



**REACH
YOUR
POTENTIAL**

2023

VALUE BEYOND YIELD™

6 Reach new markets 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.



16 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®, ClearfieldPlus® or Express® systems for easy weed management.



50 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.



44 Open new possibilities with Sorghum

Our introduction of sorghum to Europe demonstrates the increased global demand for this highly versatile product. Expand or diversify your business. Choose Sorghum.



OUR HYBRID PORTFOLIO

58 Our knowledge centre

To support growers in getting the most from their Nuseed® products we have developed a range of easy to use resources including: Best Practice Guides, Disease facts card and Grower guides.



Contents

Choose from a wide range of high performing linoleic or high oleic oil sunflower hybrids from Nuseed® from different maturing range and with Clearfield®.

4-5 Comparisons

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

6-14 Confection hybrids

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

16-35 Oil hybrids

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

36-43 Regional Product Performance

Our yield data shows performance for each year and each hybrid to help customers find the ideal product for their farm.

44-47 Sorghum

A high demand of Sorghum is down to a growing appreciation for its commercial advantages against high priced, high input corn.

54-55 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.



SEED COMPARISON

Expand your possibilities with value **BEYONDYIELD™**. 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 STAGE (DAYS) | SEED LENGTH | SEED YIELD | PLANT DENSITY | PLANT HEIGHT | HERBICIDE TECHNOLOGY | PAGE |
|---------|-----------|-----------------------|-------------|--------------|---------------|--------------|----------------------|------|
| Striped | X4334 | 105 ▶ 115 | 19-21 mm | 3.4-4.9 t/ha | 40-45 k/ha | 160-185 cm | Clearfield | 8 |
| Striped | N6L509 CL | 105 ▶ 115 | 22-25 mm | 2.9-4.3 t/ha | 40-45 k/ha | 165-190 cm | Clearfield | 9 |
| Onyx® | N6LM304 | 105 ▶ 115 | 18-20 mm | 3.1-4.9 t/ha | 35-45 k/ha | 165-185 cm | Clearfield | 10 |
| Onyx® | N5LM301 | 105 ▶ 115 | 14-16 mm | 3.3-5.1 t/ha | 40-50 k/ha | 140-155 cm | Clearfield | 11 |
| Onyx® | N5LM307 | 105 ▶ 115 | 14-16 mm | 3.3-5.2 t/ha | 40-50 k/ha | 145-175 cm | Clearfield | 12 |
| ConOil | X9767 | 115 ▶ 120 | 13-15 mm | 3.3-5.2 t/ha | 40-50 k/ha | 145-165 cm | Clearfield | 13 |
| ConOil | N5LE442 | 100 ▶ 115 | 13-15 mm | 3.4-4.9 t/ha | 40-50 k/ha | 140-150 cm | DuPont ExpressSur | 14 |

Oil Hybrids

| TYPE | NAME | MATURITY STAGE (DAYS) | OIL CONTENT | SEED YIELD | PLANT DENSITY | PLANT HEIGHT | HERBICIDE TECHNOLOGY | PAGE |
|------------|-----------|-----------------------|-------------|--------------|---------------|--------------|----------------------|------|
| High Oleic | COBALT 2 | 90 ▶ 100 | 47-49% | 3.2-4.5 t/ha | 55-65 k/ha | 150-165 cm | Clearfield | 18 |
| High Oleic | NHK12M010 | 105 ▶ 115 | 46-49% | 3.6-5.4 t/ha | 55-66 k/ha | 170-180 cm | Clearfield | 19 |
| High Oleic | N4HM411 | 105 ▶ 115 | 46-49% | 3.2-4.9 t/ha | 55-65 k/ha | 160-175 cm | Clearfield | 20 |
| High Oleic | N4H422 CL | 105 ▶ 115 | 45-48% | 3.6-5.1 t/ha | 55-60 k/ha | 160-185 cm | Clearfield | 21 |

Oil Hybrids continued

| TYPE | NAME | MATURITY STAGE (DAYS) | OIL CONTENT | SEED YIELD | PLANT DENSITY | PLANT HEIGHT | HERBICIDE TECHNOLOGY | PAGE |
|------------|----------------------|-----------------------|-------------|--------------|---------------|--------------|----------------------|------|
| High Oleic | N4H469 CL | 105 ▶ 115 | 48-49% | 4.3-4.5 t/ha | 55-60 k/ha | 160-170 cm | Clearfield | 22 |
| High Oleic | N4H471 CL | 105 ▶ 115 | 44-49% | 3.8-4.2 t/ha | 55-60 k/ha | 170-180 cm | Clearfield | 23 |
| High Oleic | N4H505 CL | 115 ▶ 120 | 47-49% | 3.5-4.6 t/ha | 55-60 k/ha | 150-160 cm | Clearfield | 24 |
| High Oleic | N4H470 CLP | 105 ▶ 115 | 48-49% | 4.3-4.5 t/ha | 55-60 k/ha | 165-170 cm | Clearfield Plus | 25 |
| High Oleic | N4H302 E | 100 ▶ 105 | 46-49% | 3.5-4.2 t/ha | 55-60 k/ha | 150-160 cm | DuPont ExpressSur | 26 |
| High Oleic | N4HE115 | 80 ▶ 90 | 38-45% | 2.1-3.8 t/ha | 75-87.5 k/ha | 100-145 cm | DuPont ExpressSur | 27 |
| High Oleic | N4H161 CL | 80 ▶ 90 | 42-46% | 2.4-4.1 t/ha | 55-65 k/ha | 110-130 cm | Clearfield | 28 |
| Linoleic | NEW N4LM406 | 105 ▶ 115 | 45-49% | 3.5-5.0 t/ha | 55-60 k/ha | 165-180 cm | Clearfield | 29 |
| Linoleic | N4LM408 | 105 ▶ 115 | 49-51% | 3.5-5.5 t/ha | 55-60 k/ha | 170-180 cm | Clearfield | 30 |
| Linoleic | N4LM409 | 105 ▶ 115 | 46-50% | 3.0-4.5 t/ha | 55-65 k/ha | 165-180 cm | Clearfield | 31 |
| Linoleic | NEW N4L460 CL | 105 ▶ 115 | 44-47% | 3.2-3.7 t/ha | 55-60 k/ha | 165-170 cm | Clearfield | 32 |
| Linoleic | N4L472 CL | 105 ▶ 115 | 43-48% | 2.9-4.3 t/ha | 55-60 k/ha | 170-180 cm | Clearfield | 33 |
| Linoleic | X4219 | 100 ▶ 105 | 48-50% | 3.4-4.9 t/ha | 50-60 k/ha | 165-170 cm | Clearfield | 34 |

Sorghum

| NAME | SPROUTING TO BLOOM | YIELD POTENTIAL T/HA | RECOMMENDED DENSITY (as per harvesting, tsnd plants/ha) | TILLERING RATE | PAGE |
|---------|--------------------|----------------------|---|----------------|------|
| 319X120 | 101 ▶ 109 | 10-12 t/ha | 110-145 | 5-6 | 46 |
| 419X120 | 95 ▶ 105 | 11-12 t/ha | 130-150 | 2.3 | 47 |

REACH NEW MARKETS WITH CONFECTION




A world leader in confection sunflower hybrids

Our ground-breaking breeding programme has led to the development of confection hybrids for de-hull, 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 Express® 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.

CONFECTION – STRIPED X4334

Developed for the in-shell confection market.

With a high proportion of 9+ to 10+ round sieve sizes, X4334 produces long, dark, XL striped grains – ideal for the global confection market. This **Clearfield®**-tolerant hybrid provides above average yields with good late season plant health and uniformity.

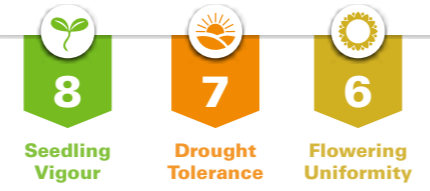
KEY FEATURES

- Mid-late maturity, striped confection type
- Excellent grain colour and size
- Excellent stand ability
- Fits several export markets

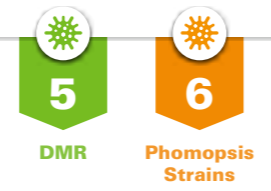


A winner in confection markets

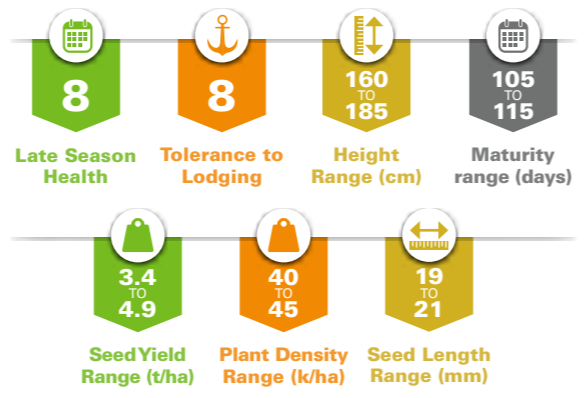
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



CONFECTION - STRIPED N6L509 CL

XXL hybrid with extraordinary performance.

N6L509 CL is a new hybrid developed with the ultra-large XXL seed preferred in many confection markets. This mid-late hybrid will produce high yields in all sunflower growing regions and is engineered with Clearfield® technology and bred for strong stalk and root systems.

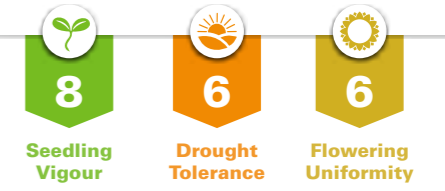
KEY FEATURES

- Mid-maturity
- XXL sized seed
- Clearfield® technology
- Excellent stalk and root strength



Extraordinary performance

PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



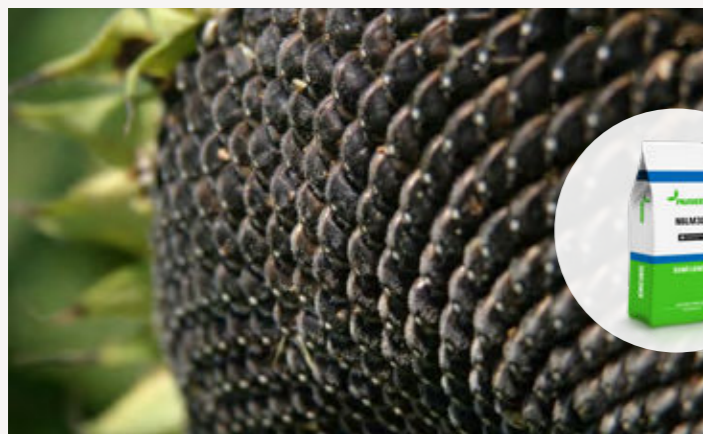
CONFECTION – ONYX N6LM304

A large, black grain with high yield potential.

Onyx N6LM304 is attractive to both growers and processors. This in-shell, confection hybrid is a mid-late maturity variety and delivering a high level of flexibility to growers. Bred with **Clearfield™ Plus** system ensures it can tolerate fields with a heavy weed burden.

KEY FEATURES

- Mid-maturity, black confection type
- Suitable for in-shell usage
- Excellent kernel to hull ratio
- Stable hybrid

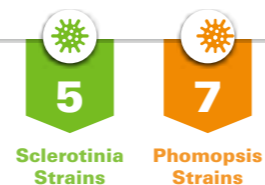


Highly flexible option for the supply chain

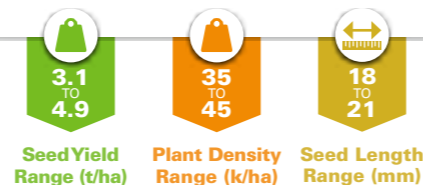
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



CONFECTION – ONYX N5LM301

A high-yielding, black, conoil hybrid.

Onyx N5LM301 has in-shell and dehulling capability, giving processes an array of usage options. A uniform, mid-late maturity variety offering sunflower producers in core growing regions a high degree of flexibility. This hybrid is **Clearfield®**-tolerant and resistant to multiple races of downy mildew.

KEY FEATURES

- Mid-maturity, black conoil type
- Suitable for in-shell usage and dehull
- Resistant to multiple races of downy mildew
- Uniform hybrid



Adaptable option for growers

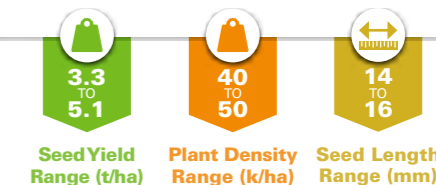
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



CONFECTION – ONYX N5LM307

Onyx N5LM307's late-season health and stand ability 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

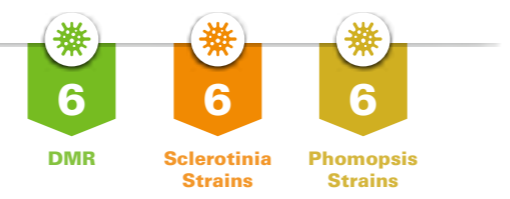


Top class hybrid for multiple regions

PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



CONFECTION – CONOIL X9767

This high-yielding, striped hybrid is ideal for dehulling as well as for bird food.

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

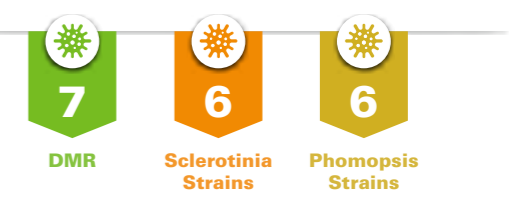


Loved by processors

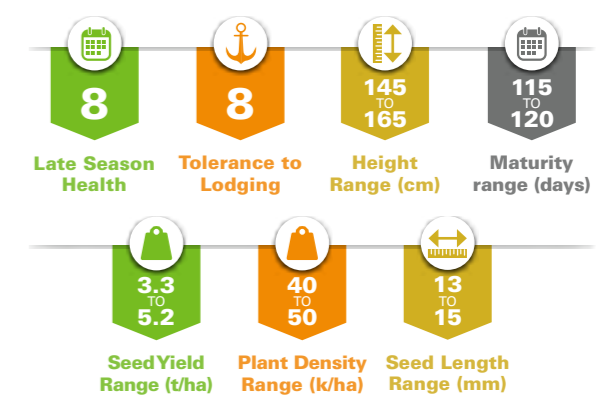
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



CONFECTION – CONOIL N5LE442

A conoil hybrid with a striped grain and good kernel to hull ratios.

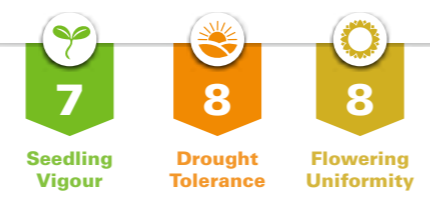
N5LE442 provides both growers and processors flexibility within the bird food, and other markets. It is a mid-late variety with high yield potential. Bred with the Express® trait.

KEY FEATURES

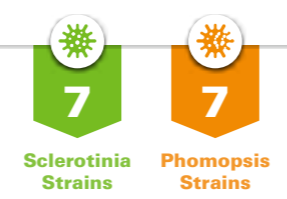
- Mid-maturity, conoil type
- Uniform hybrid
- Striped conoil suitable for dehulling and bird food
- Good kernel to hull ratio



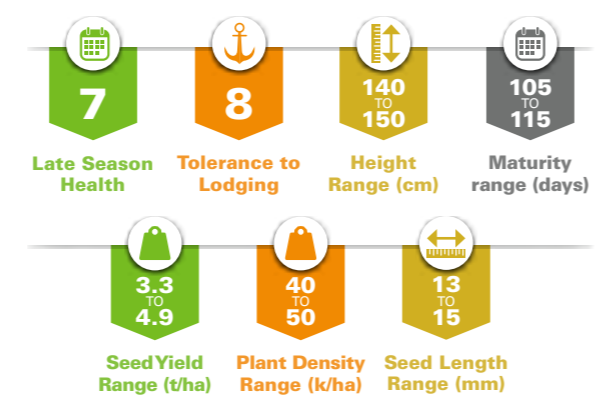
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



The Nuseed value chain



GROW PROFITS WITH SUNFLOWER OIL HYBRIDS

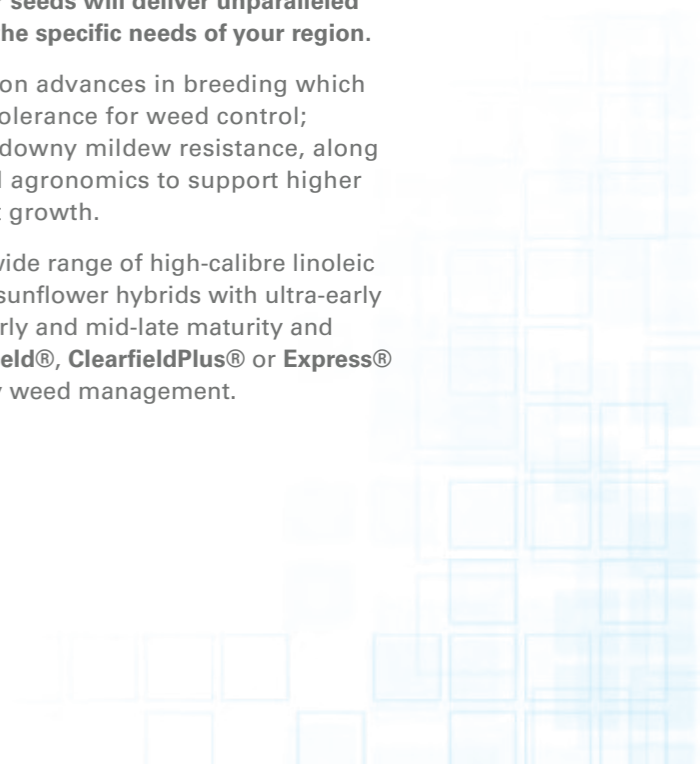


Oil hybrids developed for agronomic resilience in challenging growing conditions

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, along with exceptional agronomics to support higher yields and profit growth.

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®**, **ClearfieldPlus®** or **Express®** systems for easy weed management.



OIL - HIGH OLEIC COBALT 2

Cobalt 2 is a proven choice for all sunflower growing regions.

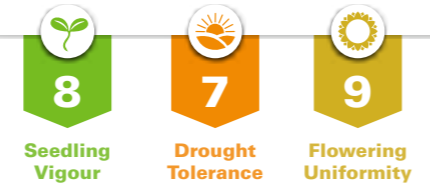
This high oleic hybrid is early maturing with excellent disease tolerance, coupled with Clearfield® technology. It is bred to resist multiple races of downy mildew.

KEY FEATURES

- 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%

Performs in all locations

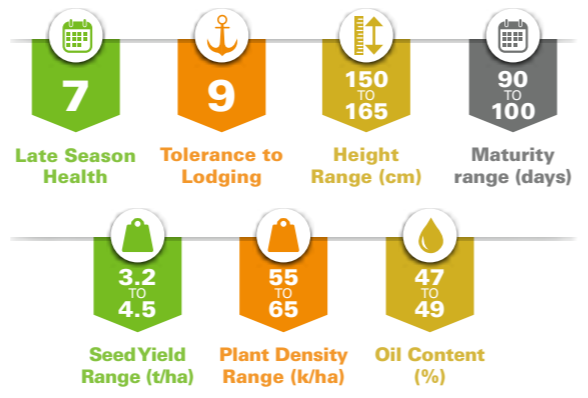
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



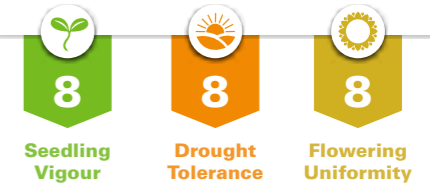
OIL - HIGH OLEIC NHK12M010

An excellent option for growers, 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.

Proven to deliver

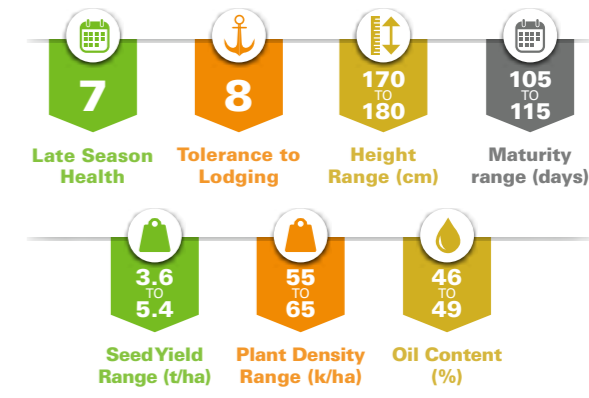
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4HM411

Bred to deliver high yields in a range of different soil conditions.

A highly flexible hybrid – this high oleic oil hybrid offers outstanding protection from weeds and diseases combining downy mildew resistance and **Clearfield®** tolerance technology.

KEY FEATURES

- Mid-maturity, high oleic type
- High yield potential under a range of different soil conditions
- Resistant to multiple races of downy mildew
- Under best agricultural practices, high oleic levels can reach up to 90%



Versatile hybrid with a range of applications

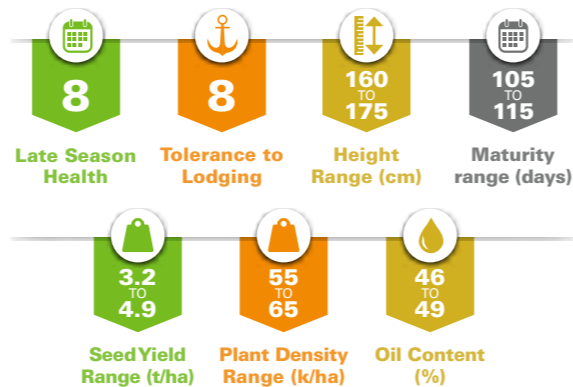
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H422 CL

Suitable for the bird food market.

This top rated hybrid is primarily developed to deliver high yields of high oleic oil but is also suitable for the bird food market. N4H422 CL produces high test weights of black coated seeds. N4H422 CL develops an ultra-robust stalk and root system.

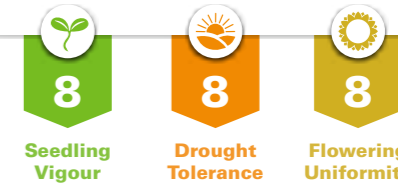
KEY FEATURES

- Mid-maturity, high oleic type
- Great early season emergence
- Resistant to multiple races of downy mildew
- Under best agricultural practices, high oleic levels can reach up to 90%

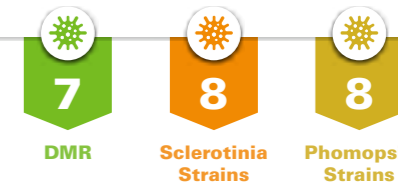


Offers market versatility

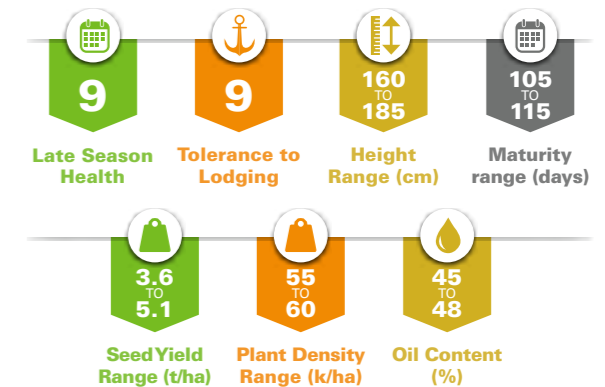
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H469 CL

Strong yields and top quality oil.

N4H469 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.

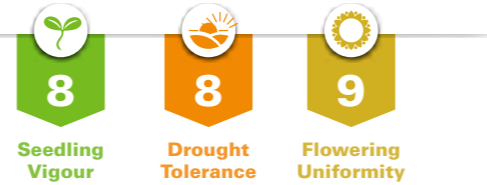
KEY FEATURES

- 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

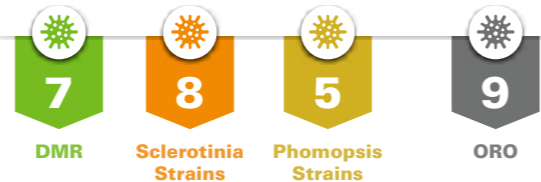


Top choice for weed-infested sites

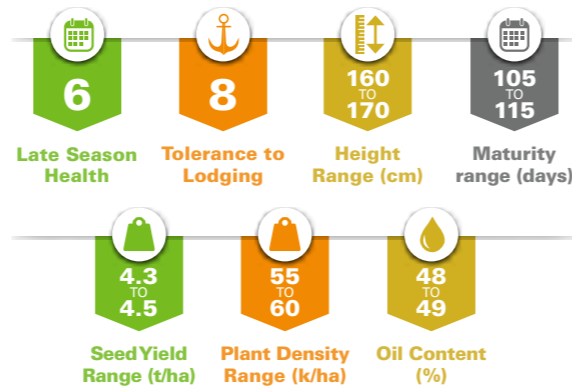
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



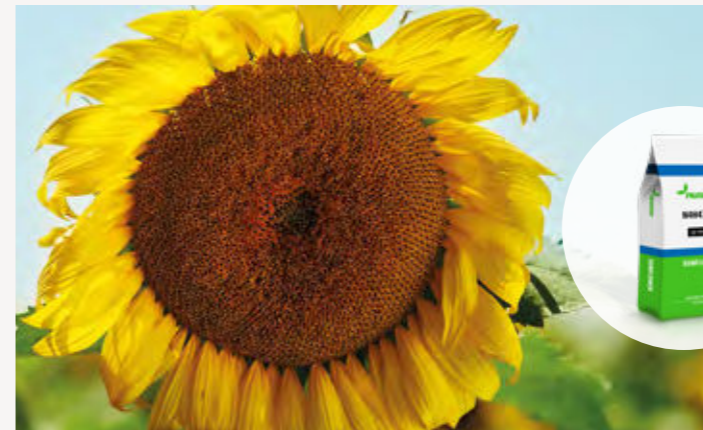
OIL - HIGH OLEIC N4H471 CL

Resistance to race H of Orobanche.

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

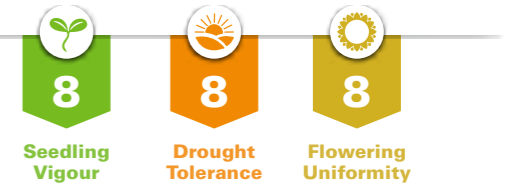
KEY FEATURES

- 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%

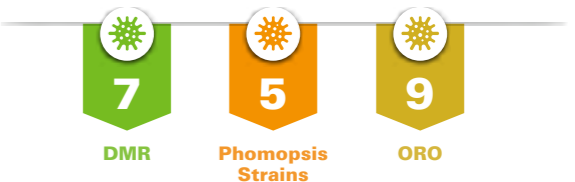


Excellent agronomics

PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H505 CL

A versatile option for agronomic management.

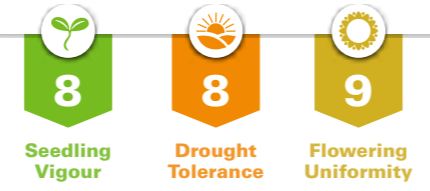
Due to its short plant size, H4H505 is a versatile option for agronomic management. This late maturing, high oleic hybrid has enhanced late season plant health and first-rate flower uniformity.

KEY FEATURES

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

A strong multi-tasker

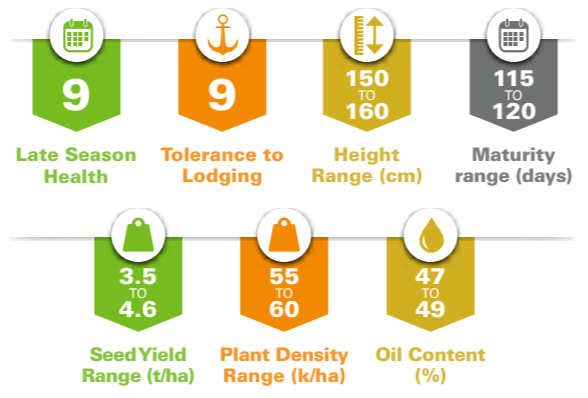
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H470 CLP

Excellent agronomics across the board.

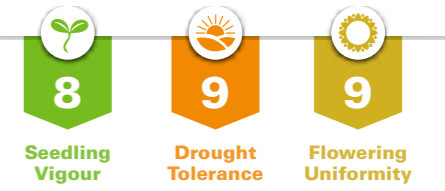
This high oleic hybrid delivers solid yields and top-end oil content. N4H470 is proven to produce exceptional stalk and root strength with the added benefits of downy mildew resistance and improved weed control with the Clearfield Plus® production system.

KEY FEATURES

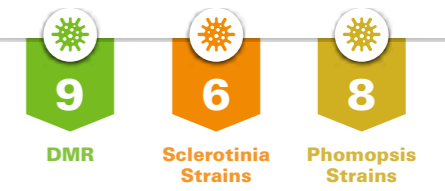
- Mid-maturity, high oleic type
- Resistant to multiple races of downy mildew
- Excellent stalk and root strength
- Under best agricultural practices, high oleic levels can reach up to 90%

All-in-one hybrid

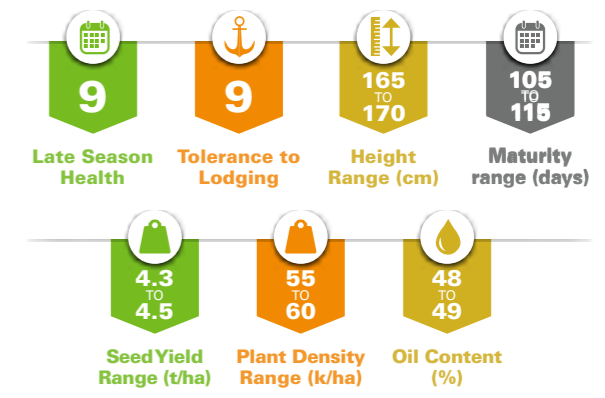
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H302 E

Proving to be a favoured hybrid with growers.

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 **Express®** high-oleic hybrid bred to be adaptable across all sunflower regions.

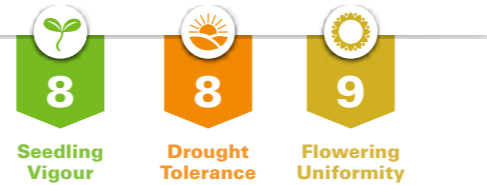
KEY FEATURES

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

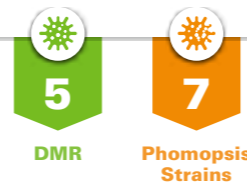


High performance all rounder

PERFORMANCE POTENTIAL

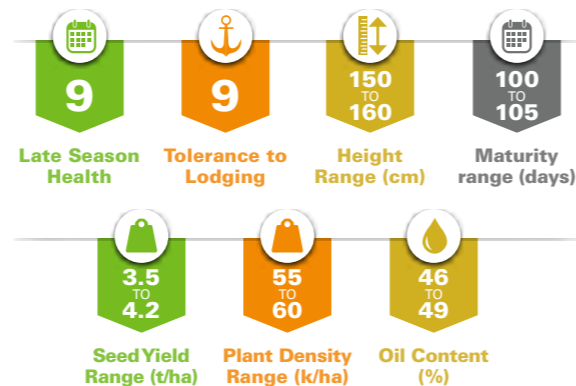


DISEASE RESISTANCE



DuPont®
ExpressSun®
trait

AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4HE115

Early harvest options - matures in two weeks.

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 Express® herbicides and has improved protection against Sclerotinia.

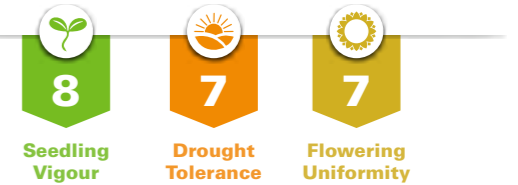
KEY FEATURES

- 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%



Next generation, ultra early hybrid

PERFORMANCE POTENTIAL



DISEASE RESISTANCE



DuPont®
ExpressSun®
trait

AGRONOMICS & PLANT HEIGHT



OIL - HIGH OLEIC N4H161 CL

NEW

Advanced early maturing hybrid

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

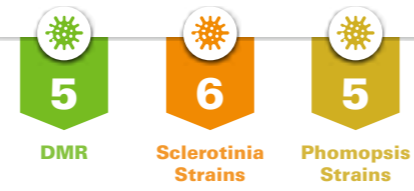
- Ultra early maturity
- Excellent late season plant health
- Resistant to multiple races of Downy Mildew
- Under best agricultural practices, high oleic levels can reach up to 90%



PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC N4LM406

The choice for adverse conditions

First-rate plant health in challenging growing regions.

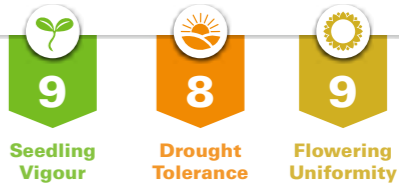
N4LM406 is a strong, mid-late, linoleic hybrid which will deliver high yields of high oil content in even the most stressful conditions. This **Clearfield®** hybrid has been engineered to provides first-rate plant health and a uniform crop in challenging growing regions.

KEY FEATURES

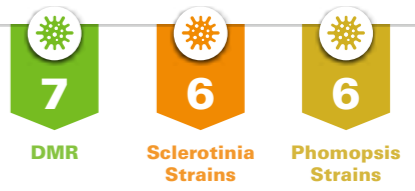
- Mid-maturity, linoleic type
- Uniformed hybrid, Clearfield® hybrid
- Great plant health
- High yielding



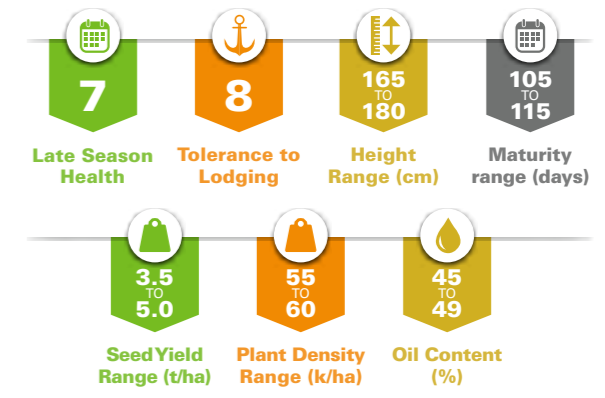
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC N4LM408

Robust, high-yielding, high oil content hybrid.

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-late, robust, high-yielding hybrid delivers high oil content even in fields overrun with weeds.

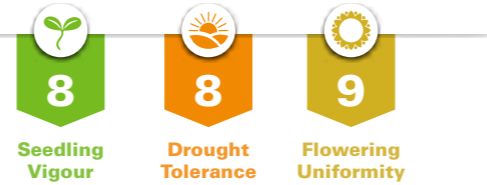
KEY FEATURES

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

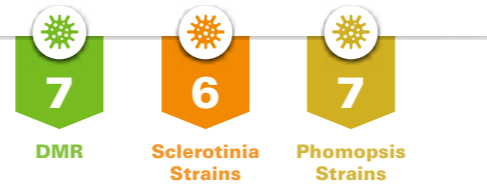


Stands up to weeds and diseases

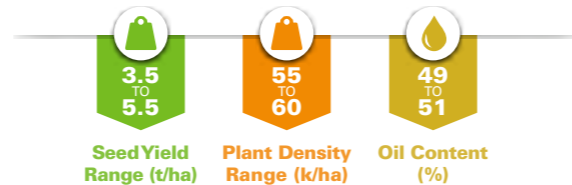
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC N4LM409

Powerful stalk and root system.

This strong hybrid has a high tolerance to lodging, due to its powerful stalk and root system, making it trouble free to harvest. Combined with its above average yields and consistent oil content, N4LM409 is a great option for growers seeking a trouble-free crop.

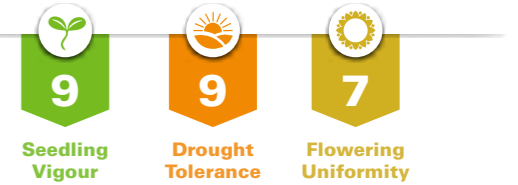
KEY FEATURES

- Mid-maturity, linoleic type
- Great stalk and roots
- Consistent oil content
- Excellent stalk and root strength

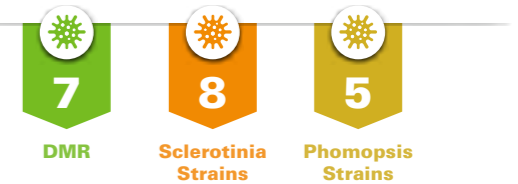


Trouble free to harvest

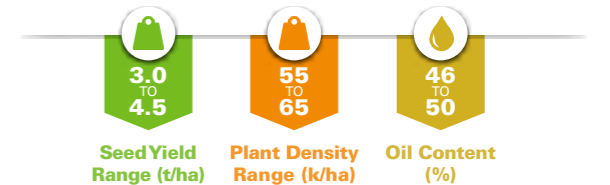
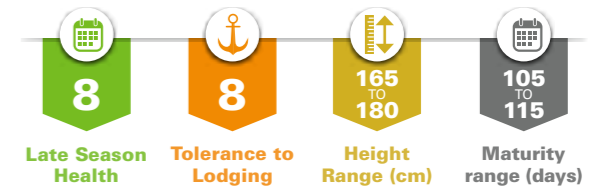
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC N4L460 CL

Genetic resistance to Orobanche race H.

A newer addition to our product range, N4L460 CL is a mid-late variety introduced to provide flexibility for growers. It couples genetic resistance to Orobanche race H, backed up with the **Clearfield®** trait ensuring high yield and great oil content.

KEY FEATURES

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



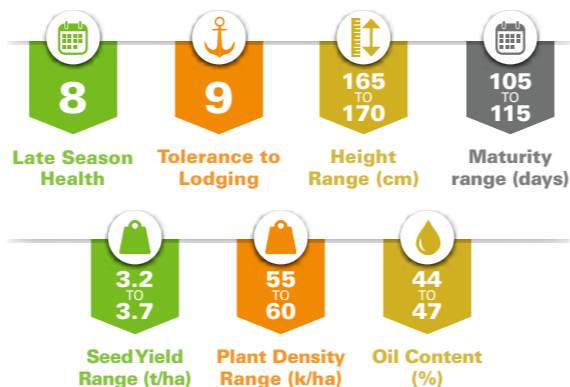
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC N4L472 CL



Genetic resistance to both Orobanche race H and multiple races of downy mildew.

N4L472 CL is bred to have genetic resistance to both Orobanche race H and multiple races of downy mildew. This high performance, mid-maturity linoleic hybrid will deliver a high yield every season.

KEY FEATURES

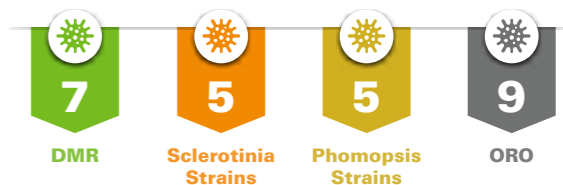
- Mid-maturity
- Bred to have genetic resistance to race H of Orobanche
- Resistant to multiple races of downy mildew



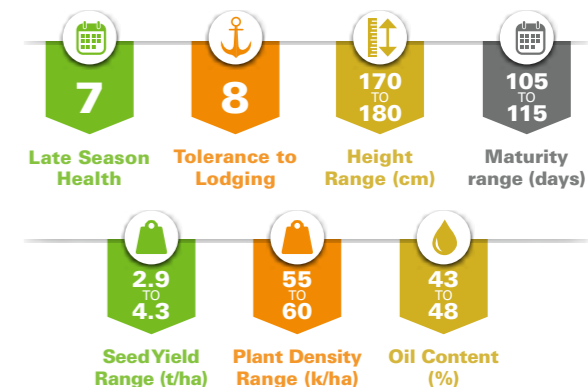
PERFORMANCE POTENTIAL



DISEASE RESISTANCE



AGRONOMICS & PLANT HEIGHT



OIL - LINOLEIC X4219

Bred to deliver high yields.

X4219's resilience to disease and the **Express®** herbicide tolerance makes it an excellent choice where weed growth and disease are significant issues. It has been bred to deliver high yields despite minimal off-farm resources making it an economical option.

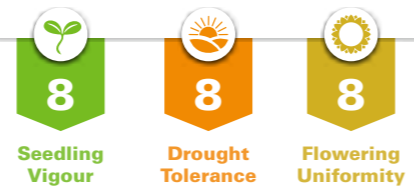
KEY FEATURES

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



High performer
in low input
systems

PERFORMANCE POTENTIAL

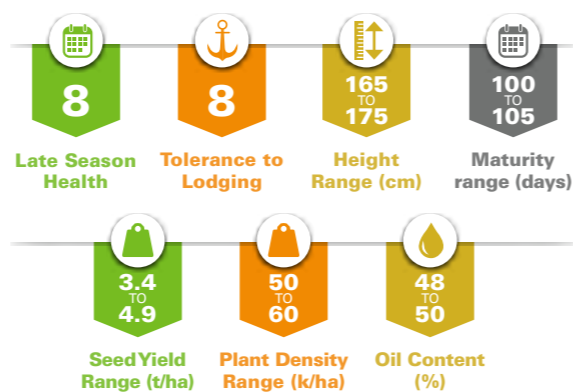


DISEASE RESISTANCE



DuPont®
ExpressSun®
trait

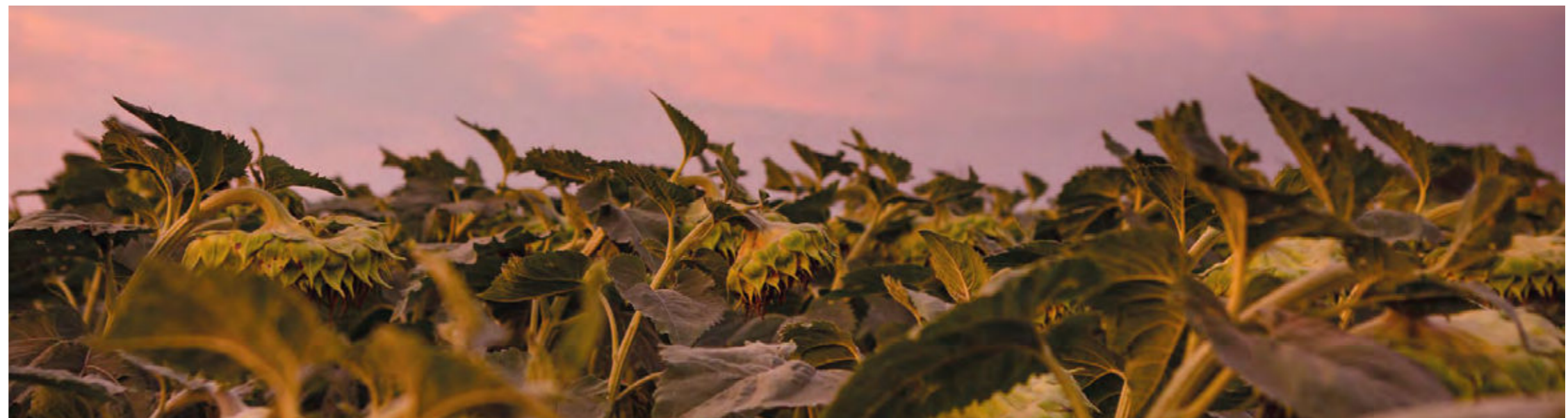
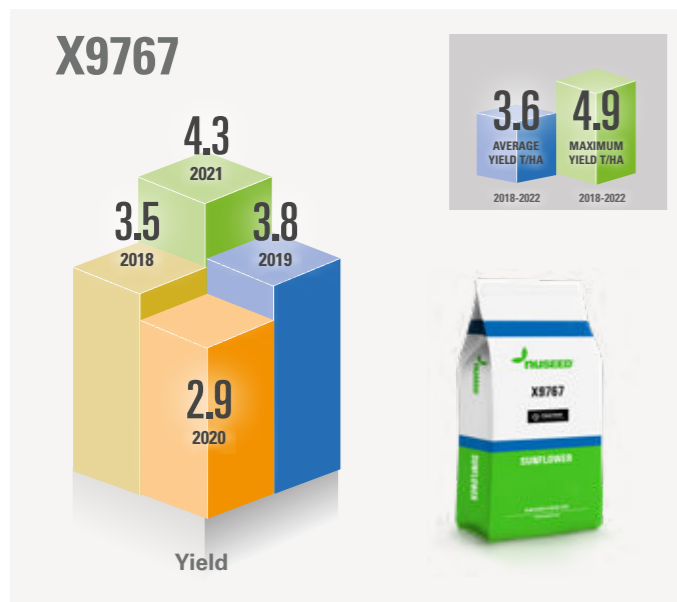
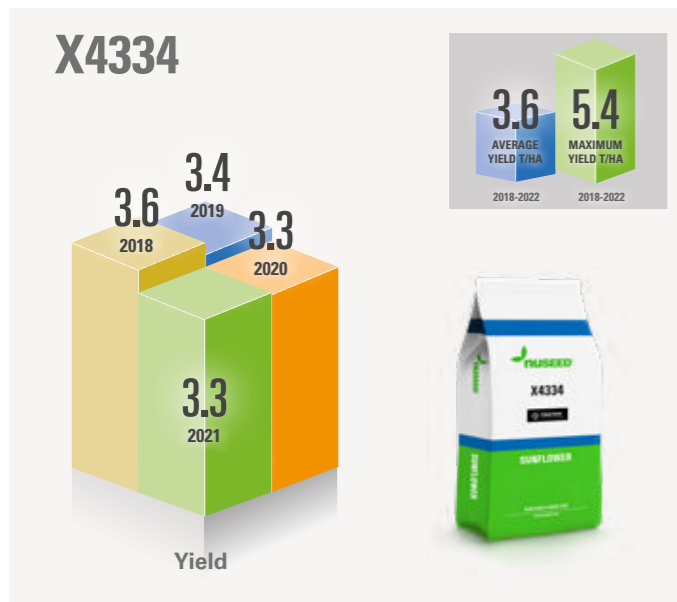
AGRONOMICS & PLANT HEIGHT



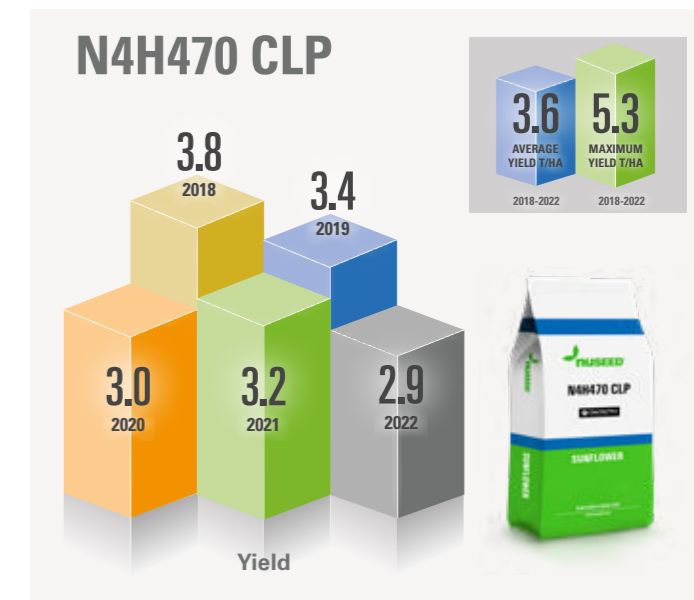
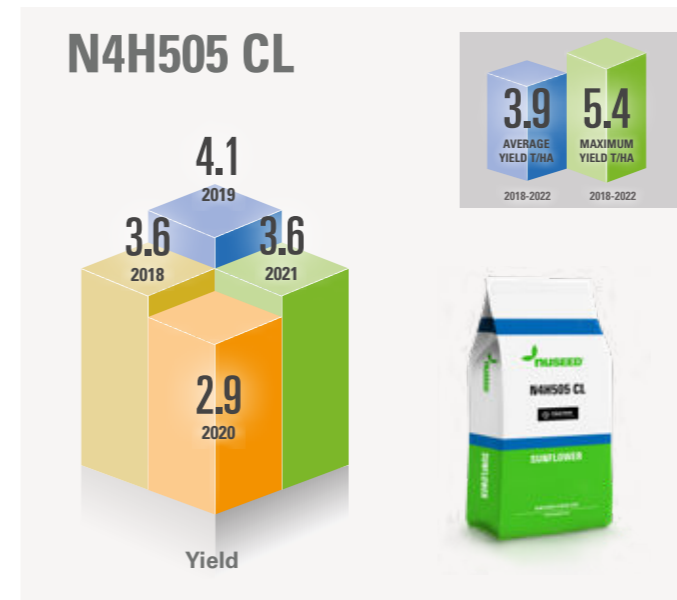
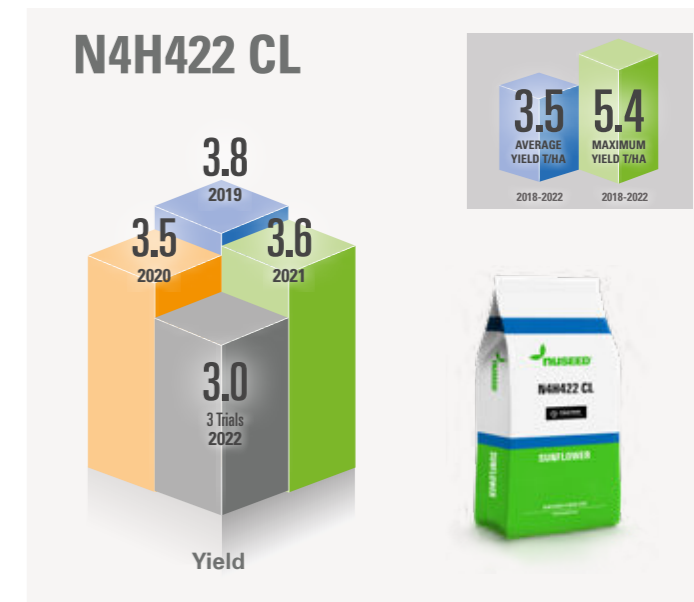
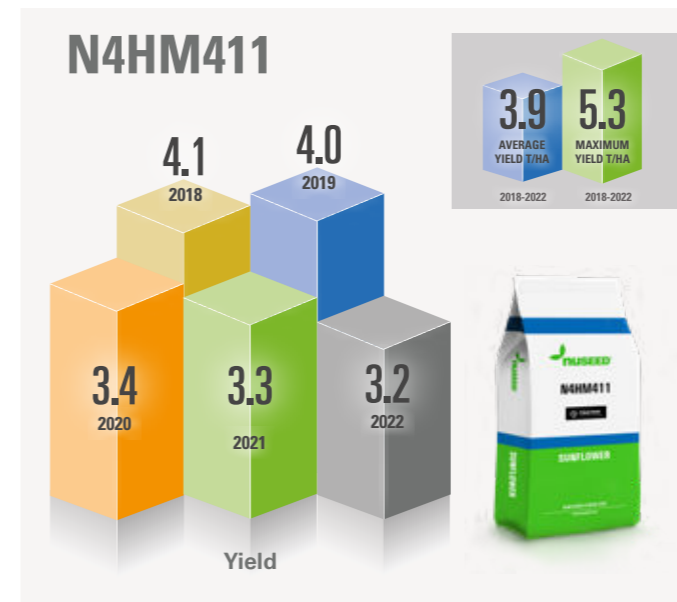
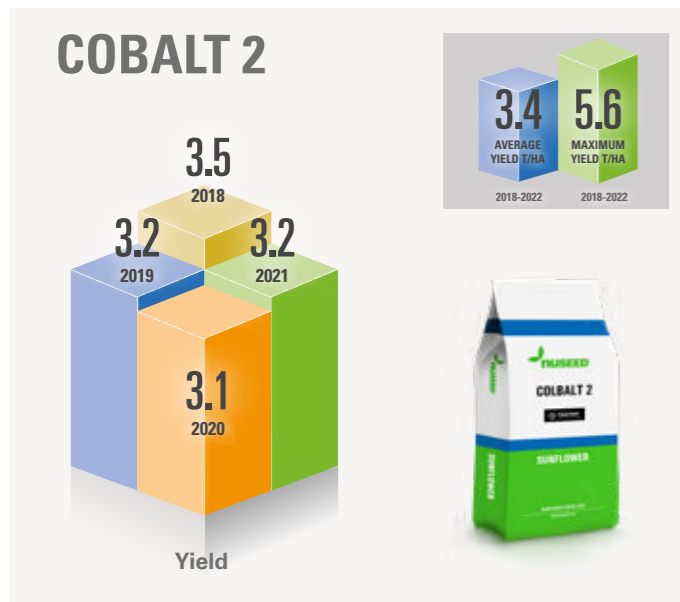
PRODUCT PERFORMANCE BY REGION



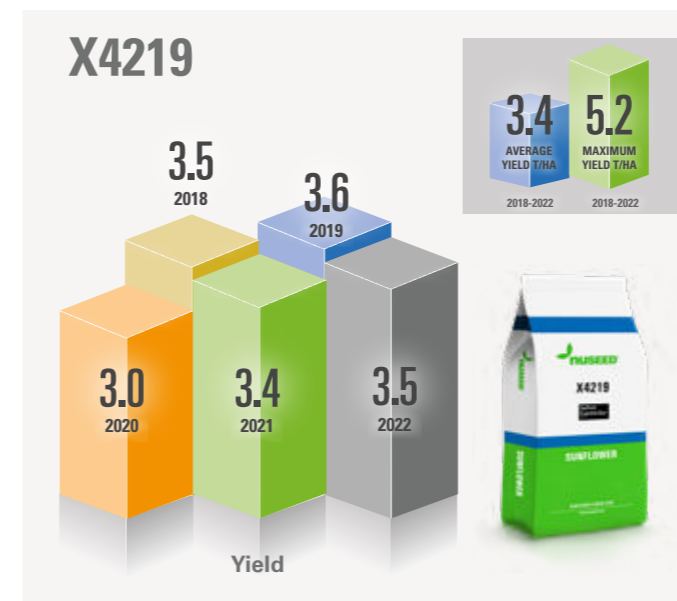
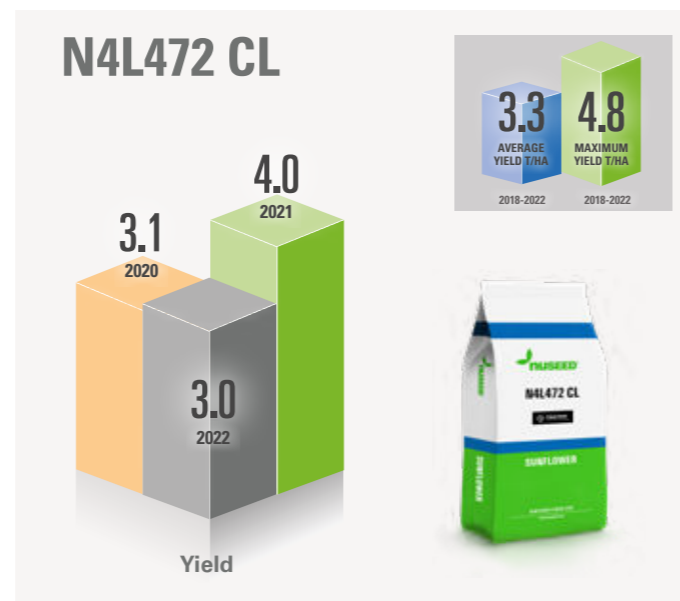
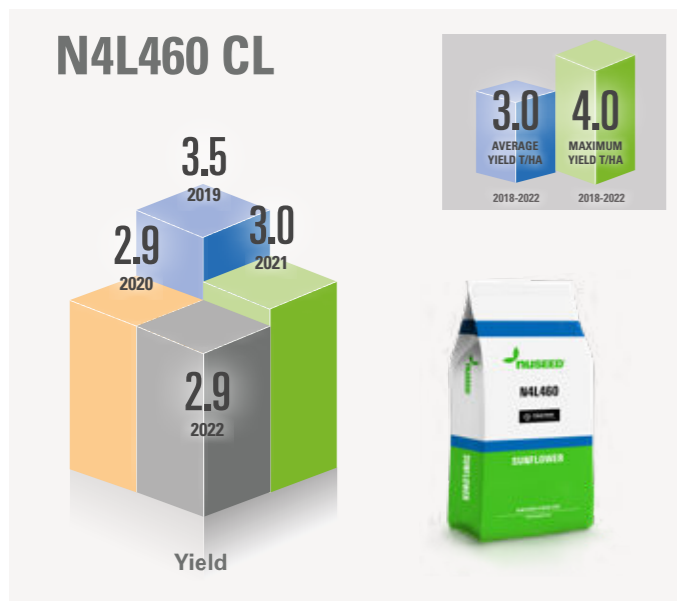
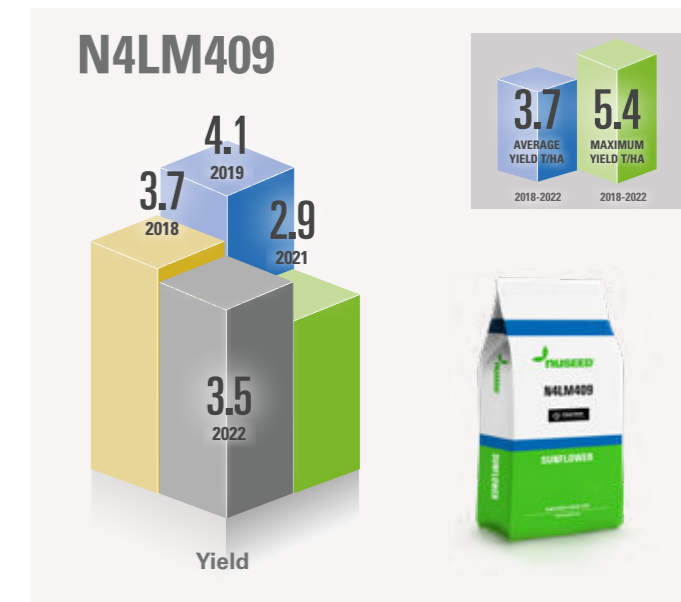
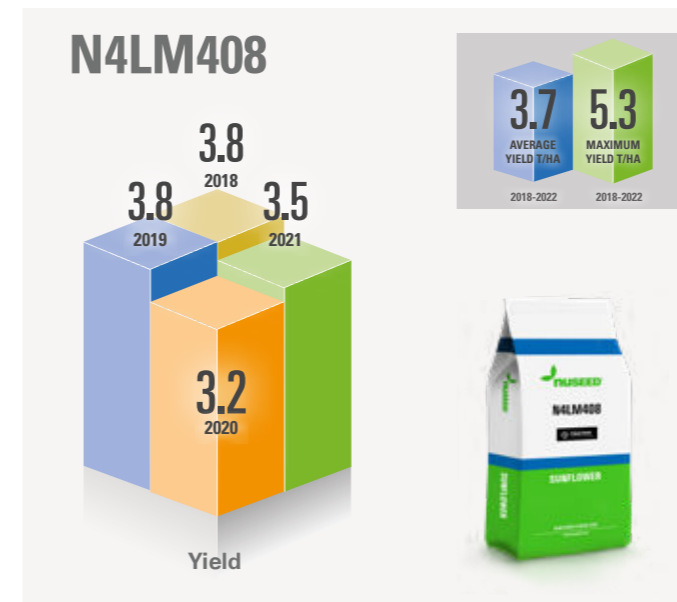
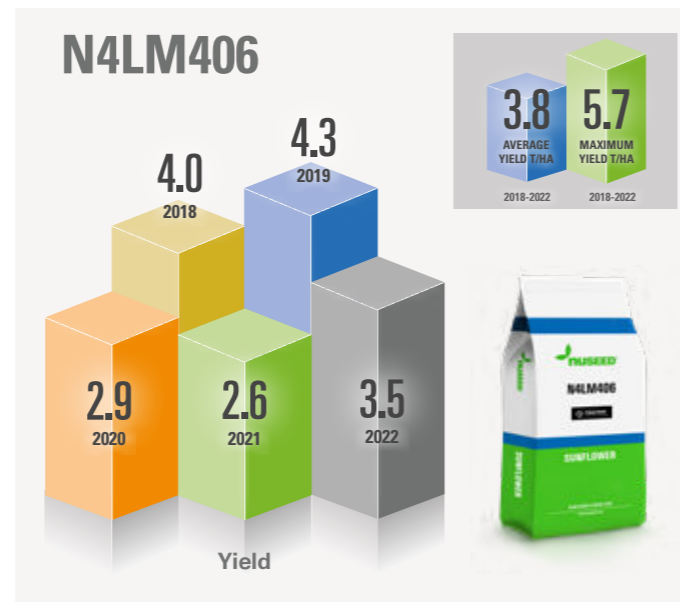
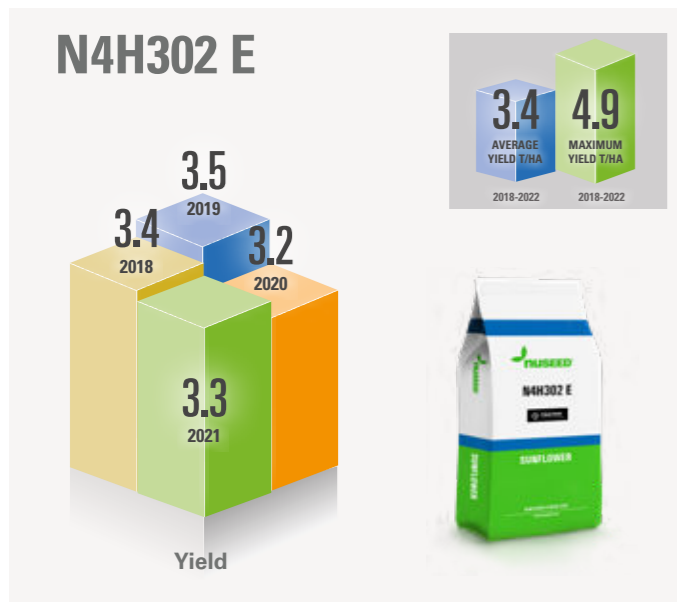
Regional Product Performance in Central and Eastern Europe



Regional Product Performance in Central and Eastern Europe



Regional Product Performance in Central and Eastern Europe



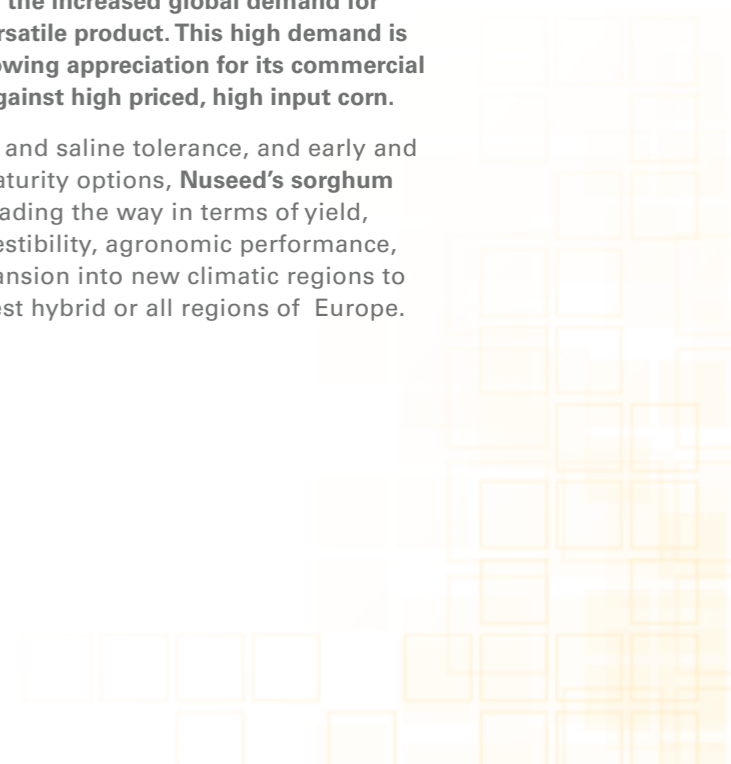
OPEN NEW POSSIBILITIES WITH SORGHUM



Expand or diversify your business. Choose Sorghum

Our introduction of sorghum to Europe demonstrates the increased global demand for this highly versatile product. This high demand is down to a growing appreciation for its commercial advantages against high priced, high input corn.

With drought and saline tolerance, and early and ultra-early maturity options, **Nuseed's sorghum hybrids** are leading the way in terms of yield, maturity, digestibility, agronomic performance, allowing expansion into new climatic regions to deliver the best hybrid or all regions of Europe.



SORGHUM 319X120

Stable and high yielding, even in poor soils.

This red grain sorghum hybrid is easy to cultivate with good resistance to lodging. 319x120 does not contain tannins making it a favourite with processors.

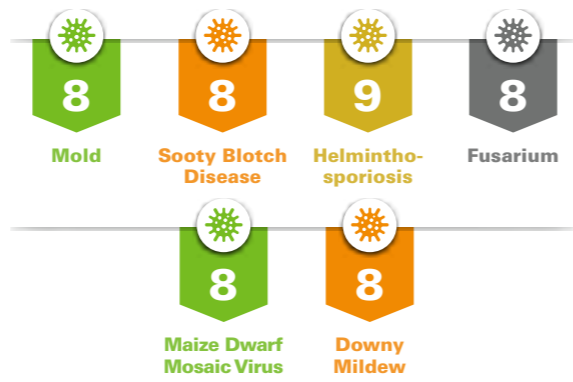
KEY FEATURES

- Mid-early
- High-yielding
- Tolerant to infertile soils and alkali soil

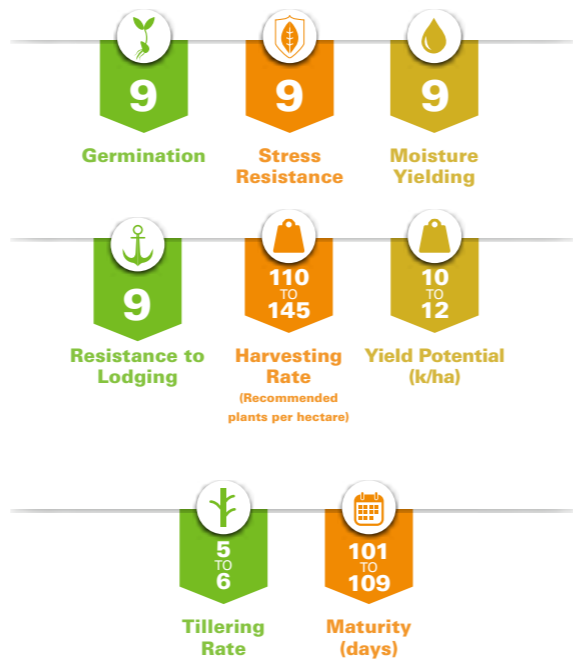


Stable and high yielding

DISEASE RESISTANCE



AGRONOMICS & CROP FEATURES



Hybrid Rating Scale // 1 = Poor, 9 = Excellent

OIL 419X124

High performance and easy to cultivate.

This light yielding hybrid is resistant to diseases and straightforward to grow with the potential for early harvesting. 419x124 is a red grain sorghum hybrid with no tannins.

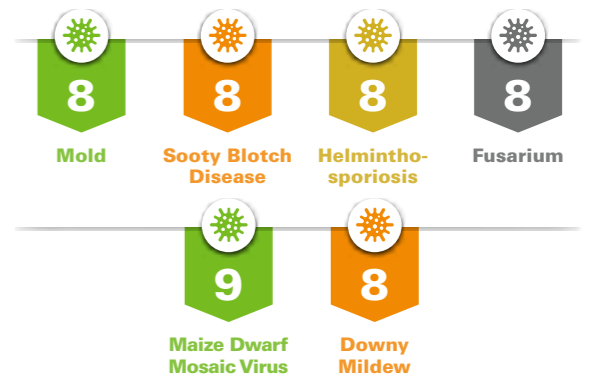
KEY FEATURES

- Early
- Stable and stress resistant
- Intensive
- Good for early harvesting programs
- Tolerant to low-fertile and alkali soils

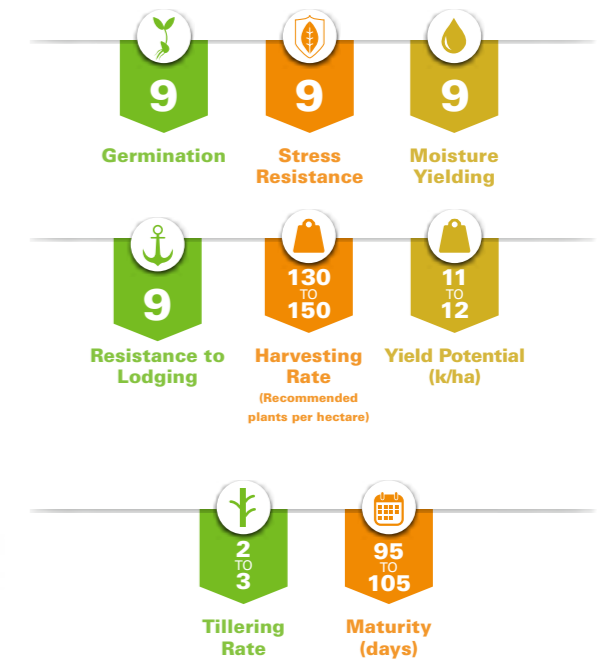


Easy to cultivate

DISEASE RESISTANCE

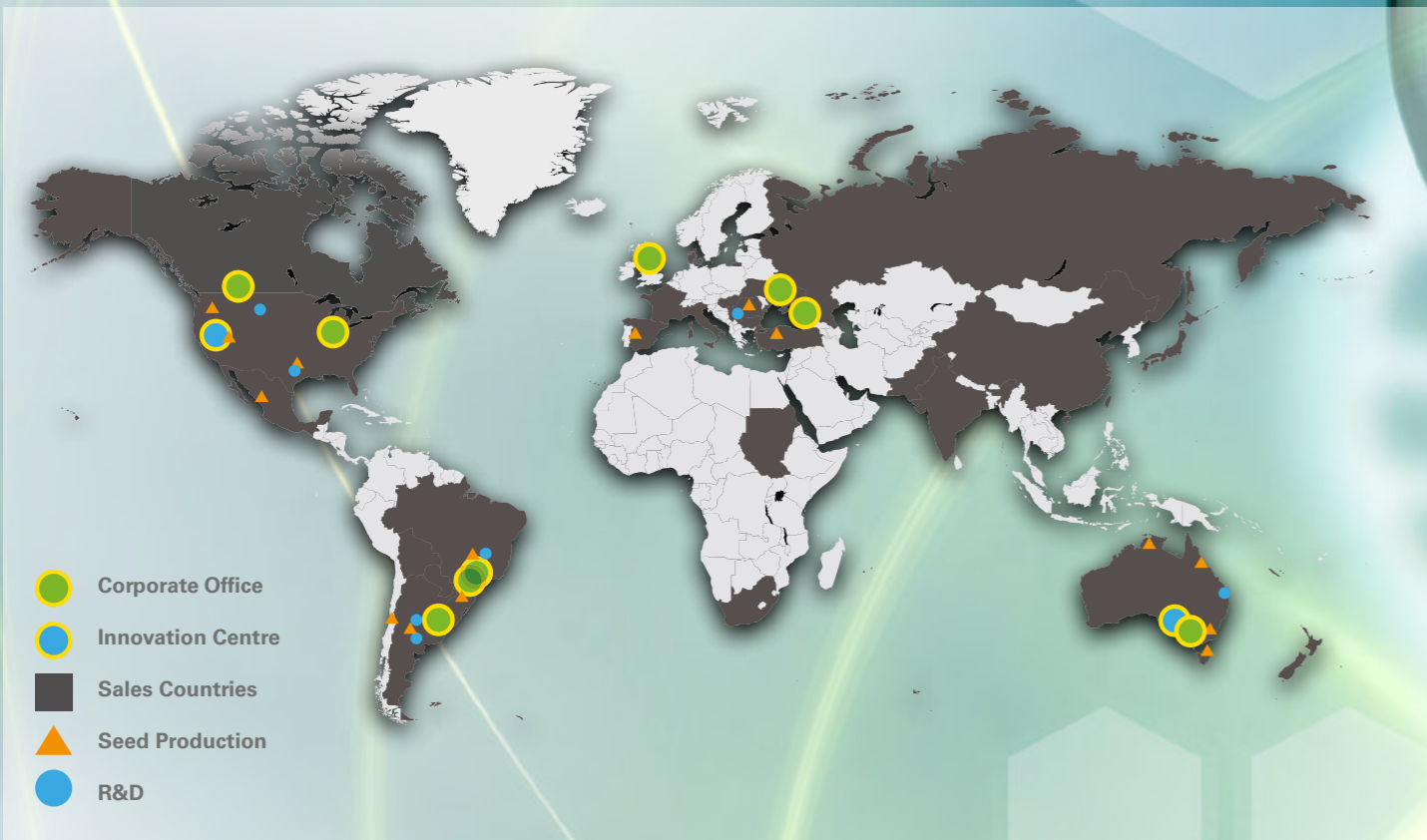


AGRONOMICS & CROP FEATURES



Hybrid Rating Scale // 1 = Poor, 9 = Excellent

GLOBAL GERMPLASM. PIONEERING BREEDING. ADVANCED HYBRIDS.



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 30 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

A UNIQUE OPPORTUNITY



LOW-CARBON CARINATA

**Advancing certifiable non-food
low-carbon energy feedstock**

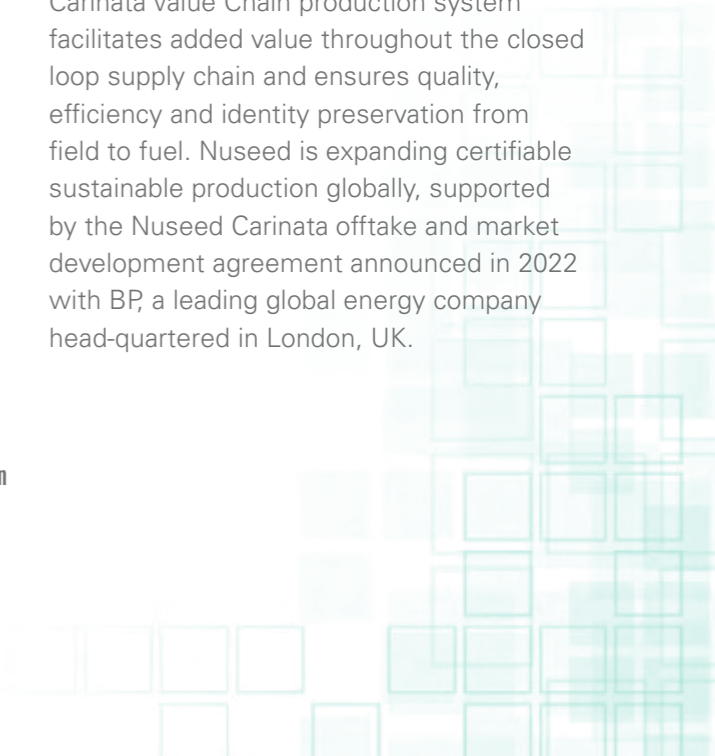
Nuseed Carinata is a non-food low-carbon energy feedstock contract grown using sustainable farming practices. Commercial contract production started in 2019 with Argentinian growers working alongside Nuseed and industry partners to supply Saipol, Europe's largest biodiesel processor to produce renewable 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.



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

Coming soon

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.



ELITE GENETICS IS AT THE CORE OF OUR BUSINESS



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

- Field trials undertaken across four continents in Europe, North and South America and Asia
- 100s of 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
- 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
- Up to 1,000 Nuseed® hybrids go into trial every year
- Nuseed® germplasm parents come from 5 different countries to give Nuseed® an array of plant input traits to work with

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.

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.



Meet the team of professionals ready to support your business



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DISCOVER OUR BEST-IN-CLASS DISTRIBUTOR NETWORK



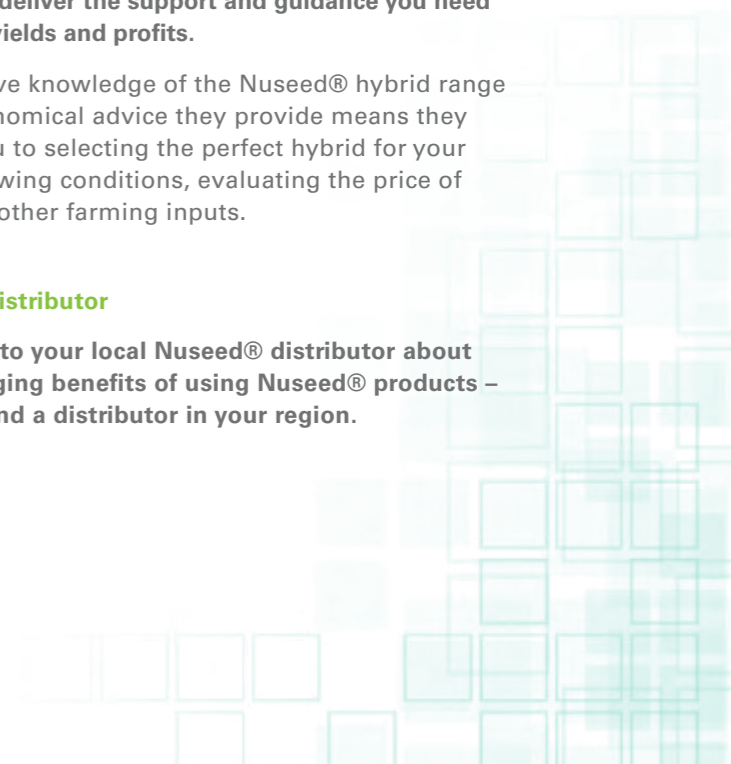
Get the products and support you need with our experienced distributor partners

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

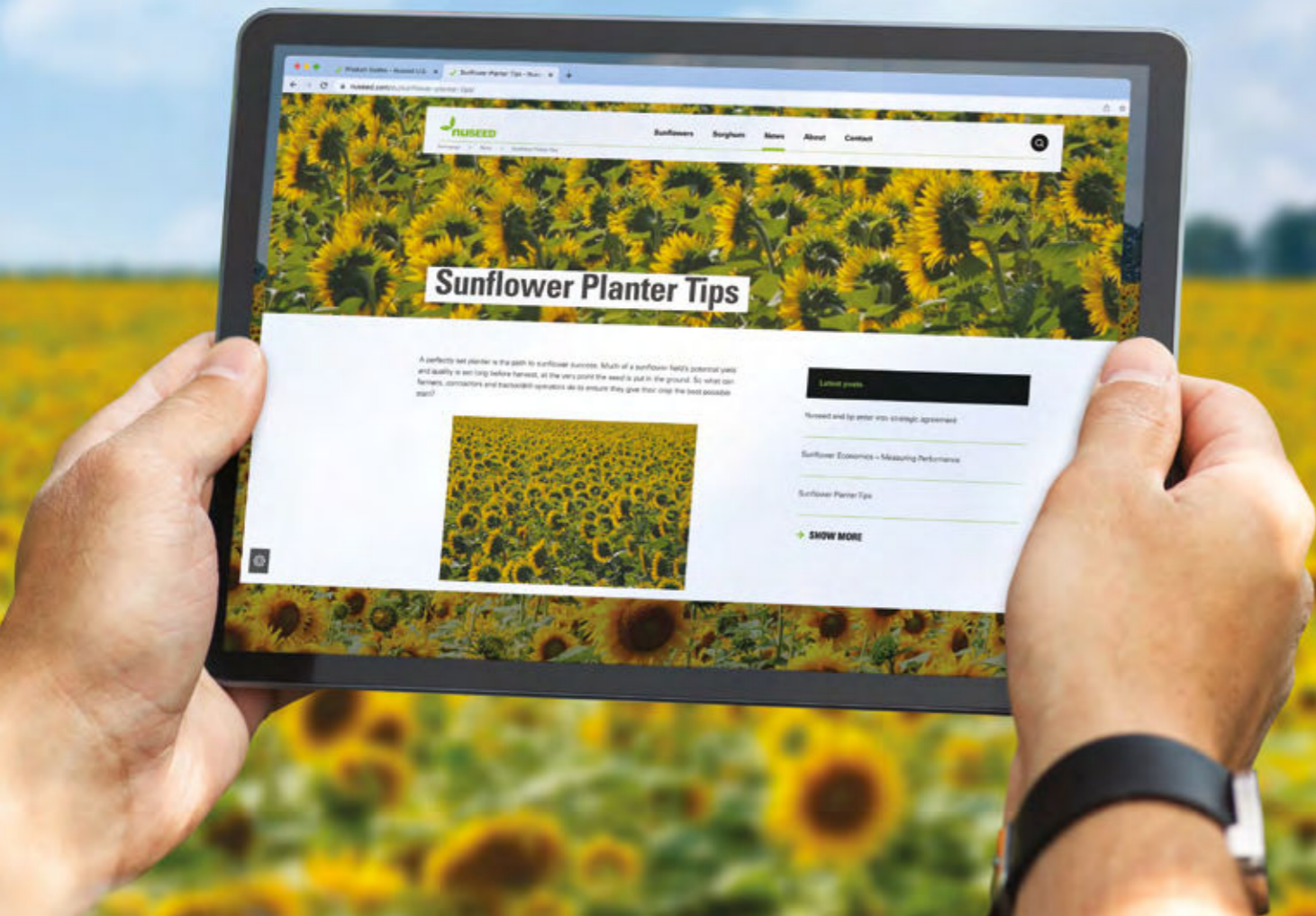
Their extensive knowledge of the Nuseed® hybrid range and the agronomical advice they provide means they can assist you to selecting the perfect hybrid for your farm and growing conditions, evaluating the price of seed against other farming inputs.

Find a local distributor

Why not talk to your local Nuseed® distributor about the wide-ranging benefits of using Nuseed® products – email us to find a distributor in your region.



OUR KNOWLEDGE CENTRE



Best Practice Guides

To support growers in getting the most from their Nuseed® products we have developed a range of easy to use resources.



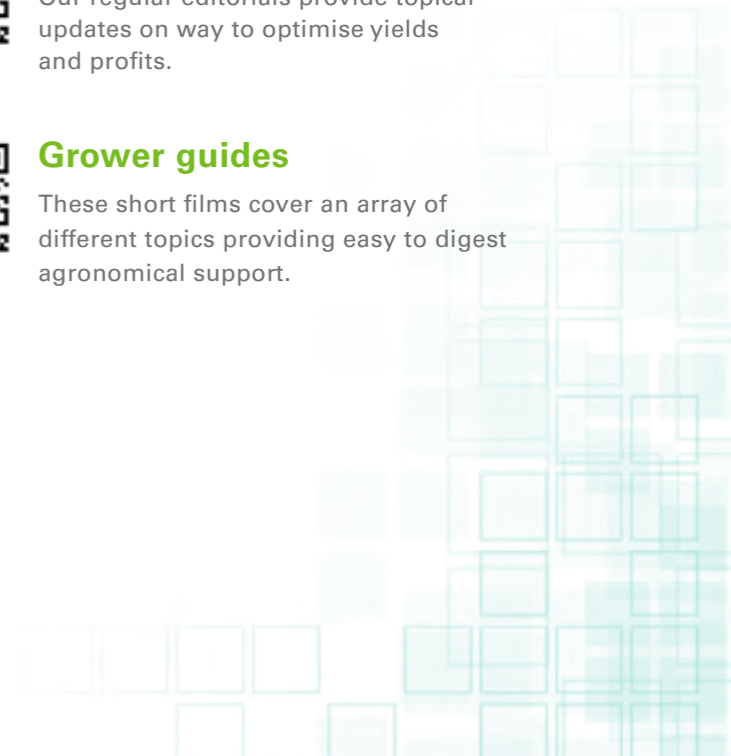
Best Practice Guides

Our regular editorials provide topical updates on way to optimise yields and profits.



Grower guides

These short films cover an array of different topics providing easy to digest agronomical support.





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