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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

TECHNICAL WORKING PARTY ON AUTOMATION AND COMPUTER PROGRAMS**Thirty-Third Session
Natal, Brazil, June 30 to July 3, 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-15/101. The following reports were received (in alphabetical order):

Members of the Union: Annexes I to IV: France, Japan, Netherlands and the United Kingdom

[Annexes follow]

FRANCE

Sharing the online application of the Community Plant Variety Office of the European Union (CPVO)

The aim of this project is that national examination offices share the Community Plant Variety Office of the European Union (CPVO)'s online application system for their own applications (PVR and/or National list).

The system should include the management of: Application form, DUS TQ and VCU TQ.

Two country pilots were identified for this project: France and Netherlands.

The current

For France, We have finalized the application form and the TQ on two species Maize and Lettuce.

We've got a meeting on the last 27th of February with CPVO, NAKT and GEVES to sum up the feedback from clients during the test phase performed last November/December end of June or July.

Electronic Exchange platform with the CPVO

The aim of this project is to exchange electronic documents between several partners (the CPVO and its examination offices) via an exchange platform hosted on a dedicated server.

There are currently 2 examination offices that have already developed a B2B interface to the platform and are today in a position to send and receive documents from and to their local electronic management of document systems

The CPVO developed recently a 'CPVO Box' web page to access to the platform without having to develop a B2B system. Documents can be dropped to a web page and sent to the CPVO. This solution is particularly adapted to examination offices not willing to develop a B2B system because they do not have the resources or because the flow of documents with the CPVO does not justify it.

The aim for the CPVO is to:

- stop sending documents to all EOs in paper format by July 2015
- no longer accept documents in paper format from all EOs by January 2016

The French, Dutch and Spanish partners did not see any impediment to stop exchanging paper with the CPVO. The German and United Kingdom experts considered that the development of an xml format in order to exchange all information included in pdf documents was a pre-condition before abandoning paper.

It was concluded that the exchange platform was a workable tool. All the partners wish to continue to use the exchange platform and wish to extend the use of the platform to all the EO.

The CPVO will reconsider its vision taking into account the comments addressed by partners during this meeting and will organise a mailing with some milestone proposals to all examination offices in order to collect a feedback before a conclusion is drawn and possibly presented to the general meeting with examination offices in December 2014.

CPVO web services

As we have done with the CPOV web service 'CPVO Variety Finder Denomination' to manage the test of denomination, we are going to use the new web service developed by CPVO called 'CPOV Variety Finder Search'. The Web service runs a SQL command to search the trademark into the CPVO database taking into account the input criteria perimeter and specie code.

In return, the user is receiving the list of the denomination returned by the searching tool.

Nothing is recorded into the CPVO database, this web service is the equivalent to the searching tool of the CPVO variety finder web site.

The number of lines returned by the SQL statement is limited to 50 000 lines.

This web service is going to be the starting point of new process "Management of the reference collection" that we are going to develop in the next month. This process should centralize and harmonize the way that DUS expert define their own theoretical reference collection.

[Annex II follows]

JAPAN

1. Number of application and granted in 2014

(1) Number of applications

Year	Number	(2014/2013)
1978 to 2014	30,047	-
2013	1,054	
2014	1,018	(97%)

(2) Number of granted

Year	Number	(2014/2013)
1978 to 2014	23,782	-
2013	752	
2014	863	(114%)

2. Japanese national test guidelines had 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 III follows]

NETHERLANDS

SHORT REPORT ON DEVELOPMENTS IN PLANT VARIETY PROTECTION IN THE NETHERLANDS
2014/2015**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 automatized 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 IV follows]

UNITED KINGDOM

Progress/developments of a statistical nature in the United Kingdom include the following:

- A uniformity-testing module has been developed in R and in the DUST software using the modified methodology for COYU. This has allowed the evaluation of both the software and the methodology by participants in a practical exercise. This is reported in full in a paper to be presented in this year's TWC session.
- A method for prediction of COYD results after the first year has been developed. This is to be used to identify thresholds for elimination of reference varieties, potentially for use with methods such as GAIA, and was previously reported in TWC/28/30. It accommodates heterogeneity in variety-by-cycle variability. This will also be reported more fully in a TWC paper.

[End of Annexes and of document]