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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS**Forty-Fourth Session
Obihiro, Japan, July 6 to 10, 2015****REPORTS ON DEVELOPMENT 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 requested by the Office of the Union in Circular E-15/110. The following reports were received (in alphabetical order):

Members of the Union: Annexes I to VI: Denmark, European Union, Japan, Netherlands, New Zealand and United Kingdom.

Organizations: Annex VII: European Seed Association (ESA)

[Annexes follow]

ANNEX I

DENMARK

In July 2014 the minister of Food, Agriculture and Fisheries decided to change the organization of the Department of Variety Testing. Until now the Department of Variety Testing has been a department in The Danish AgriFish Agency, which is again a part of the Danish Ministry of Food, Agriculture and Fisheries. The 1st of December 2014 a Foundation for Variety Testing - The Tystofte Foundation - was established by this Governmental decision and its instrument of foundation will ensure the impartiality of the Variety testing. The AgriFish Agency will continue to perform the tasks that count as official duties such as approval of new varieties. The AgriFish Agency will monitor the operation of the foundation on regular basis. The CPVO is consulted on maintaining and transferring of the DUS accreditation for a number of agriculture species from the AgriFish Agency to the Tystofte Foundation. This is obvious high priority, but is not foreseen to create any difficulties. The independence from the constraints of public finance will ensure a sound and dynamic development of variety testing and related activities at Tystofte. The DUS, VCU and Post control will continue at the premises at Tystofte together with the same personal. The new organization of Tystofte Foundation will take over the responsibility of the technical examinations the 1st of July 2015.

[Annex II follows]

EUROPEAN UNION

2014 was the second consecutive record-breaking year in terms of the number of applications for Community plant variety rights (CPVR). The Community Plant Variety Protection Office of the European Union (CPVO) received 3 626 applications, which represented an increase of 10% compared to the previous year. A part of the strong increase observed in 2014 could be attributed to higher examination fees which would be applicable as from the 1st January 2015 for new applications. This was reflected in a 69% increase in applications in the last three months of the year compared to the same period in 2013, as breeders rushed to get their applications in before the higher examination fees came into force. A further milestone for the CPVO in 2014 was surpassing the 50,000th application mid-way through the year. In 2014, the CPVO granted 2 684 titles for CPVR which was just short of the highest number ever granted within a calendar year. By the end of 2014, there were 22 554 CPVR in force. In 2014 there were 1027 new applications in the agricultural sector, which is the highest number of applications ever received in this sector which is an increase of 28.4% compared to 2013. This figure represents a share of 28.3% of all applications. As usual, the most important species is *Zea mays*. By mid-June 2015 a general drop in figures for overall applications is observed except for the agricultural sector where a plus of 4% can be reported compared to the record year 2014.

The CPVO opened its doors for business exactly 20 years ago on the 16th June 1995 during which time CPVR applications have continually increased making it the biggest plant breeders rights system in the world. To mark the occasion, the CPVO will celebrate its 20th anniversary with a Seminar and Dinner in Angers for honored guests on the 1st October.

IT developments: The number of on-line applications continues to increase steadily, and in 2014 represented almost 80% of applications filed to the CPVO. In addition to the exclusive serving of CPVR certificates electronically since April 2014, the CPVO intends to serve other types of formal decisions (rejections, cancellations, etc.) by electronic means mid-way through 2015. The pilot project on sharing the online application tool with EU Member States is nearing completion. The pilot project 'Exchange platform' launched in 2013 is performing effectively and on the 1st July this year the CPVO will do away altogether with the sending of paper application documents to its examination offices.

Variety Finder: The Variety Finder is a database maintained by the CPVO which includes a similarity search tool to test the suitability of denominations as well as a general searching tool. It contains information on registers of more than 60 countries. Since May 2014, Community trademarks registered with the Office for the Harmonization of the Internal Market (OHIM) have been included and updated on a daily basis in the Variety Finder database. 900 000 variety denominations originating from EU and UPOV Member States have been included so far. Some statistics on the content of the database according to a range of search criteria have been developed in 2014. The retrieval tool, named 'Search varieties', was further developed in September 2014, with more search criteria available, increased export facilities. This had a direct impact of its use. The CPVO receives contributions directly from EU Member States in respect of official and commercial registers, and via UPOV for most non-EU countries. In 2014, 54 organisations from 48 countries contributed to Variety Finder.

Research and development (R&D) projects and policy: The CPVO has reviewed its strategy on the matter and its Administrative Council adopted a new policy in March 2015 placing emphasis on the following three areas: (i) Common databases for variety collections within the same species; (ii) ring tests and harmonization of methodologies for observing characteristics within CPVO technical protocols; (iii) studies on the integration of molecular data into DUS Testing (IMODDUS). On the agricultural side, 2014 has three ongoing projects, namely the creation of a Maize DB between Hungary, Czech Republic and Slovakia, the impact analysis of endophytes on the phenotype of grass varieties in collaboration between the United Kingdom, France and Germany and finally the setup of the Common Potato Database.

Agricultural experts' meeting of 2014: The meeting took place in October and prepared the revisions of the technical protocols for barley and oats and to discuss the first drafts of the new CPVO-TPs for Soya bean, Cotton, Tall & Meadow fescue, Field bean and Common vetch. Further subjects of continued discussion were the questions of new characteristics in the technical protocol for barley. Concerning oilseed rape hybrid varieties, the discussion was continued as regards the amount of seeds to be submitted to an examination office for parent lines where the production of seeds is very costly. Another subject matter was the question on how to apply in practice the so-called re-submission of seeds as laid down in the cereals CPVO-TPs, in case of uniformity problems during the DUS test. A last point was the agreement to extend the UPOV Code

system by a third information on the use of a variety, say winter or spring, fibre or oil etc., in order to give more information or to improve the searching facilities when looking for varieties.

The CPVO is proud having hosted in Angers the 49th session of the UPOV Technical Working Party for Vegetables from 15-19 June 2015, which was attended by 60-70 experts from around the world.

On the 24 June, 2015, the CPVO organized a seminar on the interface between plant variety rights and patents. A report and all presentations of that seminar have been made available on the CPVO website.

[Annex III follows]

ANNEX III

JAPAN

1. Number of application and granted in 2014

(1) Number of applications

Year	Number	(2014/2013)	Agricultural crops	(2014/2013)
1978 to 2014	30,047	-	2156	-
2013	1,054		80	
2014	1,018	(97%)	57	(71%)

Top 5 of application for Agricultural crops in 2014

Rice:20, Soya bean:8, Italian ryegrass:6, Potato:4, Barley:4 TOTAL:57

(2) Number of granted

Year	Number	(2014/2013)	Agricultural crops	(2014/2013)
1978 to 2014	23,782	-	1898	-
2013	752		57	
2014	863	(114%)	93	(163%)

Top 5 of granted for Agricultural crops in 2014

Rice:47, Wheat:10, Soyabean:8, Corn:8, Buckwheat:4, Sweet potato:4 TOTAL:93

2. Japanese national test guidelines harmonized with UPOV TGs in 2014.

Genera and Species (3)	
Agricultural crops	Foxtail Millet
Others	Hypericum, Watermelon

3. Japanese national test guidelines developed for new type of species in 2014.

Genera and Species (18)
Cootamundra Wattle, Thale-cress, Marlberry, Siberian Bugloss, Oshima-kan-suge, Cladosiphon okamuranus Tokida, Emu Bush, Pineapple Lily, Blue Fescue, Japanese Privet, Lysimachia, Black Tea Tree, Rice Flower, Fountain Grass, Peperomia, Pink-head Knotweed, Houseleek and Solanum Peruvianum

Web-site: http://www.hinsyu.maff.go.jp/en/en_top.html

*The Plant Variety Protection and Seed Act of Japan established in 1978

[Annex IV follows]

NETHERLANDS

Number of applications received

In 2014, 1814 applications were received for testing for the first year for National listing, and for National or European Plant Breeders' Rights (in brackets the difference with 2013):

Ornamentals	897 (-8%)
Agriculture	159 (+10%)
Vegetables	758 (-4%)
Total	1814 (-5%)

After the all-time high of 2013, this was more or less 'back to the average' for Ornamentals and Vegetables, but still a remarkable increase in Agricultural crops. A forecast for 2015 is not yet possible.

UPOV-activities

- **Development of UPOV-guidelines**

In 2014, Naktuinbouw-colleagues acted as leading expert in the development or revision of ca. 6 guidelines in Ornamentals, Vegetables and Agricultural crops.

- **Joint UPOV/Naktuinbouw training**

Through a financial contribution from the Dutch government it was possible to organise a joint UPOV/Naktuinbouw PVP course in Arusha, the United Republic of Tanzania, for participants from the ARIPO countries. 28 participants were trained in two weeks on various aspects of Plant Breeders' Rights. Colleagues from UPOV, CPVO, GEVES and Naktuinbouw acted as trainers in this very successful course. A comparable training is foreseen for participants from the OAPI countries.

International co-operation.

With colleagues from UKZUZ and UKSUP there are co-operation agreements with Naktuinbouw on the joint carrying out of trials (trials in one season on two places) With GEVES there is an agreement on the joint construction of databases and we exchange DUS tests and resistance tests for vegetable applications. With KSVS in the Republic of Korea there is a MoU on joint development of training and assistance. With a number of countries there are bilateral agreements. Naktuinbouw is involved in training programs in Ukraine, Bosnia and Herzegovina, China, the United Republic of Tanzania, Ghana, Rwanda, ARIPO and OAPI. Together with colleagues from Bundessortenamt and NIAB, Naktuinbouw was present in the joint CPVO stand on the IPM in Essen Germany 2015.

Education and internships

- Besides the above education in the United Republic of Tanzania, the well-known PVP-course was held in Wageningen (in 2014 under coordination of Laura Piñán González and Judith Meijles.
- Like in former years, four colleagues from different foreign Examination Offices temporarily joined the Naktuinbouw DUS-examinations in the framework of the internship programme. This programme focuses on exchange of approaches and views between colleagues by working together in practice.

Website Netherlands Board for Plant Varieties

Information about the Dutch Board as well as information about procedures for National Plant Breeders' Rights or listing and applicable fees have been included on the renewed website of the Dutch Board. Information on applications and varieties in the Netherlands can be found in the online Netherlands Variety Register. The Netherlands Variety Register has been included on the website of the Dutch Board and the search possibilities in the Variety Register have been extended.

(Living) reference collections in Ornamentals

In an increasing number of Ornamental crops, Naktuinbouw keeps a living reference collection according to the CPVO-definitions. Much attention was paid to an effective crop management for, among many others, *Cordyline* and *Helleborus*. Our existing collections of *Hosta* and *Astilbe* were propagated and made nematode-free. In Orchids, much effort was paid to keep the living collection in an optimal condition. In *Verbena*, the living collection was enlarged and re-organised.

Besides living collections, pictures, variety descriptions and experts knowledge, increasing efforts were made to start the development of 'DNA-collections'.

Examination of small species in Europe

In co-operation with our colleague Examination Offices in Europe, much effort was paid to centralize the examination of so-called 'Small Species' (low number of applications per year). Bi-lateral negotiations were initialized to centralize different crops in different Offices, this to avoid the work on e.g. reference collections

for species with very few applications in more than one examination office. This is carried out in order to reach an optimal degree of efficiency in DUS-examination in Europe.

Communication

The Naktuinbouw Variety Testing Department started in 2014 with a new kind of electronic communication with our clients, the so-called Variety Newsletter. This monthly electronic newsletter (in Dutch and English) contains new developments in variety testing which we find important for our clients.

Search Plant

In 2015 a pilot version of a new portal has been developed by Naktuinbouw: Search-Plant. With this portal it is possible to search existing variety information of ornamental plants in different databases. At this stage PlantScope and the Lists of names of woody plants and perennials can be found via the portal. The goal is to implement more (international) parties and their databases. See www.searchplant.eu. The portal has been introduced at the symposium of cultivated plant taxonomy at RHS Wisley in the United Kingdom.

New EU directives: mandatory registration of fruit varieties

Per January 2017 new directives Fruit crops will be effective. The introduction of this has implications for the cultivation and trade of fruit trees.

Starting from 2017 only varieties that are registered within the EU may be professionally grown and traded in Netherlands. The period 2012-2017 is a transitional period. A practical explanation of the procedure, registration possibilities and the signing up of new varieties for registration was summarized in a document on the Naktuinbouw-website.

List of names of woody plants and list of names of perennials

With the appointment of Marco Hoffman from Wageningen UR / Applied Plant Research to Naktuinbouw (as successor of Gerard Bolscher), the Lists of names of woody plants and of perennials also migrated with Marco to Naktuinbouw. In 2015 new agreements were reached with the Dutch nursery industry and with the international partners: European Nursery Association (ENA) and Internationale Stauden Union (ISU). At the end of 2015 new editions will be published. See www.internationalplantnames.com.

Research projects (highlights)

In 2014 myNaktuinbouw was launched. This web based portal can be used by applicants to get real time information about applications in the Netherlands.

- In cooperation with a.o. the CPVO a project was carried out to test the effect of seed priming in DUS testing. In the Dutch situation the results were positive.
- In 2014 a project was finalized about the possibilities of DUS testing in seaweeds. The conclusion is that several specials can be tested in The Netherlands.
- In several greenhouse crops, tests are carried out to compare the cultivation in the soil and a cultivation using substrate. These tests in tomato, pepper and melon are necessary to see if the expression of certain characteristics is different. The results have been positive. Trials in substrate will be used in future.
- In cooperation with a.o. the CPVO there is Harmonization of resistance tests to diseases for DUS testing a project in progress.
- There is ongoing research in 2015 in how to test vegetatively propagated varieties in mainly seed propagated crops.
- In a project in relatively 'new' OT-hybrid-types of Lily, it came out that 'chimera-like structures' in this crop most probably have a genetic background and can cause serious Uniformity problems leading to negative DUS-reports.
- In a joint project with CPVO the submission and crop management of Helleborus were modernized and brought in line with commercial practice (pot culture, partly indoor). Attention will be paid to long-time survival of the living reference collection in pots.
- In a co-operation between CPVO, Netherlands, Hungary, United Kingdom, France and Poland, a new project is emerging on the practical usability and need for an automated color description tool, for those crops where detailed color description is essential.

Ownership of the DUS sample

The Netherlands Board for Plant Varieties (Raad voor Plantenrassen) developed guidance for the storage, exchange and use of DNA-samples with or without consent of the owner of the plant material.

Without consent of the owner of the plant material, an examination office (e.g. Naktuinbouw) is allowed to keep DNA samples (in form of plant material or purified DNA) for further DUS-purposes, such as:

management of reference collections, comparisons in questions of stability, and identity-checks on replacement of living plant samples. Outside DUS-purposes it can be used for EDV-threshold establishment and similarity-index analysis in comparisons of DNA-samples, but only in anonymized form.

Only with consent of the owner of the plant material, DNA-samples can be used for questions about possible mixture, supposed infringement cases and exchange of material with non-CPVO-entrusted research Offices.

Last but not least: in official court-cases, the Board for Plant Varieties and the examination office (e.g. Naktuinbouw) are always obligated to supply DNA-material after a request from the bailiff.

The taste of old vegetable varieties

In the framework of the week of taste, Naktuinbouw organised a non scientific comparison in taste between old and new varieties. Some 50 samples of various varieties (25 old and 25 very recent) were grown under the same circumstances. A local restaurant prepared identical dishes using the products grown by Naktuinbouw and a “dinner of taste” was organised where some 40 guests compared the taste of old and new. This resulted in a very enjoyable evening with lots of discussions between the guests. The subject taste, completely discarded in our DUS work, proved once more to be an extremely important subject for consumers.

Naktuinbouw, May 2015

[Annex V follows]

ANNEX V

NEW ZEALAND

Applications for agricultural varieties in 2014/2015 have decreased compared to the previous year. Applications for cereals, fungi, crop, and pasture plants, all decreased. The number of applications received for agricultural plants in the last few years has been variable within the range of 19-43 applications per year. The current year has seen increased interest in *Trifolium* with four applications received, the first applications for this genus in three years.

With recent applications for a *Festulolium*, and also for a *Lolium perenne* x *Lolium multiflorum*, our office has emphasised to applicants that in determining similar varieties plant morphology is the primary consideration. The presence of awns and the inflorescence type are taken into account when selecting appropriate comparators for growing trials for ryegrass.

There has been a call from industry to consider new characteristics when examining ryegrass. In particular aftermath heading, rachis internode length, leaf attitude, and leaf curvature have all been raised as potential new characters. Discussions with breeders, and investigations with regard to the appropriateness of these characters is ongoing.

New Zealand pasture breeders continue to be interested in protecting endophytes with nine varieties of endophytes granted protection in the last twelve months. Ryegrass seed is commonly being sold with endophytes present and there is a focus on breeding ryegrass to get the best results from the accompanying endophyte. The New Zealand PVRO office continues to refine its methodology for testing endophytes and maintains an endophyte collection in cold storage. It is anticipated our next round of endophyte testing will commence later this calendar year, although to date we have only a single candidate variety.

[Annex VI follows]

ANNEX VI

UNITED KINGDOM

As of the 1st October 2014, the Plant Varieties and Seeds Office has transferred from the Food and Environment Research Agency (Fera) to the Animal and Plant Health Agency (APHA), an executive agency of the Department for Environment, Food and Rural Affairs (Defra). Staff are unchanged but there are new contact details.

Across all species, United Kingdom National List (NLI) applications remained high. Winter oilseed rape continues to be the largest species for NLI application followed by cereals, then herbage and fodder, sugar beet and finally potato and various pulses.

The number of applications received from April 2014 to March 2015 for PBR and for Listing in Agricultural Crops was 489 (NL) and 29 (PBR) (total 518).

Other points of note are that NIAB will host the UPOV Technical Working Party for Ornamental Plants and Forest Trees in September 2015, on behalf of the United Kingdom Department of Environment, Food and Rural Affairs (Defra). Adrian Roberts from BioSS (in Scotland) is currently the Chair of the TWC.

The United Kingdom has had the opportunity to use the new web-based template for the drafting of new guidelines for Agricultural and Ornamental species and for making comments as interested experts, and would like to express their thanks to the UPOV office for all of their hard work in creating this facility. The process is now much easier and the new developments much appreciated by those involved.

The United Kingdom continues to support the UPOV online courses and all the technical staff at NIAB involved in DUS testing have recently completed the new course DL305, as have a number of staff from SASA and AFBI. This has been a very worthwhile exercise and again, the UPOV office is thanked for these supportive developments.

[Annex VII follows]

EUROPEAN SEED ASSOCIATION (ESA)

ESA had its Annual meeting in October 2014 in Lisbon (PT). A record number of 900 participants attended the event. The key issue during the open part of the general assembly was Biodiversity. The ESA AM agreed with the ESA Board that the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) is the preferred option in comparison the Convention on Biological Diversity (CBD) and the related Nagoya protocol. It was also decided to support as European seed sector the IT with a voluntary financial contribution.

Enforcement of Plant Breeders Rights remains of key importance for ESA and its members. The cooperation with the Anti-Infringement Bureau (AIB) focusing on vegetables and Breeders Trust (BT) focusing on potatoes and grasses, is continuing. In 2014 two complaints were filed in relation to the ESA general Code of Conduct which are being investigated upon.

On European level the Commission has withdrawn its legal proposal for Plant Reproduction Material in the beginning of 2015 after it was voted down by the European Parliament the year before. The discussion in the Parliament the Council and the Commission regarding the proposals for Plant Health, Official Controls and Organic production continues. The Commission has decided to postpone a possible revision of the Community Plant Variety Rights Regulation.

The 2015 ESA Annual meeting will take place from October 11-14 at the Hilton hotel in Vienna.

[End of Annex VII and of document]