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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

PEPINO

UPOV Code(s): SOLAN_MUR

Solanum muricatum Aiton

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by experts from Japan
 to be considered by the
 Technical Working Party for Vegetables
 at its fifty-first session, to be held in Roelofarendsveen, Netherlands,
 from 2017-07-03 to 2017-07-07*

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>Solanum muricatum</i> Aiton, <i>Solanum muricatum</i> L'Hér. ex Ait.	Melon-pear, Pepino	Poire-melon	Melonenbirne, Pepino	Pepino, Pepino dulce, Peramelón

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 *Solanum muricatum* Aiton.

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 plants.

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

25 plants

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*

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.

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 20 plants, which should be divided between at least 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 *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 or parts of plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 10 plants or parts of plants taken from each of 10 plants and any other observations made on all plants in the test, disregarding any off-type plants.

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 For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, 1 off-type is 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 further examined by testing a new seed or plant 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) Leaf: type (characteristic 4)
- (b) Fruit: shape in longitudinal section (characteristic 17)
- (c) Fruit: ground color (characteristic 21)
- (d) Fruit: area of stripes (characteristic 22)
- (e) Fruit: color of flesh (characteristic 24)

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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1	2	3	4	5	6	7	
		Name of characteristics in English	Nom du caractère en français	Name des Merkmals auf Deutsch	Nombre del carácter en español		
		states of expression	types d'expression	Ausprägungsstufen	tipos de expresión		

- 1 Characteristic number
- 2 (*) Asterisked characteristic – see Chapter 6.1.2
- 3 Type of expression
 - QL Qualitative characteristic – see Chapter 6.3
 - QN Quantitative characteristic – see Chapter 6.3
 - PQ Pseudo-qualitative characteristic – see Chapter 6.3
- 4 Method of observation (and type of plot, if applicable)
 - MG, MS, VG, VS – see Chapter 4.1.5
- 5 (+) See Explanations on the Table of Characteristics in Chapter 8.2
- 6 (a)-(d) See Explanations on the Table of Characteristics in Chapter 8.1
- 7 Not applicable

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

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	(*)	QN	MS/VG	(a)			
		Plant: height	Plante: hauteur	Pflanze: Höhe	Planta: altura		
		short	basse	niedrig	baja		3
		medium	moyenne	mittel	media	Gold No.1	5
		tall	haute	hoch	alta	MONROU DANCE	7
2.		QN	VG	(+)	(a)		
		Stem: anthocyanin coloration	Tige: intensité de la pigmentation anthocyanique	Stiel: Intensität der Anthocyanfärbung	Tallo: intensidad de la pigmentación antocianica		
		absent or weak				APPULINMIMI	1
		medium				Gold No.1	2
		strong				GOLD BOY	3
3.		QN	VG	(a)			
		Stem: pubescence	Tige : pilosité	Stengel: Behaarung	Tallo: pubescencia		
		absent or sparse					1
		medium				MONROU DANCE	2
		dense				Gold No.1	3
4.	(*)	QL	VG	(+)	(a)		
		Leaf: type	Feuille: type	Blatt: Typ	Hoja: tipo		
		simple				Gold No.1	1
		compound				HELLOEVENING	2

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. (*)	QN	MS/VG	(+)	(a)				
	Leaf: length		Feuille: longueur		Blatt: Länge	Hoja: longitud		
	short		courte		kurz	corta		3
	medium		moyenne		mittel	media	Gold No.1	5
	long		longue		lang	larga	APPULINMIMI	7
6. (*)	QN	MS/VG	(+)	(a)				
	Leaf: width		Feuille: largeur		Blatt: Breite	Hoja: anchura		
	narrow		étroite		schmal	estrecha		3
	medium		moyenne		mittel	media	Gold No.1	5
	broad		large		breit	ancha		7
7.	QN	VG	(+)	(a)				
	Leaf: intensity of anthocyanin coloration of midrib							
	absent or weak						MONROU DANCE	1
	medium						HELLOEVENING	2
	strong							3
8. (*)	PQ	VG	(+)	(a)				
	Leaf blade: shape		Limbe: forme		Blattspreite: Form	Limbo: forma		
	broad lanceolate						Gold No.1	1
	medium lanceolate							2
	circular							3
	elliptic						GOLD BOY	4

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9.	QN	VG	(a)					
	Leaf blade: intensity of green color		Limbe: intensité de la couleur verte		Blattspreite: Intensität der Grünfärbung	Limbo: intensidad del color verde		
	light		claire		hell	clara		3
	medium		moyenne		mittel	media		5
	dark		foncée		dunkel	oscura	Gold No.1	7
10.	QN	MS/VG	(+)	(a)				
	Inflorescence: number of flowers		Inflorescence : nombre de fleurs		Blütenstand: Anzahl der Blüten	Inflorescencia: número de flores		
	few							1
	medium						Gold No.1	2
	many						HELLOEVENING	3
11.	QN	MS/VG	(+)	(a)				
	Flower: width		Fleur : diamètre		Blüte: Durchmesser	Flor: diámetro		
	narrow							3
	medium		moyen		mittel	medio	Gold No.1	5
	broad							7
12. (*)	PQ	VG	(+)	(a)				
	Flower: main color of upper side		Fleur: couleur principale de la partie supérieure		Blüte: Hauptfarbe der Oberseite	Flor: color principal de la parte superior		
	white						Gold No.1	1
	yellowish white							2
	yellow							3
	light purple							4
	medium purple							5
	dark purple							6

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13.	PQ	VG	(+)	(a)				
	Flower: secondary color of upper side							
	white							1
	yellowish white							2
	yellow							3
	light purple							4
	medium purple						Gold No.1	5
	dark purple							6
14. (*)	PQ	VG		(b)				
	Young fruit: ground color of skin							
	white						HELLOEVENING	1
	yellow							2
	light green						Gold No.1	3
	medium green						MONROU DANCE	4
	dark green							5
15. (*)	QN	MS/VG	(+)	(c)				
	Fruit: length		Fruit: longueur	Frucht: Länge	Fruto: longitud			
	short							3
	medium						Gold No.1	5
	long							7

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16. (*)	QN	MS/VG	(+)	(c)				
	Fruit: diameter	Fruit: diamètre maximum	Frucht: maximaler Durchmesser	Fruto: diámetro máximo				
	small							3
	medium					Gold No.1		5
	large							7
17. (*)	PQ	VG	(+)	(c)				
	Fruit: shape in longitudinal section							
	broad ovate							1
	medium ovate					MONROU DANCE		2
	circular					Gold No.1		3
	oblong							4
	elliptic							5
18. (*)	QN	VG	(+)	(c)				
	Fruit: depth of stalk cavity	Fruit: profondeur de la cavité du pédoncule	Frucht: Tiefe der Stielgrube	Fruto: profundidad de la cavidad peduncular				
	shallow					Gold No.1		1
	medium					APPULINMIMI		3
	deep							5
19. (*)	PQ	VG	(+)	(c)				
	Fruit: shape of apex	Fruit : forme du sommet	Frucht: Form der Spitze	Fruto: forma del ápice				
	acute					MONROU DANCE		1
	rounded					Gold No.1		2
	truncate							3
	retuse							4

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20.	QN	MS/VG	(+)	(c)				
	Fruit: calyx size compared to diameter of fruit							
	small							3
	medium						Gold No.1	5
	large							7
21. (*)	PQ	VG	(+)	(d)				
	Fruit: ground color							
	white							1
	light yellow						GOLD BOY	2
	medium yellow						Gold No.1	3
	orange							4
	purple							5
22. (*)	QN	VG	(+)	(d)				
	Fruit: area of stripes							
	absent or very small							1
	small						Gold No.1	3
	medium							5
	large						APPULINMIMI	7
23. (*)	PQ	VG		(d)				
	Fruit: color of stripes							
	light purple							1
	medium purple						Gold No.1	2
	dark purple						APPULINMIMI	3
	greyish purple							4

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24. (*)	PQ	VG	(c)				
	Fruit: color of flesh	Fruit: couleur de la chair	Frucht: Farbe des Fruchtfleisches	Fruto: color de la pulpa			
	white	blanche	weiß	blanco			1
	light yellow						2
	medium yellow				Gold No.1		3
	yellowish green				MONROU DANCE		4
	green						5
	orange						6
25.	QN	VG	(+)	(c)			
	Fruit: firmness of flesh	Fruit: fermeté de la chair	Frucht: Festigkeit des Fleisches	Fruto: firmeza de la pulpa			
	soft	molle	weich	blanda	MONROU DANCE		1
	medium	moyenne	mittel	media	Gold No.1		2
	firm	ferme	fest	firme	APPULINMIMI		3
26. (*)	QN	MS	(+)	(c)			
	Time of harvest maturity	Époque de la récolte	Zeitpunkt der Ernte	Época de la cosecha			
	early	précoce	früh	temprana	HELLOEVENING		3
	medium	moyenne	mittel	media	Gold No.1		5
	late	tardive	spät	tardía	APPULINMIMI		7

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

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

- (a) Observations on the plant, stems, leaves and flowers should be made on flowering of second inflorescence.
- (b) Observations on the young fruits should be made on fruits 20-30 days after opening of the flower, before the stripes development, the ground color change.
- (c) Observations on the fruit should be made on fruits at harvest maturity.
- (d) Observations on the ground color and stripes of the fruit should be made on fully developed fruits before the color change due to ripening.

8.2 *Explanations for individual characteristics*

Ad. 2: Stem: anthocyanin coloration

The anthocyanin coloration of the stem should be observed in the middle third of the primary stem.

Ad. 4: Leaf: type

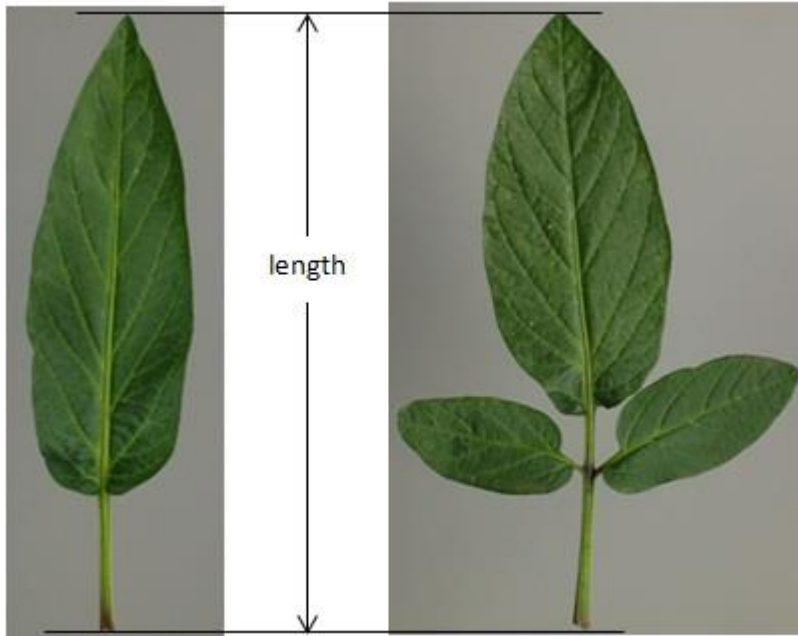


1
simple

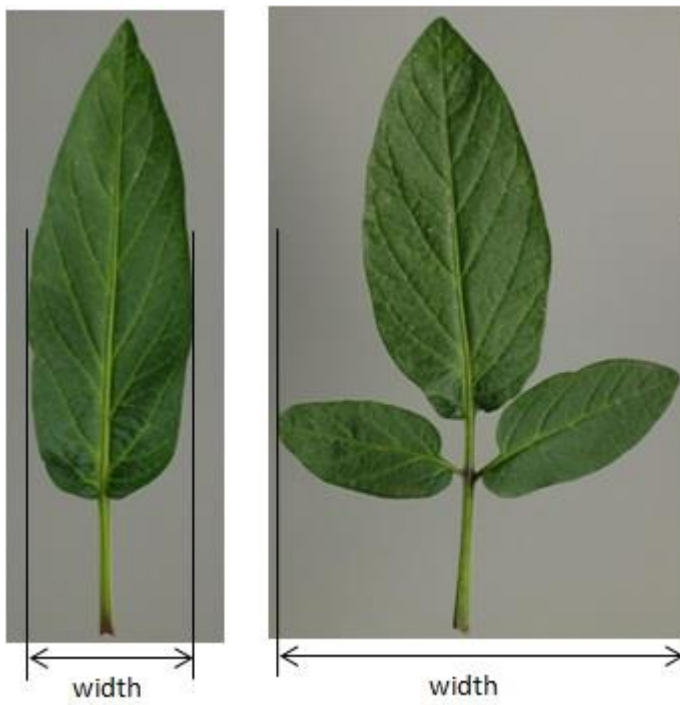


2
compound

Ad. 5: Leaf: length



Ad. 6: Leaf: width







Ad. 7: Leaf: intensity of anthocyanin coloration of midrib

The anthocyanin coloration of the midrib should be observed on the lower side of the leaf.

Ad. 8: Leaf blade: shape

In the case of varieties with compound leaves, observation should be made on the terminal leaflet.

	← broadest part →		
	below middle	at middle	above middle
width (ratio length/width)			
narrow (high)	 2 medium lanceolate		
medium (medium)	 1 broad lanceolate	 4 elliptic	
broad (low)		 3 circular	

Ad. 10: Inflorescence: number of flowers

The total number of flowers should be assessed, including flower buds, open flowers, and faded flowers.

one to five

1
few

six to ten

2
medium

more than ten

3
many

Ad. 11: Flower: width



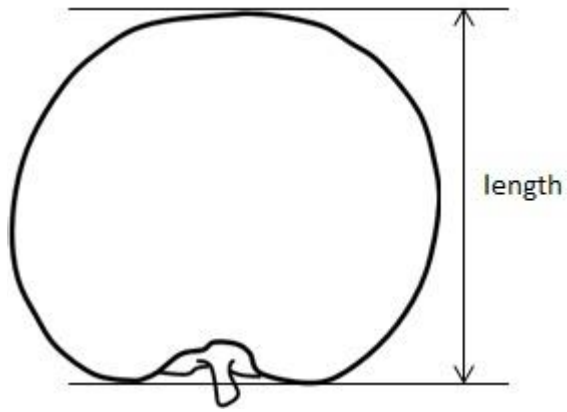
Ad. 12: Flower: main color of upper side

The main color is the color with the largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color.

Ad. 13: Flower: secondary color of upper side

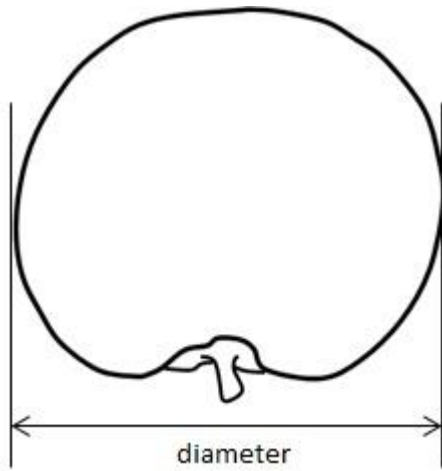
The secondary color is the color with the second largest surface area.

Ad. 15: Fruit: length

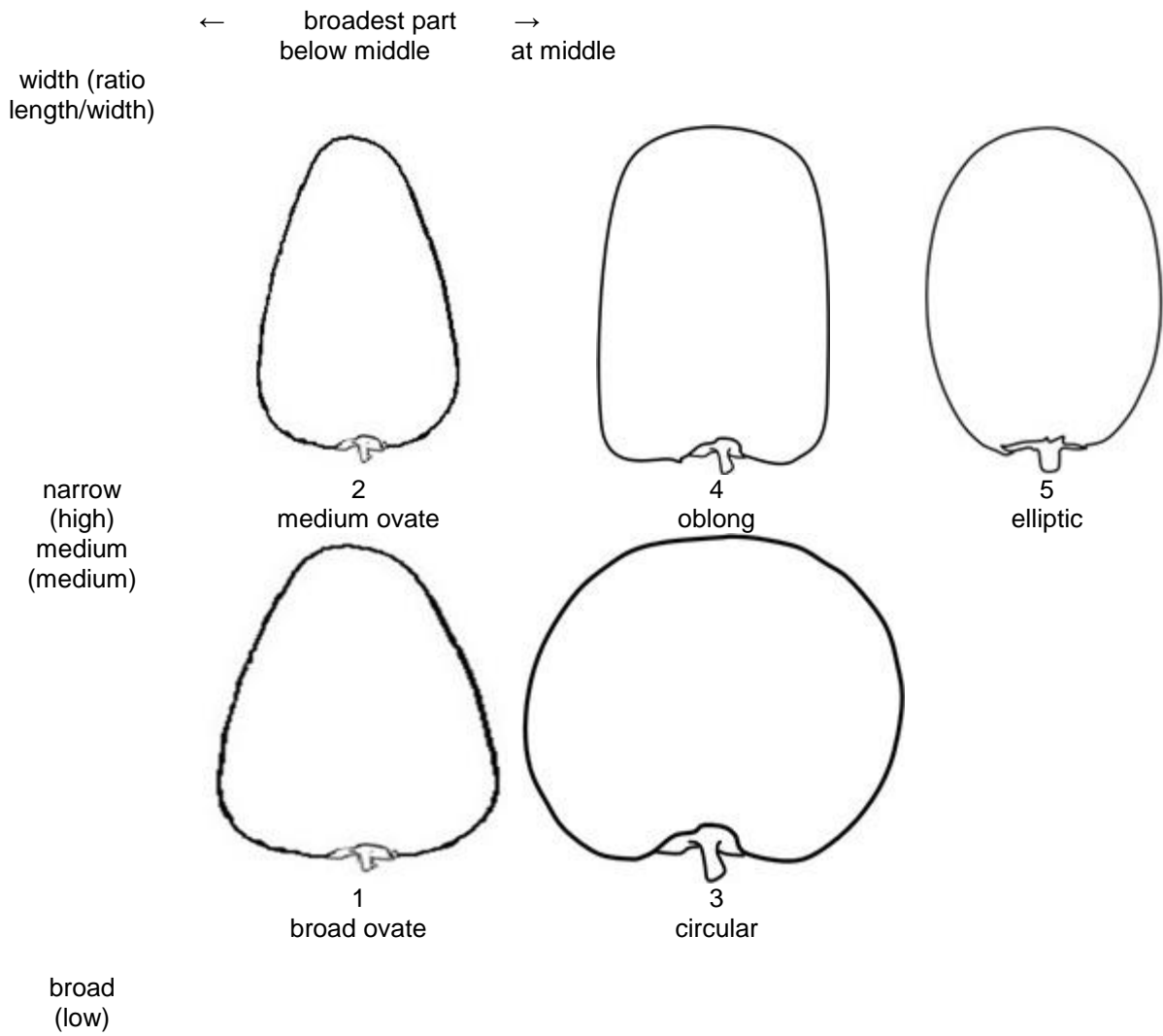


Ad. 16: Fruit: diameter

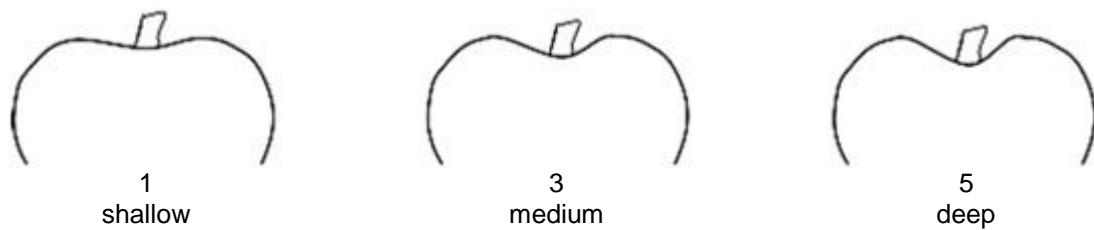
The diameter of the fruit should be observed at the broadest part.



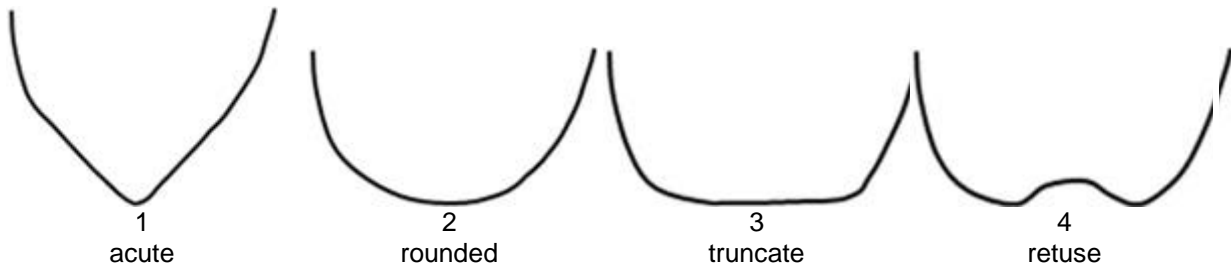
Ad. 17: Fruit: shape in longitudinal section



Ad. 18: Fruit: depth of stalk cavity

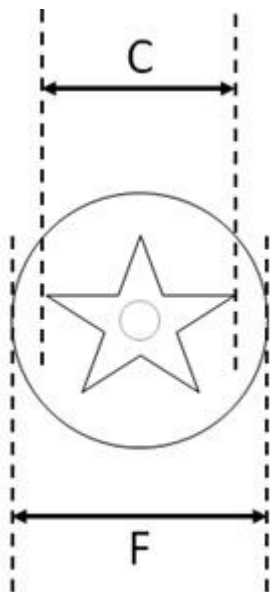


Ad. 19: Fruit: shape of apex



Ad. 20: Fruit: calyx size compared to diameter of fruit

The calyx size should be assessed by the ratio of "the calyx width / the maximum diameter of fruit".



calyx size compared to diameter of fruit = C/F

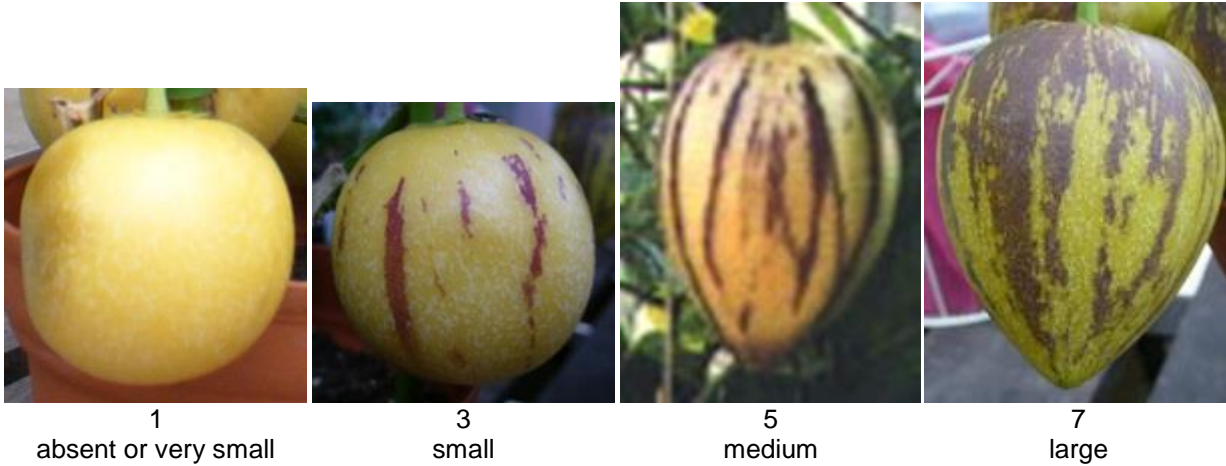
Ad. 21: Fruit: ground color

The ground color is not always the color occupying the largest surface area of the plant part concerned. For certain organs having two layers of tissue containing color pigmentation, and one layer is covering the other on the upper side of the organ it may be appropriate to determine the ground color by observing the main color of the lower side of the organ.

The ground color is the first color to appear chronologically during the development of the plant part. Other colors may develop in time in the form of stripes.

Ad. 22: Fruit: area of stripes

To be observed by comparing the area of the stripes to the surface area of the fruit.



Ad. 25: Fruit: firmness of flesh

The firmness should be assessed by hand comparing it to the firmness of the example varieties. It should be assessed by pressing the center of flesh of the fruit which is cut to half horizontally.

Ad. 26: Time of harvest maturity

The time of harvest maturity should be assessed measuring the days from flowering to harvesting of the ripened fruit. The decision that fruit became ripe should be made in consideration of ground color and stripes color of the fruit.

9. Literature

Ministry of Agriculture, Forestry & Fisheries of Japan., 2013: National Test Guideline for Pepino.

Bioversity., 2004: Descriptors for Pepino (*Solanum muricatum*). Bioversity International.

Yoshiteru SAKATA., 1988: Nougyou-gijutsu-taiei Yasai-hen 11. Shadanhojin Nousan-gyoson-bunkakyokai. Tokyo, Japan. pp.551-555

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="Solanum muricatum Aiton"/>
1.2	Common name	<input type="text" value="Melon-pear, Pepino"/>
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
- (b) partially known cross
- (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)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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4.2	Method of propagating the variety	
4.2.1	Vegetative propagation	
(a)	Cuttings	[]
(b)	<i>In vitro</i> propagation	[]
(c)	Other (state method)	[]
	<input type="text"/>	
4.2.2	<u>Please Specify</u>	[]
	<input type="text"/>	
4.2.3	Other (Please provide details)	[]
	<input type="text"/>	

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: type (4)		
simple	Gold No.1	1 []
compound	HELLOEVENING	2 []
5.2 Fruit: shape in longitudinal section (17)		
broad ovate		1 []
medium ovate	MONROU DANCE	2 []
circular	Gold No.1	3 []
oblong		4 []
elliptic		5 []
5.3 Fruit: ground color (21)		
white		1 []
light yellow	GOLD BOY	2 []
medium yellow	Gold No.1	3 []
orange		4 []
purple		5 []
5.4 Fruit: area of stripes (22)		
absent or very small		1 []
very small to small		2 []
small	Gold No.1	3 []
small to medium		4 []
medium		5 []
medium to large		6 []
large	APPULINMIMI	7 []
large to very large		8 []
very large		9 []
5.5 Fruit: color of flesh (24)		
white		1 []
light yellow		2 []
medium yellow	Gold No.1	3 []
yellowish green	MONROU DANCE	4 []
green		5 []
orange		6 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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 your candidate variety
<i>Example</i>	<i>Fruit: shape in longitudinal section</i>	<i>circular</i>	<i>elliptic</i>
Comments:			

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

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

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".

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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]