

BIG OPPORTUNITIES

BIG

RESULTS



2024

BIG POTENTIAL

We're unlocking plant potential, delivering value **BEYOND YIELD™**. We are dedicated to supporting growers, distributors, processors and roasters with sunflower and sorghum hybrids to meet the demands of their markets and to provide the top agronomic performance required for high yields.

BIG POSSIBILITIES WITH CONFECTION

This distinct new market continues to be driven by health benefits for consumers and changing trends in food consumption. It has consistently demonstrated excellent profitability for growers – delivering substantially higher yields.

6

24



BIG

FUTURE

Open up BIG opportunities with Carinata. This non-food, low-carbon energy feedstock can be contract grown using sustainable farming practices. You could have a big future with Carinata.

BIG INNOVATION

Grow profits with sunflower oil hybrids. Choose from a wide range of high-calibre linoleic or high oleic oil sunflower hybrids with ultra-early maturity, mid-early and mid-late maturity and bred with **Clearfield®** or **ExpressSun®** systems for easy weed management.



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BIG SUPPORT

Whether you're a producer, distributor, processor, or roaster our highly trained local Nuseed® staff are working throughout the region to provide great service and value **BEYOND YIELD™**.



BIG IMPACT

Choose from a wide range of high performance linoleic and high oleic oil sunflower hybrids with different maturities, multi-stacked traits and with options for both **Clearfield®** and **ExpressSun®** herbicide tolerance technology.

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4 Comparisons

Compare each hybrid's outstanding agronomics against product performance in this easy-to-use chart to identify the ideal option for your farm.

6-9 Confection hybrids

Our confection breeding programme has led to the development of high performance hybrids for dehull, in-shell, striped and bird food markets.

10-21 Oil hybrids

We are focused on advances in breeding which offer herbicide tolerance for weed control.

22-31 We are Nuseed®

Working closely with the global breeding programme at our R&D centre, our regional team leverages our rich bank of germplasm to deliver advanced hybrids to customers across Europe.





BIG COMPARISONS

Expand your possibilities with value **BEYOND YIELD™**.











We have a wide range of products suitable for all regions of Europe. Compare each hybrid's outstanding agronomics against product performance in this easy-to-use chart to identify the ideal option for your farm.



Confection Hybrids

TYPE	NAME	MATURITY	HERBICIDE TECHNOLOGY	PAGE
Onyx®	N5LM307	mid-late	 Clearfield Production System	8
ConOil	X9767	late	 Clearfield Production System	9

Oil Hybrids

TYPE	NAME	MATURITY	HERBICIDE TECHNOLOGY	PAGE
High Oleic	N4HE115	 ultra-early	ExpressSun trait	12
High Oleic	N4H161 CL	 ultra-early	 Clearfield Production System	13
High Oleic	N4H202 E	 early	ExpressSun trait	14
High Oleic	N4H302 E	mid-early	ExpressSun trait	15
High Oleic	NHK12M010	mid-late	 Clearfield Production System	16
High Oleic	N4H469 CL	mid-late	 Clearfield Production System	17
High Oleic	N4H471 CL	mid-late	 Clearfield Production System	18
Linoleic	N4L215 E	 early	ExpressSun trait	19
Linoleic	N4LM408	mid-late	 Clearfield Production System	20
Linoleic	N4L472 CL	late	 Clearfield Production System	21

BIG VALUE

The Nuseed® value chain.





BIG PERFORMANCE



A WORLD LEADER IN CONFECTION SUNFLOWER HYBRIDS

Our ground-breaking breeding programme has led to the development of confection hybrids for dehull, in-shell, striped and bird food markets. These deliver high yields, uniformity, large seed size and the best-in-class agronomic resilience to stressed growing conditions. All are available with Clearfield® or ExpressSun® herbicide tolerance.

This distinct new market continues to be driven by health benefits for consumers and changing trends in food consumption. It has consistently demonstrated excellent profitability for growers – delivering substantially higher yields.

Our unique Onyx hybrid sunflowers are engineered to deliver the big, distinctive, all-black kernels so sought after in the confection market. 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.

NCE

CONFECTION – ONYX N5LM307

Top-class hybrid for multiple regions.

Onyx N5LM307's late-season health and standability make it a great choice for in-shell and dehull markets. This high-yielding, multi-purpose hybrid gives growers, in key sunflower production regions, flexibility due to its uniformity and mid-late maturity. High level of resistance to downy mildew provides additional protection.

KEY FEATURES

- Mid-maturity, black confection type.
- Suitable for in-shell usage and dehull.
- Excellent kernel to hull ratio.
- Resistant to multiple races of downy mildew.



BIG YIELDS

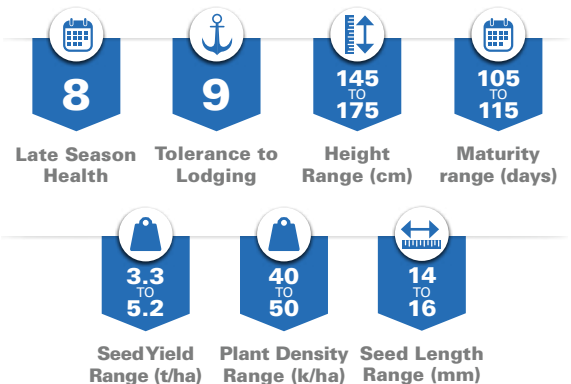
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



CONFECTION – CONOIL X9767

Loved by processors.

X9767's good kernel to hull ratios and high test weights are highly valued by processors. This hybrid provides excellent protection against downy mildew supporting growers in high risk areas.

KEY FEATURES

- Late maturity, conoil type.
- Excellent kernel to hull ratio.
- Striped seed developed for dehulling.
- Resistant to multiple races of downy mildew.



**BIG
VALUE**

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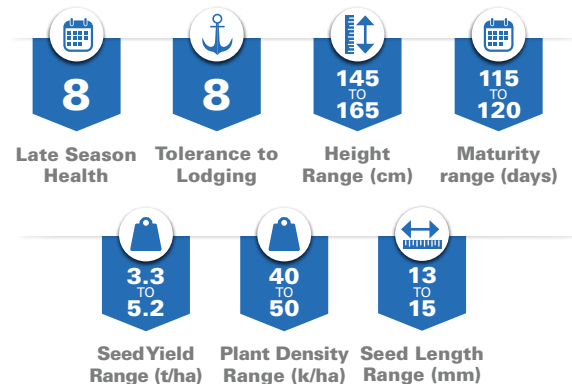
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



BIG IMPACT





OIL HYBRIDS DEVELOPED FOR AGRONOMIC RESILIENCE IN CHALLENGING GROWING CONDITIONS

The elite genetics in our ground-breaking range of hybrid sunflower seeds will deliver unparalleled results to meet the specific needs of your region.

We are focused on advances in breeding which offer herbicide tolerance for weed control, Orobanche and downy mildew resistance and exceptional agronomics. These combine to provide growers with higher returns from lower inputs.

Choose from a wide range of high-calibre linoleic or high oleic oil sunflower hybrids with ultra-early maturity, mid-early and mid-late maturity and bred with **Clearfield®** or **ExpressSun®** systems for easy weed management.

OIL - HIGH OLEIC N4HE115



Next generation, ultra early hybrid.

N4HE115 matures around two weeks earlier than traditional hybrids providing growers with the option of an early harvest, late sowing or single crop. This high oleic hybrid is resistant to **ExpressSun**[®] herbicides and has improved protection against Sclerotinia.

KEY FEATURES

- Ultra early maturity high oleic type.
- Excellent late season plant health.
- Best for late plant or as a double crop option.
- Under best agricultural practices, high oleic levels can reach up to 87%.



BIG PROTECTION

PERFORMANCE POTENTIAL

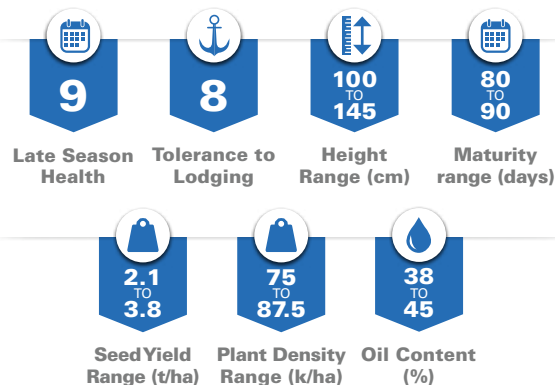


DISEASE RESISTANCE



ExpressSun[®]
trait

AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H161 CL



Advance hybrid which matures around two weeks earlier than traditional hybrids.

This ultra early maturity, high oleic hybrid provides up to 90% high oleic levels and matures around two weeks earlier than traditional hybrids giving growers the option of an early harvest, a late planting or a double crop.

KEY FEATURES

- Ultra early maturity.
- Excellent late season plant health.
- Resistant to multiple races of downy mildew.
- Under best agricultural practices, high oleic levels can reach up to 90%.



**BIG
OPTIONS**

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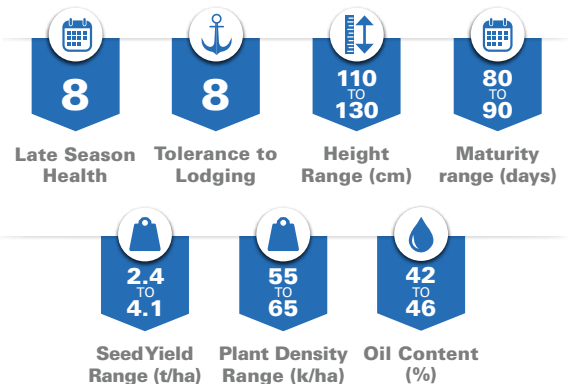
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H202 E



A high yield, guaranteed.

N4H202 E is an extremely stable high oleic hybrid with good health throughout the season and advanced downy mildew disease resistance and **ExpressSun**® herbicide tolerance. This ensures N4H202 E reduces risk to the grower, whilst maximising productivity on the field.

KEY FEATURES

- Early harvesting with high yield potential.
- Advanced genetic resistance to Orobanche.
- Healthy plant during vegetation.
- Powerful triple stack of traits.

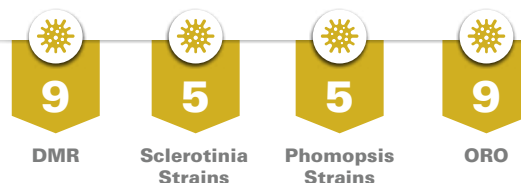


BIG PRODUCTIVITY

PERFORMANCE POTENTIAL

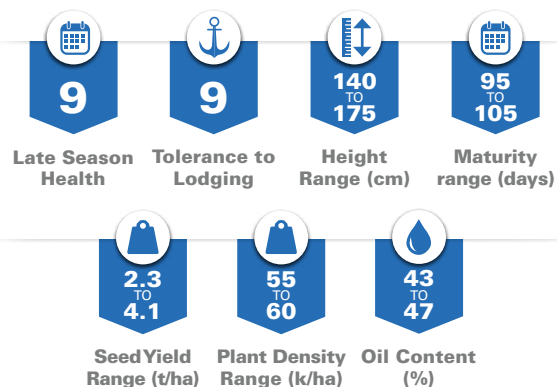


DISEASE RESISTANCE



ExpressSun®
trait

AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H302 E

High performance all rounder.

With its elevated high oleic profile, N4H302 E is already proving to be a firm favourite hybrid with growers. Its early season emergence and late season good health, combined with optimal head positioning against sunburn, ensures this hybrid always delivers. N4H302 E is an **ExpressSun**[®] high oleic hybrid bred to be adaptable across all sunflower regions.

KEY FEATURES

- Mid-maturity, high oleic type.
- Very good head positioning against sunburn.
- Strong stalk and good plant habit.
- Good late season plant health.



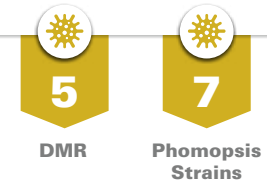
**BIG
FAVOURITE**

15

PERFORMANCE POTENTIAL

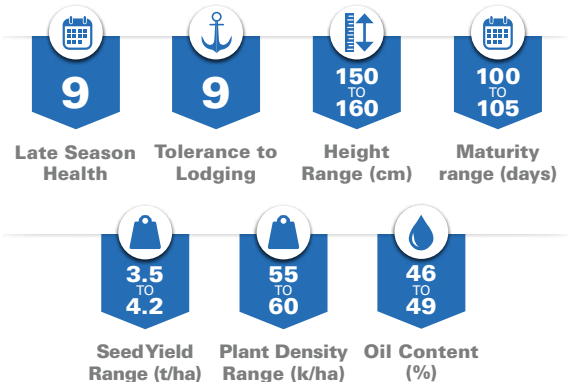


DISEASE RESISTANCE



ExpressSun[®]
trait

AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC NHK12M010

Proven to deliver.

NHK12M010 provides 'best in class' grain yield with good late season plant health. This high performance, high oleic sunflower hybrid delivers both good oil content and top-line high oleic values. It is resistant to multiple races of downy mildew.

KEY FEATURES

- Mid-maturity, high oleic type.
- Outstanding yield potential and late season plant health.
- Resistant to multiple races of downy mildew.
- Under best agricultural practices, high oleic levels can reach up to 90%.



**BIG
IN CLASS**

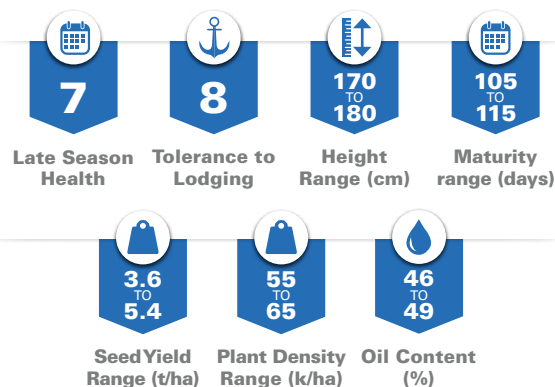
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H469 CL

Top choice of weed-infested sites.

N4H469 CL has exceptional agronomics with both genetic resistance to race H of Orobanche and **Clearfield®** tolerance technology. This uniform, high oleic hybrid provides strong yields and top quality oil.

KEY FEATURES

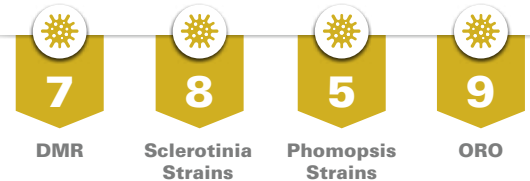
- Mid-maturity, high oleic type.
- Bred to have genetic resistance to race H of Orobanche.
- Resistant to multiple races of downy mildew.
- Good tolerance for Sclerotinia.



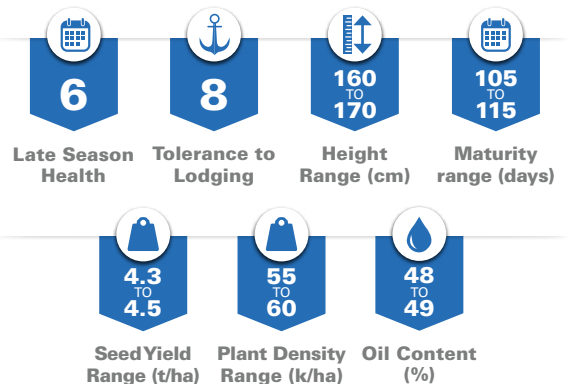
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H471 CL

Excellent agronomics.

Under best agricultural practices, the high oleic levels of this mid-late hybrid can reach up to 90%. N4H471 CL is bred with **Clearfield®** tolerance technology and with genetic resistance to race H of Orobanche.

KEY FEATURES

- Mid-maturity, high oleic type.
- Bred to have genetic resistance to race H of Orobanche.
- Resistant to multiple races of downy mildew.
- Under best agricultural practices, high oleic levels can reach up to 90%.

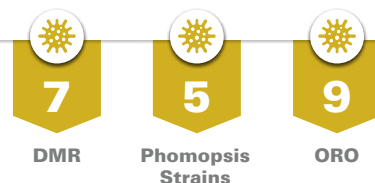


BIG TECHNOLOGY

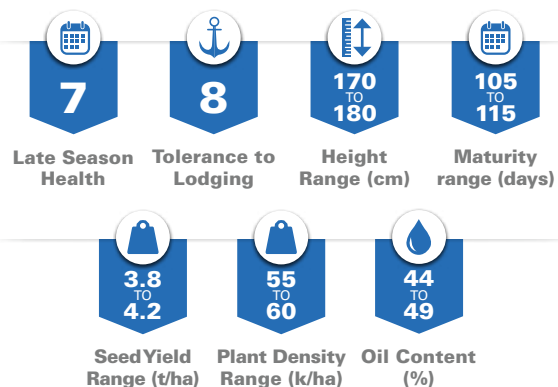
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC N4L215 E



Early harvest provides flexibility to the grower.

N4L215 E is our new linoleic hybrid that performs well across the regions. Its early harvest gives the grower the option of more time to prepare for the winter crop and to avoid drought conditions, or later planting. With excellent downy mildew disease resistance and **ExpressSun®** herbicide tolerance, N4L215 E is a hybrid you can rely on to provide high yields with low inputs.

KEY FEATURES

- Advanced resistance to the multiple races of downy mildew.
- Advanced genetic resistance to Orobanche.
- Highly reliable and stress-free to grow.
- Advanced traits to support the grower.



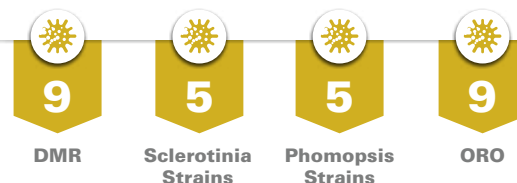
**BIG
FLEXIBILITY**

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PERFORMANCE POTENTIAL

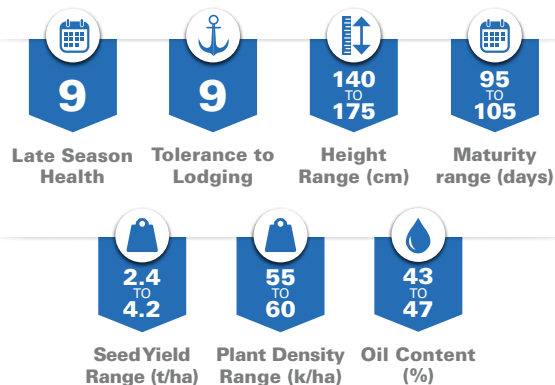


DISEASE RESISTANCE



ExpressSun®
trait

AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC N4LM408

Stands up to weeds and diseases.

N4LM408 is bred with the **Clearfield®** tolerant production system and resistance to multiple races of downy mildew to combat weeds and sunflower diseases. This mid-maturity, robust, high-yielding hybrid delivers high oil content even in fields overrun with weeds.

KEY FEATURES

- Mid-maturity, linoleic type.
- **Clearfield®** hybrid.
- High-yielding with strong plant feature.
- Resistant to multiple races of downy mildew.



BIG TOLERANCE

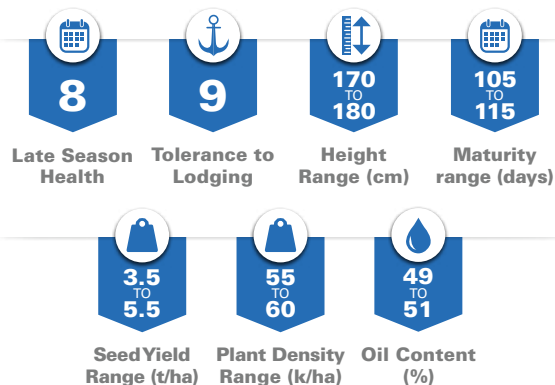
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC N4L472 CL

High genetic resistance

This high performance, mid-maturity linoleic oil hybrid will deliver a high yield every season. Its high resistance to both Orobanchae race H and multiple races of downy mildew makes it simple to grow.

KEY FEATURES

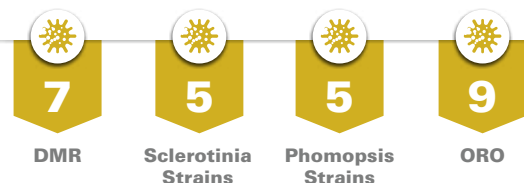
- Mid-maturity.
- Bred to have genetic resistance to race H of Orobanchae.
- Resistant to multiple races of downy mildew.



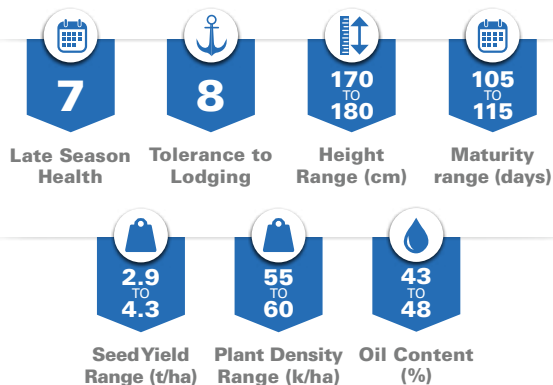
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



BIG INNOVATION





UNLOCKING PLANT POTENTIAL

Nuseed® is advancing canola, carinata, sorghum and sunflower by adding value BEYOND YIELD™ for growers, end-use customers, consumers and our planet.

We work across 40 countries with regional headquarters and advanced trials in Australia, Europe, North America and South America. Our **BEYOND YIELD™** commitment and development of output traits produce novel oils and proteins with specific consumer benefits for added value and completely new end-use markets. Worldwide, across every region and every business, our teams are working to provide value **BEYOND YIELD™** in everything we do.

Nuseed® Europe Ltd Head Office

No.1 Spinningfields
Quay Street
Manchester UK
M3 3JE

BIG FUTURE

LOW-CARBON CARINATA

Advancing certifiable non-food low-carbon energy feedstock.

Nuseed® Carinata is a non-food low-carbon energy feedstock contract grown using sustainable farming practices. Commercial contract production started in 2019 with Argentinian growers working alongside Nuseed® and industry partners to supply Saipol, Europe's largest biodiesel processor to produce renewable fuel into the EU RED marketplace. Nuseed® Carinata production is expanding in South America and starting in the United States, with research and development programs advancing in Australia and Europe.

Oil crushed from Nuseed® Carinata reduces emissions when used as a drop-in replacement for fossil fuels. As it grows and protects soil from erosion and carbon loss, its immense above and below ground biomass removes carbon from the air, restores it to the soil, and improves conditions for following food crops. In addition its non-GM meal co-product from crushing is a traceable and certifiable protein source. The Nuseed® Carinata value chain production system facilitates added value throughout the closed loop supply chain and ensures quality, efficiency and identity preservation from field to fuel. Nuseed® is expanding certifiable sustainable production globally, supported by the Nuseed® Carinata offtake and market development agreement announced in 2022 with BP, a leading global energy company head-quartered in London, UK.



Capable of replacing
petroleum fuels with
a substantial reduction
in greenhouse gas
emissions.



BIG BENEFITS



UNCOVERING WAYS TO DELIVER AGRONOMIC AND CONSUMER BENEFITS THROUGH INNOVATION

Our aim is to supply our customers with new opportunities to produce sustainable plant-based solutions, with specific consumer benefits, for Nuseed® end-use customers.

Developed in our R&D centre in Sacramento, California, Nuseed's pioneering breeding, global germplasm and advanced new hybrids - combined with local field trials and partnerships across the supply chain – ensures our products will help customers reach their potential across sunflower oil, dehull, confection and sorghum markets.

Nuseed® innovation in numbers

- 4** We undertake extensive fields trials across four continents, in Asia, North and South America and Europe.
- 4** We have four sunflower research stations in Serbia, California, Minnesota and Argentina.
- 100** 100s of Nuseed® staff are involved in bringing a hybrid to market.
- 5** Nuseed® genetics comes from five different countries to give Nuseed® an array of plant input traits to work with.
- 10** It takes up to ten years to develop a new hybrid.

Working closely with the global breeding programme at our R&D centre, our regional team leverages our rich bank of germplasm to deliver advanced hybrids to customers across Europe.

Our highly trained local Nuseed® team is working throughout the region with select local distributors and is dedicated to delivering outstanding service and value BEYOND YIELD™, whether you're a grower, distributor, processor or roaster.

This makes Nuseed® a partner of choice.



**BIG
SUPPORT**



MEET THE TEAM OF PROFESSIONALS READY TO SUPPORT YOUR BUSINESS



JUAN ANTONIO LUQUE SACEDA

West & Central EU Sales Leader
juan.saceda@nuseed.com



PATRICK DIETERICH

General Manager Nuseed® Europe Ltd
patrick.dieterich@nuseed.com



DAMIEN GRUNDY

Marketing & Sales Director Nuseed® Europe Ltd
damien.grundy@nuseed.com



DINCER EREN

European Agronomy Manager
dincer.eren@nuseed.com



A close-up photograph of a sunflower head on the left, with its numerous yellow florets and dark centers clearly visible. The background is a soft-focus field of yellow sunflowers. Two bees are in flight: one is positioned in the upper right quadrant, and the other is in the lower right quadrant, both appearing to move from right to left across the frame. The overall color palette is dominated by bright yellows and greens.

BIG EXPERTISE



GET THE PRODUCTS AND SUPPORT YOU NEED WITH OUR EXPERIENCED DISTRIBUTOR PARTNERS

Nuseed® distributors are carefully selected. We work with them to deliver the support and guidance you need to maximise yields and profits.

Their extensive knowledge of the Nuseed® hybrid range and the agronomical advice they provide means they can assist you to identify the perfect hybrid for your farm and growing conditions, evaluating the price of seed against other farming inputs.

Find a local distributor

Talk to your local Nuseed® distributor about the wide-ranging benefits of using Nuseed® products.

see more online at [nuseed.com](https://www.nuseed.com)



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Always follow product label instructions and consult the seed bag and tag for detailed product information and warranty statements.