BERRIES WG REPORT FOR PHASE X (2019-2023)

Submitted to the 17th Steering Committee Meeting, Oeiras, Portugal, May/June 2023
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1. CONTRIBUTION TO ECPGR OBJECTIVES

1.1. Achievements and success stories

- To efficiently conserve and provide access to unique germplasm in Europe through AEGIS and the European Collection

The Joint Action for 'Updating the documenting about berry genetic resources in Europe' (ECPGR Activity Grant Scheme – Phase X, 4th call) contributes to the following objectives of ECPGR: (1) To elaborate a first draft of crop-specific technical guidelines for genebank management of berries genetic resources and to publish any related article. The first draft of crop-specific technical guidelines for genebank management of berries genetic resources is the basis to establish quality standards of conservation for unique berries germplasm in the European Collection and will subsequently be discussed with WG members.

For the genera of berries with the most accessions (*Fragaria, Rubus* and *Ribes*), cultivars were selected to form the basis of further projects. The aim is to start further projects on characterization (phenotypic/molecular) to identify unique accessions for inclusion in AEGIS in the future.

- To provide passport and phenotypic information of actively conserved European PGRFA diversity *ex situ* and *in situ* through the EURISCO catalogue

The second objective of the project was (2) to record the varieties/cultivars of berries genetic resources in the respective participating countries, data harmonization, qualitative evaluation, and availability for inclusion to the respective National Focal Points for EURISCO. The created inventories of accessions of berries varieties in a qualitative uniform manner provide information about berries germplasm actively conserved *ex situ* in the participating European countries and will finally be documented through the EURISCO catalogue.

Altogether 4,061 accessions of berries genetic resources were mentioned in the inventories.

This action allowed the newly established Working Group to work together for the first time within the ECPGR framework and to make themselves known for its working methods of ECPGR. The project was the basis for establishing the first step towards a long-term infrastructure for the conservation, characterization, documentation and utilization of genetic resources in berries.

- To improve *in situ* conservation and use of crop wild relatives

None

- To promote on-farm conservation and management of European PGRFA diversity

None

- To promote use of PGRFA

None

1.2. Gaps or constraints identified

The Working Group was only established in 2019, so it was initially new for most of the project partners to familiarize themselves with ECPGR. Regular meetings of the WG are important to familiarize as many members as possible with the work of ECPGR and to actively involve them in the actions/projects.

Another problem is the fact that some countries do not pay their ECPGR contribution: these countries are thus non-eligible to participate in an activity as funded partners; here, in particular, Spanish partners.

2. GRANT SCHEME ACTIVITIES, WG MEETINGS AND EVA ACTIVITIES

- **Grant Scheme proposals (submitted:1; approved:1 (December 2020))**
  - Collaborative action for updating the documenting about berry genetic resources in Europe (EUROPE.BERRIES) (4th Call)

- **Total number of partners involved in grant scheme: 17 from 15 countries**
  - ECPGR-funded: 17 from 15 countries
  - Self-funded: none

- **Meetings held**
- Berries Working Group 1st Meeting, 14-15 January 2020, Dresden, Germany

- EUROPE.BERRIES
  - 1st Activity meeting, online, 21 April 2021
  - 2nd Activity meeting, online, 28 September 2021
  - 3rd Activity meeting, online, 4 May 2022

- **Total number of partners involved in WG meeting: 22 from 17 countries**
  - ECPGR-funded: 19 from 17 countries
  - Self-funded: 3 from 1 country

- **Reports and related data**
  - EUROPE.BERRIES Interim Activity Report
  - Report of a Working Group on Berries, First Meeting, 14-15 January 2020, Dresden, Germany

- **Funds mobilized**
  - ECPGR granted funds: € 20,000
  - Inputs in-kind declared in Grant activities: € 20,400
  - Working Group meeting: € 14,500

3. OTHER ACTIVITIES (CROSS-WORKING GROUP ACTIVITIES, LINKS WITH OTHER NETWORKS, INTERNATIONAL PROJECTS AND INITIATIVES)

- **Cross-Working Group activities**: none

- **Others:** EU Project: '**Breeding value'** Pre-breeding strategies for obtaining new resilient and added value berries. The Breeding Value project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101000747.

4. WORKING GROUP DOCUMENTS AND PUBLICATIONS

- Höfer, M. 2022. Coordination of genebank activities between different national collections of berry genetic resources in Europe in the frame of ECPGR. Poster. XXXI International Horticultural Congress: IHC2022, Angers August 14 – 20 2022.
- Höfer, m. 2022. Tutelare la biodiversità dei piccoli frutti con una banca genetica. Frutticultura n.3. marzo, 36 – 39.
- Höfer, M. 2021. Coordination of genebank activities between different national collections of berry genetic resources in Europe in the frame of ECPGR (608,2 KB). Acta Hortic. 1309. ISHS 2021. DOI 10.17660/ActaHortic.2021.1309.27, Proc. IX International Strawberry Symposium, Eds.: B. Mezzetti et al.
- Nybom, H., Lācis, G. 2021. Recent Large-Scale Genotyping and Phenotyping of Plant Genetic Resources of Vegetatively Propagated Crops. Plants, 10, 415. https://doi.org/10.3390/plants10020415
- Petit, A. 2021. Enrichir nos ressources génétiques fraise à l'échelle européenne (363,1 KB). Infos Invenio, 24.

5. EXPECTED ADDITIONAL ACHIEVEMENTS AND FUTURE ACTIVITIES THAT COULD CONTRIBUTE TO THE IMPLEMENTATION OF THE PGR STRATEGY FOR EUROPE

The results of the project will also be presented at the next Progress Meeting of the EU project 'Breeding value' in order to identify further synergies for work on genetic resources in berries.
The main objective of 'BreedingValue' is to provide knowledge and tools for berry breeding, to utilize strawberry, raspberry and blueberry genetic resources and pre-breeding material for new breeding strategies.