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WORKING PAPER ON TEST GUIDELINES FOR THYME

*(Thymus vulgaris L.)*

*Document prepared by experts from France*

## I. Subject of these Guidelines

These Test Guidelines apply to all vegetatively propagated 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 make sure that all customs formalities are complied with. As a minimum, the following quantity of material is recommended:

20 rooted cuttings.

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

3. 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. A test should normally be conducted for one growing period (if necessary, after the year of establishment in open field). If distinctness and/or uniformity cannot be sufficiently established in one growing period, the test should be extended for a second growing period.

2. 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.

3. The size of the tests 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 a total of 20 plants. 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. All observations should be made on 20 plants or parts taken from each of 20 plants.

2. For the assessment of uniformity 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. Unless otherwise indicated, all observations should be made on typical just before the time of full flowering.

4. Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight DE 6500 and should fall within the tolerance set out in British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

#### 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 19)
- (d) Plant: male sterility (characteristic 26)

#### 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 ejemplo	Note/ Nota
<b>1. Plant: growth habit</b> (* )	<b>Plante : port à la floraison</b>				
Upright	dressé			Gambaru, Valdeyron	1
Semi upright	demi dressé			Allemand	2
Prostrate	horizontal			Heili, Savoie	3
<b>2. Plant : height</b> (* )	<b>Plante: hauteur</b>				
short	basse			Savoie	3
medium	moyenne			Passet, Heili	5
tall	haute			Valdeyron	7
very tall	très haute			Gambaru, Ygor	9
<b>3. Plant: diameter</b> (* )	<b>Plante : diamètre</b>				
Small	Petit			5.77	3
Medium	Moyen			Escalin, Ygor, Pegase	5
Large	Grand			Gambaru	7
<b>4. Plant: density of foliage</b> (* )	<b>Plante: densité du feuillage :</b>				
Sparse	Faible			1.52	3
Medium	Moyenne			Passet, Allemand	5
Dense	forte			Ygor, Pegase	7
<b>5. Plant: distribution of leaves along stem</b> (* )	<b>Plante : répartition des feuilles le long de la tige</b>				
only at base	seulement à la base			Escalin, Passet	1
only at middle	seulement au milieu			2.40	2
only upper part	seulement au sommet			Ygor, Pegase	3
along whole stem	tout le long de la tige			Gambaru, Valdeyron	4
<b>6. Stem: length</b> (* )	<b>Tige : longueur</b>				
short	courte			Pegase, Savoie	3
medium	moyenne			Ygor, Heili	5
long	longue			Gambaru, Passet	7
<b>7. Stem: thickness</b>	<b>Tige : épaisseur</b>				
thin	mince			Gambaru, Heili	3
medium	moyenne			Pegase	5
thick	épaisse			Passet	7

English	Français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>8. Stem: distribution of flowers on stem</b> (*)	<b>Fleur : répartition des inflorescences sur la tige</b>				
concentrated at tip	très terminale			1.44, 3.49	1
along upper quarter	terminale			Escalin, Allemand	2
along upper half	le long de la moitié supérieure			1.52, Heili	3
along upper two thirds	le long des 2/3 supérieurs			Gambaru	4
along whole stem	tout le long de la tige			Passet	5
<b>9. Stem : density of flowers</b>	<b>Tige : densité des fleurs</b>				
sparse	faible			Gambaru, Ygor	3
medium	moyenne			Valdeyron, Allemand, Escalin	5
dense	forte				7
<b>10. Stem : length of flowering part</b>	<b>Tige : longueur de la zone florifère</b>				
short	courte			Valdeyron, Allemand, Escalin	3
medium	moyenne			Gambaru, Ygor, Pegase	5
long	longue			Passet	7
<b>11. Leaf : general shape</b> (*)	<b>Feuille : forme générale</b>				
elliptic	Elliptique			2.40	1
ovate	Ovale			Savoie, Ygor	2
Deltoïde	Deltoïde			Gambaru, Allemand	3
<b>12. Leaf: length</b> (*)	<b>Feuille : longueur</b>				
Short	Petite			7.56	3
Medium	Moyenne			Pegase, Passet, Heili	5
Long	Grande			Allemand, Savoie	7
<b>13. Leaf: width</b> (*)	<b>Feuille : largeur de la base du limbe</b>				
Narrow	Petite			5.46.1	3
Medium	Moyenne			3.49	5
Broad	Grande			Passet, Savoie	7
<b>14. Leaf: ratio length/width</b>	<b>Feuille: rapport longueur/largeur</b>				
Low	Petit				3
Medium	Moyen				5
High	Grand				7

English	Français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>15. Leaf: prominence of veins on lower side</b>	<b>Feuille : proéminence des nervures sur la face inférieure</b>				
Weak	Faible			Valdeyron, Escalin, Ygor	3
Medium	Moyen			Heili, Allemand	5
strong	Fort			4.77, 3.07, Savoie	7
<b>16. Leaf: variegation (*)</b>	<b>Feuille : panachure</b>				
absent	Absente			Valdeyron	1
present	Presente			Silver Posie	9
<b>17. Leaf: main color (*)</b>	<b>Feuille : couleur principale</b>				
yellow green	Jaune vert				1
green	Vert			Escalin, Allemand	2
blue green	vert bleu			Passet, Ygor	3
grey green	gris bleu			Valdeyron, Pegase	4
<b>18. Leaf: intensity (*) of main color</b>	<b>Feuille : intensité de la couleur principale</b>				
light	Claire				3
medium	Moyenne				5
dark	Foncée				7
<b>19. Flower: size (*)</b>	<b>Fleur : taille</b>				
small	Petite			Passet, Luberon	3
medium	Moyenne			Gambaru, Allemand	5
large	Grande			Ygor, Heili	7
<b>20. Flower: color of petal (*)</b>	<b>Fleur : couleur du pétale</b>				
white or slightly pink	Blanche ou légèrement rose			Passet	1
medium pink	Rose moyen			Escalin, Ygor	2
light violet	Mauve			4.77	3
medium violet	Violacé			Valdeyron, Pegase	4
<b>21. Flower: length of (*) style</b>	<b>Fleur : longueur du style</b>				
very short	très courte			Valdeyron	1
short	courte				3
medium	moyenne			3.07	5
long	Longue			Gambaru, Escalin	7
very long	Très longue			Ygor, Pegase	9

English	Français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>22. Flower: main color (* of style)</b>	<b>Fleur : couleur principale du style</b>				
white	Blanche				1
pink	Rose			Ygor	2
light violet	Mauve				3
medium violet	Violacé			Escalin, Gambaru, Luberon	4
<b>23. Flower: more intense (* colored zone of style)</b>	<b>Fleur: zone du style colorée plus intensément</b>				
Absent	Absent				1
Présent	Présent				9
<b>24. Flower: more intense (* colored zone of style)</b>	<b>Fleur : zone colorée sur le style</b>				
only at tip	Seulement terminale			Escalin, Valdeyron	1
only at upper half	Seulement sur la moitié supérieure			Passet, Gambaru, Heili, Allemand	2
<b>25. Time of begining of (* flowering)</b>	<b>Précocité de début floraison</b>				
very early	très précoce			Ygor, 3.49	1
early	Précoce			Valdeyron, Allemand	3
medium	Moyenne			Pegase, Luberon	5
late	Tardive			Passet, Gambaru	7
very late	très tardive			Savoie	9
<b>26. Plant: male sterility (* )</b>	<b>Plante : male stérilité</b>				
absent	Absent				1
present	Présent				9

VIII. Explanations on the Table of Characteristics

IX. Literature



X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)
<p><b>TECHNICAL QUESTIONNAIRE</b> to be completed in connection with an application for plant breeders' rights</p>	
1. Species	<p><i>Thymus vulgaris</i> L.  THYME</p>
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

- 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
<b>5.1 Plant: growth habit</b> (1)		
Erect	Gambaru, Valdeyron	1[ ]
semi erect	Allemand	3[ ]
Prostrate	Heili, Savoie, 2.40	5[ ]
<b>5.2 Plant: distribution of leaves along stem</b> (5)		
only at base	Escalin, Passet	1[ ]
only at middle	2.40	2[ ]
only upper part	Ygor, Pegase	3[ ]
along whole stem	Gambaru, Valdeyron	4[ ]
<b>5.3 Stem: distribution of flowers on stem</b> (8)		
concentrated at tip	1.44, 3.49	1[ ]
only terminal	Escalin, Allemand	2[ ]
along upper half	1.52, Heili	3[ ]
along upper the two superior thirds	Gambaru	4[ ]
along whole stem	Passet	5[ ]
<b>5.4 Leaf: variegation</b> (16)		
Absent	Valdeyron	1[ ]
Present	Silver Posie	9[ ]
<b>5.5 Leaf: main color</b> (17)		
yellow green		1[ ]
Green	Escalin, Allemand	2[ ]
blue green	Passet, Ygor	3[ ]
grey green	Valdeyron, Pegase	4[ ]

Characteristics	Example Varieties	Note
<b>5.6 Leaf : intensity of main color (18)</b>		
Light		3[ ]
Medium		5[ ]
Dark		7[ ]
<b>5.7 Flower: color of petal (20)</b>		
white or slightly pink	Passet	1[ ]
medium pink	Escalin, Ygor	2[ ]
Purple	4.77	3[ ]
Violet	Valdeyron, Pegase	4[ ]
<b>5.8 Plant: male sterility (26)</b>		
Absent	Ygor, Heili	1[ ]
present	Valdeyron, Escalin	9[ ]

6. Similar varieties and differences between these varieties

Denomination of similar variety	Characteristic in which the similar variety is different <sup>o)</sup>	State of expression of similar variety	State of expression of candidate variety
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<sup>o)</sup> 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

(i) 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.

