

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.



806 Center Avenue West, Dilworth, MN 56529 1-888-6THUNDER thunderseed.com



2019 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. VT Double PRO® RIB Complete® Corn Blend is the first double-stacked trait with dual modes of action. It provides outstanding protection against above-ground pests with even greater protection for corn earworms. And with a blend of 95 percent traited seed and just 5 percent refuge, the lowest in the industry, you'll get higher yields. Targets: Corn Earworm, Fall Armyworms, Southwestern Corn Borer, European Corn Borer



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.



YIFI D

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

Get the broadest 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 and Roundup Ready 2 Yield[®] Soybeans have a high tolerance to Roundup[®] herbicides for outstanding crop safety, saving you time you'd otherwise have to spend weeding. Spend less time spraying now and less time tilling next season.



ENLIST[®] E3[™] Soybeans

Maximize your yield potential by combining crop tolerance and exceptional broadleaf weed control. Enlist E3[™] trait enables control against the toughest weeds in soybeans. With multiple herbicide tolerances, you have more weed control options in one complete, easy-to-use system. You get tolerance to 2,4-D choline and glyphosate, as well as additional glufosinate tolerance in Enlist E3[™] soybeans.



Agrisure Viptera® Corn

Agrisure Viptera^t trait stacks provide the most comprehensive above-ground corn insect control, reducing insect feeding damage to ears and the subsequent development of molds and mycotoxins that result from the damage, to protect the quality of grain.

OUR MISSION

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.



2020 SEED GUIDE - GRAIN CORN

GRAIN CORN

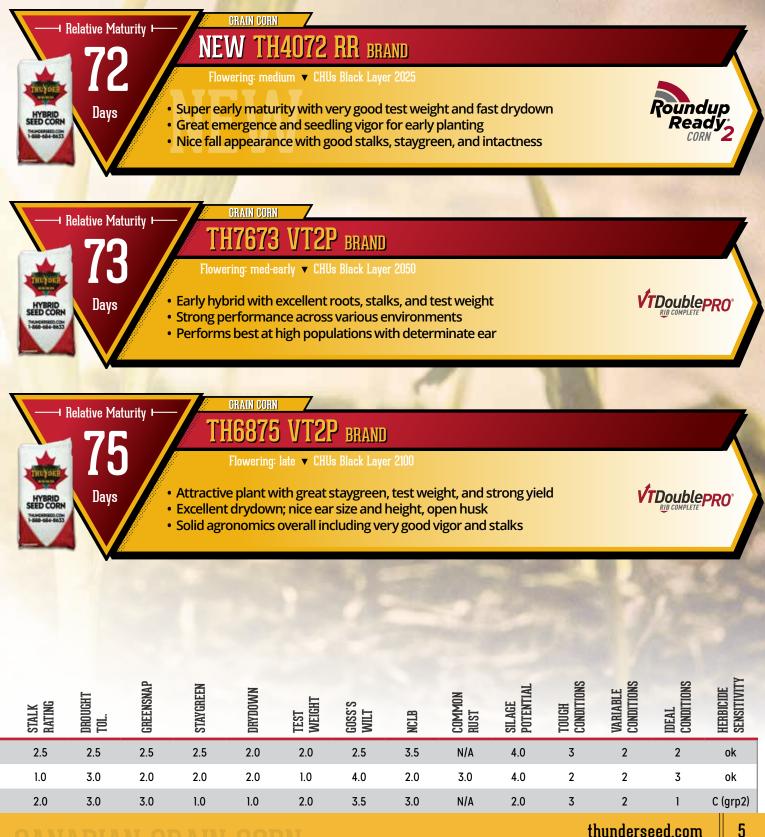
From conventional corn to varieties with additional protection, Thunder Seed's selection has the combination of traits needed for growing success in your fields. These top-performing hybrids have strong yields and are disease resistant, all under low moisture.



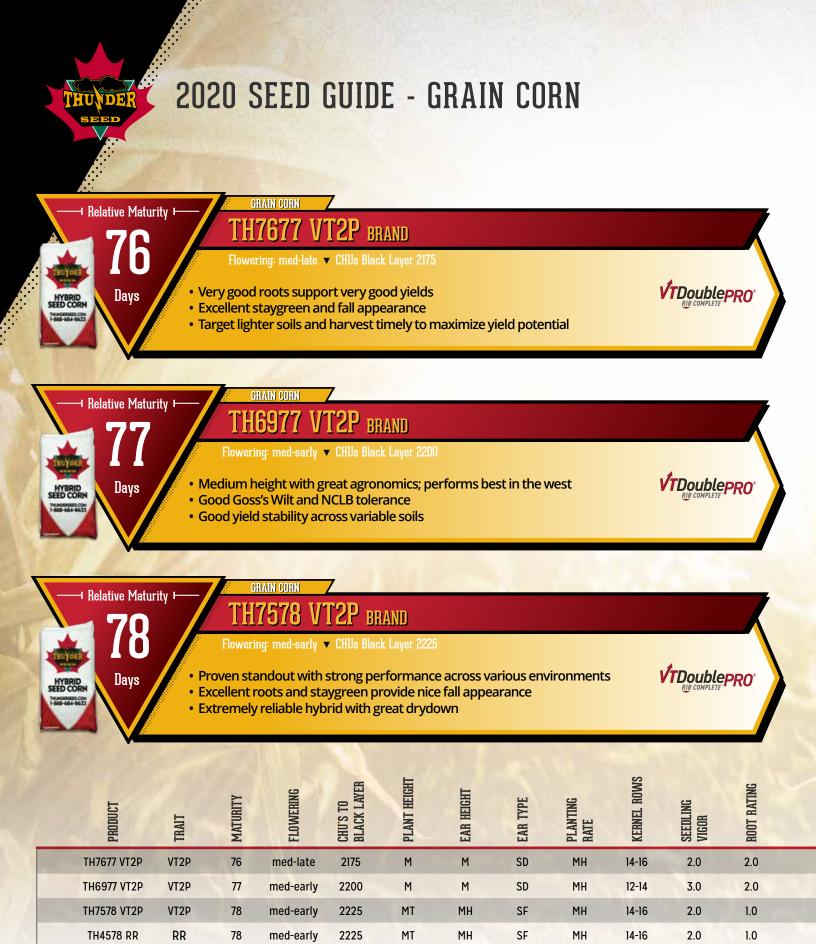
TECHNOLOGY







thunderseed.com



1-888-6THUNDER

VT2P

VT2P

79

81

early

medium

2250

2375

М

Т

Μ

MH

SD

SD

MH

MH-H

14-16

14-16

2.0

2.0

2.0

3.0

NEW

TH6079 VT2P

TH7681 VT2P

TECHNOLOGY







N/A

N/A

3.0

1.0

2.0

2.0

4.0

N/A

2.0

3.0

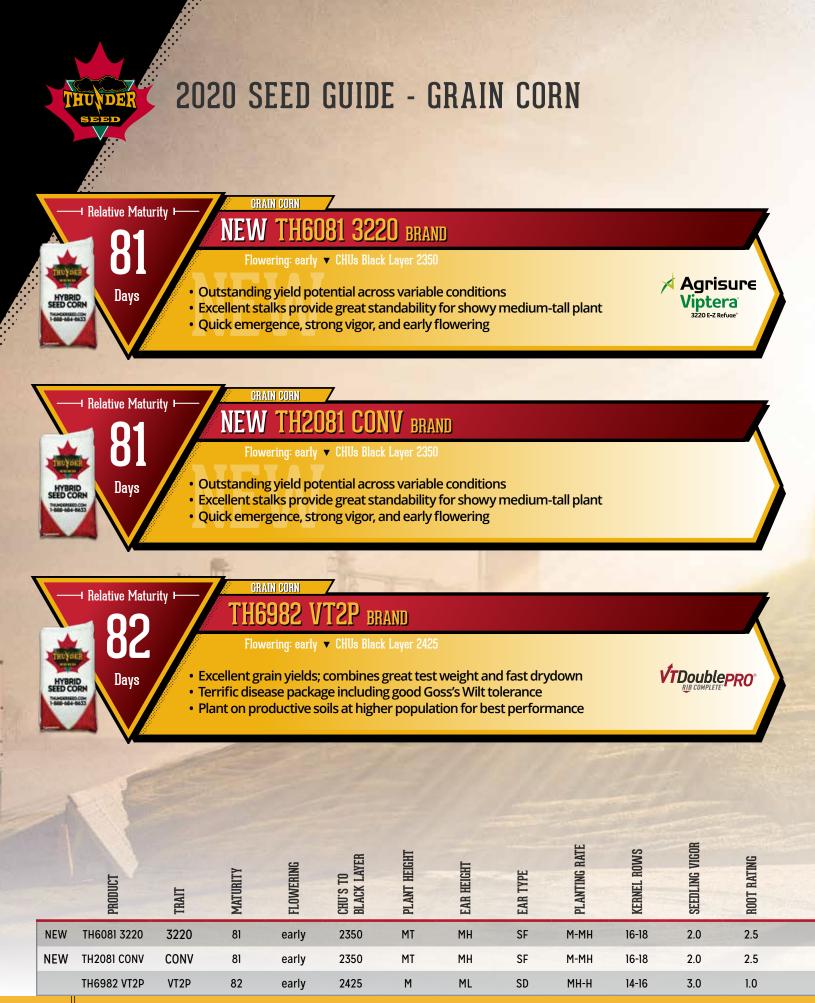
1

ok

7

2

3



8

CANADIAN GRAIN CORN

If you only see one... It's already too late.

Protect your crop with Agrisure Viptera[®] – the only trait that provides effective control of western bean cutworm. It also protects the crop from key insects like corn earworm, cutworm and armyworm, for the most comprehensive above-ground insect control available.

Discover why Agrisure Viptera is worth a closer look at **Syngenta.ca/Agrisure-Viptera**.

AgrisureViptera

syngenta.

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STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	LTIM S.SSOD	NCLB	COMMON RUST	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITIONS	IDEAL CONDITIONS	HERBICIDE SENSITIVITY
1.5	2.5	2.0	2.0	2.5	2.0	2.5	1.5	2.0	2.5	2	1	1	ok
1.5	2.5	2.0	2.0	2.5	2.0	2.5	1.5	2.0	2.5	2	1	1	ok
2.0	3.0	1.0	4.0	1.0	1.0	3.0	2.0	3.0	4.0	3	2	1	ok



2020 SEED GUIDE - GRAIN CORN AGRONOMIC INFORMATION GUIDE

	PRODUCT	TRAIT	MATURITY	FLOWERING	CHU'S TO Black layer	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	Seedling vigor	ROOT RATING	
NEW	TH4072 RR	RR	72	medium	2025	М	М	SD	МН-Н	14-16	2.0	2.0	
	TH7673 VT2P	VT2P	73	med-early	2050	MT	М	D	H	12-14	3.0	1.0	
	TH6875 VT2P	VT2P	75	late	2100	MT	М	SD	МН	14-16	2.0	3.0	
	TH7677 VT2P	VT2P	76	med-late	2175	М	М	SD	MH	14-16	2.0	2.0	
1	TH6977 VT2P	VT2P	77	med-early	2200	М	М	SD	МН	12-14	3.0	2.0	
	TH7578 VT2P	VT2P	78	med-early	2225	MT	МН	SF	МН	14-16	2.0	1.0	
	TH4578 RR	RR	78	med-early	2225	MT	МН	SF	МН	14-16	2.0	1.0	
NEW	TH6079 VT2P	VT2P	79	early	2250	М	М	SD	МН	14-16	2.0	2.0	
	TH7681 VT2P	VT2P	81	medium	2375	т	МН	SD	МН-Н	14-16	2.0	3.0	
NEW	TH6081 3220	3220	81	early	<u>23</u> 50	MT	МН	SF	M-MH	16-18	2.0	2 <mark>.5</mark>	
NEW	TH2081 CONV	CONV	81	early	2350	MT	МН	SF	M-MH	16-18	2.0	2.5	
2.1	TH6982 VT2P	VT2P	82	early	2425	М	ML	SD	МН-Н	14-16	3.0	1.0	

Rat	ing	Plant	Height	Ear He	ight	Ear Ty	ре	Planti	ng Rate	Herbicid	e Sensitivity	Growing Cor	nditions
1	Excellent	S	Short	L	Low	D	Determinate	ML	Medium Low	C	Caution	Tough	low yield env (below 120 bu/ac)
2	Very Good	MS	Medium Short	ML	Medium Low	SD	Semi-Determinate	м	Medium	W	Warning (do not use)	Variable	moderate yield env (120-160 bu/ac)
3	Good	М	Medium	м	Medium	SF	Semi-Flex	мн	Medium High	grp4	Group 4: growth regulator	ldeal	high yield env (above 160 bu/ac)
4	Below Average	MT	Medium Tall	МН	Medium High	F	Flex	Н	High	grp2	Group 2: SU/ALS inhibitor		
5	Poor	Т	Tall	н	High					grp27	Group 27: HPPD inhibitor		

RR - Roundup Ready® Corn 2 | VT2PRIB - VT Double PR0® RIB Complete® Corn Blend | CONV - Conventional Thunder Seed Variety

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STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	LIIM S.SS09	NCLB	COMMON RUST	SILAGE POTENTIAL	TOUGH CONDITIONS	VARIABLE CONDITION	IDEAL CONDITIONS	HERBICIDE Sensitivity
2.5	2.5	2.5	2.5	2.0	2.0	2.5	3.5	N/A	4.0	3	2	2	ok
1.0	3.0	2.0	2.0	2.0	1.0	4.0	2.0	3.0	4.0	2	2	3	ok
2.0	3.0	3.0	1.0	1.0	2.0	3.5	3.0	N/A	2.0	3	2	1	C (grp2)
3.0	3.0	3.0	1.0	3.0	3.0	4.0	2.0	2.0	3.0	3	2	2	ok
2.0	3.0	2.0	3.0	2.0	3.0	2.5	2.0	N/A	4.0	2	2	2	ok
2.0	2.0	3.0	1.0	2.0	3.0	3. <mark>0</mark>	2.0	2.0	2.0	2	2	2	ok
2.0	2.0	3.0	1.0	2.0	3.0	3.0	2.0	2.0	2.0	2	2	2	ok
2.0	3.0	2.5	2.0	3.5	2.5	3.0	2.5	N/A	4.0	2	1	1	ok
2.0	3.0	N/A	1.0	2.0	2.0	4.0	N/A	N/A	3.0	3	2	1	ok
1.5	2.5	2.0	2.0	2.5	2.0	2.5	1.5	2.0	2.5	2	1	1	ok
1.5	2.5	2.0	2.0	2.5	2.0	2.5	1.5	2.0	2.5	2	1	1	ok
2.0	3.0	1.0	4.0	1.0	1.0	3.0	2.0	3.0	4.0	3	2	1	ok

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2020 SEED GUIDE - SILAGE CORN

→ Relative Maturity ⊢—

TH6875 VT2P BRAND

SILAGE CORN

- Attractive plant with great staygreen and test weight
- Nice ear size and plant height adds to silage yield potential
- Solid agronomics overall including very good vigor and stalks

Relative Maturity P Relative Maturity P Relative Maturity P Relative Maturity P Relative Maturity P

Days

THUNDER

75

Days

HYBRI SEED CO

SILAGE CORN NEW TH4076 HDRR BRAND

- High-Digestibility hybrid bred specifically for silage and grazing
- Slower drydown provides longer chopping window
- Combines tonnage with total plant digestibility



TH7578 VT2P BRAND

Proven standout with strong performance across various environments
 Excellent roots, staygreen, and plant health



Roundup Ready

CORN

VTDoublepR0

• Extremely reliable hybrid with good silage potential

	R. S. S.	PRODUCT	TRAIT	MATURITY	FLOWERING	CHU'S TO BLACK Layer	PLANT HEIGHT	EAR HEIGHT	EAR TYPE	PLANTING RATE	KERNEL ROWS	SEEDLING VIGOR	ROOT RATING
		TH6875 VT2P	VT2P	75	late	2100	MT	М	SD	МН	14-16	2.0	3.0
	NEW	TH4076 HDRR	RR	76	medium	2150	MT	М	SF	М	14-16	2.0	1.0
		TH7578 VT2P	VT2P	78	med-early	2225	MT	МН	SF	МН	14-16	2.0	1.0
		TH4126 RR	RR	79	medium	2250	MT	М	SF	МН	12-16	2.0	2.0
1		TH7681 VT2P	VT2P	81	medium	2375	T	МН	SD	МН-Н	14-16	2.0	3.0
		TH4188 RR	RR	88	med-late	2675	MT	М	SF	М	12-14	2.0	3.0

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CANADIAN SILAGE CORN

TECHNOLOGY







STALK RATING	DROUGHT TOL.	GREENSNAP	STAYGREEN	DRYDOWN	TEST WEIGHT	LIIW S'SSOD	NCLB	COMMON RUST	SILAGE Potential	TOUGH	VARIABLE Conditions	IDEAL CONDITIONS	HERBICIDE Sensitivity
2.0	3.0	3.0	1.0	1.0	2.0	3.5	3.0	N/A	2.0	3.0	2.0	1.0	C (grp2)
3.0	2.0	2.0	2.0	4.0	3.0	N/A	2.0	2.5	1.5	2.0	2.0	2.0	ok
2.0	2.0	3.0	1.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	ok
2.0	3.0	2.0	2.0	4.0	2.0	N/A	N/A	N/A	2.0	2.0	2.0	2.0	ok
2.0	3.0	N/A	1.0	2.0	2.0	4.0	N/A	N/A	2.5	3.0	2.0	1.0	ok
2.0	2.5	N/A	3.0	2.5	2.0	3.5	N/A	N/A	2.0	2.0	2.0	2.0	ok

CANADIAN SILAGE CORN



Think Before You Bin-Run

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 Genuity® Roundup Ready 2 Yield® soybean varieties and Roundup Ready 2 Xtend® 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



Monsanto receives calls and letters each year about potential seed compliance matters. Anyone with a concern or question can anonymously call 1-800-768-6387.

*Genuity[®] Roundup Ready 2 Yield[®] soybeans and Roundup Ready 2 Xtend[®] soybeans are covered by different patents than original Roundup Ready[®] soybeans and cannot be saved and planted. For more information about seed innovation and intellectual property protection, please visit www.seedipalliance.com.

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Monsanto Company is a member of Excellence Through Stewardship[®] (ETS). Monsanto products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Monsanto's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Roundup Ready[®] soybeans, Genuity[®] Roundup Ready 2 Yield[®] soybeans, and Roundup Ready 2 Xtend[®] soybeans have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from these products can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship[®] is a registered trademark of Excellence Through Stewardship.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Roundup Ready[®] soybeans and Roundup Ready 2 Yield[®] soybeans contain genes that confer tolerance to glyphosate, the active ingredient in Roundup[®] brand agricultural herbicides. Roundup[®] brand agricultural herbicides will kill crops that are not tolerant to glyphosate. Roundup Ready 2 Xtend[®] soybeans contain genes that confer tolerance to glyphosate and dicamba, the active ingredient in XtendilNax[®] herbicide with VaporGrip[®] Technology. Dicamba will kill crops that are not tolerant to dicamba. XtendilNax[®] herbicide with VaporGrip[®] Technology is part of the Roundup Ready[®] Xtend Crop System and is a restricted use pesticide. Genuity[®], Roundup Ready 2 Yield[®], Roundup Ready 2 Xtend[®], Roundup[®], VaporGrip[®] and XtendilMax[®] are registered trademarks of Bayer Group, ©2019 Bayer Group, All Rights Reserved. [19-00070pc] 5A4N198247

YOUR FIELD. YOUR CHOICE.

Our corn traits are built with farmers in mind and proven in the fields.

That's why there's no better choice than SmartStax[®] RIB Complete[®] corn for acres with above and below ground insect pressure, and VT Double PRO[®] RIB Complete[®] corn for acres with above ground pressure. **Our corn traits deliver:**



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2020 SEED GUIDE - SOYBEAN

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 Roundup Ready 2 Xtend[®] and LibertyLink[®] brands also have high tolerance to herbicides.



CANADIAN SOYBEAN

TECHNOLOGY





Maturity Product Trait SCN EE E TH 33003R2Y RR2Y 00.3 2375 1.7 2.2 1.9 S lc N/A N/A Thin Μ TH 32004R2Y RR2Y 2400 00.4 1.7 2.2 1.9 S lc 2.3 2.2 Intermediate Μ TH 33005R2Y RR2Y 00.5 2425 1.8 1.9 1.9 S 1c 2.1 2.3 Intermediate Μ

CANADIAN SOYBEAN

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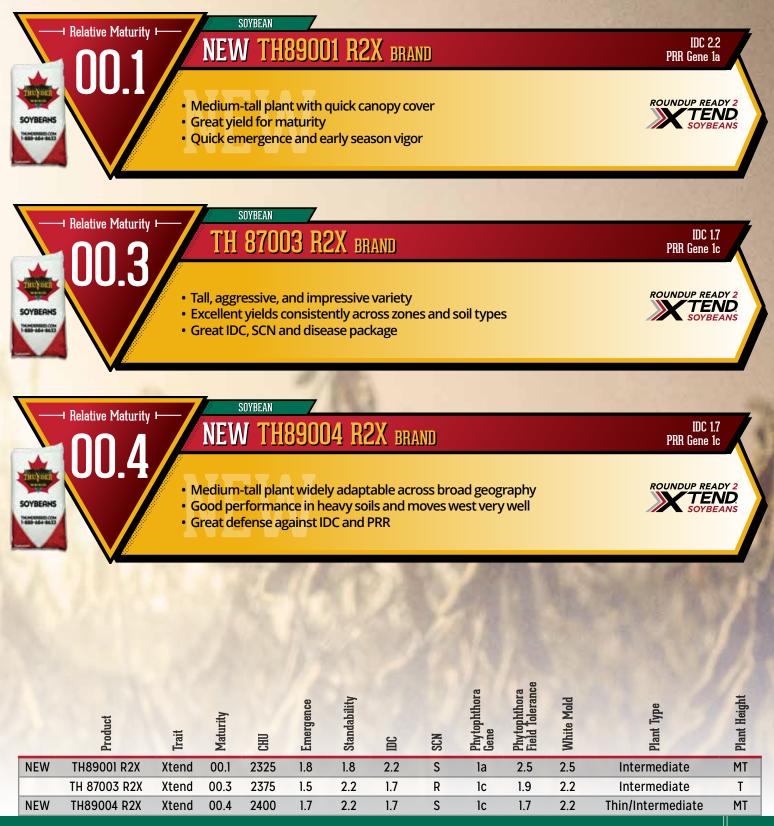
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CANADIAN SOYBEAN

TECHNOLOGY







CANADIAN SOYBEAN

thunderseed.com

2020 SEED GUIDE - SOYBEAN THUNDER SOYBEAN H Relative Maturity H TH 88005 R2XN BRAND IDC 1.8 PRR Gene 1c 00.5 Tall attractive plant with good standability and pod height ROUNDUP READY 2 SOYBEANS SOYBEANS Strong emergence followed by strong yield potential Great overall defense package; including brown stem rot resistance SOYBEAN **Relative Maturity** TH 88007 R2X brand IDC 2 PRR Gene 1c ROUNDUP READY 2 Top yielding variety TEND Big plant with lots of lateral branches; good choice for wider rows Great emergence and pod height SOYBEAN **Relative Maturity** NEW TH89009 R2XN BRAND IDC 1.5 PRR Gene 1k ROUNDUP READY 2 Taller bushy variety with top end yield TEND **Excellent IDC tolerance and SCN resistance** SOYBEAN



Great disease defense against PRR and white mold

CANADIAN SOYBEAN



2020 SEED GUIDE - SOYBEANS AGRONOMIC INFORMATION GUIDE

	Product	Trait	Maturity	CHU	Emergence	Standability	ЭĒ	SCN	Phy tophthora Gene	Phytophthora Field Toleranc	White Mold	Plant Type	Plant Height
	TH 33003R2Y	RR2Y	00.3	2375	1.7	2.2	1.9	S	lc	N/A	N/A	Thin	М
	TH 3200R2Y	RR2Y	00.4	2400	1.7	2.2	1.9	S	lc	2.3	2.2	Intermediate	М
	TH 33005R2Y	RR2Y	00.5	2425	1.8	1.9	1.9	S	lc	2.1	2.3	Intermediate	М
	TH 34006R2Y	RR2Y	00.6	2450	1.5	2.2	2.2	S	lc	N/A	2	Intermediate	М
	ASTRO R2	RR2Y	00.8	2500	1.5	2.2	1.8	S	1k	2.3	1.5	Intermediate	Т
	TH890005 R2XN	Xtend	000.5	2175	1.7	1.8	2.2	R	lc+lk	1.8	1.9	Thin	MS
NEW	TH89001 R2X	Xtend	00.1	2325	1.8	1.8	2.2	S	la	2.5	2.5	Intermediate	MT
	TH 87003 R2X	Xtend	00.3	2375	1.5	2.2	1.7	R	lc	1.9	2.2	Intermediate	Т
NEW	TH89004 R2X	Xtend	00.4	2400	1.7	2.2	1.7	S	lc	1.7	2.2	Thin/Intermediate	MT
	TH 88005R2XN	Xtend	00.5	2425	1.6	2	1.8	R	lc	1.8	2	Intermediate	Т
	TH 88007R2X	Xtend	00.7	2475	1.5	2.3	2	S	lc	1.9	2.5	Intermediate/Bushy	М
NEW	TH89009 R2XN	Xtend	00.9	2525	1.7	2	1.5	R	lk	1.4	2.2	Intermediate/Bushy	MT
NEW	TH79009E	E3	00.9	2525	1.5	1.7	1.9	S	lc	2.1	2.2	Intermediate	М

R2Y - Roundup Ready 2 Yield[®] Soybeans | R2YN - Roundup Ready 2 Yield[®] Soybeans - includes nematode resistance | E3 - Enlist E3[™] | RR2X - Roundup Ready 2 Xtend[®] Soybeans

RATING: 1 | EXCELLENT 2 | VERY GOOD 3 | GOOD 4 | BELOW AVERAGE 5 | POOR

PLANT HEIGHT: S | SHORT MS | MEDIUM SHORT M | MEDIUM MT | MEDIUM TALL T | TALL

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®

6. Fertility

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 seeds/acre
 - 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

10. Insects

a. Soybean Aphids: Until recently only an occasional problem in Red River Valley, easy to kill and rarely a problem

11. 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
- reduction in yield
- 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



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 River Valley** 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 beans are usually not
- dockage
- d. Lower dockage

16. Revenue/Cost

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

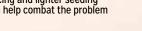
CANADIAN SOYBE



ZONE ADAPTATION Relative Maturity 000.5 - 00.3 RM Relative Maturity Relative Maturity 00.3 - 00.5 RM MANITOBA ALBERTA SASKATCHEWAN Winnipeg Regina

in the west b. Spider Mites: Very rare in the valley

- Sclerotinia can cause moderate
- New seed treatment, crop rotation,



c. No need to desiccate d. Dry is 13-13.5 percent moisture

Out here, I SPRAY EARLY to stay ahead of weeds.





Dicamba and Glyphosate Pre-mix



THIS IS MY FIELD.



IT'S THE SYSTEM THAT MAKES THE DIFFERENCE.

XTEND YOUR WEED CONTROL

CONTROLS MORE WEEDS THAN ANY OTHER SOYBEAN SYSTEM*

HP 14 DAYS SOIL ACTIVITY on small-seeded broadleaf weeds**

XTEND YOUR YIELD

NEW ELITE

INCREASED YIELD POTENTIAL BY CONTROLLING WEEDS EARLY

See your retailer or visit GenuityTraits.ca

*Based on approved PMRA herbicide labels as of Aug. 2018.

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 grower's fields.

Always use dicamba with traditional residual herbicides in pre-emergence and postemergence applications that have different, effective sites of action, along with other Diversified Weed Management Practices (DWMPs).

ALWAYS FOLLOW GRAIN MARKETING AND ALL OTHER STEWARDSHIP PRACTICES AND PESTICIDE LABEL DIRECTIONS. Details of these requirements can be found in the Trait Stewardship Responsibilities Notice to Farmers printed in this publication. ©2018 Monsanto Canada, Inc. All rights reserved.



Advancing Modern Farming

The Enlist[™] weed control system will change how you think about weed management in soybeans. Farmers will be able to purchase Enlist E3™ varieties and take control of resistant and hard-to-control weeds.

INTRODUCING THE ENLIST[™] WEED CONTROL SYSTEM

The Enlist weed control system will help growers meet the challenge of farming today, and in the future.

Key Benefits of the Enlist weed control system:

- Provides robust crop tolerance to Enlist Duo™, a new herbicide featuring glyphosate and new 2,4-D choline, containing Colex-D[™] Technology
- Enables the use of a multi-mode of action herbicide approach against hard-to-control and resistant weeds
- Includes a stewardship initiative to promote responsible use and sustain long-term performance

ENLIST E3 SOYBEANS

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

- Enlist E3 soybeans provide robust herbicide tolerance to 2, 4-D, glyphosate and glufosinate
- Enlist Duo herbicide can be used in Enlist E3 soybeans with confidence as a pre-emergent or post-emergent herbicide
- . Enlist E3 soybeans provide an alternate glyphosate tolerance trait source
- A multi-mode of action program approach is recommended to minimize the potential for the development of resistant weeds. This includes the use of residuals and complementary effective modes of action for pre-emergent and in-crop weed control
- Enlist E3 soybeans are not tolerant to dicamba

ENLIST DUO[™] HERBICIDE

Enlist Duo herbicide, a proprietary blend of glyphosate and 2,4-D choline, contains Colex-D™ Technology. Enlist Duo has two modes of action to provide exceptional weed control and herbicide resistance management.

C	COLEX•D [™] technology									
WHAT GOES INTO IT										
2,4-D choline with Colex-D Technology		Latest formulation science		Proprietary manufacturing process						
		WHAT IT	DELIVERS							
Near zero volatility			Low odour		Improved handling characteristics					

KEY WEEDS CONTROLLED BY ENLIST DUO

Enlist Duo controls more than 70 weeds, including the toughest to control. Here's a snapshot of some of the most important.

WEEDS CONTROLLED								
	Grass Weed Species							
Barnyard grassCrabgrassFall panicumGreen foxtail	 Quack grass Volunteer barley Volunteer wheat Wild oats Wild proso millet Yellow foxtail And many more 							
Bro	padleaf Weed Species							
 Bluebur Buckwheat, tartary & w Canada fleabane* Canada thistle Chickweed Cocklebur Corm spurry Dandelion Eastern black nightshot Field horsetail Flixweed Giant ragweed* Hemp-nettle 	 Lamb's-quarters Morning glory Palmer Amaranth Red root pigweed Smartweed Sow thistle Velvetleaf 							

Questions? To learn more, talk to your local seed retailer, or visit EnlistCanada.ca



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STAY INFORMED WHILF YOU

From our quarterly newsletter to our website and 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 YouTube. You can easily access any of our social media sites through our website, thunderseed.com.

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

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💕 @thunder_seed

C /thunder_seed

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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Agrisure® Technology incorporated into these seeds is commercialized under license from Syngenta Seeds, Inc. Herculex® Technology incorporated into these seeds is commercialized under license from Dow AgroSciences LLC. HERCULEX® and the HERCULEX Shield are trademarks of Dow Chemical company or an affiliated company of Dow.

Important: Always read and follow label and bag tag instructions; only those labeled as tolerant to glufosinate may be sprayed with glufosinate ammonium based herbicides.

Seeds containing the Enlist, Herculex and PowerCore traits are protected under numerous US patents. Seeds containing patented traits can only be used to plant a single commercial crop and cannot be saved or replanted. You acknowledge and agree to be bound by the terms and conditions of the following documents in effect at the time of planting of this seed: (i) the Technology Use Agreement and (ii) the Product Use Guides for all technologies in this seed, including the Herbicide Resistance Management (HRM), and Use requirements detailed therein (www.correst.rait-stewardship.html).

To plant Enlist, Herculex and PowerCore seed, you must have a limited license from Dow AgroSciences LLC (or other appropriate affiliates). In consideration of the foregoing, Dow AgroSciences grants to the Grower the limited license to use its technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the Technology Use Agreement in effect at the time of planting of this seed.

Always read and follow herbicide label directions prior to use: Enlist" products contain the Enlist trait that provides crop safety for use of labeled over-the-top applications of glyphosate, glufosinate and 2.4-D herbicides featuring Colex-D® technology when applied according to label directions. Following burndown, the only 2.4-D containing herbicide products that may be used with Enlist" crops are products that feature Colex-D technology and are expressly labeled for use on Enlist crops. 2.4-D products that do not contain Colex-D technology are not authorized for use in conjunction with Enlist products.

Enlist E3^{III} soybeans contain the Enlist E3 trait that provides crop safety for use of labeled over-the-top applications of glyphosate, glufosinate and 2.4-D herbicides featuring Colex-D® technology when applied according to label directions. Following burndown, the only 2.4-D containing herbicide products that may be used with Enlist^{IIII} crops are products that feature Colex-D technology and are expressly labeled for use on Enlist crops. 2.4-D products that any be used with Enlist^{IIII} crops are products that feature Colex-D technology and are expressly labeled for use on Enlist crops. 2.4-D products that do not contain Colex-D technology are not authorized for use in conjunction with Enlist E3 soybeans. WARNING: Enlist E3 soybeans are tolerant of over-the top applications of glyphosate, glufosinate, and 2.4-D. Accidental application of gluptocide is to this variety could result in total crop loss. When using 2.4-D herbicides, grower agrees to only use 2.4-D products that contain Colex-D technology authorized for use in conjunction with Enlist E3 soybeans. Always read and follow herbicide label directions prior to use.

PLEASE READ CAREFULLY. By opening this bag or planting this seed. you acknowledge and agree to the following terms, personally and on behalf of the individual or entity that purchased this seed ("Grower"), to be bound by the terms and conditions of the following documents in effect at the time of planting of this seed. (i) the Technology Use Agreement and (ii) the Product Use Guides for all technologies in this seed, including the Herbicide Resistance Management (HRM), and Use requirements detailed therein (www.corteva.ca/en/trait-stewardship.htm)).

To plant this seed, you must have a limited license from Corteva Agriscience (or other appropriate affiliates). No license or sublicense is conveyed to use these seeds solely by the purchase/bailment/transfer of such seeds. In consideration of the foregoing, Dow AgroSciences grants to the Grower the limited license to use its technology to produce only a single commercial crop in Canada under the terms and conditions set forth in the Technology Use Agreement in effect at the time of planting of this seed. Herbicides - When using 2,4-D herbicides, grower agrees to only use 2,4-D products that contain Colex-D[®] technology authorized for use in conjunction with Enlist E3^m soybeans.

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

These seeds are covered under Dow AgroSciences and M.S. Technologies, L.L.C. Patent Rights which can be found at: www.corteva.us/Resources/trait-stewardship.html. The purchase of these seeds conveys no license under said patents to use these seeds.

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ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Roundup Ready© 2 technology contains genes that confer tolerance to glyphosate. Roundup Ready 2 Xtend© soybeans contains genes that confer tolerance to glyphosate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate and dicamba. Glyphosate to glyphosate and dicamba. Contact your local crop protection dealer or call the technical support line at 1-800-667-4944 for recommended Roundup Ready© Xtend Crop System weed control programs. RIB Complete©. Roundup Ready 2 Technology and Design[™], Roundup Ready 2 Xield[®], Roundup Ready 2 Xield[®], Roundup Ready 2 Xield[®], Roundup Ready 2 Xield[®], Roundup Ready[®] and VT Double PRO® are trademarks of Bayer Group. Monsanto Canada ULC licensee

To help preserve the benefits of our trait technology, an Insect Resistance Management (IRM) plan must be part of every farmer's production strategy.

Farmers who purchase corn products that are not designated as RIB Complete[®] required to plant a refuge that is appropriate for that product.

As part of the IRM plan for RIB Complete corn, experts recommend that growers incorporate crop rotations (out of corn), use of pyramided traits for below ground pests and, when appropriate, use of insecticides to minimize selection of resistant populations. Farmers should monitor their RIB Complete corn fields for targeted insect pests and contact their local Monsanto representative, retailer, or Monsanto's Technical Support line at 1.800.667.4944 if they observe any unusual performance problems.



Planting Refuges, Preserving Technology





THANK JOU FOR CHOOSING THUNDER SEED

*First year results of 2-year protocol study with independent cooperators across 8 locations examining the yield differences of saved Roundup Ready[®] soybeans versus newly purchased Roundup Ready 2 Yield[®] soybeans.

When you buy new seed from Thunder Seed, you will enjoy some limited warranty benefits. With Thunder Seed, you receive agronomic support and can participate in the Roundup Rewards program, which has paid out more than \$600 million to growers since 1997.

Thunder Seed is committed to our customers' successes through linking today's producer with tomorrow's technology. Thunder Seed researches the newest traits and highest yielding germplasm to pick the right genetic packages that will work for your soil. New trait introductions take 7-9 years for commercialization and cost \$50-\$100 million. You have the assurance that Thunder Seed and Monsanto are 100% committed to our customers success. Input costs for the Roundup Ready[®] System – seed plus chemicals – have decreased over the past six years while other input costs rose.



WARRANTY: Thunder Seed of Dilworth, MN, and Dealer warrants to the purchase that the seeds described on the tag are sold within recognized tolerances. Thunder Seed of Dilworth, MN, gives no further warranties of the seed, express or implied, of merchantability or fitness for any particular purpose, nor any other warranty

against loss of yield or for any other reason or cause, including environmental conditions. The parties agree the buyer's sole and exclusive remedy against Thunder Seed of Dilworth, MN, is the purchase price of the seed, and that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, loss of sales, injury to person or property, or any other incidental or consequential loss) shall be available to the purchaser. The parties further agree that purchaser may return seed within fifteen (15) days after purchase for a refund of purchase of the price and, unless this seed is returned within fifteen (15) days, that purchaser accepts these terms.

Thunder Seed Company, Inc. is a quality seed company that is backed by many years of experience through its owner-operators.

Thunder Seed is committed to meeting the changing needs of today's farmers. By monitoring the latest technologies then incorporating that knowledge into high-yielding seed products. Thunder Seed is linking today's producer with tomorrow's technology.

Look to Thunder Seed's product line-up for high-yielding corn, trial-winning Roundup Ready[®] soybeans and conventional soybeans.

Roundup Ready soybeans are simply the most profitable and convenient way to grow soybeans. You can spray Roundup agricultural herbicides in-crop for emergence through flowering for unsurpassed weed control, proven crop safety and maximum yield potential. Thunder Seed puts their experience and reputation behind the quality and integrity of every unit they sell.

Thunder Seed recommends the purchase of new seed for a variety of benefits compared to bin run seed. Input costs are higher for planting bin run versus new certified seed. That cost includes higher seeding rate and loss of seed or shrinking that occurs when cleaning bin-run seed. Thunder Seed offers reliable seed supply in many maturities with a set standard of high-quality and high-potential product that has shown to out-yield much higher than in-bin seeds by 6 bushels or more per acre.*

FIRST in the FIBILID



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