Plant Genetic Resources in Lithuania

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Lithuania

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Plant Gene Bank

Plant Gene Bank (PGB) was established in 2004. The founder of the Plant Gene Bank is the Ministry of Environment. In addition to national legislation focusing on conservation of genetic resources, the Lithuanian Plant Gene Bank is implementing a strategic programme for the conservation of plant genetic resources. Main functions of Plant Gene Bank are coordinate the collection, research, conservation and use of the national plant genetic resources in Lithuania and secure (keep) the genetic material in long term storage. Research institutes, universities and botanical gardens are involved in plant genetic resources network as coordination centres to coordinate collection, investigation conservation of plant genetic resources of such plant groups: agricultural crops, forest trees, horticultural plants, ornamental plants and medicinal and aromatic plants.
System of conservation and management of plant genetic resources

The Commission for the National Plant Genetic Resources has been established of the representatives of the State administrative institutions, science and study institutions and non-governmental institutions. Upon receiving proposals from the coordination centres of plant genetic resources, the Commission selects plant genetic resources and submits them to the Ministry of Environment in order that they may be granted the status of National genetic resources and included in the Central Database.
Plant Genetic Resources:

- Vegetables
- Horticultural plants
- Cereal and grain legume crops
- Forage and turf grasses
- Industrial crops
- Ornamental plants
- Medicinal and aromatic plants
- Field collections
- Individual trees and groups
- Forest genetic reserves
- Forest trees seed collection stands
- Forest plus trees
Data base

The data about plant genetic resources are collected and stored in Central data base of Plant Gene Bank.
- Database of Lithuanian PGR is built on MySQL basis.
- This Database is accessible in Gene bank web page.
- PGR in this database is divided into different groups according to their utilization: vegetables, cereal crops, ornamental crops, and others.
The main passport data is seen on the picture below. These are:
- Accession number (ACCENUMB);
- Genus (GENUS);
- Species (SPECIES);
- Common crop name (CROPNAME);
- Accession name (ACCENAME).
If necessary, you can see all the available data:
## Pasport of Cereal and grain legume crops

<table>
<thead>
<tr>
<th>Eil. Nr.</th>
<th>Deskiptorius pavadinimas</th>
<th>Zymėjimas</th>
<th>Reikšmė</th>
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<tbody>
<tr>
<td>1</td>
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<td>Gentis</td>
<td>GENTIS</td>
<td>Hordeum</td>
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<td>Rūšis</td>
<td>RUSIS</td>
<td>vulgaris</td>
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<td>8</td>
<td>Autorius, pirmasis aprašęs rūšį</td>
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<td>Vidurūšinis taksonas</td>
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<td>distichon var. erectum</td>
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<td></td>
<td>A_PAV_ANGL</td>
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<td>Pavyzdžio pavadinimas</td>
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<td>LTU</td>
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<td>15</td>
<td>Surinkimo vieta</td>
<td>SUR_VIETA_LIET</td>
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<tr>
<td></td>
<td>Location of collecting site</td>
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<td>16</td>
<td>Surinkimo vietos</td>
<td>GEO_PLAT</td>
<td></td>
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</tbody>
</table>
Conservation of plant genetic resources in Lithuania:

- in their natural habitats (**in situ**): in genetic reserves, gene conservation areas, seed collection stands, populations and by selecting groups or single trees;

- outside their natural habitats (**ex situ**): in field collections, progeny trials and clonal archives, seed orchards and in the Long-term Seed Storage at PGB.
Long-term seed storage
The long-term seed storage was established in 1997 in the National Plant Genetic Resources Coordinating Centre. The Nordic Gene Bank provided all necessary facilities. Since 2004, this long-term seed storage belongs to Plant Gene Bank. Seeds of old landraces and varieties of agricultural crops, advanced varieties and valuable breeding material, as well distinguished populations of wild relatives of cultivated plants and forest trees, ornamental and medicinal plants are stored in the long-term seed storage.
Today 3250 accessions of 185 plant species are stored for the long-term conservation, the agricultural crops are represented by the largest number (2261) of accessions. The highest number are Festuca spp. (202 accessions), Trifolium spp. (144 accessions), Dactylis spp. (89 accessions). The long-term seed storage is annually supplemented by new accessions.
PGR seeds in long term storage

Total number of accessions: 3250

- Agricultural crops: 2261
- Forest trees: 597
- Ornamental plants: 74
- Medicinal and aromatic plants: 220
- Horticultural plants: 98

Total number of accessions: 3250
Sample preparation
Seed samples are cleaned of weed seeds, pests and diseases. Seeds are dried for two–three months at temperature 15-20°C, relative air humidity of 10–15%. Seeds moisture content after drying reduces to 3–5%, they are packed in airtight aluminium foil bags and stored at -18°C in freezers.
Printable form of seed samples:
Thank you!