

General Introduction for Making Test Guidelines

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The First TWG Meeting of TG Harmonization on *Acacia* spp. in EAPVP Forum, Malaysia 2015

National Center for Seeds and Seedlings, yuichiro ISHII



Contents

- Outline of Development Test Guideline
- Characteristics and Example Varieties for Test Guidelines
- Test Guidelines for Acacia in Japan

Plant Variety Protection system

New Variety

Breeding: needs a lot of time and money

Propagation: very quick and easy

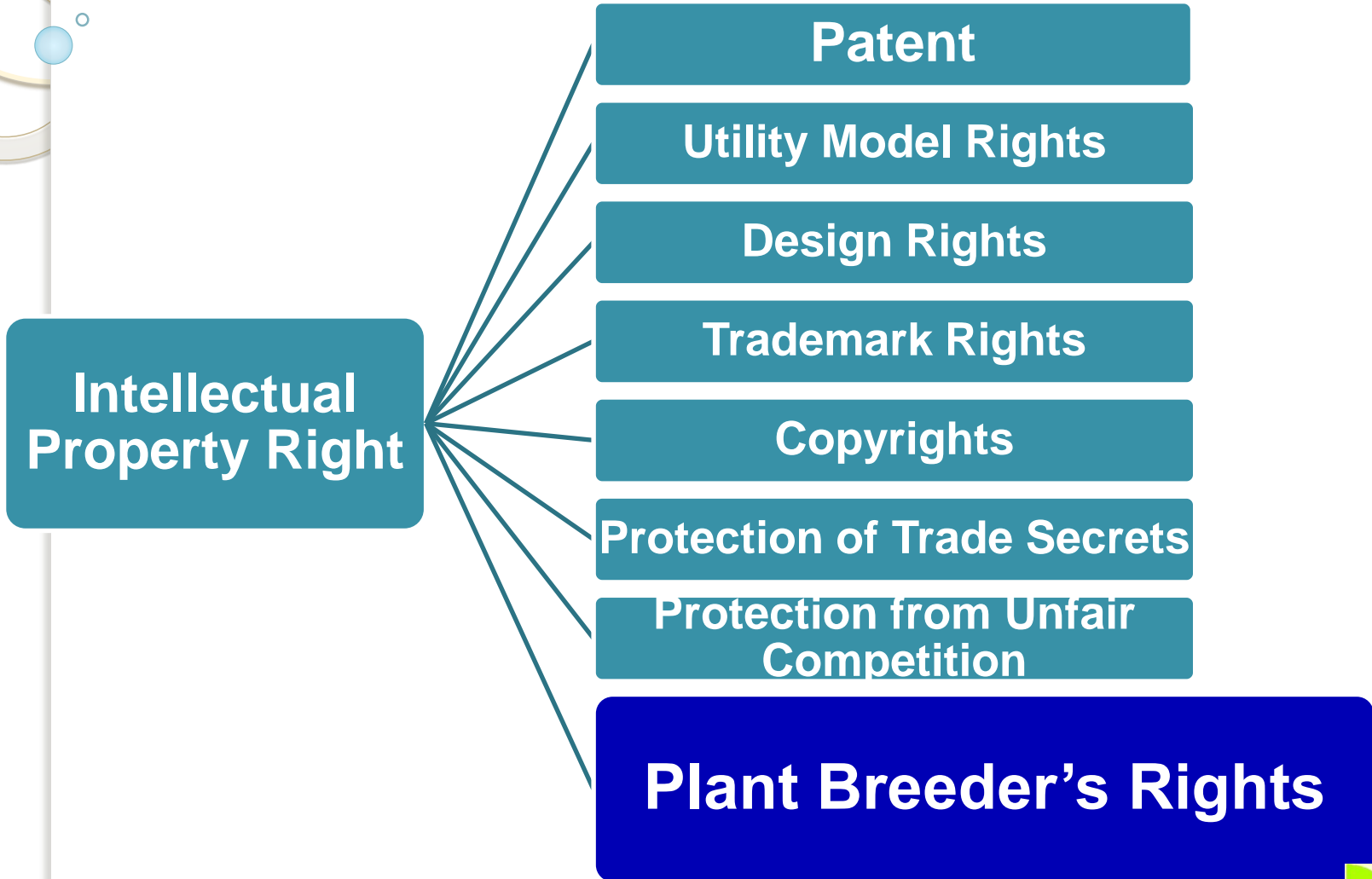
- breeders may lose the chance to recover the cost of the breeding*

Needs an effective system of PVP

- gives the breeder a chance to obtain a financial return*
- encourage the development of new varieties more, then*
- leads to contributing to agricultural development*



Intellectual Property Right



Examination of the Application

- Article 12; 91 Act of the UPOV Convention

Any decision to grant a breeder's right shall **require an examination** for compliance with the conditions under **Articles 5 to 9**.

- Article 5 **Conditions of Protection**
- Article 6 **Novelty**
- Article 7 **D**istinctness
- Article 8 **U**niformity
- Article 9 **S**tability

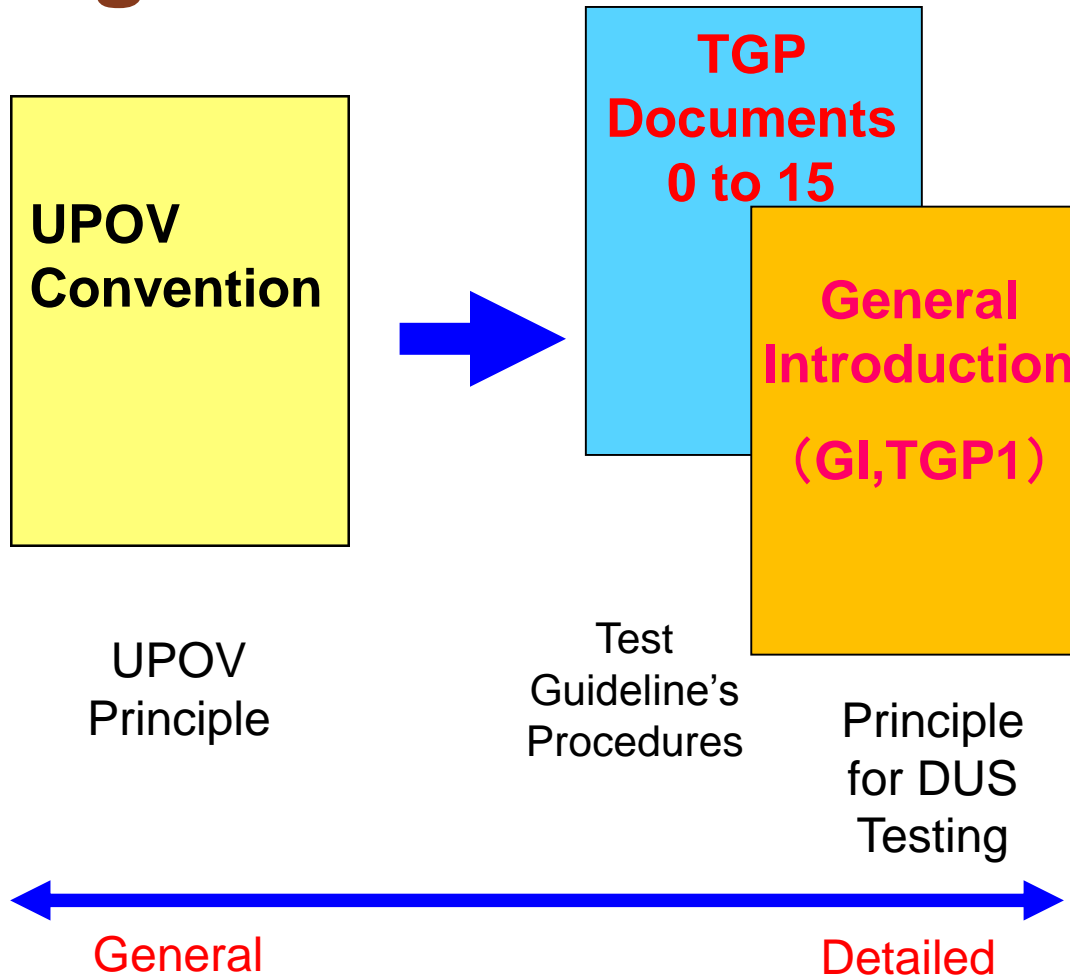
Examination of the Application

- Article 12; 91 Act of the UPOV Convention

In the course of the examination, the authority may grow the variety or carry out other necessary tests, cause the growing of the variety or the carrying out of other necessary tests, or take into account the results of growing tests or other trials which have already been carried out.

- Article 5 **Conditions of Protection**
- Article 6 **Novelty**
- Article 7 **D**istinctness
- Article 8 **U**niformity
- Article 9 **S**tability

How do examination and DUS Testing?





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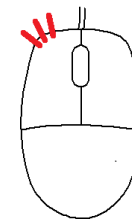
DUS Guidance

The purpose of document TG/1/3 "General Introduction to the Examination of Distinctness, Uniformity and Stability" is to set out the principles which are used in the examination of DUS. The only binding obligations for member examination of all species in accordance with the UPOV Convention. In addition, UPOV has developed "Guide of the principles contained in the General Introduction and the associated TGP documents, into detailed practical guidelines."

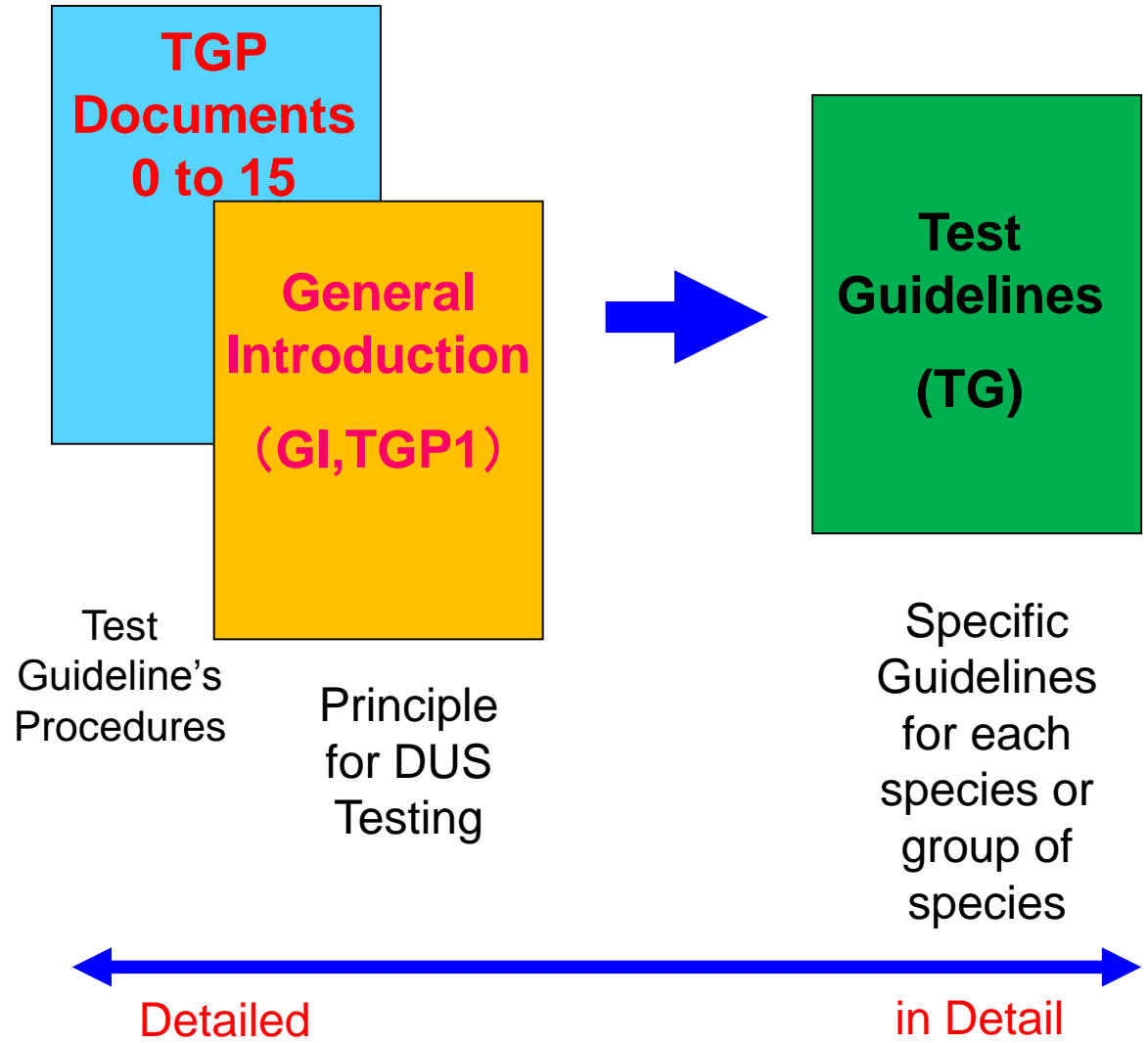
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UPOV's guidance for DUS Testing

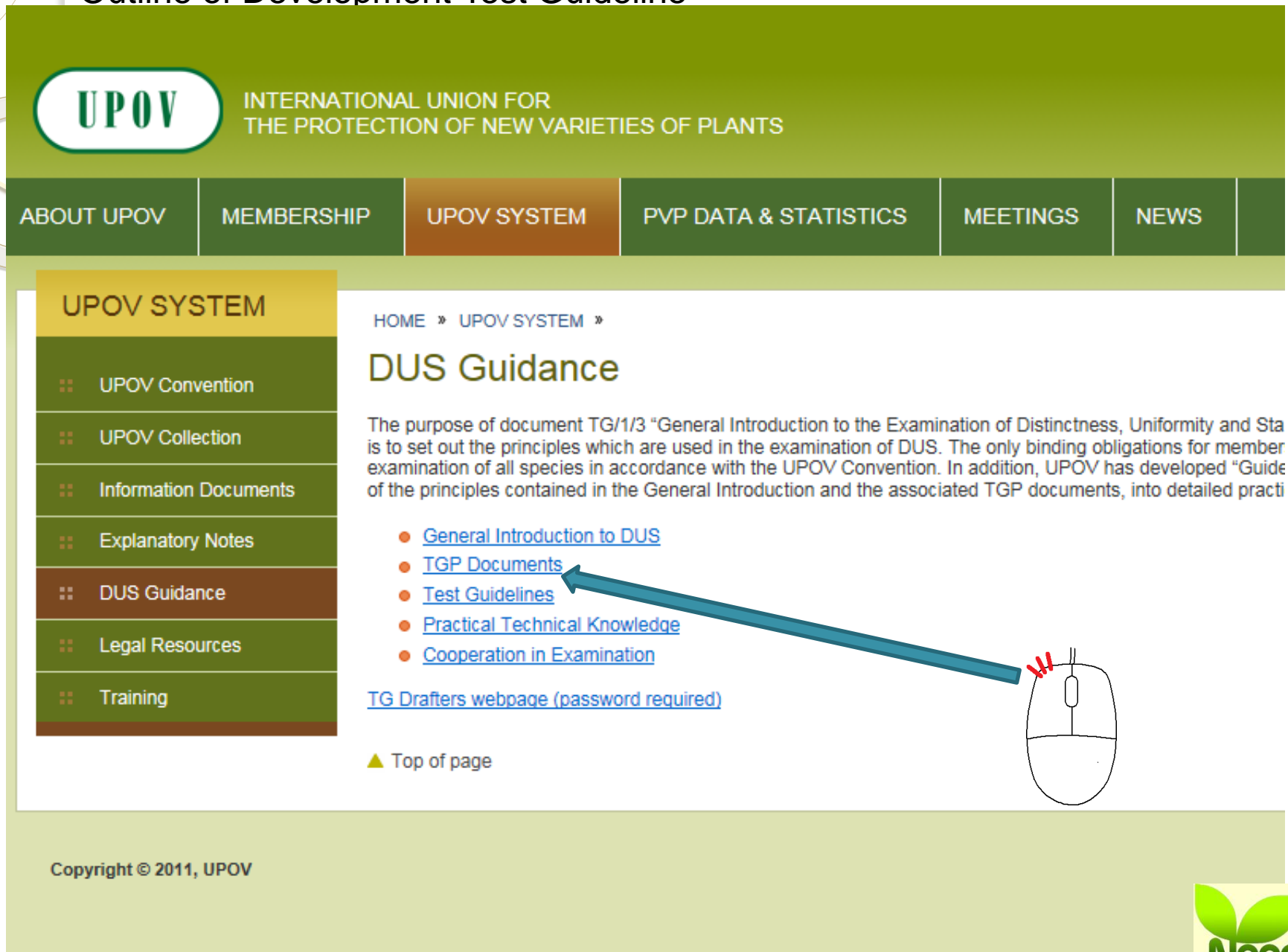


Test Guidelines

- Test Guidelines as a Basis for DUS testing

TGP/1/3(GI) 2.2

2.2.1 Where UPOV has established specific Test Guidelines for a particular species, or other group(s) of varieties, these represent an **agreed and harmonized** approach for the examination of new varieties and, in conjunction with the basic principles contained in the General Introduction, should form the basis of the DUS test.



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DUS Guidance


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Test Guidelines

Development of Test Guidelines

TGP/1/3(GI) 8.2

8.2.1 The individual Test Guidelines are prepared or, where appropriate, revised according to the procedures set out in document TGP/7, “Development of Test Guidelines.” Once prepared by the appropriate Technical Working Party for the species concerned, a draft is sent for comments to the relevant international professional organizations and institutions working in the field of the species concerned. On the basis of the comments received, the draft Test Guidelines are finalized by the Technical Working Party concerned and presented to the UPOV Technical Committee for final adoption and publication.

Absence of Test Guidelines

- DUS Testing Experience of Other Members of the Union

TGP/1/3(GI) 9.2

9.2.1 The examining office is invited to consult document TGP/5, “Experience and Cooperation in DUS Testing,” to ascertain whether other UPOV members of the Union have already conducted DUS testing on the required species or have national test guidelines.


9.2.2 Where such experience is available or national test guidelines exist, countries are invited to approach the members of the Union concerned and, in accordance with the principles in the General Introduction, seek to harmonize their testing procedures as far as possible.

Absence of Test Guidelines

- DUS Testing Procedures for New Species or Variety Groupings TGP/1/3(GI) 9.3

9.3.1 Where neither practical testing experience nor national test guidelines are available in other countries for the species or variety grouping concerned, members of the Union **should develop their own testing procedures** as set out below.

9.3.2 When developing such testing procedures, offices are encouraged to align them on the principles set forth in this **General Introduction**, by following this document and the guidance for the development of Test Guidelines contained in document **TGP/7, “Development of Test Guidelines.”**


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TGP Documents

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List all documents

Total: 32

CODE	ENGLISH
TGP/0	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	Method of Common Knowledge
TGP/6/SECTION/3	Declaration on the Conditions for the Examination of a Variety Based on Trials Carried Out by or on behalf of Breeders
TGP/7	Development of Test Guidelines
TGP/8	Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability
TGP/9	Examining Distinctness
TGP/10	Examining Uniformity
TGP/11	Examining Stability
TGP/12	Guidance on Certain Physiological Characteristics
TGP/13	Guidance for New Types and Species
TGP/14	Glossary of Terms Used in UPOV Documents
TGP/14/SUPPLEMENT	Supplement to "Glossary of Terms Used in UPOV Documents"
TGP/15	Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)



Outline of Development Test Guideline

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TGP/7, Annex 4
 ORIGINAL: English
 DATE: June 1, 2005

UPOV

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
 GENEVA

DRAFT

*Associated Document
 to the
 General Introduction to the Examination
 of Distinctness, Uniformity and Stability and the
 Development of Harmonized Descriptions of New Varieties of Plants (document TG/1/3)*

DOCUMENT TGP/7
ANNEX 4
“COLLECTION OF APPROVED CHARACTERISTICS”
prepared by the Office of the Union

page 2

Seed: number / frequency

Deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
Frucht: Anzahl sehr oder sehr	Fruto: número de semillas ausente o muy bajo	TG/142/4 Watermelon Tanenashi Kōyō	1
	medio	Miyako 3	2
	alto	Fumin	3
	Fruto: número de semillas completamente desarrolladas	TG/217/1 Cactus Pear – Xoconostles	
	bajo	Roja Sanjuanera	3
	medio	Fafayuca, Solferino	5
		Tapón de Mayo, Cristalina	7
	número de abortivas	TG/217/1 Cactus Pear – Xoconostles	
	muy pocas	Memelo, Solferino	1
		Amarilla Plátano, Montesa	3
		Burrona, Chapeada, Cristalina	5
	abundantes	Blanca Caldera	7
	muy abundantes	Blanca San José, Copena 2	9



- Characteristics and Example Varieties for Test Guidelines

Structure of Test Guidelines

1. Subject of the Test Guidelines
2. Material Required
3. Method of Examination
 - 3.1 Number of growing cycles
 - 3.2 Testing Place
 - 3.3 Conditions for Conducting the Examination
 - 3.4 Test Design
 - 3.5 Number of Plants / Parts of Plants to be Examined
 - 3.6 Additional Test
4. Assessment of D.U.S.
 - 4.1 Distinctness
 - 4.2 Uniformity
 - 4.3 Stability
5. Grouping of Varieties and Organization of the Growing Trial
6. Introduction to the Table of Characteristics
7. **Table of Characteristics**
8. Explanations on the Table of Characteristics
9. Literature
10. Technical Questionnaire

Table of Characteristics

		English	Example Varieties	Note
1.	VG	Seed-propagated varieties only: Seedling: anthocyanin coloration of hypocotyl		
(+)				
QL	absent		Colt, Heinz 8104, Mogeor, Momorvert, VTM215	1
	present		DG-039, Montfavet H 63.4	9
2.	VG	Plant: growth type		
(*)				
(+)				
QL	determinate		Campbell 1327, Prisca	1
	indeterminate		Marmande VR, Saint-Pierre, San Marzano 2	2
3.	VG/ MS	Only varieties with plant growth type determinate: Plant: number of inflorescences on main stem (side shoots to be removed)		
QN	few		Campbell 1327	3
	medium		Montfavet H 63.4	5
	many		Prisca	7

- Characteristics
- Example varieties

Selection of Characteristics

TGP/1/3(GI) 4.2

4.2.1 Basic requirement of a characteristic

- (a) results from a given **genotype** or combination of genotypes;
- (b) be sufficiently consistent and **repeatable** in a particular environment;
- (c) exhibits sufficient **variation** between varieties to be able to establish distinctness;

Selection of Characteristics

TGP/1/3(GI) 4.2

4.2.1 Basic requirement of a characteristic

(d) be capable of precise **definition** and recognition;

(e) allows **uniformity** requirements to be fulfilled;

(f) allows **stability** requirements to be fulfilled.

Selection of Characteristics

TGP/1/3(GI) 4.2

4.2.2 **No requirement** for a characteristic to have any intrinsic commercial value or merit.

e.g.

Characteristics of economic value:

- Yield
 - Quality
- = important for breeding objectives
= not always appropriate for DUS

4.2.2 However, if a characteristic that is of commercial value or merit satisfies all the criteria for inclusion it may be considered in the normal way.

e.g. Yield calculation

- Investigate 4 yield components

1 Panicle number per 1m^2

2 Grain number per panicle

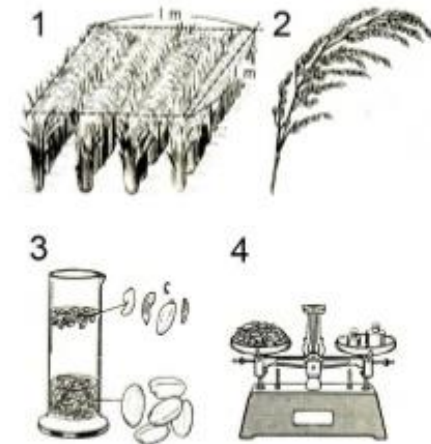
3 Percentage of ripened grains

4 1,000-grain weight (dehulled)

- 1 & 2 : Investigate 20 average sized plants in each section
- 3 & 4 : Investigate 10 average sized plants in each section

- Crop yields per 1m^2

= Product of 4 yield components



By Kikuchi Yukiko



Example Varieties

TGP/7/4-Annex 3, GN28

2 Criteria for Example Varieties

2.1 Availability

example varieties should **be widely and readily** available for the coverage of the Test Guidelines

2.2 Minimizing the number

each example variety should be **used for as many characteristics**

2.3 Agreement of interested experts

2.3.1 should **be prepared in cooperation** with all the interested experts

2.3.2 should be known to represent the **same scale**

- Test Guidelines for Acacia in Japan



Reference of UPOV member's National TG

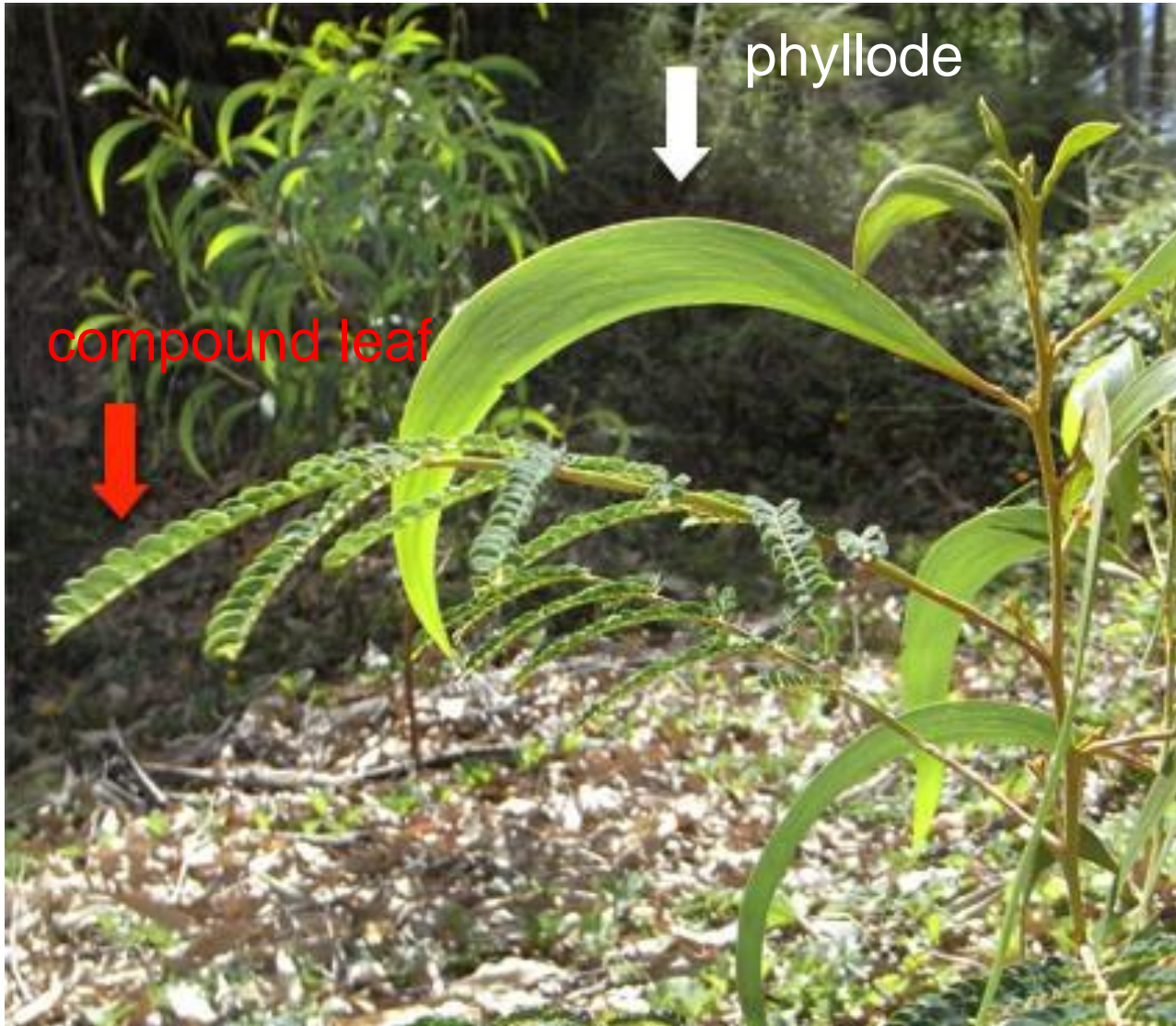
UPOV Code	Country	Type	Botanical Name	Common Name	App. No	App. Date	Grant date	Denomination
ACACI	US	PLP	<i>Acacia</i>	Acacia			1969-09-23	Ongerup
ACACI	NL	NLI	<i>Acacia</i> Mill.		ACC00008			Lace Lady
ACACI	NL	NLI	<i>Acacia</i> Mill.		ACC00009			MTC01
ACACI	NL	NLI	<i>Acacia</i> Mill.		ACC00010			MTC02
ACACI	IT	PBR	<i>Acacia</i> Mill.	ACACIA	0027NV/1991_0027N	1991-03-01		Dea
ACACI	IT	PBR	<i>Acacia</i> Mill.	ACACIA	0176NV/1988_0176N	1988-08-26		Dina
ACACI_ACI	AU	PBR	<i>Acacia</i> acinacea	Gold-dust wattle	2011076	2011-04-26		AC01
ACACI_BAI	NZ	PBR	<i>Acacia</i> baileyana F. Muell.	Wattle	TRM002	1983-04-22		Goldilocks
ACACI_BAI	QZ	PBR	<i>Acacia</i> baileyana F. Muell.		20042408	2004-12-03		Songlines
ACACI_BAI	JP	PBR	<i>Acacia</i> baileyana F. Muell.	Baileys acacia	25257	2010-10-08		TSUTOMU
ACACI_BAI	JP	PBR	<i>Acacia</i> baileyana F. Muell.	Baileys acacia	27809	2013-01-18		RED CRYSTAL
ACACI_BIN	AU	PBR	<i>Acacia</i> binervia	Coastal Myall	2011263	2011-11-22		Silver Cascade
ACACI_BOO	AU	PBR	<i>Acacia</i> boormanii	Snowy River Wattle	1993222	1993-10-11	1997-12-16	OLYMPIC GOLD
ACACI_CAR	AU	PBR	<i>Acacia</i> cardiophylla	Wyalong Wattle	1989022	1989-05-01	1990-01-19	GOLD LACE
ACACI_CAR	NZ	PBR	<i>Acacia</i> cardiophylla A.Cunn. Ex Benth.	Wattle, Wyalong	SHM051	1991-10-14	1997-11-26	Gold Lace
ACACI_COG	US	PLP	<i>Acacia</i> cognata	Acacia plant	13815333	2013-02-21	2014-12-02	ACCOG01
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	1999343	1999-12-03	2001-12-05	UY2
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	1999393	1999-12-23	2001-12-10	UY3
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	2000034	2000-02-08	2001-09-20	Limelight
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	2002278	2002-09-09	2005-03-22	River Cascade
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	2002317	2002-10-25	2005-07-29	Bower Beauty
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	2005354	2006-01-03	2009-06-26	Mini Cog
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	2006280	2006-10-17		BW 06
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	2007019	2007-01-17		Goldcog2
ACACI_COG	AU	PBR	<i>Acacia</i> cognata	Bower Wattle	2008061	2008-02-27	2010-06-08	Curvaced

Reference of other Acacias



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Thank you for your attention

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