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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

UNION INTERNATIONALE POUR LA PROTECTION DES OBTENTIONS VÉGÉTALES

INTERNATIONALER VERBAND ZUM SCHUTZ VON PFLANZEN-ZÜCHTUNGEN

UNIÓN INTERNACIONAL PARA LA PROTECCIÓN DE LAS OBTENCIONES VEGETALES

DRAFT

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

GUZMANIA

(*Guzmania* Ruiz et Pav.*)*

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 *Guzmania* Ruiz et Pav. of the family Bromeliaceae.

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. As the seed loses its germination capacity within a few days it is a need to deliver plants instead of seed in this special case only. As a minimum, the following quantity of plant material is recommended:

50 young plants of commercial standard, pricked out at least twice.

2. The plant material supplied should be visibly healthy, not lacking in vigor or affected by any important pests or diseases.

3. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

III. Conduct of Tests

1. A test should normally be conducted for one growing period. If distinctness and/or uniformity cannot be sufficiently established in one growing period, the test should be extended for a second growing period.

2. The tests should normally be conducted at one place. If any important characteristics of the variety cannot be seen at that place, the variety may be tested at an additional place.

3. The tests should be carried out under conditions ensuring normal growth (conditions for the Northern Hemisphere).

Soil:	Well-drained fertile soil, with a high content of organic matter or organic substrate.
Temperature:	Minima of 21°C (day) and 19°C (night) are recommended.
Light:	During periods of high light intensity shading is necessary.
Flower induction:	When the plants have reached full growth the plants are treated with acethylene saturated water or Ethrel for flower induction.

The size of the plots should be such that plants or parts of plants may be removed for measurement and counting without prejudice to the observations which must be made up to the end of the growing period. Each test should include a total of 50 plants. Separate plots

for observation and for measuring can only be used if they have been subject to similar environmental conditions.

4. Additional tests for special purposes may be established.

IV. Methods and Observations

1. Unless otherwise stated, all observations should be made on typical organs of 50 plants at the time of full-flowering. All observations determined by measurement or counting should be made on 10 plants or parts taken from each of 10 plants.

2. For the assessment of uniformity in case of vegetatively propagated *Guzmania*, a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 50 plants, the maximum number of off-types allowed would be 3. In case of seed propagated *Guzmania*, the rules as given in TG/1/2 should be followed.

3. All observations on the leaves should be made on the largest leaves of the middle third of the rosette. All observations on the bract should be made on the largest bract.

4. Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerance set out in British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

V. Grouping of Varieties

1. The collection of varieties to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety. Their various states of expression should be fairly evenly distributed within the collection.

2. It is recommended that the competent authorities use the following characteristics for grouping varieties:

(a) Plant: height (inflorescence excluded) (characteristic 1)
(b) Inflorescence: position compared to position of the leaves (characteristic 15)
(c) Inflorescence: number of flowers per bract (characteristic 19)
(d) Bract: color of upper side (characteristic 24) with the following groups:
    Gr. 1: white
    Gr. 2: green
    Gr. 3: yellow
    Gr. 4: orange
    Gr. 5: orange red
    Gr. 6: purple pink
    Gr. 7: red
    Gr. 8: red purple
    Gr. 9: purple

VI. Characteristics and Symbols

1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.

2. Notes (numbers), for the purposes of electronic data processing, are given opposite the states of expression for each characteristic.

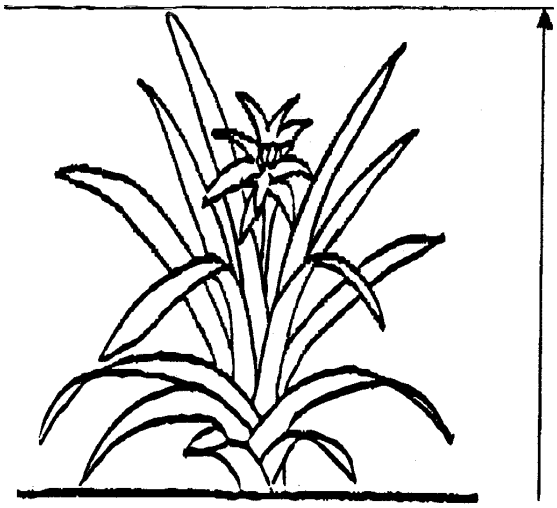
3. Legend

(*) Characteristics that should be used on all varieties in every growing period over which examinations are made and always be included in the variety descriptions, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

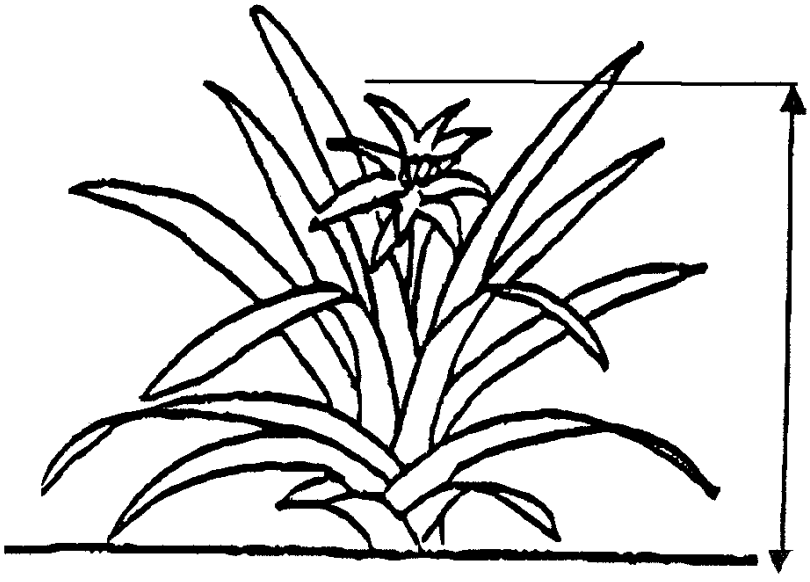
(+) See Explanations on the Table of Characteristics in Chapter VIII.

VIII. Explanations on the Table of Characteristics

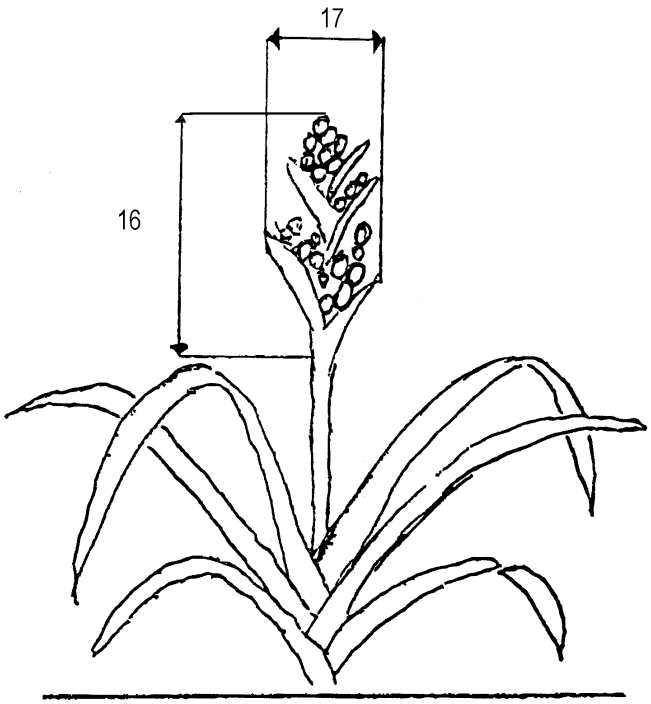
Ad. 1: Plant: height (inflorescence excluded)



Ad. 15: Inflorescence: length

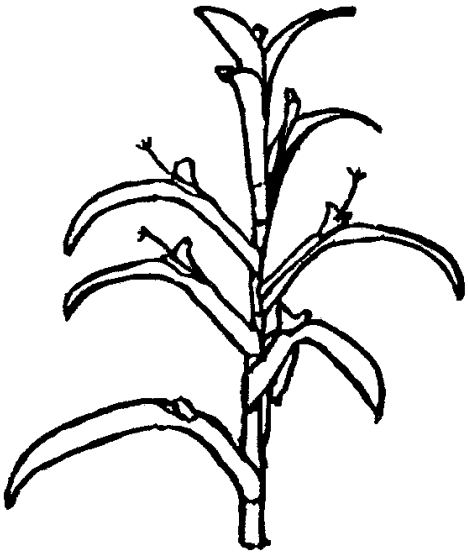


Ad. 16 and 17: Inflorescence: length of flowering part (16), diameter of flowering part (17)



Ad. 18: Inflorescence: number of bracts

Add. 19: Inflorescence: number of flowers per bract



1
one

2
more than one

IX. Literature

Baensch, U. and Baensch, U., 1994, Blooming Bromeliads, Tropic Beauty Publishers, Nassau/Bahamas, ISBN 0-9641056-0-8, BS.

Rauh, W., Bromelien, 1981.Verlag Eugen Ulmer, Stuttgart, ISBN 3-8001-6029-3, DE.

Rauh, W., The Bromeliad Lexicon, 1990, Blandford, London, GB.

X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)

TECHNICAL QUESTIONNAIRE
to be completed in connection with an application for plant breeders' rights

1.1	Genus	*Guzmania* Ruiz et Pav. GUZMANIA
1.2	Species	…….. (indicate species)

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

(a) Seedling (indicate parent varieties)

..... [ ]

(b) Mutation (indicate parent variety)

..... [ ]

(c) Discovery (indicate where and when)

..... [ ]

(d) Other (specify)

..... [ ]

4.2 Method of reproduction

– seed [ ]

– cuttings [ ]

– *in vitro* propagation [ ]

– other (state method) [ ]

4.3 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 (1)	**Plant: height (inflorescence excluded)**		
	very short	Mandarine	1[ ]
	short	Pax	3[ ]
	medium	Torch	5[ ]
	tall	Magenta	7[ ]
	very tall	*Guzmania bismarckii*	9[ ]
5.2 (14)	**Inflorescence: position compared to position of leaves**		
	below	*Guzmania sanguinea*, *Guzmania erythrolepis*	1[ ]
	same level	Mandarine	2[ ]
	above	Torch	3[ ]
5.3 (19)	**Inflorescence: number of flowers per bract**		
	one	Pax, Torch	1[ ]
	more than one	Cherry, Rana	2[ ]
5.4i (24)	**Bract: color of upper side**		
	RHS Colour Chart (indicate reference number) …….		

	Characteristics	Example Varieties	Note
5.4ii (24)	**Bract: color of upper side**		
	white	Bolero	1[ ]
	green	*Guzmania septata*	2[ ]
	yellow	Pax	3[ ]
	orange	Samba	4[ ]
	orange red	Jive	5[ ]
	purple pink	Gwendolyn, Lipstick	6[ ]
	red	Empire	7[ ]
	red purple	Amaranth	8[ ]
	purple	Papilio	9[ ]

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

A representative color photo of the variety should be added to the Technical Questionnaire.

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.

[End of document]