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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

KENTUCKY BLUEGRASS

UPOV Code: POAAA_PRA

Poa pratensis L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Germany

to be considered by the

*Technical Committee at its fiftieth session,
to be held in Geneva from April 7 to 9, 2014*

Disclaimer: this document does not represent UPOV policies or guidance

Alternative Names:^{*}

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Poa pratensis</i> L.	Kentucky Bluegrass, Smooth-stalked Meadowgrass	Pâturin des prés	Wieserispe	Pasto azul de Kentucky, Poa de los prados

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.

^{*} 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 *Poa pratensis* L..

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 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. The two independent growing cycles should be in the form of two separate plantings.

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 optimum stage of development for the assessment of each characteristic is indicated by a number in the second column of the Table of Characteristics. The stages of development denoted by each number are described in Chapter 8.2.

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: greenhouse test

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 30 spaced plants, for apomictic varieties, and at least 60 plants, for non-apomictic varieties, which should be divided between at least 2 replicates. In addition, the test may include 8 meters of row plot which should be divided between at least 2 replicates. The sowing density should be such that around 200 plants per meter can be expected.

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 *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.

4.1.4 Number of Plants / Parts of Plants to be Examined

4.1.4.1 Apomictic varieties: Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test, disregarding any off-type plants.

4.1.4.2 Non-apomictic varieties: Unless otherwise indicated, for the purposes of distinctness, 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.

4.1.4.3 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 1.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 "Examining Distinctness", Section 4 "Observation 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

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

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 Apomictic varieties: For the assessment of uniformity a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 30 plants, 2 off-types are allowed.

4.2.3 Non-apomictic varieties: 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 further examined by testing a new seed stock to ensure that it exhibits the same characteristics as those shown by the initial 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:

- (a) Plant: time of inflorescence emergence (characteristic 8)
- (b) Plant: natural height when fully expanded (characteristic 11)

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 "Examining Distinctness".

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*

6.2.1 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.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	Note
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 "Development of Test Guidelines".

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.

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, MS, VG, VS – see Chapter 4.1.5

A, B, C See Chapter 3.3.3

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

23 – 68 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.	23-25 C VS	Leaf sheath: anthocyanin coloration	Gaine de la feuille : pigmentation anthocyanique	Blattscheide: Anthocyanfärbung	Vaina de la hoja: pigmentación antociánica	
QN	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Baron	1
	weak	faible	gering	débil	Oxford	3
	medium	moyenne	mittel	media	Evora	5
	strong	forte	stark	fuerte	Limagie	7
2.	25-29 MS A/ MG B	Plant: natural height before stem elongation	Plante : hauteur naturelle avant élongation de la tige	Pflanze: natürliche Höhe vor dem Schossen	Planta: altura <u>antes</u> del alargamiento del tallo	
QN	short	courte	kurz	baja	Limousine	3
	medium	moyenne	mittel	media	Limerick	5
	tall	haute	hoch	alta	Bariris	7
3.	25-29 MS A/ VG B	Leaf: width	Feuille : largeur	Blatt: Breite	Hoja: anchura	
QN	narrow	étroite	schmal	estrecha	Limousine	3
	medium	moyenne	mittel	media	Conni	5
	broad	large	breit	ancha	Miracle	7
4.	29 VS A/ VG B (+)	Plant: growth habit <u>without</u> vernalization	Plante : port <u>sans</u> vernalisation	Pflanze: Wuchsform <u>ohne</u> Vernalisation	Planta: hábito de crecimiento <u>sin</u> vernalización	
QN	erect	dressé	aufrecht	erguido		1
	semi-erect	demi-dressé	halbaufrecht	semierguido	Julia	3
	intermediate	intermédiaire	intermediär	intermedio	Limerick	5
	semi-prostrate	demi-étalé	halbliiegend	semiprostrado	Yvette	7
	prostrate	étalé	liegend	prostrado		9
5.	29 VS A/ VG B	Leaf: intensity of green color <u>without</u> vernalization	Feuille : intensité de la couleur verte <u>sans</u> vernalisation	Blatt: Intensität der Grünfärbung <u>ohne</u> Vernalisation	Hoja: intensidad del color verde <u>sin</u> vernalización	
QN	light	claire	hell	claro		3
	medium	moyenne	mittel	medio	Conni	5
	dark	foncée	dunkel	oscuro	Limousine	7
	very dark	très foncée	sehr dunkel	muy oscuro	Limerick	9
6.	30-35 VS A/ VG B (*) (+)	Plant: growth habit <u>after</u> vernalization	Plante : port <u>après</u> vernalisation	Pflanze: Wuchsform <u>nach</u> der Vernalisation	Planta: hábito de crecimiento <u>tras la</u> vernalización	
QN	erect	dressé	aufrecht	erguido		1
	semi-erect	demi-dressé	halbaufrecht	semierguido	Danube	3
	intermediate	intermédiaire	intermediär	intermedio	Compact	5
	semi-prostrate	demi-étalé	halbliiegend	semiprostrado	Baron	7
	prostrate	étalé	liegend	prostrado		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7. (*)(*)	30-35 VS A/ VG B	Leaf: intensity of green color <u>after</u> vernalization	Feuille : intensité de la couleur verte <u>après</u> vernalisation	Blatt: Intensität der Grünfärbung <u>nach</u> der Vernalisation	Hoja: intensidad del color verde <u>tras la</u> vernalización	
QN	light	claire	hell	claro	Oxford	3
	medium	moyenne	mittel	medio	Compact	5
	dark	foncée	dunkel	oscuro	Bariris	7
	very dark	très foncée	sehr dunkel	muy oscuro	Rhythm	9
8. (*)(+)	50 MS A/ MG B	Plant: time of inflorescence emergence	Plante : époque d'épiaison	Pflanze: Zeitpunkt des Erscheinens der Blütenstände	Planta: época de aparición de la inflorescencia	
QN	very early	très précoce	sehr früh	muy temprana	Adam 1	1
	early	précoce	früh	temprana	Balin	3
	medium	moyenne	mittel	media	Compact	5
	late	tardive	spät	tardía	Baron	7
	very late	très tardive	sehr spät	muy tardía	Hifi	9
9. (*)(+)	50-58 MS A	Flag leaf: length	Dernière feuille : longueur	Fahnenblatt: Länge	Última hoja: longitud	
QN	short	courte	kurz	corta	Miracle	3
	medium	moyenne	mittel	media	Compact	5
	long	longue	lang	larga	Balin	7
10. (*)(+)	50-58 MS A	Flag leaf: width	Dernière feuille : largeur	Fahnenblatt: Breite	Última hoja : anchura	
QN	narrow	étroite	schmal	estrecha	Limousine	1
	medium	moyenne	mittel	media	Compact	2
	broad	large	breit	ancha	Lato	3
11. (*)(+)	58 MS A/ MG B	Plant: natural height <u>when fully expanded</u>	Plante : hauteur naturelle <u>à complet développement</u>	Pflanze: Wuchshöhe <u>zur Vollentwicklung</u>	Planta: altura <u>cuando está completamente extendida</u>	
QN	short	courte	kurz	baja	Limousine	3
	medium	moyenne	mittel	media	Compact	5
	tall	haute	hoch	alta	Likollo	7
	very tall	très haute	sehr hoch	muy alta	Lato	9
12. (*)(+)	60-64 VG A	Inflorescence: shape of rachis	Inflorescence : forme du rachis	Blütenstand: Form der Spindeln	Inflorescencia: forma del raquis	
QL	straight	droit	gerade	recto	Compact	1
	bent	courbé	gebogen	curvado	Baron	2
13. (*)(+)	60-64 VG A	Inflorescence: form of collar of rachis	Inflorescence : forme de la collerette du rachis	Blütenstand: Form des Spindelkragens	Inflorescencia: forma del collar del raquis	
QL	closed	fermée	geschlossen	cerrado	Compact	1
	open	ouverte	offen	abierto	Baron	2

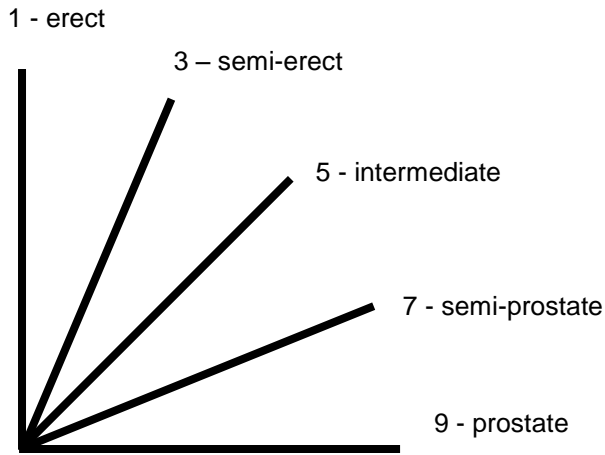
	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14.	64-68 MS A	Stem: length of upper internode	Tige : longueur du dernier entre-nœud	Halm: Länge des oberen Internodiums	Tallo: longitud del entrenudo superior	
QN	short	court	kurz	corto	Limousine	3
	medium	moyen	mittel	medio	Compact	5
	long	long	lang	largo	Balin	7
15.	64-68 MS A	Inflorescence: length	Inflorescence : longueur	Blütenstand: Länge	Inflorescencia: longitud	
QN	short	courte	kurz	corta	Conni	3
	medium	moyenne	mittel	media	Compact	5
	long	longue	lang	larga	Balin	7
	very long	très longue	sehr lang	muy larga	Lato	9
16.	64-68 VG A/ VG B	Inflorescence: anthocyanin coloration	Inflorescence : pigmentation anthocyanique	Blütenstand: Anthocyanfärbung	Inflorescencia: pigmentación antociánica	
QN	weak	faible	gering	débil	Compact	3
	medium	moyenne	mittel	media	Conni	5
	strong	forte	stark	fuerte	Baron	7

8. Explanations on the Table of Characteristics

8.1 *Explanations for individual characteristics*

Ad. 4: Plant: growth habit without vernalization

Ad. 6: Plant: growth habit after vernalization



Ad. 8: Plant: time of inflorescence emergence

The trial should be observed at least twice a week.

Plots with spaced plants:

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

Row plots:

The time of inflorescence emergence is the date at which the average plot stage DC 54 has been reached. This date should – if necessary – be obtained by interpolation. At each observation date, the average plot stage should be expressed in one of the following growth stages:

- 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)

Ad. 9: Flag leaf: length

Ad. 10: Flag leaf: width

The Flag leaf is the first leaf below the inflorescence. Measurements should be made on the same leaf. Length should be measured from the tip of the leaf blade to the leaf sheath. Width should be measured at the widest point of the leaf blade.

Ad. 11: Plant: natural height when fully expanded

Measurements should be made in the field from ground level to the top of the plant, when the inflorescences are fully expanded.

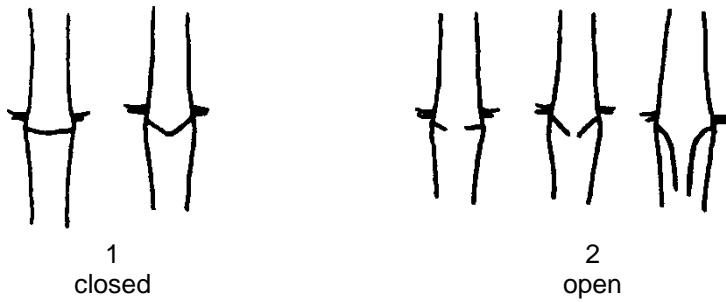
Ad. 12: Inflorescence: shape of rachis

The shape of rachis should be observed opposite to the lower side branches.



Ad. 13: Inflorescence: form of collar of rachis

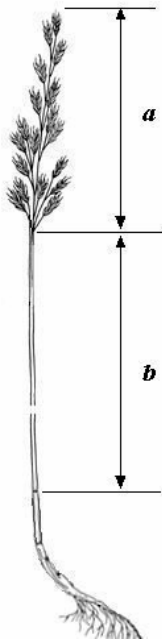
The form of collar of rachis should be observed opposite to the lower side branches.



Ad. 14: Stem: length of upper internode

Ad. 15: Inflorescence: length

Observations should be made on the longest stem. The upper internode (b) is the part of the stem above the upper node up to the beginning of the inflorescence (a).



8.2 Growth stages for grasses

All characteristics should be recorded at the appropriate time for the plant concerned. Growth stages of grasses are indicated by decimal codes which are derived from the decimal code for the growth stages of cereals (Zadoks, et al., 1974). This decimal code is in close conformity with the BBCH-code (Meier, 1997).

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 or 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

Meier, U., 1997: Growth stages of mono- and dicotyledonous plants. BBCH-Monograph Blackwell Science. Berlin, Vienna, a.o., 622 pp.

Zadoks, J.C., Chang, T.T., Konzak, C.F., 1974: A decimal code for the growth stages of cereals. Weed Research 14: pp. 415 – 421.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights		
1. Subject of the Technical Questionnaire		
1.1 Botanical name	<input type="text" value="Poa pratensis L."/>	
1.2 Common name	<input type="text" value="Kentucky Bluegrass"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	
3. Proposed denomination and breeder's reference		
Proposed denomination (if available)	<input type="text"/>	
Breeder's reference	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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)

(.....) x (.....)
female parent male parent

(b) partially known cross []
(please state known parent variety(ies))

(.....) x (.....)
female parent male parent

(c) unknown cross []

4.1.2 Mutation []
(please state parent variety)

.....

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

.....

4.1.4 Other []
(please provide details)

.....

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

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

- (a) Apomictic
- (b) Non-apomictic
- (c) Other
(please provide details)

4.2.2 Other
(please provide details)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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 Leaf: width (3)		
very narrow		1[]
very narrow to narrow		2[]
narrow	Limousine	3[]
narrow to medium	Compact	4[]
medium	Conni	5[]
medium to broad	Baron	6[]
broad	Miracle	7[]
broad to very broad		8[]
very broad		9[]
5.2 Leaf: intensity of green color <u>after</u> vernalization (7)		
very light		1[]
very light to light		2[]
light	Oxford	3[]
light to medium	Lato	4[]
medium	Compact	5[]
medium to dark	Limousine	6[]
dark	Bariris	7[]
dark to very dark	Baron	8[]
very dark	Rhythm	9[]

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Characteristics	Example Varieties	Note
5.3 Plant: time of inflorescence emergence (8)		
very early	Adam 1	1[]
very early to early	Danube	2[]
early	Balin	3[]
early to medium	Limagie	4[]
medium	Compact	5[]
medium to late	Lato	6[]
late	Baron	7[]
late to very late	Ambon	8[]
very late	Hifi	9[]
5.4 Plant: natural height <u>when fully expanded</u> (11)		
very short		1[]
very short to short	Miracle	2[]
short	Limousine	3[]
short to medium	Bartender	4[]
medium	Compact	5[]
medium to tall	Limerick	6[]
tall	Likollo	7[]
tall to very tall	Danube	8[]
very tall	Lato	9[]

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6. Similar varieties and differences from these varieties

Please use the following table and box for comments 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 the characteristic(s) for your candidate variety
<i>Example</i>	<i>Plant: time of inflorescence emergence</i>	<i>early</i>	<i>medium</i>

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, endophytes) | 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]