



CHANGE OF PARADIGM IN IMPROVING FRUIT SPECIES TO ADAPT BETTER TO ORGANIC AGRICULTURE

INNOBREED A EUROPEAN COLLABORATIVE RESEARCH NETWORK FOR THE CREATION OF NEW FRUIT VARIETIES FOR MORE ROBUST AND DISEASE-TOLERANT ORGANIC AGRICULTURE.



European organic fruit production is very dependent on natural inputs because the varieties grown currently come from so-called 'traditional' improvement programmes. These varieties are not therefore generally suited to an organic production system.

To enable the development of alternative and more sustainable organic production systems, there's a clear need to create new improvement programmes whose objectives are to select varieties:

- (1) with a genetic basis that is significantly more diverse (promoting the use of regional genetic resources);
- (2) more robust with a better capacity to adapt to biotic and abiotic stresses (including the climate);
- (3) more tolerant to pests and diseases and
- (4) with differentiated taste and nutritional qualities.

Within this framework, the 'Innovative Organic fruit Breeding and uses' project – **InnoBreed** (2022-2026) aims to define new common bases to create improvement programmes and testing networks specifically dedicated to organic production. It aims to promote and unite existing 'Innovative Solutions' which are focused on the participative selection in organic production of fruit varieties from a broad range of species (apple, pear, peach, apricot, plum, almond, cherry and citrus).

InnoBreed groups 21 research teams and organisations that are active in selecting and enhancing fruit varieties for organic production. Thanks to its expertise in

participative selection in organic agriculture, the CRA-W has been one of the initiators of this new adventure and will contribute to various initiatives. In this way, the CRA-W is involved in:

- managing the project via participation in the 'Project Manager Board';
- analysing the current situation with the identification of innovative European initiatives, current socio-technical gaps and needs in terms of organic fruit production;
- identifying innovative solutions in the fields of selection methods, technological tools, genetics resources and social/non-technological solutions in terms of organic production;
- using regional genetic resources as genitors;
- developing and validating rapid methods to determine fruit quality for a more efficient selection (hand-held NIR);
- direct promotion or valorization ? in organic production of local varieties from our fruit genetic resources.

Thanks to its European collaborative network, **InnoBreed**, will enable to move forward in our research work in the field of selection and participative and innovative development with a focus on the organic local production of fruit, especially apples and pears.

More information:

www.cra.wallonie.be/fr/innobreed

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