

E



TG/88/6

INTERNATIONAL UNION
FOR THE PROTECTION
OF NEW VARIETIES OF
PLANTS

UNION INTERNATIONALE
POUR LA PROTECTION
DES OBTENTIONS
VÉGÉTALES

INTERNATIONALER
VERBAND ZUM SCHUTZ
VON PFLANZEN-
ZÜCHTUNGEN

UNIÓN INTERNACIONAL
PARA LA PROTECCIÓN
DE LAS OBTENCIÓNES
VEGETALES

**GUIDELINES
FOR THE CONDUCT OF TESTS
FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

COTTON

(Gossypium L.)

**GENEVA
2001**

Copies of this document are available on request at the price of 10 Swiss francs each, including surface mail, from the Office of UPOV, 34, chemin des Colombettes, P.O. Box 18, 1211 Geneva 20, Switzerland

This document or parts of it may be reproduced, translated and published without obtaining the specific consent of UPOV, provided that the source is acknowledged.

* * * * *



TG/88/6
ORIGINAL: English
DATE: 2001-04-04

INTERNATIONAL UNION
FOR THE PROTECTION
OF NEW VARIETIES OF
PLANTS

UNION INTERNATIONALE
POUR LA PROTECTION
DES OBTENTIONS
VÉGÉTALES

INTERNATIONALER
VERBAND ZUM SCHUTZ
VON PFLANZEN-
ZÜCHTUNGEN

UNIÓN INTERNACIONAL
PARA LA PROTECCIÓN
DE LAS OBTENCIÓNES
VEGETALES

**GUIDELINES
FOR THE CONDUCT OF TESTS
FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

COTTON

(Gossypium L.)

These Guidelines should be read in conjunction with document TG/1/2, which contains explanatory notes on the general principles on which the Guidelines have been established.

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
I. Subject of these Guidelines	3
II. Material Required	3
III. Conduct of Tests	3
IV. Methods and Observations.....	3
V. Grouping of Varieties	4
VI. Characteristics and Symbols	4
VII. Table of Characteristics	6
VIII. Explanations on the Table of Characteristics	16
IX. Literature	19
X. Technical Questionnaire.....	20

I. Subject of these Guidelines

These Test Guidelines apply to all varieties of *Gossypium hirsutum* L. and *Gossypium barbadense* L. lines, hybrids and interspecific hybrid varieties.

II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the plant material required for testing the variety is to be delivered. Applicants submitting material from a state other than that in which the testing takes place must make sure that all customs formalities are complied with. The minimum quantity of seed to be supplied by the applicant in one or several samples should be:

3 kg of delinted seed.

If requested, in the case of hybrids and interspecific hybrid varieties, an additional 2 kg of seed of each component should be submitted. The seed should at least meet the minimum requirements for germination capacity, moisture content and purity for marketing certified seed in the country in which the application is made. The germination capacity should be as high as possible.

2. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

III. Conduct of Tests

1. The minimum duration of tests should normally be two independent growing cycles.

2. The tests should normally be conducted at one place. If any important characteristics of the variety cannot be seen at that place, the variety may be tested at an additional place.

3. The field tests should be carried out under conditions ensuring normal growth. The size of the plots should be such that plants or parts of plants may be removed for measurement and counting without prejudice to the observations which must be made up to the end of the growing period. Each test should include about 500 plants which should be divided between two or more replicates. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

4. Additional tests for special purposes may be established.

IV. Methods and Observations

1. The characteristics described in Chapter VII should be used for the testing of distinctness of lines, hybrids and interspecific hybrid varieties.

2. Unless otherwise indicated, all observations for the assessment of distinctness and stability should be made on 20 plants or parts taken from each of 20 plants.
3. For the assessment of uniformity, population standard of 1 per cent with an acceptance probability of at least 95 per cent should be applied. In the case of a sample size of 500 plants, the maximum number of off-types allowed would be 9.
4. Unless otherwise indicated, all observations on the leaf and on the stem should be made where leaves are fully extended.
5. Unless otherwise indicated, all observations on the fruiting branch should be made at flowering stage on the lowest fruiting branch.
6. All observations on the flower should be made on the first day of flowering.
7. Unless otherwise indicated, all observations on the boll should be made at green maturity.
8. All observations on the seed and the fiber should be made at full maturity.

V. Grouping of Varieties

1. The collection of varieties to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety. Their various states of expression should be fairly evenly distributed throughout the collection.
2. It is recommended that the competent authorities use the following characteristics for grouping varieties:
 - (a) Flower: color of petal (characteristic 1)
 - (b) Leaf: shape (characteristic 11)
 - (c) Leaf: nectaries (characteristic 14)
 - (d) Boll: shape in longitudinal section (characteristic 20)
 - (e) Boll: time of opening (when 50% of the plants have at least one boll opened) (characteristic 27)
 - (f) Fiber: length (characteristic 34)

VI. Characteristics and Symbols

1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.
2. Notes (numbers), for the purposes of electronic data processing, are given opposite the states of expression for each characteristic.

3. Legend:

(*) Characteristics that should be used on all varieties in every growing period over which examinations are made and always be included in the variety descriptions except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

(+) See Explanations on the Table of Characteristics in Chapter VIII.

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

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplos	Note/ Nota
1. (*) Flower: color of petal	Fleur: couleur des pétales	Blüte: Farbe des Blütenblattes	Flor: color del pétalo		
cream	crème	cremefarben	crema	Crema-111, Zeta 2	1
yellow	jaune	gelb	amarillo	Acalpi	2
2. Flower: intensity of spot on petal	Fleur: intensité de la tache sur les pétales	Blüte: Intensität des Flecks auf dem Blütenblatt	Flor: intensidad de la mancha en los pétalos		
absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Corona, Korina	1
weak	faible	gering	débil		3
medium	moyenne	mittel	media	Acalpi	5
strong	forte	stark	fuerte		7
very strong	très forte	sehr stark	muy fuerte		9
3. (*) Flower: color of pollen	Fleur: couleur du pollen	Blüte: Farbe des Pollens	Flor: color del polen		
cream	crème	cremefarben	crema	Crema-111, C-310	1
yellow	jaune	gelb	amarillo		2
dark yellow	jaune foncé	dunkelgelb	amarillo oscuro	Acalpi	3
4. Flower: position of stigma relative to anthers	Fleur: position des stigmates par rapport aux anthères	Blüte: Position der Narben im Verhältnis zu den Antheren	Flor: posición del estigma en relación a las anteras		
below	au-dessous	unterhalb	debajo	Nata	1
same level	au même niveau	auf gleicher Höhe	al mismo nivel	Crema-111, Delta Acala 90	2
above	au-dessus	oberhalb	encima	C-310, Alegria, Corona	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. Fruiting branch: length	Rameau fructifère: longueur	Fruchtender Trieb: Länge	Rama fructifera: largo		
very short	très court	sehr kurz	muy corta	Indiana	1
short	court	kurz	corta	Korina	3
medium	moyen	mittel	media	Corona, Saeta	5
long	long	lang	larga		7
very long	très long	sehr lang	muy larga		9
6. Plant: type of flowering (*) (+)	Plante: type d'épanouissement des fleurs	Pflanze: Anordnung der Blüte	Planta: tipo de floración		
clustered	groupées	traubenförmig	agrupada		1
semi-clustered	semi-groupées	halb traubenförmig	semiagrupada	Alegria, Korina	2
non-clustered	non groupées	nicht traubenförmig	no agrupada	Corona, Aria	3
7. Fruiting branch: number of nodes	Rameau fructifère: nombre de nœuds	Fruchtender Trieb: Anzahl Nodien	Rama fructífera: número de nudos		
very few	très petit	sehr gering	muy bajo		1
few	petit	gering	bajo		3
medium	moyen	mittel	medio	C-304, Aria	5
many	grand	groß	alto		7
very many	très grand	sehr groß	muy alto		9
8. Fruiting branch: average internode length	Rameau fructifère: longitud promedio del entrenudo	Fruchtender Trieb: durchschnittliche Internodienlänge	Rama fructífera: longitud promedio del entrenudo		
short	court	kurz	corto		3
medium	moyen	mittel	medio	C-304	5
long	longue	lang	largo		7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9. Plant: number of nodes to the lowest fruiting branch (at flowering stage)	Plante: nombre de nœuds jusqu'au rameau fructifère le plus bas (à la floraison)	Pflanze: Anzahl Nodien bis zum untersten fruchtenten-den Trieb (im Blühstadium)	Planta: número de nudos hasta la rama fructífera inferior (en floración)		
very low	très faible	sehr gering	muy bajo		1
low	faible	gering	bajo	Alegria, Lachata, Sindos 80	3
medium	moyen	mittel	medio	4S	5
high	élevé	groß	alto	Crema 111	7
very high	très élevé	sehr groß	muy alto	Zeta 2	9
10. Leaf: intensity of green colour (as for 9)	Feuille: intensité de la couleur verte (comme pour 9)	Blatt: Intensität der Grünfärbung (wie unter 9)	Hoja: intensidad del color verde (como para 9)		
light	claire	hell	claro	Eva	3
medium	moyenne	mittel	medio	Victoria, 4S	5
dark	foncée	dunkel	oscuro	Acala SJ2	7
11. Leaf: shape (*) (+)	Feuille: forme	Blatt: Form	Hoja: forma		
palmate	palmée	handförmig	palmada	Crema-111, Zeta 2	1
palmate to digitate	palmée à digitée	hand- bis fingerförmig	palmada a digitada	Acalpi	2
digitate	digitée	fingerförmig	digitada	Sureña	3
lanceolate	lancéolée	lanzettlich	lanceolada		4
12. Leaf: size	Feuille: taille	Blatt: Größe	Hoja: tamaño		
small	petite	klein	pequeño	Ourania	3
medium	moyenne	mittel	mediano	Crema-111, 4S	5
large	grande	groß	grande	Acala SJ2, Zeta 2	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
13. Leaf: pubescence (*) (lower side)	Feuille: pilosité (partie inférieure)	Blatt: Behaarung (Unterseite)	Hoja: pubescencia (en el envés)		
absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil		1
weak	faible	gering	débil	Corona, Lachata	3
medium	moyenne	mittel	media	Aria, Saeta	5
strong	forte	stark	fuerte	Alegria, Stoneville 506	7
very strong	très forte	sehr stark	muy fuerte	Acalpi, Akala Sindou, Ionia	9
14. Leaf: nectaries (*)	Feuille: nectaires	Blatt: Nektarien	Hoja: nectarios		
absent	absents	fehlend	ausente	Xpress, Tempra	1
present	présents	vorhanden	presente	C310, Zeta 2	9
15. Stem: pubescence in upper part	Tige: pilosité dans la partie supérieure	Stiel: Behaarung des oberen Teiles	Tallo: pubescencia en la parte superior		
absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil		1
weak	faible	gering	débil	Victoria	3
medium	moyenne	mittel	media	C310, Austral	5
strong	forte	stark	fuerte	Crema-111, Eva	7
very strong	très forte	sehr stark	muy fuerte	Christina, Pontos	9
16. Stem: color	Tige: couleur	Stiel: Farbe	Tallo: color		
light green	vert pâle	hellgrün	verde claro		1
dark green	vert foncé	dunkelgrün	verde oscuro		2
reddish green	vert rougeâtre	rötlichgrün	verde rojizo	4S	3
17. Bract: dentation (at green maturity)	Bractée: denticulation (à l'état vert de maturité)	Hüllblatt: Zähnung (bei grüner Frühreife)	Bráctea: dentado (en estado verde de madurez)		
fine	fine	kurz	FINO		3
medium	moyenne	mittel	medio	Crema-111	5
coarse	grossière	lang	profundo		7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. Bract: size (as for 17)	Bractée: taille (comme pour 17)	Hüllblatt: Größe (wie unter 17)	Bráctea: tamaño (como para 17)		
small	petite	klein	pequeño	Blanca, Ourania	3
medium	moyenne	mittel	mediano	Austral, 4S	5
large	grande	groß	grande	Zeta 2	7
19. Boll: size	Capsule: taille	Kapsel: Größe	Cápsula: tamaño		
small	petite	klein	pequeño	Ourania, Sureña	3
medium	moyenne	mittel	mediano	Stoneville 506, 4S	5
large	grande	groß	grande	Victoria, Zeta 2	7
20. Boll: shape in (*) longitudinal section (+)	Capsule: forme en section longitudinale	Kapsel: Form im Längsschnitt	Cápsula: forma de la sección longitudinal		
rounded	arrondie	abgerundet	redondeada	Lachata, GSA-71	1
elliptical	elliptique	elliptisch	elíptica		2
ovate	ovale	eiförmig	oval	Corona, 4S	3
conical	conique	kegelförmig	cónica		4
21. Boll: pitting of surface	Capsule: granulation de la surface	Kapsel: Körnung der Oberfläche	Cápsula: punteado de la superficie		
absent or very fine	nulle ou très fine	fehlend oder sehr fein	ausente o muy fina		1
fine	fine	fein	fina	Victoria, Vulcano	3
medium	moyenne	mittel	media	Tabladilla 13	5
coarse	grossière	grob	rugosa	Fotini	7
22. Boll: length of peduncle (*)	Capsule: longueur du pédoncule	Kapsel: Länge des Blütenstandstiels	Cápsula: longitud del pedúnculo		
short	court	kurz	pequeño	Stoneville 506	3
medium	moyen	mittel	medio	Crema-111, Zedera 5	5
long	long	lang	grande	Acalpi, Velos	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23. Boll: prominence of tip (+)	Capsule: proéminence du bec	Kapsel: Ausbildung der Spitze	Cápsula: prominencia de la punta		
weak	faible	gering	débil	Alegria	3
medium	moyenne	mittel	media	Corona	5
strong	forte	stark	fuerte	Nata	7
24. Plant: shape (*) (+)	Plante: forme (comme pour 17)	Pflanze: Form (wie unter 17)	Planta: forma (como para 17)		
cylindrical	cylindrique	zylindrisch	cilíndrica		1
conical	conique	kegelförmig	cónica	Crema-111	2
globose	globuleux	kugelförmig	globosa	C-310	3
25. Plant: density of foliage (as for 17)	Plante: densité du feuillage (comme pour 17)	Pflanze: Dichte des Laubes (wie unter 17)	Planta: densidad del follaje (como para 17)		
sparse	lâche	locker	laxa	Ourania	3
medium	moyenne	mittel	media	Crema-111, 4S, Vulcano	5
dense	dense	dicht	densa	Zeta 2	7
26. Plant: height (*) (+)	Plante: hauteur (comme pour 17)	Pflanze: Höhe (wie unter 17)	Planta: altura (como para 17)		
very short	très basse	sehr niedrig	muy baja	Dimitra	1
short	basse	niedrig	baja	Corona	3
medium	moyenne	mittel	media	C315, 4S	5
tall	haute	hoch	alta	Tempra, Zeta 2	7
very tall	très haute	sehr hoch	muy alta	Acalpi	9

English	français	deutsch	español	Example Varieties	Note/ Nota
				Exemples Beispielssorten Variedades ejemplo	
27. (*) Boll: time of opening (when 50% of the plants have at least one boll opened)	Capsule: époque de déhiscence (quand 50% des plantes ont au moins une capsule ouverte)	Kapsel: Zeitpunkt der Öffnung (wenn 50% der Pflanzen zumindest eine Kapsel geöffnet haben)	Cápsula: época de apertura (cuando el 50% de las plantas tienen al menos una cápsula abierta)		
very early	très précoce	sehr früh	muy precoz	Tabladilla 100	1
early	précoce	früh	precoz	Tabladilla 16, Sindos 80	3
medium	moyenne	mittel	media	C-310, Korina	5
late	tardive	spät	tardía	Acala SJ2, Zeta 2	7
very late	très tardive	sehr spät	muy tardía	Acalpi, Vered 171	9
28. Boll: degree of opening (at full maturity)	Capsule: degré d'ouverture (à pleine maturité)	Kapsel: Stärke der Öffnung (bei voller Reife)	Cápsula: grado de apertura (en madurez completa)		
weak	faible	gering	débil		3
medium	moyenne	mittel	media	Corona, Vulcano	5
strong	forte	stark	fuerte		7
29. (*) Seed: presence of fuzz	Semence: présence du duvet	Samen: Vorhandensein des Flaumes	Semilla: presencia de borra		
absent	absent	fehlend	ausente		1
present	présent	vorhanden	presente	Corona, C310	9
30. Seed: density of fuzz	Semence: densité du duvet	Samen: Dichte des Flaumes	Semilla: densidad de la borra		
very sparse	très lâche	sehr locker	muy laxo		1
sparse	lâche	locker	laxo	Austral, Ourania	3
medium	moyenne	mittel	medio	4S, Corona	5
dense	dense	dicht	denso	Victoria, Zeta 2	7
very dense	très dense	sehr dicht	muy denso		9

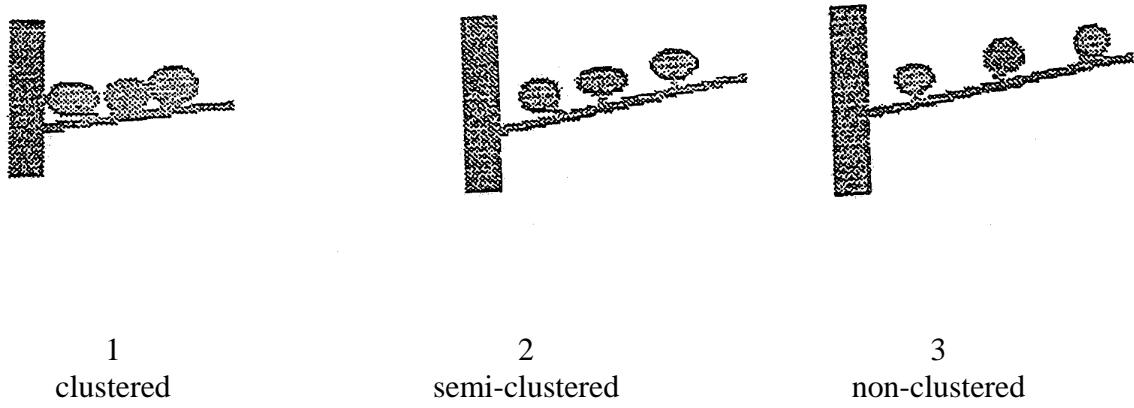
English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31. Seed: color of fuzz	Semence: couleur du duvet	Samen: Farbe des Flaumes	Semilla: color de la borra		
white	blanc	weiß	blanco	Zeta 2, Tabladilla 16	1
grey	gris	grau	gris	Sindos 80	2
light green	vert pâle	hellgrün	verde claro	Corona, Saeta	3
light brown	brun clair	hellbraun	marrón claro	Ourania, Nata	4
32. Seed: weight of 100 seeds	Semence: poids de 100 grains	Samen: Gewicht von 100 Samen	Semilla: peso de 100 semillas		
low	petit	niedrig	pequeño	Corona, Ourania	3
medium	moyen	mittel	medio	Alegria, 4S	5
high	grand	hoch	grande	Acala SJ2, Zeta 2	7
33. Boll: content of lint (expressed in %) (as for 28)	Capsule: teneur en fibre (exprimée en %) (comme pour 28)	Kapsel: Fasergehalt (in % ausgedrückt) (wie unter 28)	Cápsula: cantidad de fibra (expresado en %) (como para 28)		
very low	très faible	sehr gering	muy bajo		1
low	faible	gering	bajo	Ourania	3
medium	moyenne	mittel	medio	Vulcano, Sindos 80	5
high	élevée	hoch	alto	Crema-111, Zeta 2, Penta	7
very high	très élevée	sehr hoch	muy alto	Coko, Sureña	9
34. Fiber: length (*) (+)	Fibre: longueur	Faser: Länge	Fibra: longitud		
very short	très courte	sehr kurz	muy corta		1
short	courte	kurz	corta		3
medium	moyenne	mittel	media	Crema-111, Sindos 80	5
long	longue	lang	larga	C-310, Zeta 2	7
very long	très longue	sehr lang	muy larga	Ourania	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplar	Note/ Nota
35. Fiber: strength (+)	Fibre: résistance à la Faser: Zugfestigkeit Fibra: resistencia traction				
very weak	très faible	sehr gering	muy débil		1
weak	faible	gering	débil		3
medium	moyenne	mittel	media	Corona, Sindos 80	5
strong	forte	stark	fuerte	Crema-111, Zeta 2	7
very strong	très forte	sehr stark	muy fuerte	Ourania	9
36. Fiber: elongation (+)	Fibre: élongation	Faser: Verlängerung Fibra: alargamiento			
very small	très petite	sehr klein	muy pequeño		1
small	petite	klein	pequeño	Victoria	3
medium	moyenne	mittel	mediano	Crema-111	5
large	grande	groß	grande	Corona	7
very large	très grande	sehr groß	muy grande		9
37. Fiber: fineness (micronaire) (+)	Fibre: finesse (micronaire)	Faser: Feinheit (Mikronair)	Fibra: finura (micronaire)		
fine	fine	fein	fina	Victoria, Sindos 80, Ourania	3
medium	moyenne	mittel	media	Crema-111, Zeta 2	5
coarse	grossière	grob	grosera	Samos	7
38. Fiber: length uniformity (+)	Fibre: uniformité de la longueur	Faser: Einheitlichkeit der Länge	Fibra: uniformidad de la longitud		
very low	très faible	sehr gering	muy bajo	Dora, Fanton	1
low	faible	gering	bajo		3
medium	moyenne	mittel	medio	Victoria, 4S	5
high	élevée	hoch	alto	Crema-111, Zeta 2	7
very high	très élevée	sehr hoch	muy alto		9

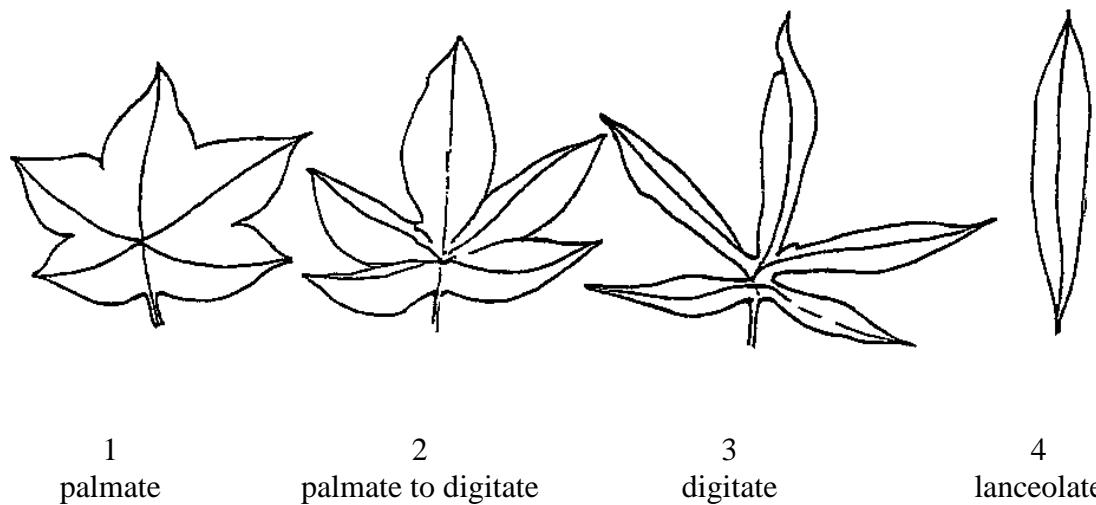
English	français	deutsch	español	Example Varieties	Note/ Nota
				Exemples Beispielssorten Variedades ejemplo	
39. Fiber: color	Fibre: couleur	Faser: Farbe	Fibra: color		
white	blanche	weiß	blanco	C310, Zeta 2	1
not white	autre que blanche	nicht weiß	no blanco		2

VIII. Explanations on the Table of Characteristics

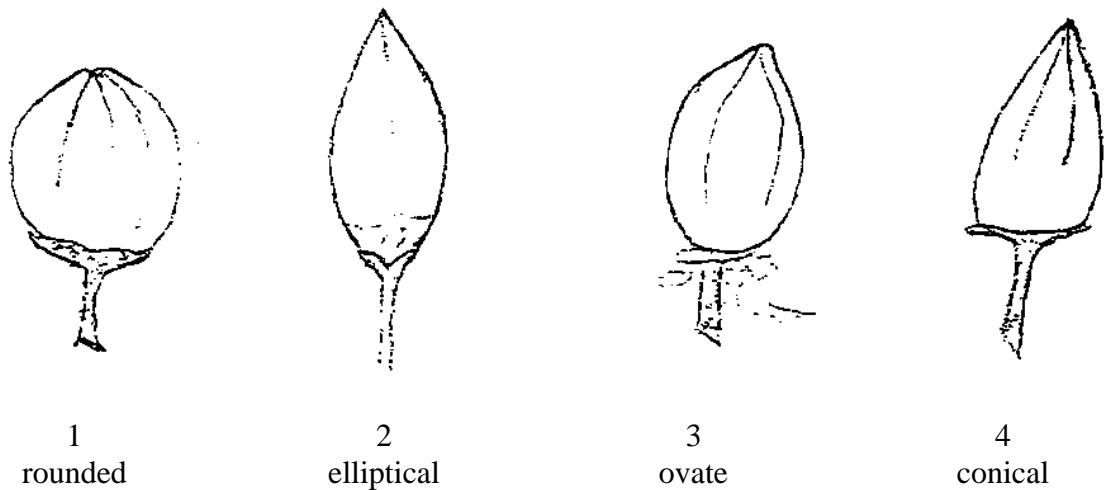
Ad. 6: Plant: type of flowering



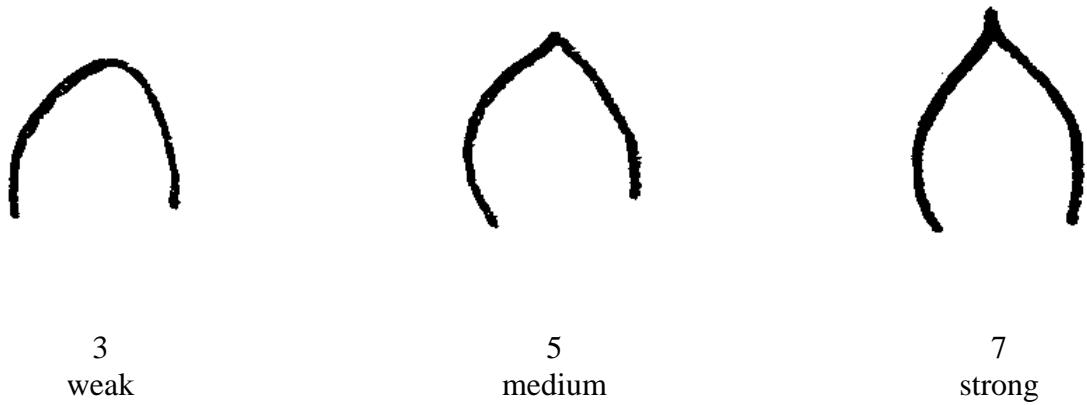
Ad. 11: Leaf: shape



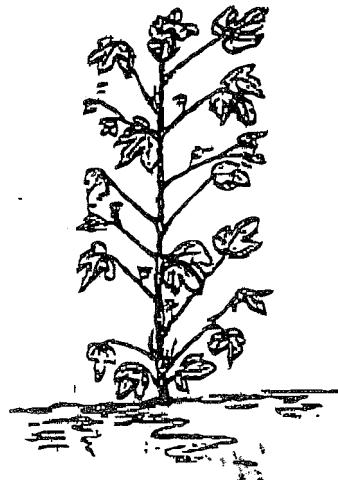
Ad. 20: Boll: shape in longitudinal section



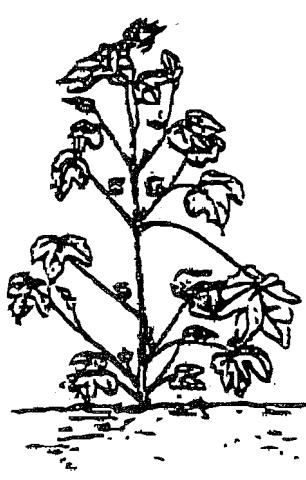
Ad. 23: Boll: prominence of tip



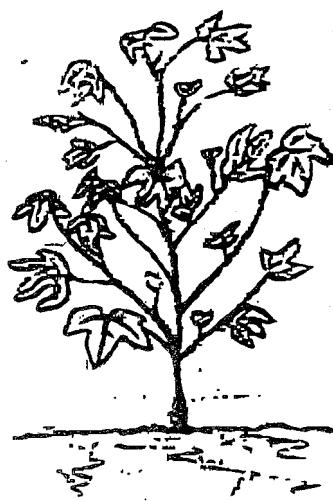
Ad. 24: Plant: shape



1
cylindrical



2
conical



3
globose

Ad. 34, 35, 36, 37 and 38: Fiber: length (34), strength (35), elongation (36), fineness (micronaire) (37), length uniformity (38)

Characteristics 34, 35, 36, 37 and 38 should be observed according to:

- Standard Test Methods for Measurement of Cotton Fibres by High Volume Instruments (HVI) (Motion Control Fiber Information System). Designation D-4604-95
- Standard Test Methods for Measurement of Physical Properties of Cotton Fibers by High Volume Instruments (HVI). Designation D-5867-95
- Established by the American Society for Testing and Materials (ASTM)

IX. Literature

American Society for Testing and Materials (ASTM) (1995): Standard Test.

Methods for Measurement of Cotton Fibers by High Volume Instruments (HVI).

(Motion Control Fiber Information System) (Designation: D4604-95).

American Society for Testing and Materials (ASTM) (1995), Standard Test Methods for Measurement of Physical Properties of Cotton Fibers by High Volume Instruments (Designation: D5867-95).

“Cotton”, Ed. R.J. Kohel and C.F. Lewis, no. 24 in the series “Agronomy”, American Society of Agronomy, Inc., Crop Science Society of America, Inc., Soil Science Society of America, Inc., Publishers Madison, Wisconsin, 1984, US.

Manual de Identificación de Variedades de Algodón, Ministerio de Agricultura, Pesca y Alimentación, Secretaría General de Agricultura y Alimentación, 1999, ES.

X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights	
1. Genus	<i>Gossypium</i> L. COTTON
	1.1 <i>Gossypium hirsutum</i> L. <input type="checkbox"/> <input type="checkbox"/> 1.2 <i>Gossypium barbadense</i> L. <input type="checkbox"/> <input type="checkbox"/> 1.3 Interspecific hybrids (Hybrids of 1.1 and 1.2) <input type="checkbox"/> <input type="checkbox"/> 1.4 Others <input type="checkbox"/> <input type="checkbox"/>
2. Applicant (Name and address)	
3. Proposed denomination or breeder's reference	

4. Information on origin, maintenance and reproduction of the variety

4.1 Type of material:

- (a) line
- male sterile line []
- male fertile line []
- (b) hybrid []
- (c) other (please indicate) []
-

4.2 Formula (if applicable, for each component in separate sheets, the information according to the following Chapters 5 to 7 to be added)

Single hybrid

- female parental line
- male parental line

N.B. In case of use of male sterility system, indicate the name of the maintainer line of the female parental line.

4.3 Genetic origin and breeding method

4.4 Other information on origin, maintenance and reproduction of the variety.

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the state of expression which best corresponds).

Characteristics	Example Varieties	Note
5.1 Flower: color of petal (1)		
cream	Crema-111, Zeta 2	1 []
yellow	Acalpi	2 []
5.2 Leaf: shape (11)		
palmate	Crema-111, Zeta 2	1 []
palmate to digitate	Acalpi	2 []
digitate	Sureña	3 []
lanceolate		4 []
5.3 Leaf: nectaries (14)		
absent	Tempra, Xpress	1 []
present	C310, Zeta 2	9 []
5.4 Boll: shape in longitudinal section (20)		
rounded	Lachata, GSA-71	1 []
elliptical		2 []
ovate	Corona, 4S	3 []
conical		4 []
5.5 Boll: time of opening (when 50% of the plants have at least one boll opened) (27)		
very early	Tabladilla 100	1 []
early	Tabladilla 16, Sindos 80	3 []
medium	C-310, Korina	5 []
late	Acala SJ2, Zeta 2	7 []
very late	Acalpi, Vered 171	9 []

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the state of expression which best corresponds).

Characteristics	Example Varieties	Note
5.6 Fiber: length (34)		
very short		1 []
short		3 []
medium	Crema-111, Sindos 80	5 []
long	C-310, Zeta 2	7 []
very long	Ourania	9 []

6. Similar varieties and differences from these varieties

Denomination of similar variety	Characteristic in which the similar variety is different ^{o)}	State of expression of similar variety	State of expression of candidate variety

^{o)} In the case of identical states of expressions of both varieties, please indicate the size of the difference.

7. Additional information which may help to distinguish the variety

7.1 Resistance to pests and diseases

7.2 Special conditions for the examination of the variety

7.3 Other information

8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes [] No []

(b) Has such authorization been obtained?

Yes [] No []

If the answer to that question is yes, please attach a copy of such an authorization.

[End of document]