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TG/190/1

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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 OBTENCIONES VEGETALES

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

THYME

(*Thymus vulgaris* L.)

GENEVA
2002

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(*Thymus vulgaris* 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.

TABLE OF CONTENTS PAGE

I. Subject of these Guidelines

These Test Guidelines apply to all varieties of *Thymus vulgaris* L. of the family Labiatae (Lamiaceae).

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 ensure that all customs formalities are complied with. As a minimum, the following quantity of material is recommended:

seed propagated varieties:	2 grams;
vegetatively propagated varieties:	20 rooted cuttings.

2. In the case of seed, the seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should be stated by the applicant.

3. The material supplied should be visibly healthy, not lacking in vigor or affected by any important pests or diseases.

4. 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. For seed propagated varieties, it is generally recommended that the growing trials are conducted over two independent growing cycles.

2. For vegetatively propagated varieties, a test should normally be conducted in a single growing cycle (if necessary, after the year of establishment in open field). If distinctness and/or uniformity cannot be sufficiently examined in a single growing cycle, the test should be extended to a second growing cycle.

3. The test 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.

4. The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination. 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 cycle. For vegetatively propagated varieties, each test should be designed to result in a total of, at least 20 plants, which should be divided between two or more replicates. For seed propagated varietise, each test should be designed to result

in a total of, at least 60 plants, which should be divided between two or more replicates. Separate plots for observation and measuring should only be used if they have been subject to similar environmental conditions.

5. Additional tests for special purposes may be established.

IV. Methods and Observations

1. All observations determined by measurement or counting should be made on 60 plants or parts taken from each of 60 plants for seed propagated varieties, and on 20 plants or parts taken from each of 20 plants for vegetatively propagated varieties.

2. For the assessment of uniformity for vegetatively propagated varieties, a population standard of 1% with an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, the maximum number of off-types allowed would be 1.

3. For the assessment of uniformity of seed propagated varieties, the recommendations in the General Introduction for cross-pollinated or hybrid varieties should be followed, as appropriate.

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) Leaf: variegation (characteristic 16);
(b) Leaf: main color (characteristic 17);
(c) Flower: color of petal (characteristic 20);
(d) Plant: male sterility (characteristic 25).

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 cycle 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 ejemplo	Note/ Nota
1. (*)	**Plant: growth habit**	**Plante: port**	**Pflanze: Wuchsform**	**Planta: porte**		
	erect	dressé	aufrecht	erecto	Gambaru, Valdeyron	1
	semi erect	demi- dressé	halbaufrecht	semierecto	Allemand	3
	prostrate	horizontal	liegend	postrado	Heili, Savoie	5
2. (*)	**Plant: height**	**Plante: hauteur**	**Pflanze: Höhe**	**Planta: altura**		
	very short	très basse	sehr niedrig	muy baja		1
	short	basse	niedrig	baja	Savoie	3
	medium	moyenne	mittel	media	Heili, Passet	5
	tall	haute	hoch	alta	Valdeyron	7
	very tall	très haute	sehr hoch	muy alta	Gambaru, Ygor	9
3. (*)	**Plant: diameter**	**Plante: diamètre**	**Pflanze: Durchmesser**	**Planta: diámetro**		
	small	petit	gering	pequeño	5.77	3
	medium	moyen	mittel	medio	Escalin, Ygor	5
	large	grand	groß	grande	Gambaru	7
4. (*)	**Foliage: density**	**Feuillage: densité**	**Laub: Dichte**	**Follaje: densidad**		
	sparse	faible	locker	laxa	1.52	3
	medium	moyenne	mittel	media	Allemand, Passet	5
	dense	forte	dicht	densa	Pegase, Ygor	7
5. (*)	**Stem: length**	**Tige: longueur**	**Stiel: Länge**	**Tallo: longitud**		
	short	courte	kurz	corta	Pegase, Savoie	3
	medium	moyenne	mittel	media	Heili, Ygor	5
	long	longue	lang	larga	Gambaru, Passet	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	**Stem: thickness**	**Tige: épaisseur**	**Stiel: Dicke**	**Tallo: espesor**		
	thin	mince	dünn	delgado	Gambaru, Heili	3
	medium	moyenne	mittel	medio	Pegase	5
	thick	épaisse	dick	grueso	Passet	7
7. (*)	**Stem: distribution of leaves**	**Tige: répartition des feuilles**	**Stiel: Verteilung der Blätter**	**Tallo: distribución de las hojas**		
	only at base	seulement à la base	nur an der Basis	sólo en la base	Escalin, Passet	1
	only in middle	seulement au milieu	nur in der Mitte	sólo en la parte central	2.40	2
	only in upper part	seulement au sommet	nur am oberen Teil	sólo en la parte superior	Pegase, Ygor	3
	along whole stem	tout le long de la tige	am ganzen Stiel	a lo largo de todo el tallo	Gambaru, Valdeyron	4
8. (*)	**Stem: position of flowering part**	**Tige: position des inflorescences**	**Stiel: Lage des blühenden Teils**	**Tallo: posición de la zona floral**		
	at tip	au sommet	an der Spitze	en la parte superior	1.44, 3.49	1
	along upper quarter	le long du quart supérieur	am oberen Viertel	en el cuarto superior	Allemand, Escalin	2
	along upper half	le long de la moitié supérieure	an der oberen Hälfte	en la mitad superior	1.52, Heili	3
	along upper two thirds	le long des 2/3 supérieurs	an den oberen zwei Dritteln	en los dos tercios superiores	Gambaru	4
	along whole stem	tout le long de la tige	am ganzen Stiel	en todo el tallo	Passet	5
9.	**Stem: density of flowers**	**Tige: densité des fleurs**	**Stiel: Dichte der Blüten**	**Tallo: densidad de las flores**		
	sparse	faible	locker	laxa	Gambaru, Ygor	3
	medium	moyenne	mittel	media	Allemand, Escalin, Valdeyron	5
	dense	forte	dicht	densa		7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10.	**Stem: length of flowering part**	**Tige: longueur de la zone florifère**	**Stiel: Länge des blühenden Teils**	**Tallo: longitud de la zona floral**		
	short	courte	kurz	corta	Allemand, Escalin, Valdeyron	3
	medium	moyenne	mittel	media	Gambaru, Pegase, Ygor	5
	long	longue	lang	larga	Passet	7
11. (*)	**Leaf: shape**	**Feuille: forme**	**Blatt: Form**	**Hoja: forma**		
	elliptic	elliptique	elliptisch	elíptica	2.40	1
	ovate	ovale	eiförmig	oval	Savoie, Ygor	2
	rhombic	rhomboïde	rautenförmig	romboica	Allemand, Gambaru	3
12. (*)	**Leaf: length**	**Feuille: longueur**	**Blatt: Länge**	**Hoja: longitud**		
	short	petite	kurz	corta	7.56	3
	medium	moyenne	mittel	media	Heili, Passet, Pegase	5
	long	grande	lang	larga	Allemand, Savoie	7
13. (*)	**Leaf: width at basal part**	**Feuille: largeur à la partie basale**	**Blatt: Breite am basalen Teil**	**Hoja: anchura en la parte basal**		
	narrow	petite	schmal	estrecha	5.46.1	3
	medium	moyenne	mittel	media	3.49	5
	broad	grande	breit	ancha	Passet, Savoie	7
14.	**Leaf: ratio length/width**	**Feuille: rapport longueur/largeur**	**Blatt: Verhältnis Länge/Breite**	**Hoja: relación entre la largura y la anchura**		
	low	petit	gering	pequeña	5.46.1	3
	medium	moyen	mittel	media	3.49	5
	high	grand	groß	grande	Passet, Savoie	7

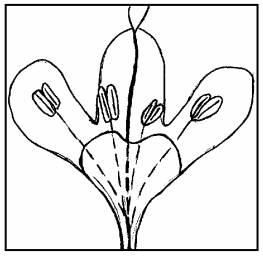
	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
15.	**Leaf: prominence of veins on lower side**	**Feuille: proéminence des nervures sur la face inférieure**	**Blatt: Stärke der Adern an der Unterseite**	**Hoja: prominencia de los nervios en el envés**		
	weak	faible	schwach	débil	Escalin, Valdeyron, Ygor	3
	medium	moyenne	mittel	media	Allemand, Heili	5
	strong	forte	stark	fuerte	3.07, 4.77, Savoie	7
16. (*)	**Leaf: variegation**	**Feuille: panachure**	**Blatt: Panachierung**	**Hoja: variegación**		
	absent	absente	fehlend	ausente	Valdeyron	1
	present	presente	vorhanden	presente	Silver Posie	9
17. (*)	**Leaf: main color**	**Feuille: couleur principale**	**Blatt: Hauptfarbe**	**Hoja: color principal**		
	yellow green	vert-jaune	gelbgrün	verde amarillento		1
	green	verte	grün	verde	Allemand, Escalin	2
	blue green	vert-bleu	blaugrün	verde azulado	Passet, Ygor	3
	grey green	gris-vert	graugrün	verde grisáceo	Pegase, Valdeyron	4
18. (*)	**Leaf: intensity of main color**	**Feuille: intensité de la couleur principale**	**Blatt: Intensität der Hauptfarbe**	**Hoja: intensidad del color principal**		
	light	claire	hell	claro		3
	medium	moyenne	mittel	medio		5
	dark	foncée	dunkel	oscuro		7
19. (*)	**Flower: size**	**Fleur: taille**	**Blüte: Größe**	**Flor: tamaño**		
	small	petite	klein	pequeña	Luberon, Passet	3
	medium	moyenne	mittel	media	Allemand, Gambaru	5
	large	grande	groß	grande	Heili, Ygor,	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20. (*)	**Flower: color of petal**	**Fleur: couleur du pétale**	**Blüte: Farbe des Blütenblattes**	**Flor: color del pétalo**		
	white or slightly pink	blanc ou légèrement rose	weiß oder leicht rosa	blanco o ligeramente rosado	Passet	1
	pink	rose	rosa	rosa	Escalin, Ygor	2
	light violet	mauve	hellviolett	violeta claro	4.77	3
	violet	violet	violett	violeta	Pegase, Valdeyron	4
21. (*)	**Flower: length of style**	**Fleur: longueur du style**	**Blüte: Länge des Griffels**	**Flor: longitud del estilo**		
	short	courte	kurz	corto		3
	medium	moyenne	mittel	medio	3.07	5
	long	longue	lang	largo	Gambaru, Escalin	7
22.	**Flower: main color of style**	**Fleur: couleur principale du style**	**Blüte: Hauptfarbe des Griffels**	**Flor: color principal del estilo**		
	white	blanc	weiß	blanco		1
	pink	rose	rosa	rosa	Ygor	2
	light violet	mauve	hellviolett	violeta claro		3
	violet	violet	violett	violeta	Escalin, Gambaru, Luberon	4
23.	**Style: more intense colored zone**	**Style: zone plus intensément colorée**	**Griffel: intensiv gefärbte Zone**	**Estilo: zona de color más intenso**		
	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente		9
24. (*)	**Time of beginning of flowering**	**Époque de début de floraison**	**Zeitpunkt des Blühbeginns**	**Fecha del inicio de la floración**		
	very early	très précoce	sehr früh	muy precoz	3.49, Ygor	1
	early	précoce	früh	precoz	Allemand, Valdeyron	3
	medium	moyenne	mittel	media	Luberon, Pegase	5
	late	tardive	spät	tardía	Gambaru, Passet	7
	very late	très tardive	sehr spät	muy tardía	Savoie	9

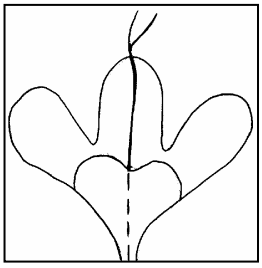
	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25. (*) (+)	**Plant: male sterility**	**Plante: stérilité mâle**	**Pflanze: männliche Sterilität**	**Planta: androesterilidad**		
	absent	absente	fehlend	ausente	Heili, Ygor	1
	present	présente	vorhanden	presente	Escalin, Valdeyron	9

VIII. Explanations on the Table of Characteristics

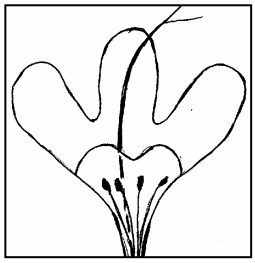
Ad. 25: Plant: male sterility



1
absent



flower without stamen



9
present

flower with non-functional stamen

IX. Literature

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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. Species	*Thymus vulgaris* L. THYME
2. Applicant (name and address)	
3. Proposed denomination or breeder's reference	

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

4.1 Origin

(a) Seedling (indicate parent varieties)

..... [ ]

(b) Mutation (indicate parent variety)

..... [ ]

(c) Discovery (indicate where and when)

..... [ ]

(d) Other (specify)

..... [ ]

4.2 Method of reproduction

– Seed [ ]

– Cuttings [ ]

– *In vitro* propagation [ ]

– Other (specify) [ ]

.....

4.3 Other information

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 (1)	**Plant: growth habit**		
	erect	Gambaru, Valdeyron	1[ ]
	semi erect	Allemand	3[ ]
	prostrate	Heili, Savoie	5[ ]
5.2 (7)	**Stem: distribution of leaves**		
	only at base	Escalin, Passet	1[ ]
	only in middle	2.40	2[ ]
	only in upper part	Pegase, Ygor	3[ ]
	along whole stem	Gambaru, Valdeyron	4[ ]
5.3 (8)	**Stem: position of flowering part**		
	at tip	1.44, 3.49	1[ ]
	along upper quarter	Allemand, Escalin	2[ ]
	along upper half	1.52, Heili	3[ ]
	along upper two thirds	Gambaru	4[ ]
	along whole stem	Passet	5[ ]
5.4 (16)	**Leaf: variegation**		
	absent	Valdeyron	1[ ]
	present	Silver Posie	9[ ]
5.5 (17)	**Leaf: main color**		
	yellow green		1[ ]
	green	Allemand, Escalin	2[ ]
	blue green	Passet, Ygor	3[ ]
	grey green	Pegase, Valdeyron	4[ ]

	Characteristics	Example Varieties	Note
5.6 (18)	**Leaf: intensity of main color**		
	light		3[ ]
	medium		5[ ]
	dark		7[ ]
5.7 (20)	**Flower: color of petal**		
	white or slightly pink	Passet	1[ ]
	pink	Escalin, Ygor	2[ ]
	light violet	4.77	3[ ]
	violet	Pegase, Valdeyron	4[ ]
5.8 (25)	**Plant: male sterility**		
	absent	Heili, Ygor	1[ ]
	present	Escalin, Valdeyron	9[ ]

6. Similar varieties and differences between 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

Main use

– ornamental [ ]

– culinary [ ]

– essential oil [ ]

– other (specify) [ ]

7.3 Other information

A representative color photo of the variety should be included in the Technical Questionnaire.

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]