

# Regenerative Agriculture at MAS Seeds®

For the past 15 years, farmers have faced instability in their yields due to soil degradation, exacerbated by climate change. Regenerative agriculture addresses these challenges.

**The benefits of regenerative agriculture for farmers:** Improve **soil health**, stabilize **yields**, reduce chemical **inputs** and produce **sustainably and responsibly**.

## The 3 levers of soil regeneration:



**Covering the soil all year round** to protect the soil from erosion, improve its ability to retain water and capture nutrients for subsequent crops.



**Limiting soil work** to preserve soil life and strengthen its structure naturally through the activity of roots and earthworms.



**Increase organic matter** by returning crop residues to enrich the soil fertility, better retain water and store carbon.

## Supporting the transition with our seed offering

Our objectives by 2030 :

- **50% resilient varieties**, adapted to climate change, in our maize and sunflower offer,
- **A complete offer of cover crops and forage mixtures** adapted to maize and sunflower rotations,
- **100% of our seeds** produced using regenerative agriculture.

**masseeds®**

# VARIETAL INNOVATION TO EXPAND REGENERATIVE PRACTICES

Through its research and development department, **MAS Seeds®** develops a range of **high-performing, resilient, and diverse crops** to enrich rotations, improve soil health, and enhance yields.

## Selection of high-performing, resilient and earlier varieties

With **250 test sites and 300,000 micro-plots** around the world, our experimentation network allows us to collect millions of data points through **advanced phenotyping techniques**.

This information is complemented by **genotypical data from our biomolecular laboratory**, enabling us to predict the performance of new varieties even before field trials.

All this data is then **analyzed using advanced applied science models** to identify **the best maize and sunflower varieties based on performance, resilience, and stability criteria**.

**MAS Seeds®** is also working on the development of **earlier maize cycles**, allowing for earlier harvests. This method reduces the risk of mycotoxins and supports the establishment of cover crops starting in September-October.

## Development of cover crops and forage mixtures adapted to maize and sunflower

Our research team develops **cover crops and forage mixtures specifically adapted to maize and sunflower crops** to improve the sustainability and resilience of agricultural systems.

The **MAS4 portfolio, composed of legums, grass, and crucifer mixtures**, plays a crucial role in protecting and improving soil, weed management, and soil fertility enhancement.

To enhance this portfolio, **four criteria are analyzed in our experimental trial network** dedicated to cover crops and forage mixtures :

- The **ease of integration** into crop rotation.
- An excellent **winter biomass** production (> 3 t DM/ha).
- The adaptability to different **sowing dates** and **soil types**.
- The **ease of disposal** for optimal transition to the next crop.



## Research on crop rotation and development of agroecological solutions

Our experiments aim to develop farming practices that allow for **more sustainable and profitable sunflower and maize production, minimizing their carbon footprint**.

Different practices are tested :

- Enhancing **cover crops** to benefit following crops.
- Reducing soil tillage through **no-till farming**.
- Reducing synthetic fertilizers in favor of **green manure**.
- **Undercover sowing** to limit the use of chemical weeding.
- **Irrigation** optimization.
- **Crop protection** optimization.

**Crop rotations and cover crops integration are the foundation of our regenerative agriculture strategy.** By adopting these practices, farmers can improve soil health and organic matter, maintain yields while reducing their carbon footprint, and contributing to a more sustainable agriculture.

# TOWARDS SEED PRODUCTION IN REGENERATIVE AGRICULTURE

Launch of our **pilot farms network** and **production specification**

2024

**First seeds from level 1** committed farms

2025

Transitioning the **entire French network**

2025 à 2028

**100% of farms in France** reach commitment level 1

2028

French network progresses toward **levels 2 and 3**  
**Begin transitioning in Spain and Ukraine**

Convinced of the benefits of regenerative agriculture on performance, production profitability, and carbon footprint reduction, MAS Seeds® aims to transition its entire network of seed producers in France by 2028.

## Experimentations conducted on a network of pilot farms

A collection of pilot farms are dedicated to experimenting with regenerative agriculture practices in seed production.

The goal is to **define the most efficient crop management practices, adapted to seed production**, in order to subsequently deploy them across the entire network of producers.

The main area of focus include **soil tilage reduction, cover crops enhancement, nitrogen fertilizer modulation, and irrigation optimization**.

## The transition of our entire producer network is already well underway

The shift towards regenerative agriculture is a gradual process that will take several years.

In 2025, **25% of the French producer network was already engaged at Level 1 of the specifications**, which mainly involves the implementation of agronomic cover crops.

The label **“ACT FOR REGENERATIVE AGRICULTURE”** printed on our maize bags reflects this evolution.

## Our 2028 plan: 100% of producers committed to regenerative agriculture

A specification document, defined in 2024, outlines regenerative agriculture practices adapted to seed production.

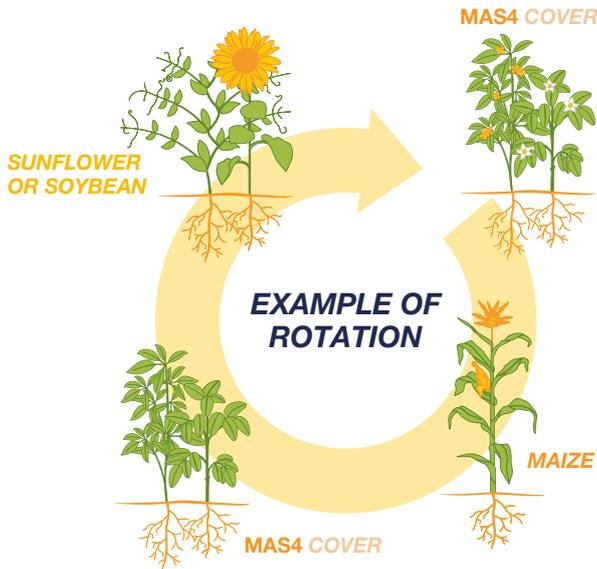
It establishes **three levels of commitments, defined by milestones to be achieved in adopting new practices**, and helps structure and action plan evolving the production network. Experiments on pilot farms allow for an easier process on transitioning farms.

**The goal is for 100% of farms to reach commitment level 1 by 2028, and further increase their commitment to levels 2 and 3 within the following years.**

The experience acquired on the French network will facilitate the transition of the Spanish and Ukrainian networks thereafter.



# SUPPORTING FARMERS IN THEIR TRANSITION



## Proposing seeds tailored to the need of regenerative agriculture

Our offer is suited to maize and sunflower-based rotations, with cover crops specially designed to meet the specific needs of each region.

Our maize, sunflower, and oilseed rape varieties are selected for their performance as well as their resilience, ensuring yield security in all conditions.

We also offer other species to extend and enhance rotations, such as soybean, alfalfa, and sorghum, to maximize biodiversity and soil health.

## The needs of regenerative agriculture



ADAPTABILITY  
TO CHANGING  
CLIMATE



REGENERATE THE  
SOILS



SUCCESSFULLY  
IMPLEMENT  
COVER CROPS



## The solutions MAS Seeds® offers

High performing, resilient, and stable varieties identified under various labels:

### MAIZE

WATERLOCK



GREEN+



### SUNFLOWER

HelioSMART



NORUST



### OILSEED RAPE

SAFETY+



The range of MAS4 cover crops and forage mixtures, designed for maize and sunflower-based rotations.

MAS4 COVER  
NUTRI  
EXPERT  
ENERGY

Technical support in managing cover crops, from establishment to disposal, including nitrogen release estimation.