

THE THUNDER SEED

Farming is so much more than our livelihood or our way of life.

It's our legacy - the legacy of our parents and grandparents as well as the future legacy of our children and grandchildren. Our roots in this industry run deeper than the roots of any seed or plant you could grow. We wear the title of farmer with pride and contentment, just as our fathers did and their fathers before them.

Our dedication was both innate and learned through years of cultivating the soil and learning from our ancestors. To us, farming embodies the American dream and it's a bright future that we want to pass on to our sons and daughters. But it's not just nostalgia and daydreams, it's hard work, perseverance and dedication. And those are qualities we strive to pass on to the next generation of agriculturalists as well.

When our boots hit the ground each morning, we face the same challenges you do.

Our hands are calloused and scarred, as we work hard to find a better way to achieve higher yields and tackle the pests that target our crops. We will continue to find new solutions - we are up to the challenge. We know you hit the fields with the same grit and determination. That's why we're committed to being your solutions partner. We work hard and test our seeds so you can be confident knowing that the seeds you plant have the best traits for your farm. We'll continue to develop new varieties to ensure Thunder Seed meets the needs of future generations. This is seed you can count on for years to come.

It's also about having a partner you can count on. When you need seed, we're there to deliver within 24 hours if needed. We have multiple production and cleaning facilities as well as a vast dealer network, so no matter where you are, we're right there for you. Our success is in large part because of you, the hard-working, dependable farmers who put in long hours to make sure the work gets done right. You've placed your trust in us and we will never take that trust for granted.

Thank you for making Thunder Seed FIRST in the FIELD.









2023 SEED GUIDE

HIGH-YIELDING, TECHNOLOGY DRIVEN SEED



VT Double PRO® RIB Complete® Corn Blend

Get superior protection from above-ground insects in a single-bag refuge solution with dual modes of action. It even provides outstanding protection against corn earworms.

Targets: Corn Earworm, Fall Armyworms, Southwestern Corn Borer, European Corn Borer



Roundup Ready® Corn 2 and Roundup Ready 2 Yield® Soybeans

Get broad protection against weeds and the flexibility to apply herbicides the way you need to for the best results on your farm. Our Roundup Ready® Corn 2 hybrids and Roundup Ready 2 Yield® Soybeans have a high tolerance to Roundup® herbicides for outstanding crop safety.



Roundup Ready 2 Xtend® Soybeans

Find maximum disease and weed control, including glyphosate-resistant weeds, with Roundup Ready 2 Xtend® Soybean's groundbreaking seed technology. This soybean variety combines the high-yield potential of Roundup Ready 2 Yield® Soybeans with powerful glyphosate and dicamba tolerance, making it the industry's first biotech-stacked soybean seed. Get the best weed protection this season to experience high yields in your fields.



XtendFlex® Soybeans

As part of the Roundup Ready® Xtend Crop System, XtendFlex® soybeans will enable farmers to have application flexibility in managing yield-robbing weeds. By introduction tolerance to glufosinate, in addition to dicamba and glyphosate, XtendFlex soybeans will give farmers more herbicide options to fight the most challenging weed problems.



To develop and deliver soybean and corn seed that gives growers the greatest potential for high yields and profits year after year, and to deliver unrivaled support before, during and after every growing season.



2023 SEED GUIDE - GRAIN CORN

GRAIN CORN

From conventional corn to hybrids with additional protection, Thunder Seed's selection of top-performing hybrids have the combination of traits and characteristics needed for growing success in your fields.









GRAIN CORN

NEW TH6370 VT2P BRAND



- Super early flowering and early maturity; good hybrid for ultra early silage market
- Excellent emergence and seedling vigor gets the plant growing quickly
- Very good tolerance to heat and drought stress through the growing season



Relative Maturity

Days

Scan QR for more info



TH6072 VT2P

GRAIN CORN

VT2P BRAND



- Super early maturity with very good test weight and fast drydown
- Great emergence and seedling vigor for early planting
- · Nice fall appearance with good stalks, staygreen, and intactness



Relative Maturity + Days Scan QR for GRAIN CORN

BRAND



TH4072 RR

- Super early maturity with very good test weight, fast drydown, and fall appearance
- Great emergence and seedling vigor for early planting
- Good stalks and staygreen; nice hybrid for early silage & grazing market



NEW	PRODUCT	TRAIT	MATURITY	FLOWERING	CHU'S TO BLACK LAYER	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	SEEDLING VIGOR	ROOT RATING	STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	GOSS'S WILT	NCLB	STALK ANTHRACNOSE	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITIONS	IDEAL CONDITIONS	HERBICIDE SENSITIVITY
NEW	TH6370 VT2P	VT2P RIB	70	Early	1925	М	ML	SD	МН-Н	14-16	1.5	2.0	2.5	2.0	2.5	2.5	1.5	2.0	2.5	2.0	2.0	2.0	VG	VG	G	Ok
	TH6072 VT2P	VT2P RIB	72	Medium	2025	М	М	SD	МН-Н	14-16	2.0	2.0	2.5	2.5	2.5	2.5	2.0	2.0	2.5	3.5	2.5	2.0	VG	VG	VG	Ok
	TH4072 RR	RR2	72	Medium	2025	М	М	SD	МН-Н	14-16	2.0	2.0	2.5	2.5	2.5	2.5	2.0	2.0	2.5	3.5	2.5	2.0	VG	VG	VG	Ok



2023 SEED GUIDE - GRAIN CORN

Relative Maturity
75

HYBRID SEED CORN

GRAIN CORN

TH6875 VT2P BRAND



Scan QR for

Scan QR for more info

- Attractive plant with great staygreen and test weight; strong yield and solid agronomics
- Excellent drydown; nice ear size and height, open husk
- Great dual purpose hybrid for silage; good plant stature for tonnage



Relative Maturity

GRAIN CORN

TH7677 VT2P BRAND



- Very good roots support very good yields
- Excellent staygreen and fall appearance
- Target lighter soils and harvest timely to maximize yield potential



Relative Maturity

TT

HYBRID SEED CORN

Scan QR for more info

GRAIN CORN

TH6977 VT2P BRAND



- Medium height with great agronomics; performs best in the west
- Good Goss's Wilt and NCLB tolerance
- Good yield stability across variable soils

VTDoublePRO*

NEW	PRODUCT	TRAIT	MATURITY	FLOWERING	CHU'S TO Black Layer	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	SEEDLING VIGOR	ROOT RATING	STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	GOSS'S WILT	NCLB	STALK ANTHRACNOSE	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITIONS	IDEAL CONDITIONS	HERBICIDE SENSITIVITY
	TH6875 VT2P	VT2P RIB	75	Late	2100	MT	М	SD	MH	14-16	2.0	3.0	2.0	3.0	3.0	1.0	1.0	2.0	3.5	3.0	N/A	2.0	G	VG	EX	C-grp2
	TH7677 VT2P	VT2P RIB	77	Med-Late	2175	М	М	SD	МН	14-16	2.0	2.0	3.0	3.0	3.0	1.0	3.0	3.0	4.0	2.0	N/A	3.0	G	VG	VG	Ok
	TH6977 VT2P	VT2P RIB	77	Med-Early	2175	М	М	SD	МН	12-14	3.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.5	2.0	3.0	4.0	EX	EX	VG	Ok







GRAIN CORN

VT2P BRAND TH6278



- Big time performance; strongly adapted east to west
- Solid agronomics with very good vigor, standability, staygreen, & drydown
- Good drought tolerance to handle those tough and variable acres



Relative Maturity +

Days

Scan QR for more info

Scan QR for



GRAIN CORN

TH6380 VT2P



- Excellent combination of top yield performance and stability; good stress tolerance
- Awesome agronomics including very strong roots and stalks; great tolerance to Goss and NCLB
- Girthy semi-flex ear allows for Medium planting populations



Relative Maturity + Days Scan QR for GRAIN CORN

VT2P BRAND



- Elite hybrid with excellent yields and drought stress tolerance
- Quick start in spring with great emergence and vigor
- Very good Goss's Wilt tolerance; good staygreen and drydown in fall



NEW	PRODUCT	TRAIT	MATURITY	FLOWERING	CHU'S TO Black layer	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	SEEDLING VIGOR	ROOT RATING	STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	GOSS'S WILT	NCLB	STALK ANTHRACNOSE	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITIONS	IDEAL CONDITIONS	HERBICIDE SENSITIVITY
	TH6278 VT2P	VT2P RIB	78	Medium	2225	MT	М	SD	MH	14-16	2.0	2.0	2.0	2.0	2.0	2.0	1.5	2.0	2.5	2.0	3.0	2.5	EX	EX	VG	Ok
NEW	TH6380 VT2P	VT2P RIB	80	Medium	2325	М	М	SF	М	16-18	2.0	1.5	2.0	2.0	2.0	2.0	1.5	2.0	2.0	2.0	1.5	3.0	VG	EX	EX	Ok
	TH6182 VT2P	VT2P RIB	82	Early	2400	MT	М	SF	M-MH	16-18	2.0	2.0	2.5	2.5	2.0	2.5	2.5	2.5	2.0	2.0	2.0	2.5	VG	EX	EX	Ok



2023 SEED GUIDE - GRAIN CORN

→ Relative Maturity + Days

GRAIN CORN

VT2P BRAND



- Excellent grain yields; combines great test weight and fast
- Terrific disease package including good Goss's Wilt tolerance
- · Plant on productive soils at higher population for best performance



Relative Maturity +

Days

Scan QR for more info

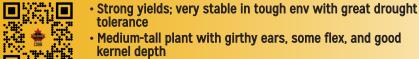
Scan QR for



TH6185 VT2P

GRAIN CORN

BRAND



- Medium-tall plant with girthy ears, some flex, and good
- kernel depth
- Full 85 day hybrid so place in southern RRV & use caution based on maturity



NEW	PRODUCT	TRAIT	MATURITY	FLOWERING	CHU'S TO Black layer	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	SEEDLING VIGOR	ROOT RATING	STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	GOSS'S WILT	NCLB	STALK ANTHRACNOSE	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITIONS	IDEAL CONDITIONS	HERBICIDE SENSITIVITY
	TH6982 VT2P	VT2P RIB	82	Early	2425	М	ML	SD	МН-Н	14-16	3.0	1.0	2.0	3.0	1.0	4.0	1.0	1.0	3.0	2.0	N/A	4.0	G	VG	EX	Ok
	TH6185 VT2P	VT2P RIB	85	Medium	2550	MT	МН	SF	M-MH	18-20	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	3.0	2.0	EX	EX	VG	Ok

2023 SEED GUIDE - GRAIN CORN

NEW	PRODUCT	TRAIT	MATURITY	FLOWERING	CHU'S TO Black layer	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	SEEDLING VIGOR	ROOT RATING	STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	GOSS'S WILT	NCLB	STALK ANTHRACNOSE	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITIONS	DEAL CONDITIONS	HERBICIDE SENSITIVITY
NEW	TH6370 VT2P	VT2P RIB	70	Early	1925	М	ML	SD	МН-Н	14-16	1.5	2.0	2.5	2.0	2.5	2.5	1.5	2.0	2.5	2.0	2.0	2.0	VG	VG	G	Ok
	TH6072 VT2P	VT2P RIB	72	Medium	2025	М	М	SD	МН-Н	14-16	2.0	2.0	2.5	2.5	2.5	2.5	2.0	2.0	2.5	3.5	2.5	2.0	VG	VG	VG	Ok
	TH4072 RR	RR2	72	Medium	2025	М	М	SD	МН-Н	14-16	2.0	2.0	2.5	2.5	2.5	2.5	2.0	2.0	2.5	3.5	2.5	2.0	VG	VG	VG	Ok
	TH6875 VT2P	VT2P RIB	75	Late	2100	MT	М	SD	MH	14-16	2.0	3.0	2.0	3.0	3.0	1.0	1.0	2.0	3.5	3.0	N/A	2.0	G	VG	EX	C-grp2
	TH7677 VT2P	VT2P RIB	77	Med-Late	2175	М	М	SD	MH	14-16	2.0	2.0	3.0	3.0	3.0	1.0	3.0	3.0	4.0	2.0	N/A	3.0	G	VG	VG	Ok
	TH6977 VT2P	VT2P RIB	77	Med-Early	2175	М	М	SD	MH	12-14	3.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.5	2.0	3.0	4.0	EX	EX	VG	Ok
	TH6278 VT2P	VT2P RIB	78	Medium	2225	MT	М	SD	MH	14-16	2.0	2.0	2.0	2.0	2.0	2.0	1.5	2.0	2.5	2.0	3.0	2.5	EX	EX	VG	Ok
NEW	TH6380 VT2P	VT2P RIB	80	Medium	2325	М	М	SF	М	16-18	2.0	1.5	2.0	2.0	2.0	2.0	1.5	2.0	2.0	2.0	1.5	3.0	VG	EX	EX	Ok
	TH6182 VT2P	VT2P RIB	82	Early	2400	MT	М	SF	M-MH	16-18	2.0	2.0	2.5	2.5	2.0	2.5	2.5	2.5	2.0	2.0	2.0	2.5	VG	EX	EX	Ok
	TH6982 VT2P	VT2P RIB	82	Early	2425	М	ML	SD	МН-Н	14-16	3.0	1.0	2.0	3.0	1.0	4.0	1.0	1.0	3.0	2.0	N/A	4.0	G	VG	EX	Ok
	TH6185 VT2P	VT2P RIB	85	Medium	2550	MT	МН	SF	M-MH	18-20	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	3.0	2.0	EX	EX	VG	Ok

Ra	ating	Plant Height	Ear Height	Ear Type	Planting Rate	Herbicide Sensitivity	Growing Conditions
1	Excellent	S Short	L Low	D Determinate	ML Medium Low	C Caution	Tough Low yield env (below 140 bu/ac)
2	Very Good	MS Medium Short	ML Medium Low	SD Semi-Determinate	M Medium	W Warning (do not use)	Variable moderate yield env (140-180 bu/ac)
3	Good	M Medium	M Medium	SF Semi-Flex	MH Medium High	grp4 Group 4: growth regulator	Ideal high yield env (above 180 bu/ac)
4	Below Average	MT Medium Tall	MH Medium High	F Flex	H High	grp2 Group 2: SU/ALS inhibitor	G Good VG Very Good EX Excellent
5	Poor	T Tall	H High			grp27 Group 27: HPPD inhibitor	

RR - Roundup Ready® Corn 2 | VT2P RIB - VT Double PRO® RIB Complete® Corn Blend



PROVEN DEFENSE AGAINST ABOVE-GROUND YIELD ROBBERS

POWERFUL ABOVE-GROUND PROTECTION

Two individual modes of action give corn plants the above-ground protection they need against major pests.







EUROPEAN CORN BORER

CORN EARWORM

FALL ARMYWORM

COMPARE YOUR ABOVE-GROUND PROTECTION OPTIONS

	VT Double PRO® RIB Complete® Corn Blend¹	Optimum® AcreMax®²
PRIMARY PESTS		
European Corn Borer (Ostrinia nubilalis)	**	**
Fall Armyworm (Spodoptera frugiperda)	**	*
Corn Earworm ^{3.4} (Helicoverpa zea)	**	
Black Cutworm (Agrotis ipsilion)		*
HERBICIDE TECHNOLOGY	Roundup Ready® 2 Technology	Roundup Ready® Corn 2 / LibertyLink®
REFUGE	5% Refuge-in-a-Bag	5% Refuge-in-a-Bag
REFUGE EXAMPLES		

Modes of action equal control of pest

** Dual-mode activity * Single-mode activity

'VT Double PR0® RIB Complete® is a corn seed blend of 95% BL seed and 5% non-BL seed. Polytimum "AcreNax® is a RIB blend product. PolytAID Send OryAB2 from B.L. controls or suppresses corn earworm. Pioneer claims suppression of corn earworm on the Optimum® AcreMax® label.











Text THUNDERSEED to 25827 to join our text club to stay up to date on current information!



@thunder_seed

/thunder_seed

From our website to social media pages, we offer several resources for you to stay connected with us. Through these channels, you'll have the agronomic insight you need on new seed varieties, treatments and techniques to maximize yield potential.

Be sure to join us around the cyber tailgate! Stay connected with us on Facebook, Twitter and Instagram and check out our videos on our website, thunderseed.com.



SILAGE CORN

We recognize that many of the characteristics desired in a silage corn are different than the characteristics desired in a grain corn. Ultimately, a silage hybrid must produce a robust, reliable, digestible crop that will yield lots of tonnage with high quality and high energy content. Thunder Seed can provide all of this to you through our silage products.

Relative Maturity F

Days

Scan QR for

SILAGE CORN

TH4076 HDRR BRAND



TH4076 HDRR

- High-digestibility hybrid bred specifically for silage and grazing
- Slower drydown provides longer chopping window
- Great combination of tonnage and total plant digestibility



→ Relative Maturity ⊢

SILAGE CORN

TH4126 RR BRAND





- Quick out of the ground and great seedling vigor
- · Great yield, grain quality, and digestibility
- Flint/dent hybrid sets kernel quickly but drydown is slower

Roundup Ready: CORN 2

NEW	PRODUCT	MATURITY	FLOWERING	CHU'S TO BLACK LAYER	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	SEEDLING VIGOR	ROOT RATING	STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	GOSS'S WILT	NCLB	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITIONS	IDEAL CONDITIONS	HERBICIDE SENSITIVITY	
	TH4076 HDRR	76	Med-Late	2150	MT	М	SF	М	14-16	2.0	1.0	3.0	2.0	2.0	2.0	4.0	3.0	N/A	2.0	1.5	VG	VG	VG	Ok	
	TH4126 RR	79	Medium	2250	MT	М	SF	MH	12-16	2.0	2.0	2.0	3.0	2.0	2.0	4.0	2.0	N/A	N/A	2.0	VG	VG	VG	Ok	



SILAGE CORN

TH4126 CONV BRAND



TH4126 CONV

- Quick out of the ground and great seedling vigor
- Great yield, grain quality, and digestibility
- Flint/dent hybrid sets kernel quickly but drydown is slower



SILAGE CORN

BRAND



- Great silage and grazing hybrid with corn borer protection
- · Good quality, yield, and digestibility across wide range of environments
- Solid agronomics and nice flint/dent kernels allow slower drydown



Relative Maturity +

SILAGE CORN

TH6183 VT2P BRAND





- TH6183 VT2P
- Outstanding silage hybrid with huge height and plant stature
- Big flex ears that have good tolerance to higher populations
- Good staygreen and average drydown widens chopping window



NEW	PRODUCT	MATURITY	FLOWERING	CHU'S TO Black layer	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	SEEDLING VIGOR	ROOT RATING	STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	GOSS'S WILT	NCLB	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITIONS	IDEAL CONDITIONS	HERBICIDE SENSITIVITY
	TH4126 CONV	79	Medium	2250	MT	М	SF	МН	12-16	2.0	2.0	2.0	3.0	2.0	2.0	4.0	2.0	N/A	N/A	2.0	VG	VG	VG	Ok
																	0.0			0.0				01
	TH6180 VT2P	80	Medium	2300	Т	М	SF	MH	14-16	2.0	2.0	2.0	2.5	2.0	2.0	4.0	2.0	N/A	N/A	2.0	VG	VG	VG	Ok



2023 SEED GUIDE - SILAGE CORN

HIGH-DIGESTIBILITY

SILAGE CORN

We recognize that many of the characteristics desired in a silage corn are greatly different than the characteristics desired in a grain corn. With that in mind, we are working closely with silage breeders that do nothing but silage for our silage lineup. Their entire focus is delivering the best silage with high total plant yield of digestible starch and fiber, a long harvest/chopping window in which the plant dries to the appropriate moisture and remains there for an extended time, and adequate sugars to promote fermentation. *Ultimately, a silage hybrid must produce a robust, reliable, digestible crop that will yield lots of tonnage with high quality and high energy content.*Thunder Seed can provide all of this to you through our silage products.

BMP's for growing Thunder Seed High-Digestibility (HD) Silage-Specific Corn:

- Fertilize and prepare your fields as you normally would. Provide proper fertility to get the best yield quantity
 and quality.
- Plant at medium-low populations to realize optimal yield. This may typically equate to around 3,000-5,000 plants/acre fewer than you typically do for grain, depending on your environment. However, do not exceed 30,000 plants/acre regardless of how good your growing conditions may be. Thunder's High-Digestibility Silage hybrids are bred to have large flex ears and large robust plant stature.
- Do not harvest for grain. The soft kernels stay at a high moisture content for a longer time to lengthen the chopping window.

→ Relative Maturity ⊢—— SILAGE CORN

NEW TH4386 HDRR BRAND

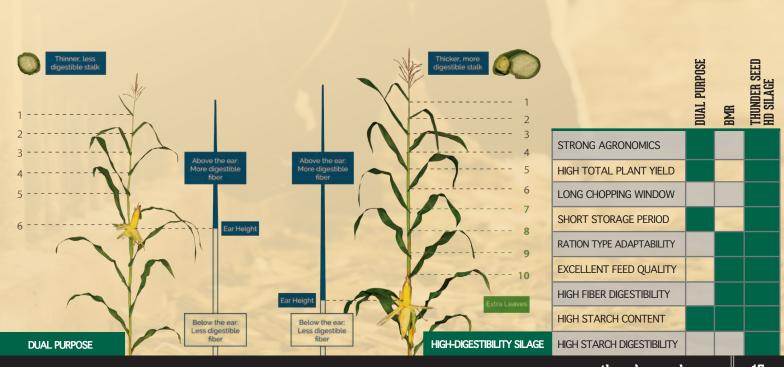




- Exciting silage hybrid with all the great High-Digestibility characteristics
- Big plant with lots of leaves, and large ears with soft floury kernels for great starch digestibility
- Strong agronomics and slow drydown for long chopping window



PRODUCT				PLANTING RATE	COB COLOR	AGRONOMICS	DROUGHT TOLERANCE	GOSS'S WILT	TOTAL PLANT YIELD	CHOPPING WINDOW	SHORT STORAGE PERIOD	RATION TYPE ADAPTABILITY	FEED QUALITY	FBER DIGESTBILITY	STARCH CONTENT	STARCH DIGESTBILITY
TH4386 HDRR	86	Tall	L	ML	Red	1.5	N/A	2.5	1.5	1.5	1.5	1.0	1.5	2.0	2.0	1.5





Verification Required The last patent on the original Roundup Ready® soybean trait expired a few years ago and U.S. farmers may legally plant saved seed from some varieties of soybean containing the Roundup Ready® soybean trait. However, it is important that you check with your seed supplier to determine if a specific Roundup Ready® soybean variety is covered by other intellectual property rights, and if so, the policy for saving seed of that variety.

Higher Seeding Rate A higher seeding rate may be required for bin-run Roundup Ready® soybeans compared to new branded seed.

Yield Loss Roundup Ready 2 Yield®, Roundup Ready 2 Xtend® and XtendFlex® soybean varieties typically have a higher yield opportunity than Roundup Ready® soybean varieties.

Cleanout Loss Loss of seed and/or shrink occurs during the seed cleaning and handling processes for bin-run seed.

Seed Treatment Costs Treating your seed will add costs—both the cost of the treatment and the application of that treatment.

Lost Income Every bushel of saved seed you plant is a bushel you're not selling as commodity grain.

Increased Seed Management If you plan to save and bin-run Roundup Ready® soybeans for planting, you will have to manage your harvest operations and grain storage so that the seed isn't co-mingled with other seed that's covered by intellectual property rights.

High Value of New Branded Seed

Latest Technology

- // High-yielding soybean technologies
- // Better variety options
- // Leading seed treatment options

Customer Service

- // Dealer agronomic support before and after the sale
- // Replant policy support
- // Convenient packaging and delivery

Reliable Germination and Quality

- // Rigorously tested and meets U.S. Federal Seed Act requirements
- // Free of seed-borne diseases
- // Properly stored and conditioned



For more information on seed intellectual property protection, or to anonymously report a tip, please call 1-866-99-BAYER. For a list of relevant patents visit www.monsantotechnology.com

Bayer is a member of Excellence Through Stewardship® (ETS). Bayer products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Bayer's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Commercialized products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. It is a violation of federal and state law to use any pesticide product other than in accordance with its labeling. NOT ALL formulations of dicamba or glyphosate are approved for in-crop use with Roundung Ready 2 Xtend® soybeans. NOT ALL formulations of dicamba, glyphosate or glutosinate are approved for in-crop use with products with XtendFlex® Technology. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USES AND APPROVED FOR SUCH USE IN THE STATE OF APPLICATION. Contact the U.S. EPA and your state pesticide regulatory agency with any questions about the approval status of dicamba herbicide products for in-crop use with Roundup Ready 2 Xtend® soybeans or products with XtendFlex® Technology.

Roundup Ready® Technology contains genes that confer tolerance to glyphosate. Roundup Ready® 2 Technology contains genes that confer tolerance to glyphosate. Roundup Ready 2 Xtend® soybeans contain genes that confer tolerance to glyphosate and dicamba. Products with XtendFlex® Technology contain genes that confer tolerance to glyphosate, glufosinate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate will kill crops that are not tolerant to dicamba. Glufosinate will kill crops that are not tolerant to glufosinate. Contact your seed brand dealer or refer to the Bayer Technology Use Guide for recommended weed control programs.

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THE SOYBEAN SYSTEM YOU CAN'T RESIST.

What makes the Roundup Ready® Xtend Crop System the #1 grown soybean system in Canada*? It's the only system that combines the high yield potential of Roundup Ready 2 Xtend® soybeans with built-in tolerance to both glyphosate and dicamba chemistries.

Applying the higher rate of Roundup Xtend® 2 with VaporGrip® Technology in your first pass provides short-term residual activity on small seeded broadleaves** with the added ability to effectively manage resistance concerns.

STAY AHEAD OF WEEDS WITH THE EARLY SEASON CONTROL OF CANADA'S #1 GROWN SOYBEAN SYSTEM. traits.bayer.ca >>

*Based on market research surveys conducted in 2021 with Canadian soybean growers.

**Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the growers' field;

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Roundup Ready 2 Xtend® soybeans contains genes that confer tolerance to glyphosate and dicamba. Glyphosate will kill crops that are not folerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba. Contact your Bayer tealier, refer to the Bayer Technology Use Guide, or call the technical support line at 1-888-283-6847 for recommended Roundup Ready® Xtend Crop System weed control programs.

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Roundup 2 YIELD









Dicamba and Glyphosate Pre-mix



2023 SEED GUIDE - SOYBEANS

SOYBEANS

The large selection of soybeans means that we are able to accommodate your soil's needs and provide disease and pest protection for maximum yields. Our lineup includes Roundup Ready 2 Xtend®, Roundup Ready 2 Yield®, and XtendFlex® providing high level of tolerance a broad range of herbicides able to address any weed problems you may have in your fields.











SOYBEAN

NEW TH830009X BRAND

IDC 1.9 PRR GENE 1c



- Tall, big plant suited adapted well for western Canada
 - Strong yield performance versus competitive varieties; good yield west of the valley, great yield in the valley
- Recommended for anyone wanting an early variety north to south; especially north of Hwy 1





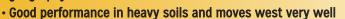
SOYBEAN

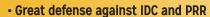
TH89004 R2X BRAND

PRR GENE 1c



Medium-tall plant widely adaptable across broad









SOYBEAN

IDC 1.7 PRR GENE 1c



- · Tall, aggressive, and impressive variety
- Excellent yields consistently across zones and soil types
- Great IDC, SCN and disease package



NEW	PRODUCT	Trait	MATURITY	PLANT HEIGHT	PLANT TYPE	EMERGENCE	STANDABILITY	DOC .	SCN	PHYTOPHTHORA GENE	PHYTOPHTHORA FIELD TOLERANCE	WHITE MOLD	СНО	FLOWER COLOR	HILUM COLOR	POD COLOR	PUBESCENCE COLOR
NEW	TH830009X	RR2X	000.9	MT	Intermediate/Bushy	2.0	2.0	1.9	S	1c	3.0	2.0	2275	Р	BL	BR	ТВ
	TH89004 R2X	RR2X	00.2	MT	Thin/Intermediate	2.0	2.5	1.7	S	1c	2.0	2.5	2350	Р	BR	BR	ТВ
	TH87003 R2X	RR2X	00.3	Т	Intermediate	1.5	2.5	1.7	R	1c	2.0	2.5	2375	Р	BL	BR	ТВ



2023 SEED GUIDE - SOYBEAN

Relative Maturity

SOYBEAN

IDC 1.5 PRR GENE 1k

 Excellent yield performance at a key maturity for MB; strong adaptation to western Canada



 Great agronomics and defense characteristics support placement across wide geography





SOYBEAN TH82005 R2X BRAND





- Consistent look and good yield potential across MB acres
- Strong emergence and very good IDC and salt tolerance
- Nice plant type that works across row widths and soils types





SOYBEAN

TH83004X

TH82006 R2X BRAND

IDC 2.0 PRR GENE 3a1c



High yielding variety thats well adapted across all environments

- Outstanding PRR defense with excellent field tolerance plus 3a/Ic gene stack
- Very good stress soybean with excellent emergence and good white mold tolerance



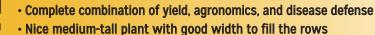
NEW	PRODUCT	Trait	MATURITY	PLANT HEIGHT	PLANT TYPE	EMERGENCE	STANDABILITY	OC OC	SCN	PHYTOPHTHORA GENE	PHYTOPHTHORA FIELD TOLERANCE	WHITE MOLD	CHU	FLOWER COLOR	HILUM COLOR	POD COLOR	PUBESCENCE COLOR
NEW	TH83004X	RR2X	00.4	Т	Intermediate	1.5	2.0	1.5	S	1k	3.0	2.5	2400	Р	BL	BR	ТВ
	TH82005 R2X	RR2X	00.5	MT	Intermediate/Bushy	1.5	2.5	1.7	S	1k	2.5	3.0	2425	Р	BR	BR	LT
	TH82006 R2X	RR2X	00.6	М	Intermediate	1.5	2.0	2.0	S	3a1c	1.5	2.5	2450	Р	BL	LB	LT



TH81007 R2XN brand

SOYBEAN

IDC 1.8 PRR GENE H1c





 Excellent IDC and PRR field tolerance in addition to SCN resistance



SOYBEAN

IDC 2.0 PRR GENE 1c



TH 88007R2X

· Top yielding variety

BRAND

- Big plant with lots of lateral branches; good choice for wider rows
- Great emergence and pod height





SOYBEAN

Astro R2 Brand

IDC 1.8 PRR GENE 1k



- Tall aggressive plant with high first-pod height
- Solid choice by many in longer season area
- Excellent top yield, stability, and white mold tolerance





SOYBEAN

TH82008XF BRAND

IDC 1.9 PRR GENE 1c



TH82008XF

- Nice appearance with top pods and very good standability
- Great IDC and PRR field tolerance with SCN
- Adds XtendFlex® advantages into the 00 maturity with excellent genetics

TENDFLEX

NEW	PRODUCT	Trait	MATURITY	PLANT HEIGHT	PLANT TYPE	EMERGENCE	STANDABILITY	20	SCN	PHYTOPHTHORA GENE	PHYTOPHTHORA FIELD Tolerance	WHITE MOLD	CHO	FLOWER COLOR	HILUM COLOR	POD COLOR	PUBESCENCE COLOR	COMPANY OF STREET
	TH81007 R2XN	RR2X	00.7	MT	Intermediate	2.0	2.5	1.8	R	H1c	2.0	2.5	2475	Р	BR	BR	ТВ	
-	TH88007R2X	RR2X	00.7	М	Intermediate/Bushy	1.5	2.5	2.0	S	1c	2.5	3.0	2475	Р	BL	BR	ТВ	
	Astro R2	R2Y	00.8	Т	Intermediate	1.5	2.0	1.8	S	1k	2.5	2.0	2500	Р	BL	BR	ТВ	
	TH82008XF	XFLEX	00.8	М	Intermediate	1.5	2.0	1.9	MR	1c	2.0	2.0	N/A	Р	BL	LB	LT	F



2023 SEED GUIDE - SOYBEANS

AGRONOMIC INFORMATION GUIDE

NEW	PRODUCT	Trait	MATURITY	PLANT HEIGHT	PLANT TYPE	EMERGENCE	STANDABILITY	nc	SCN	PHYTOPHTHORA GENE	PHYTOPHTHORA FIELD Tolerance	WHITE MOLD	СНО	FLOWER COLOR	HILUM COLOR	POD COLOR	PUBESCENCE COLOR
NEW	TH830009X	RR2X	000.9	MT	Intermediate/Bushy	2.0	2.0	1.9	S	1c	3.0	2.0	2275	Р	BL	BR	ТВ
	TH89004 R2X	RR2X	00.2	MT	Thin/Intermediate	2.0	2.5	1.7	S	1c	2.0	2.5	2350	Р	BR	BR	ТВ
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	TH82006 R2X	RR2X	00.6	М	Intermediate	1.5	2.0	2.0	S	3a1c	1.5	2.5	2450	Р	BL	LB	LT
	TH81007 R2XN	RR2X	00.7	MT	Intermediate	2.0	2.5	1.8	R	H1c	2.0	2.5	2475	Р	BR	BR	ТВ
	TH88007R2X	RR2X	00.7	М	Intermediate/Bushy	1.5	2.5	2.0	S	1c	2.5	3.0	2475	Р	BL	BR	ТВ
	Astro R2	R2Y	8.00	Т	Intermediate	1.5	2.0	1.8	S	1k	2.5	2.0	2500	Р	BL	BR	ТВ
	TH82008XF	XFLEX	00.8	М	Intermediate	1.5	2.0	1.9	MR	1c	2.0	2.0	N/A	Р	BL	LB	LT

QUICK REFERENCE GUIDE

1. Field Selection/Crop Rotation

a. No restrictions

b. Avoid high-trash cover field (i.e., winter wheat)

2. Herbicide Residual Problems

- a. Mostly Lontrel types
- b. Minor problems with muster

3. Variety

- a. Earlier type and very light sensitive
- b. Strong germinator with good vigor

4. Inoculants

- a. 30-day liquid on seed
- b. 5-8 pounds/acre granular inoculant
- c. Use higher rates on virgin or cooler, minimum-tillage soils

5. Seed Treatments

a. Only CruiserMaxx® Vibrance®

- a. No nitrogen at all
- b. 0-40 pounds of phosphate
- depending on seed placement c. 0-60 pounds of potash broadcast (usually none is required)

- 7. Seeding Date a. Ideal: May 10-May 25
 - b. Possible: May 1-June 10
 - c. Seed when soils are warming up

8. Seeding Rate

- a. Solid seeding 200,000-220,000
- b. Row crop 170,000-190,000 seeds/acre

9. Herbicide Program

Roundup®:

- a. Higher rates if needed
- b. Any time up to flowering
- Volunteer Canola: c. Cut rate of Pursuit®
- d. Pre-emerge burn off
- e. Reflex®
- f. Valtera™
- g. Basagran® h. Viper

- a. Soybean Aphids: Until recently only an occasional problem in Red River Valley, easy to kill and rarely a problem in the west
- b. Spider Mites: Very rare in the valley

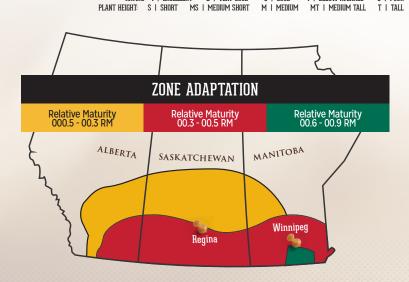
Disease

- a. Root Born: most varieties have reasonable tolerance
 - CruiserMaxx® Vibrance® Fungicide seed treatment and crop rotation help
- b. Foliar Diseases: Most disease results in minor yield losses
 - Sclerotinia can cause moderate reduction in yield
 - New seed treatment, crop rotation, crop spacing and lighter seeding rates can help combat the problem

12. Harvest

- a. Best method is straight combining with a flex header
- b. Swathing
- c. No need to desiccate
- d. Dry is 13-13.5 percent moisture

RR2Y - Roundup Ready 2 Yield® Soybeans | Xtend - Roundup Ready 2 Xtend® Soybeans | Enlist E3® Soybeans RATING: 1 | EXCELLENT 2 | VERY GOOD 3 | GOOD 4 | BELOW AVERAGE 5 | POOR



- 13. Storage
 a. Keeps well, especially if sample is clean
- b. Tough beans dry down easily with aeration

- 14. Marketing
 a. Easy and flexible in the Red River Valley
 - b. Getting a lot better outside the Red
 - c. Main line grain elevators, smaller grain brokers and small processors
 - d. Hedging up to three years

15. Grading a. Very easy

- b. Much lower chance of downgrades
- c. Cracked bears a d. Lower dockage Cracked beans are usually not dockage

16. Revenue/Cost

- a. Lower cost/acre than Canola b. Revenue depends more on moisture for the area
- Dry conditions 20-25 bushels/acre
- Moist conditions 30-55 bushels/acre



DEFEND WITHOUT COMPROMISE

Trecepta® combines the power of three different modes of action or broad-spectrum control of above-ground feeding pests, including Western Bean Cutworm.





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WE'RE FARMERS

ADAMS FARMS

The Adams family's agricultural roots run deep in Minnesota, where the family's youngest generation continues to farm in Wendell. It's a passion that led them into agribusiness in the 1950s as Adams Seed — a legacy that continues today as part of Thunder Seed.



PETERMANN FARMS

The Petermann family lives and farms in Hawley, Minnesota, where their strong passion for agriculture continues from generation to generation. In 1960, they formed Petermann Seeds Inc. to share their success with others.



TOBOLT FARMS

Farming is way of life for the Tobolt family, who live and farm in Moorhead, Minnesota. Tobolt Seed, an 80-year-old family-owned business, continues helping farmers today as part of Thunder Seed.









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















And on the 8th day, God looked down on his planned paradise and said, "I need a caretaker"

So God made a Farmer.

- Paul Harvey

