UPOV
International Union for the Protection of New Varieties of Plants

E

Technical Working Party for Vegetables

TWV/57/3

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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-23/072 of April 5, 2023. The following reports were received (in alphabetical order):

- Members of the Union: Annexes I to VII: European Union, France, Hungary, Japan, the Netherlands, South Africa and the United Kingdom

[Annexes follow]

ANNEX I

EUROPEAN UNION

Statistics

The Community Plant Variety Office of the European Union (CPVO) applications decreased slightly but remained strong in 2022, with 3193 applications in total. The processing of more than 78000 applications since 1995 underlines the stability of the system.

The distribution between crop sectors was as follows:

- Ornamental, 1265 applications (40%)
- Agricultural, 1002 applications (31%)
- Vegetable, 664 applications (21%), previous year (578 applications, 16.6%)
- Fruit 262 applications (8%).

In 2022, the CPVO Office granted 2964 titles for Community protection; 30 562 titles were in force by the end of the year. National authorities from all over the world regularly base their decisions on applications for CPVRs on technical examinations carried out on behalf of the CPVO (international cooperation, takeover of reports). In 2022, the CPVO provided 550 technical reports to 39 countries, the five countries from which most requests emanated were United Kingdom, Colombia, Morocco, Australia and Kenya.

Administrative Council (AC)

The CPVO is supervised by an Administrative Council (AC) comprising representatives of the Member States and the European Commission and their alternates. In 2022, the members of the AC adopted the following:

- Intellectual Property Action Plan/SMEs: SME fund – reimbursement of IP fees; extension to PVR application fee in 2023
- Fees regulation update launched in December 2022, expected to enter into force in 07/2023
- Revision of Entrustment requirements document adopted with entry into force from 01/01/2023
- Renewal of the mandate of the R&D Advisory Group
- Strategic Plan 2022-2026, strategic goals – operational excellence, developing the PVR value chain and fit for purpose legal and policy framework.

Administrative Council decisions on technical protocols

In the course of 2022, the following technical protocols were adopted by the AC:

- *Lactuca sativa L.* CPVO-TP/013/6-Rev.3
- *Chrysanthemum* L. CPVO-TP/026/2-Rev
- *Spinacea oleracea* L. CPVO/TP-055/5-Rev.4
- *X Triticosecale* Witt. CPVO/TP-121/3-Corr
- *Secale cereale* L. CPVO-TP/058/1-Rev-Corr
- *Hippophae rhamnoides* L. CPVO-TP/240/2
- Diplotaxis tenuifolia CPVO-TP/244/1-Rev.2
- *Foeniculum vulgare* Mill. CPVO-TP/183/2
- *Eruca sativa* Mill CPVO-TP/245/1-Rev.2-Corr.
- *Cannabis sativa* L. CPVO-TP/276/2-Rev
- *Echinacea* Moench CPVO-TP/281/2
- *Lagerstroemia* L. CPVO-TP/095/1
- *Eustoma exaltatum* (L). CPVO-TP/197/2

Legal developments and Regulations

A study about "the economic contribution of PVR system in the EU" has been launched in 2021 and published in April 2022. It involves the CPVO, EUIPO, the European Commission and breeder's associations. The study considers the potential for the PVR system to help meet the Commission's Green Deal objectives and the United Nations (UN) Sustainable Development Goals.

International affairs

The CPVO participated in several IP Key international outreach activities

IP Key China

- Closed webinar Chinese Seed Law: videos of the activity available on the IPKey China website;

IPKey Latin America and AL INVEST PI: new phase in 2022-2023.

- Study on the PVR legislation of Ecuador presented to Ministries in Ecuador during a seminar in May 2022
- October 2022 together with the project AL INVEST PI, IPKey Latin America: webinar (with more than 400 participants) on licensing of plant variety rights, partially relying on the content developed for the learning course on licensing plant varieties ("Laboratorio de Contratos de Licencias de Variedades Vegetales").
- November 2022: enforcement seminar, carried out in cooperation with UPOV and national authorities of the Region.

IPKey South East Asia:

- Webinar on Plant Variety Protection and the 1991 Act of the UPOV Convention (January 2022)
- Workshop on support to beneficiary countries to accession to the 1991 Act of the UPOV Convention (January 2022), presentations available on the IPKey SEA website.

AfrIPI: due to the project constraints, no activity was carried out

OAPI: the CPVO Office gave a support in the implementation of 9 activities, of which:

- 2 national seminars on PVR system
- 4 activities concerning Quality Audit System in 4 different OAPI countries
- 2 study visits of OAPI delegation to the CPVO
- 1 training on the application process for legal and officers and examiners of OAPI

CarIPI:

- 2022 CarIPI, together with the CPVO and UPOV, organised an in-person seminar on Regional Cooperation in PVR in the Dominican Republic
- The other activity, carried out in September 2022, concerned the protection of plant genetic resources, traditional knowledge and folklore and the interfaces with the PVR System.

TAIEX: (Dominican Republic, Chile, Saint Vincent and the Grenadines)

- The CPVO in 2022 cooperated with 3 different countries in the implementation of TAIEX activities, together with experts from EU Member States. The activities were all targeting PVR authorities, to support them in the implementation of the national PVR system, including administrative procedures for the management of the application process, technical examination and guidelines on administrative proceedings before PVR offices.

UPOV activities

- Attendance of all TWPs
- Attendance of the regular UPOV meetings in Geneva
- WG-EDV
- WG Harvested Material
- WG on Smallholder Farmers in relation to private and non-commercial use
- Seminar on plant breeding and plant variety protection and climate change
- WG-DUS

OECD

- Attendance of the OECD Seed Schemes Technical Working Group meetings and the Annual Meeting

FOCUS ON THE VEGETABLE SECTOR

Statistics

For vegetable applications received in 2022, the CPVO requested 122 technical examinations to be carried out on its behalf and took over 455 technical reports from national authorities, 116 applications were received from non-EU members (Switzerland, United Kingdom, Israel, United States of America, Japan, Australia and Republic of Korea). The CPVO received applications for 42 different species. In 2022, the 10 most important vegetable species represent about 80 % of all applications in this sector (lettuce, tomato, pepper, melon, pea, cucumber, French bean, cauliflower, onion, spinach). The table below shows the number of applications for the 10 most important vegetable species for the last 5 years and the total since 1995:

Species	2018	2019	2020	2021	2022	Total (1995-2022)
Lactuca sativa L.	248	180	230	166	160	**3250**
Solanum lycopersicum L.	115	149	90	107	141	**1832**
Capsicum annuum L.	47	61	59	44	71	**809**
Cucumis melo L.	30	64	47	43	40	**662**
Phaseolus vulgaris L.	27	12	27	20	22	**589**
Pisum sativum L.	28	28	27	22	35	**574**
Cucumis sativus L.	37	21	33	38	32	**538**
Brassica oleracea L. convar. *botrytis* (L.) Alef. var. botrytis	7	4	17	5	9	**270**
Allium cepa (Cepa group)	6	10	17	17	6	**241**
Spinacia oleracea L.	14	6	15	9	14	**235**
Total	**559**	**535**	**562**	**471**	**530**	

The vegetable expert meeting

A meeting of vegetable experts was held electronically on 10 November 2022. The meeting was attended by experts from 10 examinations offices, the European Commission, representatives of EUROSEEDS and ECO-PB. The Test Protocols for wild rocket, garden rocket, leaf chicory, garlic and kohlrabi, were revised and corrections of technical protocols for pepper, melon and carrot were approved. In addition, the group discussed numerous other items on DUS matters:

- Characteristics with one single observation in varieties examined for more than one growing cycle
- Organisation of the discussions about disease characteristics at the CPVO and UPOV level
- Report on technical examinations and variety descriptions
- Extension of the duration of the protection
- Towards a harmonised way to collect and monitor stocks of seeds for the reference collections
- Issues in relation to non-availability of reference material

R&D projects

Invite project

The CPVO participates to the Horizon 2020 project INVITE that aims at improving variety testing for ten species from the agricultural (maize, wheat, sunflower, ryegrass, soybean, rapeseed, potato), vegetable (tomato) and fruit (apple) sectors. In 2022, the work has continued for the development of new molecular and phenotyping tools, as well as for predictive models and field-testing protocols. CPVO provided technical and legal support to the consortium where appropriate. INVITE's third annual meeting took place in Vienna 19-21 April 2022, in the premises of AGES. It included a Technoshow to showcase phenotyping tools developed by the partners and by commercial service providers.

Ongoing project - "Updating DUS resistance tests according to pests' evolution: Setting up resistance tests to ToBRFV for tomato and pepper and Improvement of resistance test melon/Aphis gossypii" (01/02/2022 – 31/12/2024)

The project is coordinated by the GEVES (FR) and the partners in the project are the Examination Offices Naktuinbouw (NL), INIA (ES), CREA (IT), the breeding companies BASF, Bayer, Enza Zaden, Gautier Semences, HM Clause, Rijk Zwaan, Sakata, Takii, Vilmorin as well as the Research institution INRAE. The objectives consist in (i) developing a system to assess resistance to ToBRFV in tomato and pepper, ii) adapting the existing biotest to evaluate the resistance to *Aphis gossypii* in melon based on the predominant pathotypes and to validate the use of a biomolecular method.

Ongoing project - 'Harmorescoll' (01/01/2020 – 31/12/2023)

HARMORESCOLL aims at setting up, at the European level, a coordinated system to give information to interested parties on access to reference material (isolates, controls and differentials) for performing disease tests for DUS according to CPVO protocols and UPOV Test Guidelines. The project is based on the collaboration between examination offices and seed companies with the support of Euroseeds. Eventually the system should be self-financed. The project is coordinated by GEVES and Naktuinbouw.

Ongoing project - 'International validation of a SNP set to determine genetic distances for the management of tomato reference collection" (16/07/2019 – 31/08/2023)

The project aims at validating between all examination offices entrusted for tomato (NAKT, GEVES, COBORU, NÉBIH, INIA, DGAV and CREA) a set of markers adapted to the management of the reference collections in the framework of UPOV Model "Combining Phenotypic and Molecular Distances in the Management of Variety Collections". If successful, a follow-up project could be built for the characterization of the whole collections. The coordination is ensured by Naktuinbouw. The Beijing Sub-Center for DUS testing (CAAS) in China as well as the Korean Seed & Variety Service from the Republic of Korea and the Center for Seeds and Seedlings, NARO (NCSS) in Japan are involved and will participate in the project on their own funding. Euroseeds is also partner to the project. All European and Asian partners will test the selected SNP markers on a common set of varieties and on a set of varieties from their own country. A specific agreement defining the conditions of access to these materials have been signed by the consortium of partners and consents have been requested to the owners of all the varieties concerned.

[Annex II follows]

ANNEX II

FRANCE

GEVES is the Examination Office of France, in charge of DUS and VCUS evaluation of new plant varieties, and in charge of quality testing of 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 activity in the framework of national listing, PBR, and the activity in the framework of DUS bilateral agreements has slightly decreased in 2022. Main activity remains on agricultural species. Detailed figures can be found on the annual report available on our website.

In total in 2022, GEVES tested more than 1700 new cultivars for DUS:

- around 1300 new varieties and parental components in the agricultural sector.
  Main species tested are maize, wheat, barley, oilseed rape, sunflower, soybean.
- around 220 new candidate varieties in the vegetable sector.
  Main species are lettuce, tomato, melon, pepper, cauliflower and cabbages.
- around 140 new candidate varieties in the ornamental sector.
  Main species are Hydrangea, Salvia, Chrysanthemum, Buddleia.
- around 50 new candidate varieties in the fruit sector.
  Main species tested are apple, pear, peach, cherry, apricot, Japanese plum, vine.

Focusing on the vegetables sector, 2022 had a slight decrease compared to 2021 witch was an important year regarding especially to melon and tomato species. On the 2780 vegetables varieties currently registered on the French catalogue, the main species are tomato, lettuce, melon, bean, cauliflower and pepper. But about 35 different species of vegetables are studying every year at GEVES.

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

In 2022, the international cooperation service of GEVES received more than 1000 applications, mainly from the EU but also from all over the world. 70% of the requests are take-over requests and the DUS reports are then sent according to UPOV document TGP/5.

In addition to that, the French National Office for PBR (INOV) has received 113 applications in 2022, out of which 95% were tested for DUS by GEVES.

INOV is involved in UPOV PRISMA for all genera and species. Contact : inov@geves.fr

Regarding the use of molecular markers, GEVES is using in 2022 in routine molecular markers for the management of reference collection according to UPOV guidance, for maize, sorghum, spring barley.

Projects are being currently led on Oilseed rape, Hydrangea and Tomato.

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

A workshop is organized on the use of molecular markers in official DUS studies. The workshop will take place in person near La Rochelle, France, on June 6th to 8th 2023, and aims to offer a mix of theoretical and practical work. This workshop is aimed at people who play a role in the variety registration process, for example in an examination office or associated competent authority. More information available here : https://www.geves.fr/news/6-8-june-2023-workshop-on-the-use-of-molecular-markers-in-dus-studies/

Regarding the use of disease resistance characteristics, GEVES uses in routine genetic disease resistance characteristics, processed in bio assays, for DUS results. It 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

In 2023, GEVES will also host the UPOV Technical Working Party for Fruit Crops (TWF/54) from July 3 to July 7 in south of France (Nimes).

[Annex III follows]

ANNEX III

HUNGARY

The National Food Chain Safety Office (NÉBIH) is responsible for DUS testing for vegetables among others.

- The number of vegetable applications is stable. The most important species are tomato, pepper, squash, sweetcorn and watermelon.
- Most of these species are tested according to bilateral agreements for some other offices (Czech Republic, Poland) and for other countries (Austria, Cyprus) for requests as well. The bilateral co-operations are important for us, as they allow some specialisation for the examination offices of smaller countries like ours.
- The applications arrived mainly for registration. At vegetable species only few take-over requests were received from CPVO for European PVP.

[Annex IV follows]

ANNEX IV

NETHERLANDS

Naktuinbouw Variety Testing developments

- As from April 2022 one junior DUS examiner joined the DUS team to replace colleagues who retired or changed jobs. The DUS team now consists of 40 employees, including 2 managers and 4 specialized in disease resistance. The Department of Variety Testing includes also a support team, a trial management team and a project team. In total there are 70 employees.
- The Variety Testing Department yearly offers a number of courses around Plant Breeders' Rights and/or Listing. Last year almost all courses have been provided as online-sessions (Zoom/Teams).
- Applicants more and more use the online systems of UPOV PRISMA and CPVO for filing their applications for listing and/or Plant Breeders' Rights. Nowadays it is possible to apply for Plant Breeders' Rights for all species through UPOV PRISMA as well as for Listing in the Netherlands.

Number of applications received

In 2022, 2393 applications were received for testing for the first year for National listing, and for National or European Plant Breeders' Rights. Applications of the same variety for Listing as well as PBR, in vegetables and in agricultural crops are split in this table.

2022	NL listing	NL PBR	EU PBR	TOTAL
Agriculture	252	70	42	
Vegetable	717	453	58	
Ornamental (incl. trees)		161	640	
TOTAL	**969**	**684**	**740**	**2393**

DUS projects

Digitisation

- Naktuinbouw continues to work on the expansion of the Naktuinbouw Academy: a digital training platform.
- Databases: Naktuinbouw develops SNP-databases in French bean, Rose, Lettuce, Onion, Hemp and Tomato. Some databases are developed nationally, others in international projects (e.g.IMODDUS). The projects are funded by amongst others the Dutch board for plant varieties and CPVO.

EU projects: Database Melon, Harmorescoll and INVITE and IPKey

- An EU database for melon varieties is developed by cooperation between France, Portugal, Slovakia Spain and the Netherlands. The development is funded by CPVO. In 2021 the project has been finished and continuation in cooperation is agreed.
- Harmorescoll: in this project the reference material for obligatory disease resistance tests will be harmonized.
- The EU project INVITE on the improvement on DUS and VCU. Naktuinbouw is one of the partners in this program.
- Imoddus join a project on setting up resistance tests to *Aphis gossypii* in Melon
- Naktuinbouw continues to support IPKey projects

Other projects

- Study on minimum distances in Tulip 2021-2023.
- Studies on DUS and VCU testing in True Potato Seeds
- Automatic morphological descriptions of ornamental crops through machine learning. https://www.wur.nl/nl/Onderzoek-Resultaten/Onderzoeksinstituten/plant-research/biometris/show-biometris/MODOMA-Deep-Learning-in-sierteelt.htm
- Develop a disease resistance test for ZYMV in courgette

International cooperation 2023

- Since 2022, a holistic project has been started in the Philippines with the funds provided by RVO. The project aims to share knowledge and provide trainings for the development of the Philippines National Seed Technology Park (NSTP) project. The project continues till July 2024.
- In 2023, Naktuinbouw hosted the Sounding Board meeting of SeedNL, received a delegation from Morocco regarding knowledge exchange for DUS trials of fibre-cannabis and will receive experts from Colombia in October for a DUS training on Cannabis under the TAIEX project.
- Another TAIEX project with Japan regarding the exchange of knowledge on molecular techniques for infringements of plant breeder rights is under planning.

PVP Development Program (Toolbox)

- This is a tool to help countries to develop, improve and implement their Plant Breeders' Rights system. The first 5 years period has been finalised successfully. The Dutch Ministry has made another 5 years of funds available (2022-2027) for the implementation of this program. In 2023, different PVP projects in 11 countries are being carried out.
  More info: PVP Development Program – PVP Toolbox | Naktuinbouw or contact: PVPToolbox@naktuinbouw.nl

Plant Breeders Rights training course.

- In 2022, the course was presented in an online format. In 2023, the course will be split into four separate e-learnings, each with its own theme. The courses will probably start this fall.

More information: https://www.naktuinbouw.com/bulb/training-course/plant-breeders%E2%80%99-rights-food-security-and-economic-development or contact: l.pinan.gonzalez@naktuinbouw.nl

[Annex V follows]

ANNEX V

JAPAN

1. Number of applications in 2022

Year	Total number	(2022/2021)	Vegetables and Mushrooms	(2022/2021)
1978 to 2022	36780	-	Vegetables 2465 Mushrooms 667	-
2021	776		Vegetables 74 Mushrooms 16	
2022	683	(88%)	Vegetables 70 Mushrooms 13	(92%)

Top 5 of application for Vegetables and Mushrooms in 2022
Lettuce 22, Tomato 9, Bunashimeji 4, Enokitake 3, Shiitake 3, Pumpkin 3, Pepper 3, Cucumber 3, Total: 83

2. Number of granted in 2022

Year	Number	(2022/2021)	Vegetables and Mushrooms	(2022/2021)
1978 to 2022	29495	-	Vegetables 1953 Mushrooms 573	-
2021	588		Vegetables 39 Mushrooms 18	
2022	674	(115%)	Vegetables 33 Mushrooms 30	(110%)

3. National test guidelines harmonized with UPOV TGs in 2022

Common name of plants (5)
Abelia, Camellia, Chestnut, Barley, Tree peony, Eringi, Coleus

4. National test guidelines developed for new type of species in 2022

Genera or Species (13)
Bupleurum rotundifolium L.*, Dichroa febrifuga* Lour.*, Disporum* Salisb.*, Dorycnium hirsutum* (L.) Ser.*, Fatsia japonica (Thunb.)* Decne. & Planch.*, Hylotelephium* H. Ohba*, Kaempferia parviflora* Wall. ex Baker*, Prunus* L.(root stock)*, Sarcococca* Lindl.*, Scindapsus pictus* Hassk.*, Sedum lineare* Thunb.*, Viburnum dilatatum* Thunb.*, Westringia* Sm.

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

5. Other

- ✓ To enable PBR holders to exercise their rights effectively and to have a check on any unintended outflow of their protected varieties overseas, Japan PVP and Seed Act was amended in December 2020 and took into effect on April 1, 2022. Under the amended PVP and Seed Act, any acts in respect of the propagating material of all protected varieties (including use of farm saved seeds) shall require the authorization of right holders.

- ✓ Japan continuously provides other UPOV members with examination reports under the Memorandum of Cooperation (MOC). Japan had provided 64 DUS examination reports in total to other countries in 2022. In addition, MAFF and NCSS have been carrying out DUS examination for CPVR application of *Eutrema japonicum* (Miq.) Koidz. (syn. *Wasabia japonica* (Miq.) Matsum.) on behalf of CPVO.

- ✓ Since the establishment of the East Asia Plant Variety Protection （EAPVP）Forum in 2008, Japan continuously supports cooperative activities with the Forum member's conducted under the EAPVP Forum 10 year Strategic Plan. The common long-term direction of the 10 year Strategic Plan is to establish effective PVP systems consistent with the UPOV Convention, with the aim of achieving UPOV membership among all South East Asian Countries as a basis for further harmonization and regional cooperation.

- ✓ Japan, Vietnam and UPOV are also working together to develop a single online application Platform "e-PVP Asia" that enables a onetime application to multiple PVP Offices connected with UPOV PRISMA, thereby expediting the application process. The "e- PVP Asia" is also expected to facilitate cooperation in examination among participating countries. We are aiming to launch "e-PVP Asia" by early 2027.

- ✓ Since 2016, based on the Memorandum of Understanding, Center for Seeds and Seedlings, NARO (NCSS) and Naktuinbouw have established Calibration Manuals for DUS technical harmonization. "Calibration manual for lettuce ver.2" was finalized in 2023, and it will be published through both of websites. With revision of this, a total of 10 Calibration Manuals will be available for third countries.

[Annex VI follows]

ANNEX VI

SOUTH AFRICA

Plant Variety Protection (PVP) in South Africa is administered by the Department of Agriculture, Land Reform and Rural Development under the Plant Breeder's Right Act No. 15 of 1976. Plant Breeder's Right office is divided in three sections namely the PBR Administrative office and two evaluations centres where crops are shared according to the suitability and environmental conditions for good normal growth. Knowledge about the importance of Plant Variety Protection is increasing in South Africa. This was evident during the Stakeholder Workshops when Plant Breeder's Rights Act and Regulations were amended. Office of Plant Breeder's Right visited different Provinces to gather and also to provide information to the farmers and other stakeholders.

Current data and statistics show an increase in the number of applications for Plant Variety Protection. 263 PBR applications were received of which 37% [96] were for Agricultural Crops, 10% [29] for Ornamental crops, 42 [109] for fruit crops and 11% [29] for vegetable crops. As of December 2022, A total of 3637 varieties had valid plant breeder's rights in South Africa, of which 23% were Ornamentals crops, 39 % for Agricultural crops, 30% for Fruit crops and 8% for Vegetable crops. The top three crops are:

FRUIT CROPS

1. *Prunus persica* (L.) Batsch var. *nucipersica* Schneid. **[176]**
2. *Vitis* L. **[173]**
3. *Malus* Mill. **[104]**

AGRIC CROPS

1. *Zea mays* L. **[674]**
2. *Glycine max.* (L.) Merrill. **[165 GMO + 12 CONV]**
3. Triticum L. [123]

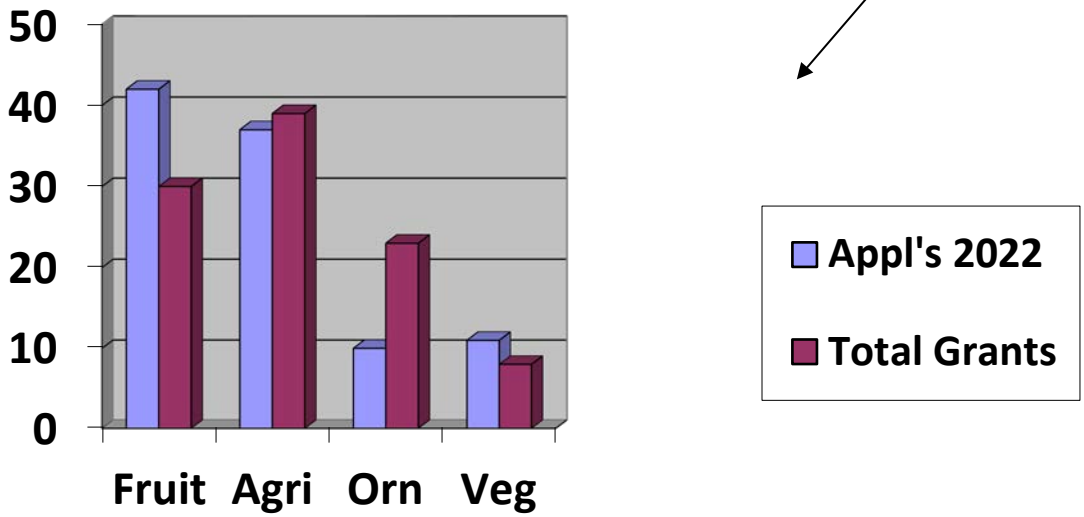
ORNAMENTAL CROPS

1. *Rosa* L. **[307]**
2. *Chrysanthemum* L. **[84]**
3. *Aloe* L. **[48]**

VEGETABLE CROPS

1. *Solanum lycopersicum* L. **[59]**
2. Phaseolus vulgaris L. **[34]**
3. Capsicum L. [26]

White CONV	**51**
White open pollinated	**6**
White GMO	**222**
Yellow CONV	**113**
Yellow GMO	**47**
Hybrid White	**24**
Sweetcorn	**11**



[Annex VII follows]

ANNEX VII

UNITED KINGDOM

Report on the activity of the United Kingdom (UK) Plant Varieties and Seeds Office and the DUS examination centres of NIAB, SASA and AFBI. The Plant Varieties and Seeds Office is part of the Animal and Plant Health Agency (APHA), an executive agency of the Department for Environment, Food and Rural Affairs (Defra) and its remit is to coordinate the delivery of variety registration and Plant Breeders Rights (PBR) in the United Kingdom. Contact details are available on the Gov.UK website : UK Variety Listing and PBR.

In 2022 the United Kingdom received some 1700 applications covering Plant Breeders rights and National Listing. The applications included around 460 agricultural and 140 vegetable applications.

The United Kingdom is now processing all National List and PBR applications through UPOV PRISMA. Since its implementation, the United Kingdom has benefitted from UPOV PRISMA to process applications and continues to work constructively with the UPOV PRISMA team to make further improvements.

To demonstrate experience and competence in performing DUS testing at its 3 DUS test centres, the United Kingdom has implemented a DUS Quality System based on internationally harmonised criteria. Following successful audit of the test centre at SASA in 2021, NIAB was successfully audited in 2022 as part of a rolling programme of audits.

Vegetable DUS in the United Kingdom is currently conducted at SASA, Edinburgh (formerly Science and Advice for Scottish Agriculture but now simply “SASA”). https://www.sasa.gov.uk/. SASA will be conducting DUS trials for several vegetable crop species during the 2023 growing season, including the following, *Allium cepa* L., *Allium porrum* L., *Brassica oleracea* L. var. *italica* Plenck, *Brassica oleracea* L. var. *gemmifera* DC., *Brassica napus* L. subsp. *napus* var. *pabularia (DC.)* Alef., *Daucus carota* L., *Pisum sativum* L. and *Raphanus sativus* L.

The United Kingdom authorities are working together to develop a United Kingdom Plant Variety and Seeds (PVS) Strategy spanning Plant Variety Rights, plant variety registration, setting standards for marketing and certification of seed and other plant propagating material. This will be the first strategy in the PVS area and developing it is an opportunity to engage with industry and other stakeholders to set out a shared vision, priorities, and actions to achieve these. The strategy will aim to enable a thriving and dynamic plant breeding sector capable of meeting the challenges and opportunities of a changing world. To uphold proportionate quality and marketing standards for seed and other propagating material to ensure a well-functioning internal market. To maintain and enhance the United Kingdom’s global reputation in plant breeding and marketing standards to ensure that the United Kingdom is perceived as an attractive and stable option to develop and bring to market new plant varieties.

On the international front, SASA Variety Testing staff continue to be committed to working with our colleagues in Europe and within UPOV and we continue to be involved in CPVO projects such as ‘Harmorescoll’ which aims to facilitate access to reference material for performing disease resistance tests within DUS examinations.

The United Kingdom continues to support the UPOV online courses with technical and administrative staff throughout the United Kingdom taking advantage of the distance learning opportunities through DL205 and DL305. Colleagues across the United Kingdom have also benefitted from attending the UPOV Technical Working Parties Preparatory Webinars.

[End of Annex VII and of document]