



TG/165/3

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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

DILL

(Anethum graveolens L.)

GENEVA
1999

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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.

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I. Subject of these Guidelines

These Test Guidelines apply to all varieties of *Anethum graveolens* L.

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:

100 g.

The seed should at least meet the minimum requirements for germination capacity, moisture content and purity for marketing 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 similar growing periods.

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 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 100 single spaced plants which should be divided between 2 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. Unless otherwise indicated, all observations determined by measurement, weighting or counting should be made on 60 plants or parts taken from each of 60 plants.

2. All observations on the leaf and on the foliage, excluding those of young plant, should be made before the appearance of the main umbel. All observations on the leaf should be made in the middle of the stem.

3. All observations on the umbel, the color and waxiness of stem should be made when the umbel is fully developed.
4. The assessment of the height of the plant and the number of primary branches should be made at the time of full flowering.

V. Grouping of Varieties

If necessary, 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.

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 the different characteristics.

3. Legend

(*) Characteristics that should be used on all varieties in every growing period over which the 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/Merkmalestabelle/Tabla de caracteres

English	Français	Deutsch	Espanol	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. Young plant: anthocyanin coloration	Jeune plante: pigmentation anthocyanique	Jungpflanze: Anthocyanfärbung	Planta joven: pigmentación antociánica		
absent	absente	fehlend	ausente		1
present	présente	vorhanden	presente	Ambrozja	9
2. Young plant: attitude of leaves (3 to 5 leaves stage)	Jeune plante: port des feuilles (stade 3 à 5 feuilles)	Jungpflanze: Haltung der Blätter (3 bis 5 Blatt- stadium)	Planta joven: porte de las hojas (estado de 3 a 5 hojas)		
erect	dressé	aufrecht	erecto	Indyjski	1
semi-erect	demi-dressé	halbaufrecht	semierecto	Hanak	3
horizontal	horizontal	waagerecht	horizontal	Kronos	5
3. Plant: density of (*) foliage	Plante: densité du feuillage	Pflanze: Dichte des Laubes	Planta: densidad del follaje		
loose	lâche	locker	laxa	Indyjski	3
medium	moyenne	mittel	media	Sari	5
dense	dense	dicht	densa	Hanak	7
4. Plant: number of primary branches	Plante: nombre de ramifications primaires	Pflanze: Anzahl Zweige erster Ordnung	Planta: número de ramificaciones primarias		
few	petit	gering	bajo		3
medium	moyen	mittel	media		5
many	grand	groß	alto		7
5. Plant: height (*) (+)	Plante: hauteur	Pflanze: Höhe	Planta: altura		
short	courte	niedrig	baja	Indyjski, Krezus	3
medium	moyenne	mittel	media	Sari	5
tall	haute	hoch	alta	Hanak, Szmaragd	7

English	Français	Deutsch	Espanol	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6. Stem: length of (+) main stem	Tige: longueur de la tige principale	Stengel: Länge des Hauptstengels	Tallo: longitud del tallo principal		
short	courte	kurz	corta	Indyjski, Krezus	3
medium	moyenne	mittel	media	Ambrozja	5
long	longue	lang	larga	Szmaragd	7
7. Stem: diameter (at middle third)	Tige: diamètre (au tiers moyen)	Stengel: Durchmesser (im mittleren Drittel)	Tallo: diámetro (en el tercio central)		
small	petit	klein	pequeño	Indyjski	3
medium	moyen	mittel	medio	Amat	5
large	grand	groß	grande	Hanak, Kronos	7
8. Stem: blue hue (*)	Tige: teinte bleue	Stengel: Blauton	Tallo: matiz azul		
absent	absente	fehlend	ausente	Hanak, Indyjski	1
present	présente	vorhanden	presente	Ambrozja	9
9. Stem: intensity of green color	Tige: intensité de la couleur verte	Stengel: Intensität der Grünfärbung	Tallo: intensidad del color verde		
light	claire	hell	claro	Hanak, Indyjski	3
medium	moyenne	mittel	medio	Krezus	5
dark	foncée	dunkel	oscuro	Lukullus	7
10. Stem: waxiness	Tige: pruine	Stengel: Wachsschicht	Tallo: cerosidad		
absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Diwa	1
weak	faible	gering	débil	Hanak	3
medium	moyenne	mittel	media	Budakalasz	5
strong	forte	stark	fuerte	Szmaragd	7
very strong	très forte	sehr stark	muy fuerte	Ambrozja	9

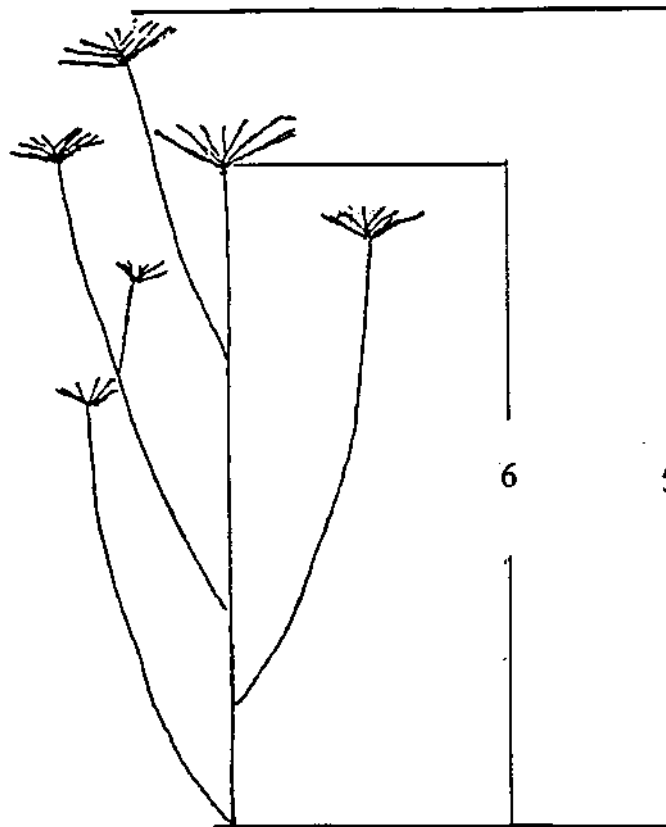
English	Français	Deutsch	Espanol	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11. Leaf: shape	Feuille: forme	Blatt: Form	Hoja: forma		
triangular	triangulaire	dreieckig	triangular	Ambrozja, Lukullus	1
rhomboidal	losangequé	rhombisch	romboidal		2
oblong	oblongue	rechteckig	oblonga		3
12. Leaf: density of (+) feathering	Feuille: densité des segments foliaires	Blatt: Dichte des Fiederblatts	Hoja: densidad del laciniado		
loose	lâche	locker	laxa	Indyjski	3
medium	moyenne	mittel	media	Lukullus	5
dense	dense	dicht	densa	Hanak	7
13. Leaf: width of (+) segments	Feuille: largeur des segments	Blatt: Breite der Fiedern	Hoja: anchura de las lacinias		
narrow	étroite	schmal	estrecha	Indyjski	3
medium	moyenne	mittel	media	Lukullus	5
broad	large	breit	ancha	Krezus, Kronos	7
14. Leaf: length (+)	Feuille: longueur	Blatt: Länge	Hoja: longitud		
short	courte	kurz	corta	Indyjski	3
medium	moyenne	mittel	media	Amat	5
long	longue	lang	larga	Hanak	7
15. Leaf: width (+)	Feuille: largeur	Blatt: Breite	Hoja: anchura		
narrow	étroite	schmal	estrecha	Indyjski	3
medium	moyenne	mittel	media	Ambrozja	5
broad	large	breit	ancha	Sari	7

English	Français	Deutsch	Espanol	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16. Leaf: blue hue (*)	Feuille: teinte bleue	Blatt: Blauton	Hoja: matiz azul		
absent	absente	fehlend	ausente	Hanak, Indyjski	1
present	présente	vorhanden	presente	Amat, Ambrozja	9
17. Leaf: intensity of green color	Feuille: intensité de la couleur verte	Blatt: Intensität der Grünfärbung	Hoja: intensidad del color verde		
light	claire	hell	claro	Hanak, Indyjski	3
medium	moyenne	mittel	medio	Stella	5
dark	foncée	dunkel	oscuro	Lukullus	7
18. Leaf: waxiness	Feuille: pruine	Blatt: Wachsschicht	Hoja: cerosidad		
weak	faible	gering	débil	Hanak	3
medium	moyenne	mittel	media	Budakalaszi	5
strong	forte	stark	fuerte	Ambrozja	7
19. Main umbel: (*) diameter	Ombelle principale: diamètre	Hauptdolde: Durchmesser	Umbela principal: diámetro		
small	petit	klein	pequeño	Indyjski	3
medium	moyen	mittel	media	Amat	5
large	grand	groß	grande	Kronos	7
20. Main umbel: (*) number of peduncles	Ombelle principale: nombre de pédoncules	Hauptdolde: Anzahl Doldenstrahlen	Umbela principal: número de pedúnculos		
few	petit	gering	bajo	Indyjski	3
medium	moyen	mittel	media	Sari	5
many	grand	groß	alto	Szmaragd, Kronos	7

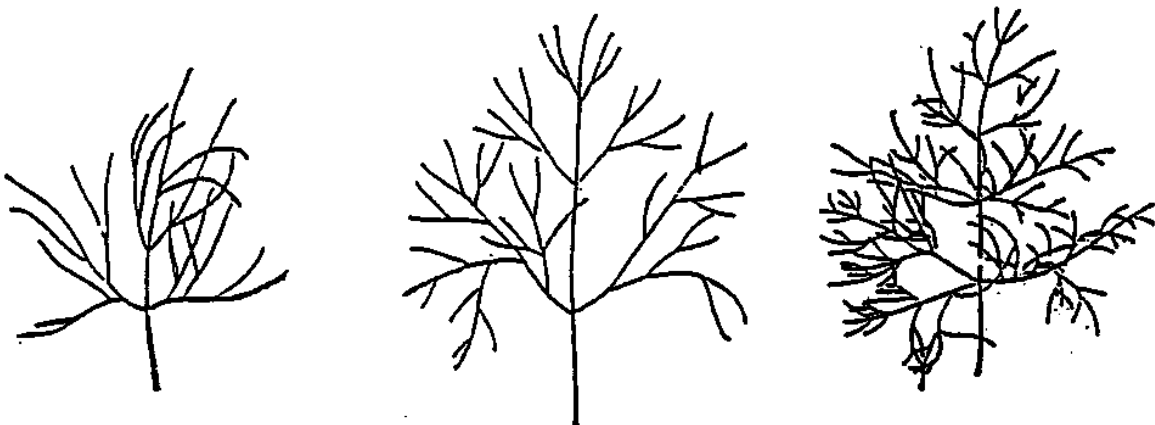
English	Français	Deutsch	Espanol	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
21. Time of appearance of main umbel (*)	Époque d'apparition de l'ombelle principale	Zeitpunkt des Erscheinens der Hauptdolde	Época de aparición de la umbela principal		
early	précoce	früh	temprana	Indyjski	3
medium	moyenne	mittel	media	Ambrozja	5
late	tardive	spät	tardía		7
22. Time of beginning of flowering	Époque du début de floraison	Zeitpunkt des Blühbeginns	Época del comienzo de la floración		
early	précoce	früh	temprana	Indyjski	3
medium	moyenne	mittel	media	Ambrozja	5
late	tardive	spät	tardía		7

VIII. Explanations on the Table of Characteristics

Ad. 5 and 6: Plant: height (5) and Stem: length of main stem (6)



Ad. 12: Leaf: density of feathering

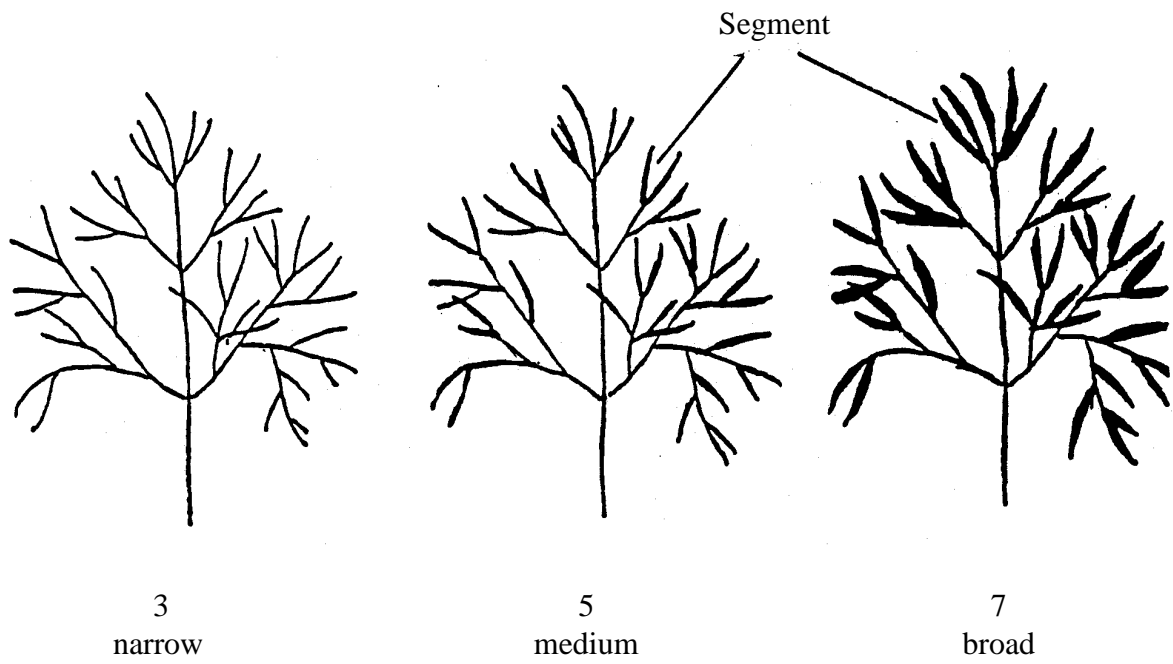


3
loose

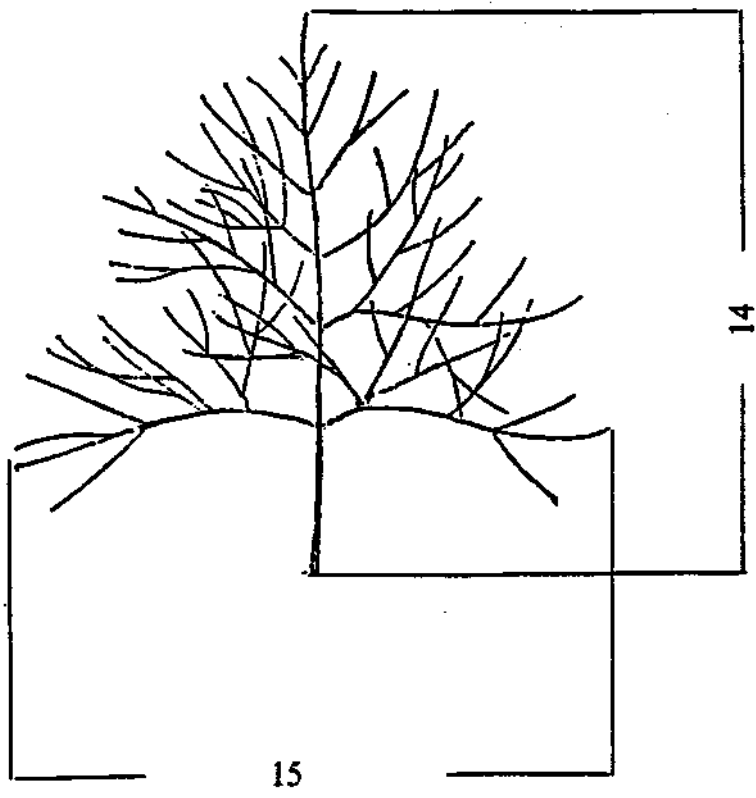
5
medium

7
dense

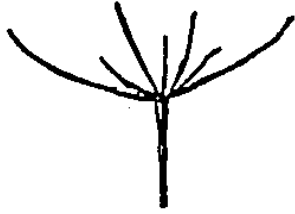
Ad. 13: Leaf: width of segment



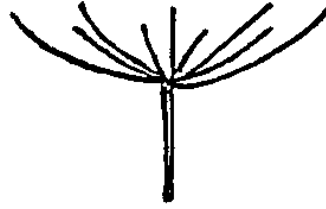
Ad. 14 and 15: Leaf: length (14) and width (15)



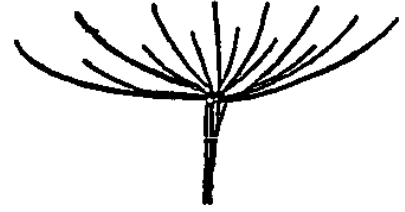
Ad. 20: Main umbel: number of peduncles



3
few



5
medium



7
many

IX. Literature

Chroboczek, E., 1977: "Odmianoznawstwo Roslin Warzywnych", Panstwowe Wydawnictwo Rolnicze i Lesne, Warszawa

Dachler, M. and Pelzmann, H., 1989: "Heil- und Gewürzpflanzen, Anbau-Ernte-Aufbereitung", Österreichischer Agrarverlag, Wien

Heeger, E. F., 1989: "Handbuch des Arznei- und Gewürzpflanzenbaues", Dt. Bauernverlag, 2. Aufl.

Heeger, E. F. and Brüchner, K., 1950: "Heil- und Gewürzpflanzen, Arten- und Sortenkunde", Dt. Bauernverlag

Lizgunowa, T., 1948: "Ukrop. Owoszczyje kultury i kormowyje korniepody. Rukowodstwo po aprobacii sielsko-chozjastwiennych kultur", Moskwa

Madaus, G., 1938: "Lehrbuch der biologischen Heilmittel", Georg Thieme Verlag

X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)
<p>TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights</p>	
1. Species	<p style="text-align: center;"><i>Anethum graveolens</i> L. DILL</p>
2. Applicant (Name and address)	
3. Proposed denomination or breeder's reference	

4. 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 the Test Guidelines; please mark the state of expression which best corresponds).

Characteristics	Example Varieties	Note
5.1 Plant: height (5)		
short	Indyjski, Krezus	3[]
medium	Sari	5[]
tall	Hanak, Szmaragd	7[]
5.2 Leaf: blue hue (16)		
absent	Hanak, Indyjski	1[]
present	Amat, Ambrozja	9[]
5.3 Main umbel: diameter (19)		
small	Indyjski	3[]
medium	Amat	5[]
large	Kronos	7[]
5.4 Time of appearance of main umbel (21)		
early	Indyjski	3[]
medium	Ambrozja	5[]
late		7[]

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

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.

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