BRESOV has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 774244.

Final Conference of the EU Horizon 2020 project BRESOV
28th-30th March 2023, Agrigento, Italy

Università di Catania

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BRESOV

Breeding for Resilient, Efficient and Sustainable Organic Vegetable production

SOI

KER 2: Breeding material of broccoli, snap bean and tomato for the development of new resilient and improved organoleptic and nutritional quality organic cultivars

KER Presentation

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- 30/03/2023

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KER characterisation

Problem

- Many materials used for organic agriculture are conventional varieties with suboptimal performance and low resilience.
- A wide diversity is needed in organic agriculture
- Landraces frequently are not resistant to major diseases
- Varieties specifically adapted to organic agriculture are difficult to find by farmers
- Markets are increasingly demanding organic produce with local landraces

Solution

- Developing new versions of the landraces with improved resistance to diseases
- Identification and selection of already available materials, and development of new varieties adapted to organic production
- Efficient dissemination of the best materials

KER characterisation

What we did

- Selection of landraces and new cultivars specifically adapted to local organic agriculture conditions and consumer demands.
- Development of pre-breeding and breeding materials derived from characterization and use of unexplored sources of variation specifically adapted to organic agriculture.
- Identification of pre-breeding and breeding materials derived from characterization and use of unexplored sources of variation with improved nutritional quality.

BRESOV innovation

- Plant material in different stages of development (pre-breeding materials and populations, breeding lines, new cultivars) bred and selected for adaptation to organic agriculture and for improved nutritional quality.
- The materials are new to the market and are unique
- Materials may also be of potential interest for other non-organic niches.

KER characterisation

Who will benefit from our results?

- Organic farmers, as they will have materials specifically adapted to organic conditions
- Innovative and small breeding companies, including local ones, targeting the organic agriculture sector
- Conventional farmers willing to transition to organic agriculture (or not)
- Consumers willing to consume organic vegetables, particularly locally produced with local materials

What do we plan for the future?

- Agreement on ownership of materials to be registered or transferred to the sector
- Disseminating information on materials of interest to farmers and breeders (BRESOV web page, workshops, meetings)
- Demonstration trials of materials (with stakeholders)
- Registering new varieties for organic agriculture
- Transfering materials (registered or not) to the sector

Impact of the KER in 3-year time

- New varieties and materials adapted to organic conditions
- Increasing the area of organic cultivation (environmental impact)
- Creation of jobs in organic agriculture and seed companies
- Contribute to more environmentally friendly agriculture

Thank you for your attention!

Whom to contact in case of interest?

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