



TG/31/7(proj.)
ORIGINAL: English
DATE : 2001-07-02

**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**

DRAFT

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

COCKSFOOT
(Dactylis glomerata 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.

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I. Subject of these Guidelines

These Test Guidelines apply to all varieties of Cocksfoot (*Dactylis glomerata* 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:

1 Kg.

The minimum requirements for germination capacity, moisture content and purity should not be less than the marketing standard for certified seed accepted in the country. Especially for storage, which requires a higher standard, the applicant should state the actual germination capacity which should be as high as possible.

2. The seed 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 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 measuring and counting without prejudice to the observations which must be made up to the end of the growing period. As a minimum, each test should include a total of 60 spaced plants and 10 meters of row. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

4. Plots with spaced plants. Each test should consist of 60 single spaced plants for varieties arranged in 3 replicates or more replicates .

5. Row plots. Each test should consist of at least 10 meters of row arranged in 2 or 3 replicates. The density of sowing should be such that about 160 to 200 plants per meter can be expected.

6. Additional tests for special purposes may be established.

IV. Methods and Observations

1. Unless otherwise stated, all observations on spaced plants should be made on 60 plants or part of plants.
2. Observations on rows should be made on each plot as a whole.
3. Where observations are also made in row plots, it is likely that the expression of the characteristic and its method of recording be different from the single spaced plants, as plants cannot be examined as discrete units.
4. Interpretation of results should be made according to the rules of cross-fertilized crops as stated in the general introduction to the Test Guidelines.

V. Grouping of Varieties

1. The collection 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 and which in their various states are fairly evenly distributed within the collection.
2. It is recommended that the competent authorities use the following characteristics for grouping varieties:

Ploidy: (characteristic 1)

Plant: time of inflorescence emergence without vernalization period (characteristic 5)

Stem: length of longest stem (inflorescence included, when fully expanded)
(characteristic 9)

VI. Characteristics and Symbols

1. To assess distinctness, homogeneity and stability, the characteristics and their states as given in the three UPOV working languages in the Table of Characteristics should be used. For each characteristic it is indicated whether 'spaced plants' (A) or 'row plots' (B) or 'special tests' (C) should be used.
2. Notes (1 to 9), for the purposes of electronic data processing, are given opposite the states of the different characteristics.

3. Legend:

(*) Characteristics that should be used every growing period for the examination of all varieties and should always be included in the description of the variety, 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.

- 1) To be observed on A = spaced plants
 B = row plots
 C = special tests

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

	Plot ¹⁾ Parcelle ¹⁾ Parzelle ¹⁾ Parcela ¹⁾	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	C	Ploidy	Ploïdie	Ploidie	Ploidía		
		diploid	diploïde	diploid	diploide	Konrad	2
		tetraploid	tétraploïde	tetraploid	tetraploide	Athos	4
2.	B	Foliage: fineness (autumn of year of sowing without vernalization period)	Feuillage: finesse (automne de l'année du semis sans période de vernalisation)	Laub: Feinheit (Herbst des Aussaatjahres ohne Vernalisationszeit)	Follaje: finura (en el otoño del año de siembra sin período de vernalización)		
		fine	fin	fein	fino	Medly	3
		medium	moyen	mittel	medio	Thos	5
		coarse	grossier	grob	grueso	Saborto	7
3.	A B (+)	Tendency to form inflorescences in year of sowing	Tendance à l'épiaison l'année du semis	Neigung zur Bildung von Blütenständen im Aussaatjahr	Tendencia a formar inflorescencias el año de siembra		
		absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil		1
		weak	faible	gering	débil	Kid, Oberweihst	3
		medium	moyenne	mittel	media	Lidacta, Porthos	5
		strong	forte	stark	fuerte		7
		very strong	très forte	sehr stark	muy fuerte		9
4.	B	Leaf: color (before inflorescence emergence in 2nd year)	Feuille: couleur (avant l'épiaison en 2^e année)	Blatt: Farbe (vor Erscheinen der Blütenstände im 2. Jahr)	Hoja: color (antes de la emergencia de la inflorescencia en el segundo año)		
		light green	vert clair	hellgrün	verde claro	Mobite	3
		medium green	vert moyen	mittelgrün	verde medio	Athos, Lidacta	5
		dark green	vert foncé	dunkelgrün	verde oscuro	Lupré	7

	Plot ¹⁾ Parcelle ¹⁾ Parzelle ¹⁾ Parcela ¹⁾	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. (* (+)	A B	Plant: time of inflorescence emergence without vernalization period	Plante: époque de l'épiaison sans la période de vernalisation	Pflanze: Zeitpunkt des Erscheinens der Blütenstände ohne Vernalisationszeit	Planta: época de emergencia de inflorescencia sin período de vernalización		
		very early	très précoce	sehr früh	muy temprano		1
		early	précoce	früh	temprano	Floréal, Trérano	3
		medium	moyenne	mittel	medio	Lidacta, Lude	5
		late	tardive	spät	tarde	Athos, Baraula	7
		very late	très tardive	sehr spät	muy tarde	Mobite	9
6. (+)	A	Plant: growth habit at inflorescence emergence	Plante: port à l'épiaison	Pflanze: Wuchsform bei Erscheinen der Blütenstände	Planta: porte a la emergencia de la inflorescencia		
		erect	dressé	aufrecht	erecto	Porthos	1
		semi-erect	demi-dressé	halbaufrecht	semi-erecto	Abar, Medly	3
		medium	moyen	mittel	medio	Cambria	5
		semi-prostrate	demi-étalé	halbliiegend	semi-postrado		7
		prostrate	étalé	liegend	postrado		9
7. (*	A	Flag leaf: length (flag leaf on representative stem when inflorescence is fully expanded)	Dernière feuille: longueur (dernière feuille d'une tige représentative lorsque l'inflorescence est à la fin de l'élongation)	Fahnenblatt: Länge (Fahnenblatt an einem repräsentativen Halm, wenn der Blütenstand voll ausgebildet ist)	Última hoja: longitud (última hoja en tallo representativo cuando la inflorescencia está completamente expandida)		
		short	courte	kurz	corta	Lucifer	3
		medium	moyenne	mittel	media	Lidacta, Saborto	5
		long	longue	lang	larga	Porthos	7

	Plot ¹⁾ Parcelle ¹⁾ Parzelle ¹⁾ Parcela ¹⁾	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
8.	A	Flag leaf: width (same flag leaf as that used for 7)	Dernière feuille: largeur (même feuille que celle utilisée pour 7)	Fahnenblatt: Breite (dasselbe Fahnenblatt wie für 7)	Última hoja: anchura (la misma hoja que como para 7)		
(*)		narrow	étroite	schmal	estrecha		3
		medium	moyenne	mittel	media	Athos, Baraula	5
		wide	large	breit	ancha	Saborto	7
9.	A	Stem: length of longest stem (inflorescence included; when fully expanded)	Tige: longueur de la tige la plus longue (inflorescence incluse; à la fin de l'élongation)	Halm: Länge des längsten Halms (einschließlich des Blütenstandes; wenn voll ausgebildet)	Tallo: longitud del tallo más largo (inflorescencia incluida; cuando está completamente expandida)		
(*)		short	courte	kurz	corto	Horvat, Lucifer	3
		medium	moyenne	mittel	medio	Athos, Lidacta	5
		long	longue	lang	largo	Lude	7
10.	A	Stem: length of upper internode	Tige: longueur du dernier entrenœud	Halm: Länge des obersten Internodiums	Tallo: longitud del entrenudo superior		
(+)		short	court	kurz	corto	Porthos	3
		medium	moyen	mittel	medio	Athos	5
		long	long	lang	largo	Lude	7
11.	A	Inflorescence: length (when fully expanded)	Inflorescence: longueur (à la fin de l'élongation)	Blütenstand: Länge (wenn voll ausgebildet)	Inflorescencia: longitud (cuando está completamente expandida)		
		short	courte	kurz	corta	Athos	3
		medium	moyenne	mittel	media	Lidacta,Lude	5
		long	longue	lang	larga	Porthos	7

VIII. Explanations on the Table of Characteristics

Ad. 3: Plant: tendency to form inflorescences in the year of sowing

The number of plants showing at least three inflorescences should be recorded for each variety. To be assessed on one occasion on the whole trial when the varieties are judged to have reached their full expression of this characteristic.

Ad. 5: Plant: time of inflorescence emergence without vernalization period

A. Plots with spaced plants

The date of inflorescence emergence of each single plant should be assessed. A single plant is considered to have headed when the tip of three inflorescences can be seen protruding from the flag leaf sheath. From the single plant data a mean date per plot and a mean date per variety is obtained.

B. Row plots

At each observation date the average plot stage should be expressed in one of the following growth stages:

- 1) Boot swollen
- 2) Tip of inflorescence just visible
- 3) 1/4 of inflorescence emerged
- 4) 1/2 of inflorescence emerged.

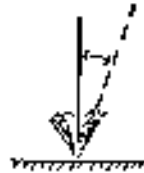
The date of inflorescence emergence is the date at which the average plot stage 2 has been reached. This date should, if necessary, be obtained by interpolation.

Ad. 6: Plant: growth habit at inflorescence emergence

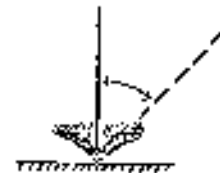
The growth habit should be assessed visually from the attitude of the leaves of the plant as a whole. The angle formed by the imaginary line through the region of greatest leaf density and the vertical should be used.



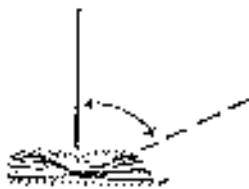
1
erect



3
semi-erect



5
medium



7
semi-prostrate



9
prostrate

Ad. 10: Stem: length of upper internode

The length should be measured, when the internode is fully expanded. The longest upper internode of each plant should be measured as the distance between the upper node and the basis of the inflorescence.

IX Literature

(no specific literature)

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>Dactylis glomerata</i> L. COCKSFOOT</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

4.2 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 Plant: time of inflorescence emergence without vernalization (5) period		
very early		1[]
early	Floréal, Trérano	3[]
medium	Lidacta, Lude	5[]
late	Athos, Baraula	7[]
very late	Mobite	9[]
5.2 Stem: length of longest stem (inflorescence included; when fully expanded) (9)		
short	Horvat, Lucifer	3[]
medium	Athos, Lidacta	5[]
long	Lude	7[]

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.

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