REPUBLIKA SLOVENIJA
MINISTRSTVO ZA KMETIJSTVO, GOZDARSTVO IN PREHRANO

Agricultural Institute of Slovenia

New Slovenian Legislation & Slovenian experiences with the implementation of AEGIS

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Slovene Plant Gene Bank – PGB.SI

- Early projects to collect Slovenian autochthonous populations, ecotypes and landraces of agricultural species were initiated about **60 years ago**.

- **In 1996 the Ministry of Agriculture, Forestry and Food started financing the Slovene Plant Genetic Resources Programme** with the goal to maintain, evaluate, regenerate and preserve Slovenian autochthonous species, ecotypes, populations and landraces of agricultural, medicinal and aromatic plants. Slovene Plant Gene Bank (SPGB) – Gene Bank of Agricultural Crop Species was established. The programme was active until the end of 2017.

- **Since 2018** the programme on Plant Genetic Resources in Slovenia operates and is financed **through Public Service on Plant Genetic Resources**.

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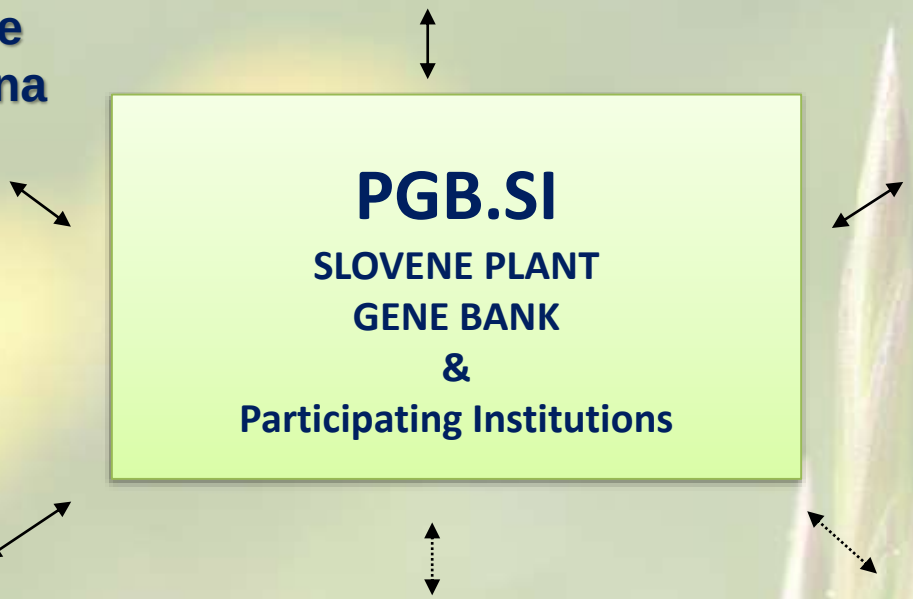
MINISTRY OF AGRICULTURE
&
AGRICULTURAL INSTITUTE OF SLOVENIA

- COORDINATION
- CENTRAL DATABASE



Agricultural Institute of Slovenia, Ljubljana (KIS)

Biotechnical Faculty, University of Ljubljana (BF)

Slovenian Institute for Hop Research and and Brewing, Žalec (IHPS)

NGO
Urban Furrows,
botanical gardens, schools, …

Faculty of Agriculture and Life Sciences, University of Maribor (FKBV)

Slovene Plant Gene Bank – PGB.SI

KIS: 3220 accessions • Vegetables: 1466 • Forage crops: 1033 • Potato: 44 • Cereals: 108 • Small fruit: 169 • Grape vine: 90 • Fruit trees: 310	**BF: 1631 accessions** • Cereals: 471 • Maize: 614 • Forage crops: 228 • Fruit trees: 173 • Medicinal and aromatic plants: 145
IHPS: 262 accessions • Hops: 178 • Medicinal and aromatic plants: 84	**FKBV : 327 accessions** • Fruit trees: 197 • Grape vine: 130

Total number of accessions in the **PGB.SI: 5440** represented by total of **248 species**:

- KIS: 204
- BF: 31
- IHPS: 36
- FKBV: 8

Agriculture Act - Public Services 2018

Article 122

(public service areas and support tasks)

(1) Public services in the field of agriculture under Agriculture Act:

- Agricultural extension service
- Public services for professional tasks in the production of agricultural plants (areas of agricultural production):
  - **selection and breeding of new varieties**
  - introduction (field varieties testing of value for cultivation & use)
- Public service for professional tasks in livestock production
- **Public service for conservation and sustainable use of genetic resources for food and agriculture (Gene Bank's tasks)**
- Public service for irrigation systems
- Extension Service in beekeeping

(2) Public services in the field of agriculture may also include the following support tasks: **technical coordination, administrative-technical tasks and training of employees performing public service**, as well as other technical and organizational tasks necessary for the execution of these public services.

Local crop populations (Landraces): old domestic varieties and populations maintained on farms
Released varieties that were once registered
Indigenous plants *in situ* that are important for agricultural production

PGB.SI

AGRICULTURE ACT

SELECTION | BREEDING | REINTRODUCTION

VARIETY REGISTRATION

REGULAR VARIETY REGISTRATION
Agricultural Seeds and Propagating Material Act

- REGULAR VARIETIES
- **VARIETIES DEVELOPED FOR GROWING UNDER PARTICULAR CONDITION**
  - Varieties of vegetables that do not have significant value for the commercial production of vegetables, but have been developed for production in specific climatic, soil or agro-technical conditions
- CONSERVATION VARIETIES
  - Domestic varieties and varieties of fodder plants, beet, oil and fiber plants, potatoes and vegetables that are traditionally grown and naturally adapted to local and regional conditions and are endangered by genetic erosion
- OLD FRUIT VARIETIES

ACT ON PLANT VARIETY PROTECTION

- NATIONAL SYSTEM
  - The variety is protected only in Slovenia
  - Protection period: 20 years (25 years for hops, vines and woody plants)
- EU SYSTEM
  - The variety is protected in all EU member states
  - Protection period: 25 years (30 years for vines, woody plants and potatoes)

International treaty: promoting, as appropriate, the expanded use of local and locally adapted crops, varieties and underutilized species

Field varieties testing of value for cultivation & use

RDP support - List of local varieties threatened by genetic erosion

Secondary legislation

- **Regulation on the public service of the tasks of the plant gene bank** (Official Gazette of the Republic of Slovenia No. 60/2017)
- **Rules on Criteria, Procedures and Methods** for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture and on the Conditions for the Performing Public Service of the Plant Gene Bank (Official Gazette of the Republic of Slovenia No. 62/2017)
- **Public Service PGB.SI Program for the period 2018-2024**

Regulation on the public service of the tasks of the Plant Gene Bank

- It regulates the implementation of the public service for the conservation and sustainable use of plant genetic resources for food and agriculture, and in particular specifies:
  - **The meaning of the terms (autochtonus, lokal, landraces)**
  - **The conditions & obligations to be fulfilled by the public service**
  - **Reporting and supervision of the performance of the public service**
  - **Public service tasks (*Ex situ*, *In situ,* On farm, PGR monitoring, C&E ...) related to GPA & International Treaty**
  - **Multiannual and annual programs**
  - **Funding (MAFF budget, RDP & research funds…)**
  - **Participating institutions**

Regulation on the Public Service of the tasks of the plant gene bank
Obligations of the public service provider

In addition to the obligations under the Law on agriculture, the public service provider must also fulfill the following obligations:

- **Ensure the continuity** of the public service in accordance with the work program
- **Maintain and regularly update the list of accessions** in the PGB.SI
- **Ensure the upgrading of the professional knowledge** of employees
- **Cooperate with MAFF and report**
- **Cooperate with other providers of public services, professional tasks or research work**
- Ensure that the other activities of a public service do not ipact to the performance of PGB.SI
- **Keep documentation**
- Enable on-the-spot controls and provide access to the relevant documentation

Rules on Criteria, Procedures and Methods

Rules on Criteria, Procedures and Methods for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture and on the Conditions for the Performing Public Service of the Plant Genetic Bank regulate:

- **Criteria:**
  - The public service PGB.SI performs tasks for **autochthonous genetic material**
  - The contractor may also perform tasks for other potentially useful PGR, if so defined in the annual public service program

- **Procedures and methods:**
  - The public service provider **carries out PGB.SI tasks in accordance with internationally recognized procedures and methods** that are in accordance with the standards of the International Treaty and the methods of the ECPGR
  - The public service provider must **implement these procedures and methods in accordance with the manual prepared for each PGR collection** and available to all professional and technical staff of the public service at all public service locations and is regularly updated (up to 1.1.2020)

- **Conditions related to employees and equipment in PGB.SI**

Multiannual public service program of PBG.SI

In connection with the International Treaty & GPA, the multiannual public service program has the following objectives:

- **Ensure the long-term and safe storage** of PGR in the most appropriate way
- **Document and evaluate** the collected PGR
- **Enable the sustainable use of PGR** with an appropriate system of controlled sharing of accessions (by implementing MLS system)
- **Ensure the continuous collection of PGR** and information on the origin of PGR, the method of obtaining PGR, the method of production, use, storage and reproduction of PGR
- **Contribute to increasing agricultural biodiversity**, taking into account the current state of PGR in the natural environment
- **Increase the cooperation** and responsibility of all stakeholders involved in the conservation and sustainable use of PGR, taking into account professional guidance
- **Promote institutional building and public awareness** of the importance of PGR

Multiannual public service program of PGB.SI

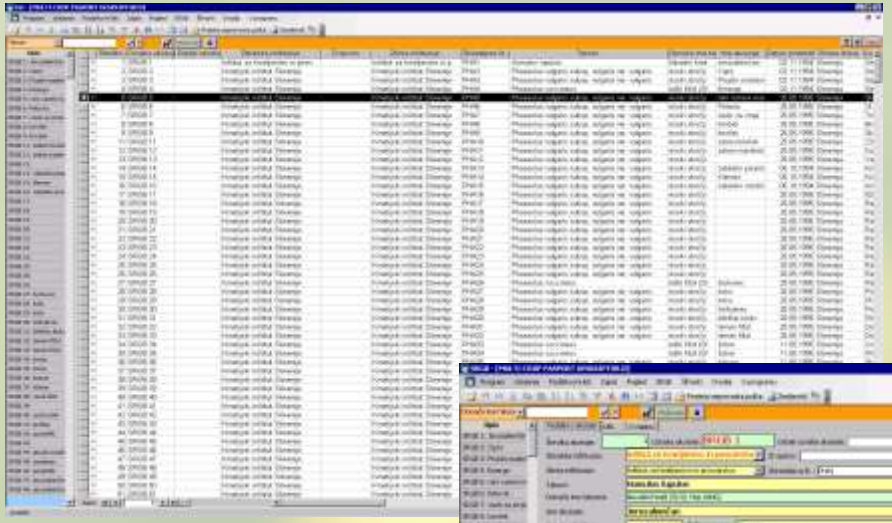
The multiannual program defines the following tasks of the PGB.SI:

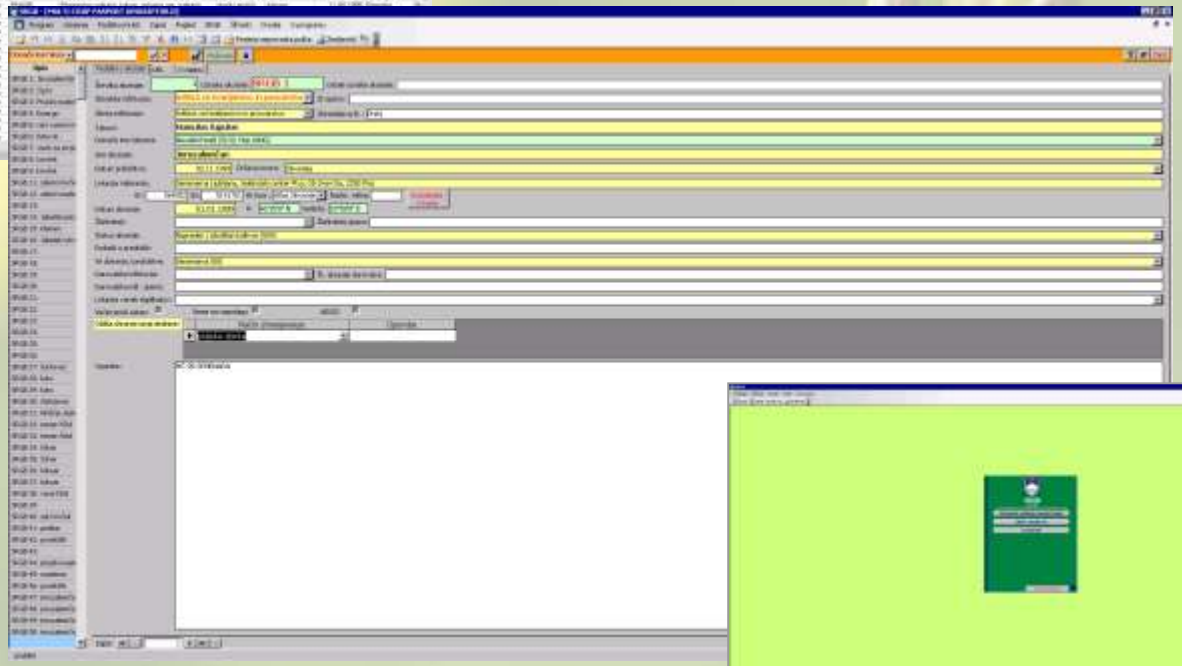
- **Collecting, recording and conserving autochtonus genetic material:**
  - **Collecting, conserving and recording PGR *ex situ***
  - Collecting and recording RGV (*in situ*, On farm & CWR) **- RDP**
- **Reproduction and ensuring the sustainable use of PGR:**
  - **for conservation & exchange for breeding and research (MLS)**
  - For re-use of released domestic varieties and populations (ARK farms), establishment of monitoring and warning systems **- RDP**
- **Describing and evaluating accessions according to international descriptors**
- **Administrative and technical tasks related to the recording of PGR**
- **Professional-technical coordination, education, training and public awareness**
- **Cooperation with international organizations and networks - R & D**

Multiannual program –
Professional Technical Coordination (National Coordinator)

- **Uniform professional guidance and technical coordination** of the PGB.SI
- **Preparation of annual programs**, monitoring of its objectives and indicators (in cooperation and on the basis of MAFF instructions)
- **Reporting**
- **Cooperation with MAFF** and other ministries in preparation of national strategies
- **Support to MAFF** in various aspects related to PGR (working group)
- **Cooperation with other public services**, research institutions, universities, companies and producers, non-governmental organizations and the integration of their needs into public service programs
- **Publishing** of information material in the media, organization of meetings/conferences participation in other expert meetings at international, national and local level
- Participation in expert working groups in the field of **R & D**
- **International cooperation** (ECPGR, FAO,..)

Documentation – Databases





- National database: Multicrop passport data available for all the accessions in PGB.SI
- EURISCO: update needed

Funding

- **MAFF budget**
- **Rural Development Program – Public orders in 2019:**
  - Analysis of the current situation of the cultivation of old rare species or local varieties/populations
  - Development of two models of PGR monitoring and warning systems against the loss of PGR important for food and agriculture
  - Conduction of two one-year pilot monitoring
  - Quality manuals for PGB.SI collections conservation
  - C&E of the list of priority accessions from PGB.SI (2020)
- **Research funds (national, H2020…)**
  - **Research Agency and MAFF:**
    - Local varieties: threatening due to genetic erosion, value for cultivation and use
    - Utilization of common bean genetic resources for sustainable crop improvement and healthy food
  - **H2020:** ECOBREED: Increasing the efficiency and competitiveness of organic crop breeding (Slovenian coordination);
  - **ARIMNet**: MedVitis - Protecting the Diversity of Mediterranean *Vitis* in a Changing Environment.

Institutions appointed from 1 January 2018

(two public service providers for 7 years)

Agricultural Institute of Slovenia for collections of:

- Fodder plants (**KIS** and BF)
- Potatoes (**KIS**)
- Vegetables (**KIS**)
- Hops (**IHPS**)
- Berry fruit (**KIS** and FKBV)
- Vine (**KIS** and FKBV)

Professional technical coordination and management of PGB.SI:

dr. Jelka Šuštar Vozlič

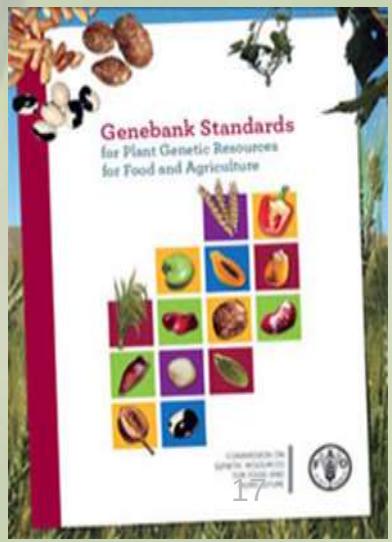
Biotechnical Faculty, University of Ljubljana for collections of:

- Cereals (**BF** and KIS)
- Fruit plants (**BF** and FKBV)
- Medicine and aromatic plants (**BF** and IHPS)

Coordination: dr. Zlata Luthar

Slovenian priorities related to AEGIS and AQUAS

- **Search for additional funding of PGB.SI**
- **Identification of suitable accessions** in Associated Members Institutions (four out of five AMI are included in PGB.SI) to be proposed for registration as European Accessions
- **Managing these accessions in accordance with agreed quality standards**
- **Facilitate supporting activities** (regeneration, viability testing, etc)
- Facilitate access to the European Accessions in AMI and related information in accordance with internationally agreed conditions in line with the Internation Treaty



Slovenian priorities related to AEGIS and AQUAS

Implementation of AQUAS in individual associate members as well as in Slovene Plant Gene Bank as a whole:

- Development of **Operational Gene Bank Manuals** (AEGIS guidelines/templates)
- Development of **Standard Operational Procedures for individual collection** / group of species/ species (generic and crop specific standards);
- **Ensure safety duplication**: a large number of accessions in Slovene plant gene bank is not yet safety duplicated
- **Upgrade IT system for PGR**:
  - Revision of data on accessions and connections between IT systems (national and international level)
  - GRIN Global?


Allium
- Crop-specific standards for *in vitro* culture and cryopreservation (agreed by the *Allium* WG, August 2017) (71 KB)
- Crop-specific standards for field genebanks (agreed by the *Allium* WG, May 2016) (80 KB)

Avena - Crop-specific genebank standards for orthodox seeds
- Crop-specific genebank standards for orthodox seeds (agreed by the *Avena* WG, March 2016) (93 KB)

Beta - Crop-specific genebank standards for orthodox seeds
- Crop-specific genebank standards for orthodox seeds (agreed by the *Beta* WG, March 2016) (102 KB)

Cucurbits - Crop-specific genebank standards for orthodox seeds
- Crop-specific genebank standards for orthodox seeds (agreed by the Cucurbits WG, April 2015) (78 KB)

Leafy Vegetables - Crop-specific genebank standards for orthodox seeds
- Crop-specific genebank standards for orthodox seeds (agreed by the Leafy Vegetables WG, March 2016) (101 KB)

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ISO 9001 Q-1120

Q & A