

ECOBREED

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ECOBREED: Background

New REGULATION (EU) 2018/848 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007

The new organic regulation will apply from 1 January 2021

The EU organic regulation has a major impact on organic farmers, processors, traders, retailers, certifiers, researchers and consumers.

The organic farming sector in the Union has **developed rapidly** in the past years, in terms not only of the **area used for organic farming** but also of the **number of holdings** and the overall **number of organic operators** registered in the Union.

Research projects have demonstrated that consumer confidence is crucial in the market for organic food. In the long run, rules that are not trustworthy can jeopardize public confidence and lead to market failure. Therefore, the **sustainable development of organic production in the Union** should be **based on sound production rules** which are harmonized at Union level and which meet operators' and consumers' expectations regarding the quality of organic products and compliance with the principles and rules laid down in this Regulation.



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This Regulation should provide the **basis for the sustainable development of organic production and its positive effects on the environment, helping farmers to achieve a fair income, protecting consumer interest** and encouraging short distribution channels and local production.

Having regard to the particularities of the organic production systems, the **choice of plant varieties should focus on agronomic performance, genetic diversity, disease resistance, longevity, and adaptation to diverse local soil and climate conditions**, and should respect the natural crossing barriers.

Derogations that are currently permanent will be **transitional** in the new regulation. t.



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ECOBREED: Increasing the efficiency and competitiveness of organic crop breeding

Project duration: **5** years (till May 2023)

25 partners from **15** countries: AT, CN, CZ, DE, ES, GR, HU, IT, PL, RO, RS, SI, SK, USA, UK

14 universities & institutes, **10** private companies, **1** association

Budget: **5,815,708.40** EUR



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Consortium



Universida de Vigo



WASHINGTON STATE UNIVERSITY



Project description

The **main focus** of **ECOBREED** is to **improve the availability of varieties and seed suitable for organic and low-input production**. Activities will focus on **four** crop species i.e. **wheat** (both common *Triticum aestivum* L. and durum *Triticum aestivum* L., *T. durum* L.), **potato** (*Solanum tuberosum* L.), **soybean** (*Glycine max* (L). Merr), and **common buckwheat** (*Fagopyrum esculentum* Moench.).

The project will develop (a) **methods, strategies and infrastructures for organic breeding**, (b) **varieties with improved stress resistance, resource use efficiency and quality** and (c) **improved methods for the production of high quality organic seed**. ECOBREED species have been selected for their potential contribution to increasing the competitiveness of the organic sector.



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Concept and approach

ECOBREED will use an **integrated** and **multi-disciplinary approach** to increase the competitiveness of the organic and low-input breeding and farming sectors.

ECOBREED activities will be carried out by a **multi-disciplinary** consortium involving partners from (a) Universities (UNEW, BOKU, WSU, UNITUS, UViGO, UP) and gene banks (CRI-CZ, KIS-SI, NPPC-SK) who carry out fundamental and basic research (representing Technology Readiness Levels, **TRL 1-3**), (b) **research institutes and businesses** who are more **applied** in their research (IFVC, NARDI, MTA-ATK, CAAS, IHAR, BIOMILA, NPPC, RGA, GEO), (representing **TRL 4-6**) and (c) **end producers** (SMA, NATUR, SEC, SEL, SZG, PROBIO, GS) who are near market (i.e. **TRL 7-9**) in the application of new technologies and production of new products for the marketplace.



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The **specific objectives** to be addressed in **ECOBREED** are:

Identify genetic and phenotypic variation in morphological, abiotic/biotic tolerance/resistance and nutritional quality traits

Evaluate the potential for genetic variation in enhanced nutrient acquisition

Evaluation for increased weed competitiveness and control

Optimisation of seed production/multiplication

Providing farmers the opportunity to choose and develop varieties in their own environment

Production of elite varieties for improved agronomic performance, biotic/abiotic stress resistance/tolerance and nutritional quality

Development of training programmes

Ensuring optimum and rapid utilisation and exploitation of project deliverables and innovations



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Links with Bresov and Liveseed

- **BRESOV:** provide climate-resilient organic vegetable cultivars. Exploitation the genetic variation of broccoli, kohlrabi, bean and tomato by exploiting up-to-date knowledge of genome structure and function. Involvement of farmers, advisory services, research institutes, breeding companies and food processors. The pre breeding/breeding lines/cultivars will be selected for efficiency when grown under water, temperature, and nitrogen stress, for resistance to pests and diseases, plant - soil and microbiome interaction. Desirable product quality traits such as taste, visual appearance, postharvest performance, will enhance resource use efficiency and productivity.
- **LIVESEED:** improve the sustainability, performance, and competitiveness of the organic sector by boosting organic seed production, developing novel breeding approaches and by harmonizing the implementation of the European organic seed regulations.



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Synergies

- Accelerate the breeding process and adoption of new cultivars
- Foster seed and breeding related innovation in the organic sector
- Increase the volume and quality of organic seeds
- Improve the competitiveness of the organic seed sector

Benefits

- Different forms of trainings and education material/topics identified
- Mapping of the target groups/research & breeding/seed production & availability
- Variety testing/additional testing criteria for organic farming
- Use of organic seed across Europe/organisational or financing models/policies

Joint activities

- SAB's, meetings, conferences/specific satellite meetings
- Training and education
- Exchange of information in various forms and through various channels



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