

# **Plant Genetic Resources for Food and Agriculture**

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# State of *in-situ* conservation

According to the Georgian Legislation of the System of Protected Areas, the following types of PA could be used for *in-situ* protection of PGR: There are 14 state reserves, 13 national parks, 24 protected, 40 natural monuments, 3 protected landscapes in Georgia.



# State of the *Ex situ* Management-Main *ex situ* Collections

Most of the plant research centers maintain *ex-situ* germplasm collections Georgia. The largest collections of PGRFA have been concentrated at SCRA (Scientific-Research Center of Agriculture), NBGG (National Botanical Garden of Georgia) is the largest centers of wild plant *ex situ* conservation.

- ✓ Scientific-Research Center of Agriculture (SRCA) presented with seed type and live collections;
- ✓ National Botanical Garden of Georgia (NBG)
- ✓ N.Ketskhoveli Institute of Botany (IB)
- ✓ Agrarian State University Gene bank



## LEPL SCIENTIFIC-RESEARCH CENTER OF AGRICULTURE

<http://srca.gov.ge/en>

- Conservation Types: *Ex-situ* (seed and field) and *in vitro*
  - Field Crop Seed Gene Bank – Cereal, Food legumes
  - *Ex-situ* -Grape collection Live collections of Grape, fruit crops, citrus and Agroforestry crops;
- In vitro* Conservation of :
  - Potato (3 local , 10 introduced varieties);
  - Grape 30 varieties
  - Wild grape 2 form
  - CIP clone -40



## SRCA-Seed Gene bank Main Activities:

- Acquisition of new germplasm samples (sources – from collecting missions, local institutes, international gene banks)
- Multiplication/Regeneration of germplasm
- Characterization and preliminary evaluation
- Documentation and exchange information on germplasm
- Conservation of germplasm
- Collaboration with other plant genetic resources centers
- Organization of technical meetings and training workshops

## Laboratory of PGR

Laboratory analysis of the quality of seed material of field crops.

Sampling, testing (purity, germination, weight of 1000 seeds) according to ISTA methods.

Determination of moisture content and test for viability.



# SCRA-Seed GENE BANK

**Priority given to** –Endemic species , traditional landraces ,Local breeding varieties

The gene bank characterizes and evaluates its material based on FAO and biodiversity descriptors and regenerates it

**Main crops: Cereals, Food legumes,**

**Collection type -3 types**

- Working collection,
- Active collection,
- Basic collection

**Conservation**

Middle term 1-10<sup>0</sup>C ;

Long term -1-22<sup>0</sup>C

**Type of conservation** : Seed, Herbaria





# SRCA Gene bank collection



- More than 700 accessions of wheat collected at different times from different institutes and collecting missions are currently preserved in the Gene bank as a seed collection.
- 200 accessions of 8 varieties of beans, 5 varieties of corn;
- The collections were created and preserved in accordance with the international Gene bank Standards for Plant Genetic Resources for Food and Agriculture

