

FOCUSING ON THE FUTURE WITH VALUE BEYOND YIELD®

OUR PORTHOLO OFHYBRIDS

Essential to growers is the assurance that the hybrid seed planted will lead to a successful and profitable harvest. Nuseed® is collaborating with growers, distributors and processors to develop advanced new hybrids to meet market demands and to provide top agronomic performance for high yields across sunflower oil, dehull, and confection markets, and sorghum. Our focus on innovation allows us to use our global gemplasm to provide growers with top seed and service across the region. We demonstrate this high performance using local field trials in country.

The local Nuseed® team in Europe is working throughout the region with select local distributors to provide support growers can rely upon and hybrids which deliver value BEYOND YIELD™

Contents > Overview

DIL HYBRIDS

	TYPE	NAME	MATURITY STAGE	OIL CONTENT	SEED LENGTH	SEED YIELD	PLANT DENSITY	PLANT HEIGHT	HERBICIDE TECHNOLOGY	PAGE
	Striped	X4334	99 (DAYS) 118	-	19-21 mm	3.4-4.9 t/ha	40-45 k/ha	160-185 cm	Clearfield	6
	Striped	N6L509 CL	99 (DAYS) 118	-	22-25 mm	2.9-4.3 t/ha	40-45 k/ha	165-190 cm	Clearfield	7
5	Onyx®	N6LM304	99 (DAYS) 118	-	18-20 mm	3.1-4.9 t/ha	35-45 k/ha	165-185 cm	Clearfield Plus	8
5	Onyx®	N5LM301	99 (DAYS) 118	-	14-16 mm	3.3-5.1 t/ha	40-50 k/ha	140-155 cm	Clearfield	9
	Onyx®	N5LM307	99 (DAYS) 118	-	14-16 mm	3.3-5.2 t/ha	40-50 k/ha	145-175 cm	Clearfield	10
20	ConOil	X4428	99 (DAYS) 118	-	12-14 mm	3.4 -4.3 t/ha	45-55 k/ha	145-165 cm	Clearfield	11
٥	ConOil	X9767	101	-	13-15 mm	3.3-5.2 t/ha	40-50 k/ha	145-165 cm	Clearfield	12
	ConOil	N5LE442	99 (DAYS) 118	-	13-15 mm	3.4-4.9 t/ha	40-50 k/ha	140-150 cm	DuPont: Express.Sum	13

	NAME	MATURITY STAGE	OIL CONTENT	SEED LENGTH	SEED YIELD	PLANT DENSITY	PLANT HEIGHT	HERBICIDE TECHNOLOGY	PAGE
High Oleic	NHK12M010	99 (DAYS) 118	46-49%	-	3.6-5.4 t/ha	55-66 k/ha	170-180 cm	Clearfield	18
High Oleic	COBALT 2	90 (DAYS) 111	47-49%	-	3.2-4.5 t/ha	55-65 k/ha	150-165 cm	Clearfield	19
High Oleic	N4HM411	99 (DAYS) 118	46-49%	-	3.2-4.9 t/ha	55-65 k/ha	160-175 cm	Clearfield	20
High Oleic	N4H422 CL	99 (DAYS) 118	45-48%	-	3.6-5.1 t/ha	55-60 k/ha	160-185 cm	Clearfield	21
High Oleic	N4H469 CL	99 (DAYS) 118	48-49%	-	4.3-4.5 t/ha	55-60 k/ha	160-170 cm	Clearfield	22
High Oleic	N4H471 CL	99 (DAYS) 118	44-49%	-	3.8-4.2 t/ha	55-60 k/ha	170-180 cm	Clearfield	23
High Oleic	N4H505 CL	101	47-49%	-	3.5-4.6 t/ha	55-60 k/ha	150-160 cm	Clearfield	24
High Oleic	N4H470 CLP	99 (DAYS) 118	48-49%	-	4.3-4.5 t/ha	55-60 k/ha	165-170 cm	Clearfield Plus	25
High Oleic	N4H302 E	99 (DAYS) 118	46-49%	-	3.5-4.2 t/ha	55-60 k/ha	150-160 cm	DuPont ExpressSum	26
High Oleic	N4H309 E	99 (DAYS) 118	46-49%	-	3.2-3.4 t/ha	55-60 k/ha	155-165 cm	DuPont ExpressSum	27
High Oleic	N4HE115	85 (DAYS) 104	38-45%	-	2.1-3.8 t/ha	75-87.5 k/ha	100-145 cm	DuPont ExpressSum	28
Linoleic	IMPACT	99 (DAYS) 118	45-48%	-	3.4-5.2 t/ha	55-60 k/ha	160-175 cm	Clearfield	29
Linoleic	CAMARO 2	99 (DAYS) 118	48-52%	-	3.4-5.0 t/ha	55-60 k/ha	170-180 cm	Clearfield	30
Linoleic	N4LM406	99 (DAYS) 118	45-49%	-	3.5-5.0 t/ha	55-60 k/ha	165-180 cm	Clearfield	31
inoleic	N4LM408	99 (DAYS) 118	49-51%	-	3.5-5.5 t/ha	55-60 k/ha	170-180 cm	Clearfield	32
inoleic	N4L460 CL	99 (DAYS) 118	44-47%	-	3.2-3.7 t/ha	55-60 k/ha	165-170 cm	Clearfield	33
inoleic	N4LM409	99 (DAYS) 118	46-50%	-	3.0-4.5 t/ha	55-65 k/ha	165-180 cm	Clearfield	34
inoleic	X4219	99 (DAYS) 118	48-50%	-	3.4-4.9 t/ha	50-60 k/ha	165-175 cm	DuPont ExpressSum	35

OPENING NEW MARKETS WITH

NUSEED[®] IS A WORLD LEADER IN CONFECTION SUNFLOWER HYBRIDS.

With Nuseed[®] you can choose the right confection sunflower hybrid with Clearfield[®] or Express[®] herbicide tolerance and top agronomic performance.

This diverse new market is driven by the health benefits for consumers; and proven profitability for growers – delivering substantially higher yields.

Our unique Onyx[®] hybrid sunflowers are bred to deliver big, distinctive all-black kernels to the confection market. Our pioneering breeding combines high yields and the best agronomic resilience to stressed growing conditions. The Onyx® range combines Clearfield® and Clearfield Plus® herbicide tolerance with excellent disease resistance and standing power. Onyx® delivers the sunflower traits that will drive profit for growers and will deliver exactly what the end market needs.



ITE CONFECTION

Find Out More

Learn more about how our confection hybrids could diversify your business

Onyx[®] Sunflower Hybrids



Dehull Sunflower Hybrids



Confection > Striped

X4334

X4334 produces XL, long and dark, striped grain, demanded by the ever-changing global confection markets. This Clearfield® tolerant hybrid has an above average yield, good uniformity and good late-season plant health. Ideal for the in-shell confection market, the majority of the grain are in 9+ to 10+ round sieve sizes.

Performance Potential





Mid-late maturity, striped confection

Key Features

- Excellent grain colour and size
- Excellent standability
- Fits several export markets

Disease Resistance



Agronomics & Plant Height



N6L509 CL

N6L509 CL is a new striped XXL type of confection sunflower hybrid with lighter colour. Mid-late maturity and very uniformed hybrid that will show great performance in sunflower growing regions.

Performance Potential





- Mid-late maturity
- XXL confection type
- Clearfield®
- Excellent stalk and root strength

Key Features

Disease Resistance









Phomopsis Strains



Confection > Onyx[®]

N6LM304

Onyx[®] N6LM304 is an in-shell, black, confection hybrid that has been bred with the Clearfield Plus[®] system to help it thrive in fields with a heavy weed burden. It is a mid-late maturity hybrid giving growers a high degree of management flexibility. Its large, black grain and high yield potential make it appealing to growers and processors alike.

Performance Potential







Key Features

- Suitable for in-shell usage
- Excellent kernel to hull ratio
- Stable hybrid

Disease Resistance



Agronomics & Plant Height



N5LM301

Onyx[®] N5LM301 is a high-yielding, black, conoil hybrid with in-shell and dehulling capability giving processors a range of uses. The hybrid is Clearfield[®] tolerant and resistant to multiple races of downy mildew. N5LM301 is a uniform, mid-late maturity hybrid and gives sunflower producers, in the main growing areas, flexibility in the field.

Performance Potential







Disease Resistance





Sclerotinia Strains



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Strains
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Confection > Onyx[®]

Confection > Onyx[®]

N5LM307

Onyx® N5LM307 is a high-yielding, Clearfield® tolerant, black, conoil hybrid. It is a multi-purpose type but its good late-season plant health and standability make it a top choice for the in-shell and dehull markets. As a uniform, mid-late maturity type, N5LM307 offers flexibility to growers in the main sunflower producing regions while its downy mildew resistance provides additional protection.

Performance Potential





- Mid-late maturity, black confection type

- Suitable for in-shell usage and dehull

Key Features

- Excellent kernel to hull ratio
- Resistant to multiple races of downy mildew

Disease Resistance



Agronomics & Plant Height



X4428

X4428 is a high yielding hybrid ideal for dehulling due to its excellent kernel to hull ratio. It is also ideal for the bird food market.

Performance Potential





- Mid-late maturity, conoil type
- Excellent dehulling performance
- High yield potential
- Good kernel to hull ratio

Key Features

Disease Resistance



Strains

Strains



Confection > ConOil

Confection > ConOil

X9767

X9767 is a high-yielding hybrid which has high test-weights- a valuable quality for processors. It is ideal for dehulling as well as bird food with good kernel to hull ratios. It also provides improved protection against downy mildew, giving the grower more confidence in high-risk areas.

Performance Potential







N5LE442

N5LE442 is a conoil hybrid with the Express® trait. This mid-late maturity hybrid has a high yield potential with multiple usage options for processors. This striped grain has good kernel to hull ratio and creates flexibility for bird food markets and for growers and processors.



Performance Potential





- Mid-late maturity, conoil type
- Uniform hybrid
- Striped conoil suitable for dehulling and bird food
- Good kernel to hull ratio

Key Features

Disease Resistance







INNOVATION WITH **SUNFLOWER**

OUR SUNFLOWER OIL HYBRIDS PERFORM IN CHALLENGING CONDITIONS

Innovation in our oil sunflower hybrids centres around herbicide tolerance for weed control; Orobanche resistance, essential in the fight against this parasitic plant present in many sunflower growing regions, and downy mildew resistance.

tolerance.







Oil sunflowers are generally classified based on their oleic (monounsaturated fat) content. Choose from a wide range of high performing linoleic or high oleic oil sunflower hybrids from Nuseed® from different maturing range and with Clearfield® or Express® herbicide

Find Out More

Learn more about our range of high oleic sunflower hybrids

> Oil Sunflower Hybrids



NHK12M010

NHK12M010 is a high oleic sunflower hybrid with mid-late maturity. This hybrid offers 'best in class' grain yield with good late season plant health, good oil content and top-line high oleic values. With high performance and an ability to resist multiple races of downy mildew, this hybrid is an excellent choice for growers.

Performance Potential







- Mid-late maturity, high oleic type
- Outstanding yield potential and late season plant health
- Resistant to multiple races of downy

Key

Fea

Under best agricultural practices, high oleic levels can reach up to 90%

Disease Resistance



Agronomics & Plant Height



COBALT 2

Cobalt 2 is an early maturing, high-oleic hybrid with resistance to multiple races of downy mildew. With excellent disease tolerance and Clearfield® technology, Cobalt 2 is a perfect choice for all sunflower growing regions.



Performance Potential







- Early maturity, high oleic type
- Resistant to multiple races of downy mildew
- Excellent seed set and centre fill
- Under best agricultural practices, high oleic levels can reach up to 90%

Disease Resistance



Agronomics & Plant Height



N4HM411

N4HM411 is a high oleic oil, high-yielding hybrid which can thrive under a range of different soil conditions. These traits provide growers with flexibility in field management while downy mildew resistance and Clearfield® tolerant technology offer protection from weeds and diseases.

Performance Potential



Maturity Range (days)						
99 100 101 10 • • • •	2 103 104 105 106 107 108 109 110 111 112 113 114 115	116 117 118				
3.2	Seed Yield Range (t/ha)	4.9				
46	Oil Content Range (%)	49				
55	Plant Density Range (k/ha)	65				



- Mid-late maturity, high oleic type
- High yield potential under a range of different soil conditions

Key

Features

- Resistant to multiple races of downy
- Under best agricultural practices, high oleic levels can reach up to 90%

Disease Resistance



Agronomics & Plant Height



■N4H422 CL

N4H422 CL is a mid-late, high oleic, Clearfield hybrid with excellent agronomics including excelent stalks and root strenght. With the Clearfield production system, growers will achieve high yields and high oil content.



Performance Potential







Disease Resistance





N4H469 CL

This hybrid brings benefit to the farmers with outstanding agronomics, including Orobanche 8 resistance plus Clearfield® weed control system. Producers will achieve a high quality oleic product with a solid yield.

Performance Potential



Maturity Range (days)						
99 100 101 1	02 103 104 105 106 107 108 109 110 111 112 113 114 115	116 117 118				
4.3	Seed Yield Range (t/ha)	4 .5				
48	Oil Content Range (%)	49				
55	Plant Density Range (k/ha)	6 0				



- Mid-late maturity, high oleic type
- Bred to have genetic resistance to race H of Orobanche

Key

' Features

- Resistant to multiple races of downy mildew
- Good tolerance for Sclerotinia

Disease Resistance



Agronomics & Plant Height



N4H471 CL

N4H471 CL is mid-late, high oleic hybrid bred to have genetic resistance to Orobanche race H.



Seedling Vigour

Flowering Tolerance Uniformity





Disease Resistance





N4H505 CL

N4H505 CL is late maturity high oleic hybrid with Clearfield[®] trait. Due to short plant size the plant provides more flexible agronomy management.

Late maturity, high oleic type Short plant size Healty plant during vegetation - Very nice plant habit

Key Features

Performance Potential





Disease Resistance



Agronomics & Plant Height



N4H470 CLP

All-in-one hybrid with improved weed control. This hybrid delivers an all around win on the farm. With excellent agronomics including solid stalks and roots, plus the added benefits of downy mildew resistance and improved weed control with the Clearfield Plus® production system, growers will achieve solid yields and top-end oil content.

Performance Potential





- Mid-late, high oleic type
- Resistant to multiple races of downy mildew
- Excellent stalk and root strength
- Under best agricultural practices, high oleic levels can reach up to 90%

Disease Resistance



Agronomics & Plant Height



N4H302 E

A welcomed addition to Nuseed's high oleic lineup, N4H302 E will not disappoint. N4H302 E impresses producers all season long with its early season emergence and excellent oleic content at harvest

Performance Potential







Key Features

Agronomics & Plant Height



N4H309 E

N4H309 E is an Express[®], mid-early and disease resistant high oleic hybrid. A great fit for every farm. With excellent disease resistance N4H309 E is a hybrid you can rely on.



Performance Potential







- Express[®] herbicide tolerant
- Excellent seed set
- Under best agricultural practices, high oleic levels can reach up to 90%

Disease Resistance



Agronomics & Plant Height



■N4HE115

N4HE115 is an ultra-early, high-oleic hybrid that produces a large, black oilseed. Maturing about two weeks earlier than traditional hybrids, N4HE115 could be chosen for an early harvest, a late-plant or a double-crop. It includes the Express[®] trait to help with weed control and has advanced downy mildew protection for early spring plantings.

Performance Potential







Disease Resistance



Agronomics & Plant Height



Key Features

IMPACT

Impact is a high performing, mid-late hybrid that can be grown under a wide range of soil conditions and cultural practices. This hybrid has been bred to have genetic resistance to Orobanche race H and is backed up with the Clearfield® trait which makes it the best choice on weed-infested sites.

Performance Potential







Disease Resistance





Oil > Linoleic

CAMARO 2

Camaro 2 is a high-yield, performance hybrid that has been engineered for low management input systems. The variety has been bred with a more extensive root and stalk structure along with enhanced disease resistance to help it withstand high wind and poor weather sites.

Performance Potential



Maturity Range (days)						
99 100 101 10	12 103 104 105 106 107 108 109 110 111 112 113 114 115	116 117 118				
3.4	Seed Yield Range (t/ha)	5.0				
48	Oil Content Range (%)	52				
55	Plant Density Range (k/ha)	60				



- High yielding, Clearfield[®] hybrid
- Resistant to multiple races of downy mildew

Key Features

 Improved sclerotinia head rot tolerance

Disease Resistance



Agronomics & Plant Height



N4LM406

N4LM406 is a stong, mid-late, high oil content and high yielding hybrid. A Clearfield® hybrid that is a perfect choice even in stresfull conditions and resistant to multiple races of downy mildew.



Performance Potential





Oil > Linoleic

- Mid-late maturity, linoleic type
- Uniformed hybrid, Clearfield[®] hybird
- Great plant health
- High yielding

Key Features

Disease Resistance





Oil > Linoleic

N4LM408

N4LM408 is a strong, high-yielding, high-oil content hybrid. Designed to help combat weeds and disease, it has been bred with the Clearfield[®] tolerant production system and resistance to multiple races of downy mildew.

Performance Potential



	Maturity Range (days)	
99 100 101 1	02 103 104 105 106 107 108 109 110 111 112 113 114 115	116 117 118
3.5	Seed Yield Range (t/ha)	5.5
49	Oil Content Range (%)	51
55	Plant Density Range (k/ha)	60





Key Features

Agronomics & Plant Height



N4L460 CL

N4L460 CL is our new linoleic sunflower hybrid. This mid-late hybrid has been bred to have genetic resistance to Orobanche race H and is backed up with the Clearfield® trait. Great oil content and Orobanche resistance is what makes this product a perfect fit.



Performance Potential





Oil > Linoleic

- Mid-late maturity, linoleic type
- Bred to have genetic resistance to race H of Orobanche
- Resistant to multiple races of downy mildew
- Flexible in all regions

Disease Resistance



Agronomics & Plant Height



Oil > Linoleic

N4LM409

N4LM409 is a mid-late, linoleic sunflower hybrid with Clearfield[®] trait. This hybrid has above average yield, high tolerance to lodging and is easy to harvest.

Performance Potential



	Maturity Range (days)	
99 100 101 1 • • • •	02 103 104 105 106 107 108 109 110 111 112 113 114 115	116 117 118 • • •
3	Seed Yield Range (t/ha)	4 .5
46	Oil Content Range (%)	50
55	Plant Density Range (k/ha)	65





Agronomics & Plant Height



X4219

X4219 has been engineered to produce high oil yields under low input management systems. Its resilience to disease and the Express® herbicide tolerance makes it a suitable choice where weed growth and disease are significant problems.



Performance Potential





Oil > Linoleic



- Mid-early maturity, linoleic type
- Express[®] herbicide tolerant
- Excellent stalk strength
- Early maturity, excellent root strength

Disease Resistance



Agronomics & Plant Height



REGIONAL PRODUCT PERFORMANCE

Countries included are Bulgaria, Romania and Moldova.











COLBAT 2



N4H422 CL











Yield > Seed Yield (t/ha)











N4H471 CL







CAMARO 2



N4LM408



N4LM409









THAT DELIVERS

DEVELOPING HYBRIDS TO DELIVER AGRONOMIC AND CONSUMER BENEFITS

Through our R&D centre we develop plant input traits with agronomic benefits that ensure we deliver top seed and service in all regions.

Then, through our development of plant output traits, we provide growers with new opportunities to produce sustainable plant-based solutions, with specific consumer benefits, for Nuseed® end-use customers.

Nuseed[®] innovation in numbers

- Every cent of profit plus an additional 10m\$ goes into R&D every year to bring new hybrids to market, taking 10 years to develop
- Field trials are undertaken across 5 continents in Europe, North and South America, Australia and Asia
- Around 300 Nuseed[®] people are involved in the bringing a Nuseed[®] hybrid to market, mainly working in 3 x research stations (Serbia, California and Minnesota), and in field trials around the world
- Up to 1,000 Nuseed[®] hybrids go into trials every year
- Nuseed® germplasm parents come from 5 different countries to give Nuseed® an array of plant input traits to work with





Find Out More

Learn how Nuseed are innovating to go BEYOND YIELD(TM)

> Value Beyond Yield video



OUDSTREUTOR

NUSEED HYBRIDS ARE ONLY AVAILABLE THROUGH OUR EXTENSIVE DISTRIBUTOR NETWORK.

We carefully select our distributor partners and work closely with them to deliver the support and guidance you need to optimise yields. Nuseed distributors provide agronomical advice, tailored to your requirements. Their extensive knowledge of the Nuseed hybrid range means they can assist you to selecting the ideal hybrid for your farm and growing conditions, balancing the cost of the hybrid against other inputs for the crop.



Find a Distributor

Talk to your local Nuseed distributor about the benefits of moving to Confection hybrids and the opportunities opening up for this new market.

Email us to find a distributor in your region

Contact Us



NEVUKE RESOURCES JSING

WE HAVE CREATED A RANGE OF RESOURCES **DESIGNED TO SUPPORT NUSEED GROWERS**



Best Practice Guides

Our editorials provide regular updates on ways to improve your sunflower yields and profitability

Find Out More





to tackle them.







Disease Fact Cards

Use our handy Disease Fact Cards to identify diseases commonly found in sunflowers and learn how







Grower Explainer Videos

We have distilled key agronomical practices into short, simple explainer videos so you can refresh your knowledge in minutes.

Find Out More



MEET THE TEAM

WE ARE COMMITTED TO SUPPORTING OUR FULL SUPPLY CHAIN

Our regional headquarters, local teams and advanced trials in country has meant that Nuseed[®] has experienced rapid growth in Europe.

Our highly trained European team is committed to delivering exceptional service and new opportunities.

Whether you're a grower, distributor, processor or roaster we want you to consider us as a partner of choice.

Working with our global R&D centre, our regional team works to maximise our rich bank of germplasm to deliver new plant-based solutions to end-use customers in Europe.



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A GLOBAL COMPANY



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WORLDWIDE, ACROSS EVERY REGION AND EVERY BUSINESS, OUR TEAMS ARE WORKING TO PROVIDE VALUE BEYOND YIELD IN EVERYTHING WE DO.

Nuseed[®] is working across 30 countries and has regional headquarters and advanced trials in Australia, Europe, Asia, North America and South America. Our global R&D teams develop unique canola, sorghum and sunflower plant input traits with agronomic benefits for high yields. What makes Nuseed[®] different is our BEYONDYIELD[™] commitment and development of output traits that produce novel oils and proteins with specific consumer benefits for added value and completely new end-use markets.



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