



# CRA-W & CEREALS



## CEREAL BREEDING

Agriculture has always evolved. CRA-W has been supporting this evolution for more than 100 years by creating varieties that are increasingly suited to crop conditions and making them available to farmers. Now more than ever, the shift brought about by climate change and societal choices calls for new varieties. To achieve this, CRA-W selects, improves and creates more robust varieties that resist pests and diseases and require fewer inputs.



## ASSESSMENT AND REGISTRATION

After two years of assessment, new varieties are registered in the National Catalogue of Varieties. The assessment then continues in a network of trials set up in Wallonie by CRA-W and its partners, in order to provide recommendations to farmers on a yearly basis.

At the same time, CRA-W is evaluating phenotyping tools using digital cameras that are sensitive to the visible light spectrum and near-infrared, in order to identify new stress indicators to support visual observations.



## PLANT PROTECTION

Sown from October to December, and harvested during the summer months, cereals occupy the countryside for a large part of the year. Throughout the growing season, CRA-W and its partners set up and monitor variety, fertilisation and plant protection trials. The knowledge that results from these trials is shared with farmers and cereal industry every year via the 'Cereals White Book'. In addition, by providing data and expertise, CRA-W helps to develop advices. Issued at the right times, these advices enable farmers to make the right choice in terms of inputs.



## HARVESTING STORAGE • SORTING

At harvest time, CRA-W analyses the quality of the grain through trials and supply chains throughout Wallonia. Even before they are sown, varieties and manures are studied in order to advise industry stakeholders on the grains that best match their needs. CRA-W helps them to implement best practices for storage, allotment and sorting.



## PROCESSING

The finished products, as well as the processes that produce them, required specific quality criteria for their raw materials. At CRA-W, the suitability of cereals for processing, that is, the way in which the cereal will react in the mill, bakery, biscuit factory, brewery, semolina plant, etc., is defined using a number of physical, chemical, rheological and spectroscopic methods. To this end, CRA-W supports new and existing cereal supply chains.



## CONSUMPTION

Thanks to its analysis laboratories, CRA-W's expertise rises to many challenges in order to ensure healthy and high-quality food products: authenticating production, fighting fraud, traceability and quality in the food chain.



## CRA-W IN A NUTSHELL



**more of 150 years**  
at the service of agriculture & society



**430**  
employees

including  
**120**  
scientists



**4**  
scientific  
departments

**1**  
interdisciplinary  
support  
department



**23**  
laboratories



**20 years of Belac accreditation**

**13 ISO 17025 labs**  
Competence of testing laboratories

**1 ISO 17043 labs**  
Organisation of proficiency tests or inter-laboratory trials

**2 GLP labs**  
Ecotoxicological studies / Physicochemical studies and  
plant protection product residue studies

**3 NRL**  
National Reference Laboratories

**1 EURL**  
European Union Reference Laboratory



**60**  
services

including  
**1 CPVO**  
(Community Plant Variety Office)  
Cereal assessment

**1 ISO 17020**  
Spray system  
inspection unit



**15**  
collections

including one of  
the most extensive  
collections of fruit-based  
genetic resources



**230 hectares**  
of crops, grasslands,  
orchards,...

including  
**73 hectares**  
in organic farming



**3**  
locations  
Gembloux | Libramont | Mussy-la-Ville

CRA-W has always known how to progress and adapt to fundamental changes in agriculture, to meet the ever-changing challenge of scientific knowledge and respond to the needs of farmers and society.





## CRA-W AND CEREALS

Whether upstream or downstream, CRA-W intervenes at every level of the cereal supply chain.

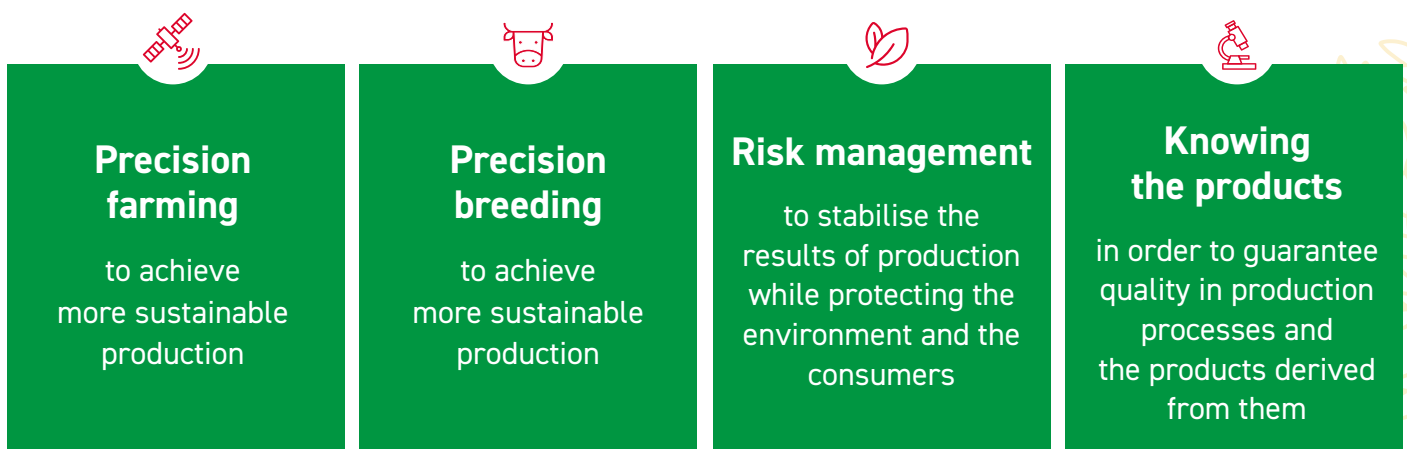
CRA-W is active in the creation of varieties, fertilisation, crop protection, mechanisation, quality assessments for production, processing, sorting and more, from short- and long-term service activities to research projects concerning both organic and conventional production.

## CRA-W'S MISSIONS AND GOALS

Approximately **130 scientific research projects**, which seek to:

- 1 Reduce the use of synthetic inputs and control the effects of agriculture on climate change.
- 2 Produce quality products in a more sustainable way, while preserving the farmers' quality of life and ensuring the well-being of animals and the protection of the environment and biodiversity.
- 3 Strengthen the profitability of production, thereby ensuring a reasonable income for Walloon farmers.
- 4 Help promote agricultural production in traditional or local sectors, whether or not they are organic.

Divided into **4 areas** of research



CRA-W combines **scientific research, service,** and **support** for **the benefit** of farmers, breeders, horticulturists, Walloon foresters and those working in the agri-food sector.

It is a key player **servicing** citizens, consumers, the economy, and the transition towards more sustainable agriculture in Wallonia.



Wallonie  
recherche  
CRA-W

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