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TECHNICAL WORKING PARTY FOR FRUIT CROPS

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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 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 VIII: Brazil, European Union, France, Germany, Japan, Mexico, Netherlands and New Zealand

Organizations: Annex IX: International Community of Breeders of Asexually Reproduced Ornamentals and Fruit Varieties (CIOPORA)

[Annexes follow]

ANNEX I

BRAZIL

1. The National Plant Variety Protection Service (SNPC) on the Ministry of Agriculture, Livestock and Food Supply (MAPA), is the national authority for the examination of applications and for granting Plant Breeder's Rights in Brazil.

2. In 2014, SNPC received 344 applications: agricultural crops (179), ornamentals (83), vegetables (32), fruit crops (25), forest trees (09) and forage crops (16).

3. Those 25 applications of fruit crops were for the following: *Prunus persica* (05), *Passiflora edulis* (03), *Rubus idaeus* (03), *Vitis* (03), *Fragaria* (02), *Persea americana* (02), *Actinidia* (02), *Paullinia cupana* (01), *Malus domestica* (01), *Musa* (01), *Prunus* (01) and *Citrus* (01).

4. Applications were filed from nationals of: Brazil (09), Uruguay (05), United States of America (04), Netherlands (03), South Africa (01), New Zealand (01), Italy (01), United Kingdom (01).

5. Eight (08) titles were granted in 2014 to the following species: *Acca sellowiana* (04), *Prunus persica* (02), *Malus domestica* (01), *Rubus idaeus* (01).

6. Those titles were granted to applicants from: Brazil (06) and New Zealand (02).

7. Up to July 31th, 2015, SNPC received 197 applications, 13 of them to fruit crops; and granted 155 titles, 04 of them to fruit crops.

[Annex II follows]

ANNEX II

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 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 249 new applications in the fruit sector, which was just 7 fewer than the record set in 2013 and still well above the figures set in previous years. Peach and strawberry are the two most important fruit species with 71 and 44 applications respectively in 2014. The first half of 2015 saw a 12% drop in figures for overall applications and applications; in the fruit sector only 5 fewer applications were received than in the first half of 2014. For applications filed as from 1.1.2015, applicants have to pay 85% of the full costs of technical examinations and this constitutes a significant increase for fruit species subject to multi annual testing.

The CPVO opened its doors for business 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 started to serve other types of formal decisions (rejections, cancellations, etc.) by electronic means in June 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 did 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 the European Union (EU) and UPOV Members 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 (IMODUS).

Fruit experts' meeting of 2014: The meeting with fruit experts in 2014 took place in the CPVO premises on 30 September - 1 October. The meeting was attended by representatives of the CPVO's entrusted examination offices for fruit crops, CIOPORA and representatives of countries participating in the Multi-Beneficiary Programme. Discussions focused on: ongoing subject of phytosanitary requirements for plant material, feasibility of reduction in duration/costs of DUS testing, follow-up of R&D project on "Reduction of the number of obligatory periods": the CPVO proposes in this respect an amendment of the standard wording on test duration.

[Annex III follows]

ANNEX III

FRANCE

About the number of new varieties all species together applied either for national listing or plant breeder's rights, we observe in 2014-2015 stability compared to 2013-2014 and a slight increase of 2 % compared to 5 years ago. The plant breeding effort remains important and even in development for some crops regarding the capacity of genetic improvement to contribute to the challenges in the field of protection of environment and health.
The activity in the framework of DUS bilateral agreements slightly increases whereas the activity in the framework of national listing slightly decreases.
In total, GEVES studies each year about 1400 new varieties,

- around 90 new candidate varieties, a year, in the fruit sector.
- around 970 new candidate varieties, a year, in the agricultural sector.
- around 50 new candidate varieties, a year, in the ornemental sector.
- around 290 new candidate varieties, a year, in the vegetables sector.

GEVES activity, as an examination office on behalf of CPVO, is important with around 600 requests of results each year including about 2/3 of take over reports related to field and vegetable crops tested first for national listing. GEVES also sends each year about 500 reports to other examination offices and buy about 120 reports from them in the framework of bilateral agreements.
GEVES has been involved for the last few years in the following topics:

- the cooperation between Examination Offices (EO) to share common data bases of phenotypic variety descriptions, the management of phenotypic data bases for DUS characteristics such as genetic disease resistance traits, DUS peach databases for example.
-the use of molecular markers for variety identification, for the management of reference collections, for checking hybrid conformity,
- continuous improvement of our methods and protocols, in line with CPVO TPs and CPVO rules and UPOV guidance. For example, improvement of the DUS examination of apple mutant varieties is running these last years.
- the improvement of electronic files and datas for applicants, EO's and DUS examinateurs as "Sharing the online application of the Community Plant Variety Office (CPVO)"," Exchange electronic documents : B2B platform with the CPVO" and "CPVO web services Variety Finder"

GEVES contributed to the 2015 host of the TWV in Angers under the behalf of the CPVO.

As for fruits activities,

Following the 2013 apple mutants varieties CPVO/INRA/GEVES open day conclusions, GEVES and CPVO develop an improvement of the DUS examination:
-better pre DUS expertise to determine the most adapted set of varieties for grouping (exchange with applicants, pre examination of fruits lots from the applicant, routine visit on applicant and technical institutes facilities to re inforce the expertise…)
-due to the impossibility since 2002 to take in consideration color characteristics expressed before physiological maturity (as practiced by the fruit industry and the breeders), settlement of a complementary DUS Mediterranean official INRA GEVES site in Nîmes to better take in consideration the expression of the color differences between mutants at maturity (coloration characteristics for which they are bred for such crops areas…), taking care to not reduce the minimal distance.
- supporting any action to take account of new characteristics, such as coloration of the fruits in the weeks before the physiological maturity of the fruit,

The biomolecular characterisation of the DUS collection of varieties for which France is entrusted by CPVO is running :
-in routine for apple, pear, apricot, peach,
-on the way for cherry,
-will start soon for japonese plum.
BioGEVES also offers bio molecular services to enterprises and Examination offices for these species, red berries, strawberry and palms.

The publication of new directives for the marketing of fruits varieties in the EU in 2014 generates a new approach of the Listing of the varieties:
-establishment of an EU common catalogue,

-obligation to registrate a variety to trade plants,
-approach to take in consideration varieties not still listed (traded as CAC material until 11.12.2016) and establishment of Descriptions Officially Recognized, DOR.
Official French catalogue includes 1200 varieties able to be certified (700 are certified). The extension to CAC material could concern hundreds of varieties.

Especially in fruit, GEVES promotes the development of DUS common descriptions databases, calibration books and way to assess distinction to be used by Examination Offices, EO's, establishing Distinctness over the UPOV world. Three types of distinction expertise are considered:
-living DUS material,
-DUS descriptions from EO and technical descriptions,
-DUS common descriptions databases established by a group of EO.

[Annex IV follows]

ANNEX IV

GERMANY

In 2015 the Bundessortenamt started examinations of 57 new varieties of fruit species resulting in a total of 147 candidate varieties in 13 species, the most important of which were apple (37 candidates), strawberry (36), and raspberry (30).

This year the Bundessortenamt will start to establish a new Pear variety network in the framework of the German Fruit Gene Bank.

[Annex V follows]

ANNEX V

JAPAN

1. Number of application and granted in 2014 (1)

Number of applications

Year	Number	(2014/2013)	Fruit Crops	(2014/2013)
1978 to 2014	30,047	-	1,558	-
2013 2014	1,054 1,018	(97%)	49 47	(96%)

Top 5 of application for Fruit crops in 2014

Apple:11 Peach:7 Grape:5 Citrus:5 Japanese Pear:5

(2) Number of granted

Year	Number	(2014/2013)	Fruit Crops	(2014/2013)
1978 to 2014	23,782	-	1,259	-
2013 2014	752 863	(115%)	49 37	(76%)

Top 5 of granted for Fruit crops in 2014

Actinidia:11 Citrus:9 Peach:4 Japanese apricot:3 Persimmon:3

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

Genera and Species (3)
Watermelon ,Hypericum, Foxtail Millet

3. 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

4. Other.

The name of the Division will be changed to Intellectual Property Division in this October.

[Annex VI follows]

ANNEX VI

MEXICO

In Mexico plant varieties can be officially registered by two modalities, one is through applying for registration in the National Catalog of Plant Varieties (CNVV), which does not confer exclusivity of use. The other is by the application of breeder's title, which confers the right to exclusive use for a specified time. The regulatory framework is integrated by the Federal law of Plant Varieties and the Federal Law of Production, Certification and Trade of Seeds.

During the first half of 2015, 26 breeders of 10 nationalities filed 101 applications for 28 plant species; 12 were for agricultural crops, 6 for fruit crops, 4 for ornamentals, and 6 for vegetables. Out of which 34% were filed by Mexicans, 26% by Americans, 12% by Netherlands, 8% by Australians, 8% by Israelis, 7% by Dutch and 5% four others. With these new applications the total amount is 1,988 which belong to 123 different crops.

Currently, there are 231 registered breeders, of which the National Research Institute, Forestry, Agriculture and Livestock (INIFAP) tops the list with 294 applications, followed by Pioneer Hi-Bred International, Inc. and Seeds and Monsanto Agricultural Products, SA de CV with 130 each one, Seminis Vegetable Seeds, Inc. with 118, Driscoll Strawberry Associates, Inc. with 115, Meilland International, SA with 74, The Universidad Autónoma Chapingo with 55 and 1072 requests for additional 224 breeders.

Updated to June 30th 2015, SNICS have received applications from 31 countries; Mexico tops the list with 699, followed by the United States of America with 641, Netherlands 333, France 86, Germany 53 and others (25 countries) with 176 requests.

From 1996 to June 2015 SNICS have received 809 applications for agricultural crops, 476 for ornamental and forestry, 424 for fruit crops, 276 for vegetable, 2 for microscopic fungi species and 1 for seaweed.

In order of importance, in terms of number of the applications filed for species, there have been 393 filed for maize, 260 for rose, 132 for strawberry, 73 for sorghum, 68 for cotton and 1,062 for another 118 species.

Nowadays, 1,327 breeder titles have granted by SNICS: 275 for corn, 143 for rose, 87 for strawberry, 52 for cotton, 47 for sorghum, 40 for cranberry, 39 for grapevine, 38 for wheat, 34 for raspberry, 33 for common bean, 33 for potato and 506 for other 78 species.

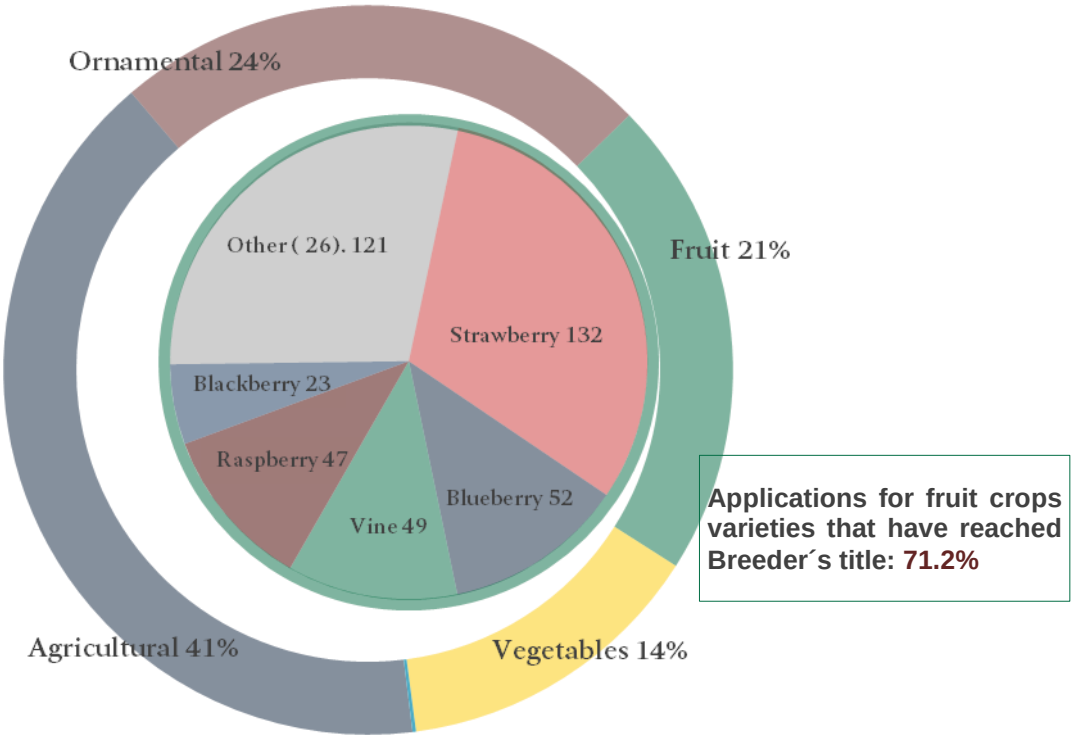
During the first half of 2015, 30 breeder´s titles were granted for the following crops: 6 for corn; blueberry, apple pepper, statice and blackberry, 3 each one, and 12 in other 8 species. From the 1,327 breeder titles granted nowadays 1,130 remain in force.

Fruit Crops

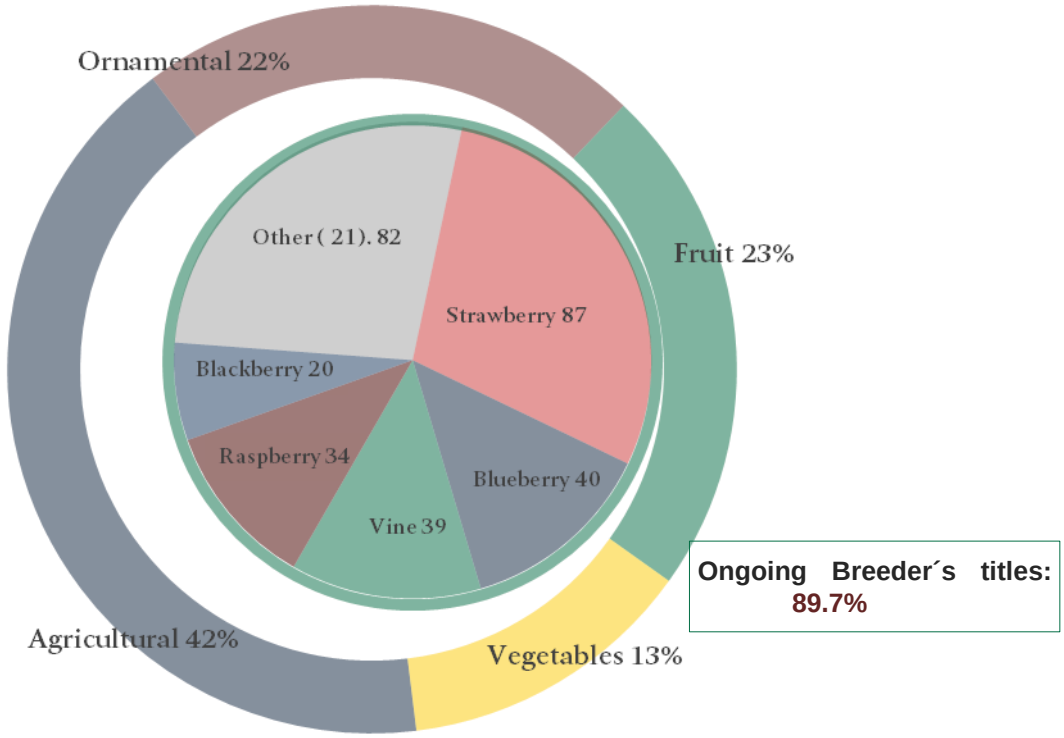
During the first half of 2015, eight breeders, five from the United States of America, two from the United Kingdom, one from Australia, and one from Italy presented 20 requests corresponding to six fruit crop species. With these new requests the number of fruit crops applications is 424 with respect to 32 species. These applications belong to 22 countries, the list is headed by United States of America with 266, followed by Mexico with 63, Australia with 19, Spain with 13, New Zealand with 11, and other 17 countries with 52 applications. The most important crops because of the number of applications are: Strawberry (132), blueberry (52), grapevine (49) Raspberry (47), blackberry (23), apple (18), and avocado (18).

Updated to June 30th, 302 breeder's titles have been awarded to fruity varieties: 87 for strawberry, 40 for blueberry, 39 for grapevine, 34 for raspberry and 102 for another twenty two fruit crop. During the first half of 2015, 10 breeder's titles were released in the following fruit crops: Blueberry 3, blackberry 3, strawberry 2 and raspberry 2. From the total of 302 breeder´s titles given to fruit crops, to June 30th, 2015, 274 remain in force.

Applications: Percentage by type of crop and most relevant number of fruit varieties.



Breeder´s titles: Percentage by type of crop and most relevant number of fruit varieties.



[Annex VII follows]

ANNEX VII

NETHERLANDS

Number of applications received

In 2014, 1814 applications were received for testing for the first year for National listing, and for National ór 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 is 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 automized 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 VIII follows]

ANNEX VIII

NEW ZEALAND

Applications for fruit varieties in 2014/15 have decreased in comparison with the same period in 2013/14, but the 2014/15 application number remains relatively consistent in comparison with the last few years, within the range of 30 – 49 per year. For the first time, the number of fruit varieties currently under test now exceeds that for ornamentals.

In recent years, applications have been received for varieties in a new group of apples. This new type of apple is of small fruit size and has been described by one breeder as a “large, edible crab apple’. Commercial opportunities have been identified for smaller fruit sizes and smaller tree sizes and breeders are using a wide range of *Malus* germplasm to produce suitable varieties. Testing is underway for the first varieties applied for and consideration is being given to the most suitable rootstock. The standard testing rootstock is M9 however some varieties in this group do not grow well with poor tree growth and a low number of useful fruit samples per tree.

The increase in the number of applications for *Rubus* and *Vaccinium* varieties reported previously continues. Testing for a number of these varieties will be delayed due to a significant shortage of space in the designated quarantine facilities for these genera. The difficulties experienced by the applicant with respect to plant importation have prompted requests from breeders to take over existing foreign test reports. The use of foreign test reports for varieties in these two genera is now under consideration. New Zealand bred varieties in both genera have been identified and it is sometimes difficult to determine whether or not these varieties of common knowledge have been considered in foreign testing.

The delays to testing and access to plant material caused by plant importation and quarantine requirements have already been mentioned for *Rubus* and *Vaccinium,* are an issue for testing of all imported fruit varieties. It is not uncommon for there to be a period of three to five years between application and access to suitable plant material for testing purposes. It is important to recognise that in most instances delays to testing are beyond the influence of the applicant or of the Office and requires careful management to ensure all applicants are treated in a consistently fair manner. Further information regarding the availability of plant material is available on the NZPVRO website

http://www.iponz.govt.nz/cms/pvr/technical-notes-guidelines/availability-and-supply-of-plant-material

[Annex IX follows]

ANNEX IX

INTERNATIONAL COMMUNITY OF BREEDERS OF ASEXUALLY REPRODUCED ORNAMENTALS AND FRUIT VARITIES (CIOPORA)

CIOPORA Brief on 2014/2015 activities, for consideration in the TWO and TWF

1. CIOPORA Position Papers on IP

During the last Annual General Meeting of CIOPORA in Hamburg, Germany, on April 28 and 29, 2015, CIOPORA members approved another Position Paper on IP, with this document specifically focusing on General Matters in PBR. Please see the Appendix to this document.

Many of the topics included in this Position Paper concern technical aspects of the UPOV system. As such, CIOPORA heartily invites the TWO and TWF to take note of these positions.

CIOPORA is still in the process of reviewing its Position on EDV (from 2008) and developing a Position on Patents. Two working groups were established in July, on EDV and Patents, respectively, to support this process. The goal is to have proposals completed by CIOPORA's AGM in 2016.

2. Case Study on Minimum Distance

CIOPORA, in cooperation with the CPVO and European Examination Offices, is conducting a case study on Minimum Distance for Apple, Rose and Pelargonium.

The foundation of the case study is the CIOPORA Position Paper on Minimum Distance (also attached) in which CIOPORA members express their concern regarding the minimum distance between varieties, specifically that some varieties can hardly be distinguished from one another. CIOPORA is of the opinion that, in the decision on Distinctness, not all characteristics from the test guidelines and protocols should be used but only characteristics important for the crop concerned.

In order to produce concrete data and examples as a basis for further discussion, a case study has begun with the aim to determine which of these important characteristics lead to clearly distinguishable varieties as well as the desired levels of difference within and between these characteristics. CIOPORA and its members active in the mentioned species (apple, rose and pelargonium) are in the process of drafting an amended protocol ('mock protocol'), based on the CPVO Technical Protocol. In order to do so the following steps have been agreed upon:

1. General expert makes a first selection
2. Board-related breeder of the crop concerned reviews the selection
3. Consolidation of the selection steps
4. Discussion and decision making by the CIOPORA members concerned
5. Mock Protocol shall be sent to Naktuinbouw (leading Examination Office for the project) and CPVO

In apples step 5 has been finalized.

In pelargonium step 3 has been finalized.

In rose step 4 is ongoing.

On the basis of these mock protocols, 50 recently protected varieties per species will be re-examined on paper to determine the possible effect of the mock protocols on the distinctness between these varieties and other already existing varieties (i.e. to re-do the analysis on distinctness). This will be executed by Naktuinbouw, the Bundessortenamt, NIAB, UKZUZ and GEVES.

The results of the case study will have no effect on the rights granted. The single goal of this study is to gather informed data that might lead to a future revision of the technical protocols.

It is expected that the results of the Case Study are available in the first half of 2016. CIOPORA, therefore, will invite the TWO and the TWF to consider including the topic of "Minimum distance" in its agendas for 2016. The UPOV Technical Committee already agreed to include the topic "Minimum distance between varieties" in the discussion part of its agenda in 2016.

3. New Decision-Making Process in Technical Matters

Beyond legal discussions, CIOPORA is involved in multiple discussions about technical questions, both on the UPOV level and also on the regional/national level. While some discussions relate to general technical matters (such as DUS examination in general, Minimum Distance, etc.), other discussions relate to crop-specific matters, e.g. UPOV Test Guidelines.

In order to have a proper representation for the breeders concerned, CIOPORA's decision making process for technical matters has been re-structured. During AGM 2015 in Hamburg, CIOPORA members agreed on an advanced process which relies mainly on the involvement of Technical Experts in the decision making process. To fulfill this, the CIOPORA Board has recently appointed two Head Technical Experts (HTEs) and three Vice-HTEs, for Ornamentals, Fruits and Biotechnology.

The main tasks of the Head Technical Expert and the Vice HTEs are to support CIOPORA's Secretary General in the preparation of technical documents and decisions for the Board, to monitor the general and horizontal technical positions of CIOPORA and to contribute to the discussions on crop-specific matters. Additionally, these individuals – next to the Secretary General – will function as the technical contact points for CIOPORA's external stakeholders.

The Head Technical Expert will be supported by the chairs of specific Crop Sections within CIOPORA, or, where no such Crop Section exist for a specific crop, by 'Crop-Leaders', who will organize the decision making process in crop-specific matters and propose resolutions to the Board.

The following individuals have been appointed:

Head Technical Expert Ornamentals
Ms. Nellie Hoek, Royalty Administration International

Vice Head Technical Expert Ornamentals
Mr. Mehdi Bathaeian, GGG-Grünewald

Vice Head Technical Expert Biotechnology
Prof. José Cubero, EUROSEMILLAS

Head Technical Expert Fruits
Mr. Burgert van Dyk, SAPO Trust

Vice Head Technical Expert Fruits
Ms. Yael Victoria Miara, Grapa Ltd

4. Next CIOPORA AGM

The next CIOPORA Annual General Meeting is scheduled to take place on April 25-29, 2016, in Istanbul, Turkey.

The venue of the AGM 2017 will be Zagreb, Croatia.

Appendix I to this Annex contains the CIOPORA position on General Plant Breeders´ Rights Matters. Appendix II to this Annex contains the CIOPORA position on Minimum Distance / Distinctness.

[Appendix I follows]

ANNEX IX

APPENDIX I

CIOPORA position

on

General Plant Breeders´ Rights Matters

as approved by its Annual General Meeting on 28 April 2015 in Hamburg

1. Genera and species to be protected

According to Article 3 of the UPOV 1991 Act a new member-country of UPOV shall provide protection at the date on which it accedes to this Act for at least 15 plant genera or species and, at the latest after 10 years after the accession, to all plant genera and species.

Countries, which are already bound by an earlier UPOV Act, shall provide protection at the date on which it accedes to the 1991 Act for all those plant genera and species, which are protected under the earlier Act and, at the latest after five years after the accession, to all plant genera and species.

Countries, which are bound by the UPOV 1978 Act, must provide protection only for at least twenty-four genera or species.

CIOPORA requires that all countries, which provide for PBR protection, shall cover all genera and species.

The limitation of the number of genera and species, for which PBR-protection is provided, makes the PBR legislation non-conform to Article 27 (3) b) of the TRIPS agreement, which requires an effective sui generis system for all plant varieties.

Such limitation is not justifiable and on the top not necessary anymore. In the past decades a high expertise in the examination of all kind of species has been developed, and for most of the species, which are in commerce, exists a (at least national) test-guideline. The take-over of test-reports allows all Plant Breeders´ Rights authorities to grant a title.

Therefore, the limitation of the number of protectable genera and species is no longer caused by technical limitation, but is used solely for political reasons, for the supposed benefit of growers in the country, who shall be continuously enabled to grow a species without contributing to the work of the breeders.

2. Conditions of Protection

2.1 Novelty

According to Article 6 (1) of the UPOV 1991 Act, a variety shall be deemed to be new if, at the date of filing of the application, propagating or harvested material of the variety has not been sold or otherwise disposed of to others within the territory earlier than one year before that date and outside the territory earlier than four years or, in the case of trees or of vines, earlier than six years before the said date.

In order to avoid confusion because of different legal understanding of “sales”, **the triggering point for the start of the period of grace should be linked to the physical transfer of propagating material for commercial purposes.**

It also should be clarified that the physical transfer of material for testing purposes shall not harm the novelty of the variety, as long as the material remains under the supervision of the breeder. Additionally, the physical transfer of material of the variety, which has been produced from plants grown for test purposes and which is not used for further reproduction or multiplication, shall not be deemed to be exploitation of the variety, provided that the said material is transferred without variety identification.

Additionally, a variety should be considered as "disclosed" (i.e. no longer "new") only where material, which is capable of producing new plants true-to-type, has been made accessible to the trade or to the public by the breeder or by its successor in title or with its consent.

The marketing of harvested material, which is not capable of producing a new plant true-to-type (such as the majority of fruits) shall not trigger the period of grace, because it does not allow a continued utilization of the variety.

Additionally, the mere publication of a description of a variety should not be considered as a disclosure of that variety.

When the so called "period of grace" was perpetuated by the UPOV 1991 Act, the marketing of protected new plant varieties was more or less confined to a fairly limited number of countries. Today, as a consequence of globalization on the one hand, and because of the shift of production to new territories on the other hand, new plant varieties have to be tested in many more territories and the marketing plans have become far more intricate and time consuming. Therefore the placing of a variety on the world markets stretches over a much longer period of time. Some varieties, which were supposed to be adapted to only very specific conditions, become demanded by the trade or by the public in an entirely different environment after a number of years. As consequence, the long period of time necessary for the proper launching of a variety does require a more adequate period of grace, especially for fruit trees, where a minimum 10-year period of grace would be more in line with the actual requirements of breeders.

Therefore, the period of grace should be extended for non-woody plants to six years and for woody plants to ten years.

Finally, for the calculation of the period of grace the time of quarantine should not be taken into consideration.

Transitional period for varieties of recent creation

According to Article 6 (2) of the UPOV 1991 Act, a UPOV member which applies this Convention to a plant genus or species to which it did not previously apply this Convention or an earlier Act may consider a variety of recent creation existing at the date of such extension of protection to satisfy the condition of novelty even where the sale or disposal to others took place earlier than the original time limits defined for novelty.

In order to compensate the disadvantages for breeders due to a late implementation of Plant Breeders´ Rights in a country, countries should allow a sufficient "transitional period", during which breeders can apply for Plant Variety Protection for their varieties, even if these varieties do not meet the requirements for novelty anymore. This should happen also if a country, which is already a member to the UPOV 1978 Act, upgrades its PBR-law and accedes to the UPOV 1991 Act.

In this respect there should be the possibility for breeders – within a specified time after enacting the respective provision – to apply for all of their varieties, irrespective of how old they are. In return the duration of protection might be limited to the remaining duration of the respective Plant Breeders´ Right in the first country of registration.

2.2 Reference collections (Use of DNA analysis for the set up)

In many crops reference collections are necessary in order to perform solid DUS examinations.

The maintenance of reference collections causes – particularly in fruit tree species - a significant part of the costs for the DUS examination.

Therefore, the composition of reference collections must be evaluated permanently and shall reflect the developments in breeding. Old varieties with no relevance for modern breeding and the phenotypic appearance of new varieties should be eliminated.

If such old varieties are maintained on the premises of the examination offices for other reasons, the cost for their maintenance shall not be included in the calculation of the cost of the DUS examination.

A tool to reduce costs in respect of reference collections may be molecular markers that are reproducible between laboratories. Molecular markers can be useful to generate a genetic conformity

measure as additional information when planning DUS trials, to come to an optimized setting of variety comparisons in DUS trials and for management of reference collections (UPOV option 2, UPOV documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add.).

Care must be taken that no phenotypically similar varieties are omitted from the comparative trials. To avoid appeal in later examination years, which unnecessarily expand the examination period, applicants and owners of reference varieties must be fully informed and consulted on beforehand about the composition of the trials.

Additionally, **CIOPORA in general favours the idea of involving panels of experts from outside the examination offices to identify the reference varieties, which should be compared with the candidate varieties, if no permanent living reference collection exists.**

However, it is indispensable that the process of selecting the experts is completely transparent and ensures a balanced participation of the international breeders´ community in each panel, preferably in co-operation with the respective breeders´ organizations.

2.3 Suitable Variety Denomination

According to Article 5 (2) of the UPOV 1991 Act a variety, for which an application for protection is filed, must be designated by a denomination in accordance with the provisions of article 20 of the UPOV 1991 Act.

The bars to the acceptability, by national PBR authorities of a member country of UPOV, of a denomination proposed by an applicant for plant variety protection are restrictively enumerated by the UPOV Convention. Therefore, UPOV member countries must not be more restrictive than the UPOV Convention itself as to what may constitute a valid denomination. In general, CIOPORA supports a high flexibility as to the names, words, codes or signs that are eligible for the identification of a variety.

Where applicants use fancy names or words, instead of codes, then the examining authorities should not only make a prior search within the lists of other existing variety denominations for the same or closely related species, but also within the list of prior trademarks filed for closely related products in the international class 31. This would save unnecessary litigation with holders of trademark rights having priority over the applicant of plant variety protection[1]. By using coded denominations applicants avoid potential opposition and delays in the application process due to “prior use” of an identical fancy denomination.

CIOPORA considers that the “re-use” of a variety denomination can be a source of confusion. In particular in perennial species, trees, shrubs, perennial herbs and garden roses, plants of a specific variety are maintained in public or private gardens for a long time, even if the variety is not “on the market” any more. In such cases the variety has not ceased to exist, but it is extremely difficult to discover this. Additionally, the possibility of such re-use seems to be needless. In case of using codes as denominations there is no trouble whatsoever. If a breeder wishes to use a fancy name as denomination, it should be easy for him to find a denomination that is not identical with the denomination of an “old” variety. CIOPORA considers the denomination of a variety as its permanent identifier, irrespective whether the variety is commercialized any more or not.

2.4 Formalities

The breeder’s right shall be granted according to Article 5 of the UPOV 1991 Act where the variety is new, distinct, uniform and stable. The grant of the breeder’s right shall not be subject to any further or different conditions, provided that the variety is designated by a denomination in accordance with the provisions of Article 20, that the applicant complies with the formalities provided for by the law of the Contracting Party with whose authority the application has been filed and that he pays the required fees.

The formalities provided for by the national PBR laws should not go beyond what is necessary to accomplish the application. The compliance with obligations based e.g. on the Convention on Biodiversity (CBD) shall not be considered to be a formality for the grant of a Plant Breeders´ Right.

3. The process of application and granting

3.1 Documents and forms used

[1] A variety denomination should be considered as absolute ground for refusal for a trademark where the use of such trade mark may be prohibited pursuant to the variety denomination.

- **Harmonization**
- **Electronic application**
- **PBR-CT system desired – one application – one DUS examination**

CIOPORA strongly supports the development of harmonized application forms and technical questionnaires and the set-up of technical tools for electronic applications, including a harmonized language regime.

The ultimate objective should be an optional system which would allow breeders to apply for their new variety on one application form (electronically) and choose the countries in which the application shall be accomplished. This should be combined with a DUS examination for the variety in a competent examination office and the take-over of the test report in the countries chosen.

The requirements and formalities for the certification of documents, such as the Power of Attorney, should be reduced to what is absolutely necessary.

3.2 Plant material requested

CIOPORA considers that the applicant for a plant breeders' rights certificate should be obliged to supply nothing but the material of the variety for which the application is filed.

In some countries, a practice has developed, on the part of plant variety rights' offices to routinely ask applicants to also furnish to the examination authority material of "comparative" varieties. While breeders are usually willing to cooperate when they are in a position to do so, this request should not be transformed into an obligation. Indeed the examination authority, alone, should have the responsibility of keeping whatever collection of "varieties of common knowledge" it may consider as appropriate for the purpose of comparing the latter to the candidate variety.

As regards the phytosanitary condition of plant material requested from breeders by DUS examination offices, CIOPORA acknowledges that such material should be in good sanitary condition in order not to infect other material that is being grown by said authorities. The recently stricter measures imposed by some DUS examining offices against the presence of pests and viruses seem to be going beyond what is strictly necessary or reasonable for the purpose of the DUS examination. Additionally, if a breeder provides to an authority material that does not meet the sanitary standards, this should not automatically lead to the refusal of the application.

Sufficiently broad time limits and possible extensions should be provided for the supply of plant material of the candidate variety. This is especially necessary for varieties that originate from another hemisphere than the one where the Examination Office is located, particularly if long periods of quarantine exist.

If plant material has to be sent to an examination office at a fixed period of time, the period should be communicated to the breeders in due time.

3.3 Priority

The claiming of the UPOV priority and the Paris Convention priority should be harmonized so that it can operate smoothly between all countries that are parties either to the UPOV Convention or to the Paris Convention, irrespective of whether the plant variety protection system is by patents or by a sui generis system.

In that respect the term "breeder's right", used in the UPOV 1991 Act, should be replaced by the term "title of protection" and the latter should be the subject of a broad definition in article 1 of the 1991 Convention, covering both sui generis breeders' rights and patents.

The texts of national or regional laws applying any given Act of the UPOV convention should be harmonized.

3.4 The DUS examination

In general CIOPORA is of the opinion that an IP title for a plant variety should be based on a DUS examination conducted by a governmental or specialized private entity.

The quality of the DUS examination should be high and should be harmonized on a world-wide level. A quality assurance system should be established.

CIOPORA is of the opinion that governmental or private entities, which conduct DUS examinations, should not be active in breeding the crops on which they do the DUS examination.

The conduct of the DUS examination should be as reasonably close as possible to standard commercial growing conditions.

Taking into consideration the significant influence of the environment on the phenotype of plant material and as a consequence also on the result of the DUS examination, the DUS examination should be conducted in areas having the best climatic conditions for the growing of the respective species and the candidate variety.

The DUS examination should be as short as possible in the given environment.

3.5 Ownership of plants, DUS reports, DNA samples and analyses

The property in the plants, which are shipped to the examination offices, belongs to the breeder. The mere shipping of plants to the examination office for the purpose of a DUS examination or the planting of the material into the ground of the examination office cannot be seen as transfer of property. As a consequence, the examination office is not allowed to keep or forward the plant material or parts of it, including DNA samples, during and after the end of the DUS examination without the authorization of the owner of the material.

3.6 Take-over of existing test reports

The examination offices / PBR offices shall make available the DUS examination report to other PBR offices for a reasonable handling fee. The current price for the take-over of an examination report of 240 EUR, as proposed by UPOV and accepted by the UPOV members is too high.

In principle PBR offices should be obliged to take over existing DUS reports. Precondition for such take-over is that the quality of the DUS examination is harmonized on a high level. In any case take-over of DUS reports should be compulsory between examination offices, which operate under a common system and observe the same procedures.

3.7 Duration of the application process

- **The entire application process should be as short as possible. In general, the PBR title should be issued not later than six months after the DUS examination has been completed.**

4. Farmers´ exemption

CIOPORA points out that the so called Farmers´ exemption has been admitted by UPOV under strictly limited conditions only for seed species grown by farmers and not in the horticultural sector (see the Recommendation relating to Article 15 (2) published in the Final Draft of the 1991 Act of the UPOV Convention and the UPOV document CAJ/50/3, No. 10, 11 and 13).

Applying the farmers´ exemption to vegetatively reproduced ornamental and fruit varieties makes a PBR law for such species totally ineffective, and thus is contrary to the UPOV 1991 Convention and the TRIPS Agreement.

5. Compulsory License

CIOPORA points out that according to Article 17 of the UPOV 1991 Act (Restrictions on the Exercise of the Breeder's Right) no UPOV member may restrict the free exercise of a breeder's right for reasons other than of public interest, except where expressly provided in this Convention. Similar provisions can be found in Articles 30 and 31 of the TRIPS Agreement.

Taking into consideration the large assortment of all kinds of ornamental and fruit varieties, CIOPORA is of the opinion that in general there exists no public interest in the commercialization of a specific variety of such crops, so that the preconditions for a compulsory license usually are not given as far as ornamental and fruit varieties are concerned.

6. Duration of protection

The minimum compulsory duration of a plant variety right under the UPOV 1991 Act is 25 years for trees and vines and 20 years for all other species, according to Article 19 (2).
CIOPORA is in favour of extending the duration for PBR to 30 years for all species for the following reasons:

- the requirements to a new variety increase steadily, and new varieties in general are of higher value than older ones,
- the costs for breeding and research increase, while the average royalty payments for varieties decrease,
- the breeder invests in average 10 to 20 years before a new variety enters the market; alone the testing period and the period for building up elite mother plants lasts 5 - 10 years,
- the scope of protection is not entirely effective,
- the desire of the public to get free access to the variety is fulfilled to a huge extend already during the protection period.

Such an extension will have no consequences for the vast majority of varieties. The vast majority of varieties have a rather short commercial life due to the rapid exchange of varieties in the market. It is only the exceptional, long-living varieties which would benefit from such extension. For such varieties it is necessary to have sufficient period of protection, because they earn most of the return on investment for the whole breeding program of the breeder. Additionally, it is justified to say that because of their excellence these varieties deserve a longer protection.

7. Provisional Protection between application and grant

Article 13 of the UPOV 1991 Act [Provisional Protection] provides that each UPOV member shall provide measures designed to safeguard the interests of the breeder during the period between the filing or the publication of a PBR application and the grant of that right. Such measures shall have the effect that the holder of a breeder's right shall at least be entitled to equitable remuneration from any person who, during the said period, has carried out acts which, once the right is granted, require the breeder's authorization. A state may provide that the said measures shall only take effect in relation to persons whom the breeder has notified of the filing of the application.

Different to inventions, which as a general rule are not released to the public before the patent is granted, breeders start the exploitation of their new varieties often even before they apply for protection, namely within the *period of grace*. This is to the benefit of the growers, too, because growers usually aim to access new varieties as soon as possible in order to reap the benefits of the improved characteristics of such varieties.

In order to create a real incentive for breeders to launch their innovation at an early stage, the breeder of the new variety must be in the position to control the exploitation of his variety, i.e. to grant licenses and to stop "infringers", even before the protection title is granted.

Article 13 of the UPOV 1991 Act provides the basis for such an effective provisional protection. However, it shows that most the UPOV members make use only of the least possible measure to protect the breeder, i.e. granting to the title-holder the right to an equitable remuneration to be paid by the persons, who use the variety between the publication of the application and the grant of the title.
Safeguarding the interest of the breeder, however, requires a more strict approach. First of all, in the national PBR laws the application for a PBR should be designed as a true object of property of the breeder, which can serve as a basis of contractual exploitation rights and for enforcement, including court proceedings against infringers.

Additionally and consequently, the applicant of the PBR should be entitled to enforce his right already during the period between the publication of the application and the grant.

If the application has been withdrawn, is deemed to be withdrawn or is finally refused the rights listed above shall be deemed never to have existed. In this case benefits received are to be returned, unless otherwise agreed by the parties.

If a PBR law provides that the said measures shall only take effect in relation to persons whom the breeder has notified of the filing of the application, the publication of the application in the official gazette of the competent authority should be considered as a proper notification.

CIOPORA is of the opinion that according to the current provisions concerning the provisional protection plants, which have been produced in the period of provisional protection without the authorization of the applicant remain illegal, even if the producer has paid an equitable remuneration to the applicant or title-holder. This is particular important for fruit-trees, which are usually produced for a long-lasting use.

8. The use of the variety denomination

According to the Article 20 (7) of the UPOV 1991 Act [Obligation to use the denomination] any person who offers for sale or markets propagating material of a variety protected within the protected territory shall be obliged to use the denomination of that variety, even after the expiration of the breeder's right in that variety.

The variety denomination shall be the unique identifier of the variety. UPOV and its members should see to it that the denomination of a variety is the same in all member states of UPOV, with as little exceptions as possible. The best way to avoid different denomination for one and the same variety is the use of code denominations, as promoted by CIOPORA since long.

In order to provide for clarity and transparency in the business and towards the consumers the mandatory use of the variety denomination for each and any material of the variety is necessary.

Therefore, the use of the variety denomination should not only be obligatory in relation to propagating material, but also in relation to harvested material.

This should apply not only for the protected variety, but also for varieties according to Article 14 (5) (a) of the UPOV 1991 Act, namely EDV (also non-protected EDV, see chapter …), varieties which are not clearly distinguishable from the protected variety and varieties, whose production require the repeated use of the protected variety.

9. Cost of Protection

The costs for the acquisition and maintenance of a Plant Breeders´ Right should not be unnecessarily high[2].

Particularly the fees for the DUS examination of fruit tree varieties reach in some countries a level which forms a barrier for the breeders to apply for protection.

Maintenance fees should be meant to cover just the administration costs by Plant Variety Rights Offices, no more. In view of the shorter and shorter turnover of varieties they should be kept at a minimal flat rate.

10 Enforcement

10.1 Effective enforcement measures

According to Article 30 (1) (i) of the UPOV 1991 Act each Contracting Party shall provide for appropriate legal remedies for the effective enforcement of breeders' rights.

Additionally, Article 41 of the TRIPS Agreement provides that members of the WTO 'shall ensure that enforcement procedures are available under their law so as to permit effective action against any act of infringement of intellectual property rights covered by this Agreement, including expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringement. Procedures concerning the enforcement of intellectual property rights shall be fair and equitable. They shall not be unnecessarily complicated or costly, or entail unreasonable time-limits or unwarranted delays'.

The enforcement of plant variety protection depends largely on the scope of rights. This is why a sufficiently broad scope of the PBR is priority in all countries concerned.

[2] Countries, which have unnecessarily costly fees for the acquisition and maintenance of IP rights violate Article 62 (4) in combination with 41 (2) of the TRIPS Agreement.

Additionally, in order to be effective, a Plant Breeders´ Rights law must be accompanied by effective enforcement tools. Such enforcement tools should contain at least

- Civil measures

(i) provisional measures, to grant access to premises of a probable infringer, to prevent or stop an infringement of the breeder's right, and/or to preserve evidence, e.g. to collect samples of infringing material;

(ii) measures to allow a civil action to prohibit the committing, or continuation of the committing, of an infringement of the breeder's right;

(iii) measures to provide adequate damages to compensate the loss suffered by the holder of the breeder's right and to constitute a deterrent to further infringements;

(iv) measures to allow destruction or disposal of infringing material;

(v) measures to provide payment by the infringer of the expenses of the holder of the breeder's right (e.g. court fees and attorney's fees);

(vi) measures to require an infringer to provide information to the holder of the breeder's right on third persons involved in the production and distribution of infringing material.

- Customs measures

(i) measures to allow suspension by the customs authorities of the release into free circulation, forfeiture, seizure or destruction of material which has been produced in contravention of the breeder's right;

(ii) measures to allow the suspension by the customs authorities of the release of the infringing material destined for exportation.

- Administrative measures

(i) provisional measures to prevent or stop an infringement of the breeder's right, and/or to preserve evidence (e.g. collect samples of infringing material from greenhouses);

(ii) measures to prohibit the committing, or continuation of the committing, of an infringement of the breeder's right;

(iii) measures to allow destruction or disposal of infringing material;

(iv) measures to require an infringer to provide information to the holder of the breeder's right on third persons involved in the production and distribution of infringing material;

(v) measures to allow the forfeiture, seizure of material which has been produced in contravention of the breeder's right;

(vi) measures for authorities responsible for the testing and certification of propagating material to provide information to the holder of the breeder's right regarding propagating material of his varieties;

(vii) administrative sanctions or fines in the case of a breach of the legislation on breeders' rights or of a non-compliance with provisions on, or misuse of, variety denominations.

- Criminal measures

  Criminal actions and penalties in cases of willful or negligent violation of the breeders´ right

CIOPORA is of the opinion that national legislation, which does not include at least the measures as listed above, does not fulfill the requirements of Article 30 (1) (i) of the UPOV 1991 Act and of Article 41 of the TRIPS Agreement. The consequences are particularly severe and damaging for small and medium sized enterprises.

10.2 Affordable cost of enforcement

The enforcement of IP Rights must be affordable for all title holders, particularly for small and medium sized enterprises. Too high costs form a practical barrier for enforcement, particularly for companies which do not have high financial reserves.
CIOPORA requests that infringers of IP rights shall be obliged to compensate all reasonable costs incurred by enforcement proceedings.

10.3 Specialized Courts

Plant Breeders´ Rights law is – due to the specifics of the material incurred – difficult and to judge about such cases it needs special knowledge.

Thus, it is advisable to direct Plant Breeders´ Rights court cases to selected courts, which are specialized in Plant Breeders´ Rights law or at least to courts that already are established for patent infringement cases because of similar experience in industrial property. This guarantees a unitary and qualified case law.

10.4 Use of molecular techniques for the enforcement

The effective enforcement of IP rights is of utmost importance for breeders. CIOPORA supports the elaboration of a standard modus operandi of DNA analysis as an additional tool to improve the enforcement of IP rights; molecular markers are then very useful for variety identification[3].

Particularly in regard to the harvested material of fruit varieties, such as apples or grapes, DNA analysis is the only way to prove or at least to provide a prima facie proof that the harvested material belongs to a protected variety, because in most fruit species it is not possible to produce a true-to-type plant from the harvested material.

[Appendix II follows]

[3] See the CIOPORA position “The use of molecular techniques for plant variety protection”, approved by the AGM 2011 in Rome.

TWF/46/22

ANNEX IX

APPENDIX II

CIOPORA position

on

Minimum Distance / Distinctness

as approved by its Annual General Meeting on 02 April 2014 in The Hague, NL

Key statements:

- CIOPORA demands a sufficient minimum distance between varieties for an effective Plant Variety Right.

- Since new varieties are bred, selected and introduced mainly for commercial targets, the requirement "clearly" should be seen as a judgmental and evaluative requirement, and should not end in a simple search of a botanical difference.

- The requirement "clearly distinguishable" should be assessed on characteristics important for the crop concerned; in this regard new important characteristics may be taken into consideration. Accordingly, a new type of characteristics ("relevant for the determination of clearly distinguishable") should be included into chapter 4.8 of TG/1/3 and the test-guidelines should determine for each characteristic whether it is considered relevant for the determination of "clearly distinguishable".

- The relevant authorities should have the continuing obligation to take into consideration additional characteristics proposed by applicants, if such additional characteristics are important for the determination of "clearly distinguishable".

- Differences in unimportant characteristics only should not lead to a clearly distinguishable variety.

- In order to be clearly distinguishable, the distance between two varieties in regard to their important characteristics must be sufficiently broad. Particularly in regard to pseudo-qualitative characteristics and quantitative characteristics a difference of only one note in general should not be considered as a sufficiently broad distance. The decision should be made on a crop by crop basis.

- Varieties with the same note in the UPOV test-guideline for a given characteristic should not be considered to be clearly distinguishable with respect to that characteristic. The possibility to search for a difference in a subsequent growing trial if such difference was not clear in the first properly performed examination should be eliminated.

- The possibility of randomized "blind" testing in case of doubts over the distinctness of a candidate variety should also be eliminated. In case of a doubt over distinctness, the candidate variety cannot be considered to be *clearly* distinguishable from the reference variety.

- The decision on which characteristics are relevant for the determination of "clearly distinguishable", on how many of such characteristics must differ from each other and on the distance between such characteristics should be made on a crop-by-crop basis by a panel of experts, including representatives of the breeders of the crop concerned.

Full text:

Minimum distance

CIOPORA demands a sufficient minimum distance between varieties for an effective Plant Variety Right.

The TRIPS agreement requires that a 'sui generis' system for the protection of plant varieties is effective. One of the most important requirements for effective PBR protection is a sufficiently broad minimum distance between varieties. An insufficient distance between varieties results in multiple weaknesses of the protection:

- The exclusive right of the breeder of the first variety is weakened. The exclusive right is mainly determined by the scope of protection. If PBR protection is granted for other very similar varieties, these other varieties are considered to be clearly distinguishable from the first variety, and thus fall out of the scope of the right of the first variety.

- The purpose of IP protection to support the commercial interest of the innovators is disregarded by not differentiating between important and unimportant characteristics.

- The obligation of the breeder to maintain his protected variety true-to-type is at risk if no tolerance is allowed. The breeder will potentially not be able to fulfill his obligation to maintain the variety true to type, if already very minor differences lead to a new variety.

- A fair examination of candidate varieties is not given anymore, because the environmental variation of the phenotypic appearance of the reference varieties compared to the previous years and to the year of their initial examination makes it extremely difficult for the examination offices to judge if the reference variety is still the one which has been granted protection – particularly in species where no living reference collection exist.

- The enforcement of PBR is very difficult, because very soon a plant runs out of the scope of protection if the plant differs from the variety description in only one or two minor characteristics.

- The phenotypic variation within a variety, caused by environmental influences or by cultivation methods, is larger than the variation tolerated between two separate varieties. This makes it very difficult to identify a plant in the production and trade chain.

In today´s reality, based on the UPOV 1991 Act, even a very small difference between two varieties makes the varieties *clearly distinguishable* in the eyes of the examination offices. Based on a pure botanical approach, all characteristics of a species are considered to be equally essential. In contrast to the UPOV 1978 Act, no differentiation is made anymore between characteristics important or unimportant for a variety. As a consequence, even a difference in one unimportant characteristic can make a variety clearly distinguishable from another variety in the eyes of the examination offices.

This systematical and inbuilt narrowing of the distances between varieties is supported by UPOV even more, by allowing for example randomized blind tests if doubts exist over the distinctness of two varieties.

This pure botanical approach runs contrary to the legal character of intellectual property protection and devaluates the requirement of "clearly distinguishable" in Article 7 of the UPOV 1991 Act to a sole measurement of a difference in at least one characteristic in the meaning of Article 1 (vi) of the UPOV 1991 Act (definition of variety).

As a result, the initial improvement of the UPOV 1991 Act compared to the UPOV 1961 and 1978 Act, aiming at a better control of "varieties, which are not clearly distinguishable from the protected variety" (Article 14 (5) (a) (ii) of the 1991 Act) has been impeded by this botanical approach.

Taking into consideration the weaknesses resulting from too small minimum distance and from the undifferentiated evaluation of important and unimportant characteristics, CIOPORA requires the following changes in the DUS examination:

- Since new varieties are bred, selected and introduced mainly for commercial targets, the requirement "clearly" should be seen as a judgmental and evaluative requirement, and should not end in a simple

search of one botanical difference.

- The requirement “clearly distinguishable” should be assessed on characteristics important for the crop concerned; in this regard new important characteristics may be taken into consideration. Accordingly, a new type of characteristics (“relevant for the determination of clearly distinguishable”) should be included into chapter 4.8 of TG/1/3[4], and the test-guidelines should determine for each characteristic whether it is considered relevant for the determination of “clearly distinguishable”.

- The relevant authorities should have the continuing obligation to take into consideration additional characteristics proposed by applicants, if such additional characteristics are relevant for the determination of “clearly distinguishable”.

- Differences in unimportant characteristics only should not lead to a clearly distinguishable variety.

- In order to be clearly distinguishable, the distance between two varieties in regard to their important characteristics must be sufficiently broad. Particularly in regard to pseudo-qualitative characteristics and quantitative characteristics a difference of only one note in general should not be considered as a sufficiently broad distance. The decision should be made on a crop by crop basis.

- Varieties with the same note in the UPOV test-guideline for a given characteristic should not be considered to be clearly distinguishable with respect to that characteristic. If a difference was not clear in the first properly performed examination, the possibility to search for a difference in a subsequent growing trial, according to chapter 5.2.3.2.4 of TGP/9, should be eliminated.

- The possibility of randomized “blind” testing according to chapter 6.4 of TGP/9 in case of doubts over the distinctness of a candidate variety should also be eliminated. In case of a doubt over distinctness, the candidate variety cannot be considered to be *clearly* distinguishable from the reference variety.

- The decision on which characteristics are relevant for the determination of “clearly distinguishable”, on how many of such characteristics must differ from each other and on the distance between such characteristics should be made by a panel of experts, including representatives of the breeders of the crop concerned.

CIOPORA suggests that these changes, which first have to be included into the general UPOV TGP documents, should afterwards be included into the single UPOV test guidelines gradually, species by species, by the Technical Working Parties and the Technical Committee, taking into consideration the input of the breeders.

The changes should not have retroactive effects for varieties which are already on the market or for which protection has been granted.

[End of Annex IX, Appendix II, and of document]

[4] TG/1/3: “GENERAL INTRODUCTION TO THE EXAMINATION OF DISTINCTNESS, UNIFORMITY AND STABILITY AND THE DEVELOPMENT OF HARMONIZED DESCRIPTIONS OF NEW VARIETIES OF PLANTS”