masseeds.com

ACT TOGETHER

FOR A CHANGING AGRICULTURE

BLUECRAB CREATIVE STUDIO - Crédit photo : Studio Pollux - ISTOK - Mas Seeds

A BRAND OF MAÏSADOUR

mas seeds®

UNITED TO GROW

mas seeds®

UNITED TO GROW

for a changing agriculture

OUR MISSION

PROVIDE AN INNOVATIVE AND SUSTAINABLE SEED PORTFOLIO FOR CEREAL AND CATTLE GROWERS

Since 1949, we team up with farmers to respond to agricultural challenges and contribute to the changing agriculture that will feed the future generations.

We develop and produce high performing corn and sunflower varieties, and provide a diversified crop portfolio, seed applied solutions and digital services that contributes to sustainable agriculture.

OUR AMBITIONS

SELF FUNDED COMPANY TO ENSURE SUSTAINABLE GROWTH

INNOVATIVE AND SUSTAINABLE SEED PORTFOLIO

ATTRACTIVE CULTURE

OUR PURPOSE

ACT TOGETHER FOR A CHANGING AGRICULTURE

MAS Seeds® at a glance

masseeds®
UNITED TO GROW

for agroecological transition

Agroecological transition requires a change of today's agricultural model to increase production efficiency, substitute inputs or even to redesign an agricultural system towards a less industrialized one.

Diversify crops in the rotation

Biodiversity in agroecosystems offers a greater autonomy from synthetic fertilizers and crop protection products to the farmers, thanks to the interactions between plants and soil.
Indeed, crop diversification allows an increase in production of 14% and nearly a quarter of the associated biodiversity, water quality is improved by 50%, pest and disease control by more than 63% and soil quality by 11% according to the estimations of INRAE.
Complementary to corn and sunflower, **MAS Seeds®** offers a wide range of seeds like alfalfa, cover crops, soybean, rapeseed, sorghum, or fodder mixtures to diversify crop rotation and enrich the ecosystem on farms. The combination of species improves functional diversity and interactions between species.

Sustainable management of water

The biggest agricultural challenge of the future will be to increase food production while facing water scarcity. Moisture availability during critical growth stages of corn is extremely important to ensure the yield. Agronomic solutions like early planting, selecting varieties with earlier relative maturity and, if needed, adapting the right irrigation method during the most critical stage can help minimizing the risk of losses and optimize the use of water. Our **AGROPLUS®** farm services help farmers in taking these decisions.
MAS Seeds® has a unique tropical germplasm, that allows us to improve our temperate corn with drought tolerance through working on traits such as stomatal closure and evapotranspiration efficiency.
We've reoriented our breeding strategy over the past few years to "Make farming more sustainable" and aim to select varieties adapted to agroecological practices. Today we have two types of corn genetics, **WATERLOCK** and **GREEN+** with superior ability to perform under drought stress. The choice of crop and the rotation greatly impact the amount of water that is needed. For example, pulses crops have small water footprint. Use of cover crop mixtures can enhance the water availability for the next crop, increases water infiltration and conserves moisture into the summer.

Reduce chemical inputs

Reducing pesticide use in agricultural systems is a major problematic and a global goal since the negative impacts on environment and human health is an undisputable fact. However, crop protection is crucial for yield and global food security. Today, with more than 80%, fungicides and herbicides make the biggest part of pesticides used in Europe. Reducing dependence on pesticide input is a long-term strategy and our ambition is to contribute actively to this action as agricultural measures together with genetic research are in the front lines of possible solutions; redesigning crop rotations, increasing crop diversity, including functional biodiversity in plant breeding. Today, **MAS Seeds®** offers sunflower varieties, carrying **HelioSMART** and **NORUST** labels, with genetic tolerance against diseases like verticillium, sclerotinia, mildew and black rust respectively which allows to strongly reduce the use of chemical treatments . The **MAS Seeds®** research team has also developed the seed applied solution **AGROSTART®** for corn and sunflower, a bio-stimulant solution that boosts and protects the seedling and allows stronger young plants and localized treatment for a better soil protection.

mas seeds®
UNITED TO GROW

for sustainability of farms

Farm sustainability means that we meet the needs of today's population without compromising the ability of future generations to meet theirs… environmentally, socially, and economically.

Conserving soil fertility

Soil is the most essential non-renewable resource for crop production, and it plays a central role in biodiversity, carbon fixation and storage. Increasing food demand and intensive agricultural practices are threatening the soil health. The common agricultural policy (CAP) encourages farmers to take extra steps to improve soil management. Use of cover crops maintains soil fertility and increases soil organic matter, prevents erosion, and improves biodiversity.
At **MAS Seeds®** we are happily onboard supporting farmers implementing protective measures.

We invest resources in various seed types, including cover crops, soybean, alfalfa, sorghum, and other crops. This crop diversification makes soil and ecosystems more resilient, benefits soil microbiology and helps offset impacts of climate change. For crop growers, our **AGROPLUS®** is made to bolster soil health, a service that includes soil fertility improvement, selection of most suitable cover crops or other crop varieties for the rotation, sowing recommendations as well as **AGROTEMPO®** digital services.


AGROPLUS® Maximise field crop efficiency at your farm

Resilience and adaptability of crops

Resilience of crops is critical because most farming systems face conditions like climate change and pest populations, that are often highly unpredictable and rarely stable in the long term. We are developing genetics that provide tolerance to both water stress and common diseases to adapt to the environmental challenges. To this day we have selected and launched a portfolio of varieties that support a more sustainable agriculture: such as **WATERLOCK** grain corn varieties that have a higher resilience against drought and improved water use efficiency; **GREEN+** silage corn varieties which stay longer green even under drought conditions at the end of the vegetation cycle, **HELIOSMART** sunflower varieties which are selected for their genetic ability to resist against the three main diseases combined: mildew, sclerotinia and verticillium, and **NORUST** sunflower varieties that shows superior tolerance against the black rust fungal disease.

NUTRIPLUS® Increase the nutritional efficiency of your fodder crops

Feed and Protein autonomy of livestock farms

Increasing protein and feed autonomy is a way to reduce the negative impacts on the environment, manage economic and climatic risks thus improve the sustainability of the farms. Today most European livestock farmers depend on imported animal feed protein such as soybeans. About 75% of the global soy output is used for animal feed and EU is the number two importer of soybean. This high amount of import is coupled with high risk: fluctuating prices, availability, gas emissions, GMO content. We are expanding our soybean and rapeseed portfolio for the local sectors of non-GMO oils and cakes.
In addition to wide range of silage corn varieties adapted to each territory, **MAS Seeds®** offers a portfolio of alfalfa and fodder mixtures rich in protein and fibre. The decision support tool **AGROTEMPO®**, combined with personalized on-farm services like **NUTRIPLUS®Sat** and **NUTRIPLUS®Silo**, supports farmers to improve the feed efficiency of their forages, from sowing to storage in silos.

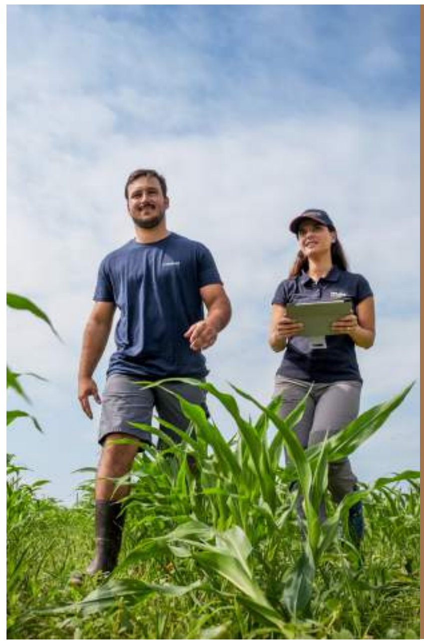
masseeds®
UNITED TO GROW

for a positive carbon balance

Agriculture can transition from CO2 emitter to CO2 capturer by changing today's model towards an agroecological one, starting with simpler measures: using high carbon capturing crops, diversifying crop rotations, integrating cultivation practices like relay cropping, cover crops, conservation tillage, management of nitrogen-based fertilizers and green manures.

Optimization of nitrogen fertilization

Optimization of nitrogen fertilization is the first lever of action to be implemented in crop production to reduce its carbon footprint and thus contribute to mitigate global warming. An increase of legumes in arable land from 3% to 7% would reduce the total annual consumption of nitrogen fertilizers in France by 10%(Source: Apca).
The personalized **AGROPLUS®** farm services support farmers to better manage their crop rotation and nitrogen fertilization of their corn and sunflower crops. In addition to these crops, **MAS Seeds®** diversification portfolio offers different leguminous crops such as alfalfa, soybean, or clover, that have the ability to naturally catch atmospheric nitrogen and return it to the following species in the rotation.



We exploit 1000 hectares of corn, including 800 irrigated hectares, in the Braila region in the South of Romania. The field support of the MAS Seeds® team with AGROPLUS® service is a real bonus at the scale of our company. The soil and leaf analyses proposed by AGROPLUS® service have allowed us to readapt and improve our nitrogen program throughout the corn cycle and will allow us later to optimize the whole fertilizer expenditures on our farm.

Fabrice COMIN and **Mickael BABINOT**
Director and Technical Manager
of Rominsem SRL

The use of land as carbon sinks

Agricultural lands have a great capacity to remove CO2 from the atmosphere and store as biomass in the plant, the roots, and the soil. One hectare of corn captures 4 to 8 times more CO2 than it emits to produce it. During this process it produces 15 to 20 tons of biomass per hectare, half of which is in the form of straw and roots which contributes to soil carbon (Source:Arvalis).
Depending on winter leaching, cover crops can reduce nitrogen leakage into ground water and associated emissions by 50% and would offer an average greenhouse gas reduction of 1t CO2/ha if we cumulate the carbon storage in the soil and savings in fuel and fertilization on the next crop according to INRAE estimations.
Acquired in 2016, the **MAS Seeds®** site in San Pietro di Morubio, Italy, specializing in cover cover and fodder mixtures, is multiplying its production capacity to supply both the Italian market and neighboring countries. This production facility makes it possible to mix nearly 300 varieties from about sixty species. We are also investing in developing and marketing the diversification crop portfolio by creating positions and increasing partnerships.
Finally, we have established 6 perennial experimental sites together with Cooperative **Maïsadour** to redesign farming systems for a sustainable use of resources. One of the goals is to propose solutions to generate more carbon credits in the future, integrating our cover crops portfolio and agroecological solutions.

UNITED TO GROW

With more than 70-year experience in seed business and today, MAS Seeds® is structured around three activities

R&D

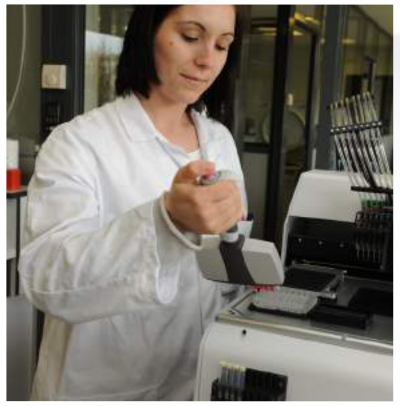
including hybrid breeding for maize and sunflower and development of diversified crops portfolio

SEED PRODUCTION

as one of Europe's leading hybrid seed producer

MARKETING & CUSTOMER SUPPORT

in continental Europe, Africa, Asia and America



masseeds®
UNITED TO GROW

More than 70 years experience in seeds

1936 – Constitution of the Blé des Landes Cooperative

1949 – Launch of Seed Business with the beginning of seed production

1962 – Creation of Corn R&D

1973 – Blé des Landes Coopérative becomes Maïsadour Coopérative

1981 – Creation of Sunflower R&D

1989 – Maïsadour begins its international development
-
Subsidiary opening abroad

GERMANY

ITALY 1990

BENELUX 1991

PORTUGAL AND SPAIN 1992

1999 – Creation of Maïsadour Semences SA

POLAND 2005

2006 – Inauguration of the R&D center in Romania

ROMANIA

UKRAINE 2007

RUSSIA 2008

TURKEY 2009

2010 – Inauguration of the seed factory in Ukraine

2016 – Purchase of SEMFOR in Italy and diversification portfolio
-
Launch of first R&D center in Russia

semfor s.r.l.

2017 – Creation of a Strategic Business Unit dedicated to « New Markets »

2018 – Creation of MAS Seeds® brand
-
Inauguration of a new R&D center in Borispol, Ukraine

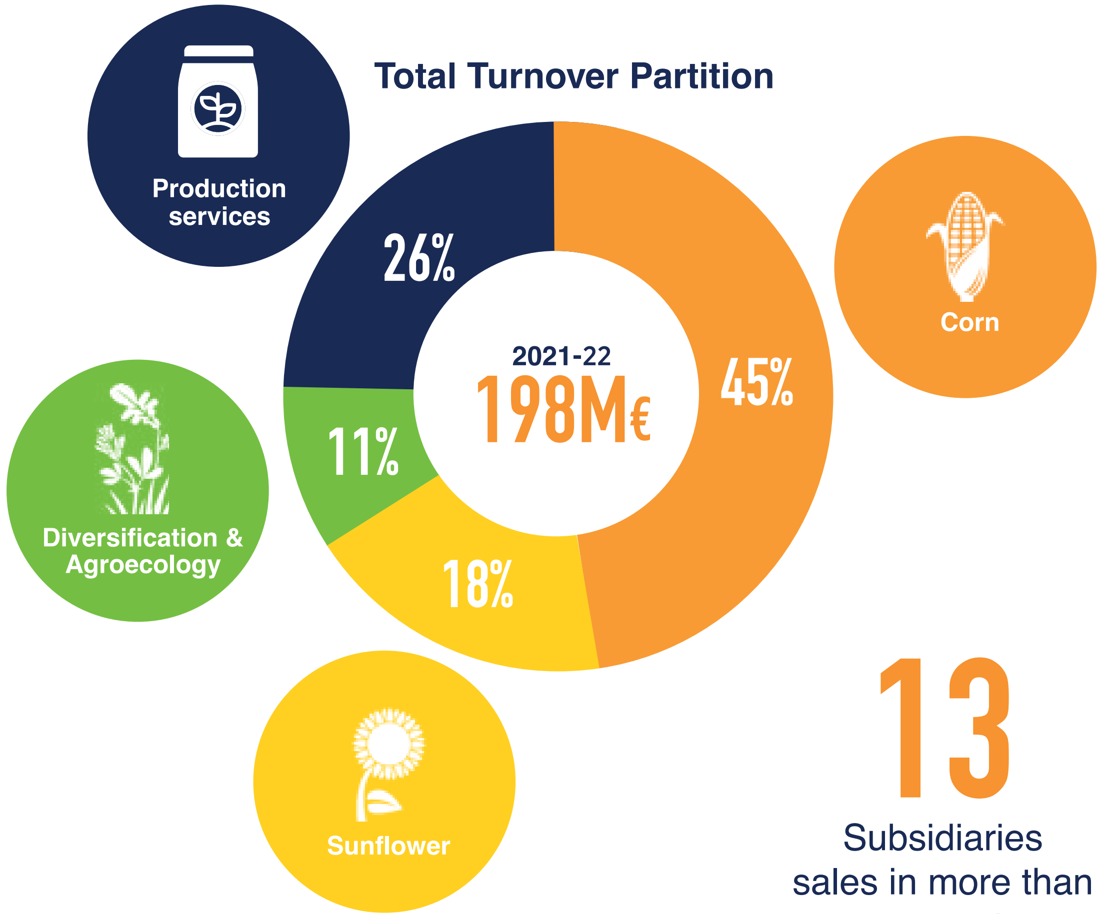
mas seeds® UNITED TO GROW

2019 – MEXICO – Tropical Corn Germplasm acquisition

2020 – IVORY COAST – Creation of R&D Center in Western Africa

mas seeds®
UNITED TO GROW

MAS Seeds® in key figures



13
Subsidiaries
sales in more than
50 countries

880
Employees
more than
20 nationalities

10%
of turnover
invested in R&D

80%
of turnover
outside France

10
R&D centers
working on corn,
sunflower & diversified crops

3
Factories
for hybrids

1
Diversification
seed factory

A BRAND OF MAÏSADOUR

MAS Seeds® is a subsidiary of Cooperative Maïsadour which regroups more than 4800 members in the South-West of France.

Cooperative **Maïsadour** develops integrated chains "from seed to consumers' plate" thus ensures a sustainable market for its farmers' production.
MAS Seeds® and **Maïsadour** are committed to a sustainable agriculture, food and society, and supports their farmers for the deployment of agricultural practices to preserve the environment and allow everyone to consume better.

COMMITTED TO CSR
Confirmed ★★
AFNOR CERTIFICATION
COMPANY COMMITTED TO CSR
More information:
www.company.com

The Corporate Social Responsibility (CSR) labelling certifies Maïsadour and MAS Seeds® commitments and actions for sustainability.

Such as agricultural practices, production methods, quality of work environment etc. This labelling is based on the only recognized international standard for sustainable development: ISO 26 000. **Maïsadour** is the first Agricultural Cooperative in France to have established its own reference system in order to implement this certification in all its subsidiaries. The cooperative continues to work on its actions for sustainability with the objective to achieve "exemplary" level within 3 years.

masseeds®
UNITED TO GROW