



გარემოს დაცვისა და სოფლის  
მეურნეობის სამინისტრო



სსიპ სოფლის მეურნეობის  
სამეცნიერო-კვლევითი ცენტრი

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# BOOK OF ABSTRACTS

საქართველოს გარემოს დაცვისა და სოფლის მეურნეობის სამინისტროს  
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## CONSERVATION OF GENETIC RESOURCES OF HORTICULTURAL PLANTS IN THE FIELD COLLECTIONS OF THE NATIONAL INSTITUTE OF HORTICULTURAL RESEARCH IN SKIERNIEWICE, POLAND

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The systematic collection, evaluation, and conservation of fruit plant cultivars was initiated in Poland in 1921, when the Department of Fruit Growing at the Agricultural University of Warsaw was established in Skierniewice. In the years 1926-1928, as a part of this Department, the first Pomological Orchard was established, where the cultivars of fruit plants were assessed under field conditions. In the 1950s, trees of more than 500 apple cultivars were already growing in the Pomological Orchard in Skierniewice, and the cultivars of other fruit tree species – pear, plum, sour cherry, sweet cherry – were also collected and tested.

Currently, The National Institute of Horticultural Research in Skierniewice (InHort) maintains the following collections of horticultural plants in the form of vegetative field collections, in carcasses, plastic tunnels or cryobanks:

- a) vegetable plants (garlic, shallots and wild *Allium* species),
- b) fruit plants (apple, pear, plum, sour cherry, sweet cherry, peach, apricot, walnut, hazel, rootstocks of pome and stone fruit trees, wild species of fruit trees, strawberry, raspberry, blackberry, currant, gooseberry, highbush blueberry, cranberry, grape vine and rare species of fruit plants),
- c) ornamental plants (lily, narcissus, tulip, gladiolus, rose),
- d) melliferous plants.

The state of maintained genetic resources of horticultural plants in the vegetative collections of the InHort in 2023 amounted to a total of almost 7,000 objects. Depending on the species or group of plants, different forms of preservation of collected objects are used. Genetic resources of garlic, shallots and wild species of the *Allium* genus are preserved in the form of systematically renewed field collections. A similar approach is taken with ornamental bulb plants such as tulip, narcissus, gladiolus and lily. In the case of fruit plants, melliferous plants and roses, the dominant collections are in the form of long-term field plantings, carried out in accordance with the agrotechnical requirements of a given species or group of plants. Cryopreservation is also used for garlic, and grape varieties susceptible to frost are kept in a plastic tunnel. In turn, some plum genotypes were collected in the carcass to protect them against plum pox virus (sharka). Each collection has its own curator, who specializes in evaluating the varieties of a given group of plants.

The management of genetic resources is facilitated by the introduced GRIN-Global INHORT gene resources documentation system. GRIN-Global enables the Management of genetic resources of horticultural plants – Curator Tool; Transferring data to the national database on crop plant genetic resources and to the European EURISCO database; Providing materials and data on the genetic resources of horticultural plants via the INHORT website (<https://grin-global.inhort.pl/gringlobal/search>).

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