



2027

Canadian Sunflower

Hybrid & Market Guide

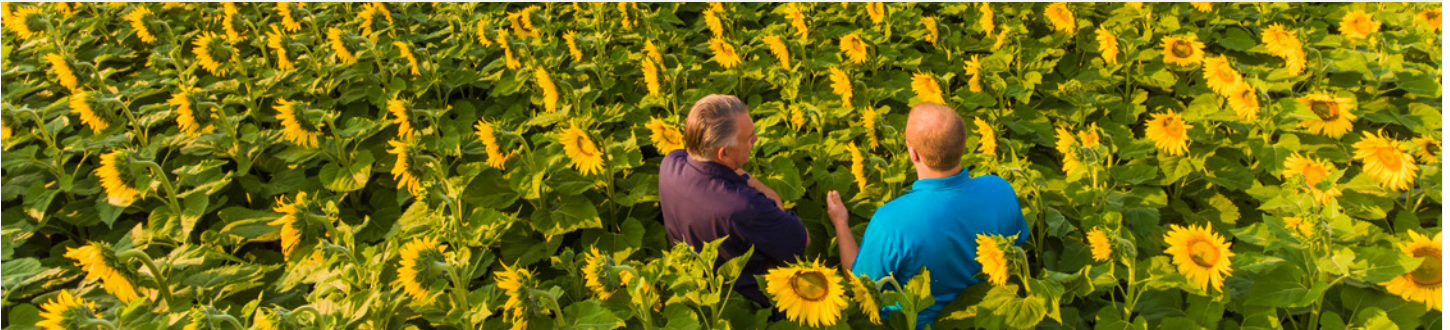


Proven Genetics. Performance that Drives ROI.

Nufarm's North America based nurseries are the breeding ground for superior sunflower hybrids.

HERE'S WHY:

- ✓ Nufarm hybrids deliver reliable yields and high oil content
- ✓ High oil content increases the opportunity for a strong return on investment
- ✓ Hybrids are bred with industry-leading herbicide and disease resistance
- ✓ R&D trials are strategically located in sunflower growing areas in North America
- ✓ Nufarm is the only multinational company working with all sunflower hybrid seed types and herbicide in North America
- ✓ Industry leading sunflower molecular lab and seed production located in West Sacramento, California
- ✓ Strict quality assurance program



An Important Agricultural Crop

Nufarm sunflower hybrids feature advanced downy mildew resistance, Phomopsis tolerance, and herbicide tolerance to meet your field's needs. With a wide range of maturities, sizes, and oil profiles, Nufarm supports all three market segments: high oleic, NuSun® (mid-oleic), and confection. Nufarm sunflowers are tested on acres like yours, so they perform on acres like yours.

Sunflower Markets

While the vibrant, strong sunflower is recognized worldwide for its beauty, it is also an important source of healthy edible oil and protein meal. As one of the world's leading oilseed crops, sunflower oil is a valued and healthy vegetable oil. Sunflower seeds are also enjoyed as a healthy snack and nutritious ingredient to many foods.



OIL

Approximately 75% of sunflowers grown are utilized for the oil that can be extracted from the seeds. Sunflower oil is naturally made up of a combination of monounsaturated, polyunsaturated, and low levels of saturated fat. Oil sunflowers are generally classified based on their oleic (monounsaturated fat) content. Oil sunflowers that are not used for oil extraction purposes can also be used in producing high quality bird food.

Primary categories of commercially available hybrid seeds

Nusun®: Oleic levels of 55-75%

High Oleic: Oleic levels greater than 82% (common minimum crush requirement)



CONFECTION

This highly recognizable black and white seed serves as a tasty and healthy snack. Confection sunflower hybrids are planted at a lower population in the field to grow longer more plump seeds. The largest of the seeds get sold to the in-shell market, like what you eat at baseball games, while the smaller seeds are utilized in the dehull market.

Herbicide Tolerant Traits

Sunflowers are a non-GMO crop. Through years of selective breeding techniques, Nufarm has introgressed the Clearfield®, and ExpressSun® traits into the majority of our hybrids to help growers manage weeds.



Clearfield®

Production System for Sunflower

The Clearfield® Production System for sunflowers offers broad-spectrum control of grass and broadleaf weeds, including ACCase-resistant types. It pairs high-yield hybrids with Beyond® Xtra herbicide tolerance for effective postemergent weed control in any tillage system.

ExpressSun®

trait

ExpressSun® hybrids tolerate Express® herbicide, delivering broadleaf weed control, improved yield potential, and cost-effective management with full re-cropping flexibility.

High Oleic

Developed in North America, our high oleic oil sunflower hybrids deliver strong agronomics, high yields, and excellent oil content. The oilseed crush industry requires a minimum oleic level ranging from 82% to 85%.

While oleic levels can vary year to year due to environmental pressure, Nufarm sunflower hybrids target a minimum oleic level of 85% or higher, with some

hybrids reaching greater than 90% oleic acid.

High oleic sunflower oil has a neutral taste and provides excellent stability without hydrogenation for the food industry and high oleic sunflower oil offers a trans fat free oil solution for end use customers. High-oleic sunflower oil is also being used in many of the new plant-based food products.



N4H161 CL

MATURITY: Ultra-Early

MARKET: High Oleic

TRAIT: Clearfield

DMR: Yes



Clearfield®
Production System for Sunflower

This ultra-early high oleic is the perfect hybrid for Northern climates with short growing seasons or in the High Plains for a double crop option. With a shorter plant height, N4H161 CL has excellent root strength and late season plant health.

- Beyond® Xtra herbicide tolerant
- Earliest maturity in the Nufarm lineup
- Shorter plant height
- Excellent yield and oil content for maturity
- Resistant to multiple races of downy mildew

N4H161 CL is the industry's earliest sunflower hybrid currently sold. Not only is it early, but N4H161 CL also has excellent stalk and root strength coupled with short plant height, giving growers the option to spray insecticides and desiccants with their ground rigs, eliminating expensive applicator bills.



N4H205 E

MATURITY: Early
MARKET: High Oleic
TRAIT: ExpressSun
DMR: Yes

ExpressSun®
 trait

N4H205 E is a wonderful early option for your operation, with multiple advanced Downey Mildew Resistance (DMR) genes, lightning-fast dry down, and exceptional stalk and root strength. All without sacrificing yield or oil with this early powerhouse of a hybrid.

- Express® herbicide tolerant
- Excellent yield and oil content
- Strong stalk and roots
- Fast drydown
- Advanced downy mildew resistance

From Start to finish N4H205 E is one of the healthiest hybrids in our portfolio; its multiple-strain downy mildew resistance gives it a leg up out of the ground, and its excellent plant health keeps it growing strong throughout the growing season.



N4H337 E

NEW

MATURITY: Medium

MARKET: High Oleic

TRAIT: ExpressSun

DMR: Yes

ExpressSun®
trait

N4H337 E is part of Nufarm's ever evolving Express portfolio. This hybrid's outstanding plant health starts off with its resistance to all known downy mildew strains and plant health does not stop. This hybrid has a wonderful disease tolerance package that helps keep it growing strong through the season. Growers can count on high yields with this healthy hybrid.

- Express® herbicide tolerant
- Excellent stalk and root strength
- Great early season emergence
- Excellent oil
- Advanced downy mildew resistance

Growers asked for it and Nufarm's research staff produced it. For years growers have been asking for a Group 3, Express, Advanced DMR, high oleic, high-yielding hybrid and boy did we create a good one. Don't wait long to place your order for 2027. Although N4H337 E is new for 2027, our early testing has shown it at the front of the pack for not only yield but oil content as well.

NuSun

The NuSun sunflower oil profile was developed by the U.S. National Sunflower Association, in coordination with the USDA, to create an oil essential for the food industry. NuSun oil has a naturally high smoke point and does not require trans fat creating hydrogenation to remain stable

at high temperatures. It has a good shelf life and neutral taste profile making it an excellent choice for frying oil. A typical fatty acid profile is 65% oleic acid, 26% linoleic acid and 9% combined saturates.



N4HM354

MATURITY: Medium

MARKET: NuSun

TRAIT: Clearfield

DMR: Yes

The high yield potential for this medium-early hybrid and its fit from Canada to Texas make it stand out from the rest. Great oil content, resistance to multiple races of downy mildew and strong stalks are additional benefits that make N4HM354 a must have for your farm.

- Solo ADV herbicide tolerant
- Advanced downy mildew resistance
- Consistent yield, oil profile
- Great root and stalk strength
- Widely adapted across multiple growing regions

Confection

Confection sunflowers are grown to meet the specific needs of processors in the in-shell snack market.



PANTHER DMR

MATURITY: Early
MARKET: Confection
TRAIT: None
DMR: Yes

Panther DMR offers confection growers excellent yield potential and high test weight. Known for its very early maturity and great standability, this processor preferred hybrid with downy mildew resistance is a perfect fit for northern growers.

- Very high percentage of large seed
- High yield and test weight
- Shorter height, uniform plant type
- Very early flowering
- Resistant to multiple races of downy mildew

Year in and year out, Panther DMR's early maturity and excellent plant health provide growers with high yields and earlier harvest than the competition without sacrificing yield. When it comes to agronomics, Panther DMR has got it, starting out with DMR protection, great seed sizing, high test weight and excellent full-season plant health.

Sunflower Hybrid Characteristics

	HIGH OLEIC			NUSUN	CONFECTION
PRODUCT	N4H161 CL	N4H205 E	N4H337 E NEW	N4HM354	PANTHER DMR
MATURITY	ULTRA- EARLY/Group 1	EARLY	MEDIUM	MED-EARLY/GROUP 3	EARLY/GROUP 2
SPECIALTY TRAITS	Clearfield/DMR	ExpressSun/DMR	ExpressSun/DMR	Clearfield/DMR	DMR
YIELD FOR MATURITY	8	8	8	9	8
ROOT RATting	8	8	7	7	7
STALK RATING	7	8	8	7	8
TEST WEIGHT	8	7	8	8	8
DRY DOWN	5	9	7	6	7
OIL CONTENT OR SEED TYPE	6	9	8	8	LT
UNIFORMITY AT FLOWER	8	8	9	9	7
LATE SEASON PLANT HEALTH	8	7	8	8	7
EMERGENCE	8	8	8	8	7
ADDITIONAL MARKET(S)	Bird Food	Bird Food	Bird Food	Bird Food	SEE CONTRACT
PLANT HEIGHT	3	6	6	8	6
DROUGHT TOLERANCE	7	7	7	8	6

Hybrid Rating Scale 1=Poor, 9=Excellent

Plant Height Rating Scale 1=Shortest, 9=Tallest

How many acres are in that bag?

	OILSEED (High oleic and Nusun)		CONFECTION
POPULATION	SIZE 2/3 (200,000)	SIZE 4 (225,000)	SIZE S/M/L
15,000	13.3	15.0	6.7
16,000	12.5	14.1	6.3
17,000	11.8	13.2	5.9
18,000	11.1	12.5	5.6
19,000	10.5	11.8	5.3
20,000	10.0	11.3	5.0
21,000	9.5	10.7	4.8
22,000	9.1	10.2	4.5
23,000	8.7	9.8	4.3
24,000	8.3	9.4	4.2
25,000	8.0	9.0	4.0
26,000	7.7	8.7	3.8
27,000	7.4	8.3	3.7
28,000	7.1	8.0	3.6
29,000	6.9	7.8	3.4
30,000	6.7	7.5	3.3

Sunflower Distributors

MANITOBA

AUSTIN

Homestead Coop
(204) 871-0542

BEAUSEJOUR

Bangert Farms
(204) 268-8047

CARBERRY

Redfern Farm Services
(204) 841-3326

CYPRESS RIVER

DSAG
(204) 724-9922

DOMAIN

Pitura Seed Service
(204) 792-2027

GLENBORO

Jefferies Seeds
(204) 720-7282

HOLLAND

Paterson Grain
(204) 526-4437

MACGREGOR

Shur-Gro
(204) 685-5685

MELITA

Paterson Grain
(204) 522-0166

NEEPAWA

Neepawa/Gladstone Coop
(204) 856-9478

NIVERVILLE

Shur-Gro
(204) 388-4818

OAKBANK

Ag Advantage
(204) 228-1780

SOURIS

Fraser Ag
(204) 729-6782

ST. CLAUDE

R-Way Ag Ltd
(431) 290-0097

ST. JOSEPH

Loewen Seeds
(204) 324-7863

STANLEY

Valleyfield
(204) 362-0323

WASKADA

Shur-Gro
(204) 264-9424

WESTBOURNE

Shur-Gro
(204) 274-3050

WINNIPEG

C.M. Agra Limited
(204) 633-6010

Paterson Grain
(204) 694-4445

ALBERTA

CYPRESS COUNTY

AgroPlus Inc
(403) 866-6797

SCANDIA

Independent Crop Inputs
(403) 654-6790

Independent Crop Inputs
(403) 360-5580

VAUXHALL

Nutrien Ag
(587) 220-8440

ONTARIO

AMARANTH

Holmes Agro
(519) 914-0451

DOUGLAS

Bonnechere Haven Farms
(613) 570-0677

NAPANEE

Huffdale Farms
(613) 324-0730

SASKATCHEWAN

MELFORT

Prairie North
(306) 752-5725

MELVILLE

Prairie Coop Melville
(306) 728-5811

MOOSE JAW

Moose Jaw Coop
(306) 690-9705

SWIFT CURRENT

Paterson Grain
(204) 522-5753

MORE CONFIDENCE. EVERY ACRE.

Sunflowers reward the right decisions — the right hybrid, the right agronomic approach, the right partner.

You grow in conditions that don't forgive bad choices. Variable seasons, processor quality requirements, and the pressure to hit consistent yield and oil content year after year. The hybrids you plant need to be built for that reality, not just tested somewhere else and sold in your area.

That's why every Nufarm sunflower hybrid is U.S.-bred, U.S.-tested, and validated against the specific challenges of your region. When you need high-oleic performance that opens doors to premium markets, we have the genetics to get you there. When you need answers in the field, our agronomists are close by — not at a call centre.

From the seed you select to the crop you deliver, our team is here to support you, helping you reduce your risk and strengthen your confidence at every step.

If you have questions at any point in the season, our team is here to help. Please don't hesitate to reach out:



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ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.