CIOPORA
UNITING BREEDERS
PROTECTING INNOVATION

Current Issues of Plant Breeders

Train the Trainer Course:
Plant Variety Protection Under the UPOV Convention

Geneva, 16 May 2017

by Dr. Edgar Krieger

Who We Are:

CIOPORA – the International Community of Breeders of Asexually Reproduced Ornamental and Fruit Plants

- Founded by ornamental breeders in 1961 simultaneously with the establishment of UPOV by the International Convention for the Protection of New Varieties of Plants
- Specializes in the IP-protection of ornamental and fruit plant innovations by means of Plant Breeders' Rights, Plant Patents & Patents
- CIOPORA functions include:
  - Advisory
  - Representation
  - Lobby
  - Education on IP
  - Enforcement co-ordination
  - Industry network

What We Do:

Advisory	Representation, Network & Lobby	Coordination & Education
▪ Content of IP laws and enforcement tools; ▪ CIOPORA develops comprehensive **Position Papers** on various aspects of PBR, incl. EDV, Minimum Distance, Breeders' Exemption, Exhaustion, Scope of the Right, Patents, etc.	CIOPORA enjoys observer status at UPOV, the Administrative Council of CPVO and has a strong global network which includes governments, industry associations, research institutions and decision-makers.	CIOPORA communicates breeders' positions on IP to governments, co-ordinates enforcement activities of its members, raises industry's awareness towards the IP and organizes The CIOPORA Academy.

CIOPORA ACADEMY

CIOPORA Membership

104 Members from 23 Countries

▪ Breeders/Title Holders	72
▪ IP Lawyers	17
▪ Affiliate	8
▪ Associations	5
▪ Honorary	2

BP-C1

CIOPORA Breeder Members

Horticulture: Innovation & High Profit

Horticulture

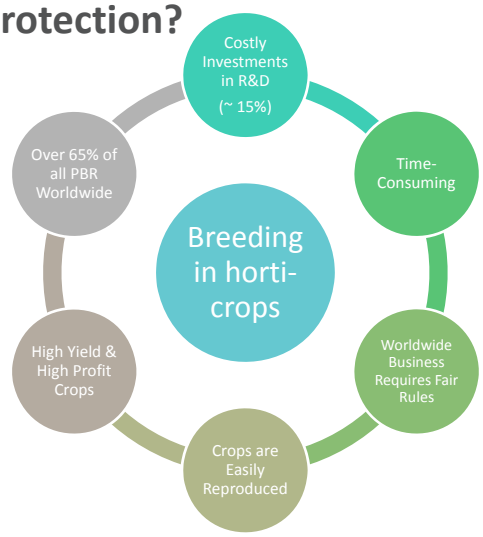
- „Cash" Crops with High Price
- High Earnings per ha, Year-round Yields
- High-Tech & Knowledge Based, Even on Small Farms
- Species are Easy to Reproduce - No Natural or Technical Barriers
- Creates Numerous Year-Round Jobs, Especially for Women

No Significant Subsistance Farming in Horticulture

Slide 5

BP-C1 Should add Baileys for next presentation... willl re-make the image in the next weeks
Brittany Posey - CIOPORA, 5/11/2017

Why Does Horticulture Need Effective IP Protection?



"In apples, the breeding and variety tests may take up to 22 years before a new variety can be launched".

IFO

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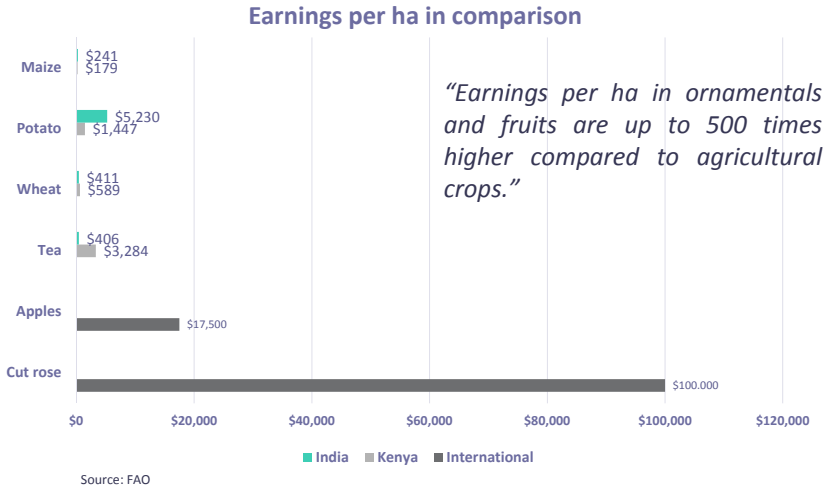
Things That Matter: Farmers and Growers' Earnings



"Earnings per ha in ornamentals and fruits are up to 500 times higher compared to agricultural crops."

Source: FAO

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Things That Matter: The Entire Chain Benefits from Innovative Varieties

- Royalty for the production of one apple tree: EUR 0.40 - 2.00
- Sales-price of an apple tree: average EUR 5.50 - 7.00
- Trees on one hectare: 1,666 – 3,300
- Tree production per year: average 30 - 40 kg
- Commercial life of an apple tree: 12 - 15 years
- Harvest per ha per year: 55 - 60 t (at 1,666 trees/ha)
- Price paid to the apple grower: 0.27 – 0.45 EUR/kg
- Price of apples for the end-consumer: 1.99 – 2.99 EUR/kg
- No. of apple pies eaten per year? Don´t know!
- Number of worms in apples? Don´t know! Reduction might be a breeding goal.

Picture credit: Better3Fruits

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Innovative Varieties are Profitable for All

One time 666 EUR royalties for the trees - (1,666 trees by 0.40 EUR)

Grower income from apples per ha per year: EUR 13,500 (50 tons, 0.27 EUR/kg)

- Grower income from apples: per life time of the apple trees - EUR 202,500 (15 years)

End-consumer price of the apples per ha per year: 100,000 EUR (50 tons, 1.99 EUR/kg)

- End-consumer price of the apples: per lifetime of the trees: EUR 1,500,000

Money earned in the trade chain: EUR 1,300,000

Portion of royalty in grower‘s income: 0.33%

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Some issues of Plant Breeders

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The Original

Clearly Distinguishable?

Or just (slightly) different?

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The Original

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Clearly distinguishable?
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Clearly distinguishable?
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Clearly distinguishable?
© Anthony Tesselaar


Clearly distinguishable?
© Anthony Tesselaar


Clearly distinguishable?
© Dominique Thévenon


Clearly distinguishable?
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Clearly Distinguishable/Minimum Distance

The Consequences of Minimum Distance

- A variety, in order to obtain PBR protection, must be clearly distinguishable from any existing varieties BP-C2
- A variety, which is clearly distinguishable, falls out of the scope of the [earlier] protected variety
- If the minimum distance is small, it is easy to obtain a PBR, but the exclusive right of the breeder is weakened or de facto negated.

Slide 22

BP-C2 There are "two consequences" but 3 bullets?
Brittany Posey - CIOPORA, 5/11/2017

CIOPORA Position on Minimum Distance

- Breeders need a sufficient minimum distance between varieties for an effective Plant Variety Right and true exclusivity.
- 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 be limited to a mere search for a botanical difference.
- The requirement “clearly distinguishable” should be assessed on characteristics important for the crop concerned; differences in unimportant characteristics only should not lead to a clearly distinguishable variety.

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Propagating Material or Harvested Material?

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Propagating Material

"Propagating Material" is the Key Term in the UPOV System

Article 14, Scope of the Breeder's Right

(1) [Acts in respect of the propagating material] (a) Subject to Articles 15 and 16, the following acts in respect of the propagating material of the protected variety shall require the authorization of the breeder:

(i) production or reproduction (multiplication),

(ii) conditioning for the purpose of propagation,

(iii) offering for sale,

(iv) selling or other marketing,

(v) exporting,

(vi) importing,

(vii) stocking for any of the purposes mentioned in (i) to (vi), above.

What is Propagating Material?

- It depends – on the definition of propagating material in the national PBR law
- UPOV does not have a definition of propagating material
- Two main definitions exist in the PBR laws:
  - plant material which is intended for propagation
  - plant material which is capable of reproducing a plant true to type

Propagating Material

- All UPOV members and those which want to join UPOV have a large flexibility in regard to the definition of "propagating material.
- CIOPORA believes that UPOV and its member countries should make the definition of propagating material objective (without subjective elements, such as "intention").
- Propagating material should include any material of a plant from which, whether alone or in combination with other parts or products of that or another plant, another plant with the same characteristics can be produced.

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Harvested Material

Article 14 (2) UPOV 1991 Act

[Acts in respect of the harvested material]



Subject to Articles 15 and 16, the acts referred to in items (i) to (vii) of paragraph (1)(a) in respect of harvested material, including entire plants and parts of plants, obtained through the unauthorized use of propagating material of the protected variety shall require the authorization of the breeder, unless the breeder has had reasonable opportunity to exercise his right in relation to the said propagating material.

Pictures: Morgufile.com - morgueFile free photo

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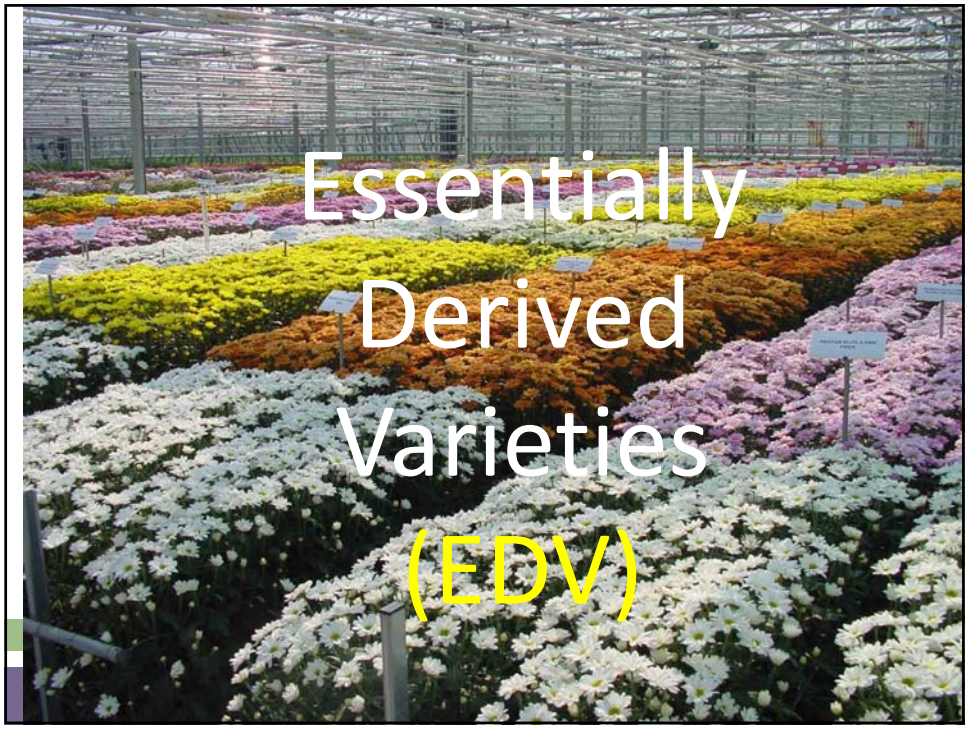
Harvested Material

- Breeders need to be able to control their varieties at any stage of the production and trade chain, to the point where the PBR is exhausted in the protected territory. Breeders should not be forced to exercise their rights at the stage of propagation only.
- Gaps in the protection of harvested material make misuse by infringers easy, to the disadvantage of honest growers, who fulfill their obligations
- CIOPORA, therefore, is of the opinion that harvested material should be protected directly and per se.

Processed Products

- Advanced technologies allow the processing of plant material all over the world, and the global shipping of the processed products.
- Again: Breeders need to be able to control their varieties at any stage of the production and trade chain, to the point where the PBR is exhausted in the protected territory.
- CIOPORA is of the opinion that products that are obtained directly from material of a protected variety should be protected directly and per se.



Essentially Derived Varieties

- The breeders of vegetatively reproduced ornamental and fruit varieties wish to have clarity in regard to EDV
- Breeders are concerned if two courts, judging about the same varieties, come to different results in regard to EDV (as it happened in the Gypsophila cases Danziger vs. Astee in Holland and Israel)
- For breeders of vegetatively reproduced ornamental and fruit varieties it is of importance that the EDV-concept covers all mutations and GMO (i.e. varieties originating from one variety) of the protected initial variety

Essentially Derived Varieties

- Allowing only one or a few differences for a variety to be considered to be an EDV is directed towards preventing plagiarism
- Linking EDV with plagiarism has a logical weakness, because for the holder of a protected variety it makes no difference whether the plagiaristc variety originates from his variety or from other varieties.
- CIOPORA considers plagiarism to be a matter of Minimum Distance and not a matter of EDV. Mutants and GMO should be considered to be EDV irrespective of their phenotypic similarity with their mother variety.
- UPOV and its members are invited to clarify the EDV concept.

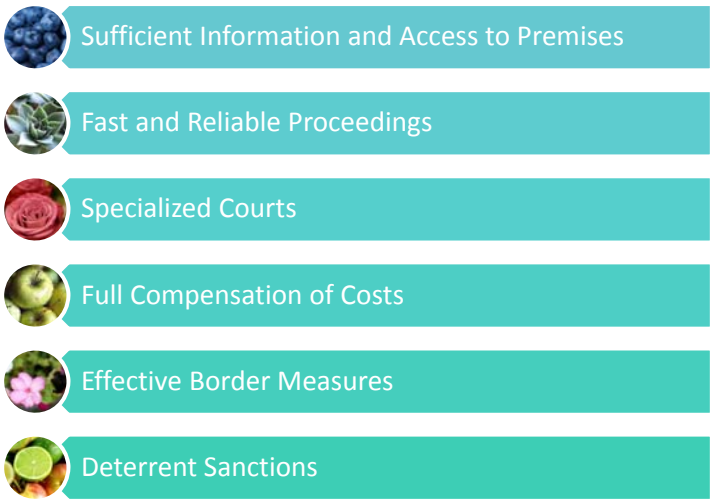
Farmers´ Exemption

- The Farmers´ Exemption allows farmers to use (part of) their harvest as propagating material on their own farm
- Usually it is not applicable to ornamental and fruit species, but some national PBR legislations (e.g. China, Vietnam, Brazil) have a very broad definition of farmers´ exemption, applicable to ornamental and fruit species. There, harvest includes not only the fruits, but bud-wood, cuttings, branches etc.
- Under this regime a grower can reproduce thousands of plants or trees and can harvest fruits and flowers for a long period of time without contributing to the innovative work of the breeder
- Applying farmers´ exemption to asexually reproduced ornamentals and fruits makes the protection worthless – CIOPORA is strictly opposing this.

Exhaustion

- Exhaustion means that the title holder cannot exercise his right any more for material, which has been brought onto the market in the protected territory by himself or with his consent.
- In most jurisdictions national exhaustion is laid down: Bringing material onto the market in territory A does not result in exhaustion in the protected territory B.
- A very few jurisdictions (e.g. those of India and Vietnam (UPOV 1991 member)) have laid down "international exhaustion", which is contrary to UPOV rules: Bringing material onto the market anywhere in the world results in exhaustion of the right in e.g. India or Vietnam.

Effective Enforcement Mechanisms



Conclusions

A good PBR law includes

- *Sufficiently broad Minimum Distance between varieties*
- *Direct protection of propagating and harvested material, or at least a broad definition of propagating material*
- *Clear EDV concept, which includes Mutants and GMO*
- *No farmers´ exemption for ornamental and fruit crops*
- *Balanced national exhaustion regime, which applies only to the material brought on the market in the protected territory with the consent of the title-holder*
- *Effective Enforcement mechanisms*

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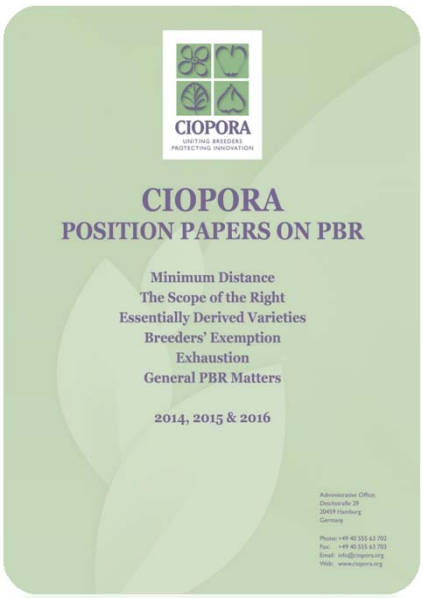

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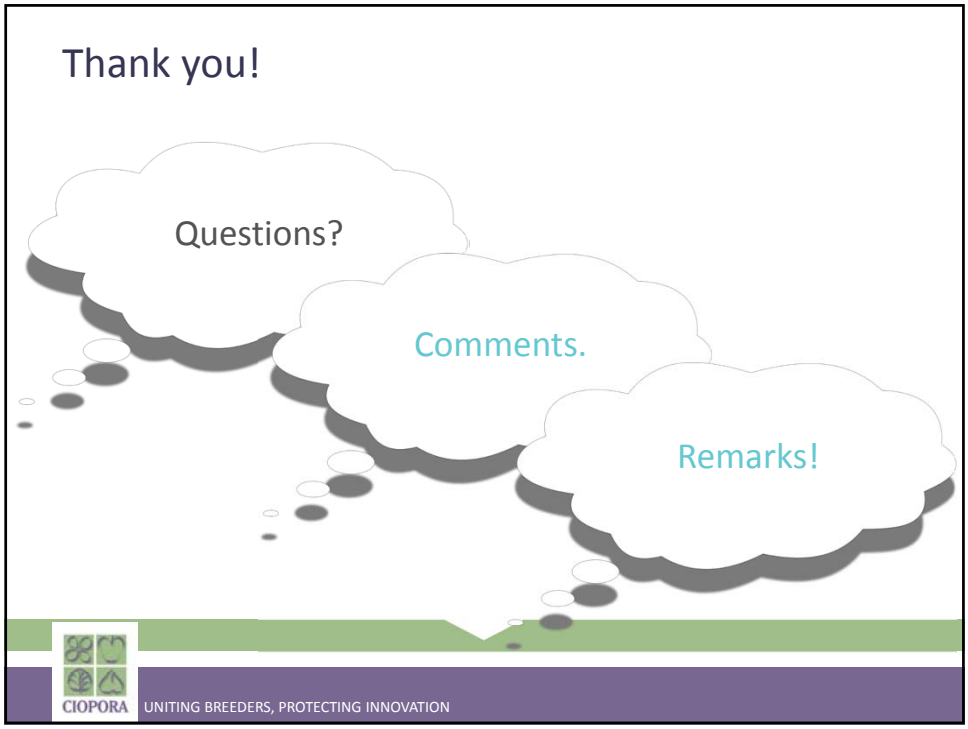
Thank you!
Questions?
Comments.
Remarks!
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