

# National Seed Bank in Sadovo

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The National Seed Bank, which is the largest in the Balkans, is based at the Institute of Plant Genetic Resources “Konstantin Malkov” (IPGR). This fact is an indicative sign that the institute in Sadovo has a very special mission in the plant world, which escapes the attention of the general public. The gene bank is an invaluable capital resource, vital and necessary for the conservation and study of cultivated plants, medicinal and ornamental species, a basic material for future breeding discoveries, and for the preservation and enrichment of biological diversity.

The National Gene Bank was established in 1984. Its main task is the implementation of the scientific programme for long-term and medium-term conservation of germplasm through seeds under controlled

conditions, in compliance with FAO standards (1980, 1995, 2014). The conservation of the diversity of cultivated plant species and their wild relatives is achieved by maintaining three collections:

**Base collection** – maintained under conditions for long-term storage of seed accessions, which are kept in hermetically sealed packages, at low seed moisture and a temperature of minus 18 °C. Under these conditions, seeds retain their viability without change from several decades to one hundred or more years.

**Active collection** – ensures safe storage of seeds from three to ten years at + 6 °C.

**Exchange collection** – provides material for free exchange with partners from the national and international system.

The National Gene Bank maintains over 60,000 accessions, of which 43,147 under long-term storage conditions. The base collection is represented by 33 families, 150 genera and 600 plant species.

The collection maintained in the National Gene Bank is published in the European Electronic Catalogue for Plant Genetic Resources EURISCO (<http://eurisco.ipk-gatersleben.de>).

The National Gene Bank at IPGR in Sadovo carries out non-monetary exchange with over 100 gene banks, botanical gardens and international centres for PGR worldwide. On the other hand, it provides all interested partners in the country with access to global collections through the free exchange of germplasm, registration and storage of seed accessions of varieties, breeding lines, local forms, wild species, including rare and endangered species.

In an interview for the journal “Plant Protection” in issue 7/2020 Assoc. Prof. Dr. Katya Uzundzhaliyeva, Director of IPGR in Sadovo, shares the following fact:

*“Unfortunately, at this stage the gene bank has no targeted funding and is supported by the institute’s revenues, which is extremely insufficient. It must be understood that the gene bank is a structure that does not generate income, and that all gene banks in Europe receive national funding in order to carry out their activities”.* The purpose of the gene bank is quite different, namely to preserve the rich biodiversity in the form of seed material for future generations, which material is to be used in breeding in view of the changing climatic conditions that have become increasingly tangible in recent years.

The institute in Sadovo is making efforts for the gene bank to become a site of national importance, following the example of many European gene banks.

