

**Technical Working Party for Agricultural Crops****TWA/52/3****Fifty-Second Session  
Virtual meeting, May 22 to 26, 2023****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-23/075 of April 11, 2023. The following reports were received (in alphabetical order):

- Members of the Union: Annexes I to V: Brazil, European Union, France, Netherlands and the United Kingdom

[Annexes follow]

BRAZIL

1. The National Plant Variety Protection Service (SNPC) on the Ministry of Agriculture and Livestock (MAPA), is the national authority for the examination of applications and for granting Plant Breeder's Rights in Brazil.
2. In 2022, SNPC received 401 applications: agricultural crops (237), fruit crops (65), ornamentals (47), vegetables (27), forest trees (20) and forage crops (5).
3. Those 237 applications of agricultural crops were for the following: *Glycine max* (L.) Merr (142), *Saccharum* L. (23), *Triticum aestivum* L. (22), *Phaseolus vulgaris* L. (10), *Gossypium hirsutum* L. (8), *Coffea canephora* Pierre ex A. Froehner (5), *Coffea arabica* L. (4), *Solanum tuberosum* L. (4), *Vigna unguiculata* L. (4), *Avena sativa* L. (3), *Oryza sativa* L. (3), *Sesamum indicum* L. (3), *Hordeum vulgare* L. (2), *Carthamus tinctorius* L. (1), *Brassica napus* L. (1), *Zea mays* L. (1) and *xTriticosecale* Wittm. ex A. Camus (1).
4. Applications were filed from nationals of: Brazil (179), United States of America (28), Switzerland (24), Netherlands (3) and Israel (3).
5. In 2022, SNPC granted 143 titles: agricultural crops (75), fruit crops (23), forest trees (22), ornamentals (12), vegetables (7) and forage crops (4).
6. Those 75 titles of agricultural crops were for the following: *Glycine max* (L.) Merr (40), *Saccharum* L. (9), *Solanum tuberosum* L. (4), *Coffea canephora* Pierre ex A. Froehner (3), *Avena sativa* L. (3), *Triticum aestivum* L. (3), *Zea mays* L. (3), *Hordeum vulgare* L. (2), *Oryza sativa* L. (2), *Phaseolus vulgaris* L. (2), *Brassica napus* L. (1), *Carthamus tinctorius* L. (1), *Linum usitatissimum* L. (1), *Sorghum* Moench (1).
7. Those titles were granted to applicants from: Brazil (50), Argentina (17), United States (3), Netherlands (2), France (1), Germany (1), Switzerland (1).

[Annex II follows]



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|---------------------------------|-------------------|
| - <i>Cannabis sativa</i> L.     | CPVO-TP/276/2-Rev |
| - <i>Echinacea</i> Moench       | CPVO-TP/281/2     |
| - <i>Lagerstroemia</i> L.       | CPVO-TP/095/1     |
| - <i>Eustoma exaltatum</i> (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

4. The CPVO participated in several IP Key international outreach activities

#### *IP Key China*

- o 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.*

- o Study on the PVR legislation of Ecuador presented to Ministries in Ecuador during a seminar in May 2022
- o 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").
- o November 2022: enforcement seminar, carried out in cooperation with UPOV and national authorities of the Region.

#### *IPKey South East Asia:*

- o Webinar on Plant Variety Protection and UPOV 1991 (January 2022)
- o 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 support in the implementation of 9 activities, of which:*

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

*CarlPI:*

- 2022 CarlPI, 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
- EDV WG
- 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
- DUS WG

*OECD*

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

AGRICULTURAL SECTOR

Statistics

5. The table hereunder shows the 10 most important agricultural crops over the last 5 years. The order of the species has remained unchanged; however, cannabis appears in the top 10 species, replacing triticale.

Species	2018	2019	2020	2021	2022	Total (1995 - 2022)
<i>Zea mays</i> L.	262	229	173	325	217	5725
<i>Triticum aestivum</i> L. emend. Fiori & Paol.	152	150	133	124	141	2572
<i>Brassica napus</i> L. emend. Metzg.	103	120	149	92	107	2028
<i>Solanum tuberosum</i> L.	84	68	72	72	59	1936
<i>Hordeum vulgare</i> L.	93	100	75	56	83	1680
<i>Helianthus annuus</i> L.	59	40	55	135	68	1367
<i>Lolium perenne</i> L.	19	46	19	20	30	473
<i>Triticum turgidum</i> L. subsp. <i>durum</i> (Desf.) Husn.	22	13	25	25	16	418
<i>Beta vulgaris</i> L. ssp. <i>vulgaris</i> var. <i>saccharifera</i> Alef. (syn. <i>Beta vulgaris</i> L. ssp. <i>vulgaris</i> var. <i>altissima</i> Döll)	19		11	6	13	406
<i>Cannabis sativa</i> L.	44	61	89	104	50	394
Total	857	827	801	959	784	

#### The agricultural expert meeting, (AEM)

6. The CPVO held its annual meeting with EU agricultural experts on 27 and 28 September 2022 in Krakow, Poland. The meeting was attended by experts from seventeen examinations offices as well as by representatives of the breeder's organisations. The group discussed several DUS technical examination related topics, and technical protocols (see list above):

- Maize: testing systems with breeder's participation in France and Italy
- Wheat: testing of wheat hybrids - the discussion kept for future due to the limited experience, synthetic wheat varieties
- Spring Barley: problems with distinctness observation
- True Potatoes Seeds (TPS): discussions continued in 2022, two technical workshops took place at Naktuinbouw, presentation on progress and results of observation shared
- Characteristics with one single observation in varieties examined for more than one growing cycles
- Issues in relation to non-availability of reference material
- The experts have been informed on the planning for the technical workshops to be organised in 2023, particularly to be dedicated to TPS in Germany.

R&D projects: the group received short updates on the advancement of the projects in the agricultural sector.

#### Invite project

7. 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 R&D projects

*'Developing a strategy to apply SNP molecular markers in the framework of winter oil seed rape DUS testing'*

8. Based on a first project (2016-2017) called "Test of the potential use of SNPs markers on oilseed rape varieties", in which GEVES (FR), BSA (DE) and NIAB (United Kingdom) selected and tested on different matrices a set of 500 SNPs to design reliable KASPar assays and confirmed the possibility to reliably use bulk samples of seeds in rapeseed a follow-up project was approved in March 2019 for a duration of 24 months (GEVES and BSA). In this project, the work continued and allowed the selection of 360 neutral SNP markers use for the genotyping of about 2000 varieties (representing 80 % of the French and German collections) and the development of a new approach for the selection of the reference varieties. By using genetic networks, clusters of reference varieties can be defined and only those containing candidates are grown in the fields. The new model can help reducing the size of first year trial by 20-45%, in theory, whether combined to the GAIA or the COYD models.

9. A second follow up project is foreseen in 2023 with main objectives to build reference libraries of molecular profiles and calibrate genetic thresholds for each participating Examination Office (EO), to run the model and confront the results. That implementation phase would include more entrusted EOs.

*'DURDUStools - Integration of molecular data into DUS testing in durum wheat: development of a common online molecular database and a genetic distance calculation tool'*

10. This project is a follow-up of a previous project (DURDUS), which developed a centralized system to genotype durum wheat variety collections using a commercial DNA chip. It started in January 2021 for a duration of 24+6 months. The coordinator is the Austrian examination office AGES. Project partners are INIA (ES), CREA-SCS (IT) and NEBIH (HU). The aim is to ensure the long-term usability of the results achieved in the DURDUS project, through the setup of a common online molecular database hosting DNA profiles of all varieties from the durum wheat reference collection and the development of an online genetic distance (GD) calculation tool available for the choice of comparators in DUS tests. This new tool was tested by the participating EOs in 2022 into routine DUS testing. A Partnership Agreement should be negotiated for the maintenance of the database after the end of the project in June 2023.

11. All reports of finalized R&D projects are published on the CPVO web site:  
<https://cpvo.europa.eu/en/about-us/what-we-do/research-and-development>

[Annex III follows]

1. 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.
2. GEVES website can be consulted here [www.geves.fr](http://www.geves.fr)
3. Description files can be found on the website for the varieties listed on the French catalogue. <https://www.geves.fr/catalogue-france/>
4. 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/>
5. GEVES will host the TWF meeting in Nimes from July 3<sup>rd</sup> to 7<sup>th</sup> 2023, with a full day of technical visit including a visit to the DUS testing station of INRAE l'Amarine in charge of DUS tests of apricot, peach, Japanese plum, interspecific hybrids and rootstocks.
6. The activity in the framework of national listing, PBR, and the activity in the framework of DUS bilateral agreements has slightly decreased in 2022.
7. Main activity remains on agricultural species. Detailed figures can be found on the annual report available on our website.
8. 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.
9. 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](mailto:Camille.zitter@geves.fr)
10. 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 TGP5 "UPOV Report on Technical Examination and UPOV Variety Description".
11. 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.
12. INOV is involved in UPOV **PRISMA** for all genera and species. Contact : [inov@geves.fr](mailto:inov@geves.fr)
13. 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.
14. As regards to new developments on agricultural species, GEVES has indeed applied for a follow-up to the project "Developing a strategy to apply SNP molecular markers in the framework of winter oilseed rape DUS testing" presented during last TWA ([TWA/51/4-add](#)). This follow-up (SNPsNap) mainly aims at validating the new model elaborated during the previous work on historical data.



15. For more information on Biomolecular Techniques, please contact: GEVES BIOGEVES [rene.mathis@geves.fr](mailto: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 6<sup>th</sup> to 8<sup>th</sup> 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/>

16. 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](mailto:Sophie.perrot@geves.fr)

[Annex IV follows]

## 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
<i>Agriculture</i>	252	70	42	
<i>Vegetable</i>	717	453	58	
<i>Ornamental (incl. trees)</i>		161	640	
<b>TOTAL</b>	<b>969</b>	<b>684</b>	<b>740</b>	<b>2393</b>

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.
- Imoddu 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 until 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](mailto: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-learning, 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](mailto:l.pinan.gonzalez@naktuinbouw.nl)

[Annex V follows]

## UNITED KINGDOM

1. 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](#).
2. In 2022 the United Kingdom received approximately 1400 applications covering Plant Breeders rights and National Listing. The applications were made up of 460 agricultural, 660 ornamental, 370 fruit, and 140 vegetables.
3. The United Kingdom continues to process all applications for PBR or National Listing through UPOV PRISMA. The system has quickly been accepted by applicants.
4. To demonstrate experience and competence in performing DUS testing at its three DUS test centres (NIAB, Cambridge – agricultural and ornamental species; SASA, Edinburgh – vegetable and agricultural species; and Agri-Food and Biosciences Institute (AFBI), Crossnacreevy – agricultural species), the United Kingdom has implemented a DUS Quality System based on internationally harmonised criteria. This continues into its third year. SASA and NIAB have had successful audits in the rolling schedule.
5. Agricultural DUS in the United Kingdom is conducted at NIAB ([www.niab.com](http://www.niab.com)), AFBI ([www.afbini.gov.uk](http://www.afbini.gov.uk)), and SASA ([www.sasa.gov.uk](http://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) and Fodder Kale. AFBI perform DUS testing of perennial ryegrass, Italian ryegrass, hybrid ryegrass and white clover. SASA conduct the DUS testing for potatoes.
6. An industry stakeholder event was held at NIAB in July 2022 in conjunction with Defra, APHA and the British Society for Plant Breeders (BSPB) focussing on DUS testing of barley in the United Kingdom. This well-attended and well-received workshop provided insight to the DUS testing process for Variety Listing and Plant Breeders' Rights in the United Kingdom as well an opportunity to engage, collaborate and receive feedback from national and international stakeholders. A similar event focussing on wheat is schedule for June 2023.
7. The United Kingdom continues to support the UPOV distance learning courses by providing tutors. Technical and administrative staff throughout the United Kingdom take advantage of the distance learning opportunities through DL205 and DL305. Colleagues across the United Kingdom have also benefitted from attending the two recent UPOV seminars and the UPOV Technical Working Parties Preparatory Webinars.
8. To meet the challenges of climate change, the rapid development of new plant varieties for our farmers and growers should be encouraged and facilitated. The United Kingdom are actively driving the implementation of new techniques to DUS testing through several collaborative or internal projects:
9. AFBI are coordinators of the 4.5-year Horizon 2020 (SFS-29-2018) InnoVar project ([www.h2020innovar.eu](http://www.h2020innovar.eu)). InnoVar aims to augment and improve the efficacy and accuracy of European crop variety testing and decision-making, using an integrated approach incorporating genomics, phenomics and machine learning. Data from our European-wide trial series will form the basis of a new, purpose built, variety recommendation tools. The project focuses on bread and durum wheat initially before applying the InnoVar approach to other crops. The project's consortium includes 21 partners across Europe, including United Kingdom partners ADAS, AHDB and APHA.
10. NIAB, SASA and BioSS (Biomathematics and Statistics Scotland) are active partners in the 5-year H2020 INVITE (Innovations in plant Varlety Testing in Europe – [www.h2020-invite.eu](http://www.h2020-invite.eu)). INVITE aims to improve both efficiency of variety testing and the information available to stakeholders on variety performance under a range of production conditions and biotic and abiotic stresses. This will be exemplified on ten selected species (apple, fodder grass, sunflower, soybean, wheat, maize, potato, tomato, oilseed rape, and lucerne) representing the main features of propagation, food and feed uses, and having an important breeding activity at EU level. There are 28 partners across Europe involved.
11. There is collaboration between InnoVar and INVITE. There is also liaison between INVITE and the Australian INVITA project.

12. NIAB has continued their investigation into the use of UAV (Unmanned Aerial Vehicles) within a DUS testing situation (see document [TWA/52/7](#) for more information).

13. Two new projects have been funded by Defra developing methods in DUS work. The first is the use of marker information to inform the selection of similar varieties to be included in a barley (*Hordeum vulgare*) test program. The second, is developing a machine learning program to identify genomic markers with the potential to distinguish between varieties of raspberry (*Rubus idaeus* L.). Both projects are in their infancy and will complete in January 2025.

14. NIAB have identified potential improvements to the testing system by investigating new additional characteristics. The exploration in to clubroot resistance in oilseed rape (*Brassica napus* L. *oleifera*) continues. A concerted effort to identify new characteristics for barley, including discussions with Euroseeds and GEVES, has resulted in the following characters being short-listed for consideration for inclusion in our National Test Protocol:

- First rachis segment: width
- Grain: rachilla – length
- Grain: shape
- Glycosidic nitrile production
- Proanthocyanidin content

15. We would welcome comments from UPOV members and observers that have experience of these characteristics. Please contact Alex Talibudeen for oilseed rape and Vanessa McMillan for barley.

[End of Annex V and of document]