Lidea

FRESH IDEAS FOR AGRICULTURE

A KEY PLAYER IN THE SUNFLOWER MARKET

Lidea
IN KEY FIGURES

More than
2,000
employees

A turnover of
376 M €

15
research stations across Europe and South America

More than
34 M €
devoted each year to industrial and R&D investments

55,000 HA
of production across 8 countries

8
Production sites in France, Romania, Ukraine, Spain and Russia

EURALIS Semences and CAUSSADE Semences Group formalised their alliance in September 2020 with the creation of LIDEA. By building on their complementary strengths in terms of crops, research, industrial tools and markets, the alliance of the two companies aims to achieve leadership positions in open fields crops in wider Europe.

OUR MISSION

In proximity with our ecosystem, Lidea creates and provides **customised, sustainable multi-crop** seed solutions that generate **added value** for producers **throughout the year.**

EXPERTISE IN A WIDE RANGE OF CROPS

Spread over 15 research stations, our teams provide a constant flow of genetics and varietal innovations and top-of-the-range solutions, tested in real growing conditions on several tens of thousands of experimental micro-parcels, to meet the technical, agronomic, soil, climate and commercial requirements of each farmer.

CORN · SUNFLOWER · SOYBEAN · RAPESEED · SORGHUM · PULSES · CEREALS · FORAGES · SERVICE PLANTS

QUALITY PRODUCTION FOR CERTIFIED SEEDS

Lidea's objective is to offer high quality seeds, guaranteeing full traceability to ensure customer satisfaction. Lidea uses high-performance top-quality laboratories, located as close as possible to the industrial facilities, making it possible to guarantee quality from harvest, throughout the industrial process, right up to the bagging of seeds. To meet the expectations of different countries, Lidea offers a wide range of conventional, organic and untreated crop seeds.

RESEARCH

ONE OF THE BIGGEST SUNFLOWER BREEDING PROGRAMMES

Lidea benefits from one of the main sunflower research programes worldwide with capacity for permanent innovation.

THE MAIN SELECTION OBJECTIVES ARE:

YIELD, OIL CONTENT, OLEIC ACID CONTENT, DISEASE AND BROOMRAPE RESISTANCE AND HERBICIDE RESISTANCE.

The aim is to enhance our response to the needs of the market and to make sunflower cultivation a sustainable option for the future of crop rotation. The company is a market leader for Orobanche and Downy Mildew resistant varieties.

More than **8,000 hybrids are created and tested every year**, enabling the company to have the most comprehensive range of varieties in every segment of the market. Each year, Lidea selects 10 to 15 of the best varieties to meet the expectations of farmers and industry.

A STRONG EXPERIMENTATION NETWORK

Lidea's varieties are tested on **50 variety evaluation sites** from Andalusia to Russia.

A VERY SUSTAINABLE CROP

Due to its origins, sunflower is a rustic plant which adapts to many conditions. It is among the plants whose cultivation has a reduced impact on the environment. Its pivoting root system contributes to good soil structure.

In the field, growing sunflowers requires limited water, fertilizer and phytosanitary treatments. Sunflower is a time-saving crop for farmers.

N°3

IN THE SUNFLOWER MARKET WORLDWIDE

With 15% OF THE MARKET SHARE

3 MILLION HA

OF SUNFLOWERS ARE SOWN EACH YEAR

AN EFFICIENT NETWORK OF MULTIPLYING FARMERS

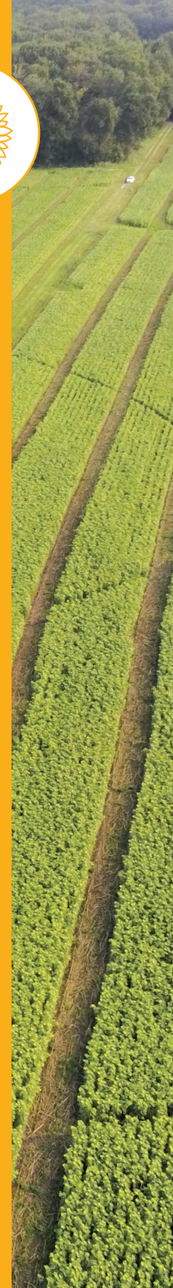
A technical team is dedicated to the good development of the production cycle.

MORE THAN

19,000 HA OF SEEDS MULTIPLICATION

IN EUROPE, NORTH AND SOUTH AMERICA

PRODUCTION



SUNFLOWER LIFECYCLE

Full decription →

Sowing

SPRING | SUMMER

A	B3 - B4	E1 - E2	F1	F2	F2	F3	M0	M3	M4
APR	MAY	JUNE		JULY			AUGUST		SEPTEMBER
Emergence	Leaves development	Flowerbud stage		Flowering stage			Seed development		

FERTILISATION REQUIREMENTS

- Nitrogen, Phosphorus and Potassium
- Nitrogen and Sulphur

PESTS VIGILANCES

- Slugs
- Caterpillars
- Wireworms
- Aphids
- Birds
- Tanymecus
- Rabbits
- Mordellistena parvula, Agapanthia dahli
- Badgers
- Aphids
- Birds
- Caterpillars

DISEASES AND WEEDS VIGILANCES

- Phoma
- Pythium
- Phomopsis
- Alternaria
- Macrophomina
- Verticiulium
- Botrytis
- Stem sclerotinia
- Head sclerotinia
- Rust (Black &White)
- Orobanche
- Downy mildew

The most virulent period

1 SOWING, TIPS FOR GOOD DEVELOPMENT

- **Sowing:** the sowing depth must be adapted to the water status of the soil:
  - fresh seedbed: 2-3 cm,
  - dry soil on the surface: 3-4 cm (4-5 cm for non-sloping soils).
- **Weather conditions:** early sowing generally avoids early water stress at the flowerbud stage. Vegetation zero is around 6°C. The minimum soil temperature for germination is 4°C (the optimum temperature being 8°C at 5 cm depth). Germination must take place quickly after sowing and within 10 days later to avoid attacks by pests (wireworms, slugs, tanymecus,…).

  The cold resistance of sunflower varies according to the stage of development:
  - Cotyledon stage: down to -5°C.
  - From one leaf: down to 0°C with necrosis on the leaf but without causing the death of the plant.
- **Soil:** the taproot can reach a depth of 3m deep. This root particularity gives the plant great capacity to exploit water, nitrogen and mineral elements even in extreme situations. This is why the sunflower crop is very demanding in terms of structuring of the ground: a deep compaction could be an issue for a good implantation. These accidents can lead to a drop in the leaf area index, increased sensitivity to water stress and grain filling defects (low thousand-kernel weight)…

  Seedbed quality is also essential to achieve homogeneous emergence.

  To prepare the seedbed:
  - Give preference to favour non-powered tine tools.
  - Work the soil in optimal drying conditions and limit the use of tools.
- **Weed control:** the false sowing technique can be an option but at least 1 month before the real sowing.

  It is recommended to apply herbicide at post-sowing or pre-emergence stage.

2 LEAF DEVELOPMENT

During the post emergence solutions (2- to 8-leaf stage). Don't count the cotyledons, they are not leaves.

- **Catch-up weed control:** only for HTV (herbicide tolerant varieties). It is recommended to use technologies with specialty herbicides based on EXPRESS™ Herbicides or PULSAR® / PULSAR® PLUS*.

** Depending on applicable legislation.*

3 FLOWERBUD STAGE

- **Trace-elements (boron,…):** 80% of needs are between the 5 pairs of leaves and flower bud stages. The contribution makes it possible to increase yield by up to 10 quintals and to increase oil content by 5 points.
- **Nitrogen fertilization:** sunflower is a plant that does not require much nitrogen. It is therefore possible not to use it in deep soils in the absence of winter leaching. In other situations, 60 units are sufficient to cover the needs of the crop, 80 units in the case of high potential and in soils with low mineralization.

  Nitrogen requirements are between the 5 pairs of leaves stage and the start of flowering:
  - Applying it too early (before 8 leaves) causes excessive vegetative development that it is not favorable in water stress situations and could accentuate the development of phomopsis.
  - Applying it too much could result to a drop in oil content, risk of lodging and an increase in diseases (sclerotinia, botrytis,…).
  - No effect of nitrogen fertilization on High Oleic acid content.
- **Fungicide control:** it is possible to plan fungicidal interventions to protect the crop face to some diseases (phomopsis, phoma,…).

4 FLOWERING

- **Did you know that pollination improves yield and increases oil content?**
  - The pollination of sunflowers is approximately 30 % dependent on the action of pollinators insects.
  - Promoting pollination in the field can increase yield (up to 2 quintals per hectare) and oil content.

HÉLÈNE CLEMENCAT
Technical Manager
(Sunflower)

DID YOU KNOW?

In seed production, germinative capacity of sunflower seeds can increase by 10 points depending on genetics thanks to pollinators. That is why, Lidea recommends 2 to 3 hives per hectare of sunflower to "boost" pollination.

5 MATURITY AND HARVEST

Identify the right stage of harvest to avoid the risk of losses by bird damage, shattering, lodging, arrival of late diseases or seed rot.

- **Maturity:** the flower head is yellow and turns brown. The stem is light beige. The leaves of the base and the middle part are dry. There are a few green leaves left above.
- **Optimal humidity:** the water content of the seeds is between 8 to 11%.

SOLUTIONS TO ENHANCE YOUR PERFORMANCE

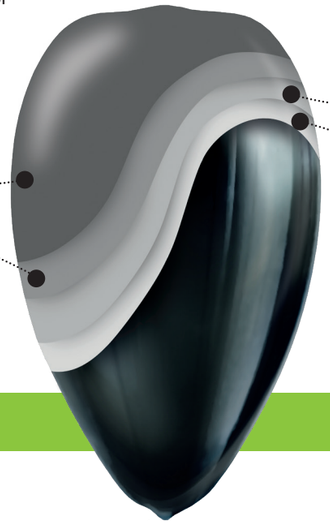
Extensive expertise, inherited from both Euralis Semences and Caussade Semences Group, allows us to create innovative ready-to-use solutions meeting individual needs. Our researchers and breeders prioritise the latest technology to accompany your journey from sowing to harvest.

BOOST&GO

THE SOLUTION TO PRESERVE GENETIC POTENTIAL

BIOSTIMULANT
to activate plant metabolism for early vigour and biomass development

NEW COATING
to guarantee perfect homogeneity



NUTRIENTS
to boost emergence

CROP PROTECTION
during germination and emergence stages

BENEFITS

- ☑ Germination **enhancement**
- ☑ Plant **protection** at early vegetative stages
- ☑ Improved crop **establishment**
- ☑ Genetic potential **preservation**

PROVEN BOOST EFFECTS

PLANT DENSITY
Plant population **+3%****

CANOPY
Average biomass development **+5%****
(at the 4-8 leaves stage)

ROOT DEVELOPMENT
Average roots length **+25%****

*** in comparison to the standard without Boost&Go*
Source: Lidea trial network 2021

OR MASTER by Lidea

THE SOLUTION TO ADDRESS OROBANCHE CUMANA

OR MASTER is Lidea's innovative solution launched in 2014 which provides effective genetic control due to the presence of several genes. Today this solution has been updated with new resistant sunflower varieties, as more aggressive broomrape races appear, and includes two variations: OR Master Premium and OR Master Essential.

OR MASTER PREMIUM	Resistance to critical level of broomrape	Tolerance to extremely virulent broomrape races	Tolerance to CL and CLP herbicides*
OR MASTER ESSENTIAL	Resistance to moderate level of broomrape	Tolerance to the majority of broomrape races	Tolerance to CL and CLP herbicides*

Strengthening sustainable resistance by combining different genetics along with chemical and biological strategies enables Lidea to provide European farmers with personalised solutions adapted to specific local requirements.

**Applicable to a selection of hybrids*

SOLUTIONS TO ENHANCE YOUR PERFORMANCE

MILDEW MASTER by Lidea

THE SOLUTION FOR SUSTAINABLE CONTROL OF DOWNY MILDEW ATTACKS

MILDEW MASTER®, a new polygenic sunflower label for sustainable control of against downy mildew attacks.

A mildew attack can have a severe impact on sunflower crops. In some cases, the loss in yield can reach 50%. To minimise the risks in case of invasion, Lidea research has developed a range of highly mildew-tolerant sunflowers under the label Mildew Master®. Resulting from unique work on genetic selection based on the polygenic approach, Mildew Master® varieties increase the resistance of sunflowers to mildew while limiting the risk of genetic bypass. **Mildew Master® Essential** maintains field performance potential in the majority of downy mildew attacks. **Mildew Master® Premium** is recommended by Lidea experts in situations of high pressure and/or presence of aggressive strains.

KNOCK MILDEW OUT!

MILDEW MASTER ESSENTIAL

To fight Downy Mildew in situations of sustained pressure: selection of strong polygenic hybrids.

MILDEW MASTER PREMIUM

To combat mildew in high pressure situations: selection of the strongest polygenic hybrids.

OUR TECHNOLOGIES

Every year farmers find it more difficult to control weeds in crops. Thanks to genetic improvements, Lidea has consolidated a range of varieties with resistance to specific herbicides, giving us an advantage in difficult situations.

SULFO

EXPRESS™ SX® HERBICIDE

A post-emergence solution only applicable to varieties optimized for Express™ herbicides, an alternative to control sunflower weeds.

**Express™ is registered trademark of FMC Corporation or its affiliated companies.*

Clearfield® Plus
Production System for Sunflower

Improved selectivity for hybrids Clearfield® Plus. Pulsar® Plus, combined with genetic resistance to broomrape, improves control of broadleaf weeds and grasses.

**Clearfield® and Pulsar® are registered trademarks of BASF®. All rights reserved.*

HERBICIDES TOLERANT VARIETIES SOLUTIONS

OUTLETS RICH IN OPPORTUNITIES

LIDEA DEVELOPS TWO DIFFERENT SUNFLOWER CROPS:
- OLEIC SUNFLOWER
- LINOLEIC SUNFLOWER

In crop rotation, sunflower improves the structure of the soil and facilitates the fight against certain weeds. It also makes it possible to spread out the sowing and harvesting steps. Sunflower valorizes fields with limited water reserves.

WHAT USES FOR SUNFLOWER?

An offer in line with the industry outlets driven by societal expectations to guarantee maximum profitability for growers.

LINOLEIC VARIETIES

88% of cultivators grow linoleic varieties.
They are commonly referred to as conventional varieties.

Oil content is between 40% and 50%
In food, linoleic sunflower oil is considered as a premium oil due to its light colour, bland flavour and low temperature solidification point. It also contains around 88% of unsaturated fatty acids, better for health than saturated fatty acids.

DID YOU KNOW?

The oil content is not only a genetic factor. The oiliness of the same hybrid will increase from 37° to 47° north latitude. Then it decreases gradually.
The temperature also has an influence during achene maturation. Temperatures below 20°C or above 35°C decrease oil content.

High thermal amplitude between day and night promotes a high oleic acid level.

HIGH OLEIC VARIETIES

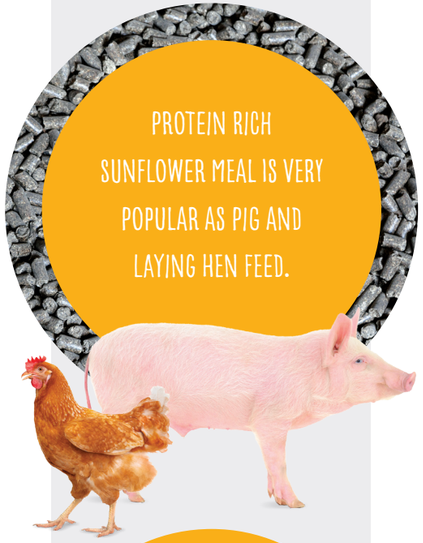
High Oleic varieties have been grown in Europe since the launch of the first variety in 1985.

Oil contains 75% to 90% oleic acids, 3.5 times more than linoleic varieties.

Its Omega 9 rate makes oleic sunflower popular in healthy food.
It is also preferred in food processes that involve high temperatures over a long period (like frying).
The oil has greater stability and is more resistant to oxidation.
In non-food sectors, it is used in biodiesel (esterification) but also in painting, coating, rubber and cosmetics.

RUBBER CAN CONTAIN 10% OLEIC ACIDS.

PROTEIN RICH SUNFLOWER MEAL IS VERY POPULAR AS PIG AND LAYING HEN FEED.



OLEIC ACID IS A FATTY ACID THAT ACTS AS AN EMOLLIENT IN PERSONAL CARE PRODUCTS.

VARIETAL CHOICE, A KEY STEP FOR THE SUCCESS OF THE SUNFLOWER

WHICH SUNFLOWER VARIETY IS BEST SUITED TO MY FIELD?

Depending on of your parcel, Lidea offer a large range of sunflower from very early to late segment, adapted to diseases pressure and pedoclimatic conditions. As for **conventional sunflower,** it is advisable to choose according to the outlet between oleic variety and linoleic variety. For fields dominated by difficult weeds, **Lidea offers herbicide-tolerant (HTV) sunflower varieties, for post-emergence weed control.** Lidea proposes a wide range with Clearfield®, Clearfield® Plus and ExpressTM varieties.

LINOLEIC SUNFLOWER PORTFOLIO

PRECOCITY	VARIETY	OR MASTER	MD MASTER	TECHNOLOGY	DESCRIPTION
VERY EARLY	ES DOLCEVITA		✓	CONV	One of the earliest varieties on the market with very good early vigour.
EARLY	ES GENESIS	✓		Clearfield® Plus	Early CLP hybrids with very good behaviour in drought conditions.
	ES KAPRIS CLP	✓		Clearfield® Plus	Good early vigour and excellent rust profile.
	ES AGRARIS CLP	✓		Clearfield® Plus	Early CLP hybrids with good early vigour and a good disease profile.
	ES AGORA	✓	✓	CONV	Good results in high potential conditions with excellent orobanche and downy mildew behaviour.
	ES BELLA	✓		CONV	High productivity in all situations with an excellent orobanche profile.
	ES MONALISA			CONV	Short plant with good and stable results.
	ES SAVANA	✓		CONV	Very good precocity / productivity ratio with a good disease profile and good behaviour against orobanche.
	ES REGATA	✓	✓	CONV	Excellent drought tolerance and productivity in all situations. Hybrids with very good rust tolerance.
	ES ANDROMEDA	✓		CONV	Very good orobanche hybrids, good lodging resistance and a good agronomic profile.
	ES NOVAMIS CL	✓		Clearfield®	One of the earliest Clearfield® hybrids on the market, good climate adaptation and good early vigour.
	ES AMIS			Clearfield®	Early Clearfield® hybrids, with very good early vigour and stable results in stress conditions.
	CS CODIZOL CL			Clearfield®	Very good verticillium behaviour, good precocity in the Clearfield® segment.
	ES BOSTON SU	✓	✓	SU	Sulfo hybrids with a good disease profile and stable results in all situations.
	ES HUDSON SU		✓	SU	Early Sulfo hybrids with good behaviour against orobanche and downy mildew.
	ES ARCADIA	✓		SU	The earliest Sulfo hybrids for Northeast Europe.
	ES CEYLON SU	✓	✓	SU	Sulfo hybrids with excellent results in all potential conditions with excellent orobanche and downy mildew behaviour.
	ES BELFIS	✓	✓	Clearfield® Plus	High and regular yield in all situations with excellent orobanche and downy mildew behaviour.
	ES OASIS CLP	✓	✓	Clearfield® Plus	Clean disease profile with high and regular yield in all situations.
	ES JANIS	✓		Clearfield® Plus	Good productivity in all situations, short plant with a good disease profile.
	ES LORIS CLP	✓		Clearfield® Plus	Good productivity in intensive situations with a good orobanche profile.
	LID 1025L	✓	✓	Clearfield®	Stable hybrids with a good orobanche profile, short plant with good oil content.
	ES LENA		✓	CONV	Good oil content with good results in all conditions.
	ES NIAGARA	✓	✓	CONV	Good drought tolerance and very good orobanche profile.
	ES ROYAL			CONV	Hybrids for bird market, good early vigour.
	ES ROSALIA			CONV	Very stable hybrids in all conditions with good disease profile.
MID EARLY	ES ISIDA	✓		CONV	Good disease profile, mid early hybrids with good productivity in intensive situations.
	ES BOMBA		✓	CONV	Excellent in drought conditions with good phomopsis behaviour.
	ES PETUNIA	✓		CONV	Stable results in mid intensive conditions, hybrids with a good disease profile.
	ES PROXIMA	✓		CONV	Very good orobanche profile for mid early hybrids, good results in drought conditions and good disease profile.
	ES TERRAMIS CL	✓		Clearfield®	Mid early Clearfield® hybrids with a good disease profile and good results in all situations.
	ES ANTHEMIS CLP	✓	✓	Clearfield® Plus	Good disease profile with stable yield, very good downy mildew behaviour.
	ES LONDON SU	✓	✓	SU	Good orobanche profile with a Sulfo trait.
MID LATE	ES GAMA		✓	CONV	Stable mid late hybrids with a good orobanche profile and a good oil content.
	ES SLAVA	✓	✓	CONV	Good productivity in all situations with a good orobanche profile and good early vigour.
	FUSHIA CL			Clearfield®	Very good oil content with good stability in performance.
	CS IMERIA			Clearfield®	Stable results with a good disease profile.
	ES GENERALIS CL	✓		Clearfield®	Mid late Clearfield® hybrids, good results in intensive situations with a good oil content.
	ES ARMONICA		✓	SU	Sulfo hybrids with a very good oil content and a very good phomopsis tolerance.
LATE	ES SHAKIRA		✓	CONV	One of the best hybrids in terms of oil content on the market with good performance in intensive conditions.
	ES VERONIKA	✓	✓	CONV	Late hybrids, with a clean disease profile and an excellent oil content.

OLEIC SUNFLOWER PORTFOLIO

PRECOCITY	VARIETY	OR MASTER	MD MASTER	TECHNOLOGY	DESCRIPTION
EARLY	ES ADRIATIC	✓		Clearfield® Plus	High oleic and early CLP hybrids, stable results in all conditions.
	ES ELECTRIC CLP	✓	✓	Clearfield® Plus	High oleic, CLP with good performance in drought conditions.
	LID 3035H	✓	✓	CONV	Hybrids with very strong performance and excellent downy mildew behaviour.
	ES ARTISTIC	✓	✓	CONV	Good precocity / productivity ratio for high oleic hybrids with good lodging resistance.
	ES EPIC	✓	✓	CONV	High performance with excellent behaviour against orobanche and downy mildew.
	ES IDILLIC		✓	CONV	High and stable performance, short plant and good disease profile.
MID EARLY	ES EMERIC	✓	✓	Clearfield® Plus	Good orobanche profile, CLP and high oleic hybrids.
	ES CHROMATIC		✓	CONV	High oleic hybrids with good performance in drought conditions.
	ES CINETIC		✓	CONV	Clean disease profile and stable results in all conditions.
	ES ROMANTIC	✓	✓	CONV	Good orobanche profile with a good agronomic profile.
	ES BALISTIC CL		✓	Clearfield®	Stable high oleic hybrids on the Clearfield® market, good downy mildew profile.
	LID 1046H SU		✓	SU	High oleic and Sulfo hybrids, very good results in mid intensive and good conditions with very good verticillium tolerance.
	ES JURASSIC SU	✓	✓	SU	Sulfo high oleic, good orobanche profile with very good results in mid intensive and good conditions.
MID LATE	CS KLARIKA CL			Clearfield®	Good disease phomopsis and verticillium profile.
	ES ARGENTIC	✓	✓	SU	One of the best Sulfo hybrids against orobanche with good results in drought conditions.
	ES AROMATIC SU	✓	✓	SU	Sulfo hybrids with very strong performance, good stability and a good orobanche profile, high oleic.

Varieties with Boost&Go solution.

CHOOSING THE RIGHT ORGANIC SUNFLOWER VARIETY

Sunflower is a robust plant that has the ability to quickly cover the soil, which results in limited weed development. These strengths mean that it is the most organically grown oilseed in Europe. This crop allows farmers to respond to strong market demand and the multiplicity of outlets.
Moderate production costs, good value and low variation in yield make it an organic crop of choice.

PRECOCITY	VARIETY	OR MASTER	MD MASTER	TECHNOLOGY	DESCRIPTION
EARLY	**ES AGORA BIO**	✓	✓	CONV	Good results in high potential conditions with excellent orobanche and downy mildew behaviour.
	ES ARTISTIC BIO	✓	✓	CONV	Good precocity / productivity ratio for high oleic hybrids with good lodging resistance.
	ES EPIC BIO	✓	✓	CONV	High performance with excellent behaviour against orobanche and downy mildew.
	ES SAVANA BIO	✓		CONV	Very good precocity / productivity ratio with a good disease profile and good behaviour against orobanche.
MID EARLY	**ES ROMANTIC BIO**	✓	✓	CONV	Good orobanche profile with a good agronomic profile.
	LID 1025L BIO	✓	✓	CONV	Stable hybrids with a good orobanche profile, short plant and good oil content.
LATE	**ES VERONIKA BIO**	✓	✓	CONV	Late hybrids, with a clean disease profile and an excellent oil content.

THE ADVANTAGES OF ASSOCIATIONS OF SUNFLOWER WITH COVER CROPS

With fertilizer prices at record high levels, farmers are scrambling to find a solution. Lidcover Nitro is not just a cover crops, it is also a nitrogen-providing solution which, in the current context of shortage, allows out yield cash crops.

LIDEA RECOMMENDS LIDCOVER NITRO

COMPONENTS

SPECIES	% IN WEIGHT	NUMBER OF PLANT/M²	WEIGHT BY HA
Phacelia	4	79	1,4
Fenugreek	13	30	4,6
Ervil	13	20	4,6
Narbonensis vetch	70	15	24,5
TOTAL	**100**	**143**	**35**

96% of the composition is leguminous that produces and captures the nitrogen. LIDCOVER NITRO can produce from 2 to 5 tons of dry matter according to the potential of your field and pedoclimatic conditions.

	CHARACTERISTICS OF COVER					RESTORATION OF COVER TO THE GROUND										
								MINERALIZATION DYNAMICS (N)***								
NAME	Dry matter in the air (t/ha)	Root dry matter (t/ha)	Total captured nitrogen (kg/ha)	Carbon / Nitrogen dry matter in the air	Carbon / Nitrogen root dry matter	Nitrogen (kg/ha)	€ N* (€/ha)	30 days	60 days	90 days	120 days	150 days	180 days	Sulfur (SO3) Plant (kg/ha)	€ S** (€/ha)	€ Total leachables N+S (€/ha)
LIDCOVER NITRO	2	0,3	65	13	31	33	**59,4**	19	3	3	3	3		5	**7**	**66,4**
LIDCOVER NITRO	3	0,5	95	14	29	42	**75,6**	23	6	5	4	4		10	**14**	**89,6**
LIDCOVER NITRO	4	0,6	125	15	30	53	**95,4**	28	8	6	6	5		10	**14**	**109,4**
LIDCOVER NITRO	5	0,7	155	15	29	68	**122,4**	37	10	8	7	7		10	**14**	**136,4**

** Calculation basis: 1 unit of N = 1,8€. ** Calculation basis: 1 unit of S = 1,4€. ***After destruction of the cover left on the ground. Incorporation into the soil during seed preparation activates mineralization. The nitrogen returned is effective from the early stages of sunflower.*

Capable of fixing more than 160 units of nitrogen, **LIDCOVER NITRO** has the ability to restore 1/2 in available for the next sunflower crop, that is to say from 30 (for 2 tons of dry matter) to 70 units (for 5 tons of dry matter).*

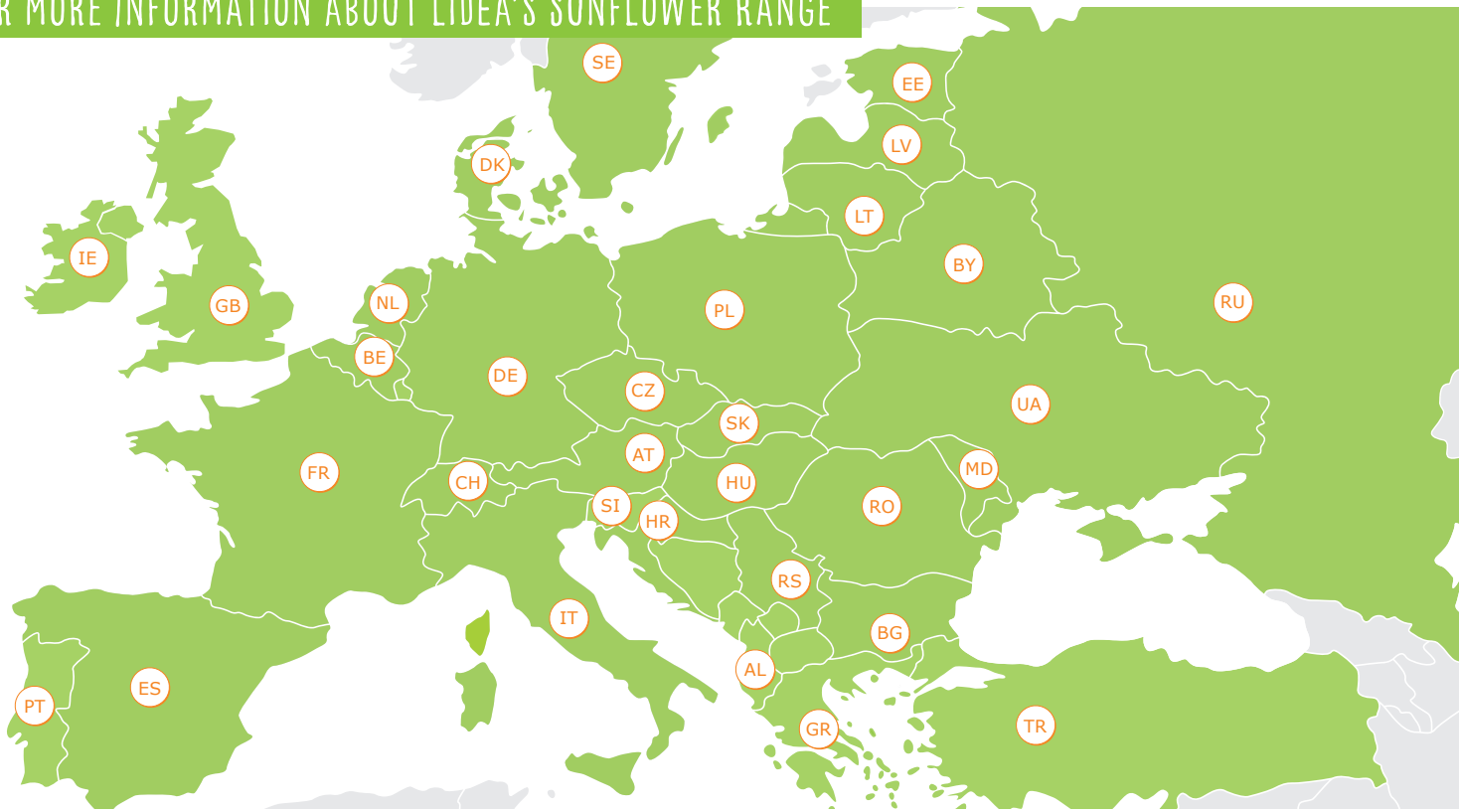
LIDCOVER NITRO is ideally positioned behind a cereal (sowing from the beginning of July to the beginning of September depending on the amount of temperature available at the beginning of the fall). The choice of exclusive varieties proposed by Lidea allows this intercrop to effectively fix atmospheric nitrogen until the first heavy frost.

Depending on the yield of the cover crop, you can calibrate and optimize your nitrogen application, save money and adjust your sunflower yield. You can contact your Lidea technical sales representative who will provide you with his expertise on the quantity of nitrogen to add.

Lidcover Nitro, your asset for a sustainable, high-performance sunflower crop.

*Source: Method for Estimating Release from Intermediate Crops. * The MERCI method is based on the coupling between «field» references allowing to estimate the N, P, K, S and Mg contents of the majority of intermediate crop species and references obtained by simulation with the STICS** crop model of INRAE****
*** STICS is a dynamic, generic and robust model for simulating the soil-atmosphere-crop system. *** FR: National Research Institute for Agriculture, Food and the Environment*

FOR MORE INFORMATION ABOUT LIDEA'S SUNFLOWER RANGE



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www.lidea-seeds.com.ua

Pierre Charon
Sunflower Market Manager
pierre.charon@lidea-seeds.com

Maxime Menvielle
Sunflower Market Manager
maxime.menvielle@lidea-seeds.com

Lurii Svistunov
Sunflower Market Manager
iurii.svistunov@lidea-seeds.com

FIND US ON:

www.lidea-seeds.com

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