

or TRUE? FALSE?

GEVES contributes to maintaining old vegetables varieties

TRUE FALSE

For more than 300 old vegetables varieties listed in the French Catalogue (national list), GEVES checks the varietal conformity of disseminated varieties. In parallel to its mission of managing the official Catalogue, GEVES also manages four genetic resources collections (artichoke & cardoon, chicory, bean & onion).

A PVR is a patent

TRUE FALSE

Patents and PVRs are intellectual property rights with different conditions, scope and exceptions. Plant variety rights (PVR), also known as plant breeders' rights (PBR), grant the holder an exclusive right to certain acts in relation to the protected variety: production, reproduction, conditioning, offering for sale, selling, marketing, exporting, and importing. PVRs also grant the holder the right to exclude all other parties from using the protected variety without authorisation. However, unlike patented varieties, varieties protected by a PVR can be used freely for plant breeding purposes, thereby facilitating access to genetic diversity.

Following the DUS examination the variety ID card is produced

TRUE FALSE

When a variety is uniform and distinct, it is described on the basis of phenotypic characters (morphological, biochemical or pathological) present in the ad hoc protocol of the species under consideration. The official descriptive sheet is like an ID card for the variety.

Only lines and hybrids can be listed in the French Catalogue

TRUE FALSE

Population varieties and synthetic varieties can also be added to the national list. DUS testing protocols can also analyse different genetic structures.

A plant variety listed in the Catalogue is protected

TRUE FALSE

Variety listing is a mandatory process for the marketing of seeds and plants. Plant variety protection (PVP) is a voluntary process chosen by the holder of the variety. Only new varieties can be protected. PVP is limited to 25 years as a general rule and to 30 years for potatoes, perennial grasses and forage legumes. Therefore not all listed varieties are protected.



What about Plant Genetic Resources Conservation?

✓ In support of the actors maintaining plant genetic resources and existing collections in France, GEVES houses the National Coordination Structure of cultivated species and crop wild relatives. With the aim of creating a dynamic around the conservation and development of these resources, its activities include:

- Official recognition by the French State of curators of plant genetic resources collections
- Identifying plant genetic resources of importance for France and establishing a national collection
- Organising calls for projects with support from the French Ministry of Agriculture

✓ GEVES also manages genetic resources collections of artichoke and cardoons, chicory, beans and onions.

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Follow us!    

> Why?

> Where?

> How?

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Public Interest Group
comprised of:



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Vegetable Species

variety
EXPERTISE



WHY DOES GEVES STUDY VEGETABLE VARIETIES?

- To market a new variety in France, it must be registered in the official Catalogue of Species and Varieties following validation by the Ministry of Agriculture.

In order to be listed, technical examinations are conducted and managed by GEVES. They make it possible to define the variety's IDENTITY CARD, establishing with precision the descriptions of new varieties which must be Distinct, Uniform and Stable (DUS). Each variety is also designated by a validated denomination. The French Catalogue is available at www.geves.fr



- Breeders of new varieties can also choose to apply for an intellectual protection title called a Plant Variety Right (PVR) which can be delivered in France by INOV or in the European Union by the CPVO. In both cases, the PVR is delivered based on DUS studies provided by European examination offices such as GEVES.

- Seeds from these varieties are multiplied to be distributed and used by vegetable growers or gardeners. Each year, GEVES conducts variety checks (CV) for more than 600 seed lots, either for maintenance controls for the Catalogue (to ensure seeds can be provided for listed varieties) or for the official control of seed lots in the process of marketing, in cooperation with SOC France. Depending on the species and the seed's destination (professional market, amateur or export), quality standards are defined by regulations. GEVES, a National Reference Laboratory, conducts seed quality testing, oversees other French laboratories, and participates in the international harmonisation of testing rules.

- GEVES also accepts private requests for variety evaluation and seed quality testing.



In numbers

| | |
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| Number of species for which DUS tests are conducted | 40 |
| Number of varieties studied per year for DUS and CV | 900 |
| Number of new varieties listed in France each year | 250 |
| Number of species for which GEVES tests seed quality | 350 |



Glossary

CPVO: Community Plant Variety Office
CV: Variety check
DUS: Distinctness - Uniformity - Stability
INOV: French National Office for Plant Breeders' Rights
SOC: Semae Quality & Official Control Department

WHERE AND HOW are varieties tested?

The DUS test results in a variety description, using specific characteristics. For vegetable species, **morphological** traits (leaf shape, inflorescence, fruit, seed, etc.) are mainly used, but also **phenological** traits such as flowering and ripening times, and **resistance to pathogens** (resistance to tomato mosaic in tomatoes and peppers, to anthracnose in beans, etc.) and **insects** (melon aphid, lettuce aphid, etc.).



To examine the distinctness of candidate varieties compared to well-known varieties, GEVES manages large collections of reference varieties. It also has pathogen collections (for resistance testing), databases, experimental facilities (fields, greenhouses, cold rooms, and equipment for biochemical and biomolecular analysis).

In order to evaluate seed quality, GEVES has specific laboratories and equipment:

- for **sampling**, so that tests are carried out on representative samples of the seed lot to be evaluated.
- for testing **physical quality** of seeds, by recognising seeds of foreign species, weeds, etc. GEVES has a seed collection of more than 17,000 species as well as a digital I.D.SEED tool for multi-criteria identification based on seed photos. 3D imaging tools also allow internal seed analysis.
- germination quality** is assessed under optimal conditions of substrate, temperature, humidity, light in climate modules.
- for **seed health** analysis, the identification of pathogens in seeds is tested using biological, microbiological, serological and increasingly molecular biological methods.

These activities are carried out by GEVES's specialised and passionate technical staff!



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49071 Beaucozé

BioGEVES
GEVES Laboratory for Molecular Biology and Biochemistry
Le Magneraud & Beaucozé

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CS 40052 - Saint Pierre d'Amilly
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Brion Experimental Station
Domaine de la Boisselière
49250 Les-Bois-d'Anjou

Cavaillon-Carpentras
Experimental Station
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84250 Le Thor

PLANT HEALTH: MATREF Collection

A collection of reference material in France with public & private partners

MATREF is a network created in 2002 and coordinated by **GEVES**, in order to have reference materials (pests and seeds) for evaluating the resistance of vegetable varieties to pests. Variety resistance is evaluated as part of the application process for national listing and variety protection by the CPVO and INOV. GEVES also receives external requests.

In 2022, **MATREF** includes 202 control and differential host varieties and 48 pests. The distribution of seeds and strains is managed by GEVES. This distribution is free of charge for members of the **MATREF** network.

Find out more:

<https://www.geves.fr/tools/reference-material-matref/>

