



# CRA-W INFO

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CRA-W INFO



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# BIO-BASED FORMULATIONS FOR CONTROLLED-RELEASE PESTICIDES



## NEW, ORGANIC FORMULATIONS COULD IMPROVE THE EFFECTIVENESS OF BIOPESTICIDES WHILE LIMITING THE PRESENCE OF MICROPLASTICS IN AGRICULTURAL SOILS.

Europe's "Farm to Fork" strategy calls for a significant reduction in pesticide use and related risks by 2030. To achieve this goal, it is essential to develop safer and more sustainable plant protection products. In this context, organic pesticides represent a promising alternative. However, their effectiveness in the field is sometimes limited, as some active ingredients are sensitive to UV rays or evaporate quickly, reducing the period over which they remain active.

In addition, many of the controlled-release systems in use today are derived from petrochemical-based polymers, which are often poorly biodegradable, or not at all. If these substances start to accumulate, this can contribute to the pollution of agricultural soils by microplastics.

The Bioreleacide project aims to develop simple, entirely bio-based formulations capable of releasing their plant protection agents gradually. The approach involves combining hydrophilic and hydrophobic nano- and micro-particles. Adjusting the proportions

of these materials makes it possible to adapt the rate of release of active substances to the needs of the crops and pests targeted.

Some natural nanofibres, such as those derived from wood cellulose or crustacean chitin, offer particularly promising potential. They can stabilise emulsions and form effective barriers against gases, helping to protect active ingredients and prolong their efficacy. Carried out in collaboration with ULiège and Celabor, this work highlights the importance of formulation in the development of more sustainable plant protection solutions. Ultimately, these approaches could make it possible to reduce the doses applied, spread out treatments and limit the environmental impact of products used in agriculture.

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### GOOD TO KNOW

#### More information:

[www.cra.wallonie.be/en/bioreleacide-1](http://www.cra.wallonie.be/en/bioreleacide-1)



# AGROECOLOGY AT THE HEART OF EUROPEAN DEBATES



WALLOON PLAYERS ARE BRINGING THEIR VOICE FROM THE FIELD TO THE EUROPEAN PARLIAMENT ON THE BARRIERS TO AND LEVERS FOR AGROECOLOGY.

A delegation from the [Agroecology-TRANSECT](#) project took part in a meeting at the European Parliament, bringing together members of parliament from various political backgrounds, as well as farmers and researchers.

This European project aims to achieve socially and economically viable agriculture that respects the climate and biodiversity. It is based on 11 field initiatives from across Europe, known as "Innovation Hubs", exploring a variety of systems ranging from grass-fed livestock to field crop monitoring and value chain work. In Wallonia, the organic conservation agriculture (ABC) group run by the CRA-W and Greenotec is testing practices directly with farmers, in real-life conditions, combining organic farming and soil conservation.

## SHARED REALITIES ON THE GROUND

A Walloon farmer and the leader of the ABC group, along with some Hungarian and Danish farmers,

had the opportunity to exchange views with members of parliament from various political backgrounds. Discussions focused on the Common Agricultural Policy (CAP), and other key issues, such as generational renewal, recognition of the services provided by agriculture and better representation of both male and female farmers.

## BRINGING SCIENCE AND POLITICS TOGETHER

The meeting provided an opportunity to present a policy brief based on the work carried out by the CRA-W. It highlights several key barriers and levers to the development of agroecology in Europe, including the need to support farmers in the transition, the need to define a clear outlook to secure investments, and the perception of unfair competition from imports of agricultural production from countries with different standards. This document underlines the importance of enhanced dialogue between players in production, research and public policy.

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< A clear direction and tailored support are essential to accompany the agro-ecological transition.



## GOOD TO KNOW

### More information:

[www.cra.wallonie.be/en/agroecology-transect](http://www.cra.wallonie.be/en/agroecology-transect)

### Funding:

European Commission, Horizon Europe framework programme



# MON PARCELLAIRE, FOR AGRICULTURAL PLOTS MANAGEMENT



MON PARCELLAIRE LETS YOU DRAW, IMPORT, VIEW AND MANAGE YOUR AGRICULTURAL PLOTS.

**Mon Parcellaire** is a digital plot management tool integrated into the WALLeSmart platform, designed for players in Wallonia's agricultural sector. Free and available to all, it enables users to create, view and monitor agricultural plots via a secure and user-friendly cartographic interface.

“ **MON PARCELLAIRE MAKES IT POSSIBLE TO MANAGE PLOTS AND INTEGRATE THEM INTO W@LLHERBE AND MYFIELDBOOK.** ”

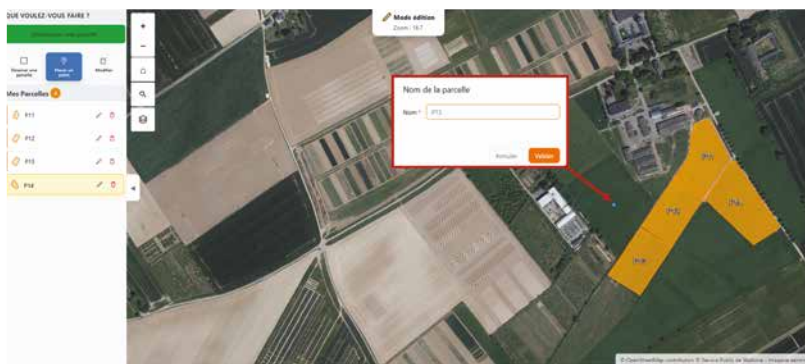
The tool centralises plot data (location, surface area, etc.) and ensures spatial consistency and temporal traceability. Thanks to its integration within WALLeSmart, Mon Parcellaire also drives the exchange and sharing of information between farmers, support services and other players in the sector, while respecting regulatory frameworks and data protection requirements.

In the MyFieldBook application, managed by WalDigiFarm, Mon Parcellaire provides the spatial reference for recording agricultural operations and plant protection product (PPP) applications, ensuring linkage between operational records and validated parcel geometries.

In W@llHerbe application, managed by the CRA-W, Mon Parcellaire can be used to define (select, draw and modify) the grasslands plots for which a farmer would like to obtain information on the grass biomass available.

By acting as a central geospatial reference layer, Mon Parcellaire provides essential support for the technical and administrative management of farms using different applications available on the WALLeSmart platform.

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## GOOD TO KNOW

**More information:** [www.cra.wallonie.be/fr/wallesmart](http://www.cra.wallonie.be/fr/wallesmart)



# AN ENCOURAGING FIRST TRIAL FOR MILLET IN ORGANIC FARMING



RARELY GROWN IN OUR REGION, MILLET IS A GLUTEN-FREE CEREAL. AN INITIAL ORGANIC VARIETAL TRIAL WAS CARRIED OUT AT THE CRA-W IN 2025.

Proso millet (*Panicum miliaceum L.*) is one of the three main cultivated millet species. This cereal produces very small, round grains (3 mm in diameter) and one of its distinctive features is that it is gluten-free, like rice or corn. It is a summer cereal with a short cycle: In France, the cycle lasts between 90 and 120 days. Millet is not very susceptible to diseases, does not transmit foot rot and its volunteers are very susceptible to frost. Today, it is mainly grown in India, China, Russia, the United States and Eastern Europe.

## “NEW OUTLETS FOR MORE DIVERSIFIED ROTATIONS

This crop, which is still uncommon in Belgium, is being studied to explore its potential in organic farming as part of the **ABC to Food** research project, which brings together industrial partners, research centres and the Farm for Good cooperative. This project aims to develop outlets for eight crops of interest with a view to diversifying and lengthening

rotations. Proso millet is one of these crops: Its agronomic characteristics could be an asset in a longer, more varied crop rotation, while its grain is of interest for the development of gluten-free food products, in particular.

## “ENCOURAGING RESULTS TO BE CONFIRMED

An first variety trial was carried out at Gembloux by the CRA-W in summer 2025, assessing nine different varieties. Sowing took place on 23 May, and harvesting on 19 September. The weather conditions were ideal for good crop development. This resulted in good yields, despite some lodging and shattering in the trial. Yields (expressed at 10% moisture content) averaged 3.6 t/ha, varying from 3.0 to 4.5 t/ha depending on the variety.

A new variety trial, starting in spring 2026, will enable us to consolidate these first results.

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◀ Gembloux, 21 August 2025

### GOOD TO KNOW

**More information:**  
[www.cra.wallonie.be/fr/abc-to-food](http://www.cra.wallonie.be/fr/abc-to-food)

**Funding**  
Wagralim competitiveness cluster and Wallonia



# COVER CROPS: A KEY PRACTICE TO BE OPTIMISED



COVER CROPS PROTECT AND IMPROVE SOILS, RECYCLE NUTRIENTS, OPTIMISE NITROGEN MANAGEMENT, LIMIT LEACHING AND PROMOTE CARBON STORAGE.

In Wallonia, as part of the European [ClieNFarms](#) project, nine farmers from Hesbaya and Condroz, supported by the CRA-W, have chosen cover crops as a lever to increase the climate neutrality of their farms, by reducing nitrogen requirements and increasing carbon sequestration in soils. The aim is to gain a better understanding of how to increase biomass, return more nutrients to the soil and optimise fertilisation of the following crop.

A total of **31 cover crops were tested in 2023 and 28 in 2024**, mostly after winter cereals and before beet, potato or chicory. The amount of biomass varied significantly: Median of 1.4 t DM/ha in 2023 (0.23-5.37) and 2.3 t DM/ha in 2024 (0.77-3.73). The [MERICI method](#) (Méthode d'Estimation des Restitutions par les Cultures Intermédiaires, method for estimating yields from intermediate crops) was used to estimate N, P, K and stable carbon yields in order to adjust spring nitrogen fertilisation and, where appropriate, reduce inputs.



The project raised several **points to consider**:

- Choose species according to the previous crop, the following crop and the objectives;
- Check seed quality and carry out a germination test if necessary;
- Monitor slug pressure before sowing;
- Manage residues and regrowth of previous crops;
- Sow early and adapt planting to soil and weather conditions;
- Destroy the canopy at maturity for a good C/N ratio.

**High-performance mixes** include phacelia, niger, Egyptian clover, avena strigosa and a phacelia-clover duo that can achieve **up to 4 t DM/ha** when planted before 20/08. The **relay cover**, combining frost-sensitive species and frost-resistant legumes (crimson clover, hairy vetch), also proved effective in keeping the soil covered until spring before late crops.

A **catalogue of solutions** for making farms more climate neutral is available on the project website: <https://cliefarms.eu/solutions/>

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## GOOD TO KNOW

### More information:

[www.cra.wallonie.be/en/cliefarms](http://www.cra.wallonie.be/en/cliefarms)

### Funding:

European Union, Horizon 2020 programme

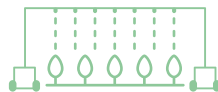




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**BETTER UNDERSTAND THE LEVERS FOR INCREASING BIOMASS,  
RETURNING MORE NUTRIENTS TO THE SOIL AND OPTIMISING  
FERTILIZATION OF THE NEXT CROP**

# THE SHIFT TOWARDS PRECISION AGRICULTURE



## INSIGHTS FROM THE IMPLEMENTATION OF INNOVATIVE SOLUTIONS FOR OPTIMISING IRRIGATION AND SOIL FERTILITY.

By 2025, fewer than one third of European farmers had integrated at least three digital tools dedicated to arable farming into their farms, such as digital field logs, satellite imagery or precision guidance. Some of these solutions, although promising, are still not widely used in Wallonia, mainly due to the obstacles to adoption as perceived by farmers.

The aim of the DuraTechFarm project was to integrate precision agriculture solutions on farms in order to identify these obstacles and help overcome them. Solutions tested included optimising how irrigation is distributed and triggered, and optimising the application of inputs (lime, organic matter).

### SPECIAL FOCUS ON PRECISION IRRIGATION

Irrigation equipment (boom, gun) can now be remotely controlled, with automatic regulation of sprinkler angle and forward speed. These functions allow for section control to irrigate complex-shaped fields while avoiding off-field areas and limiting

overlap between passes. They also pave the way for variable-rate irrigation based on prescription maps. Section control is simple to implement and can generate immediate benefits by reducing water volumes applied and increasing flexibility in equipment positioning. It represents a first step towards more precise irrigation.

Variable-rate irrigation offers the greatest water-saving potential. However, its implementation requires several technological components (mapping, agronomic interpretation, conversion and transfer of prescription maps). It therefore remains more

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## GOOD TO KNOW

### More information:

[www.cra.wallonie.be/en/duratechfarm-1](http://www.cra.wallonie.be/en/duratechfarm-1)

### Funding:

Walloon Recovery Plan





## TWENTY YEARS AT THE HEART OF EUROPEAN FOOD SAFETY



THE EUROPEAN UNION REFERENCE LABORATORY FOR ANIMAL PROTEINS IN FEEDINGSTUFFS (EURL-AP) CELEBRATES ITS 20TH ANNIVERSARY THIS YEAR.

For twenty years, the [EURL-AP](#) has played a central role in European food safety. Created to support the implementation of the [feed ban](#) in the wake of the mad cow crisis in the 1990s, the laboratory, hosted by the CRA-W, has established itself as an essential scientific reference for the detection of animal proteins in animal feed.

### “THE EURL-AP PLAYS A CENTRAL ROLE IN ENSURING COMPLIANCE WITH LIVESTOCK FEED REGULATIONS

In practice, the EURL-AP supports the European Commission and Member States by using its independent and reliable scientific expertise to develop or improve analytical methods capable of detecting the presence of animal proteins, sometimes in trace amounts, in animal feed. Over the years, the laboratory has integrated new technology, combining microscopic observation, DNA analysis and now mass spectrometry, to make testing ever more precise and reliable.

But the EURL-AP is not just a laboratory, it's also a dynamic network of national reference laboratories established in every Member State of the European Union. Through the regular organisation of training sessions, the laboratory plays an active role in raising the skill levels of those involved in testing, and in standardising analytical practices on a European scale. Some of its most visible achievements include a vast image bank – the only one of its kind in the world – which helps experts identify the origin of animal particles observed in food.

Twenty years after it was established, the EURL-AP continues to evolve with the same scientific rigour to meet the new challenges of animal feed, in particular the emergence of new protein sources.

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### GOOD TO KNOW

#### More information:

[www.cra.wallonie.be/en/eurl-ap-1](http://www.cra.wallonie.be/en/eurl-ap-1)

#### Funding:

European Union



# IMPROVEMENTS TO WARNINGS FOR VEGETABLE CROPS



## WEATHER DATA IS HELPING TO ANTICIPATE THE DEVELOPMENT OF PATHOGENIC FUNGI IN CROPS.

Warnings about the risk of disease developing in crops are one of the cornerstones of integrated pest management. They enable farmers to take action when needed and reduce the number of treatments required, in both organic and conventional production, while maintaining the correct yields and the quality of produce required for marketing.

In market gardening, there are few decision-support tools (DST) available today, and those that are available are poorly documented and expensive. The RELOAD project aims to develop and make DSTs available to market gardeners for the main fungal diseases of carrot, onion, cabbage and asparagus. These tools will be accessible via the Agromet.be platform, on which several DSTs for field crops are already available.

The project is based on an operational group comprising the Centre Interprofessionnel Maraîcher (CIM asbl), the CPL-Végémar, eight vegetable growers and the CRA-W.

To date, 244 disease observations (date × crop) have been carried out, spread over the 2024 and 2025 seasons across seven different sites in Wallonia. Each site is equipped with a connected weather station. The weather variables of interest are temperature and relative humidity, which influence fungal sporulation. Foliage wetting time is also taken into account, as free water on the leaves is needed for the spores to germinate and to penetrate the plant tissue.

The next steps will involve calibrating and validating risk models using this data, and then building a graphic display and advisory messages to enable advisors and growers to easily interpret the weather risk.

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◀ *Development of mildew on onions, and a weather station.*

### GOOD TO KNOW

#### More information:

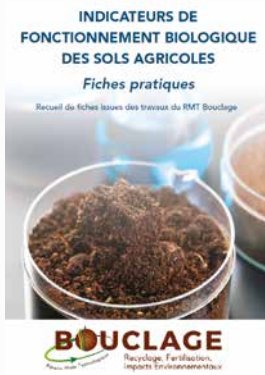
[www.cra.wallonie.be/en/reload-10-1](http://www.cra.wallonie.be/en/reload-10-1)

#### Funding:

Project subsidised by the EAFRD fund, Wallonia and the CRA-W.



## PUBLICATIONS



### More information:

[www.cra.wallonie.be/fr/indicateurs-du-fonctionnement-biologique-des-sols](http://www.cra.wallonie.be/fr/indicateurs-du-fonctionnement-biologique-des-sols)



### More information:

[www.cra.wallonie.be/fr/vade-mecum-EGPC](http://www.cra.wallonie.be/fr/vade-mecum-EGPC)

## EVENTS

### 24 > 27.07.2026 FOIRE AGRICOLE DE LIBRAMONT

Meet us in the fair of Libramont:

- Inside of the Wallonia's village of agriculture – Hall 3 (activities around Biodiversity)
- In the village of agroecology (field showcase, conferences and workshops)
- In the tent of organic farming “En terre bio”

### 28 > 29.07.2026 DEMOFOREST - BERTRIX

Meet us on the CRA-w's stand (for animation about woodlands and tree cultivation)

### 12 > 13.09.2026 HORTIFOLIES - GEMBLOUX

Activities and events for Professionals and the General Public

More information: [www.cra.wallonie.be/en/events](http://www.cra.wallonie.be/en/events)

# Biodiversité, clef de la résilience

2026

Année de la Biodiversité au CRA-W

La Biodiversité au coeur de nos missions



↓ Biodiversité



↓ Résilience



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