

UPOV

TG/FESTL(proj.1)

ORIGINAL: English

DATE: 2005-10-07

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT**FESTULOLIUM**

UPOV Code: FESTL

xFestulolium Aschers. et Graebn.**GUIDELINES****FOR THE CONDUCT OF TESTS****FOR DISTINCTNESS, UNIFORMITY AND STABILITY***Prepared by an expert from the United Kingdom**to be considered by the**Technical Working Party for Agricultural Crops at its thirty-fourth session
to be held in Christchurch, New Zealand, from October 31 to November 4, 2005*Alternative Names:^{*}

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>x Festulolium</i> Aschers. et Graebn., <i>Festuca x Lolium</i>	Festulolium	Festulolium	Festulolium Schwingel	Festulolium Festuca Canuëla

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

Other associated UPOV documents:

TG/4 Ryegrass (*Lolium* spp.);
 TG/39 Meadow fescue and Tall fescue (*Festuca pratensis* Huds. and *Festuca arundinacea* Schreb.)
 TG/67 Red fescue, Sheep's fescue, Hair fescue, Reliant hard fescue, Shade fescue and Pseudovina
 (*Festuca rubra* L., *Festuca ovina* L., *Festuca filiformis* Pourr., *Festuca brevipila* R. Tracey,
Festuca heterophylla Lam. and *Festuca pseudovina* Hack. ex Wiesb.)

* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated.
 [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website (www.upov.int), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of x*Festulolium* Aschers. et Graebn..

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it 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 and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of seed.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

1.5 kg

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.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 *Number of Growing Cycles*

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

3.2 *Testing Place*

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 "Examining Distinctness".

3.3 *Conditions for Conducting the Examination*

3.3.1 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.

3.3.2 The recommended method of observing the characteristic is indicated by the following key in the second column of the Table of Characteristics:

MG: single measurement of a group of plants or parts of plants
MS: measurement of a number of individual plants or parts of plants
VG: visual assessment by a single observation of a group of plants or parts of plants
VS: visual assessment by observation of individual plants or parts of plants

3.3.3 The recommended type of plot in which to observe the characteristic is indicated by the following key in the second column of the Table of Characteristics:

A: spaced plants
B: row plot
C: special test

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 60 spaced plants and 8 meters of row plot, which should be divided between 2 replicates.

3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

3.5 *Number of Plants / Parts of Plants to be Examined*

3.5.1 Unless otherwise indicated, all observations on single plants should be made on 60 plants or parts taken from each of 60 plants and any other observations made on all plants in the test. In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be one.

3.6 *Additional Tests*

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.2 *Uniformity*

4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:

4.2.2 The assessment of uniformity should be according to the recommendations for cross-pollinated varieties in the General Introduction.

4.3 *Stability*

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be tested, either by growing a further generation, or by testing a new seed stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

Annual varieties:

- (a) Plant: ploidy (characteristic 1)
 - (b) Only annual varieties: Plant: time of inflorescence emergence (after vernalization) (characteristic 4)
 - (c) Plant: length of longest stem, inflorescence included (when fully expanded) (characteristic 17)
- [No annual varieties – delete?]

Biennial and Perennial varieties:

- (a) Plant: ploidy (characteristic 1)
- (b) Only biennial and perennial varieties: Plant: time of inflorescence emergence (after vernalization) (characteristic 11)
- (c) Plant: length of longest stem, inflorescence included (when fully expanded) (characteristic 17)

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

6. Introduction to the Table of Characteristics

6.1 *Categories of Characteristics*

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 *States of Expression and Corresponding Notes*

States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.3 *Types of Expression*

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 *Example Varieties*

Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

[Example varieties are followed by an indication of the botanical types to which they belong. – Delete or replace with relevant species]

6.5 *Legend*

(*) Asterisked characteristic – see Chapter 6.1.2

QL: Qualitative characteristic – see Chapter 6.3

QN: Quantitative characteristic – see Chapter 6.3

PQ: Pseudo-qualitative characteristic – see Chapter 6.3

MG: single measurement of a group of plants or parts of plants – see Chapter 3.3.2

MS: measurement of a number of individual plants or parts of plants – see Chapter 3.3.2

VG: visual assessment by a single observation of a group of plants or parts of plants – Chapter 3.3.2

VS: visual assessment by observation of individual plants or parts of plants” – see Chapter 3.3.2

(a) See Explanations on the Table of Characteristics in Chapter 8.1

(+) See Explanations on the Table of Characteristics in Chapter 8.2

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

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplo	Note/ Nota
1. MS (*) (+)	Plant: ploidy C					
QL	diploid				[Bx 421 – but never registered ???]	2
	tetraploid				Perun Prior	4
2. 20-29	Plant: vegetative growth habit VS A (without VG B vernalization)					
QN (a)	erect					1
	semi-erect			35°	Emrys [Obsolete?]	3
	medium			37°	Lofa	5
	semi-prostrate			46°	Sulino	7
	prostrate					9
3. 50 (+)	Plant: tendency to form inflorescences VS A (without VG B vernalization)					
QN	absent or very weak					1
	weak			3%	Prior	3
	medium			14%	Perun	5
	strong			21%	Sulino	7
	very strong					9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
7. VS A Leaf : width (at VG B vegetative stage)	Proposed new characteristic at 33 TWA – Any data on variation within Festulolium for this characteristic?					
QN	very narrow					1
	narrow					3
	medium					5
	broad					7
	very broad					9
8. MS A Leaf: length (at MG B vegetative stage)	New characteristics proposed at 33 TWA. See Characteristic 7. - MSA;MGB or VSA;VGB ? Any data on variation Festulolium for this characteristic?					
QN	very short					1
	short					3
	medium					5
	broad					7
	very broad					9
9. MS A Plant: height (after MG B vernalization)						
QN	very short					1
	short			28 cm	Prior	3
	medium			38 cm	Perun	5
	tall			52 cm	[Emrys ?]	7
	very tall					9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
10. 30	Plant: width (after vernalization)					
	MS A					
QN (c)	very narrow					1
	narrow			49 cm	Prior	3
	medium			54 cm	Sulino	5
	wide			58 cm	Perun	7
	very wide					9
11. 50	<u>Only biennial and perennial</u> varieties: Plant: time of inflorescence emergence (after vernalization)					
(*)	MS A MG B					
	Is this a different characteristic in ssp and rows? A - Same if measured but different if visually observed in rows					
QN (b)	very early					1
	early			-3 days	Sulino	3
	medium			0 days	Prior	5
	late			+2 days	[Emrys ?]	7
	very late					9
12. 50	Plant: natural height at inflorescence emergence					
	MS A					
QN	very short					1
	short			57 cm	Prior	3
	medium			71 cm	Perun	5
	tall			91 cm	[Emrys ?]	7
	very tall					9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
13.	50	Plant: width at inflorescence emergence				
	MS A					
QN	(c)	very narrow				1
		narrow		62 cm	Prior	3
		medium		67 cm	Lofa	5
		wide		68 cm	Perun	7
		very wide				9
14.	50	Flag leaf: length				
	(*)					
QN	MS A	very short				1
	(d)	short		18 cm	Prior	3
		medium		23 cm	Sulino	5
		long		25 cm	Perun	7
		very long				9
15.	50	Flag leaf: width				
	(*)					
QN	MS A	very narrow				1
	(d)	narrow		7.4 mm	Prior	3
		medium		8.4 mm	Lofa	5
		broad		9.1 mm	Sulino	7
		very broad				9
16.	50	Flag leaf: length/width ratio				
	MS A					
QN	MS A	very low	Proposed new characteristic at 33 TWA – Comment - no useful variation in Festulolium for this characteristic - delete?			1
	(d)	low				3
		medium				5
		high				7
		very high				9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
17. 60-68	Plant: length of longest stem, inflorescence included (when fully expanded)					
(*) MS A						
QN (e)	very short					1
	short			114 cm	Prior	3
	medium			123 cm	Sulino	5
	long			143 cm	[Emrys?]	7
	very long					9
18. 60-68	Plant: length of longest stem from base to top node					
MS A						
		New characteristic proposed at 33 TWA -- This appears to be very highly correlated with char 16 ? Any data on variation within Festulolium for this characteristic?				
QN (e)	very short					1
	short					3
	medium					5
	long					7
	very long					9
19. 60-68	Plant : length of upper internode on longest stem					
MS A						
		New characteristic proposed at 33 TWA -- This appears to be very highly correlated with char 16 ? Any data on variation within Festulolium for this characteristic?				
QN (e)	very short					1
	short					3
	medium					5
	long					7
	very long					9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
20. 60-68	Inflorescence: length					
	MS A					
QN (e)	very short					1
	short					3
	medium			31 cm	Prior	5
	long			36 cm	Perun	7
	very long					9
21. 60-68	Inflorescence: number of spikelets					
	MS A					
QN (e)	very few					1
	few			21 cm	Sulino	3
	medium			24 cm	Prior	5
	many			28 cm	Lofa	7
	very many					9
22. 60-68	Inflorescence: density					
	MS A					
		New characteristic proposed at 33 TWA				
QN (e)	very low					1
	low			1.6	Sulino	3
	medium			1.4	Perun	5
	high			1.1	[Emrys ?]	7
	very high					9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
23. 60-68	Inflorescence: length of outer glume at basal spikelet					
MS A						
			Should glume be from middle of the inflorescence? Re: no too hard to define			
QN (e)	very short					1
	short			8.8 mm	Sulino	3
	medium			10.4 mm	Prior	5
	long			12.0 mm	Lofa	7
	very long					9
24. 60-68	Inflorescence: length of basal spikelet excluding awn					
MS A						
QN (e)	very short					1
	short			22 mm	Lofa	3
	medium			25 mm	Perun	5
	long			27 mm	Sulino	7
	very long					9
25. VG B	Plant: growth habit in aftermath					
QN	erect					1
	semi-erect					3
	medium					5
	semi-prostrate					7
	prostrate					9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
26. VGB	Plant: intensity of green color in aftermath					
		New characteristic proposed at 33 TWA - Growth stage? Any data on variation within Festulolium for this characteristic?				
QN	very light					1
	light					3
	medium					5
	dark					7
	very dark					9
27. MGB	Plant: height in aftermath					
		New characteristic proposed at 33 TWA - Growth stage? MGB or VGB? Any data on variation within Festulolium for this characteristic?				
QN	very short					1
	short					3
	medium					5
	tall					7
	very tall					9
28.	Plant: number of vegetative tillers					
		New characteristic proposed at 33 TWA - Growth stage? Any data on variation within Festulolium for this characteristic?				
QN	very low					1
	low					3
	medium					5
	high					7
	very high					9

8. Explanations on the Table of Characteristics

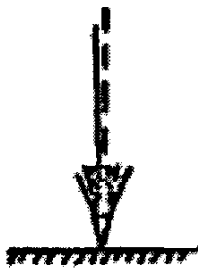
8.1 *Explanations covering several characteristics*

(a) Plant: vegetative growth habit

Characteristic 2 may be recorded on annual, biennial and perennial types, during the same growing season as when the trials are planted

Characteristic 6 should only be recorded on biennial and perennial types.

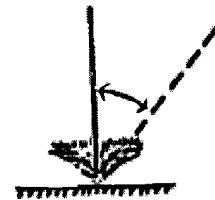
The observations should be made visually from the attitude of the leaves of the plant as a whole. The angle formed by the imaginary line through the region of greatest leaf density and the vertical should be used.



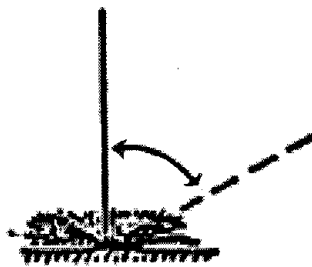
1
erect



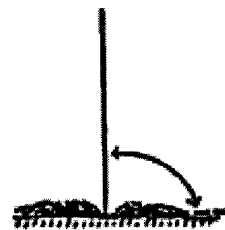
3
semi-erect



5
medium



7
semi-prostrate



9
prostrate

(b) Plant: time of inflorescence emergence

Characteristic 4 should normally only be recorded on annual types. Timing of observations will depend upon time of planting.

Characteristic 11 should normally only be recorded on biennial and perennial types.

Spaced plants or row plots should be observed at least twice per week.

Plots with spaced plants

The date of inflorescence emergence of each single plant should be observed. A single plant is considered to have headed when the tip of three inflorescences can be seen protruding from the flag leaf sheath (Growth Stage DC 50). From the single plant data, a mean date per plot and a mean date per variety is obtained.

Row plots

At each observation date the average plot stage should be expressed in one of the following growth stages (see 8.3 below):

- | | | |
|-----|-------|---|
| (1) | DC 45 | Boot swollen (late-boot stage) |
| (2) | DC 50 | First spikelet of inflorescence just visible |
| (3) | DC 52 | 25% of the inflorescence emerged (across all stems) |
| (4) | DC 54 | 50% of the inflorescence emerged (across all stems) |

The date of inflorescence emergence is the date at which the average plot stage 2 (Growth Stage DC 50) has been reached. This date should, if necessary, be obtained by interpolation.

(c) Plant: width

To allow for irregular plant shapes (for example due to wind shaping effects) the average plant width is determined by taking two measurements of the diameter across the plant at right angles to each other and mentally deciding on the average of these two figures.

- (d) To be recorded on each individual plant at the time of inflorescence emergence, (Growth Stage DC 50) that is, at the same time as Characteristic 4 for annual types and Characteristic 11 for biennial and perennial types.
- (e) Characteristic 17 [18 and 19] should be recorded when the inflorescence is fully expanded, using the same longest stem from the middle of the plant for all. Measurements for characteristics 20, 21, 22, 23 and 24 should be made on the inflorescence from the same longest stem.

8.2 Explanations for individual characteristics

Ad. 1: Plant: ploidy

The ploidy of the plant can be determined either by standard cytological methods or by observing the occurrence of 5-band genotypes (which are present only in tetraploid varieties) in phosphoglucoisomerase (PGI) isoenzyme electrophoresis.

Ad. 3: Plant: tendency to form inflorescences (without vernalization)

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: Leaf: intensity of green color

Annual types:

Leaf color should be recorded at beginning of inflorescence emergence.(Growth Stage DC 50)

Biennial and perennial types:

Leaf color should be recorded during the same growing season as when the trials are planted. (Growth Stage DC 20 - 29)

8.3 Growth stages of grasses derived from the decimal code for the growth stages of cereals (Zadoks, et al., 1974)

Seedling growth (seedling: one shoot)

DC 10	First leaf through coleoptile
DC 15	Five leaves unfolded
DC 19	Nine or more leaves unfolded

Tillering

DC 20	Main Shoot only (beginning of tillering)
DC 23	Main shoot and 3 tillers
DC 25	Main shoot and 5 tillers
DC 29	Main shoot and 9 more tillers

Stem elongation

DC 30	Pseudo-stem erection (formed by sheaths of leaves)
DC 31	First node detectable (early stem extension across all stems)
DC 35	Fifth node detectable (50% extension across all stems)
DC 39	Flag leaf ligula/collar just visible (pre-boot stage)

Booting

- DC 41 Flag leaf sheath extending (little enlargement of the inflorescence, early boot-stage)
DC 45 Boots swollen (late-boot stage)
DC 47 First leaf sheath opening
DC 49 First awns visible (in awned forms only)

Inflorescence emergence (mostly non-synchronous)

- DC 50 First spikelet of inflorescence just visible
DC 52 25% of the inflorescence emerged (across all stems)
DC 54 50% of the inflorescence emerged (across all stems)
DC 56 75% of the inflorescence emerged (across all stems)
DC 58 Emergence of inflorescence completed

Anthesis (mostly non-synchronous)

- DC 60 Beginning of anthesis
DC 64 Anthesis half-way
DC 68 Anthesis complete

9. Literature

Hawkins, R.P. (1958), "The Classification of the Strains (Varieties) of Herbage Plants," *Journal of the National Institute of Agricultural Botany*, 9, pages 434-449

Weatherup, S.T.C. (1980), "Statistical Procedures for Distinctness, Uniformity and Stability Trials," *Journal of Agricultural Science, Cambridge*, 94, page 31-46

Patterson, H.D. and Weatherup S.T.C. (1984), "Statistical Criteria for Distinctness between Varieties of Herbage Crops," *Journal of Agricultural Science, Cambridge*, 102, pages 59-68

Tyler, B.F., Hayes, J.D. and Ellis Davies, W. (1985), "IBPGR/CEC Descriptive List for Forage Grasses," *International Board for Plant Genetic Resources (IBPGR)*, 83/90

Baltjes, H.J., Klein Geltink, D.J.A., Nienhuis, K.H. and Luesink, B. (1985), "Linking Distinctiveness and Description of Varieties," *Journal of the National Institute of Agricultural Botany*, 17, pages 9-19

Camlin, M.S., Watson, S., Waters, B.G. and Weatherup, S.T.C. (2001), "The potential for management of reference collections in herbage variety registration trials using a cyclic planting system for reference varieties". *Plant Varieties and Seeds*, 14, pages 1-14.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)	
<p>TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights</p>			
<p>1. Subject of the Technical Questionnaire (please indicate the relevant [parental?] species): [Q - useful to know parental species for grouping or only confusing ?]</p>			
1.1.1 Latin Name	<i>Festulolium ascendens</i> (Retz.) Asch. & Graebn.		[]
1.1.2 Common Name	Festulolium		
1.2.1 Latin Name	<i>Festulolium braunii</i> (K. Richt.) A. Camus		[]
1.2.2 Common Name	Festulolium		
1.3.1 Latin Name	<i>Festulolium fredericii</i> Cugnac & A. Camus (<i>Festuca rubra</i> x <i>Lolium perenne</i>)		[]
1.3.2 Common Name	Festulolium		
1.4.1 Latin Name	<i>Festulolium holmbergii</i> (Dörfl.) P. Fourn. (<i>Festuca arundinacea</i> x <i>Lolium perenne</i>)		[]
1.4.2 Common Name	Festulolium		
1.4.1 Latin Name	<i>Festulolium loliaceum</i> (Huds.) P. Fourn. (<i>Festuca pratensis</i> Huds x <i>Lolium perenne</i> L.)		[]
1.4.2 Common Name	Festulolium		
	Other (please specify)		

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2. Applicant

Name

Address

Telephone No.

Fax No.

E-mail address

Breeder (if different from applicant)

3. Proposed denomination and breeder's reference

Proposed denomination
(if available)

Breeder's reference

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#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

- (a) controlled cross []
(please state parent varieties)
- (b) partially known cross []
(please state known parent variety(ies))
- (c) unknown cross []

4.1.2 Discovery and development []
(please state where and when discovered
and how developed)

4.1.3 Other []
(please provide details)

4.2 Method of propagating the variety

Authorities may allow certain parts of this information to be given in a confidential section of the Technical Questionnaire.

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

Characteristics	Example Varieties	Note
5.1 Plant: ploidy (1)		
diploid		2
tetraploid	Perun, Prior	4
5.2 <u>Only biennial and perennial varieties</u>: Plant: time of inflorescence emergence (after vernalization) (11)		
very early		1
early	Sulino	3
medium		
late	[Emrys ?]	7
very late		9
5.3 Plant: width at inflorescence emergence [(13)		
very narrow		1
narrow	Prior	3
medium		
wide	Perun	7
very wide		9
5.4 Plant: length of longest stem, inflorescence included (when fully expanded) (17)		
very short		1
short	Prior	3
medium	Sulino	5
long	[Emrys?]	7
very long		9

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6. Similar varieties and differences from these varieties

Please use the table, and space provided for comments, below to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
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Example

Comments:

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#7. Additional information which may help in the examination of the variety

7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?

Yes [] No []

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [] No []

(If yes, please provide details)

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 (b) is yes, please attach a copy of the authorization.

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

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9. Information on plant material to be examined or submitted for examination.

9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc.

9.2 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

- | | | |
|---|---------|--------|
| (a) Microorganisms (e.g. virus, bacteria, phytoplasma) | Yes [] | No [] |
| (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes [] | No [] |
| (c) Tissue culture | Yes [] | No [] |
| (d) Other factors | Yes [] | No [] |

Please provide details for where you have indicated “yes”.

.....

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature

Date

[End of document]