

Technical Working Party for Agricultural Crops
TWA/55/2
Fifty-Fifth Session
Seoul, Republic of Korea, June 15 to 18, 2026
Original: English

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REPORTS ON DEVELOPMENTS IN PLANT VARIETY PROTECTION FROM MEMBERS AND OBSERVERS
Document prepared by the Office of the Union
Disclaimer: this document does not represent UPOV policies or guidance

1. The Technical Committee (TC), at its forty-seventh session, held in Geneva from April 4 to 6, 2011, agreed to request the Office of the Union to invite experts to submit written reports to the Office of the Union in advance of the Technical Working Party (TWP) sessions in order that a document containing those reports could be prepared by the Office of the Union. The TC noted that TWP experts would be invited to make a brief oral summary of their written report at the session and would also be encouraged to make reports under the agenda item “Experiences with new types and species”, as appropriate. The TC also noted that TWP experts would have an opportunity to raise questions concerning matters of interest (see document TC/47/26 “Report on the Conclusions”, paragraphs 9 and 10).

2. Written reports were invited by the Office of the Union in Circular E-26/029 of April 8, 2026. The following reports were received (in alphabetical order):

- ✓ Members of the Union: Annexes I to VI: Brazil, France, Japan, New Zealand, Russian Federation and the United Kingdom

[Annexes follow]

ANNEX I

BRAZIL

1. The National Plant Variety Protection Service (SNPC) of the Ministry of Agriculture and Livestock (MAPA) is the national authority responsible for the examination of applications and for granting Plant Breeder's Rights in Brazil.
2. In 2025, the SNPC received 342 applications: agricultural crops (172), ornamentals (64), fruit crops (49), forest trees (30), vegetables (25), and forage crops (2).
3. Those 172 applications for agricultural crops were related to the following species: *Glycine max* (L.) Merr. (64), *Gossypium hirsutum* L. (39), *Saccharum* L. (18), *Avena sativa* L. (8), *Triticum aestivum* L. (8), *Phaseolus vulgaris* L. (8), *Sorghum bicolor* (L.) Moench (5), *Sesamum indicum* L. (5), *Solanum tuberosum* L. (4), *Oryza sativa* L. (3), *Hordeum vulgare* L. (2), *Coffea arabica* L. (2), *Arachis hypogaea* L. (2), *Manihot esculenta* Crantz (2), *Phaseolus lunatus* L. (1), and *Zea mays* L. (1).
4. Applications for agricultural crops were filed by nationals of the following countries: Brazil (158), the United States of America (5), Switzerland (6), and the Netherlands (Kingdom of) (3).
5. In 2025, the SNPC granted 204 titles: agricultural crops (141), ornamentals (23), fruit crops (19), forage crops (8), forest trees (7), and vegetables (6).
6. Those 141 titles for agricultural crops were granted for the following species: *Glycine max* (L.) Merr. (90), *Gossypium hirsutum* L. (11), *Saccharum* L. (7), *Solanum tuberosum* L. (5), *Avena sativa* L. (3), *Triticum aestivum* L. (7), *Hordeum vulgare* L. (2), *Oryza sativa* L. (4), *Phaseolus vulgaris* L. (6), *Ricinus communis* L. (3), *Sorghum bicolor* (L.) Moench (1), *Vigna unguiculata* (L.) Walp. (1), and *Zea mays* L. (1).
7. Those titles for agricultural crops were granted to applicants from the following countries: Brazil (134), Argentina (2), the United States of America (1), the Netherlands (Kingdom of) (1), France (1), and Germany (1).

[Annex II follows]

FRANCE

Number of applications:

In France, the DUS activity, either in the framework of national listing, or PBR, or in the framework of international cooperation for DUS testing, has slightly decreased in 2025 compared to previous years.

In 2025, 2191 applications were received for National listing, and for National or European Plant Breeders' Rights, or for international cooperation for DUS testing:

- 1380 are new applications
- 811 are requests for take-over reports for application already tested or in test.

See figures on the table below:

	National Listing	National PBR	EU PBR	International cooperation	total
Number of applications in 2025 for new testing	980	106	186	108	1380

Main activity remains on agricultural species.

In total in 2025, GEVES carried out more than 3100 DUS cycles, mainly on its premises.

Crop sector	Main species tested
Agricultural	Maize, oilseed rape, wheat, barley, sunflower, soybean
Vegetable	Lettuce, tomato, melon, cauliflower, pepper, squash
Fruit	Peach, vine, apple, sweet cherry, apricot, Japanese plum, pear
Ornamental	Hydrangea, Chrysanthemum, Buddleja, Nerium, Lavandula, Salvia, Echinacea

Detailed figures can be found on the annual report available on our website.

Information on GEVES:

GEVES is the Examination Office of France, in charge of DUS and VSCU evaluation of new plant varieties and is designated as National Reference Laboratory in seed quality, GMO detection, plant health (matrix seeds).

GEVES website can be consulted here www.geves.fr

Description files can be found on the website for the varieties listed on the French catalogue. <https://www.geves.fr/catalogue-france/>

You can subscribe to our NEWSLETTER available both in French and in English to receive the latest information on GEVES's expert activities in plants and seeds, at national and international levels. Please subscribe here : <https://www.geves.fr/newsletter-en/>

The International System of Cooperation for DUS is active and efficient. For more information, the international cooperation service of GEVES can be contacted here: clarisse.leclair@geves.fr and camille.zitter@geves.fr

In 2025, the international cooperation service of GEVES received more than 800 takeover requests, mainly from the European Union but also from all over the world.

Carole Dirwimmer continues in her role as the Chair of the UPOV Technical Working Party for Fruits (TWF).

Information on INOV:

The French National Office for PBR (**INOV**) has received 106 applications in 2025, out of which 98% were tested for DUS by GEVES.

INOV is involved in UPOV **PRISMA** for all genera and species.

INOV has announced the publication of its new fee schedule, which includes updated administrative fees. The fees relating to the DUS examination are those applied by the French or foreign Examination Office, in accordance with Article 2 of this decree. Regarding the procedure: the revision of INOV fees was jointly approved by the Ministry of Agriculture and the Ministry of Economy and Finance, and is published in the form of a decree in the Official Journal. More information here [GEVES Newsletter n°68](#). Contact INOV: inov@geves.fr

Molecular markers in DUS testing:

Regarding the use of **molecular markers**, GEVES has provided data to the UPOV survey.

France is using in routine molecular markers for the management of variety collection according to UPOV guidance model “Combining Phenotypic and Molecular Distances in the Management of Variety Collections”, for maize, sorghum, spring barley, durum wheat. Projects are ongoing on Oilseed rape and common wheat and being finalized for Hydrangea.

GEVES is using in routine several markers for several traits in the framework of UPOV model “Characteristic-Specific Molecular Markers”, in accordance with the technical guidelines in force.

For more information on BMT, please contact: GEVES BIOGEVES rene.mathis@geves.fr.

Disease resistance tests in DUS testing:

Regarding the use of **disease resistance characteristics**, GEVES uses in routine disease resistance characteristics, processed in bio assays, for DUS results. GEVES provides also services, facilities, protocols, identified standards and strains for such activities to Examination Offices and seed companies, all over the world. For more information, please contact: GEVES SNES sophie.perrot@geves.fr

Digital phenotyping in DUS testing :

Regarding digital phenotyping for DUS testing, GEVES uses 2D image analysis on a routine basis, using detached plant organs that are scanned or photographed and then analyzed by AIM. GEVES is interested in developing the use of drones and pedestrian sticks to phenotype certain DUS characteristics, such as plant natural height for lucerne. For more information, please contact: GEVES clarisse.leclair@geves.fr

R&D projects:

GEVES is involved in several collaborative R&D projects dealing with DUS and co-founded by the CPVO:

- ToBrAg, project to update DUS resistance tests (biotests and markers) according to pests' evolution with the practical cases of resistance tests to ToBRFV for tomato and pepper, and the resistance test to Aphis gossypii on melon, together with the Netherlands (Kingdom of the), Spain, Italy and breeders.
- SNPsNAP: “SNP markers for guiding DUS testing in winter oilseed rape: Validating the new model”. It is the second follow up of an earlier project which validated a set of SNP markers for KasPAR assays on bulk samples as a tool for the management of the variety collection, together with Germany, Spain, Slovakia.
- Lettuce project: International harmonization and validation of a SNP set for the management of lettuce variety collection, together with the Netherlands (Kingdom of the), Germany, Spain.
- CPVO Tomato database: Development and implementation of an internationally accepted SNP database to assist the tomato DUS testing, together with the Netherlands (Kingdom of the), Poland, Hungary, Spain, Italy.

GEVES is involved in the Belis project, funded by the European Union: Breeding European Legumes for Increased Sustainability. GEVES is contributing to the project through its work on optimizing DUS, with the use of molecular markers for the management of the *Pisum sativum* variety collection.

GEVES was involved in the INVITE project, funded by the European Union. One follow-up of INVITE, conducted by GEVES, is to explore the potential use of UPOV model Combining Phenotypic and Molecular Distances in the Management of Variety Collections for common wheat in France, and a presentation will be given during TWM et TWA meetings in 2026.

In 2024, the INVITE project validated the reproducibility of molecular markers associated with resistance/susceptibility to Tomato mosaic virus (ToMV), Tomato spotted wilt virus (TSWV), and *Fusarium oxysporum* f. sp. *lycopersici* race 1 (EU)/2 (US). Validation work continued in 2025 to verify specificity on tomato varieties registered in France and was successfully completed. These characteristic-specific molecular markers can now be used as an alternative to biotests in France.

GEVES is involved in Allegrodactyle: a French project to develop targeted molecular markers in cocksfoot. If successful, the final aim would be to describe cocksfoot variety collection and use these molecular data to guide the choice of varieties for relevant comparisons in the field.

[Annex III follows]

JAPAN

1. Number of applications in 2025

Year	Total number	(2024/2023)	Agricultural crops	(2024/2023)
1978 to 2025	38579	-	2925	-
2024	599		65	
2025	531	(89%)	57	(88%)

Top 6 of application for Agricultural crops in 2025

Rice 23, Wheat 5, Sweet Potato 4, Barley 3, Buckwheat 3, Tea 3, Total: 41

2. Number of granted in 2025

Year	Total number	(2024/2023)	Agricultural crops	(2024/2023)
1978 to 2025	31566	-	2520	-
2024	703		62	
2025	769	(109%)	71	(115%)

Top 7 of application for Agricultural crops in 2024

Rice 31, Italian ryegrass 7, Potato 5, Eulalia 5, Soya bean 4, Sorghum 4, Barley 4, Total: 60

3. National test guidelines harmonized with UPOV TGs in 2025

Common name of plants (4)
Kangaroo paw, Brown mustard, Citrus L.-Group1, Citrus L. - Group 3, Citrus L. - Group 4, Citrus L. - Group 5, Pumpkin, Butternut Squash, Vegetable Marrow, Apple Rootstock, Oxypetalum, Poplar

4. National test guidelines developed for new type of species in 2025

Genera or Species (5)
<i>Cephalanthus occidentalis</i> L., <i>Isatis tinctoria</i> L., <i>Origanum</i> L., <i>Paulownia</i> L., <i>Valeriana fauriei</i> Briq.

Web-site: https://www.maff.go.jp/j/shokusan/hinshu/info/sinsa_kijun_jp.html

5. Other

- ✓ As from 2016, MAFF have agreed with Australia, Brazil, New Zealand, Switzerland, Viet Nam, the European Union, the Russian Federation, Kenya, Mexico, Israel, the Netherlands (Kingdom of), Türkiye, Canada, Peru, Singapore, the United States of America, Colombia and the United Kingdom to provide the results of DUS examination in Japan free of charge for the examination of the varieties that have been applied to the examination authority of the relevant countries. Japan continuously provides other UPOV members with examination reports under the Memorandum of Cooperation (MOC). Japan had provided 28 DUS examination reports in total to other countries in 2025.

- ✓ Since 2016, based on the Memorandum of Understanding (MOU), Center for Seeds and Seedlings, NARO (NCSS) and Naktuinbouw have established Calibration Manuals for DUS technical harmonization. "Calibration manual for Mandevilla" will be completed in 2026, and it will be published through both websites. With addition of this, a total of 13 Calibration Manuals will be available for third country.
- ✓ In addition, a three-year extension of the MOU between Naktuinbouw and NCSS, which expired in March 2024, was concluded up to March 2027 in order to contribute international harmonization in cooperation with Naktuinbouw. In extending the MOU, it was newly agreed to provide technical cooperation on DNA analysis for disease resistance in DUS test, DNA variety identification techniques for plant variety protection.

[Annex IV follows]

NEW ZEALAND

1. Applications numbers for agricultural varieties in 2024/2025 have decreased from the previous years by 50% with nineteen (19) applications. This comprises ten (10) pasture varieties and nine (9) agricultural crop varieties. Agricultural crop varieties include three (3) fodder brassicas, one (1) fodder radish, three (3) barley, and one (1) oat variety. There is currently a total of forty-three (43) varieties under examination.
2. The interest in protecting varieties for turf and amenity continues with applications for hard fescue (*Festuca trachyphylla* Hack.) and prairie grass (*Bromus catharticus* Vahl.). It has been a few years since we have had applications for these species.
3. The use of the UPOV e-PVP system for the exchange of test reports has successfully continued. The system is efficient and uncomplicated and has increased the opportunities for cooperation between testing authorities.
4. New Zealand was able to attend TWA/54 and TWM/4 in person. It has been a while since we physically attended these meetings and it was a valuable and enjoyable experience.

[Annex V follows]



Report from Russia to UPOV 2026

Dmitrii Butusov
Head, State Selection
Achievements Commission,
Russia

Aleksei Zavarzin
Senior advisor, State Selection
Achievements Commission,
Russia

UPOV TWA / 55, Seoul, Republic of Korea

June, 2026

**The Goal
by 2030**

**not less than
75%**
of national varieties'
seeds to be sown
in the fields in Russia

Legal binding

NATIONAL PROJECT

"Technological support for food security"

FEDERAL PROGRAMMS

The State Program
"Development of agriculture for
2017-2030 "

The State program
"Development of genetic
technologies until 2030"

National Project "Integrated
Rural Development" (2019-2030)

Farmers and Agricultural
Cooperatives Support Program

Presidential Decrees "On the National Center for Plant Genetic
Resources", "On the National Center for Genetic Resources of Farm
Animals" , etc.

FEDERAL & REGIONAL SUPPORT INSTRUMENTS

- Subsidies and grants
- Preferential loans
- Insurance of agricultural risks
- Tax benefits
- Infrastructure projects
- Scientific and educational programs
- Sales and marketing
- Ecology and sustainable development
- Land policy
- Social support



Ministry
of Agriculture

Decree by the President

About national aims till 2030 – is challenging the agricultural sector with the goals of increased production, export and technological independence

The national goal "Sustainable and dynamic economy"



An increase in agricultural production by at least 25% compared to 2021



An increase in the volume of agricultural exports by at least 1.5 times compared to 2021



Ensuring technological independence and the formation of new markets in the field of food security

The national goal "Technological leadership"



An increase in the volume of investments in fixed assets by at least 60% compared to 2020



Oksana Lut
Minister of Agriculture

The State Selection Achievements Commission



Conducting state tests for DUS and economic usefulness



Ensuring the legal protection of selection achievements



Collecting, processing, analysing, accumulating and storing information on variety testing



Organizing examination based on test results



Ensuring maintenance of state registers



Analysing breeding achievements for the presence of GMO



STATE
COMMISSION

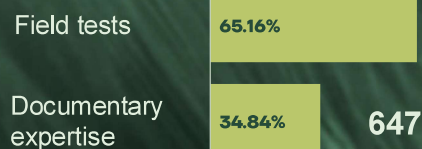
The State Selection Achievements Commission

45 branches	274 experimental plots	21 777 tests on economical traits	568 examinations	28 087 varieties and hybrids on a state register
5 laboratories	1 461 staff	2 039 tests on distinctness, uniformity and stability	1 857 analyzed applications	New digital geoinformation system "Seedproduction"

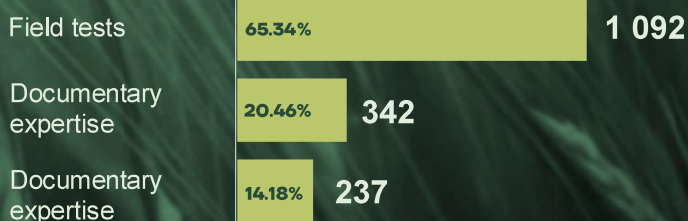


TYPES OF TESTS

Distinctness, uniformity and stability (DUS)



Economic traits



The State Commission network



Region of Admission—

a group of regions that are similar in soil and climatic characteristics, production and agrotechnological conditions, and other factors that are important for agriculture.

State Variety Testing Plot (GSU) – region-specific plots for testing of crops

Region 1 Northern 3 GSU Econ. 25	Region 6 Northern Caucasus 47 GSU Econ 5265, DUS 1148	Region 11 Eastern Siberia 29 GSU Econ 836 DUS 110
Region 2 North-western 18 GSU Econ 833	Region 7 Middle-Volga 14 GSU Econ 2061 DUS 6	Region 12 Far East 12 GSU Econ 408
Region 3 Central 25 GSU Econ 2061, DUS 446	Region 8 Lower-Volga 20 GSU Econ 2086 DSU 50	
Region 4 Volga-Vyatka 27 GSU Econ 1313, DUS 22	Region 9 Ural 27 GSU Econ 1666	
Region 5 Central-Chernozom 14 GSU Tejn 3617, DUS 147	Region 10 Western Siberia 36 GSU Econ 1606 DUS 110 c/o	

DUS testing

27 specialized GSU for DUS:

- 7 GSU for grain crops testing
- 6 GSU for fodder crops testing
- 6 GSU for vegetable testing
- 5 GSU for okl-seed crops testing
- 3 GSU for fruits testing



Wheat
Krasnodar



Sunflower
Rostov, Krasnodar



Corn
Krasnodar, Stavropol



Soya
Rostov, Krasnodar



Sugar beet
Voronezh, Kursk



Wheat
Moscow, Altaj, Stavropol, Kalmyk republic



Fodder grains
Moscow., Kaluga., Altaj, Stavropol



Fodder grasses
Mordovia, Perm, Krasnodar, Stavropol



Linum
Perm, Saratov



Legumes
Moscow, Saratov



Grapes
Crimea



Fruits
Kaluga, Rostov, Krasnodar, Crimea



Potato
Moscow

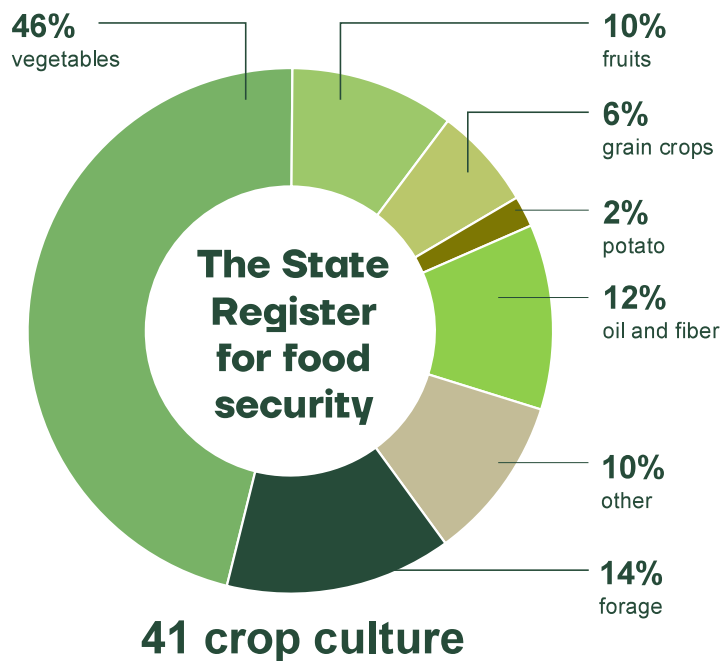


Raps
Lipetsk



Vegetables
Tambov, Ryazan, Vladimir

The State Selection Achievements Commission



Seed production

- **Federal Law "On Seed Production"**
- **Doctrine of Food Security**



80-90%
grain crops



10-15%
vegetables

Challenges

- Climate
- Speeding up breeding
- Economic Imperatives

Perspectives

- Biotechnology
- Digitalization
- Export potential
- Cooperation with businesses

Development of the methodological base of variety testing



Methods

	Total	Done in 2024	Plan for 2025-2026	Plan for 2027-2028
Economic traits	55	0	27	28
DUS	416	97	160	159

1. Draft preparation

State commission prepares a draft on the basis of an international analogue or a previously valid version

2. Alignment with the industry community

Draft is revised by professional community representatives (primarily researchers with experience in a particular culture)

3. Scientific and Technical Council

The reviewed draft is considered by STC

4. Approval of the methodology

Economic traits' methods

methodologies are updated following the regulatory legal acts and the general development of agricultural cultivation technologies

DUS methods

Methodologies are updated following the decision of the Eurasia economic council (dated 25.10.2022 No. 155) on the harmonization of methods with the UPOV recommendations.

Images for description of crops' morphological characters

Methodological support

to breeders and participants in the predictive breeding project

Increasing the accuracy of the description of varieties and hybrids' morphological characters for amending the State Registers

to variety testers

A tool to train young employees in the basics of environmental testing, reducing the subjectivity of descriptions

to specialists participating in the approbation

Increasing the accuracy of cop testing

to students of agricultural classes and students

A manual for agronomy and selection students, revealing morphological characteristics of crops

to agribusiness specialists

Creation of photo catalogs with the characteristics of a particular variety or hybrid as a tool for promotion to the market



A photo-catalogue for bread wheat has been prepared

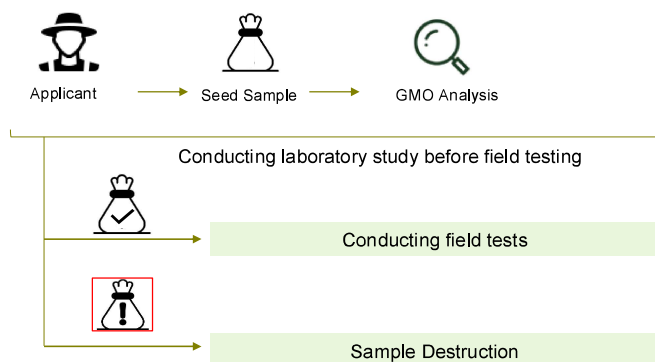
Photo-catalogues for barley and potatoes to be produced in 2026

ФГБУ «Госсорткомиссия»

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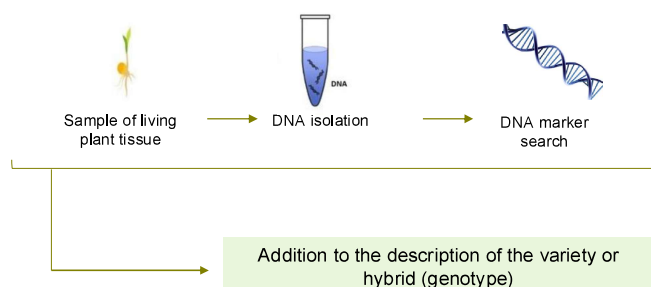
Use of molecular analysis and data

Determining presence of GMO in samples submitted for variety testing



The use of seeds with GMOs is prohibited in Russia. Plants with the presence of GMOs are allowed to be grown only for strictly research purposes

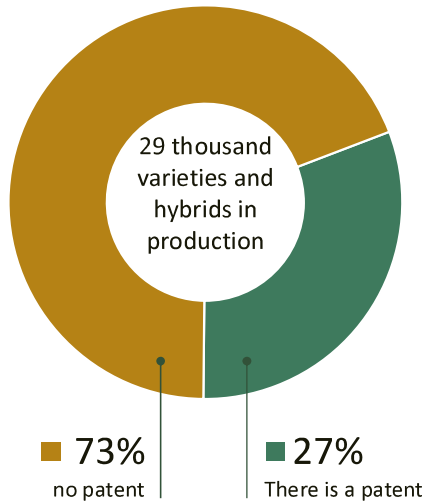
DNA marker analysis for genetic passports



DNA marker analysis is increasingly developing approach in Russia. The main goal of such research is to develop unique genetic passport for each variety or hybrid to protect the rights of the patent holders

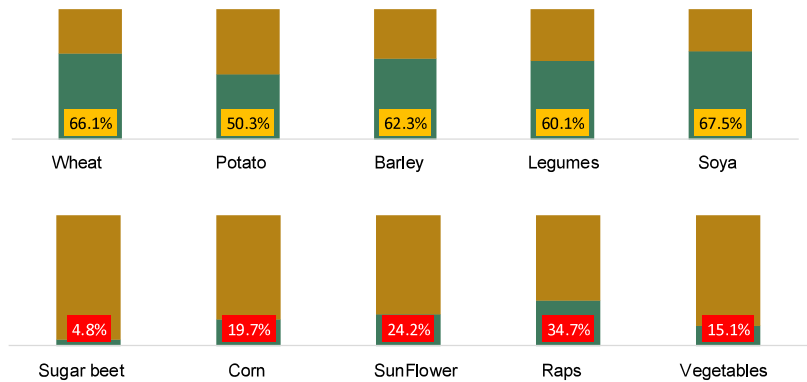


The State Register of Protected Selection Achievements.



Only 27% of varieties and hybrids available for use in the Russian Federation are protected by a patent.

Ratio of protected/publicly available varieties and hybrids in the context of crops



An interest patenting and obtaining licenses has increased significantly since 2024.

The reason – introduction of the Federal Information System "Seed Production", which ensures the traceability of seeds from the breeder to the manufacturer

The State Commission's additional project portfolio



ON-GOING PROJECTS

- Pilot project on phenotyping of crop samples **RUSEED**[®]
Селекция и семеноводство
- Nutrition Programs Pilot **ФОСАГРО**
- Images of breeding achievements **ЩЕЛКОВО АГРОХИМ**
- Modern machinery for variety testing **БРЯНСКСЕЛЬМАШ**
- WG on improving legal regulation for genetic engineering **Сириус**
Образовательный центр
- Monitoring of information security of the GCC **АГРОПРОМЦИФРА**
- Optimization of FCC business processes **ФЦК**

DEVELOPING INITIATIVES

- Applicating genetic markers associated with the distinctive characters of agricultural plants (sunflower) **РОСАГРОТРЕЙД** | **KCC**
- Development and implementation of a methodology for laboratory testing varieties and hybrids for resistance to pathogens **avgust**
crop protection
- Digital phenotyping methods based on robotized systems and neural networks **ЭФКО**
ГРУППА КОМПАНИЙ



New developments: bioresource collections of Russia

Bioresource collections	Bioresource Centers	Significance
Preserving plant genetic resources, preselection material and reference accessions. Essential basis for selection, comparisons, reproduction and long-term storage.	Provide accounting, storage, use and scientific support of collections. Providing institutional support for breeding and preservation of genetic diversity.	■ expansion of the genetic background ■ preservation of rare genotypes ■ acceleration of the breeding cycles ■ proof of origin and identity

New developments: national center of plant genetic resources





ГОССОРТ
КОМИССИЯ

THANK YOU!

**State Selection Achievements
Commission, Russia**

gossortrf.ru



UPOV TWA / 55, Seoul, Republic of Korea

June, 2026

[Annex VI follows]

UNITED KINGDOM

1. The Plant Variety Rights Office (PVRO) for the United Kingdom (UK) comprises the United Kingdom Controller of Plant Variety Rights, and the Plant Varieties and Seeds team within the Animal and Plant Health Agency (APHA). APHA is an executive agency of the Department for Environment, Food and Rural Affairs (Defra). It has responsibility for the delivery of United Kingdom PBRs, and the coordination and delivery of variety listing within the United Kingdom. Contact details are available on the Gov.UK website: [UK Variety Listing and PBR](#). The National Lists and Seeds Committee (NLSC) advises the PVRO and makes recommendations to them. The Controller who sits in Defra is responsible for the decision making required for the granting of United Kingdom PBRs.
2. In 2025, the UK received 779 applications for United Kingdom PBRs for agricultural (308), fruit (66), ornamental (104) and vegetable (301) species. Of these, 487 tests were not conducted in the United Kingdom, but carried out by UPOV members where the UK DUS Test Centres did not have testing capability.
3. DUS testing in the United Kingdom is conducted at Niab (www.Niab.com), AFBI (www.afbini.gov.uk), and SASA (www.sasa.gov.uk). Niab carry out the testing of Wheat (winter and spring), Barley (winter and spring), Oats (winter and spring), Oilseed Rape (winter), Sugar Beet, Field Beans (winter and spring), Fodder Kale, and ornamental plants which include Chrysanthemum, Rose and a range of species of shrubs and herbaceous perennials. AFBI perform DUS testing of perennial ryegrass, Italian ryegrass, hybrid ryegrass and white clover. SASA conduct the DUS testing for potatoes, field pea, swede, turnip rape and vegetable peas. The DUS Test Centres, the PVRO and Defra are working together to support innovation and to ensure that DUS examinations can meet the opportunities of gene edited plant varieties.
4. The United Kingdom has implemented a customised version of the UPOV e-PVP administration module and the UPOV DUS exchange module. This will further complement the use of UPOV PRISMA as the compulsory application pathway for PBR and variety listing in the United Kingdom.
5. The United Kingdom authorities are working together to develop a United Kingdom Plant Variety and Seeds (PVS) Strategic Roadmap spanning PBR, variety listing, and setting standards for marketing and certification of seed and other plant propagating material within the context of the UK-EU SPS Agreement. It is expected to be published in 2027. This will be the first United Kingdom PVS strategy, and its development is an opportunity to set out a shared vision, priorities and actions, and work in partnership with industry and stakeholders to deliver these over the next 5 years.
6. The United Kingdom and Japan signed a Memorandum of Cooperation on the examination of plant varieties for the purpose of PBR in 2025. Following on from this, the United Kingdom hosted a DUS examiner from Japan for a two-week training visit at Niab, Cambridge in May 2026. The visit encompassed a broad schedule covering DUS testing arrangements within the United Kingdom, practical DUS testing at Niab for agricultural and ornamental species, current research and development activities and a breeder visit.
7. The United Kingdom continues to support the UPOV distance learning courses by providing tutors. Technical and administrative staff at our test centres take advantage of the distance learning opportunities through DL205 and DL305.
8. Colleagues across the United Kingdom have also benefitted from attending three recent UPOV technical webinars. Peter Scotting (APHA) presented in the third webinar on 'Phytosanitary matters that impact access to plant material for DUS examination'.
9. Hilary Papworth continues in her role as the Chair of the UPOV Technical Working Party for Ornamental Plants and Forest Trees (TWO). As does Margaret Wallace (Niab) in her role coordinating a sub-group of the Technical Committee focusing on issues relating to Test Guidelines and the web-based TG-Template. Furthermore, the fourth Technical Working Party on Testing Methods and Techniques (TWM) is being held from 2 – 5 June 2026 at Jesus College, Cambridge, United Kingdom.
10. The United Kingdom is actively driving development and implementation of new techniques to DUS testing through several collaborative or internal projects:
 - A revised version of DUST is currently being developed. This version will include a more robust interface, along with improved input and output formats. The software is being tested by DUS centres

in the United Kingdom and feedback from these test centres will be used to further refine the user interface.

- The United Kingdom is also implementing the new COYU with splines method in parallel with the existing COYU method during a changeover period. To support the transition, guidance has been developed on how to deal with extrapolation.
- Initiatives exploring the use of molecular approaches in DUS work continues using barley (*Hordeum vulgare*) as a case study. This first project, completed in 2025, was a proof of concept for the use of molecular markers to predict DUS phenotypes and to inform the selection of similar varieties for the growing trials. The next phase will be to genotype the remaining varieties in the variety collection, optimise and validate the genomic prediction models in parallel to current DUS testing procedures and explore technical barriers to implementation. Niab are progressing with implementing a smaller marker set to be used to validate seed stock authentications and varietal identification in barley.
- Niab continues their investigation into the use of UAV (Unmanned Aerial Vehicles) within a DUS testing situation, exploring the potential to replace or supplement current methods for assessment of phenotypic characteristics.
- SASA are conducting trials with True Potato Seed (TPS) material to establish how they would conduct DUS testing in the United Kingdom for TPS candidates. The current protocol only allows tubers to be submitted for trials, whereas seeds would be submitted for TPS candidates. This preliminary work includes growing the seeds in the glasshouse to determine emergence rates and the number of weeks required before material could be transplanted to the field. Uniformity of the lightsprout, growing plant, and tuber characteristics is being assessed. Due to the risk of Potato Spindle Tuber Viroid (PSTVd) with TPS, the seeds are planted in a high containment glasshouse. Biosecurity measures are in place, and material must test negative for PSTVd before plants are removed from the glasshouse.

[End of Annex VI and of document]