Maintenance of and research on wild crop relatives at Department of Botany, Palacky University in Olomouc, Czech Republic

Aleš Lebeda, Ivana Doležalová, Barbora Mieslerová, Martin Duchoslav, Pavel Havránek and Drahomira Vondráková

Palacky University, Faculty of Science, Department of Botany, Šlechtitelů 11, 783 71 Olomouc-Holice, Czech Republic

Introduction

Scientific activities developed by the Department of Botany are aimed at comprehensive studies of crop wild relatives. Scientific results confirm a large variability within and among species, provide original information in botanic sciences, are essential for programs of plant protection and conservation, and should be explored in plant breeding. All collections are used for educational purposes. Overview of activities and publications are available on the web site http://botany.upol.cz.

Examples of publications are given in the text below.

**Cucurbitaceae**

The collection of wild cucurbitaceous species includes about 50 accessions of seven genera (Benincasa, Citrullus, Cucimis, Cucurbita, Lagenaria, Luffa, Momordica). Research is focused at study of their morphological variation (9, 12), interspecific hybridization (15), embryo-escape and protoplast cultures (22) and plant interactions with pathogens and pests (10, 11, 14, 16).

**Lactuca spp.**

The collection of wild Lactuca species includes about 700 accessions of 17 wild species. The research is aimed at a study of eco-geography (13), biodiversity in natural habitats (4), collection, studies of taxonomy (5), morphological, cytological, karyology, molecular variation (2, 3) and interaction with lettuce downy and powdery mildews (17, 18, 19).

**Lycopersicon spp.**

The collection of the genus Lycopersicon with about 120 accessions of nine species is studied for response to tomato powdery mildew on the level of intact plants, leaf discs, cell structures and enzyme activities (20, 21).

**Allium spp.**

The collection of the genus Allium includes about 500 populations representing various natural habitats of Europe. The research is aimed at a study of incidence, geography, ecology and reproductive biology of the polyploid complexes (6, 7).

**Chive**

A collection of 12 accessions of chive, Allium schoenoprasum L., subs. riparium (Opiz) Čelák, was collected in natural habitat near Prague-Zbraslav on Vltava riverbank. The collection is located in the Botanical Garden (Department of Botany, of Palacky University in Olomouc) in the Czech Republic: distribution and habitat differentiation. Preslia 73: 173-184.

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References

Examples of publications are given in the text below.

**Literature cited**