

UPOV

Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT)

Twelfth Session
Ottawa, May 11 to 13, 2010

PREPARATORY WORKSHOP

May 10, 2010

UPOV

PROGRAM

1. Introduction to UPOV
2. Overview of the Technical Working Parties (TWPs)
3. Guidance for DUS Examination
 - General Introduction (document TG/1/3)
 - TGP documents
 - Test Guidelines and characteristics
 - Cooperation
4. Role of the TWPs and BMT
5. Situation in UPOV concerning the Possible Use of Molecular Techniques in the DUS Examination
6. The Concept of Essentially Derived Varieties
7. The Role of UPOV in Variety Identification
8. The UPOV website
9. Agenda for the BMT session

UPOV

1. INTRODUCTION TO UPOV

UPOV

UPOV

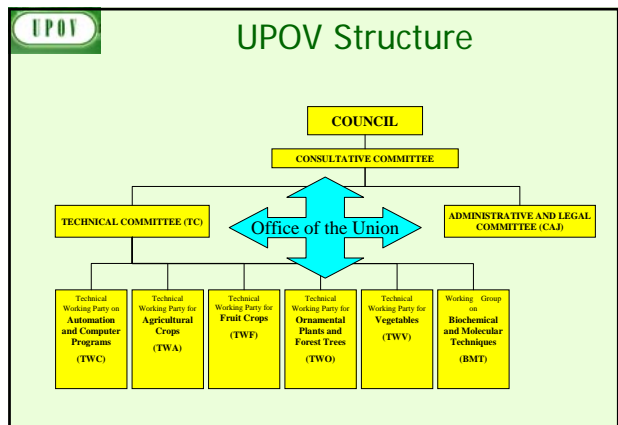
The International **Convention** for the Protection of New Varieties of Plants established in 1961

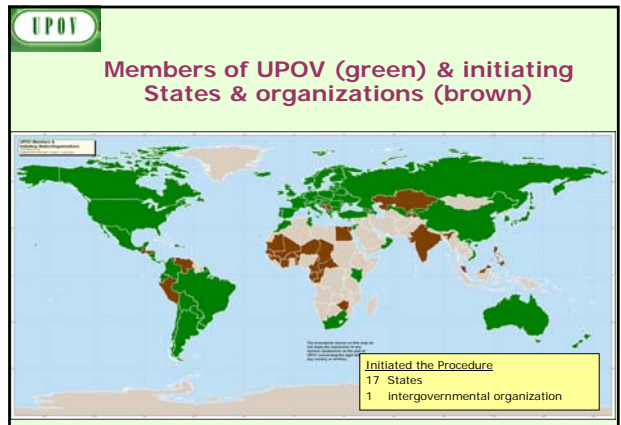
The International **Union** for the Protection of New Varieties of Plants

Union internationale pour la protection des obtentions végétales

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- **Members of the Union**
 - States
 - Intergovernmental Organization(s)
- **Organs established by the Convention**
 - Council
 - Office of the Union
- **Other Bodies**

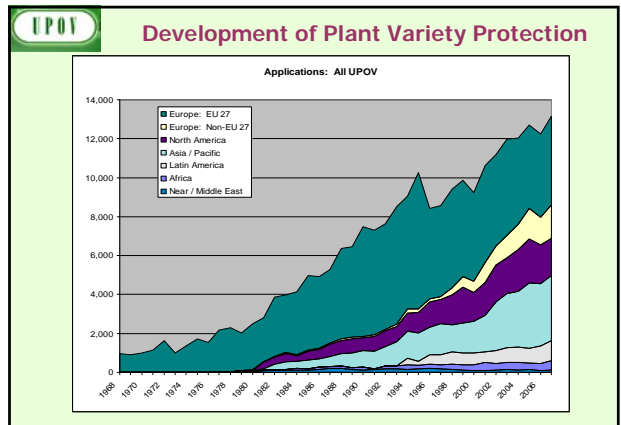
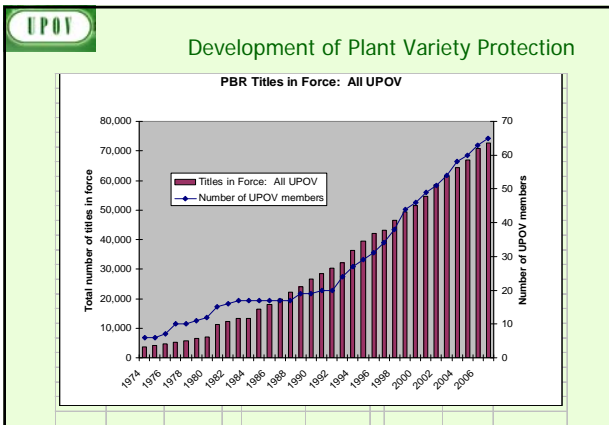
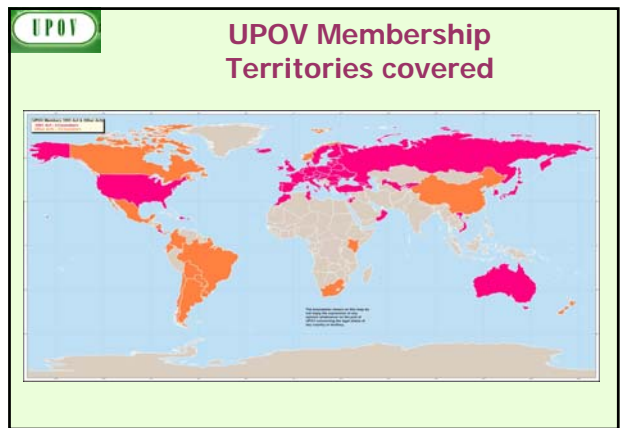




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PLANT VARIETY PROTECTION SITUATION

- 68 members of the Union
- 17 States have initiated the procedure for becoming members of the Union
- 1 intergovernmental organization has initiated the procedure for becoming members of the Union:
 - OAPI (16 countries)
- 44 States have contacted the Office of the Union for assistance in the development of legislation on plant variety protection



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UPOV MISSION STATEMENT

"To provide and promote an *effective system* of plant variety protection, with the aim of encouraging the development of *new varieties of plants*, for the *benefit of society*"

UPOV



Available at: www.upov.int "News & Events"

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2. OVERVIEW OF THE UPOV TECHNICAL WORKING PARTIES (THE DUS EXAMINATION)

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THE CONDITIONS FOR GRANTING A BREEDER'S RIGHT

Criteria to be satisfied

- NOVELTY
- **DISTINCTNESS**
- **UNIFORMITY**
- **STABILITY**

} **"DUS"**

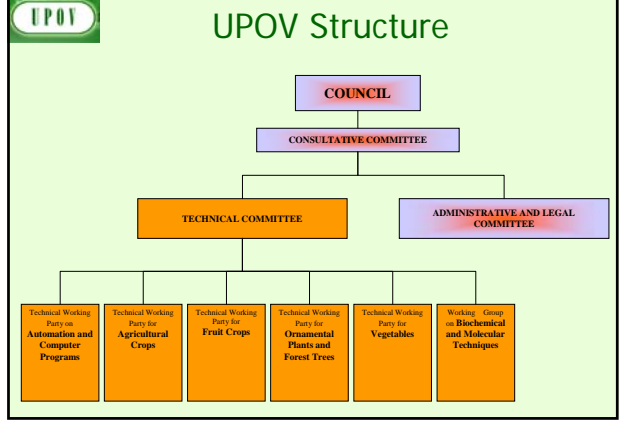
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THE CONDITIONS FOR GRANTING A BREEDER'S RIGHT

Other conditions

- VARIETY DENOMINATION
- FORMALITIES
- PAYMENT OF FEES

NO OTHER CONDITIONS!



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3. GUIDANCE FOR DUS EXAMINATION

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Guidance for DUS Examination

facilitates:

BEST PRACTICE (based on experience)

- => good decisions
- => good definition of the object of protection (strong protection)
- => efficiency in method of examination (learn from the best)

HARMONIZATION

- => efficiency
 - mutual acceptance of DUS reports (minimize cost of examination for individual authorities)
 - mutual recognition of variety descriptions (all parties speak the same "language")
 - simple and cheap system for applicants (minimize cost for breeders)

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UPOV provides guidance by:

- General Introduction (document TG/1/3)
- TGP documents
- Test Guidelines
- Cooperation

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UPOV provides guidance by:

- **General Introduction (document TG/1/3)**
("General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants")
- TGP documents
- Test Guidelines
- Cooperation

UPOV

UPOV provides guidance by:

- General Introduction (document TG/1/3)
- **TGP documents** (associated to General Introduction)
- Test Guidelines
- Cooperation

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TG/1/3 General Introduction

↓

"Associated" TGP Documents

Ref.	Title
TG/00	List of TGP Documents and Latest Issue Dates
TG/01	General Introduction With Explanations
TG/02	List of Test Guidelines Adopted by UPOV
TG/03	Varieties of Common Knowledge
TG/04	Corestitution and Maintenance of Variety Collections
TG/05	Experience and Cooperation in DUS testing
TG/06	Arrangements for DUS testing
TG/07	Development of Test Guidelines
TG/08	Trial Design and Techniques Used in the Examination of DUS
TG/09	Examining Distinctness
TG/10	Examining Uniformity
TG/11	Examining Stability
TG/12	Special Characteristics
TG/13	Guidance for New Types and Species
TG/14	Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents
TG/15	New Types of Characteristics

UPOV

UPOV provides guidance by:

- General Introduction (document TG/1/3)
- TGP documents
- **Test Guidelines**
- Cooperation

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TG/2/171 ORIGINAL: English DATE: 2014-04-11

E

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS GENÈVE

CACTUS PEAR and NUCONOSTLES
(Specific Groups 1 & 2)

GERBLINES FOR THE CONDUCT OF TESTS FOR DISTINCTNESS, UNIFORMITY AND STABILITY

Alternative Names¹

Latin	English	French	German	Spanish
Specific Group 1	Cactus-pear, Prickly pear	Figuier de Barbarie	Ficusaguarda	Chumbera, Nopal
Specific Group 2	Nucunostle	Nucunostle	Nucunostle	Nucunostle

ASSOCIATED DOCUMENTS

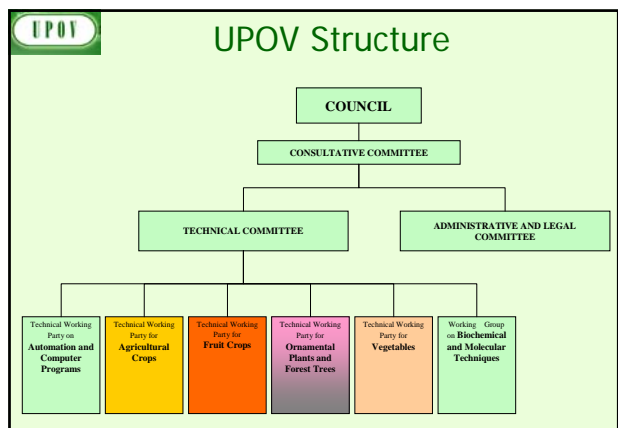
These guidelines should be read in conjunction with document TG/1/3, "General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants" (hereinafter referred to as the "General Introduction") and its associated "TGP" documents.

These guidelines were revised at the time of the introduction of these Test Guidelines but may be revised or updated. Members are advised to consult the UPOV Website, which can be found on the UPOV Website (www.upov.int), for the latest information.

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Test Guidelines

- **264 Test Guidelines** adopted
- Further **62 to be discussed** in 2010 (38 new Test Guidelines / 17 revisions / 7 partial revisions)



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TG/2/171 ORIGINAL: English DATE: 2014-04-11

E

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10 Chapters of UPOV Test Guidelines

1. Subject of the Test Guidelines
2. Material Required
3. Methods of Examination
4. Assessment of Distinctness, Uniformity and Stability
5. Grouping of Varieties and Organization of the Growing Trial
6. Introduction to the Table of Characteristics
7. **Table of Characteristics**
8. Explanation on the Table of Characteristics
9. Literature
10. Technical Questionnaire

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"CHARACTERISTICS"

- may have direct commercial relevance
 - Flower color (ornamental)
 - Fruit color
- but **commercial relevance NOT required**
 - Leaf shape

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Selection of Characteristics

The basic requirements that a characteristic should fulfill before it is used for DUS testing or producing a variety description are that its expression (TG/1/3: Section 4.2.1) :

- results from a given **genotype** or combination of genotypes;
- is sufficiently **consistent and repeatable** in a **particular environment**;
- exhibits sufficient **variation between varieties** to be able to establish distinctness;
- is capable of **precise definition and recognition**;
- allows **uniformity requirements** to be fulfilled;
- allows **stability requirements** to be fulfilled, meaning that it produces consistent and repeatable results after repeated propagation or, where appropriate, at the end of each cycle of propagation.

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Selection of Characteristics

- Yield ???
- Straw strength ???

Etc.

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Selection of Characteristics

Criteria	Fruit: color	Leaf: shape	Yield	Straw strength
(a) results from a given genotype or combination of genotypes	Yes	Yes		
(b) sufficiently consistent and repeatable in a particular environment	Yes	Yes		
(c) exhibits sufficient variation between varieties to be able to establish distinctness	Yes	Yes		
(d) is capable of precise definition and recognition	Yes	Yes		
(e) allows uniformity requirements to be fulfilled	Yes	Yes		
(f) allows stability requirements to be fulfilled	Yes	Yes		
Commercial value	Yes	No		
ACCEPTABILITY	Yes	Yes		

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Selection of Characteristics


Criteria	Fruit: color	Leaf: shape	Yield	Straw strength
(a) results from a given genotype or combination of genotypes	Yes	Yes	Yes	Yes
(b) sufficiently consistent and repeatable in a particular environment	Yes	Yes	(No)	(No)
(c) exhibits sufficient variation between varieties to be able to establish distinctness	Yes	Yes	???	???
(d) is capable of precise definition and recognition	Yes	Yes	(No)	???
(e) allows uniformity requirements to be fulfilled	Yes	Yes	???	???
(f) allows stability requirements to be fulfilled	Yes	Yes	???	???
Commercial value	Yes	No	Yes	Yes
ACCEPTABILITY	Yes	Yes	No	No

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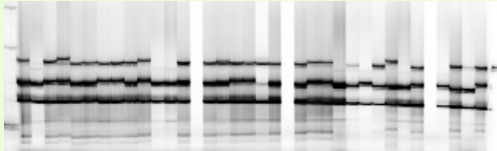
Special Characteristics: Disease Resistance

Criteria	Disease Resistance
(a) results from a given genotype or combination of genotypes	*Knowledge of nature of genetic control of resistance is important
(b) sufficiently consistent and repeatable in a particular environment	*Standardize conditions (greenhouse / laboratory) & methodology *Standardize inoculum *Ring-test
(c) exhibits sufficient variation between varieties to be able to establish distinctness	*Susceptible / Resistant OR varying degrees of resistance?
(d) is capable of precise definition and recognition	*Define and recognize races and strains
(e) allows uniformity requirements to be fulfilled	see above
(f) allows stability requirements to be fulfilled	see above
	Difficult and expensive

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Molecular Techniques?



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UPOV provides guidance by:

- General Introduction (document TG/1/3)
- TGP documents
- Test Guidelines
- **Cooperation**

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Test Guidelines


- **264 Test Guidelines** adopted

but...


- **>2,750 genera and species** with varieties examined for PBR

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GENIE Database
(**Genus / species**)



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GENIE Database 

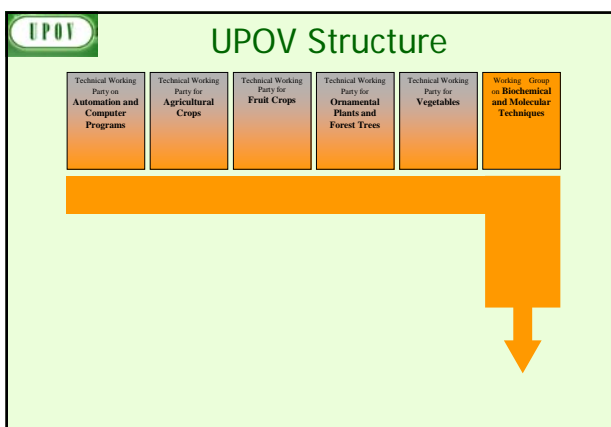
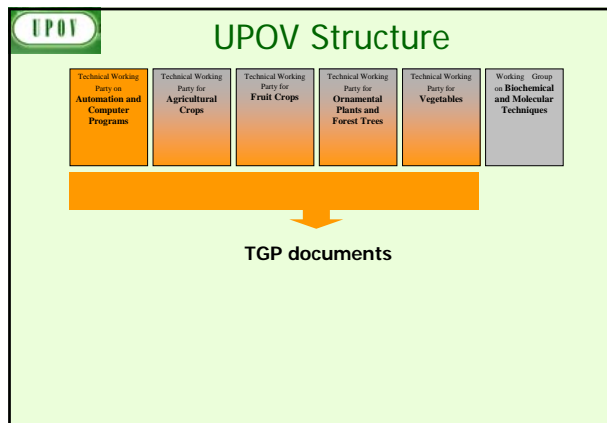
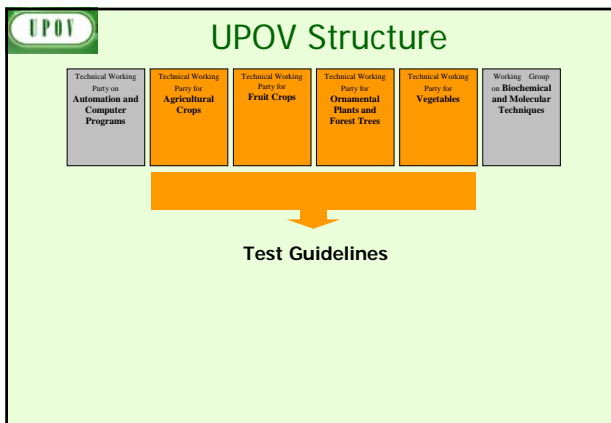
Variety denomination related information
Protection offered by UPOV members

DUS information

- UPOV Test Guidelines
- practical experience of UPOV (document TC/46/4)
- cooperation in DUS examination (document C/43/5)

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4. ROLE OF THE TECHNICAL WORKING PARTIES AND THE BMT



Role of the BMT

(see document BMT/12/2: Annex, page 2)

The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to:

- (i) Review general developments in biochemical and molecular techniques;
- (ii) Maintain an awareness of relevant applications of biochemical and molecular techniques in plant breeding;
- (iii) Consider the possible application of biochemical and molecular techniques in DUS testing and report its considerations to the TC;
- (iv) If appropriate, establish guidelines for biochemical and molecular methodologies and their harmonization [...];
- (v) Consider initiatives from TWPs, for the establishment of crop specific subgroups [...];
- (vi) Develop guidelines regarding the management and harmonization of databases of biochemical and molecular information, in conjunction with the TWC;
- (vii) Receive reports from Crop Subgroups and the BMT Review Group;
- (viii) Provide a forum for discussion on the use of biochemical and molecular techniques in the consideration of essential derivation and variety identification.

Role of the BMT

Consider the possible application of biochemical and molecular techniques in DUS testing

(see document BMT/12/2: Annex, page 2)

The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to: [...]

- (iii) Consider the possible application of biochemical and molecular techniques in DUS testing and report its considerations to the TC;
- (v) Consider initiatives from TWPs, for the establishment of crop specific subgroups [...];
- (vii) Receive reports from Crop Subgroups and the BMT Review Group;

=> BMT/12 agenda items 4, 6 and 12 and
=> BMT/DUS Draft 3 "Possible Use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)"

Role of the BMT

Guidance and harmonization for a range of applications

(see document BMT/12/2: Annex, page 2)

The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to: [...]

- (iv) If appropriate, establish guidelines for biochemical and molecular methodologies and their harmonization [...];
- (vi) Develop guidelines regarding the management and harmonization of databases of biochemical and molecular information, in conjunction with the TWC;

=> BMT Guidelines
=> BMT/12 agenda items 7 to 9

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Role of the BMT

Raise awareness of general developments:

(see document BMT/12/2: Annex, page 2)
 The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to:

- (i) Review general developments in biochemical and molecular techniques;
- (ii) Maintain an awareness of relevant applications of biochemical and molecular techniques in plant breeding;

=> BMT/12 agenda item 5

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Role of the BMT

(see document BMT/12/2: Annex, page 2)
 The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to: [...]


- (viii) Provide a **forum for discussion** on the use of biochemical and molecular techniques in the consideration of **essential derivation** and **variety identification**.

=> BMT/12 agenda items 10 and 11 and
=> presentations to follow

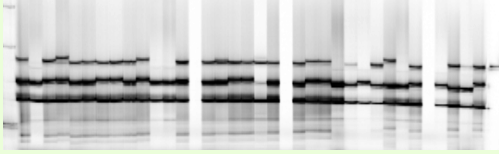
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5. Situation in UPOV concerning the possible use of molecular techniques in the DUS Examination

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Molecular Techniques?



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Legal and other considerations

- Conformity with the UPOV Convention
- Potential impact on the strength of protection

Technical considerations

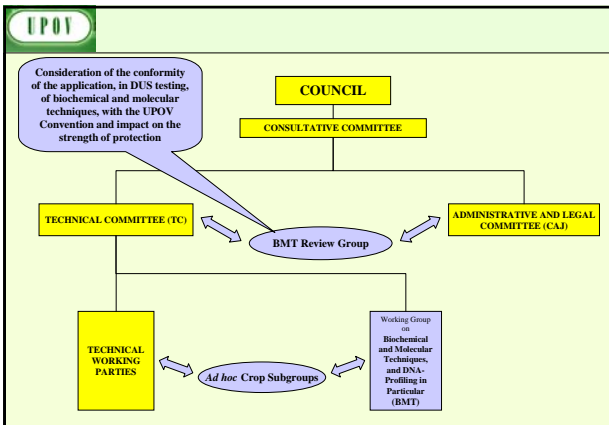
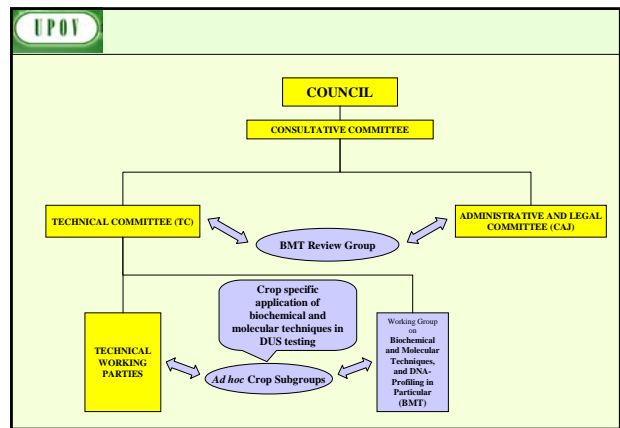
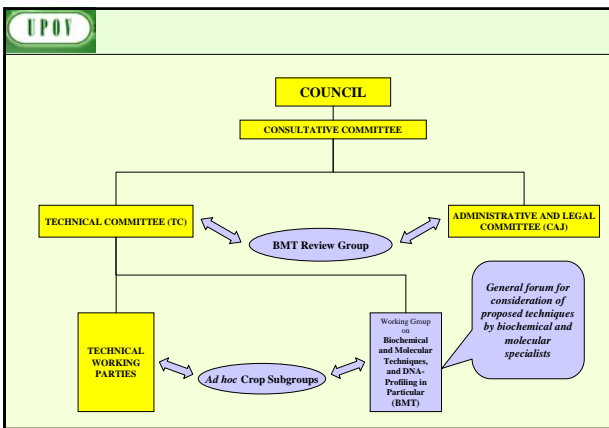
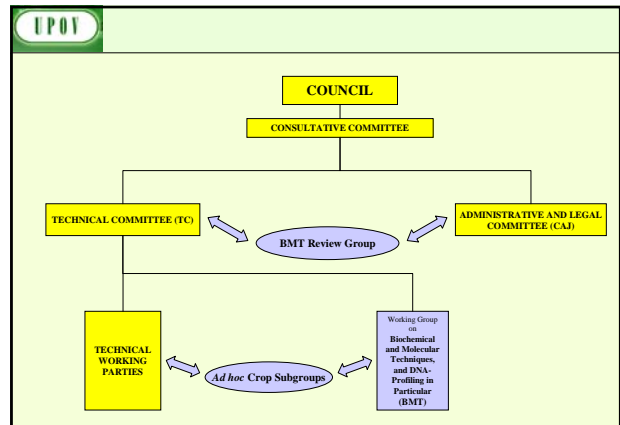
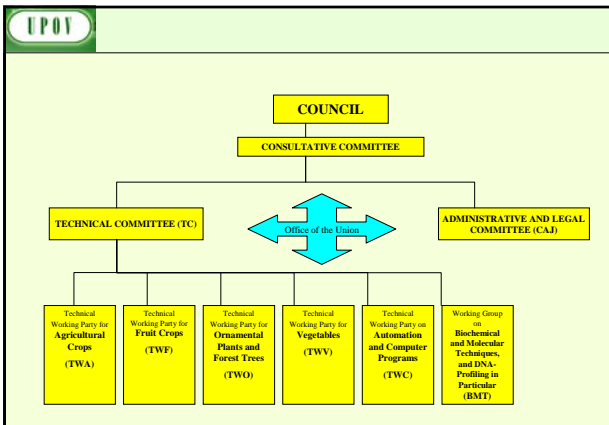
- Reliability and robustness of techniques
- Accessibility of the technology
- Harmonization of methodologies
- Cost of examination
- Implications for breeders (e.g. cost and time involved for new uniformity requirements)

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Harmonized approach

Harmonization

- => facilitates cooperation in DUS testing
e.g. purchase of DUS reports
- => internationally recognized variety descriptions (effective protection)



- UPOV**
- The options:
- **Option 1:**
Molecular Markers as predictors of Traditional Characteristics:
(a) gene specific marker
 - **Option 2:**
Calibration of Molecular Markers against Traditional Characteristics in the management of Reference collections
 - **Option 3:**
New system
 - **System for combining phenotypic and molecular distance in the management of variety collections**

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OPTION 1 (a)

**Molecular Markers
as predictors of Traditional Characteristics:**

(a) gene specific marker

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View of the BMT Review Group, Technical Committee, Administrative and Legal Committee

Option 1(a) for a gene specific marker of a phenotypic characteristic:

Proposal: gene specific marker for herbicide tolerance introduced by genetic modification

was, on the basis of the assumptions in the proposal, acceptable within the terms of the UPOV Convention and would not undermine the effectiveness of protection offered under the UPOV system.

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Assumptions for a gene specific marker:

- (a) **DUS examination:** same no. of plants, growing cycles, DUS criteria;
- (b) **Linkage:** ensure that the marker is a reliable predictor;
- (c) **Different markers** for same gene would be treated as different methods for examining the **same characteristic**;
- (d) **Different genes** would be treated as different methods for examining the **same characteristic**;
- (e) **Different markers** linked to **different regulatory elements** for the **same gene** would all be treated as different methods for examining the **same characteristic**. (further consideration would be given to this matter at a later stage)

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OPTION 2

**Calibration of Molecular Markers
against Traditional Characteristics
in the management of Reference collections**

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Option 2: Calibration of threshold levels

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View of the BMT Review Group, Technical Committee, Administrative and Legal Committee

Option 2: Calibration of threshold levels for molecular characteristics against the minimum distance in traditional characteristics

Proposal: Option 2 for Maize, Oilseed Rape and Rose

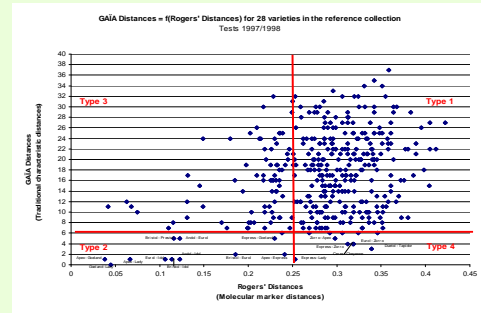
where used for the management of reference collections was, on the basis of the assumptions in the proposals, acceptable within the terms of the UPOV Convention and would not undermine the effectiveness of protection offered under the UPOV system

- whilst recognizing the need to improve the relationship between morphological and molecular distances.

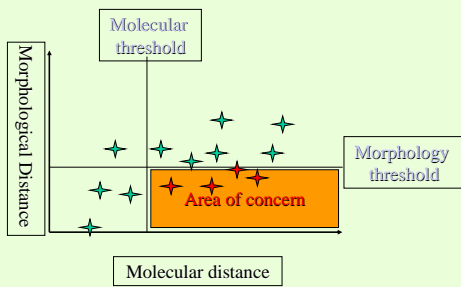
Assumptions for calibration of threshold levels :

- (a) **Uniformity and Stability:**
 - (i) [molecular] **differences** calculated between varieties **take into account the variation within varieties;**
 - (ii) suitable **uniformity standards** could be developed for molecular markers **without requiring varieties,** in general, **to be more uniform**
- (b) would only be used for the establishment of a **"Distinctness plus"** threshold in the **management of reference collections;**
- (c) would meet all the **normal requirements for any characteristic** to be used in the DUS examination and, in particular, would be checked to ensure they are **sufficiently consistent and repeatable.**

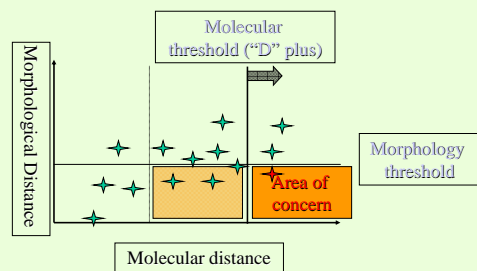
Option 2: Oilseed Rape



Option 2: Calibration of threshold levels



Option 2: Management of Reference Collections ("Distinctness plus")



OPTION 3

New system

View of the BMT Review Group, Technical Committee, Administrative and Legal Committee

Option 3: New system

Proposal: Option 3 for Rose and Wheat

no consensus on the acceptability of the Option 3 proposals within the terms of the UPOV Convention and no consensus on whether they would undermine the effectiveness of protection offered under the UPOV system.

- concerns were raised that, in these proposals, using this approach, it might be possible to use a limitless number of markers to find differences between varieties. The concern was also raised that differences would be found at the genetic level which were not reflected in morphological characteristics

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System for combining phenotypic and molecular distances in the management of variety collections

UPOV Proposal: "System for combining phenotypic and molecular distances in the management of variety collections"

Each data point corresponds to the LOWEST note determined by the panel of experts and the Roger's distance, for a given pair

UPOV Proposal: "System for combining phenotypic and molecular distances in the management of variety collections"

UPOV View of the BMT Review Group, Technical Committee, Administrative and Legal Committee

Proposal: "System for combining phenotypic and molecular distances in the management of variety collections (for maize parental lines)"

- where used for the management of variety collections, was acceptable within the terms of the UPOV Convention and would not undermine the effectiveness of protection offered under the UPOV system; and
- agreed that the proposal above represented a model that might be applicable to other crops provided that the elements of the proposal were equally applicable. In that respect, it noted, for example, that the proposal above applied only to maize parental lines and did not extend to other types of maize. The BMT Review Group concluded that it was important to consider on a case by-case basis whether the model would be applicable.

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Document BMT/DUS Draft 3

Purpose: to provide guidance on the possible use of biochemical and molecular markers in the examination of Distinctness, Uniformity and Stability (DUS)

To be discussed by the BMT and TWPs in 2010

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Harmonized approach

Harmonization

- ⇒ facilitates cooperation in DUS testing
e.g. purchase of DUS reports
- ⇒ internationally recognized variety descriptions (effective protection)

6. THE CONCEPT OF ESSENTIALLY DERIVED VARIETIES

VARIETIES COVERED

- the protected variety
- varieties which are not clearly distinguishable from the protected variety
- varieties whose production requires the repeated use of the protected variety (e.g. as a parent for a hybrid variety)

ESSENTIAL DERIVATION

PURPOSE:

To ensure sustainable plant breeding development by:

- providing effective protection for the classical breeder and
- encouraging cooperation between classical breeders and developers of new technologies such as genetic modification

Essentially Derived Varieties

- decision on whether to grant protection to a variety does not take into account whether the variety is essentially derived or not: provided the conditions for protection are fulfilled (novelty, DUS, variety denomination, compliance with formalities and payment of fees) the variety will be granted protection.
- if it is subsequently concluded that the variety is an EDV, the breeder of that EDV still has all the rights conferred by the UPOV Convention. However, the breeder of the INITIAL VARIETY will also have rights in that variety. Thus, in the case of an essentially derived variety, the authorization of both the breeder of the essentially derived variety and the breeder of the initial variety is required for its commercialization.

Essentially Derived Varieties

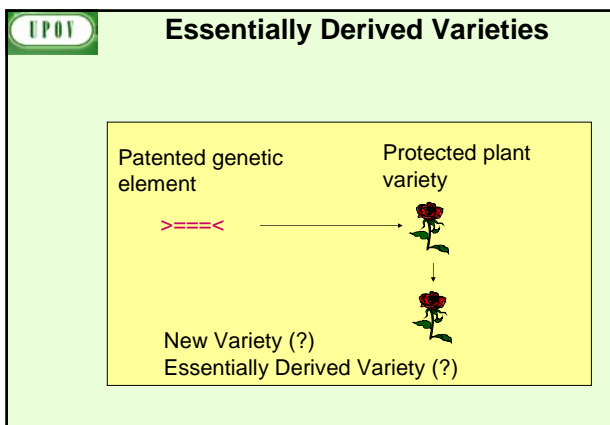
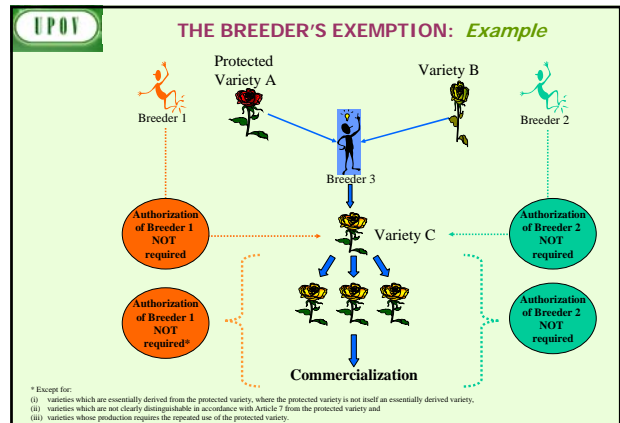
- with regard to establishing whether a variety is an essentially derived variety, a common view expressed by members of the UPOV is that the existence of a relationship of essential derivation between protected varieties is a matter for the holders of plant breeders' rights in the varieties concerned.
- UPOV has established a section on its website where case law relevant to plant breeders' rights, including case law concerning essentially derived varieties, is published.

Essentially Derived Varieties

- 1 - Introduction
- 2 - The concept of essentially derived variety
- 3 - Initial variety protected
- 4 - Initial variety not protected
- 5 - Indirect derivation
- 6 - Summary

UPOV **Essentially Derived Varieties**

- 1 - Introduction
- 2 - The concept of essentially derived variety
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- 5 - Indirect derivation
- 6 - Summary



UPOV **Essentially Derived Varieties**

Article 14(5):

(a) The provisions of paragraphs (1) to (4) shall also apply in relation to

(i) **varieties which are essentially derived** from the protected variety, where the protected variety is not itself an essentially derived variety,

UPOV **Essentially Derived Varieties**

- 1 - Introduction
- 2 - The concept of essentially derived variety
- 3 - Initial variety protected
- 4 - Initial variety not protected
- 5 - Indirect derivation
- 6 - Summary

UPOV **Essentially Derived Varieties**

...a variety shall be deemed to be essentially derived from another variety ("the initial variety") when

(i) it is **predominantly derived from the initial variety**, or from a variety that is itself predominantly derived from the initial variety, while retaining the expression of the **essential characteristics** that result from the genotype or combination of genotypes of the initial variety,

(ii) it is **clearly distinguishable** from the initial variety and

(iii) **except for the differences which result from the act of derivation, it conforms to the initial variety in the expression of the essential characteristics** that result from the genotype or combination of genotypes of the initial variety.

UPOV **Essentially Derived Varieties**

May be obtained for example by:

- selection of a natural or induced mutant
- selection of a somaclonal variant
- selection of a variant individual from plants of the initial variety
- back-crossing
- transformation by genetic engineering

UPOV **Essentially Derived Varieties**

Article 14(5):

(a) The provisions of paragraphs (1) to (4) * shall also apply in relation to

(i) varieties which are essentially derived from the protected variety, where the protected variety is not itself an essentially derived variety,

* = COMMERCIALIZATION

UPOV **Essentially Derived Varieties**

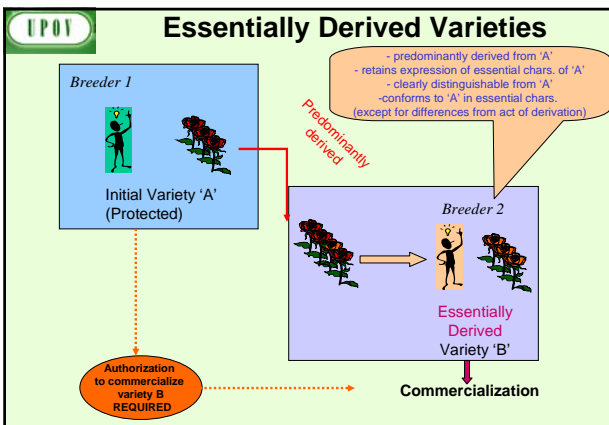
Can EDVs be protected ? **YES**

Can EDVs be commercially exploited? **AUTHORIZATION NEEDED**

It requires the authorization of the PBR holder of the initial variety

UPOV **Essentially Derived Varieties**

- 1 - Introduction
- 2 - The concept of essentially derived variety
- 3 - Initial variety protected
- 4 - Initial variety not protected
- 5 - Indirect derivation
- 6 - Summary



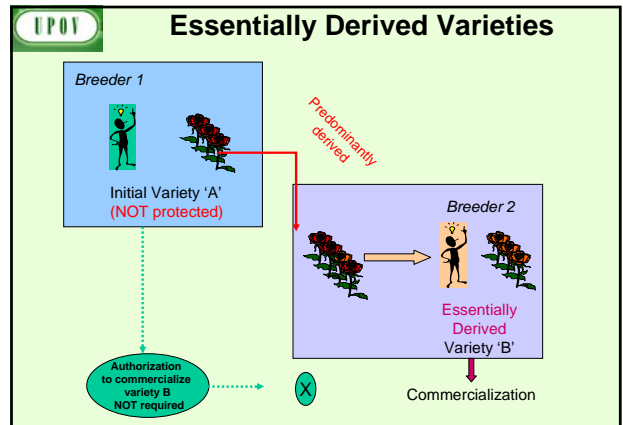
UPOV **Essentially Derived Varieties**

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UPOV **Essentially Derived Varieties**

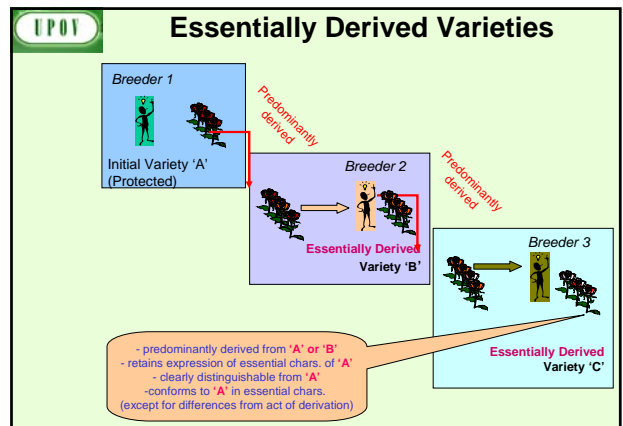
...a variety shall be deemed to be essentially derived from another variety ("the **initial variety**")

INITIAL variety is not restricted to PROTECTED variety



UPOV **Essentially Derived Varieties**

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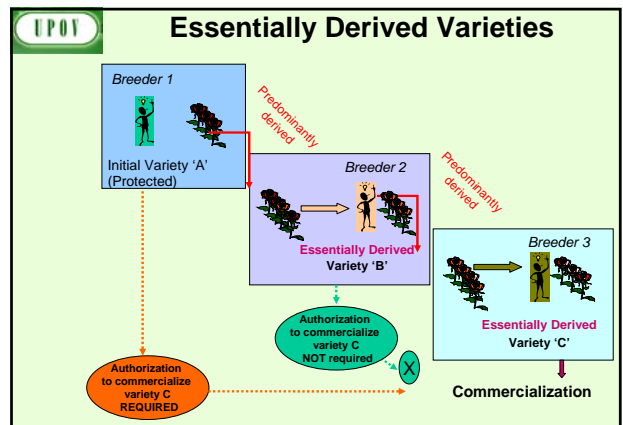


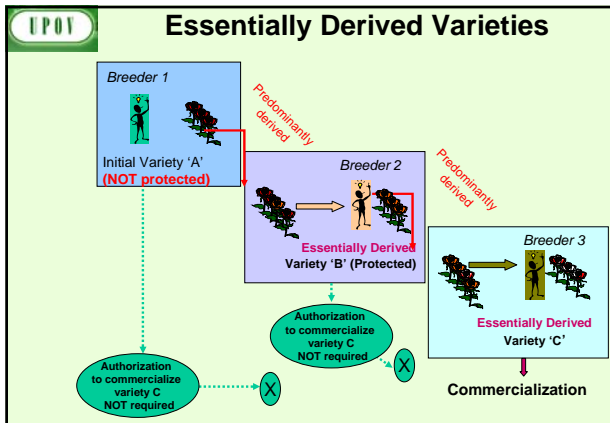
UPOV **Essentially Derived Varieties**

Article 14(5):

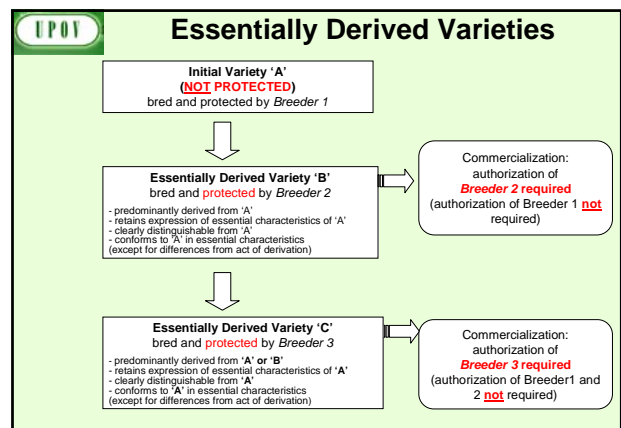
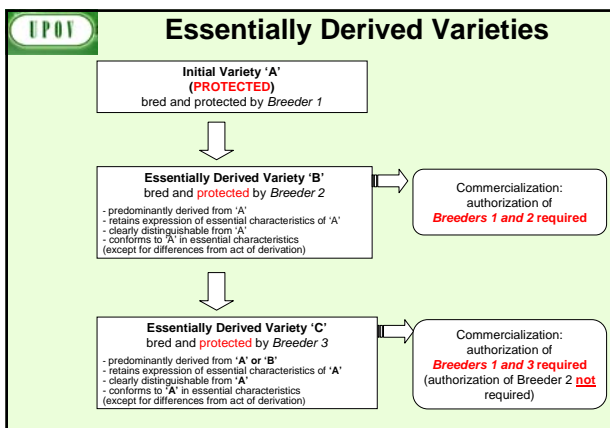
(a) The provisions of paragraphs (1) to (4) shall also apply in relation to

(i) varieties which are essentially derived from the protected variety, where the protected variety is not itself an essentially derived variety,





- UPOV** **Essentially Derived Varieties**
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*The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to:

- [...]

“(viii) Provide a forum for discussion on the use of biochemical and molecular techniques in the consideration of essential derivation and variety identification.”

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7. THE ROLE OF UPOV IN VARIETY IDENTIFICATION

UPOV

VARIETY IDENTIFICATION

“The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to:

- [...]

“(viii) Provide a **forum for discussion on the use of biochemical and molecular techniques in the consideration of essential derivation and variety identification.**”

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VARIETY IDENTIFICATION

(March 2007)

- The Technical Committee invited the **BMT Crop Subgroups to develop proposals concerning the possible use of molecular tools for variety identification [...].**

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BMT Forum

“BREEDERS’ DAY”
at BMT/12, May 11, 2010, Ottawa

Use of molecular techniques in:

- **variety identification**
- **essential derivation**

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8. THE UPOV WEBSITE

UPOV

UPOV Website
<http://www.upov.int>

(e-mail: upov.mail@upov.int)

UPOV INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

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Welcome

The International Union for the Protection of New Varieties of Plants (UPOV) is an intergovernmental organization with headquarters in Geneva (Switzerland).

UPOV was established by the International Convention for the Protection of New Varieties of Plants. The Convention was adopted in Paris in 1961 and it was revised in 1972, 1978 and 1991. The objective of the Convention is the protection of new varieties of plants by an intellectual property right.

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NEWS

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MISSION STATEMENT

To provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.

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Key Issues

UPOV's response to: General Assembly of the United Nations - Report of the Special Rapporteur on the Right to Food
([Adobe PDF](#))

Impact Study
UPOV Report on the Impact of Plant Variety Protection
(UPOV Publication 353)(E)
([Adobe PDF](#))

Breeder's exemption
Breeder's exemption in the 1978 and the 1991 Act of the UPOV Convention
([Adobe PDF](#))

Contracts
Symposium on Contracts in Relation to Plant Breeders' Rights
UPOV, Geneva, October 31, 2008
([Adobe PDF](#))

Notion of Breeder and Common Knowledge
Reply of January 23, 2009, to the letter of the Executive Secretary of the Secretariat of the Convention on Biological Diversity (CBD) of December 19, 2008, providing a peer review of the draft "Study on the relationship between the ABS International Regimen and other international instruments which govern the use of genetic resources: The World Trade Organization (WTO); the World Intellectual Property Organization (WIPO); and the Union for the Protection of New Varieties of Plants (UPOV)"

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Restricted areas

UPOV Documents

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[Second restricted area](#)

Rules governing the granting of observer status to States, intergovernmental organizations and international non-governmental organizations in UPOV bodies and access to UPOV documents
([Adobe PDF](#))

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General Introduction to DUS
TGP Documents
Test Guidelines
Practical Technical Knowledge
Cooperation in Examination
Plant Variety Database
Training courses

LIST OF UPOV PUBLICATIONS*

The following UPOV publications are available on request:

Abbreviations:
A = Arabic, C = Chinese, D = Dutch, E = English, F = French, FEG = French/English/German, G = German, I = Italian, J = Japanese, P = Portuguese, R = Russian, S = Spanish

221	(A)	International Convention for the Protection of
	(C)	Plants;
	(D)	text of 1991 only
	(E)	
	(F)	
	(G)	
	(I)	
	(P)	
	(R)	
	(S)	

UPOV INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

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UPOV DISTANCE LEARNING COURSE DL-205
"Introduction to the UPOV System of Plant Variety Protection Under the UPOV Convention"
Course dates: May 3 to June 6, 2010 ([on-line registration open](#))

UPOV's response to: General Assembly of the United Nations - Report of the Special Rapporteur on the Right to Food
Note from the representatives of the members of the Union to the Council of UPOV, presented to the Third Committee of the General Assembly of the United Nations on October 21, 2009, concerning the Report of the Special Rapporteur on the Right to Food
([Adobe PDF](#))

Second World Seed Conference - PRESS RELEASE
Responding to the challenges of a changing world: The role of new plant varieties and high quality seed in agriculture
FAO, Rome, September 8-10, 2009
www.worldseedconference.org

**9. AGENDA
FOR THE BMT SESSION**

THANK YOU