

UMBELLIFER CROPS WG REPORT FOR PHASE IX (2014-2018)

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1. CONTRIBUTION TO ECPGR OBJECTIVES

1.1. Achievements and success stories

Outcome 1. AEGIS is operational. Accessions in AEGIS are characterized and evaluated.

- A total of 536 accessions of the taxa relevant to the Umbellifer Crops WG (*Anethum*, *Apium*, *Chaerophyllum*, *Carum*, *Coriandrum*, *Daucus*, *Foeniculum*, *Pastinaca*, *Petroselinum*) are flagged as AEGIS accessions in EURISCO
- The CarrotDiverse project will provide characterization data on accessions of wild *Daucus carota carota*, as well as a more specific evaluation of fungal disease resistance, polyacetylene content (possible due to additional funding released by the German government) as well as genotyping by sequencing.

Outcome 2. Quantity and quality of data in EURISCO, including in situ and on-farm data, have been increased. Functionality of EURISCO meets users' expectations.

- The data generated by CarrotDiverse will be uploaded, where possible and appropriate, to EURISCO. The UK Vegetable Genebank, a major contributor to the relevant germplasm listed in EURISCO has been undertaking a programme of data improvement, and was able to add an approximate date of acquisition to records for inclusion in EURISCO.

Outcome 3. In situ and on-farm conservation and management of priority crop wild relative (CWR) and landrace (LR) populations are implemented throughout Europe. Mechanisms are in place for more effective utilization of the conserved germplasm.

- The intention of CarrotDiverse is to explore links with the Wild Species Conservation in Genetic Reserves WG to understand what is required for a global conservation plan for carrot CWR. This work is scheduled to take place within the remainder of the project, however a summary of accessions conserved globally in *ex situ* collections has been accessed from the Genesys PGR database and discussed in the first CarrotDiverse project meeting.

Outcome 5. Relations with users of germplasm are strengthened.

- The Chair of the Umbellifer Crops WG took part in a meeting aimed at the development of a Public Private Partnership for germplasm evaluation and characterization. She was able to report on activities in the UK where a series of 'Genetic Improvement Networks' are in operation, specifically the Vegetable Genetic Improvement Network which has

carrot as a major focal crop. She was subsequently invited to be part of the Advisory Group for the development of a future PPP and participated in a follow-up meeting in Rome in 2017.

Outcome 6. Organizational structure and secretarial support are adequate to effectively sustain the operations of ECPGR.

- The secretariat has provided excellent support for CarrotDiverse.

1.2. Gaps or constraints identified

Work towards ECPGR objectives has been achieved by the ECPGR Activity Grant Scheme project CarrotDiverse. Unfortunately due to a period of sick leave it has not been possible for the Chair to ascertain other activities within the Umbellifer Crops WG which also contribute towards ECPGR objectives in the timescale required to report back for the 2018 meeting of the Steering Committee.

The number of accessions identified for inclusion in AEGIS is low. It is not clear why this is, but in the view of the Chair this issue extends beyond the remit of individual WGs as they are collaborative groups with no power to compel relevant collection curators to suggest accessions; a national approach is needed. In terms of progress within the WG, the CarrotDiverse project will identify key accessions of wild carrot and ensure that they are flagged and characterized for inclusion in EURISCO, where possible.

2. GRANT SCHEME ACTIVITIES

- **Grant Scheme proposals (submitted: 2; approved: 1)**
 1. [Improving the characterization and conservation of umbellifer crop wild relatives in Europe \(CarrotDiverse\)](#) – Fourth Call (2014)
- **Total number of partners involved: 7 from 7 countries**
 - ECPGR-funded: 6 from 6 countries
 - Self-funded: 1 from 1 country
- **Meetings held**
 1. CarrotDiverse First meeting, 4-5 July 2017, Braga, Portugal
- **Reports and related data**

Report of the CarrotDiverse first meeting:  [Meeting report](#)
- **Funds mobilized**
 - ECPGR granted funds: (none)
 - Inputs in-kind declared in Grant activities: (none)

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

- **Cross-Working Group activities:** CarrotDiverse will provide an opportunity to develop links with the Wild Species WG
- **Others:** We plan to develop links with other organizations such as Royal Botanic Gardens, Kew as part of the CarrotDiverse project in order to exchange expertise on aspects of conservation, and link with other relevant projects

4. WORKING GROUP DOCUMENTS AND PUBLICATIONS

5. EXPECTED ADDITIONAL ACHIEVEMENTS AND FUTURE ACTIVITIES

CarrotDiverse Second meeting, (Dates TBA) 2018, Zaragoza, Spain