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UPOV

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

AD HOC CROP SUBGROUP ON MOLECULAR TECHNIQUES FOR MAIZE

Second Session
Chicago, United States of America, December 3, 2007

OVERVIEW OF GUIDANCE FOR DUS EXAMINATION

document prepared by the Office of the Union

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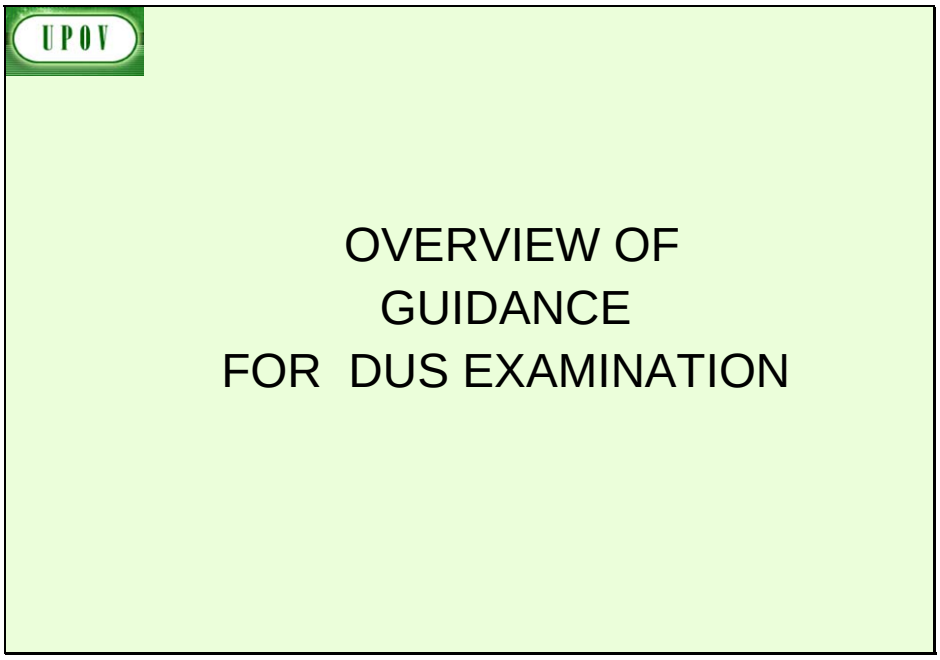

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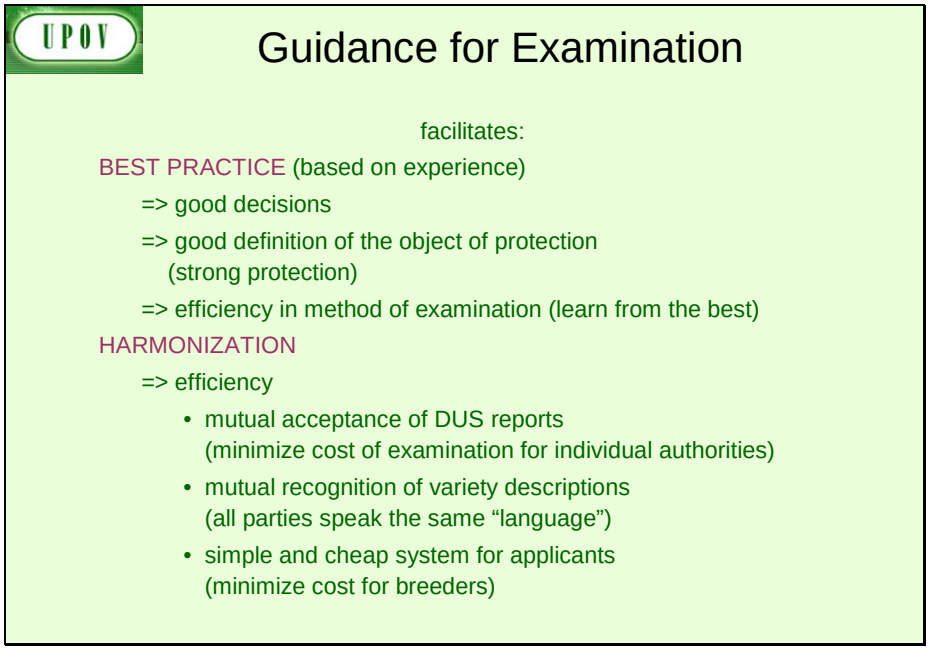

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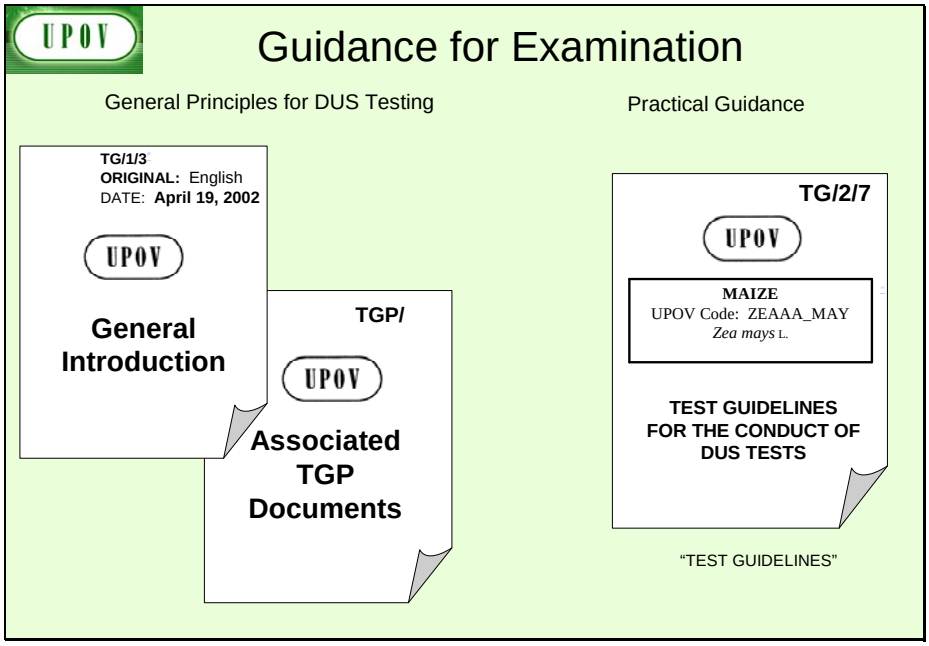

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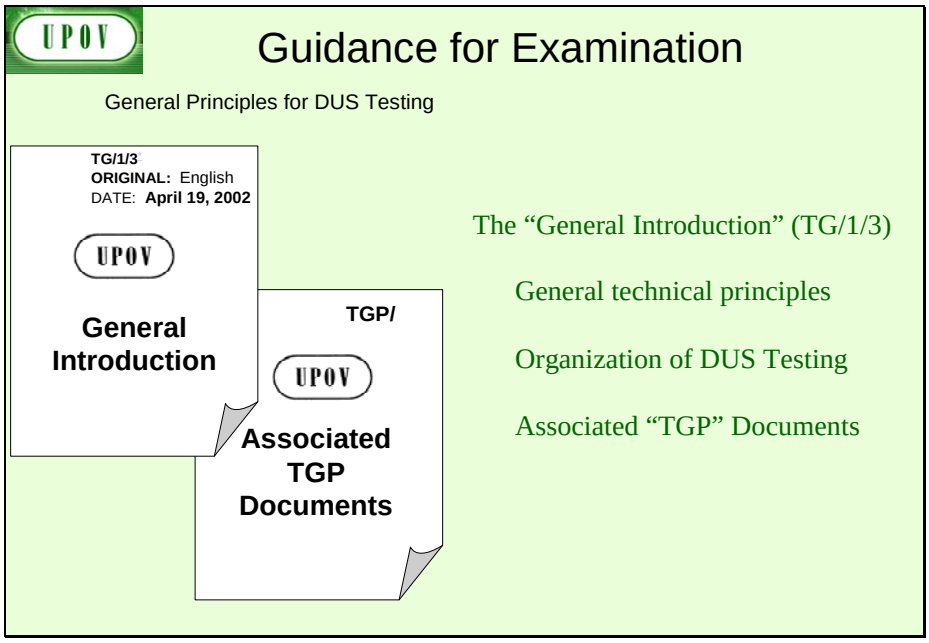

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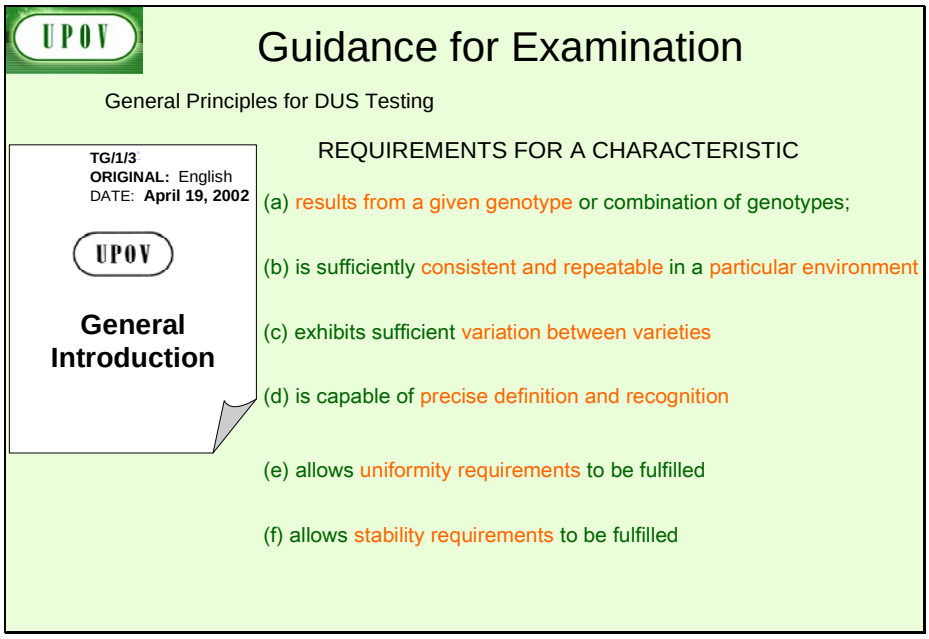

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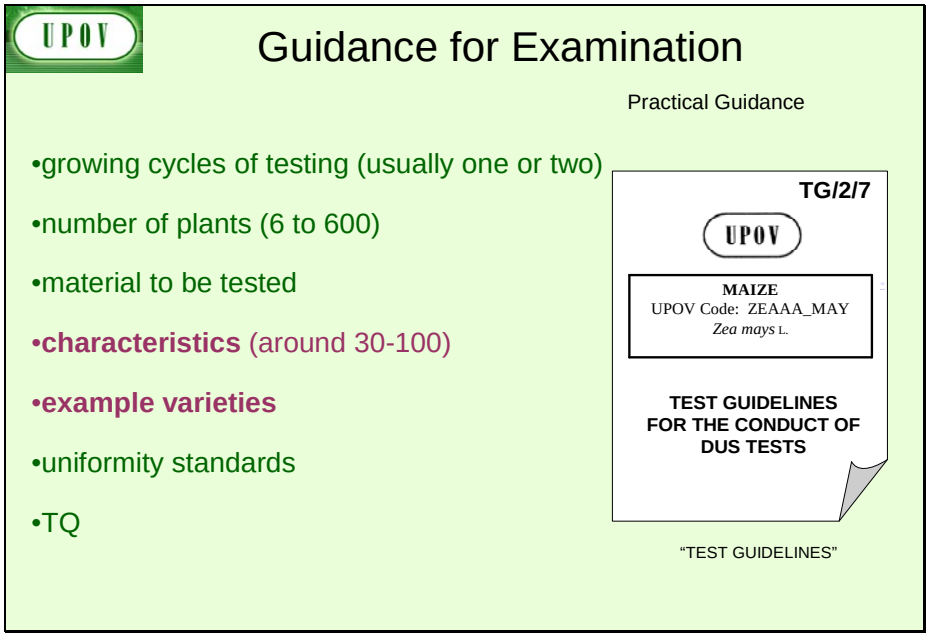

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Characteristics

Type	Function	Criteria
Standard Test Guidelines Characteristic	1. Characteristics that are accepted by UPOV for examination of DUS 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 Chapter 4, section 4.2. 2. Must have been used to develop a variety description by at least one member of the Union. 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.

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Characteristics

Type	Function	Criteria
Asterisked Characteristic	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 except 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.

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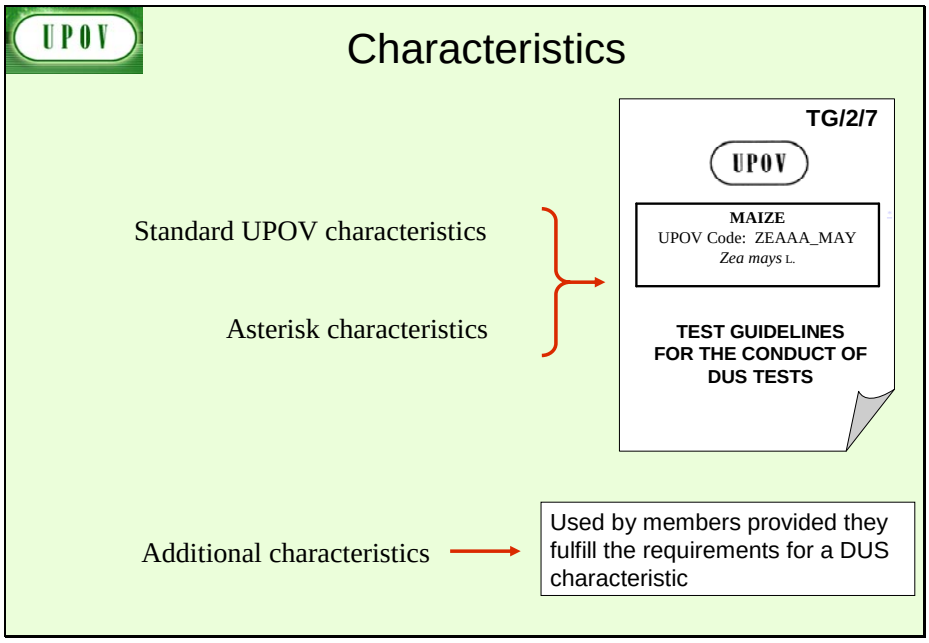

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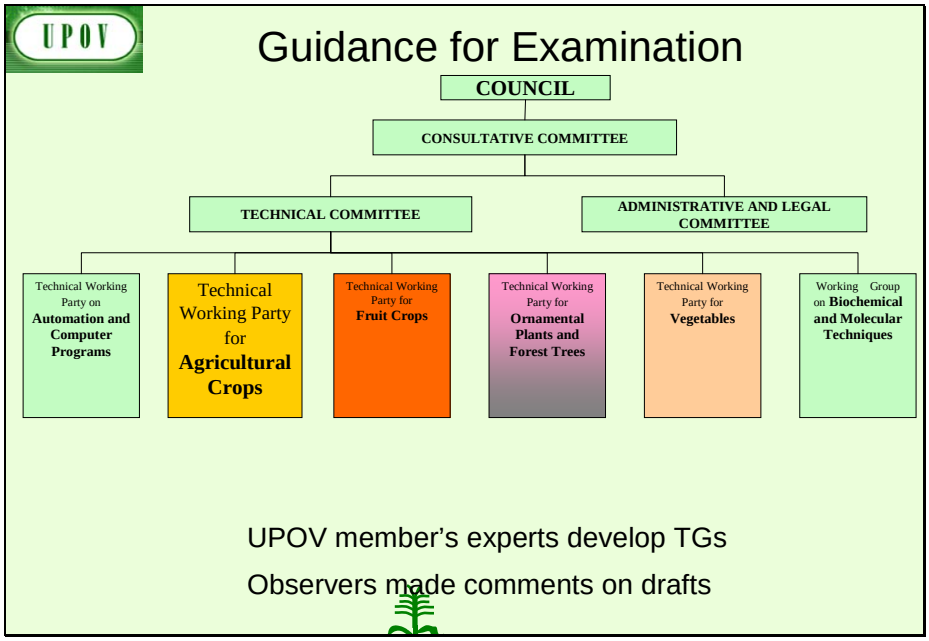

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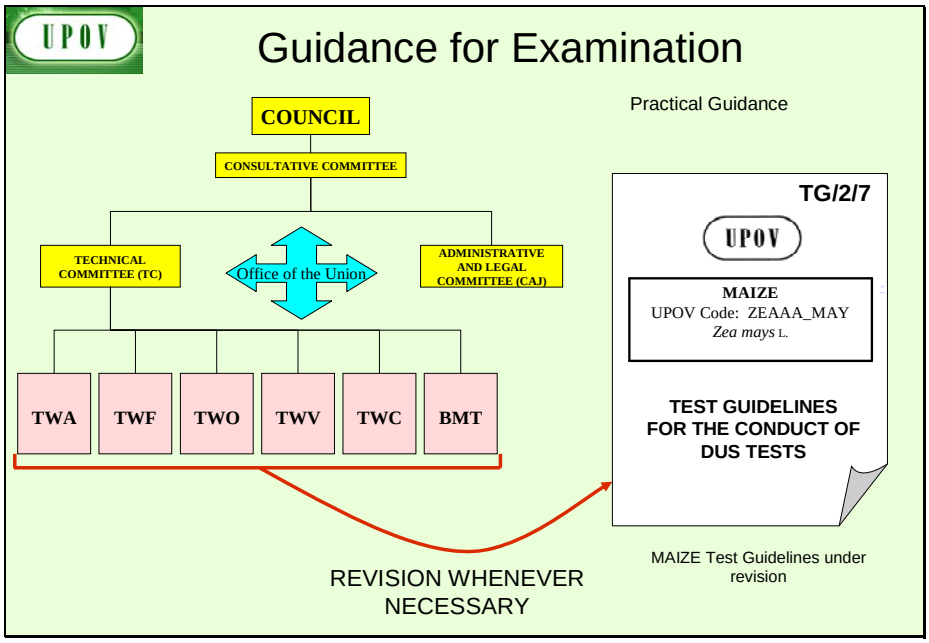

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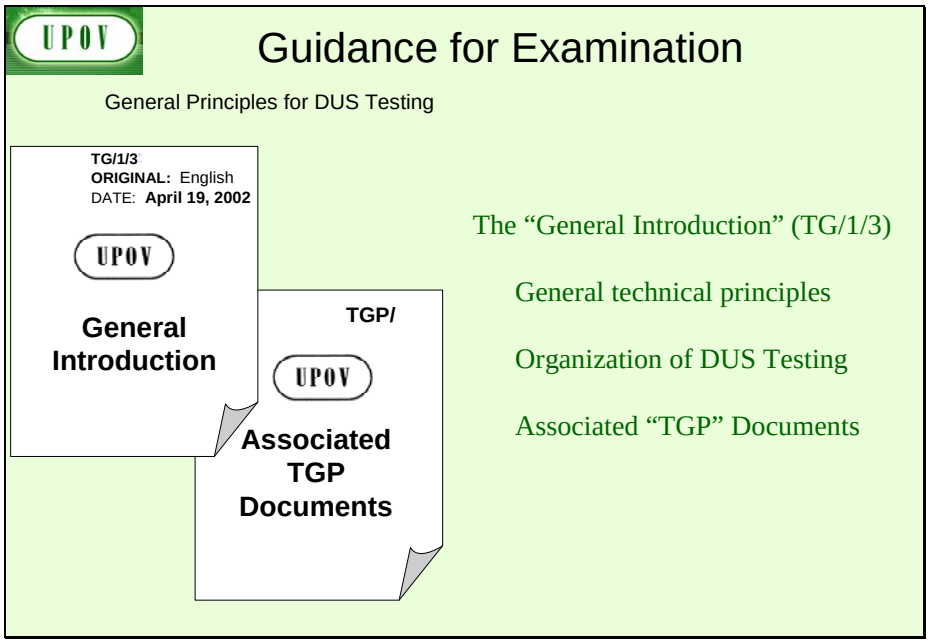

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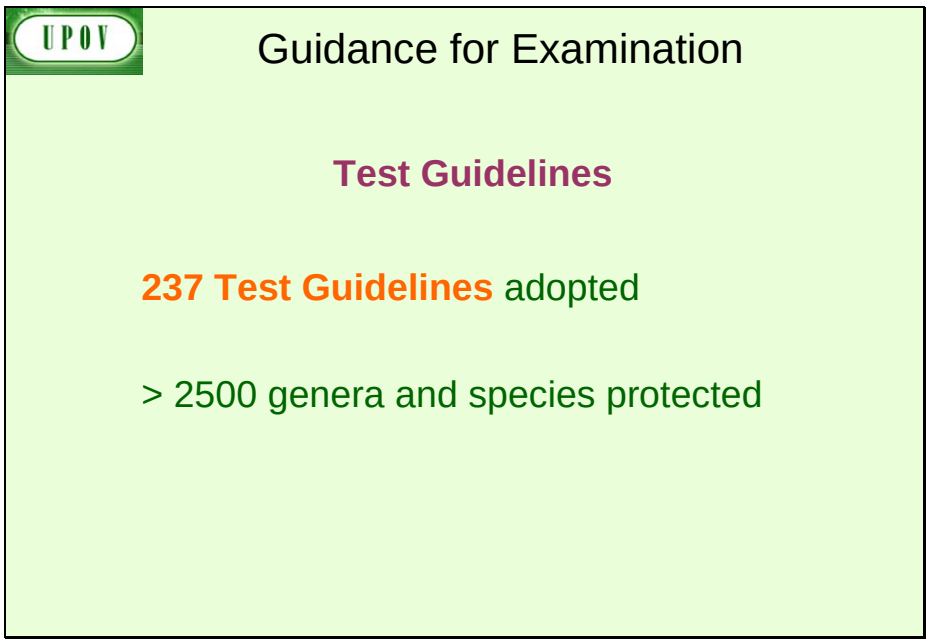

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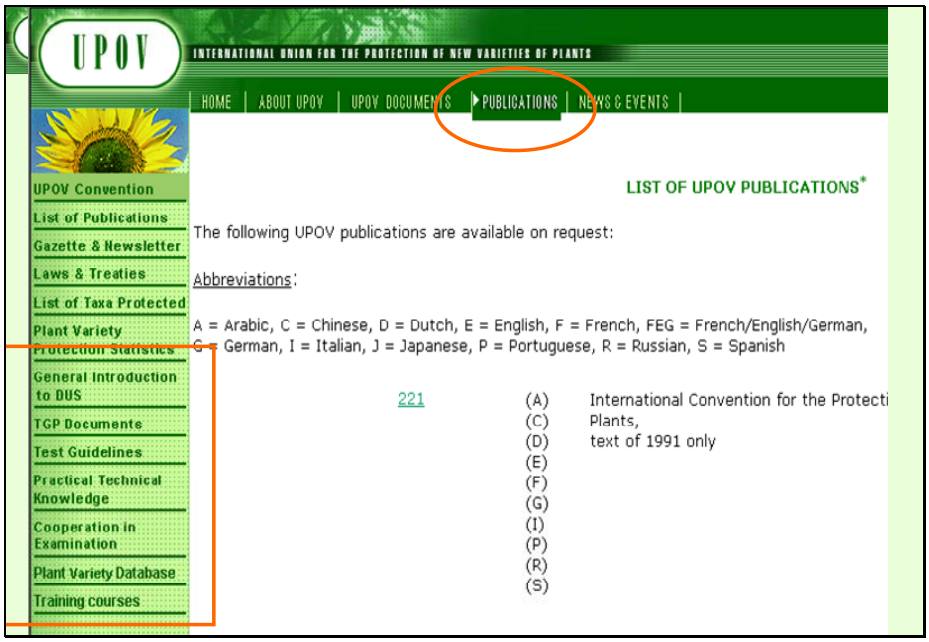

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Observation of characteristics

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DUS examination

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Variety description

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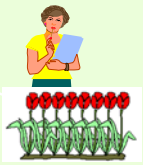
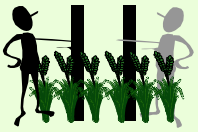
Method of observation

Visual observation (V)	Measurements (M)
	
Data recorded	Notes
	Measurements

used for DUS

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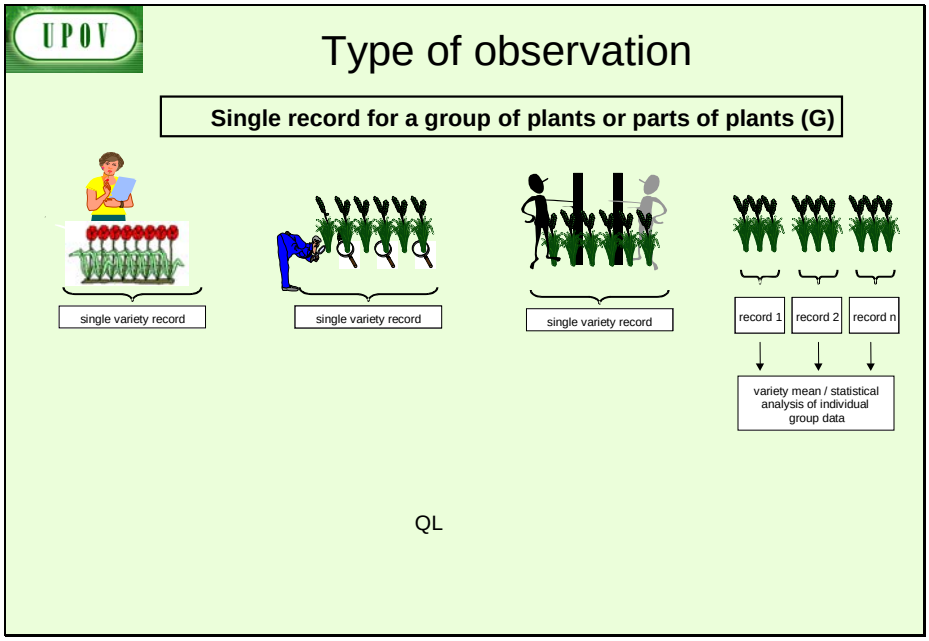

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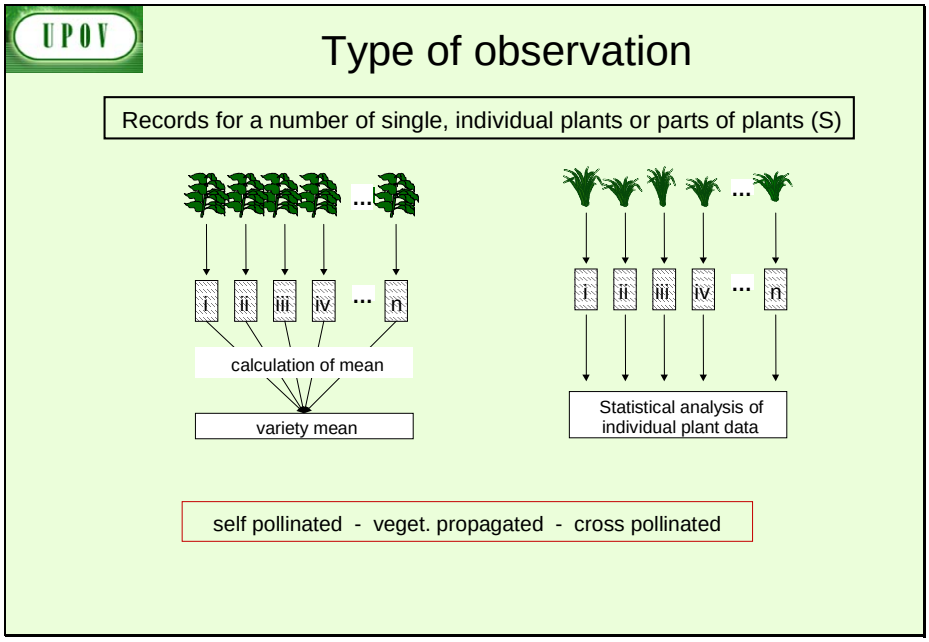

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Type of observation

VG
First leaf: anthocyanin coloration of sheath
First leaf: shape of tip
Leaf: angle between blade and stem
Leaf: attitude of blade
Tassel: anthocyanin coloration at base of glume
Tassel: anthocyanin coloration of glumes excluding base
Tassel: anthocyanin coloration of anthers
Tassel: density of spikelets
Tassel: angle between main axis and lateral branches
Tassel: attitude of lateral branches

VG
Ear: anthocyanin coloration of silks
Ear: intensity of anthocyanin coloration of silks
Leaf: anthocyanin coloration of sheath (in middle of plant)
Ear: type of grain
Ear: color of top of grain
Ear: color of dorsal side of grain
Ear: shape

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Type of observation

MG
Tassel: time of anthesis
Tassel: number of primary lateral branches
Ear: time of silk emergence (50% of plants)

MS
Tassel: length of main axis above lowest lateral branch
Tassel: length of main axis above upper lateral branch
Tassel: length of side branches
Leaf: width of blade (leaf of upper ear on the widest part)
Ear: length of peduncle
Ear: length
Ear: diameter (in middle)
Ear: number of rows of grain

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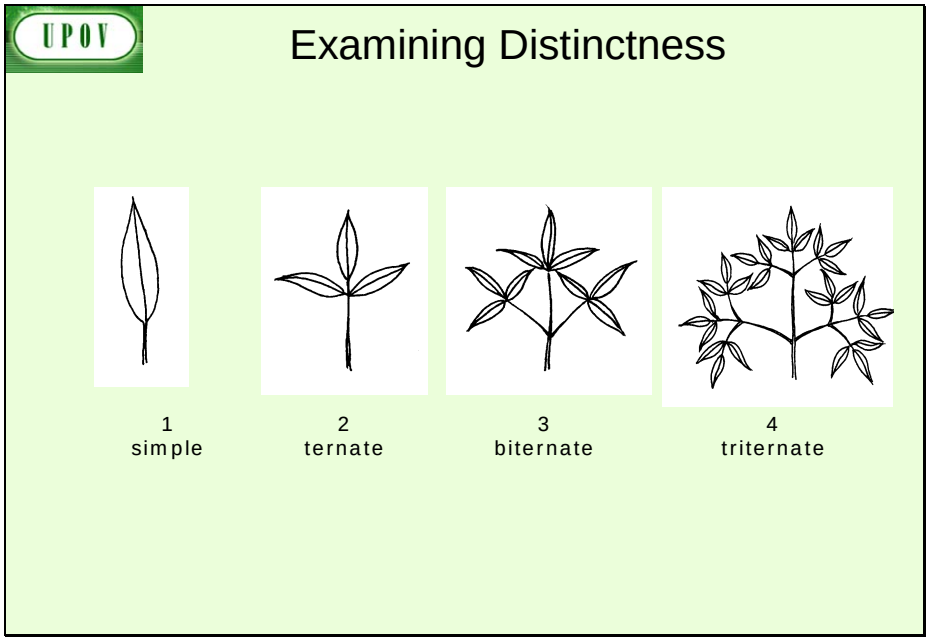

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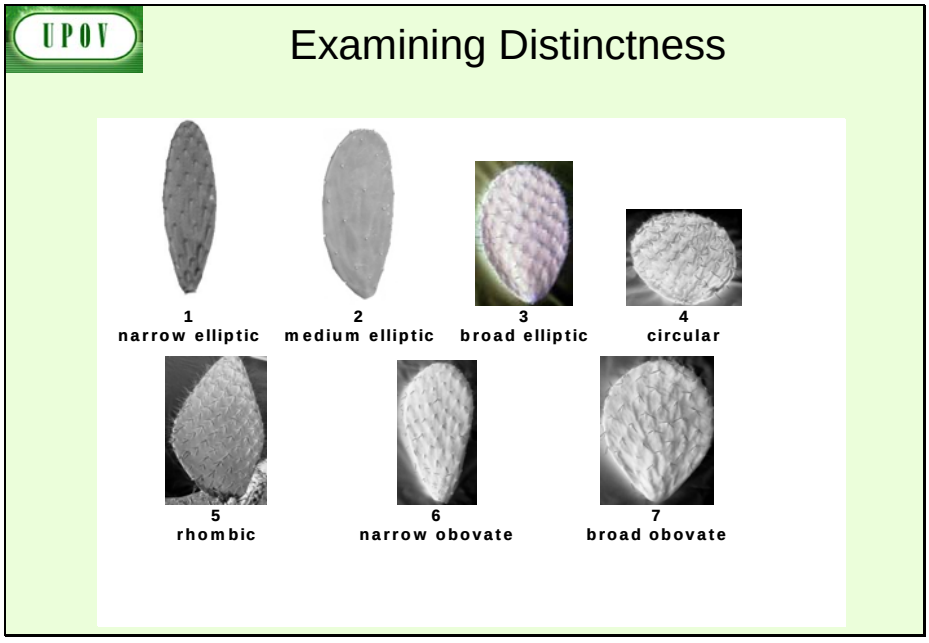

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Examining Distinctness

VG	Tassel: density of spikelets	
	lax	3
QN	medium	5
	dense	7

QN: (visual observation)

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Examining Distinctness

Ear: length (without husks)

QN: (measurements)

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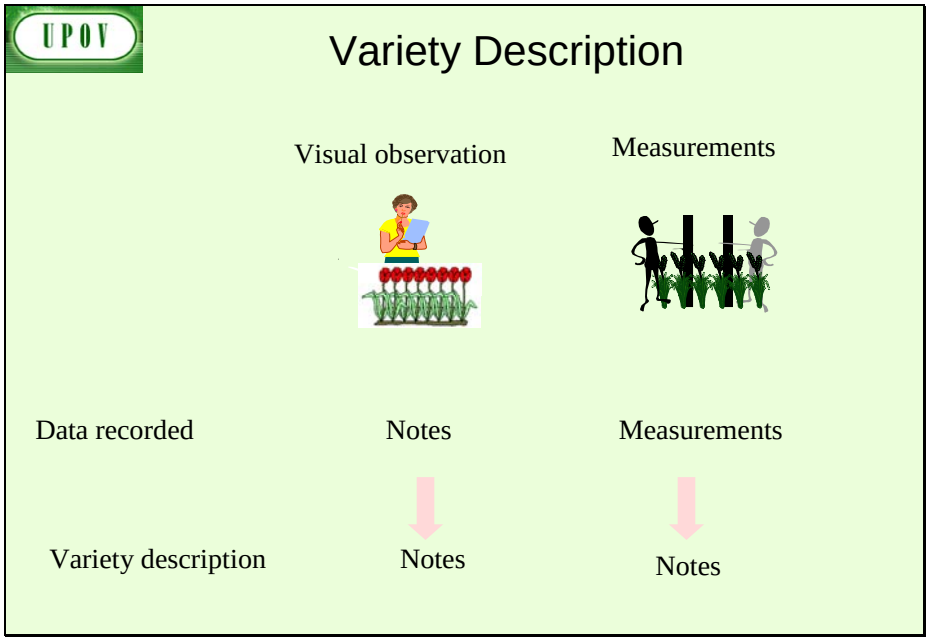

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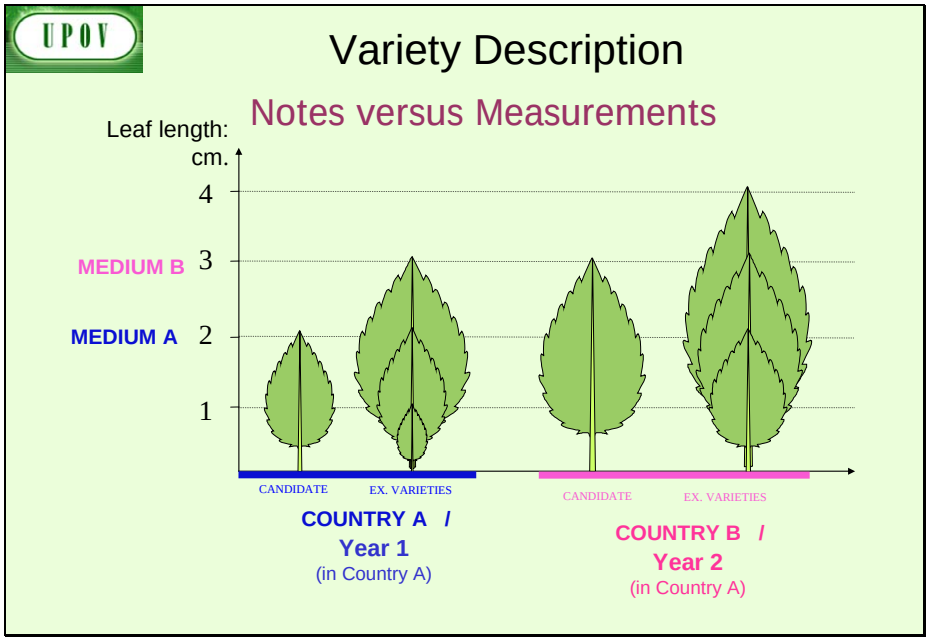

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Summary

Characteristics in UPOV TGs = useful for DUS examination

UPOV TGs are revised whenever necessary

Measurements / used

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THANK YOU

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