THE GRAIN LEGUMINOUS COLLECTION
PRESERVED AT
PLANT GENETIC RESOURCES BANK
„MIHAI CRISTEA” SUCEAVA

Paula-Maria GALAN
Livia-Ioana LEŢI

ForEVA – Fostering the need of implementation of the ECPGR’s European Evaluation Network (EVA) on Grain legumes
10-11 October 2023, Bucharest, Romania
Presentation of Suceava GeneBank

Dr. Eng. MIHAI CRISTEA
founder of Suceava GeneBank
Presentation of Suceava GeneBank

Collecting samples
Presentation of Suceava GeneBank

Viability Laboratory
Presentation of Suceava GeneBank

Experimental field
Presentation of Suceava GeneBank

over 27,000 accessions
Presentation of Suceava GeneBank

Basic collection (-20°C)
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Active collection (+4°C)
Presentation of Suceava GeneBank

In vitro Laboratory
Presentation of Suceava GeneBank

Laboratory of Molecular Biology
Presentation of Suceava GeneBank

Herbarium
The most important projects on grain legumes:

- **Coordinator:** Regeneration, multiplication and characterization of local legumicol varieties, 2015 – 2018
- **Partner:** Intelligent Collections Of Food Legumes Genetic Resources For European Agrofood Systems, INCREASE, 2020 – 2025
- **Partner:** Research on the collection of germplasm, initiation and development of a field bean breeding program with resistance to water stress, 2023 – 2026

The availability of phenotypic and genotypic data:

- Phenotypic data - Available in Biogen
- Biochemical data – In progress
- Genotypic data – In progress

Seeds availability for sharing based on SMTA:

- Plants for breeding – some restrictions from the stakeholder
- Plants from GeneBank’s collection – restrictions related to germination percentage and seed stock
  
  
  (germination percentage > 85%, stock > 3000 seeds)

Seed sharing based on SMTA
Suceava GeneBank’s collection

20,000 accessions
✓ 46 families
✓ 250 genera
✓ 493 species
✓ 714 botanical taxa
Suceava GeneBank’s grain legume collection

Phaseolus vulgaris L.

- Traditional cultivar
- Breeding/Research material
- Advanced/Improved cultivar
- Romania
- Others

- 1989-2000
- 2001-2010
- 2011-2023
Suceava GeneBank’s grain legume collection

*Vicia faba* L.

- Traditional cultivar
- Breeding/Research material
- Advanced/Improved cultivar
- Romania
- Others

- 1989-2000
- 2001-2010
- 2011-2023
Suceava GeneBank’s grain legume collection

Pisum sativum L.

- Traditional cultivar
- Breeding/Research material
- Advanced/Improved cultivar
- Romania
- Others

- 1989-2000
- 2001-2010
- 2011-2023
Expectations and constraints for an EVA Legumes network from researchers’ perspective (material, traits, conditions of operation)

**Expectations:** Collaboration between all the members involved in EVA Legumes
- Exchange of genetic material and information

**Constraints:** Lack of human and financial resources regarding the morphological characterization and plant multiplication in the experimental field

**Interest and capacity to be involved in evaluation of different GL species**

**Interest:** characterization of the grain legumes varieties found in Genebank’s collection

**Capacity:** Morphological (experimental field) and genetic analysis (Laboratory of Molecular Biology)

**Ways to cooperate/experience with PPP**

Suceava Genebank collaborates with multiple agricultural institutions through genetic material exchange and partnerships in various scientific projects
THANK YOU FOR YOUR ATTENTION!