



GRAIN LEGUMES PGR AT GEVES

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GEVES

PGR curator for bean, onion and orphan species

ForEVA – Fostering the need of implementation of the ECPGR's European Evaluation Network (EVA) on Grain legumes

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Short presentation of GEVES



- GEVES, the **French Variety and Seed Study and Control Group**, has several official missions such as registration of new plant varieties, legal protection of varieties or seed certification including biochemical analysis, genotyping or seed testing.
- Since 2016, GEVES is also responsible for the **national coordination of plant genetic resources** for the Ministry of Agriculture which is composed of :
 - the **CTPS Section** on plant genetic resources conservation, an advisory board to the Ministry of Agriculture.
 - the **National Coordination Structure** aiming to coordinate and animate the conservation of crops PGR at a national level and to give a better international visibility.
Examples of mission: to identify and support stakeholders and collections, to foster links and synergies between stakeholders or to set up conservation initiatives for “orphan species”...
- Regarding **legumes** :
 - We set up a **public-private cooperation network** for the conservation of **beans**' PGR composed of 12 stakeholders. The main goal so far has been to safeguard a seed collection from the 1990's.
 - We are also **curator for a PGR lentils collection**. We carry out some multiplication and supply seeds from time to time to specific projects.
 - A botanical conservatory is holding a **Lathyrus sp. collection** but carry out no conservation action.





Collection of the network for beans' PGR conservation



- The collection mainly comes from **public institute INRAE** based on 2 breeding programs ended in the 1990's (G. Fouilloux and H. Bannerot). It is maintained by the **cooperation network** since 2021. GEVES is the network pilot and collection curator. Most of the partners multiply and characterize the accessions.
- The collection is composed of around **1500 accessions**. The main species is *P. vulgaris* including old varieties, breeding lines and breeding material (not stabilized). There are also many *P. coccineus*, interspecific hybrid between *P. vulg* x *P. cocc*, 1 *P. lunatus* and a dozen of *Vigna sp.*
- There are **no passport data** for the best part of the collection and some **characterization data** for half of it.
- Half of the collection was multiplied between 2005 and 2016. An emergency multiplication is going on for the other half of the collection since 2017 by the network's partners, along with phenotypic characterization.

- **Availability**

The national collection is to be defined. It may be composed of around **400 accessions of *P. vulgaris***.

The availability of the national collection accessions will depend on **how many seeds are needed** for the trials.





Lentils' PGR Collection



- The lentils' collection comes from **public institute INRAE** based on a breeding program ended in the 2000's (J-P Bonnaud). It is composed of around **450 accessions of *Lens culinaris***.
- GEVES is holding the collection since 2000's. GEVES has carried out **some multiplications and characterizations since 2005**. We supplied samples to a research project and to some breeding actors in exchange of newly multiplied seeds or characterization data.
- Some **passport data are available**. 90 accessions are from ICARDA. Some **characterization data are available** as well for some accessions. Around 80 accessions are marbled type lentils from France.
- Most of the collection has been **multiplied at least once** since 2005.

- **Availability**

The national collection is to be defined. It should **focus on the French material**.

The availability of the accessions will depend on **how many seeds are needed** for the trials.



Lathyrus PGR Collection



- The *Lathyrus*' collection comes from public institute research IBEAS based on *in situ* collects and breeding programs ended in the 2000's (D. Combes).
- The collection is composed of around 3400 accessions for half of *Lathyrus sativus* and for another half of several species (*L. sylvestris*, *L. latifolius*, *L. tuberosus*, *L. cicera* and *L. heterophyllus*).
- A botanical conservatory is holding the collection since 2000's but has not studied or used it so far. The Ministry of Agriculture through GEVES funded a study in 2019 to inventory and assess the collection focusing on *L. sativus*.
- Passport data are available. Around half of the collection comes from France. Around 25% have been harvested *in situ*.
- Characterization data are available as well for some accessions.
- The best part of the collection has not been used so far and is just stored in a cold room.

- **Availability**

No national collection has been defined yet.

The seeds are old, and no germination test has been carried out.

Depending on the interest of the stakeholders of ForEVA, availability will be discussed with the curator.





Expectations from EVA legumes

- Expectations

- To enhance cooperation between PGR curators and users at European level

- To meet actors involved in conservation and breeding of legumes' PGR

- To improve knowledges on our collections

- Constraints

- Material supplier only

- Material availability in terms of quantity

- Characterization data limited

- GEVES genotyping and seed testing labs can be called upon to carry out some genotyping and seed testing, but it will not be self funded.

