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### INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS GENEVA

#### **TECHNICAL WORKING PARTY FOR VEGETABLES**

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WORKING PAPER ON REVISED DRAFT TEST GUIDELINES FOR EGG PLANT (Solanum melongena L.)

Document prepared by the experts from the Netherlands

#### I. Subject of these Guidelines

These Test Guidelines apply to all varieties of Solanum melongena L.

#### II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the seed required for testing the variety is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must make sure that all customs formalities are complied with. The minimum quantity of seed to be supplied by the applicant in one or several samples should be:

10 g.

The seed should at least meet the minimum requirements for germination capacity, moisture content and purity for marketing certified seed in the country in which the application is made. The germination capacity should be as high as possible.

2. 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. The minimum duration of tests should normally be two independent growing cycles.
- 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. 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. As a minimum, each test should include 20 plants, which should be divided between two or more replicates. 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. All observations determined by measurement or counting should be made on 10 plants or parts of 10 plants.
- 2. For the assessment of uniformity a population standard of 2 % for open pollinated varieties and of 1 % for hybrid varieties with an acceptance probability of 95 % should be applied. In the case of 20 plants, the maximum number of off-types allowed would be 1 for hybrid varieties, whereas for open-pollinated varieties it would be 2.
- 3. Unless otherwise indicated, all observations on the plant and leaves should be made after the first node starts to flower and before the start of the harvest.

4. Unless otherwise indicated, all observations on the fruit should be made on the first normally developed fruits of trusses.

#### V. Grouping of Varieties

- 1. The collection to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety and which in their various states are fairly evenly distributed within the collection.
- 2. It is recommended that the competent authorities use the following characteristics for grouping varieties:
  - (i) Fruit: length (characteristic ..)
  - (ii) Fruit: ratio length/diameter (characteristic ..)
  - (iii) Fruit: general shape (characteristic ..)
  - (iv) Fruit: color of skin at commercial harvesting (characteristic ..)
  - (v) Fruit: stripes (characteristic ..)
  - (vi) Fruit: color of flesh (characteristic ..)

#### 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 (1 to 9), for the purposes of electronic data processing, are given opposite the states of the different characteristics.

#### 3. <u>Legend</u>:

- (\*) Characteristics that should be used every growing period for the examinations of all varieties and should always be included in the description of the variety, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.
- (+) See Explanations on the Table of Characteristics in chapter VIII.

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#### VII. <u>Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres</u>

	English	français	Deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	Seedling: anthocyanin coloration hypocotyl	of				
	Absent				Listada de Gandia	1
	Present				Baluroi, Bonica	9
2. mod	Seedling: int of anthoc coloration hypocotyl					
	Very weak				Whitegg	1
	Weak				Bonica	3
	Medium				Baluroi	5
	Strong				Larga Morada	7
	Very strong					9
3. mod	Plant: g	rowth				
	Erect				Pingtung Long, Violetta Lunga 2, Purpura, Baluroi	1
	Semi-erect				Ovana, Bonica	3
	Horizontal				Listada de Gandia, Slim Purple, Irene, Black Bell	5
4. mod	Plant: height					
	Very short					1
	Short				Adona, Monstrueuse de New York, Whitegg	3
	Medium				Tudela, Short Tom	5
	Tall				Avan, Baluroi	7
	Very tall				Nilo	9

	English	français	Deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. mod	Stem: length from cotyledons to nod of first flower					
	Very short				Ova	1
	Short				Dourga	3
	Medium				Bonica	5
	Long				De Barbentane	7
	Very long				Nilo	9
6.	Stem: anthocyanic coloration	n				
	Absent				Dourga	1
	Present				Baluroi	9
7. mod	Stem: intensity of anthocyanin coloration	f				
	Very weak				Dourga	1
	Weak				Bonica	3
	Medium				Baluroi	5
	Strong				Redonda de Valencia, Short Tom	7
	Very strong				Prosperosa	9
8. mod	Stem: pubescence					
	Weak				Black Oval, Baluroi	3
	Medium				Abrivado, Bonica	5
	Strong				Bolan, Estival, Mistral	7
9. de	l Branch: length o internodes	f				
	Short				Ebany	3
	Medium				Baluroi	5
	Long				Malibu	7

	English	français	Deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10. mod	Leaf blade: siz	ze				
	Very small					1
	Small				Short Tom	3
	Medium				Baluroi	5
	Large				Bonica	7
	Very large				Morisca	9
11. del	Leaf: margin					
	Entire					1
	Dentate					2
	Sinuate					3
12. mod	Leaf b sinuation margin	olade: of				
	Absent or very	weak			Baluroi, Bonica	1
	Weak				Adria	3
	Medium				Epic, Fabiola	5
	Strong				Niteking, Dalia, Tasca	7
	Very strong					9
13. mod	Leaf b	olade:				
	Absent or very	weak			Baluroi	1
	Weak				Ritmo	3
	Medium				Bonica	5
	Strong				Oria	7
	Very strong					9

	English	français	Deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14. del	Leaf spininess	blade:				
	Absent or very	weak			Bonica	1
	Weak				Baren	3
	Medium				Baluroi	5
	Strong				Larga Morada	7
	Very strong					9

	English	français	Deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
15. mod	Leaf blac intensity of gre color					
	Light				Black Beauty	3
	Medium				Bonica, Baluroi	5
	Dark				Purpura, Short Tom	7
New	Inflorescence: number of flower	·s				
	One to three					1
	More than three				Whitegg	2
New	Flower: size					
	Small				Cima viola	3
	Medium				Violetta di new York	5
	Large				Prosperosa	7
16. mod	Flower: intensity purple color	of				
	Light				Listada de Gandia	3
	Medium				Baluroi	5
	Dark				Redonda Negra	7
17. mod	Fruit: length					
	Very short				Whitegg	1
	Short				Birgah	3
	Medium				Cava	5
	Long				Mistral	7
	Very long				Indira, Slim Purple	9

18. mod	Fruit: maximum diameter		
	Very small	Slim Purple, Whitegg	1
	Small	Mistral, Indira	3
	Medium	Cava	5
	Large	Bonica	7
	Very large	Birgah	9
19. mod	Fruit: ratio length/maximum diameter		
	Very small	Kermit, Birgah	1
	Small	Bonica	3
	Medium	Cava	5
	Large	Mistral	7
	Very large	Indira, Slim Purple	9
20. mod	Fruit: shape		
	Globular	Kermit, Purpura, Violetta di New York	1
	Ovoid	Whitegg, Beatrice	2
	Drop shaped	Oria, Black King	3
	Pear shaped	Listada de Gandia	4
	Club shaped	Mileda, Baluroi, Solara	5
	Elliptipsoid	Volta	6
	Cylindric	Slim Purple, Tango, Mirabelle	7

21. mod	Fruit: size of pistil scar		
	Very small	Whitegg	1
	Small	Baluroi	3
	Medium	Bonica	5
	Large	Semi Redonda Negra	7
	Very large	Purpura	9
22. mod	Fruit: shape of apex		
	Indented		1
	Flattened	Prosperosa	2
	Rounded	Baluroi	3
	Obtuse	Short Tom, Slim Purple	4
23. new	Fruit: depth of indentation of pistil scar		
	Absent or very shallow		1
	Shallow		3
	Medium		5
	Deep		7
	Very deep		9
24.	Fruit: curvature (only for cylindrical types)		
	Absent or very weak		1
	Weak		3
	Medium		5
	Strong		7
	Very strong		9

25. mod	Fruit: main color of skin at harvest maturity		
	White	Dourga	1
	Green	Kermit	2
	Red Violet	Purpura,	3
	Blue violet	Baluroi, Bride	4
New	Fruit: development of main color of skin at harvest maturity		
	Even	Baluroi	1
	Gradual	Kermit, Purpura	2
26. mod	Fruit: intensity of main color of skin (except for white; as for 25)		
	Very light		1
	Light	Bride	3
	Medium	Purpura	5
	Dark		7
	Very dark	Faselis	9
27.	Fruit: stripes		
	Absent	Baluroi	1
	Present	Bandera	9
New	Fruit: patches		
	Absent	Baluroi	1
	Present	Kermit, Galine	9
New	Fruit: prominence of stripes		
	Weak	Bride	3
	Medium		5
	Strong	Bandera	7

New	Fruit: conspicuity of patches		
	weak	Galine	3
	Medium		5
	strong	Kermit	7
28.	Fruit: density of stripes		
	Sparse		3
	Medium		5
	Dense	Bandera	7
29.	Fruit: glossiness at harvest maturity		
	Weak	Short Tom	3
	Medium	Baluroi	5
	Strong	Elisa	7
30. del	Fruit: ribs		
	Absent	Reina Negra	1
	Present	Monstrueuse de New York	9
31. del	Fruit: prominence of ribs		
	Weak		3
	Medium	Redonda Morada	5
	Strong	Semi Redonda Negra	7
New	Fruit: ribs		
	Absent or very weak	Reina Negra, Bonica	1
	Weak	Bibo	3
	Medium	Redonda Morada	5
	Strong	Black Beauty	7
	Very strong		9

33.	Fruit: anthocyanin coloration underneath calyx		
	Absent	Pingtung Long, Ronde d Valence	e 1
	Present	Baluroi	9
34. del	Fruit: intensity of anthocyanin coloration <u>below</u> calyx		
	Weak	Short Tom	3
	Medium	Black beauty	5
	Strong	Baluroi	7
new	Fruit: length of peduncle		
	Very short	Golden Eggs	1
	Short	Globo	3
	Medium	Madonna	5
	Long	Telar	7
	Very long	Adria, Avan	9
32. mod	Fruit: size of calyx		
	Very small	Whitegg	1
	Small	Dourga	3
	Medium	Baluroi	5
	Large	Larga Morada	7
	Very large	Solara	9
35.	Fruit: anthocyanin coloration of calyx		
	Absent	Dourga	1
	Present	Short Tom	9

36.	Fruit: intensity of anthocyanin coloration of calyx		
	Very weak	Dourga	1
	Weak	Baluroi	3
	Medium	Mileda	5
	Strong	De Barbentane	7
	Very strong	Ronde de Valence, Short Tom	9
37.	Fruit: spininess of calyx		
	Absent or very weak	Freia	1
	Weak	Bonica	3
	Medium	Baluroi	5
	Strong	Bibo	7
	Very strong		9
New	Fruit: creasing of calyx		
	Very weak		1
	Weak	Telar	3
	Medium	Bonica	5
	Strong	Talina	7
	Very strong	Linda	9
38.	Fruit: color of flesh		
	Whitish	Dourga	1
	Greenish	Baluroi	2
39. mod	Fruit: color of skin at physiological ripeness		
	Yellow	Dourga	1
	Orange	Comprido Verde Claro	2
	Ochre	Adria, Vernal	3
	Brown	Baluroi, Abrivado	4

40.	Time of beginning of flowering		
	Early	Prelane	3
	Medium	Bonica	5
	Late	Monstrueuse de New York	7
41.	Time of physiological ripeness		
	Early	Dourga, Prelane	3
	Medium	Bonica	5
	Late	Monstrueuse de New York	7

VIII. <u>Explanations on the Table of Characteristics/Explications du tableau</u> <u>des caractères/Erklärungen zu der Merkmalstabelle</u>

#### IX. <u>Literature/Littérature/Literatur</u>

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