

**UPOV**

**TECHNICAL WORKING PARTY  
FOR VEGETABLES**

Forty-Second Session  
Cracow, Poland, June 23 to 27, 2008

**PREPARATORY WORKSHOP**

June 22, 2008

**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**

**UPOV**

**PROGRAM**

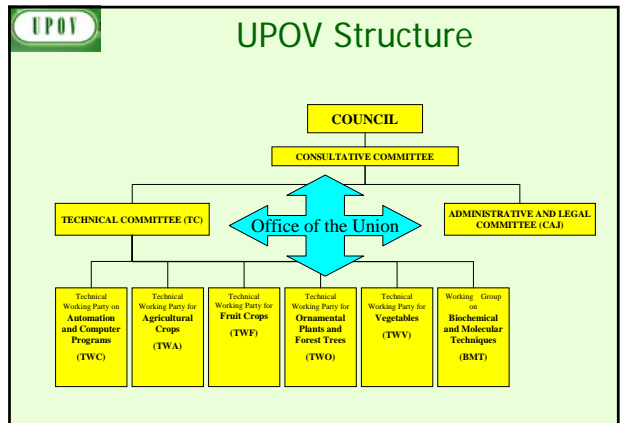
- 1./2. Introduction to UPOV and the Technical Working Parties
3. National arrangements and cooperation with breeders in preparing test guidelines
4. Overview of the General Introduction (document TG/1/3 and TGP documents)
5. Test Guidelines (document TGP/7)
  - (a) Introduction
  - (b) Guidance on drafting characteristics
  - (c) Method of observation (V/M; G/S)
  - (d) Asterisked, grouping and TQ characteristics
  - (e) Example varieties
  - (f) The process for developing UPOV Test Guidelines
6. The UPOV website
7. Agenda for the TWP meeting

**UPOV**

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

**UPOV**

**1. INTRODUCTION TO UPOV**

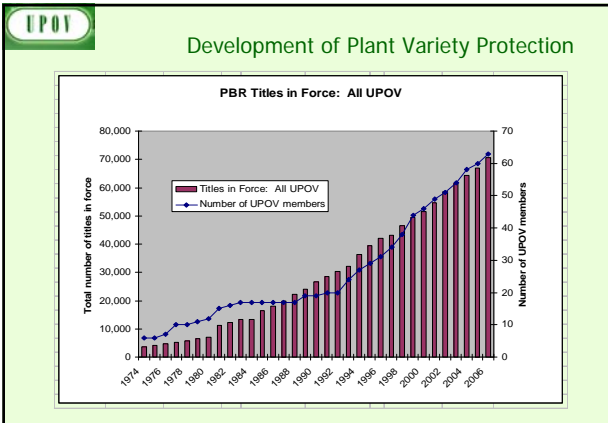
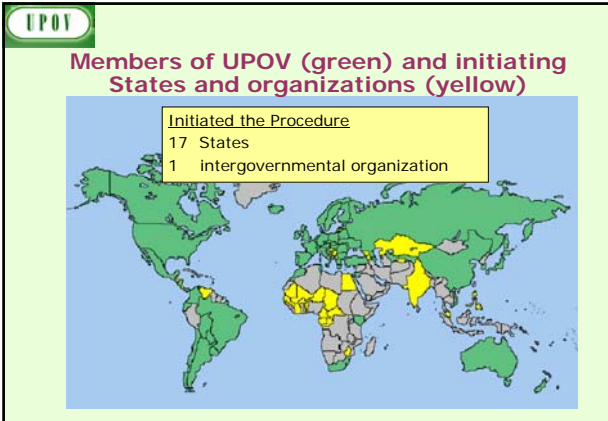




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**UPOV MISSION STATEMENT**

*“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**”*



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**2. INTRODUCTION TO 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
- **D**ISTINCTNESS
- **U**NIFORMITY
- **S**TABILITY

} "DUS"

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### 3. NATIONAL ARRANGEMENTS AND COOPERATION WITH BREEDERS IN PREPARING TEST GUIDELINES

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### THE CONDITIONS FOR GRANTING A BREEDER'S RIGHT

*Other conditions*

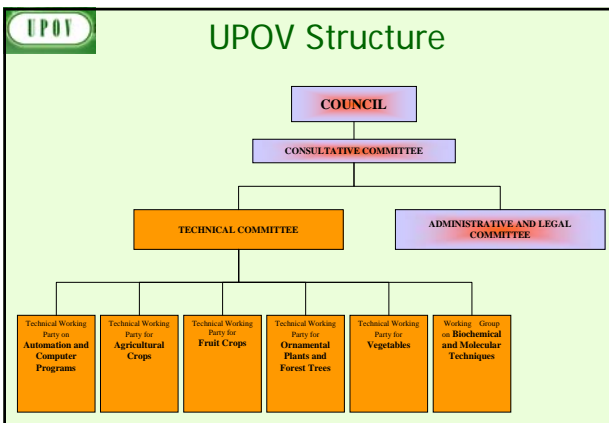
- VARIETY DENOMINATION
- FORMALITIES
- PAYMENT OF FEES

**NO OTHER CONDITIONS!**

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### 4. OVERVIEW OF THE GENERAL INTRODUCTION (DOCUMENT TG/1/3 AND TGP DOCUMENTS)

**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)

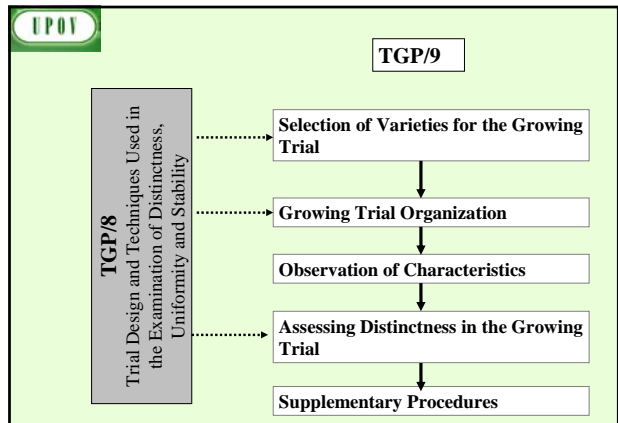
**HARMONIZATION**

- => 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:**

- The "General Introduction" (TG/1/3)
  - General technical principles
  - Organization of DUS Testing
  - Associated "TGP" Documents (e.g. statistical methods)



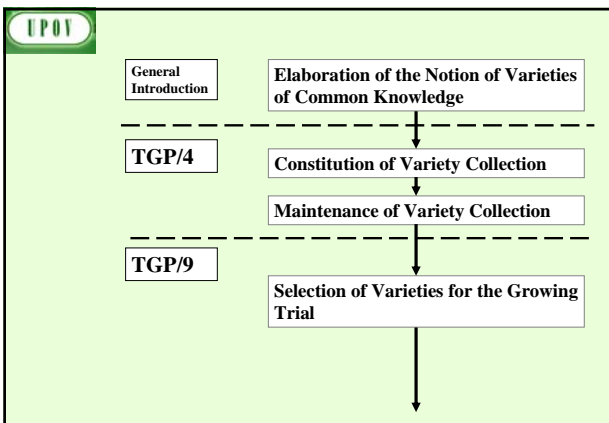
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TG/1/3 General Introduction

"Associated" TGP Documents

Ref.	Title
TG/00	List of TGP Documents and Latest Issue Dates
TGP/1	General Introduction With Explanations
TGP/2	List of Test Guidelines Adopted by UPOV
TGP/3	Varieties of Common Knowledge
TGP/4	Constitution and Maintenance of Variety Collections
TGP/5	Experience and Cooperation in DUS testing
TGP/6	Arrangements for DUS testing
TGP/7	Development of Test Guidelines
TGP/8	Trial Design and Techniques Used in the Examination of DUS
TGP/9	Examining Distinctness
TGP/10	Examining Uniformity
TGP/11	Examining Stability
TGP/12	Special Characteristics
TGP/13	Guidance for New Types and Species
TGP/14	Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents
TGP/15	New Types of Characteristics

- UPOV**
- PROGRAM**
- Introduction to UPOV
  - Introduction to the UPOV Technical Working Parties
  - Overview of the General Introduction (document TG/1/3 and TGP documents)
  - Test Guidelines (document TGP/7)**
    - Introduction
    - Guidance on drafting characteristics
    - Method of observation (V/M; G/S)
    - Asterisked, grouping and TQ characteristics
    - Example varieties
    - The process for developing UPOV Test Guidelines
  - The UPOV website
  - Agenda for the TWP meeting



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## 5. TEST GUIDELINES

### (a) Introduction

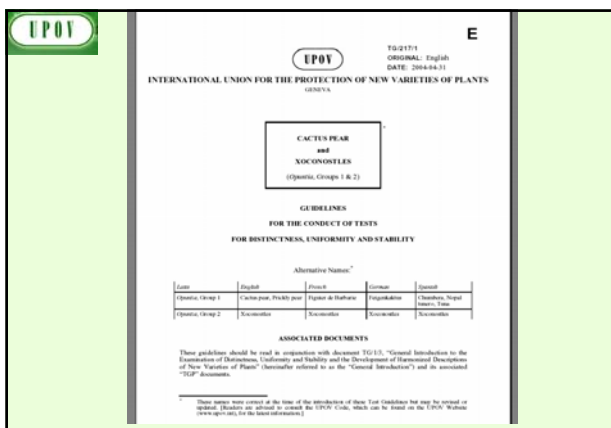
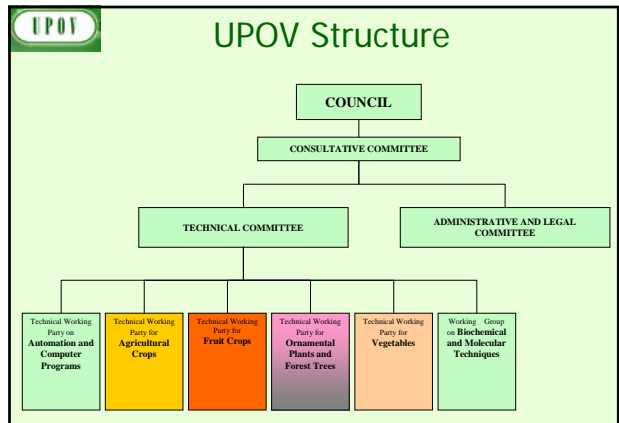
**UPOV**

**UPOV provides guidance by:**

- The “General Introduction” (TG/1/3)
  - General technical principles
  - Organization of DUS Testing
  - Associated “TGP” Documents (e.g. statistical methods)

AND

- **“Test Guidelines”**
  - **Species/Crop-specific recommendations developed by crop experts**
  - **TGP/7 “Development of Test Guidelines” adopted**



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## TGP/7 “Development of Test Guidelines”

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## Test Guidelines

- **249 Test Guidelines** adopted
- Further **62 to be discussed** in 2008 (19 revisions / 43 new Test Guidelines)

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1. Introduction
2. Procedure for the Introduction and Revision of UPOV Test Guidelines
3. Guidance for Drafting Test Guidelines
  - The **TG Template**
  - **Additional Standard Wording** for the TG Template
  - **Guidance Notes** for the TG Template

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## 1. Introduction

Purpose of document TGP/7:

- to provide guidance on the development of **UPOV TEST GUIDELINES**
- to provide guidance on the development of **INDIVIDUAL AUTHORITIES' TEST GUIDELINES**, in the absence of UPOV Test Guidelines

**UPOV** INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

HOME | ABOUT UPOV | UPOV DOCUMENTS | PUBLICATIONS | NEWS

Calendar  
Council  
Restricted area

### DRAFTER'S KIT FOR TEST GUIDELINES

- General Introduction to DIUS
- Test Guidelines in Word format
- TGP/7 "Development of Test Guidelines"
- Electronic TG Template
- TGP/7 Annex 4:
  - User notes
  - Index
  - Collection of Approved Characteristics
- Additional Characteristics

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## The TG Template

(Annex I of document TGP/7)

- Format of the cover page,
- Universal Standard wording of 10 Chapters,
- Format of the Table of Characteristic (Chapter 7),
- Format of the Technical Questionnaire (Chapter 10)

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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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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

**DRAFT**

Please select "Draft" from "Contents" from the top of screen in our software

**DRAFT COMMON NAME**  
(Draft of this name)  
(UPOV Code)  
(IP) - (Draft name)

**GUIDELINES FOR THE CONDUCT OF TESTS FOR DISTINCTNESS, UNIFORMITY AND STABILITY**  
prepared by the expert group (IP) (Draft)  
As he amended by the (Draft name) (Draft name) (Draft name) (Draft name) (Draft name)

Abandon Name:  
English | French | German | Spanish

The purpose of these guidelines "Test Guidelines" is to elaborate the principles contained in the General Introduction (document TGP/5), and its associated TGP documents, into detailed practical guidelines for the harmonized evaluation of Distinctness, Uniformity and Stability (DUS), and, as possible, to identify appropriate characteristics for the examination of DUS and production of International Variety Designation.

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**UPOV** Format of the Table of Characteristic

Char. No. (*) (QL/QN/PQ)	English	français	deutsch	español	Example/Varieties/ Ejemplos/Variedades ejemplo	Note/Nota
EN 18 Order of characteristics in the Table of Characteristics	EN 24 Heading of a characteristic	EN 24 Heading of a characteristic	EN 24 Heading of a characteristic	EN 24 Heading of a characteristic		
EN 19 Asterisked characteristics	EN 25 Recommendations for conducting the examination	EN 25 States of expression of a characteristic	EN 25 States of expression of a characteristic	EN 25 States of expression of a characteristic	EN 17 Example varieties	EN 20 Notes
EN 20 Explanation of the characteristic	EN 25 Growth stage	EN 25 States of expression of a characteristic	EN 25 States of expression of a characteristic	EN 25 States of expression of a characteristic	EN 17 Example varieties	EN 20 Notes
EN 21 Type of expression of the characteristic	(Other)	EN 25 States of expression of a characteristic	EN 25 States of expression of a characteristic	EN 25 States of expression of a characteristic	EN 17 Example varieties	EN 20 Notes

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## 5. TEST GUIDELINES

**(b) Guidance on drafting characteristics**

- selection of characteristics
- types of expression (QL, QN, PQ)
- states of expression / notes

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## Selection of Characteristics

- Yield ???
- Straw strength ???

Etc.

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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

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		
<b>ACCEPTABILITY</b>	Yes	Yes		

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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

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
<b>ACCEPTABILITY</b>	Yes	Yes	No	No

**UPOV** 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
	<b>Difficult and expensive</b>


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Qualitative Characteristics

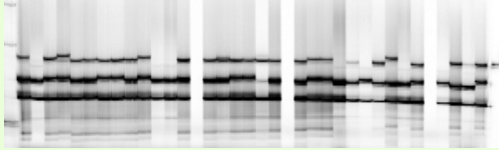
“Qualitative characteristics” are those that are **expressed in discontinuous states** (e.g. sex of plant: dioecious female (1), dioecious male (2), monoecious unisexual (3), monoecious hermaphrodite (4)).

These states are self-explanatory and independently meaningful. All states are necessary to describe the full range of the characteristic, and every form of expression can be described by a single state. The order of states is not important. As a rule, the **characteristics are not influenced by environment**.

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**Molecular Techniques?**




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Clematis: Leaf: type




1  
simple



2  
ternate



3  
biternate



4  
triternate

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TYPE OF EXPRESSION OF CHARACTERISTICS  
(QL, QN, PQ)

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Qualitative Characteristics

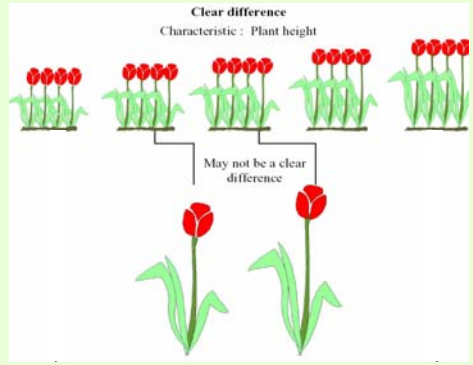
In qualitative characteristics, **the difference between two varieties may be considered clear if one or more characteristics have expressions that fall into two different states in the Test Guidelines**. Varieties should not be considered distinct for a qualitative characteristic if they have the same state of expression.

(e.g. sex of plant: dioecious female (1), dioecious male (2), monoecious unisexual (3), monoecious hermaphrodite (4)).



Quantitative Characteristics

“Quantitative characteristics” are those where the expression covers the full range of variation from one extreme to the other. The **expression can be recorded on a one-dimensional, continuous or discrete, linear scale**. The range of expression is divided into a number of states for the purpose of description (e.g. length of stem: very short (1), short (3), medium (5), long (7), very long (9)). The division seeks to provide, as far as is practical, an even distribution across the scale. The Test Guidelines do not specify the difference needed for distinctness. The states of expression should, however, be meaningful for DUS assessment.

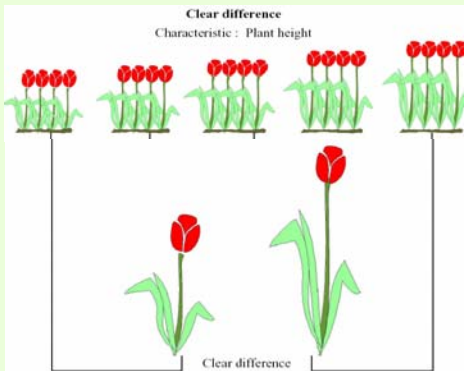


Quantitative Characteristics

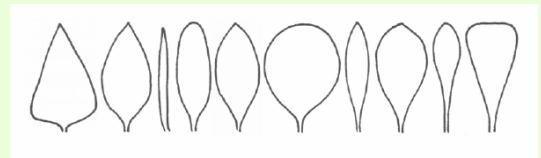
Quantitative characteristics are considered for distinctness according to the method of observation and the features of propagation of the variety concerned.

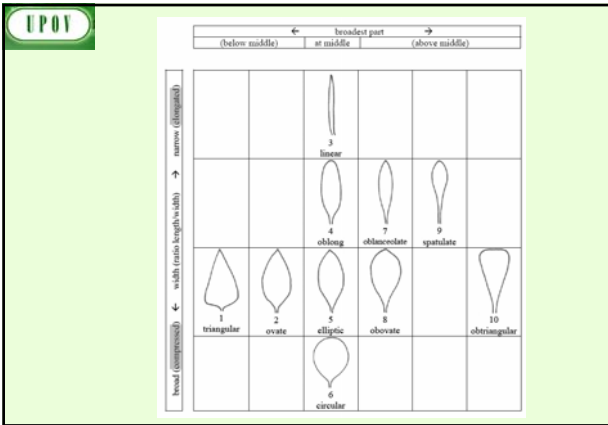
Pseudo-Qualitative Characteristics

In the case of “pseudo-qualitative characteristics,” the **range of expression is at least partly continuous, but varies in more than one dimension** (e.g. shape: ovate (1), elliptic (2), circular (3), obovate (4)) and cannot be adequately described by just defining two ends of a linear range. In a similar way to qualitative (discontinuous) characteristics – hence the term “pseudo-qualitative” – each individual state of expression needs to be identified to adequately describe the range of the characteristic.



Example

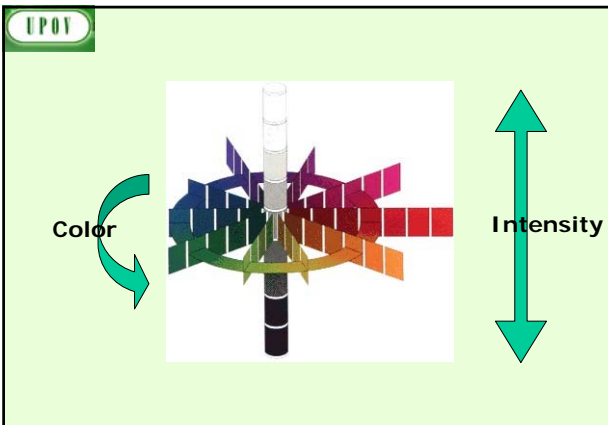
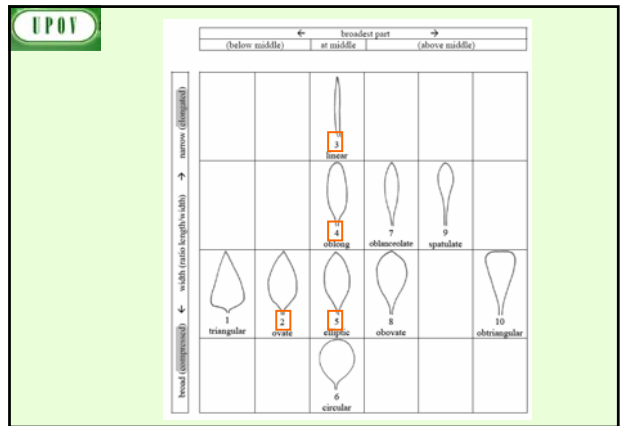
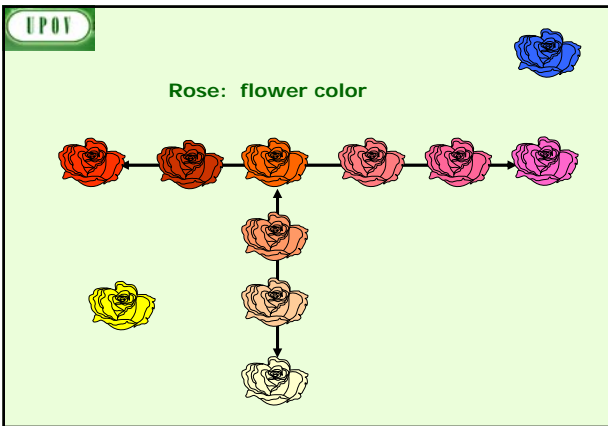




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Pseudo-Qualitative Characteristics

A different state in the Test Guidelines may not be sufficient to establish distinctness (see also section 5.5.2.3). However, in certain circumstances, varieties described by the same state of expression may be clearly distinguishable.






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STATES / NOTES for QL, QN ,PQ

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### Qualitative Characteristics (typical example)

Char No.	Method of Examination	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplo	Note/ Nota	
19.	VG	Inflorescence: type						
QL		Type 1					1	
		Type 2					2	
		Type 3					3	
			1 Type 1	2 Type 2	3 Type 3			

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### Quantitative Characteristics

Standard Range Version 1	Standard Range Version 2	Standard Range Version 3	Standard Range Version 4
1 very weak (or: absent or very weak)	1 very weak (or: absent or very weak)	-	-
3 weak	3 weak	3 weak	3 weak
5 medium	5 medium	5 medium	5 medium
7 strong	7 strong	7 strong	7 strong
9 very strong	-	9 very strong	-

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### Qualitative Characteristics (special cases)

Char No.	Method of Examination	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplo	Note/ Nota	
1.	MS	Plant: ploidy						
QL	C	diploid					2	
		tetraploid					4	
3.	VG	Stem: anthocyanin coloration						
QL		absent				Gumpoong	1	
		present				Chunpoong, Gopooong	9	

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### Quantitative Characteristics

State	Example 1	Example 2	Example 3	Example 4
	<b>Size relative to:</b>	<b>Angle:</b>	<b>Position:</b>	<b>Length in relation to:</b>
1	<b>much smaller</b>	<b>very acute</b>	<b>at base</b>	<b>equal</b>
3	moderately smaller	moderately acute	one quarter from base	slightly shorter
5	<b>same size</b>	<b>right angle</b>	<b>in middle</b>	<b>moderately shorter</b>
7	moderately larger	moderately obtuse	one quarter from apex end	much shorter
9	<b>much larger</b>	<b>very obtuse</b>	<b>at apex</b>	<b>very much shorter</b>

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### Quantitative Characteristics

weak/strong  
short/long  
small/large

Note	State	Note	State
1	very weak (or: absent or very weak)	1	very small (or: absent or very small)
2	very weak to weak	2	very small to small
3	weak	3	small
4	weak to medium	4	small to medium
5	medium	5	medium
6	medium to strong	6	medium to large
7	strong	7	large
8	strong to very strong	8	large to very large
9	very strong	9	very large

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### Quantitative Characteristics

#### Limited range

State	Example 1
	<b>Stem: attitude</b>
1	erect
3	semi-erect
5	prostrate

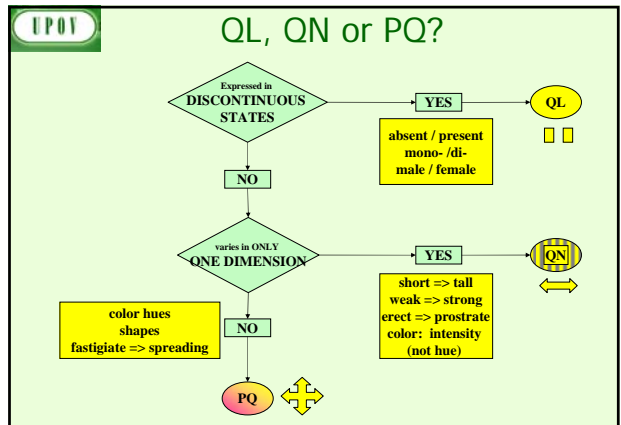
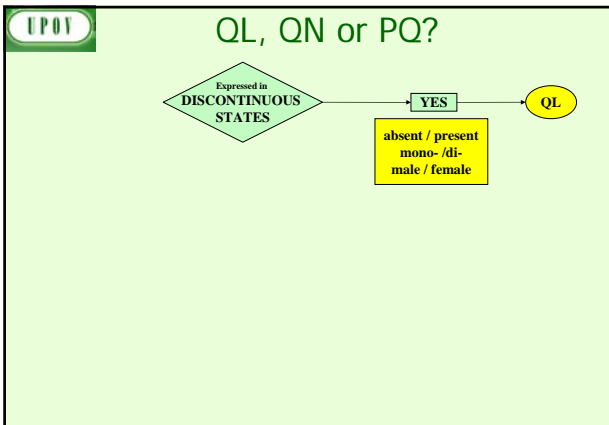
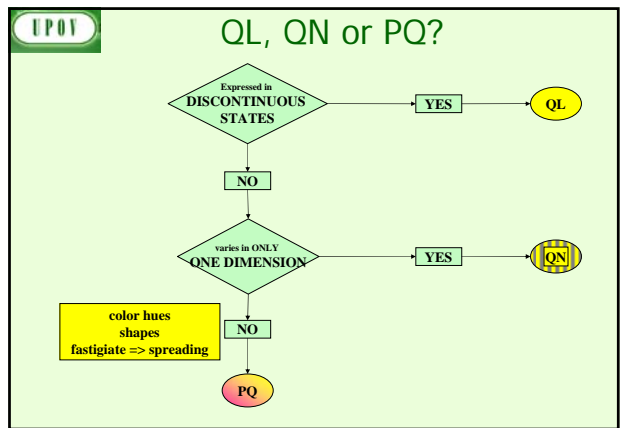
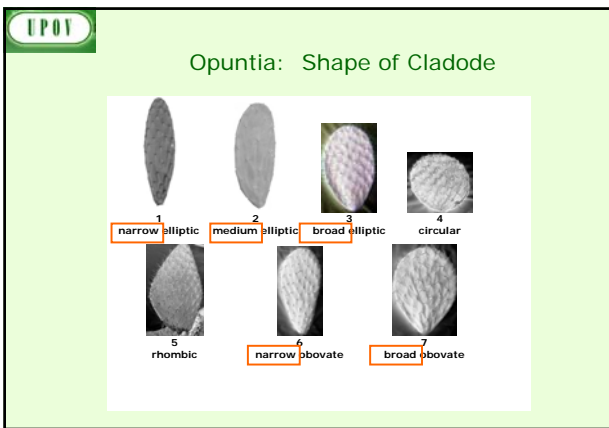
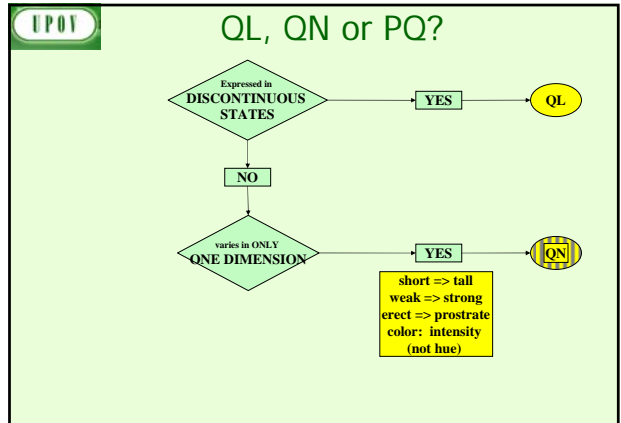
#### Condensed range

Example 1	Example 2
1 e.g. absent or very weak (absent or very weakly expressed)	1 e.g. absent or weak (absent or weakly expressed)
2 weak (weakly expressed)	2 moderate (or medium) (moderately expressed)
3 strong (strongly expressed)	3 strong (strongly expressed)

**UPO1**

### Pseudo-qualitative Characteristics (typical examples)

24. Flower: color of the center (+)	Fleur: couleur du centre	Farbe der Mitte	Flor: color del centro	
PQ green	vert	grün	verde	1
yellow	jaune	gelb	amarillo	2
orange	orange	orange	naranja	3
pink	rose	rosa	rosa	4
red	rouge	rot	rojo	5
purple	pourpre	purpura	plúpura	6



**EPOY**

**EXERCISE**

**EPOY**

**2. Leaf sheath: anthocyanin coloration**

absent or very weak	1
weak	3
medium	5
strong	7
very strong	9

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**EPOY**

**Types of Expression**

**QL: Qualitative**

**QN: Quantitative**

**PQ: Pseudo-qualitative**

**EPOY**

**3. Plant: rhizomes**

absent	1
present	9

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**EPOY**

	Note/ Nota
<b>1. Plant: ploidy</b>	
diploid	2
tetraploid	4
hexaploid	6
octoploid	8

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**EPOY**

**4. Plant: growth habit**

erect	1
semi erect	3
medium	5
semi prostrate	7
prostrate	9

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**5. Leaf blade: ratio length/width**

very small	1
small	3
medium	5
large	7
very large	9

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**8. Leaf blade: shape of base**

acute	1
obtuse	2
truncate	3
cordate	4

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**6. Petal: color**

white	1
yellow	2
orange	3
red	4
pink	5
purple	6

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**9. Petal: color**

RHS Colour Chart  
(indicate reference number)

**UPOV**

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**7. Leaf blade: intensity of green color of upper side**

light	3
medium	5
dark	7

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**10. Leaf blade: profile in cross section**

straight or weakly concave	1
moderately concave	2
strongly concave	3

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**UPOV**

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**11. Flower: position of stigma relative to anthers**

below	1
same level	2
above	3

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**UPOV** Method of Observation




**M: Measurement:**  
 an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.);

**V: Visual observation:**  
 includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts).  
 "Visual" observation refers to the sensory observations of the expert and, therefore, also includes smell, taste and touch.

**UPOV**

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**12. Petal: shape (excluding claw)**

broad elliptic	1	
circular	2	
oblate	3	

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**UPOV** Type of Record  
 (for the purposes of distinctness)

**G: single record** for a variety, or a **GROUP of plants** or parts of plants;

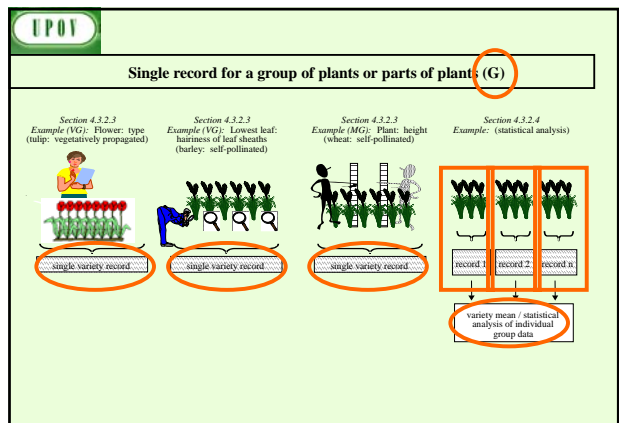
In most cases, "G" provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

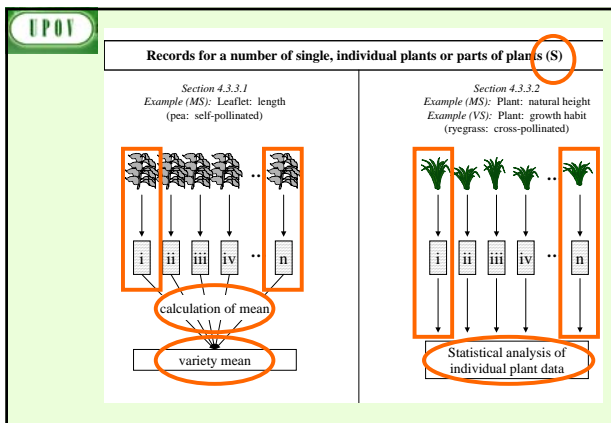
**S: records** for a number of **SINGLE**, individual plants or parts of plants ...

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**5. TEST GUIDELINES (document TGP/7)**

**(c) Method of observation (visual / measurement; single record / several records)**





**Asterisked Characteristic**

Function	Criteria
1.Characteristics that are important for the international harmonization of variety descriptions.	1.Must be a characteristic included in the Test Guidelines. 2.Should always be examined for DUS and included in the variety description by all members of the Union <b>EXCEPT</b> when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate. 3.Must be useful for function 1. 4.Particular care should be taken before selection of disease resistance characteristics.

**5. TEST GUIDELINES (document TGP/7)**

**(d) Asterisked, grouping and TQ characteristics (functional categories)**

**Grouping Characteristic**

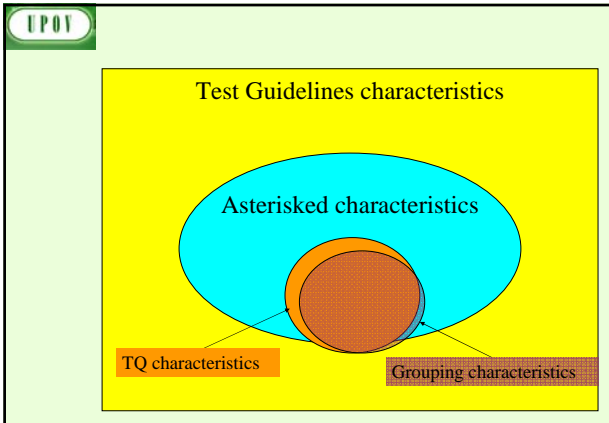
Function	Criteria
characteristics in which the <b>documented states of expression</b> , even where recorded at <b>different locations</b> , can be used either individually or in combination with other such characteristics: <b>(a) to select varieties of common knowledge that can be excluded from the growing trial</b> used for examination of distinctness, and/or <b>(b) to organize the growing trial so that similar varieties are grouped together</b>	1.(a) Qualitative characteristics or (b) Quantitative or pseudo-qualitative characteristics which provide useful discrimination between the varieties of common knowledge from documented states of expression recorded at different locations. 2.Must be useful for functions 1 and 2. 3.Should be an <b>asterisked characteristic</b> and/or included in the <b>Technical Questionnaire</b> or application form.

**Standard Test Guidelines Characteristic**

Function	Criteria
1.Characteristics that are <b>accepted by UPOV for examination of DUS</b> and from which members of the Union can select those suitable for their particular circumstances.	1.Must satisfy the criteria for use of any characteristic for DUS as set out in <b>Chapter 4, section 4.2</b> . 2.Must have been <b>used</b> to develop a variety description <b>by at least one member of the Union</b> . 3.Where there is a long list of such characteristics and, where considered appropriate, there may be an indication of the extent of use of each characteristic.

- Relationship between functions**
- (a) **GROUPING CHARACTERISTICS** selected from the Table of Characteristics should, in general, **receive an asterisk** in the Table of Characteristics and be **included in the Technical Questionnaire**.
  - (b) **TQ CHARACTERISTICS** selected from the Table of Characteristics should, in general, **receive an asterisk** in the Table of Characteristics and be **used as grouping characteristics**. TQ characteristics are **not restricted** to those characteristics used as **grouping characteristics**.
  - (c) **ASTERISKED CHARACTERISTICS** are **not restricted** to those characteristics selected as **grouping or TQ characteristics**.





**UPOV**

<b>2.</b>	<b>Flower: petaloid stamens</b>	
<b>QN</b>	absent	1
	few (>0 - 20% )	2
	medium (>20-95%)	3
	many (>95%)	4

**UPOV**

**Exercise:**

**is there a problem?**

**UPOV**

<b>3.</b> (+)	<b>One-year-old shoot: position of vegetative bud in relation to shoot</b>	
<b>PQ</b>	adpressed	1
	slightly held out	2
	markedly held out	3

1 adpressed      2 slightly held out      3 markedly held out

**UPOV**

<b>1.</b>	<b>Branch: length</b>	
	short (<15cm)	1
<b>QN</b>	medium (16-45cm)	2
	long (>45cm)	3

**UPOV**

<b>4.</b>	<b>Leaf blade: texture</b>	
<b>PQ</b>	soft	1
	coriaceous	2

UPOV

5.		<b>Fruit: conspicuousness of lenticels</b>	
QL		inconspicuous	1
		conspicuous	2

UPOV

8.		<b>Leaf blade: undulation of margin</b>	
QN		absent or very weak	1
		medium	2
		strong	3

UPOV

6.		<b>Scape: shape of top</b>	
QL		acute	1
		obtuse	2

UPOV

9. VG (*)		<b>Stem: position of long side branches</b>	
PQ		mainly lower third	1
		mainly middle third	2
		along whole stem	3

UPOV

7. (*)		<b>Leaf: shape</b>	
QL	elliptic	Esmamerica	1
	ovate	Barfast	2

UPOV

**5. TEST GUIDELINES  
(document TGP/7)**

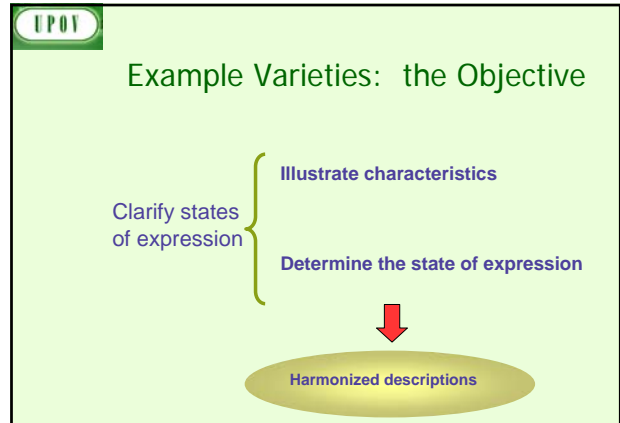
**(e) Example varieties**

UPOV

EG/139  
Lettuce/Laitue/Salat/Lechuga, 2004-03-31  
- 7 -

7. Table of Characteristics/ Tableau des caractères/ Merkmalstabelle/Tabla de caracteres

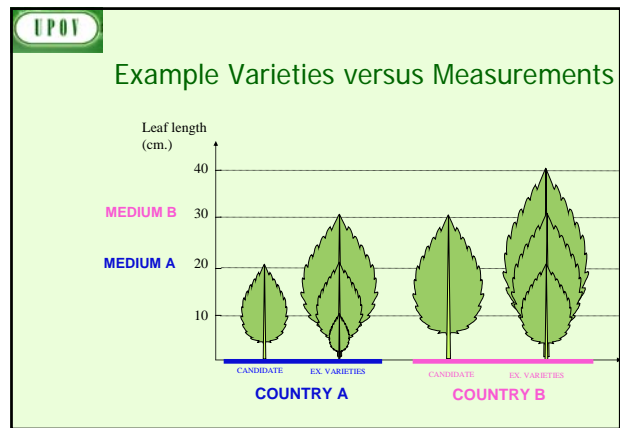
	English	français	Deutsch	español	Example Varieties/ Ejemplos/ Beispielsorten/ Variedades ejemplo	Note/ Nota
1. (*)	Seed: color	Semence: couleur	Samen: Farbe	Semilla: color		
	white	blanche	weiß	blanco	Vergia	1
	yellow	jaune	gelb	amarillo	Dunango	2
	black	noire	schwarz	negro	Kagraner Sommer	3
2. (*)	Seedling: anthocyanin coloration	Plantule: pigmentation anthocyanique	Keimpflanze: Anthocyaninfärbung	Plantula: pigmentación antocianina		
	absent	absente	fehlt/nd	ausente	Vergia	1
	present	présente	vorhanden	presente	Pirat	9
3.	Seedling: size of cotyledons (fully developed)	Plantule: taille du cotyledon (à complet développement)	Keimpflanze: Größe des Keimblatts (voll entwickelt)	Plantula: tamaño del cotiledón (plenasamente desarrollado)		
	small	petit	klein	pequeño	Romance	3
	medium	moyen	mittel	medio	Expresse	5
	large	grand	groß	grande	Vergia	7



UPOV

EG/219/1  
Pencil/Pencil/Pencil/Pencil, 2004-03-31  
- 10 -

	English	français	deutsch	español	Example Varieties/ Ejemplos/ Beispielsorten/ Variedades ejemplo	Note/ Nota
14. VG	Leaf blade: intensity of purple color of lower side	Limbe: intensité de la couleur pourpre de la face inférieure	Blattspitze: Intensität der Purparfarbe der Unterseite	Limbo: intensidad del color púrpura del envés		
QN (a)	very light	très claire	sehr hell	may claro		1
	light	claire	hell	claro	Perline	3
	medium	moyenne	mittel	medio		5
	dark	foncée	dunkel	oscuro	Pero	7
	very dark	très foncée	sehr dunkel	may oscuro	Bora, Purple	9
15. VG	Leaf blade: profile	Limbe: profil	Blattspitze: Profil	Limbo: perfil		
QN (a)	concave	concave	konkav	cóncavo	Pero	3
	plane	plan	flach	plano	Pergo, Sacyespil	5
	convex	convexe	konvex	convexo		7

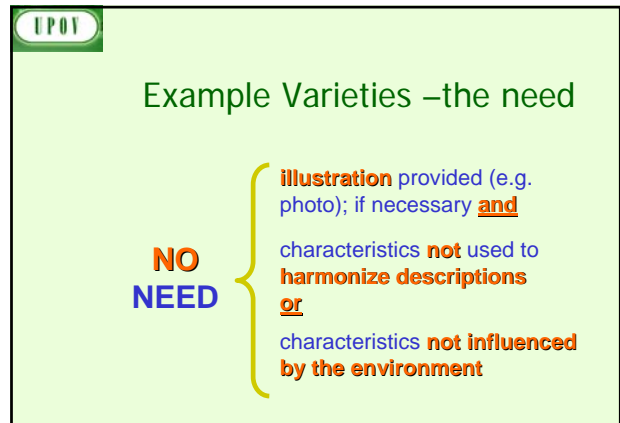


UPOV

EG/219/1  
Brachycome/Bianca/Großblattschen, 2007-04-06  
- 7 -

7. Table of Characteristics/ Tableau des caractères/ Merkmalstabelle/Tabla de caracteres

	English	français	deutsch	español	Example Varieties/ Ejemplos/ Beispielsorten/ Variedades ejemplo	Note/ Nota
1. (*)	Plant: growth type	Plante: type de croissance	Pflanze: Wuchstyp	Planta: tipo de crecimiento		
QN (a)	total clusters	en touce à la base	totale Blüsch	en racimos basales		1
	tufts	taquetement	Schopf	atufado		2
2. (*)	Depth: angle of stem	Profondeur: angle de la tige	Tiefen: Winkel der Stängel	Profundidad: ángulo del tallo		
QN (a)	upright	dressée	aufrecht	erecto		1
	semi upright	demi-dressée	halbaufrecht	semierecto		3
	horizontal	horizontales	wasserecht	horizontal		5
3.	Depth: number of stems	Profondeur: nombre de tiges	Tiefen: Anzahl der Stängel	Profundidad: número de tallos		
QN (a)	few	peu nombreuses	wenig	pocos		3
	medium	moyennement nombreuses	mittel	medio		5
	many	nombreuses	viel	muchos		7
4. (*)	Plant: height including flowers	Plante: hauteur, fleurs comprises	Pflanze: Höhe einschließlich Blüten	Planta: altura, incluidas las flores		
QN (a)	short	basse	stumpf	corta	Mini Cris	3
	medium	moyenne	mittel	media	Brookside	5
	tall	élevée	hoch	larga	Happy Face Pink	7



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### Example Varieties – the need

**NEED** { in characteristics used to **harmonize descriptions**  
and  
which are **influenced by the environment**

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### Example Varieties Fluctuation

Maintain the expression for the characteristic in relation to the other varieties in the collection

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### Example Varieties - availability

widely and freely available { National Authority  
DUS examiners  
Breeders

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### Example Varieties number

All desired characteristics covered with the **minimum** number of example varieties

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### Example Varieties within the collection

must show the range of expression in the collection { QN { 3 : short  
5 : medium  
7 : long  
PQ: { cover the whole range

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### Example Varieties - agreement

Proposed by the **Leading Expert** of the TG (in cooperation with interested experts)  
Accepted if **no objections** are presented

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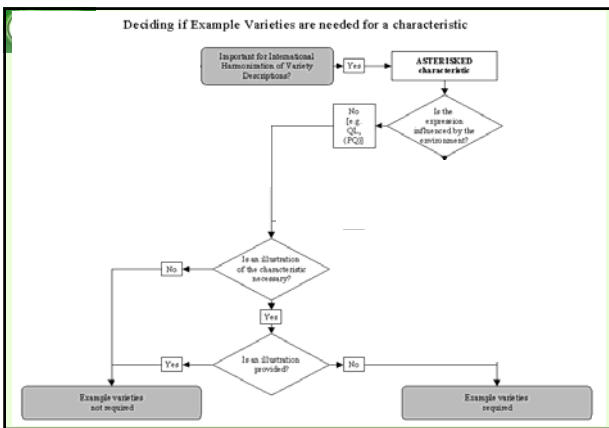
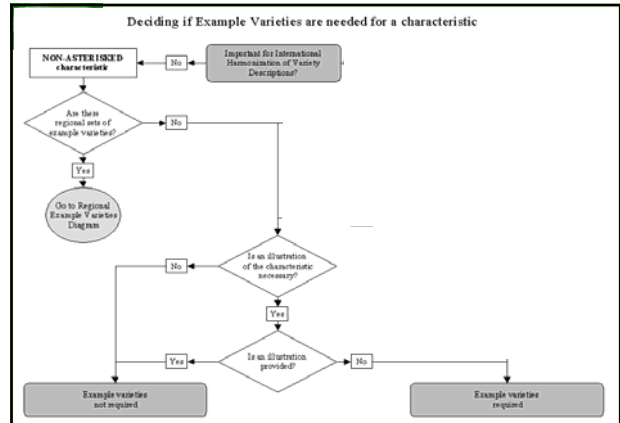
## Example Varieties - multiple sets

**Regional Sets**

**Different types**

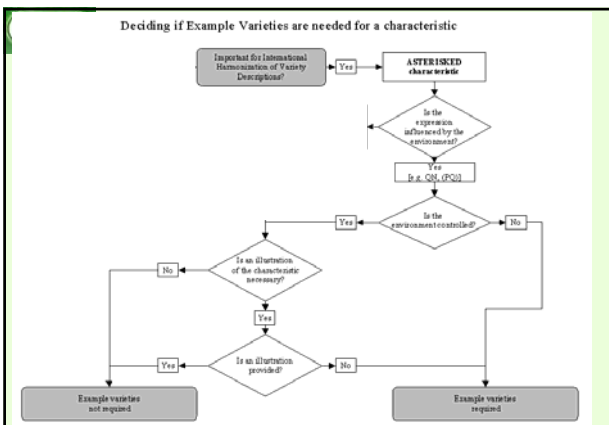
→

**clear criteria for creating the sets**



**UPOV**

## Exercise



		English	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplo	Note/ Nota
4. (*) (+) QN (a)	<b>Plant: height including flowers</b>		?	
	short			3
	medium			5
	tall		7	

UPOV			
English	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
<b>1.</b> (*) (+)	<b>Plant: growth type</b>	?	
<b>QL</b>	(a) basal clusters		1
	bushy		2

UPOV			
English	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
<b>9.</b> (*) (+)	<b>Leaf: margins</b>	?	
<b>QL</b>	(a) entire		1
	(b) divided		2

UPOV			
English	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
<b>2.</b> (+)	<b>Only varieties with bushy growth type: Plant: predominant attitude of stems</b>	?	
<b>QN</b>	(a) upright		1
	semi upright		3
	horizontal		5

UPOV			
English	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
<b>7.</b> (*) (+)	<b>Leaf: length</b>	?	
<b>QN</b>	(a) short		3
	medium		5
	long		7
	very long		9


UPOV			
English	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
<b>5.</b> (*) (+)	<b>Plant: width including flowers</b>	?	
<b>QN</b>	(a) narrow		3
	medium		5
	broad		7

UPOV			
English	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
<b>20.</b> (+)	<b>Flower: bud color</b>	?	
<b>PQ</b>	(c) RHS Colour Chart (indicate reference number)		

UPOV		English	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
10. (*) (+)		<u>Only varieties with entire leaf margins:</u> Leaf: shape	?	
PQ	(a)	ovate		1
	(b)	linear		2
		oblong		3
		elliptic		4
		circular		5
		oblanceolate		6
		obovate		7
		spatulate		8
		obtriangular		9

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## GENIE Database (Genus / species)



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## 5. TEST GUIDELINES (document TGP/7)

### (f) The process for developing UPOV Test Guidelines

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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/44/4)
- cooperation in DUS examination (document C/41/5)

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## Test Guidelines

- **249 Test Guidelines** adopted

but...

- **>2,500 genera and species** with varieties examined for PBR

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## PRIORITY for UPOV Test Guidelines

**PRIORITY** for species or crops with high:

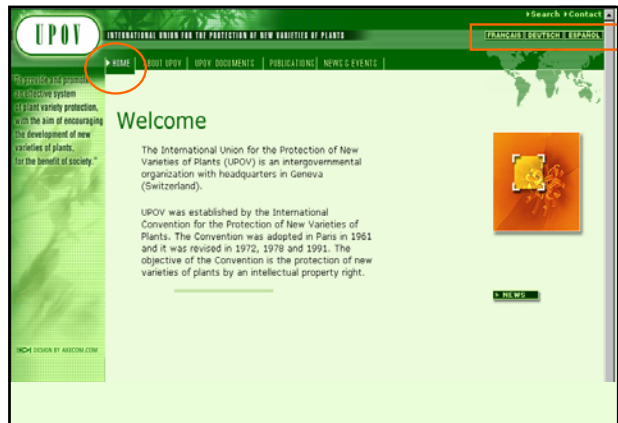
- number of **authorities** receiving PBR applications;
- number of **PBR applications**;
- number of **foreign applications** received by UPOV members;
- **economic importance**;
- level of **breeding activity**

**UPOV** **EXAMPLE (New Test Guidelines)**

Test Guidelines: *Plantus magnifica L.*  
(Common name: **Alpha**)

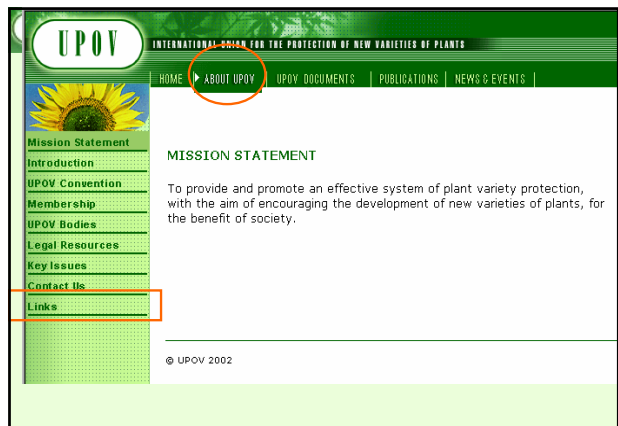
Technical Working Party: **TWX**

TWX (2005):	Alpha (proj. <b>1</b> )
TWX (2006):	Alpha (proj. <b>2</b> )
TWX (2007):	Alpha (proj. <b>3</b> )
Enlarged Editorial Committee (2008):	Alpha (proj. <b>4</b> )
Technical Committee (2008):	Alpha (proj. <b>5</b> )
Final adopted document (2008):	<b>TG/500/1</b>



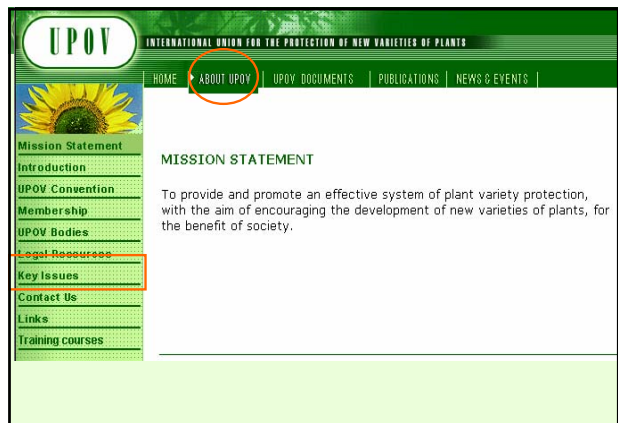
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## 6. THE UPOV WEBSITE



**UPOV**

**UPOV Website**  
<http://www.upov.int>  
 (e-mail: [upov.mail@upov.int](mailto:upov.mail@upov.int))





**UPOV** KEY ISSUES

**NEW PUBLICATION** **UPOV Report on the Impact of Plant Variety Protection** (UPOV Publication 353(E))  
[Executive Summary](#)

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

Notion of Breeder and Common Knowledge The Notion of Breeder and Common Knowledge ([Adobe PDF](#))

Genetic Resources and Benefit-Sharing Access to Genetic Resources and Benefit-Sharing (Reply of UPOV to the Notification of April 12, 2005, from the Executive Secretary of the Convention on Biological Diversity (CBD)) ([Adobe PDF](#))

Access to Genetic Resources and Benefit-Sharing (Reply of UPOV to the Notification of June 26, 2003, from the Executive Secretary of the Convention on Biological Diversity (CBD)) ([Adobe PDF](#)) (Adopted by the Council of UPOV, October 23, 2003)

Position of the International Union for the Protection of New Varieties of Plants (UPOV) concerning Decision VI/5 of the Conference of the Parties to the Convention on Biological Diversity (CBD) (April 11, 2003) ([Adobe PDF](#))

UPOV and IPGRI to Intensify Cooperation: Meeting on May 13 and

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**NEWS**

[Executive Summary](#)

**UPOV DISTANCE LEARNING COURSE DL-205**  
 "Introduction to the UPOV System of Plant Variety Protection Under the UPOV Convention"

Dates of next session: September/October 2006

For details on the course content, categories of inscription and fees ([pdf](#))

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**Council**

[First restricted area](#)

[Second restricted area](#)

**Rules Governing the Granting of Observer Status**  
 (available in [Adobe PDF](#) format)

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**DRAFTER'S KIT FOR TEST GUIDELINES**

[General Introduction to DUS](#)

[Text Guidelines in Word format](#)

[TGP/7 "Development of Test Guidelines"](#)

[Electronic TG Template](#)

TGP/7 Annex 4:

- [User notes](#)
- [Index](#)
- [Collection of Approved Characteristics](#)

[Additional Characteristics](#)

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**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 New Varieties of Plants (UPOV 1991)

(C) Plants text of 1991 only

(D)

(E)

(F)

(G)

(I)

(P)

(R)

(S)

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**7. AGENDA for the TWO Session**

**EP01**

**THANK YOU**