●	● ⁶
PACKAGING			
Dye colour of built-in colourant	Red		

Legend

★ = More broad-spectrum or stronger activity

● = Registered

¹ The minimum rate may be used in fields with a known low level of damping-off. Use a rate in the upper end of the rate range where there is a field history of damping-off

² Control claim for seed-borne *Phomopsis*

³ The white grubs registered are either/and European Chafer, June, or Japanese beetles species

⁴ Apply Cruiser 5FS at the high rate when targeting white grubs, wireworms, bean leaf beetles and aphids

⁵ Apply Fortenza at the highest rate when targeting wireworms, bean leaf beetles and aphids

⁶ Early season reduction of soybean aphid populations



Vayantis® IV is the next generation of soybean seed treatment from Syngenta. It delivers comprehensive, next-level performance against a wide range of early-season seed and seedling diseases, including the broadest Pythium and Phytophthora protection available—for a stronger standing, higher-performing crop.



Thanks to the **Rooting Power®** of Vibrance, Vayantis IV delivers stronger roots that take full advantage of soil nutrients and can better defend against soil-borne diseases, improving soybeans' ability to withstand unfavourable spring conditions.



Protect every seed from early-season insects by using **Cruiser® 5FS** with your Vayantis IV fungicide seed treatment, so you can optimize stand establishment and plant vigour.














Fortenza® is a non-neonicotinoid soybean insecticide seed treatment. Formulated to deliver control of the toughest pests including cutworms, wireworms and soybean aphids. Even under heavy insect pressure, Fortenza helps growers build a strong soybean stand with faster, more uniform growth.

Helping hands when and where you need them the most.

Under pressure? Protect your soybean seeds and seedlings with Fortenza® insecticide seed treatment. Non-neonicotinoid soybean seed treatment, Fortenza provides control of seed corn maggot, wireworm, European chafer and June beetle. Even under heavy insect pressure, Fortenza helps farmers build a strong soybean stand with faster, more uniform growth.





SEED	PE	VC	V1	V2	R1	R2	R3	R5	MATURITY	
										
  										
										
										

¹Flexstar GT is for glyphosate-tolerant soybeans only.



CORN

Our **selection of hybrids**
will have you smiling
from ear to ear!



Corn hybrids

The NK corn lineup offers a significant range of high-performing products equipped with industry-leading traits and crop protection solutions to fit your unique agronomic challenges. Featuring the Agrisure® trait platform from Syngenta, growers will experience the most comprehensive above and above & below ground insect protection trait package available in North America. Investing in scientific research and development, doubling our breeder program, and tripling our corn experimental class has allowed us to deliver a robust corn product lineup growers can trust.

With proven yield results and advanced genetics, you can feel confident growing NK corn this season.

NEW for 2023: Corn trait stack names

We're excited to introduce a new corn naming structure for the 2023 planting season to help you easily identify our trait stacks. Developed with input from growers, channel partners, and internal stakeholders, this streamlined naming system allows for a clearer understanding of our corn products and the benefits within each trait stack.





Our corn trait stacks will now have simplified names that leverage the brand equity already established in the market. Designators on hybrid names will also be simplified. These thoughtful changes have been put in place to help you 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:

TRAIT STACKS - IMPACTED

EZ Refuge® and all Artesian™ versions of

- Agrisure Duracade® 5222
- Agrisure Duracade® 5122
- Agrisure Viptera® 3220
- Agrisure® 3120

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

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

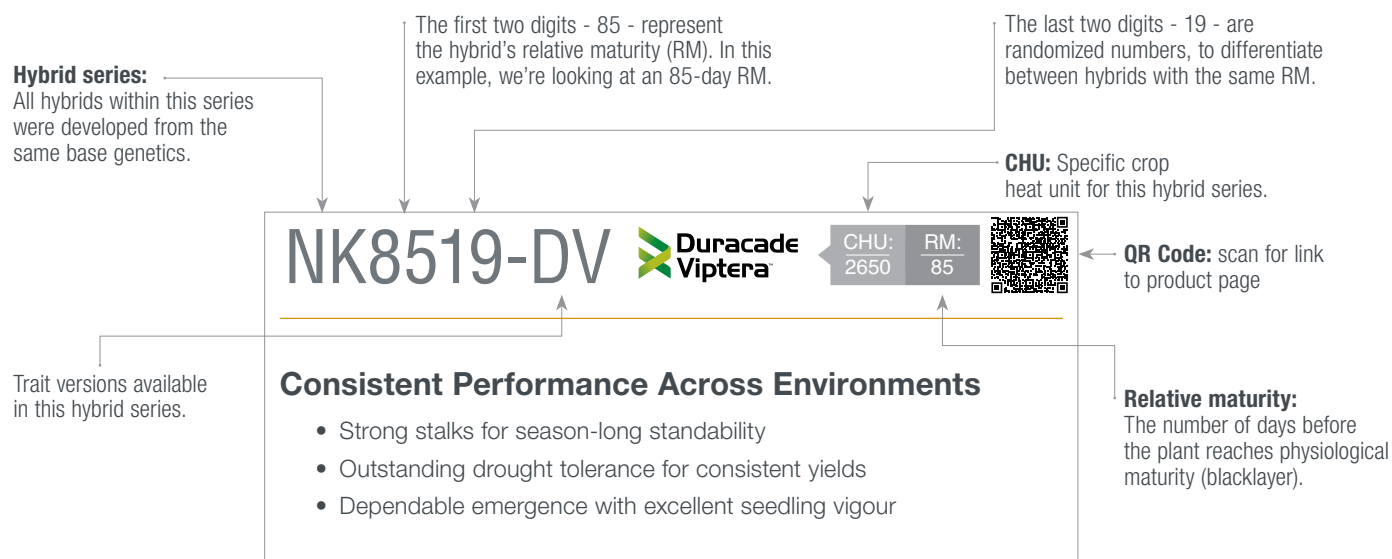
ABOVE & BELOW GROUND TRAIT STACKS

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 will help to clearly communicate the benefits of each trait stack. Our system will use 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 will continue. The simplified stack designators will not contain an 'A' to indicate that stack is also Artesian. Products will be 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 updated stack names will not include the specific words E-Z Refuge but will still be noted on bag tags.

Description key



Agrisure trait stack characteristics:

Above-ground insect control:

Agrisure Above

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

Above- and below-ground insect control:

Duracade

- E-Z Refuge
- Corn root worm control
- Corn borer control
- Broad lepidopteran suppression
- 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





Agrisure traits

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

		Above-ground insect protection	Above- and below-ground insect protection	
Heat units	Relative maturity	 Viptera™	 Duracade™	 Duracade Viptera™
≤ 2550	≤ 82	NK7837-V NK8005-V NK8204-V		
2600-2700	83 - 87	NK8760-V	NK8618-D	NK8519-DV
2725-2825	88 - 92			NK9023-DV NK9175-DV

Premium insect control

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

Above-ground	Above- and below-ground
 Agrisure Above™ Agrisure® Above trait stack provides two modes of action against above-ground pests while also providing glyphosate tolerance.	 Duracade™ Duracade™ 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.
 Viptera™ 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.	 Duracade Viptera™ DuracadeViptera™ 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 Agrisure 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

		Optimum [®] AcreMax [®]	Optimum [®] AcreMax [®] Leptra™ (AML)	Genuity [®] VT Double PRO [®] RIB Complete [®] (VT2P)	Trecepta [®] RIB Complete [®] (TRE)
Corn earworm ¹	****	**	****	***	****
Black cutworm	****	***	****	*	****
Fall armyworm	****	*	****	***	****
Western bean cutworm	****	*	****	*	****
Common stalk borer	***	*	***	*	***
European corn borer ¹	****	****	****	****	****

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

			Optimum [®] AcreMax [®] XTreme (AMXT)	Qrome [®] (Q)	Genuity [®] SmartStax [®] RIB Complete [®] (SS)
Corn earworm ¹	****	**	**	**	***
Black cutworm	****	***	***	***	***
Fall armyworm	****	*	*	*	***
Western bean cutworm	****	*	*	*	*
Common stalk borer	***	*	*	*	*
European corn borer	****	****	****	****	****
Western and northern corn rootworm ¹	***	***	***	***	***

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

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

¹ There is no known resistance to Duracade™ or Viptera™.

Agronomic characteristics

PRODUCT						MATURITY INFORMATION				AGRONOMIC / PLANT CHARACTERISTIC										
Brand name	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		✓	✓	✓	78	2350	78	78	3	3	4	3	2	3	2	4	2	SF	
NK8005	V	✓	✓	✓	✓	80	2400	78	77	3	3	5	4	1	4	2	3	3	SF	
NK8204	V		✓	✓	✓	82	2550	84	82	3	2	4	4	4	2	4	2	4	SF	
NK8519	DV		✓	✓	✓	85	2650	86	85	3	2	3	4	3	3	3	4	3	SF	
NK8618	D	✓	✓	✓	✓	86	2650	84	85	3	3	3	5	3	4	2	3	2	SF	
NK8760	V		✓	✓	✓	87	2650	85	85	2	2	4	4	4	4	3	3	4	SF	
NK9023	DV		✓	✓	✓	90	2725	91	90	3	3	2	2	3	3	3	4	3	SD	
NK9175	DV	✓	✓	✓	✓	91	2750	91	91	2	2	3	4	4	3	3	5	4	SD	

	SEEDING RATE					ADAPTATION TO SOIL TYPES/ YIELD ENVIRONMENTS				DISEASE TOLERANCE					SILAGE RATINGS									
	-20%	-10%	0	+10%	+20%	Drought prone	Highly productive	Variable soils	Poorly drained	Goss' Wilt	Northern corn leaf blight	Anthracoese stalk rot	Fusarium crown rot	Eyespot	Yield (ton/ac)	CP (% of DM)	Starch (% of DM)	TDN (% of DM)	NEL (Mcal/lb)	Milk (lbs/ton)	Milk (lbs/ac)	Beef (lbs/ton)	Beef (lbs/ac)	
	●	●	★	★	★	●	★	●	★	4	-	-	-	-	●	●	★	★	★	★	★	★	★	
	●	●	★	★	●	★	●	★	●	4	5	-	-	3	●	●	★	●	-	●	●	●	●	
	▼	●	★	★	★	▼	★	▼	●	4	4	-	4	4	▼	▼	▼	●	▼	●	▼	●	▼	
	●	●	★	●	●	★	★	★	●	4	3	-	4	4	★	●	▼	★	-	★	★	★	★	
	●	●	★	★	●	★	★	★	★	4	3	2	2	3	★	●	★	▼	●	▼	●	▼	●	
	●	●	★	★	●	★	★	★	●	4	3	4	4	-	●	★	★	★	★	★	★	★	★	
	●	●	★	●	●	●	★	★	●	5	3	3	3	-	▼	●	●	●	●	▼	▼	●	▼	
	●	●	★	●	●	★	★	★	●	4	3	4	5	3	★	●	●	●	-	★	★	★	★	

Corn chart key

Traits
V = Viptera
D = Duracade
DV = Duracade Viptera
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 adaption 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.



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.

**We've captured it!
Innovative corn disease control**

Turns out, you *can* catch lightning in a bottle. New Miravis® Neo fungicide lets you manage for yield AND quality in your corn without compromise. Miravis Neo delivers best-in-class protection against the broadest range of quality and yield-robbing diseases—including Fusarium—for a higher-yielding, healthier crop. And a difference you can clearly see.



 **Miravis® Neo**

syngenta.

NK7837-V

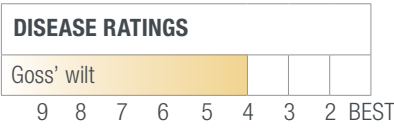


CHU: 2350
RM: 78



Broad Adaptation Across Yield Environments

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



1– 9 Scale: 1 = Best, 9 = Worst, – = Under evaluation
SF = Semi flex, SD = Semi-Determinate

AGRONOMIC CHARACTERISTICS RATINGS	
RM	78
RM to Silk	78
RM to Blacklayer	78
Emergence	3
Root Strength	4
Stalk Strength	2
Greensnap tolerance	6
Drought Tolerance	2
Test Weight	2
Ear Flex	SF
Beef per acre	2
Milk per acre	1

Why to plant

- Early RM yield leader with remarkable feed values
- Viptera offers the broadest above ground insect protection including excellent cutworm control
- Heavy test weight and early maturing characteristics for broad adaptation across the Prairies
- Excellent stalk lodging tolerance for season long standability
- Good Goss' wilt tolerance
- Outstanding feed values.

What to manage

- Avoid fields with a known history of greensnap

Where to plant

- Great adaptation to 75 to 80 RM areas
- Grain, silage or feed grain acres
- Widely adapted to either high or moderate yield or droughty environments
- Semi-Flex ear type allows for plant population flexibility



NK8005-V

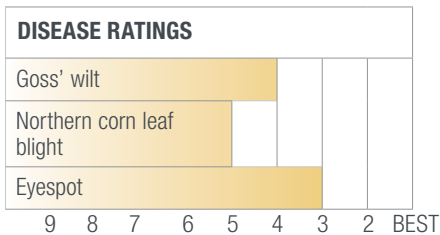


CHU:
2400 RM:
80



Superior Yield Combined with Artesian Technology

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



1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

SF = Semi flex, SD = Semi-Determinate

AGRONOMIC CHARACTERISTICS RATINGS

RM	80
RM to Silk	78
RM to Blacklayer	77
Emergence	3
Root Strength	3
Stalk Strength	3
Greensnap tolerance	3
Drought Tolerance	1
Test Weight	2
Ear Flex	SF
Beef or Milk per acre	2

Why to plant

- Top end yield potential with wide adaptation and outstanding drought tolerance featuring Artesian
- Viptera offers the best above ground insect protection including excellent cutworm control
- Heavy test weight, early flowering and early maturing characteristics for broad adaptation across the Prairies
- Very good greensnap, root and stalk lodging tolerance for season long standability
- Strong Goss' wilt tolerance

What to manage

- Broadly adapted hybrid with excellent response to management

Where to plant

- Broadly adapted across the Prairies in the 76 to 83 RM areas
- Excellent choice for either grain or silage acres
- Semi-flex ear allows for wide range of population flexibility
- Superb drought tolerance and yield stability

NK8204-V

CHU:
2550RM:
82

Exciting Yield Performance with Quick Drydown

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

DISEASE RATINGS

DISEASE RATINGS									
Goss' wilt									
Northern corn leaf blight									
Fusarium crown rot									
Eyespot									
	9	8	7	6	5	4	3	2	BEST

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

SF = Semi flex, SD = Semi-Determinate

AGRONOMIC CHARACTERISTICS RATINGS

RM	82
RM to Silk	84
RM to Blacklayer	82
Emergence	3
Root Strength	2
Stalk Strength	4
Greensnap tolerance	3
Drought Tolerance	3
Test Weight	4
Ear Flex	SF
Beef or Milk per acre	3

Why to plant

- Great performance across environments
- Viptera offers the broadest above ground insect protection including excellent cutworm control
- Excellent dry down for its maturity
- Very good greensnap and root strength
- Strong Goss' wilt and overall disease tolerance

What to manage

- Excels in mid to high yield environments
- Avoid sandy and drought prone acres

Where to plant

- Grain, feed grain or silage choice for the 82-85 RM areas
- Semi-flex ear allows for wide range of population flexibility
- Very good greensnap and root lodging tolerance for broad adaptation across the Prairies.



NK8519-DV



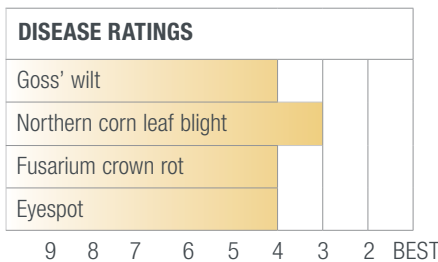
CHU:
2650

RM:
85



Consistent Performance Across Environments

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



1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

SF = Semi flex, SD = Semi-Determinate

AGRONOMIC CHARACTERISTICS RATINGS

RM	85
RM to Silk	86
RM to Blacklayer	85
Emergence	3
Root Strength	4
Stalk Strength	3
Greensnap tolerance	3
Drought Tolerance	1
Test Weight	3
Ear Flex	SF
Beef or Milk per acre	1

Why to plant

- Great dual-purpose hybrid with outstanding feed values
- Very stable performer with excellent drought tolerance
- DuracadeViptera offers the best above and below ground insect protection including excellent cutworm and rootworm protection
- Strong Goss' wilt and overall disease tolerance
- Very good greensnap and stalks

What to manage

- Keep plant populations under 36,000 plants per acre

Where to plant

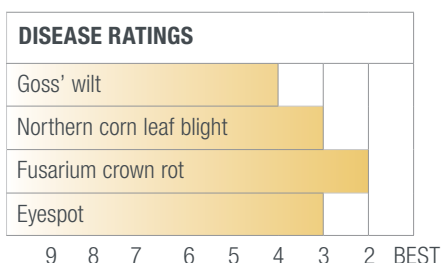
- Consistent performance with top end potential that excels in the variable acre
- Semi-flex ear allows for wide range of population flexibility
- Excellent choice for either rotated or corn-on-corn acres

NK8618-D

CHU:
2650RM:
86

Elite Genetics with Artesian Technology

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



1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

SF = Semi flex, SD = Semi-Determinate

AGRONOMIC CHARACTERISTICS RATINGS

RM	86
RM to Silk	84
RM to Blacklayer	85
Emergence	3
Root Strength	3
Stalk Strength	2
Greensnap tolerance	4
Drought Tolerance	1
Test Weight	2
Ear Flex	SF
Beef or Milk per acre	2

Why to plant

- Yield leader with above and below ground insect protection & excellent feed values
- High adaptability to a wide range of soil types and crop rotations, including corn on corn
- Heavy test weight and earlier flower allow for broad adaptation
- Outstanding drought tolerance powered by Artesian
- Very good roots and excellent stalks for season long standability
- Strong Goss' wilt and overall disease tolerance

What to manage

- Top-end yield choice for the highly managed acre
- Excels with good fertility programs

Where to plant

- Features Duracade for excellent corn rootworm protection making it highly suitable for either corn on corn or rotated acres
- Top end yield choice for high management acres
- Semi-Flex ear type allows for population flexibility



NK8760-V



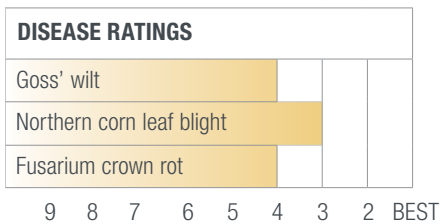
CHU:
2650

RM:
87



Broadly Adapted Hybrid with Excellent Yield Potential

- Outstanding drought tolerance for placement on variable to lighter soils
- Strong emergence allows for early planting in cool soils
- Solid disease package with great late-season agronomics



1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

SF = Semi flex, SD = Semi-Determinate

AGRONOMIC CHARACTERISTICS RATINGS

RM	87
RM to Silk	85
RM to Blacklayer	85
Emergence	2
Root Strength	3
Stalk Strength	4
Greensnap tolerance	2
Drought Tolerance	1
Test Weight	3
Ear Flex	SF
Beef or Milk per acre	3

Why to plant

- High yielding hybrid with semi-flex ear type
- Superior drought tolerance
- Flowers and matures early for its maturity
- Excellent greensnap, good Goss' wilt tolerance and overall disease package
- Moderately short plant stature helps with residue management
- Viptera offers the broadest above ground insect protection including excellent cutworm control

What to manage

- Target plant populations between 30,000 to 34,000 plants per acre
- Avoid low fertility environments

Where to plant

- Excels when grown on medium to fine textured soils
- High yield potential allows placement on productive soils, while strong drought tolerance provides consistent performance across stress prone environments
- Excellent early season emergence and vigor for planting into cooler soils

CHU:
2725RM:
90

NK9023-DV

Broad Adaptation Combined with Top-end Yield

- Excellent emergence with good seedling vigor
- Strong stalks for season-long standability
- Outstanding stress tolerance for consistent yield

DISEASE RATINGS									
Goss' wilt	5								
Northern corn leaf blight	3								
Fusarium crown rot	3								
	9	8	7	6	5	4	3	2	BEST

1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

SF = Semi flex, SD = Semi-Determinate

AGRONOMIC CHARACTERISTICS RATINGS

RM	90
RM to Silk	91
RM to Blacklayer	90
Emergence	3
Root Strength	4
Stalk Strength	3
Greensnap tolerance	3
Drought Tolerance	1
Test Weight	3
Ear Flex	SD
Beef or Milk per acre	3

Why to plant

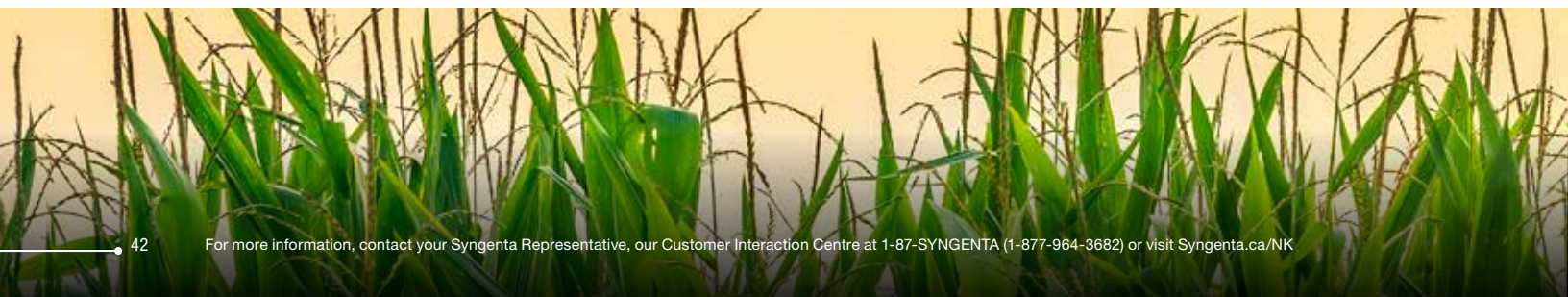
- Excellent yield performance with broad adaptation
- Great choice as late silage or dual-purpose hybrid for the Prairies
- Most complete above and below insect protection featuring Duracade & Viptera
- Combines the best control of rootworms and cutworms
- Semi-determinant ear type

What to manage

- Excels at plant populations between 30,000 to 34,000 plants per acre

Where to plant

- Excellent choice for late silage or feed grain
- Adapts to all crop rotations including corn on corn
- Excels when grown on medium to fine textured soils

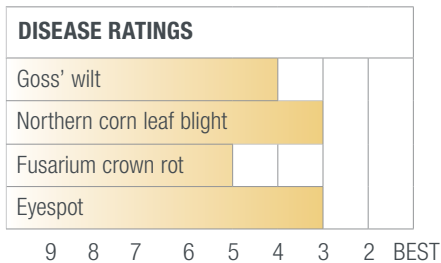


NK9175-DV

CHU:
2750RM:
91

Top-end Yield Potential with Broad Adaptation

- Exceptional early disease package
- Consistent performance brings exciting yield levels to this maturity range
- Outstanding drought tolerance in the Northern Corn Belt



1–9 Scale: 1 = Best, 9 = Worst, – = Under evaluation

SF = Semi flex, SD = Semi-Determinate

AGRONOMIC CHARACTERISTICS RATINGS

RM	91
RM to Silk	91
RM to Blacklayer	91
Emergence	2
Root Strength	5
Stalk Strength	4
Greensnap tolerance	2
Drought Tolerance	1
Test Weight	3
Ear Flex	SD
Beef or Milk per acre	1

Why to plant

- Full season top performer with outstanding drought tolerance featuring Artesian
- Excellent silage choice for the Prairies with exceptional feed values
- Adapts to all crop rotations including corn on corn
- Most complete above and below insect protection featuring Duracade & Viptera
- Combines the best control of rootworms and cutworms
- Excellent greensnap, good Goss' wilt tolerance and overall disease package

What to manage

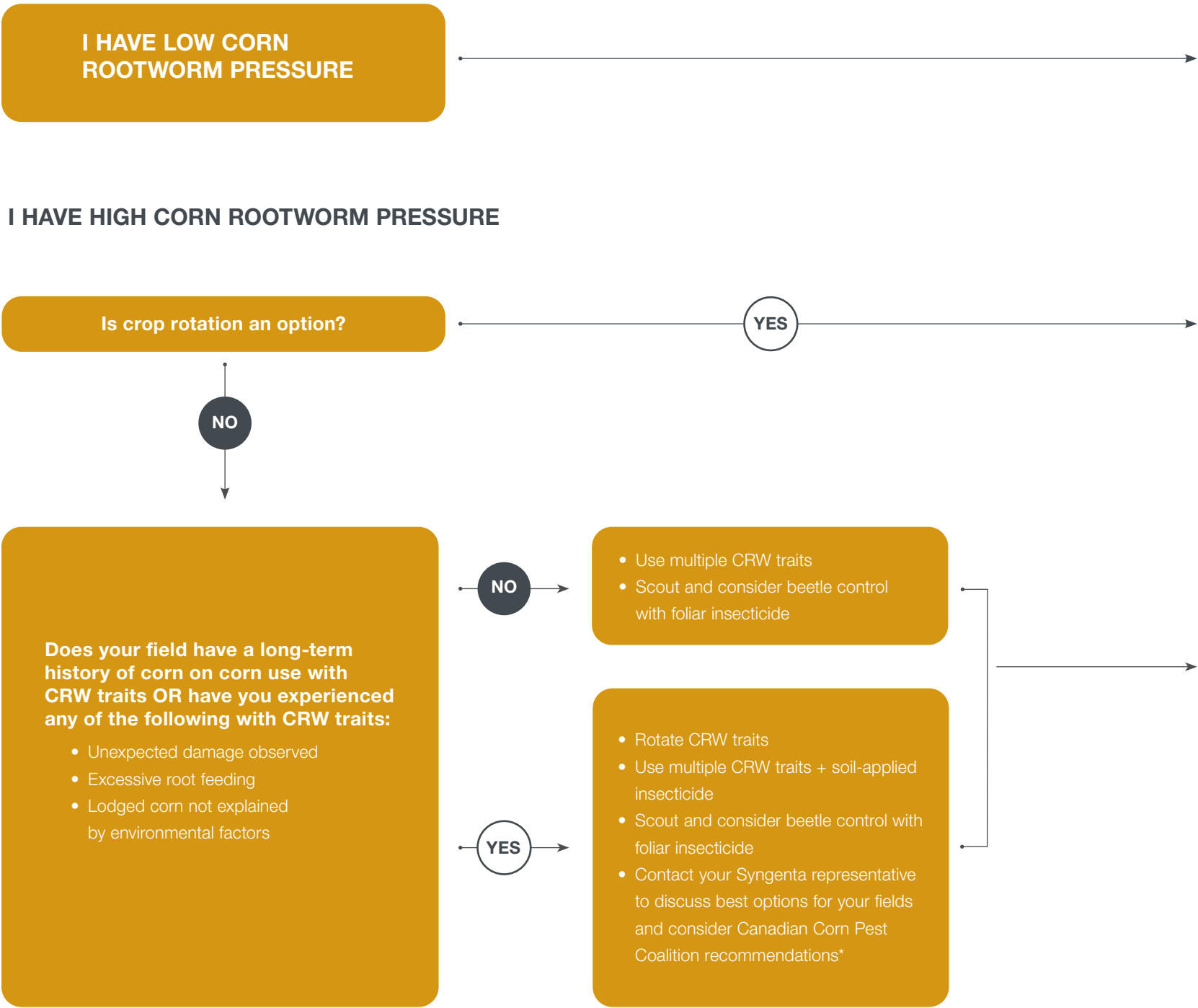
- Due to its average root strength, keep plant populations under 34,000 plants per acre

Where to plant

- Full season silage acres across the Prairies
- Broadly adapted to either choice acre or stress environments
- Great adaptation to all soil types with the ability to excel in coarse to medium textured soils

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.



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 important to consult with your sales representative to discuss which of the below options will work best in your particular situation.



- Duracade™ and DuracadeViptera™ 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.

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

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 Seedcare™ portfolio from Syngenta.

	INSECTS CONTROLLED				
	Cutworm	European chafer	Wireworm	Seed corn maggot	Corn root worm
SEEDCARE					
 Fortenza®	●	●	●	◆	
 Cruiser® 5FS	●	●	●		●

Legend

● Control ◆ Suppression

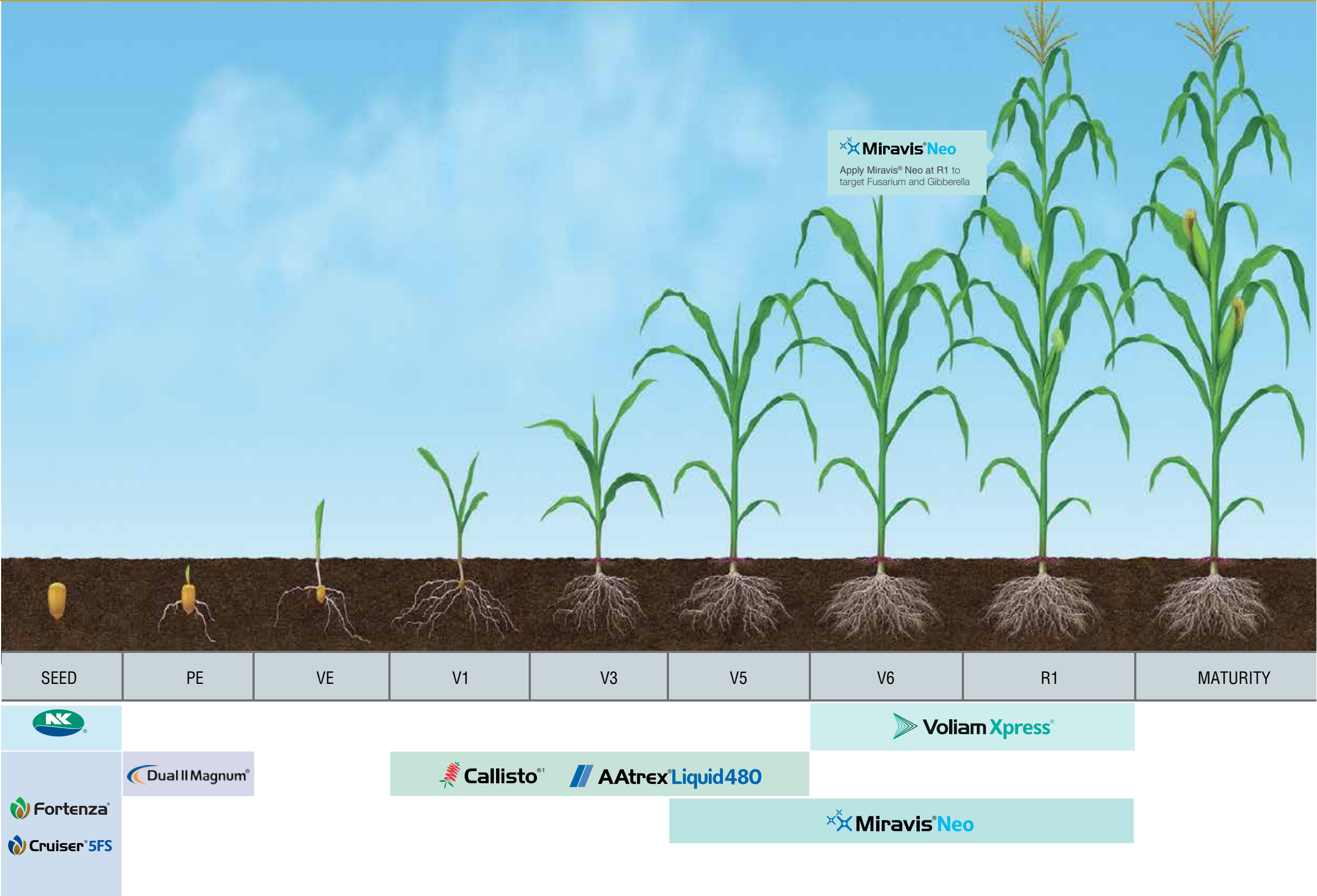


Fortenza® is a Group 28 insecticide corn seed treatment that controls cutworm, European chafer and wireworm, and suppresses seed corn maggot. Fortenza helps build a strong corn stand, even under heavy insect pressure, producing faster, more uniform growth.



Cruiser® 5FS is a seed treatment insecticide that protects against early-season insects, including various species of cutworm and corn rootworm. Plants treated with Cruiser 5FS grow more vigorously even under sub-optimal conditions. The result is that crops have thicker and stronger stems, and enhanced root systems.





¹ Callisto[®] GT is for glyphosate-tolerant corn 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 non-target organisms. For growers who require a fungicide-only seed treatment, NK soybean seed will be available treated with Vayantis® IV seed treatment, and NK corn seed is available treated with Maxim® Quattro with Vibrance® seed treatment.

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.

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 Agrisure 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 Agrisure 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 Agrisure 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.

Have questions?

Your rep can help.

Your Syngenta 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?



Visit

<https://www.syngenta.ca/findmyrep>



Contact

our Customer Interaction Centre at
1-87-SYNGENTA (1-877-964-3682)



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This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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



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LibertyLink®, Liberty® and the Water Droplet logo are registered trademarks of BASF. Consult bag tags for E-Z Refuge product herbicide options.



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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 contain genes that confer tolerance to glyphosate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate. **Dicamba** will kill crops that are not tolerant to dicamba. Roundup Ready 2 Xtend®, Roundup Ready 2 Yield®, Roundup Ready® and VaporGrip® are registered trademarks of Bayer Group, Monsanto Canada ULC licensee. © 2022 Bayer Group. All rights reserved.

Hybrid names, as opposed to variety names, are seeded 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. Always read and follow label directions.

All data is current at the time of publication. Ratings may vary over the life cycle of the variety, and as new data is gathered. For the most current data, refer to Syngenta.ca/nk

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.

All data is current at the time of publication. Ratings may vary over the life cycle of the variety, and as new data is gathered. For the most current data, refer to Syngenta.ca.

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. Vayantis IV is a co-pack of Vibrance Trio fungicide seed treatment and Vayantis fungicide seed treatment. Agrisure®, Artesian™, Agrisure Duracade®, Duracade™, DuracadeViptera™, Agrisure Viptera®, Viptera™, Boundary®, Cruiser Maxx®, Dual II Magnum®, Callisto®, Endigo®, E-Z Refuge®, Flexstar®, Force®, Fortenza®, Foundation Acre®, Halex®, IP Globe™, Magnum®, Maxim®, Mertect®, Miravis®, NK®, NK® and Design, Primextra®, Quilt®, Reflex®, Rooting Power®, RTA®, Saltro®, SCN Solutions™, Seedcare™, Tavium®, Trivapro®, Vayantis®, Venture®, Vibrance®, 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 E.I. Du Pont De Nemours and Company. Respect the Refuge® is a trademark of the Canadian Seed Trade Association. Other trademarks are property of their respective owners. © 2022 Syngenta.



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