TG/UROCH(proj.2)
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DATE: 2008-06-10

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

UROCHLOA *

UPOV Codes: UROCH_BRI; UROCH_DEC; UROCH_DIC; UROCH_HUM; UROCH_RUZ

Urochloa brizantha (Hochst. ex A. Rich.) Stapf.,
Urochloa decumbens Stapf. R. Webster,
Urochloa dictyoneura (Fig. & De Not.) Veldkamp P.,
Urochloa humidicola (Rendle) Morrone & Zuloaga.,
Urochloa ruziziensis R. Germ. & Evrard.
and their hybrids

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Brazil

to be considered by the
Technical Working Party for Agricultural Crops
at its thirty-seventh session, to be held in Nelspruit, South Africa, from July 14 to 18, 2008

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Urochloa brizantha (Hochst. ex A. Rich.) R. D. Webster, *Brachiaria brizantha* (Hochst. ex A. Rich.) Stapf)	Bread Grass, Palisade grass, Palisade signal grass, Signal grass		Palisadengras	
Urochloa decumbens (Stapf) R. D. Webster, Brachiaria decumbens Stapf	Basilisk signal grass, Signal grass, Spreading liverseed grass, Surinam grass		Surinamgras	Pasto alambre, Zacate Surinam
Urochloa dictyoneura (Fig. & De Not.) Veldkamp P., *Brachiaria dictyoneura* (Fig. & De Not.) Veldkamp P.				
Urochloa humidicola (Rendle) Morrone & Zuloaga, *Brachiaria humidicola* (Rendle) Schweick.	Creeping signal grass, Koronivia grass			
Urochloa ruziziensis (R. Germ. & C. M. Evrard) Morrone & Zuloaga, *Brachiaria ruziziensis* R. Germ. & C. M. Evrard	Congo grass, Congo signal grass, Ruzi grass			

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 *Urochloa decumbens* Stapf., *Urochloa brizantha* (Hochst. ex A. Rich.) Stapf. and *Urochloa ruziziensis* R. Germ. & Evrard and their hybrids.

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 or plants.

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

200 g of seed, for seed propagated varieties
or
240 plants, in the case of vegetatively propagated varieties.

2.4 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.

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

2.6 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

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.

3.3.1 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

3.4 Test Design

3.4.1 Each test should be designed to result in a total of at least 240 plants, which should be divided between two or more 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 In the case of seed propagated varieties, unless otherwise indicated, all observations on single plants should be made on 30 plants or parts taken from each of 30 plants and any other observation made on all plants in the test.

3.5.2 In the case of vegetatively propagated varieties, unless otherwise indicated, all observations on single plants should be made on 10 plants or parts taken from each of 10 plants, distributed over a 2 m x 2 m area or in a 10 m row and any other observation made on all plants in the test.

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 for cross-pollinated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.

4.2.3 For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 240 plants, 5 off-types are allowed.

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 or plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

4.3.3 Where appropriate, or in cases of doubt, the stability of a hybrid variety may, in addition to an examination of the hybrid variety itself, also be assessed by examination of the uniformity and stability of its parent lines.

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: ploidy (characteristic 1)
(b) Inflorescence: stigma color at anthesis (characteristic 24)
(c) Spikelet: insertion on rachis (characteristic 25)

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.

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 3.3.3
(a)–(c) 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/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. **(*)** **(+)**	**VG**	**Plant: ploidy**				*Example varieties tests are in process. Information to be added.*	
QL		diploid					2
		triploid					3
		tetraploid					4
		pentaploid					5
		hexaploid					6
		heptaploid					7
2. **(*)** **(+)**	**VG**	**Plant: growth habit**				*Example varieties tests are in process. Information to be added.*	
QN	**(a)**	erect					1
		semi erect					2
		spreading					3
3. **(+)**	**VG**	**Plant: height**					
QN	**(a)**	short					3
		medium				MIXE LN 45, Mulato II, BRS Piatã	5
		tall					7
4.	**MS**	**Culm: number of basal tillers**					
QN	**(a)**	few					3
	(b)	medium				MIXE LN 45, BRS Piatã	5
		many				Mulato II	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5. **(+)**	**MS**	**Culm: number of nodal tillers**					
QN	**(a)**	few				Mulato II, BRS Piatã	3
	(b)	medium					5
		many					7
6. **(+)**	**VS**	**Rhizome: development**					
	(a)	absent or weak					
	(c)	medium					
		strong					
7. **(+)**	**VS**	**Rhizome: shape**					
PQ	**(a)**	globose					1
	(c)	intermediate				BRS Piatã	2
		elongated				MIXE LN 45, Mulato II	3
8. **(*)** **(+)**	**VS**	**Stolon: development**					
QN	**(a)**	absent or weak				BRS Piatã	1
	(c)	medium				MIXE LN 45	2
		strong				Mulato II	3
9.	**MS**	**Culm: lenght of internode**					
QN	**(a)**	short					3
	(b)	medium				MIXE LN 45	5
		long					7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
10.	**MS**	**Culm: diameter**					
QN	**(a)**	small					1
	(b)	medium				MIXE LN 45, Mulato II	2
		large					3
11.	**VG**	**Leaf: attitude**				*Example varieties tests are in process. Information to be added.*	
(+)							
PQ	**(a)**	erect					1
	(b)	arched					2
		geniculate					3
12.	**VG**	**Leaf: density of hairs on sheath**					
QN	**(a)**	absent or very sparse					1
	(b)	sparse				MIXE LN 45, BRS Piatã	3
		medium					5
		dense				Mulato II	7
		very dense					9
13.	**VG**	**<u>Only varieties with hairs on leaf sheath</u>: Leaf: distribution of sheath pilosity**					
PQ	**(a)**	basal					1
	(b)	apical				MIXE LN 45	2
		on margins					3
		spread				Mulato II, BRS Piatãc	4
14.	**VG**	**Leaf: shape of blade**					
QL	**(a)**	linear				Mulato II, BRS Piatã	1
	(b)	lanceolate				MIXE LN 45	2

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
15.	**VG**	**Leaf blade: length**				*Example varieties tests are in process. Information to be added.*	
QN	**(a)**	short					3
	(b)	medium					5
		long					7
16.	**VG**	**Leaf blade: width**					
QN	**(a)**	narrow				BRS Piatã	3
	(b)	medium				MIXE LN 45	5
		broad				Mulato II	7
17. (*)	**VG**	**Leaf blade: density of hairs**					
QN	**(a)**	absent or very sparse				BRS Piatã	1
	(b)	sparse				MIXE LN 45	3
		medium					5
		dense				Mulato II	7
		very dense					9
18.	**VS**	**Leaf blade: distribution of hairs**					
PQ	**(a)**	on the upper side				MIXE LN 45	1
	(b)	on the lower side					2
		on both sides				Mulato II	3
		on the base					4
		on the apex only					5
		on the margins only					6

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
19. **(+)**	**VS**	**Inflorescence: length of flower stem**					
QN		short					3
		medium				Mulato II	5
		long				MIXE LN 45, BRS Piatã	7
20. **(+)**	**VS**	**Inflorescence: length of flower stem axis**					
QN		short					3
		medium				Mulato II	5
		long				MIXE LN 45, BRS Piatã	7
21.	**VS**	**Inflorescence: length of basal racemes**					
QN		short					3
		medium				MIXE LN 45, Mulato II	5
		long				BRS Piatã	7
22.	**VG**	**Inflorescence: shape in transverse section of rachis**					
QL		triangular				MIXE LN 45	1
		winged				Mulato II	2
		crescent				BRS Piatã	3
23.	**MS**	**Inflorescence: number of racemes**					
QN		few					3
		medium				MIXE LN 45	5
		many				Mulato II, BRS Piatã	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
24. **(+)**	**VG**	**Inflorescence: stigma color at anthesis**					
PQ		white				Mulato II	1
		pink					2
		purple				MIXE LN 45, BRS Piatã	3
		black					4
25. **(+)**	**VG**	**Spikelet: insertion on rachis**					
QL		uniseriate					1
		biseriate				MIXE LN 45, Mulato II	2
		combined				BRS Piatã	3
26.	**VG**	**Spikelet: density of hairs**					
QN		absent or very sparse				MIXE LN 45, BRS Piatã	1
		sparse					3
		medium				Mulato II	5
		dense					7
27. **(*)** **(+)**	**VG**	**Time of beginning of flowering**					
QN		early				BRS Piatã	3
		medium					5
		late				MIXE LN 45, Mulato II	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
28.	**VG**	**Flowering: duration**					
(+)							
QN		short				Mulato II	3
		medium				MIXE LN 45, BRS Piatã	5
		long					7
29.		**Seed: density**					
(+)							
QN		low					3
		medium				MIXE LN 45, BRS Piatã	5
		dense				Mulato II	7
30.		**Seed: thousand seed weight**					
(+)							
QN		low					3
		medium				MIXE LN 45, Mulato II, BRS Piatã	5
		high					7
31.		**Seed: color**				*Example varieties tests are in process. Information to be added.*	
QL		green					1
		yellow					2
		purple					3
		brown					4

8. Explanations on the Table of Characteristics

8.1 Explanation covering several characteristics

Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

(a) Unless otherwise stated, all observations on the vegetative characteristics should be done at the maximum growing stage, in the first growing cycle.
(b) All observations on culms and fully developed leaves should be made on the middle third of the plant.
(c) On stolonipherous varieties, characteristics should be observed on rows.
On caespitose growth varieties, characteristics should be observed on spaced plants.

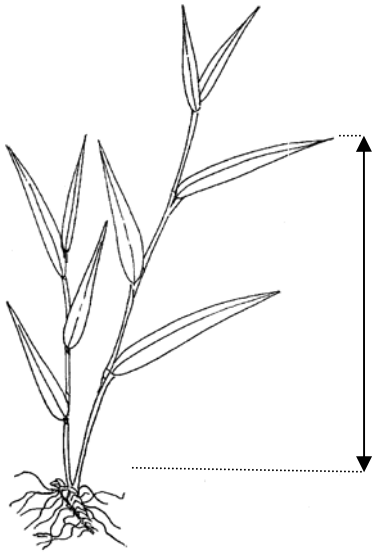
8.2 Explanations for individual characteristics

Ad. 1: Plant: ploidy

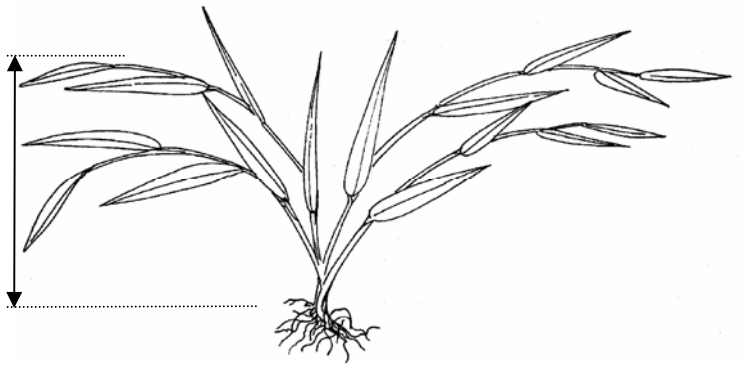
The assessment of the level of ploidy must be done using standard cytological methods on samples of roots tips taken from 10 culms, randomly chosen.

Ad. 2: Plant: growth habit
Ad. 3: Plant: height

The height of the plant should be measured in the center of the plant, at the beginning of flowering, from the third fully developed leaf to the level ground, excluding inflorescences.

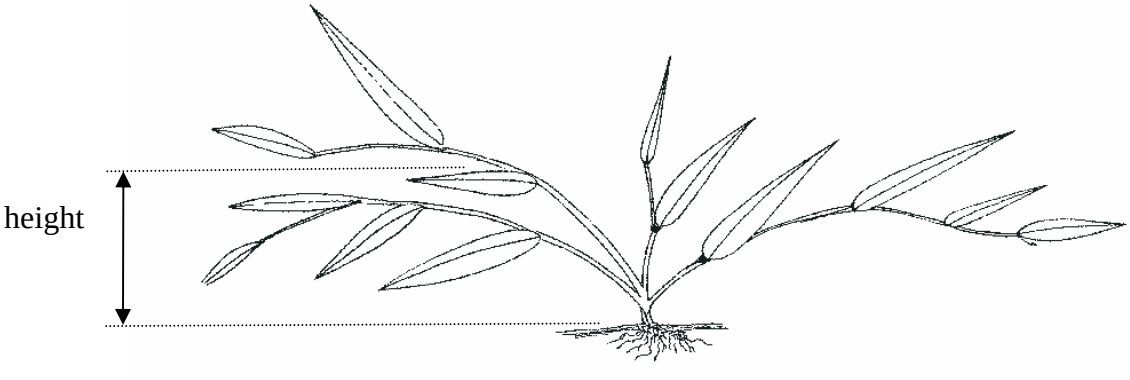


height



1
erect

2
semi erect



3
spreading

Ad. 5: Culm: number of nodal tillers

The assessment of the number of nodal tillers should be made 45 days after a standardization cut made at the maximum growing stage.

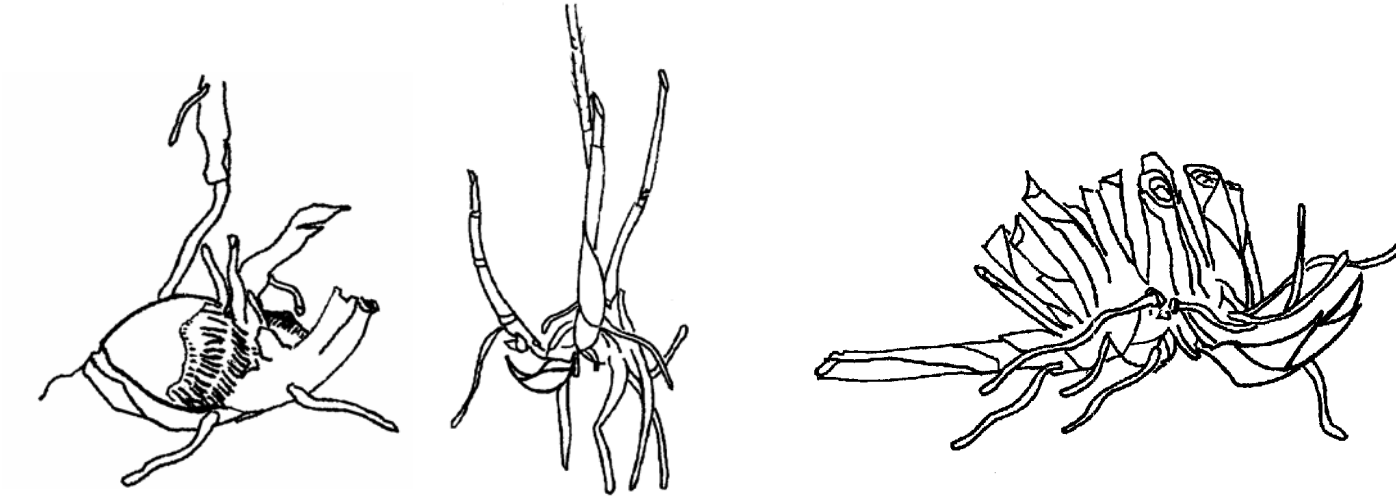
Ad. 6: Rhizome: development
Ad. 8: Stolon: development

The term "rhizome" means a stem growing under the surface of the ground that sends out roots from its lower portion and leaves or shoots from its upper portion.

The term "stolon" means a stem growing along the surface of the ground and taking root at the nodes or apex to form new plants.

The development of stolons and rhizomes should be assessed 3 months after sowing/planting.

Ad. 7: Rhizome: shape



1
globose

2
intermediate

3
elongated

Ad. 11: Leaf: attitude

1
erect

2
arched

3
geniculate

Ad. 19: Inflorescence: length of flower stem

Flower stem: distance between the flag leaf node and the insertion of the last raceme;

Ad. 20: Inflorescence: length of flower stem axis

Flower stem axis: distance between the first and the last raceme insertions; and
Rachis: axis of the spikelet insertion.

Ad. 24: Inflorescence: stigma color at anthesis

To be observed at anthesis.

Ad. 25: Spikelet: insertion on rachis

To consider:

Combined – spikelet that bears, simultaneously, uniseriate and biseriate insertions.

Ad. 27: Time of beginning of flowering

The time of beginning of flowering should be assessed on the second growing cycle, when 10% of the plants are flowering.

Ad. 28: Flowering: duration

The duration of flowering should be assessed on the second growing cycle, and should be assessed from the time when 10% of the plants are flowering to the end of emission of stigma and anthers.

Ad. 29: Seed: density

All observations on seeds should be made accordingly the ISTA International Rules for Seed Testing (ISTA 1999, ISBN 3-906549-27-5). Consider seed density as its ratio volume/weight.

Ad. 30: Seeds: thousand seed weight

All observations on seeds should be made accordingly the ISTA International Rules for Seed Testing (ISTA 1999, ISBN 3-906549-27-5).

9. Literature

[to be provided]

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	*Urochloa brizantha* (Hochst. ex A. Rich.) Stapf., *Urochloa decumbens* Stapf. R. Webster, *Urochloa dictyoneura* (Fig. & De Not.) Veldkamp P., *Urochloa humidicola* (Rendle) Morrone & Zuloaga., *Urochloa ruziziensis* R. Germ. & Evrard. and their hybrids
1.2 Common name	Bread Grass, Palisade grass, Palisade signal grass, Signal grass Basilisk signal grass, Signal grass, Spreading liverseed grass, Surinam grass Creeping signal grass, Koronivia grass Congo grass, Congo signal grass, Ruzi grass

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	
Breeder (if different from applicant)	

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

3. Proposed denomination and breeder's reference

Proposed denomination (if available) [ ]

Breeder's reference [ ]

[#]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 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:

4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

(a)	Self-pollination	[ ]
(b)	Cross-pollination	
	(i) population	[ ]
	(ii) synthetic variety	[ ]
(c)	Hybrid (see below)	[ ]
(d)	Other (please provide details)	[ ]

4.2.2 Other [ ]
(please provide details)

4.2.3 In the case of hybrid varieties the production scheme for the hybrid should be provided on a separate sheet. This should provide details of all the parent lines required for propagating the hybrid e.g.

Single Hybrid

(… female parent …) x (… male parent …)

Three-Way Hybrid

(… female line …) x (… male line …)

=> single hybrid used as female parent x (… male parent …)

and should identify in particular:
(a) any male sterile lines
(b) maintenance system of male sterile lines.

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

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 (1)	**Plant ploidy**		
	diploid		2 […]
	triploid		3 […]
	tetraploid		4 […]
	pentaploid		5 […]
	hexaploid		6 […]
	heptaploid		7 […]
5.2 (2)	**Plant: growth habit**		
	erect		1 […]
	semi erect		2 […]
	spreading		3 […]
5.3 (8)	**Stolon: development**		
	absent or weak	BRS Piatã	1 […]
	medium	MIXE LN 45	2 […]
	strong	Mulato II	3 […]

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

	Characteristics	Example Varieties	Note
5.4 (17)	**Leaf blade: density of hairs**		
	absent or very sparse	BRS Piatã	1 […]
	sparse	MIXE LN 45	3 […]
	medium		5 […]
	dense	Mulato II	7 […]
	very dense		9 […]
5.5 (27)	**Time of beginning of flowering**		
	early	BRS Piatã	3 […]
	medium		5 […]
	late	MIXE LN 45, Mulato II	7 […]

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	Denomination(s) of variety(ies) similar to your candidate variety	Denomination(s) of variety(ies) similar to your candidate variety	Denomination(s) of variety(ies) similar to your candidate variety
Example	[to be provided]		

Comments:

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

[#]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]