



TG/119/5(proj.1)
ORIGINAL: English
DATE: 2026-04-02

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

VEGETABLE MARROW

UPOV Code(s): CUCUR_PEP

Cucurbita pepo L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Austria

to be considered by the

*Technical Working Party for Vegetables at its sixtieth session,
to be held in Pacific Grove, California, United States of America from 2026-05-18 to 2026-05-21*

Disclaimer: this document does not represent UPOV policies or guidance

Alternative Names:*

Botanical name	English	French	German	Spanish
<i>Cucurbita pepo</i> L.	Vegetable Marrow, Squash	Courgette	Zucchini	Calabacín

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 *Cucurbita pepo* 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 seeds.

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

200g or 1000 seeds

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*

3.1.1 The minimum duration of tests should normally be two independent growing cycles.

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

3.1.3 The testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test.

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 reference in the Table of Characteristics. The stages of development denoted by each reference are described in Chapter 8.

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 taken from each of 10 plants and any other observations made on all plants in the test, disregarding any off-type plants.

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.

For testing the resistance to certain pathogens, unless otherwise indicated, the test should be performed on at least 20 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 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 These Test Guidelines have been developed for the examination of seed-propagated varieties. For varieties with other types of propagation, the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.

4.2.3 The assessment of uniformity for open-pollinated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.

4.2.4 The assessment of uniformity for hybrid varieties depends on the type of hybrid and should be according to the recommendations for hybrid varieties in the General Introduction.

4.2.5 For the assessment of uniformity of hybrid varieties and inbred lines, 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.

4.2.6 For the assessment of uniformity of open-pollinated varieties, a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, 2 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 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: growth habit (characteristic 4)
- (b) Plant: degree of branching (characteristic 6)
- (c) Leaf blade: relative area covered by silvery patches (characteristic 15)
- (d) Fruit: general shape (characteristic 31)
- (e) Fruit: main color of skin (excluding color of dots, patches, stripes and bands) (characteristic 56)

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 All relevant states of expression are presented in the characteristic.

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 (*) sterisked 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)-(h) See Explanations on the Table of Characteristics in Chapter 8.1
- 7 Not applicable

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

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	PQ	VG	(+)	(a)				
	Seedling: shape of cotyledons							
	narrow elliptic						Bianchini	1
	medium elliptic						Cora, Tivoli	2
	broad elliptic						Cinderella, Goldi	3
	circular						Yellow Crookneck	4
	obovate							5
2.	QN	VG		(a)				
	Seedling: intensity of green color of cotyledons							
	very light						Sunburst	1
	light						Bianchini	3
	medium						Cora	5
	dark						Lidia	7
	very dark						Saray	9
3.	QN	VG	(+)	(a)				
	Seedling: cross section of cotyledons							
	concave							1
	straight						Sunburst	2
	convex						Bianchini, Yellow Crookneck	3
4.	QL	VG		(b)				
	Plant: growth habit							
	bush						Greyzini	1
	trailing						Becky, Cinderella, Everest, Long Green Trailing, Twickers	2
5.	QN	VG		(b)				
	Only varieties with Plant: growth habit: trailing; Plant: length of trail							
	short							1
	medium							2
	long							3

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	QN	VG		(b)				
	Plant: degree of branching							
	absent or very weak						Cora, Goldi	1
	weak						Karioka, Verdi	3
	medium						Goldrush, Tivoli	5
	strong						Blanche non coureuse 3, Jack O'Lantern, Yellow Crookneck	7
	very strong						Patty Green Tint, Sweet Dumpling	9
7.	QN	VG		(c)				
	Only varieties with Plant: growth habit: bush; Plant: attitude of petiole (excluding lower external leaves)							
	erect						Blanche non coureuse 3, Yellow Crookneck	1
	erect to semi erect						Sardane	2
	semi erect						Arlesa	3
	semi erect to horizontal						Goldi	4
	horizontal						Ambassador	5
8.	PQ	VG		(b)				
	Stem: color							
	completely green						Becky	1
	partly green and partly yellow						Autumn Gold	2
9.	QN	VG		(b)				
	Stem: intensity of green color							
	very light						Maayan	1
	light						Bianchini	3
	medium						Cinderella	5
	dark						Greyzini	7
	very dark						Goldrush	9
10.	QL	VG		(b)				
	Stem: mottling							
	absent						Cinderella	1
	present						Cora	9
11.	QL	VG		(b)				
	Stem: tendrils							
	absent to rudimentary						Goldrush, Sylvana	1
	well developed						Baby Bear, Greyzini	2

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
12.	QN	VG		(c)				
	Leaf blade: size							
	very small						Becky	1
	small						Small Sugar	3
	medium						Ambassador	5
	large						Kriti	7
	very large							9
13.	QN	VG	(+)	(c)				
	Leaf blade: incisions							
	absent or very shallow						Scallopini	1
	shallow						Everest	3
	medium						Jackpot	5
	deep						Civac	7
	very deep						Isotta	9
14.	QN	VG		(c)				
	Leaf blade: intensity of green color of upper surface							
	light						Ghazzi	3
	medium						Cora	5
	dark						Everest	7
15.	QN	VG		(c)				
	Leaf blade: relative area covered by silvery patches							
	absent or very small						Albo, Black Forest, Scallopini	1
	small						Aziz	3
	medium						Ambassador	5
	large						Cora	7
	very large						Summerstar	9
16.	QN	VG		(c)				
	Petiole: length							
	short						Jack be Little, Karioka	3
	medium						Goldi	5
	long						Autumn Gold, Baikal	7

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
17.	QN	VG		(c)				
	Petiole: number of prickles							
	absent or very few						Kojac	1
	few						Opaline	3
	medium						Spidy	5
	many						White Bush Scallop	7
	very many						Yellow Summer Crookneck	9
18.	QN	MG	(+)					
	Time of flowering of female flower							
	early							3
	medium							5
	late							7
19.	QN	MG	(+)					
	Time of flowering of male flower							
	early							3
	medium							5
	late							7
20.	PQ	VG		(d)				
	Female flower: ring at inner side of corolla							
	predominantly absent						Cinderella, Greyzini	1
	predominantly present						Aurore	9
21.	PQ	VG		(d)				
	<u>Only varieties with Female flower: ring at inner side of corolla: predominantly present:</u> Female flower: color of ring at inner side of corolla							
	yellow						Diamant, Patro	1
	green						Aurore, Early White Bush Scallop, President	2
	yellow and green						Pueblo	3

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22.	QN	VG		(d)				
	Only varieties with Female flower: green ring at inner side of corolla: Female flower: intensity of green color of ring at inner side of corolla							
	weak						Maya, Sardane	3
	medium						Samba, Senator	5
	strong						Aristocrat, Diamant	7
23.	PQ	VG		(d)				
	Male flower: ring at inner side of corolla							
	predominantly absent						Bianchini	1
	predominantly present						Goldi	9
24.	PQ	VG		(d)				
	Only varieties with Male flower: ring at inner side of corolla: predominantly present: Male flower: color of ring at inner side of corolla							
	yellow						Afrodite, Patro, Zyzo	1
	green						Austral, Belor, Goldi	2
	yellow and green						Alice, Carmina, Green Gem, Ibis	3
25.	QN	VG		(d)				
	Only varieties with Male flower: green ring at inner side of corolla: Male flower: intensity of green color of ring at inner side of corolla							
	weak						Cora	3
	medium						Verdi	5
	strong						Goldi	7
26.	QN	VG		(e)				
	Only Zucchini type varieties: Young fruit: ratio length / maximum diameter							
	very small						Ghazzi	1
	small						Opal	3
	medium						Cora	5
	large						Carlotta	7
	very large						Spidy	9

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
27.	PQ	VG	(+)	(e)				
	Only Zucchini and Rounded Zucchini type varieties: Young fruit: general shape							
	globular						De Nice à Fruit Rond	1
	pear shaped						Clarita	2
	tapered elliptical						Top Kapi	3
	elliptical						Table Dainty	4
	cylindrical						Ambassador, Ibis	5
	tapered cylindrical							6
28.	PQ	VG		(e)				
	Young fruit: main color of skin (excluding color of dots, patches, stripes and bands)							
	white						White Bush Scallop	1
	cream						Tivoli	2
	yellow						Goldi	3
	orange							4
	green						Elite, Opal, Romano	5
	partly white and partly yellow							6
	partly white and partly green							7
	partly yellow and partly green						Sunburst, Zephyr	8
29.	QN	VG		(e)				
	Only varieties with Young fruit: main color of skin: yellow: Young fruit: intensity of yellow color of skin (as for 28)							
	light							3
	medium							5
	dark							7

	English		français		deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
30.	QN	VG		(e)				
	Only varieties with Young fruit: main color of skin: green; Young fruit: intensity of green color of skin (as for 28)							
	very light						Clarita, Goya, Patty Green Tint	1
	light						Arlika	3
	medium						Baccara	5
	dark						Arlesa, Sandra, Zefira	7
	very dark						Carnaval, Corsair	9
31.	PQ	VG	(+)	(f)				
	Fruit: general shape							
	disc shaped							1
	transverse elliptical							2
	transverse broad elliptical							3
	globular							4
	top shaped							5
	broad elliptical							6
	ovate							7
	elliptical							8
	cylindrical							9
	pear shaped							10
	bottle shaped							11
	club shaped							12
32.	QN	VG		(f)				
	Only Scallop type varieties: Fruit: length							
	short						Bennings Green Tint	3
	medium						Sunburst	5
	long						Yellow Bush Scallop	7
33.	QN	VG		(f)				
	Only Acorn type varieties: Fruit: length							
	short						Table Gold	3
	medium						Swan White Acorn	5
	long						Ebony Table Queen	7

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
34.	QN	VG		(f)				
	Only Neck type varieties: Fruit: length							
	short						Wryneck	3
	medium						Yellow Summer Crookneck	5
	long						Sunbar	7
35.	QN	VG		(f)				
	Only Zucchini type varieties: Fruit: length							
	very short						Jericho	1
	short						Jedida	3
	medium						Cora	5
	long						Carlotta	7
	very long						Altea	9
36.	QN	VG		(f)				
	Only Scallop type varieties: Fruit: maximum diameter							
	small						Scallopini	3
	medium						Yellow Bush Scallop	5
	large						White Bush Scallop	7
37.	QN	VG		(f)				
	Only Acorn type varieties: Fruit: maximum diameter							
	small						Table Gold	3
	medium						Table King	5
	large						Swan White Acorn	7
38.	QN	VG		(f)				
	Only Zucchini type varieties: Fruit: maximum diameter							
	small						Goldi	3
	medium						Opal	5
	large						Jericho, Spidi	7

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
39.	QN	VG		(f)				
	Only Scallop type varieties: Fruit: ratio length / maximum diameter							
	small						White Bush Scallop	3
	medium						Scallopini	5
	large						Sunburst	7
40.	QN	VG		(f)				
	Only Acorn type varieties: Fruit: ratio length / maximum diameter							
	small						Heart of Gold	3
	medium						Table Gold	5
	large						Table King	7
41.	QN	VG		(f)				
	Only Zucchini type varieties: Fruit: ratio length / maximum diameter							
	very small						Jericho	1
	small						Jedida	3
	medium						Cora	5
	large						Carlotta	7
	very large						Tarquinio	9
42.	QN	VG		(f)				
	Only Pumpkin type varieties: Fruit: size							
	very small						Wee-B-Little	1
	small						Peek-a-Boo	3
	medium						Spirit	5
	large						Ghost Rider	7
	very large						Howden	9
43.	QN	VG		(f)				
	Only Rondini type varieties: Fruit: size							
	small						Pomme d'Or	3
	medium						Rolet	5
	large						Little Gem	7

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
44.	QN	VG		(f)				
	Only Oilpumpkin type varieties: Fruit: size							
	small							3
	medium							5
	large							7
45.	QN	VG		(f)				
	Only Miniature Pumpkin type varieties: Fruit: peduncle end							
	straight						Sweetie Pie	1
	concave						Jack Be Little	2
46.	QN	VG		(f)				
	Only Scallop type varieties: Fruit: protrusion of equatorial margin							
	weak						Scallopini	3
	medium						Sunburst	5
	strong						White Bush Scallop	7
47.	QN	VG		(f)				
	Only Scallop type varieties: Fruit: position of equatorial margin							
	at the middle						Sunburst	1
	towards stem end						Golden Bush Scallop	2
48.	QN	VG		(f)				
	Only Scallop type varieties: Fruit: peduncle end							
	straight						White Bush Scallop	1
	convex						Yellow Bush Scallop	2
49.	QN	VG		(f)				
	Only Scallop type varieties: Fruit: blossom end							
	flat						Scallopini	1
	indented						Yellow Bush Scallop	2

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
50.	QN	VG		(f)				
	Only Acorn type varieties: Fruit: position of maximum diameter							
	at the middle						Ebony Table Queen	1
	towards stem end						Swan White Acorn	2
51.	QN	VG		(f)				
	Only Acorn type varieties: Fruit: peduncle end							
	concave						Swan White Acorn	1
	straight						Table King	2
	convex						Ebony Table Queen	3
52.	QN	VG		(f)				
	Only Neck type varieties: Fruit: length of neck							
	short						Wryneck	3
	medium						Yellow Summer Crookneck	5
	long						Sundance	7
53.	QN	VG		(f)				
	Only Neck type varieties: Fruit: diameter of neck in relation to maximum diameter							
	small						Sundance	3
	medium						Yellow Summer Crookneck	5
	large						Sunbar	7
54.	QL	VG		(f)				
	Only Neck type varieties: Fruit: curving of neck							
	absent						Early Prolific Straightneck	1
	present						Yellow Summer Crookneck	9
55.	QN	VG		(f)				
	Only Neck and Zucchini type varieties: Fruit: blossom end							
	rounded							1
	pointed							2

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
56.	PQ	VG		(f)				
	Fruit: main color of skin (excluding color of dots, patches, stripes and bands)							
	white						Pâtisson blanc panaché de vert	1
	cream						Early White Bush Scallop, Little Boo	2
	yellow						Autumn Gold	3
	orange							4
	green						Ambassador, Baby Bear	5
	partly white and partly yellow							6
	partly white and partly green							7
	partly yellow and partly green						Sunburst, Zephyr	8
57.	QN	VG		(f)				
	Only varieties with <u>Fruit main color of skin: yellow</u>: Fruit: intensity of yellow color of skin (as for 56)							
	light							3
	medium							5
	dark							7
58.	QN	VG		(f)				
	Only varieties with <u>Fruit: main color of skin: green</u>: Fruit: intensity of green color of skin (as for 56)							
	very light							1
	light							3
	medium							5
	dark						Cora	7
	very dark						Baby Bear, Sardane	9
59.	QN	VG		(f)				
	Only varieties with <u>two main colors</u>: Fruit: distribution of green color							
	green ring around blossom end						Sunburst	1
	from blossom end one third green						Zephyr	2
	from blossom end one half green							3

	English		français		deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
60.	QN	VG	(+)	(f)				
	Fruit: depth of grooves							
	absent or very shallow						Spooktacular	1
	shallow						Connecticut Field	3
	medium						Delicata, Table Queen	5
	deep						Jack Be Little, Swan White Acorn	7
	very deep						Heart of Gold, Sweet Dumpling	9
61.	QL	VG		(f)				
	Only varieties with Fruit: grooves: present: Fruit: stripes in grooves							
	absent						Baby Bear, Jack Be Little	1
	present						Delicata, Heart of Gold, Pâtisson jaune panaché de vert	9
62.	PQ	VG		(f)				
	Only varieties with Fruit: stripes in grooves: present: Fruit: color of stripes in grooves							
	light green							1
	dark green						Sweet Dumpling	2
	yellow						Puccini	3
	orange							4
63.	QN	VG		(f)				
	Fruit: protrusion of ribs							
	absent or very weak						Leda, Tivoli	1
	weak						Ambassador	3
	medium						Ibis, Opal	5
	strong						Spidi	7
	very strong						Mogango Enrugado Mineiro, Tonda Padana	9
64.	QN	VG		(f)				
	Only varieties with Fruit: ribs: present: Fruit: color of ribs compared to main color of skin (as for 56)							
	lighter							1
	same						Grey Zucchini	2
	darker						De Nice à Fruit Rond, Orangetti	3

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
65.	QN	VG		(f)				
	Fruit: size of main dots							
	absent or very small						Badger Cross, Sunburst	1
	small						Ambassador	3
	medium						Grey Zucchini	5
	large						Kingsize	7
	very large						Becky	9
66.	QL	VG		(f)				
	Fruit: secondary green color (excluding dots)							
	absent						Grey Zucchini, Small Sugar	1
	present						Beatrice, Greyzini, Heart of Gold, Tonda Padana, Zubi	9
67.	QN	VG		(f)				
	<u>Only varieties with Fruit: secondary green color: present: Fruit: intensity of secondary green color</u>							
	very light							1
	light							3
	medium							5
	dark							7
	very dark						Heart of Gold	9
68.	PQ	VG	(+)	(f)				
	<u>Only varieties with Fruit: secondary green color: present: Fruit: distribution of secondary green color</u>							
	sparse patches						Elite, Greyzini	1
	dense patches							2
	one colored stripes						Altea	3
	two colored stripes							4
	one colored bands covering the whole surface						Badger Cross, Twickers, Zubi	5
	two colored bands covering the whole surface						Beatrice	6

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
69.	QN	VG		(f)				
	Fruit: number of warts on skin							
	absent or very few						Scallopini	1
	few							3
	medium						Patisson verruqueux panaché	5
	many						Yellow Summer Crookneck	7
	very many						Wryneck	9
70.	QN	VG	(+)	(f)				
	Fruit: size of flower scar							
	very small						Jack be Little	1
	small						Goldi	3
	medium						Spidi	5
	large						Cinderella	7
	very large						Howden	9
71.	QN	VG	(+)	(f)				
	Fruit: length of peduncle							
	very short						Arlesa	1
	short						Clarita	3
	medium						Cinderella	5
	long						Tivoli	7
	very long						Western Sunrise	9
72.	PQ	VG		(f)				
	Fruit: color of peduncle							
	yellow							1
	green						Ambassador	2
	partly yellow and partly green						Autumn Gold	3
73.	QN	VG		(f)				
	Only varieties with Fruit: color of peduncle: green; Fruit: intensity of green color of peduncle							
	light						Bianchini	3
	medium						Sunburst	5
	dark						Gold Rush	7

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
74.	QL	VG		(f)				
	Fruit: mottling of peduncle							
	absent						Sunburst	1
	present						Elite	9
75.	QN	MG	(+)					
	Time of maturity							
	early							3
	medium							5
	late							7
76.	QN	MG	(+)	(g)				
	Number of ripe fruits per plant							
	few							3
	medium							5
	many							7
77.	PQ	VG		(g)				
	Ripe fruit: main color of skin (excluding dots, patches, stripes and bands)							
	white						Pâtisson blanc panaché de vert	1
	whitish						White Bush Scallop	2
	cream						Bianchini, Opal	3
	yellow						Gold Rush	4
	orange						Autumn Gold	5
	green							6
78.	QN	VG		(g)				
	Only varieties with <u>Ripe fruit: main color of skin: yellow, orange and green</u>: Ripe fruit: intensity of main color of skin							
	light							3
	medium							5
	dark							7

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
79.	PQ	VG		(g)				
	Ripe fruit: secondary color of skin (as for 77)							
	whitish							1
	cream							2
	yellow							3
	orange							4
	green							5
80.	QN	VG		(g)				
	<u>Only varieties with Ripe fruit: main color of skin: white or cream: Ripe fruit: prominence of green hue (as for 77)</u>							
	absent or very weak						Jedida	1
	weak						Eskenderany	3
	medium						Corona	5
	strong						Amalthee	7
	very strong							9
81.	PQ	VG		(g)				
	Ripe fruit: color of flesh							
	cream						Elite	1
	yellow						Sunburst, Vegetable Spaghetti	2
	orange						Autumn Gold	3
82.	QL	VG		(g)				
	Ripe fruit: lignified rind							
	absent						Small Sugar, Table Queen, Vegetable Spaghetti	1
	present						Elite, Little Gem, Scallopini, Yellow Summer Crookneck	9
83.	QL	VG		(g)				
	Ripe fruit: structure of flesh							
	not fibrous						Elite	1
	fibrous						Vegetable Spaghetti	2

	English		français		deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
84.	QN	VG		(h)				
	Seed: size							
	very small						Jack be Little	1
	small						Delicata	3
	medium						Diamant	5
	large							7
	very large						Citrouille de Touraine	9
85.	QN	VG		(h)				
	Seed: shape							
	narrow elliptic						Caserta	3
	medium elliptic						Elite	5
	broad elliptic						Baby Boo	7
86.	QL	VG		(h)				
	Seed: hull							
	absent						Chapingo Uno	1
	present						Baby Bear, Elite	9
87.	QL	VG		(h)				
	<u>Only varieties with Seed: hull: present: Seed: appearance of hull</u>							
	rudimentary						Baby Bear	1
	fully developed						Elite	2
88.	PQ	VG		(h)				
	<u>Only varieties with Seed: hull: present: Seed: color of hull</u>							
	whitish						Table Queen	1
	cream						De Nice à Fruit Rond	2
89.	PQ	VG	(+)	(h)				
	<u>Only varieties with Seed: hull: absent: color of seeds</u>							
	yellow green						GLB1607	1
	light green						GL1348, GL81	2
	medium green						GL Sonne, GL10424	3
	dark green						GL211, Gleisdorfer Diamant	4

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
90.	QN	VG/VS	(+)					
	Resistance to Zucchini yellow mosaic virus (ZYMV)							
	absent or low						Cora	1
	medium						Mirza	2
	high						Mikonos	3
91.	QL	VG/VS	(+)					
	Resistance to Watermelon mosaic virus (WMV)							
	absent						Cora	1
	present						Mikonos, Sofia, Syros	9

8. Explanations on the Table of Characteristics

Fruit: type	Fruit: general shape (ch. 30)	Plant: length of trail (ch. 4)	Fruit: depth of grooves (ch. 59)	Fruit: protrusion of ribs (ch. 62)	Fruit: surface structure (ch. 68)	Ripe fruit: main color of skin (ch. 77)	Ripe fruit: color of flesh (ch. 81)	Ripe fruit: lignified rind (ch. 82)	Ripe fruit: structure of flesh (ch. 83)	Seed: hull (ch. 86)	Example varieties	
Pumpkin	from flattened globular to elliptical globular		present	absent or very weak	smooth		orange	absent		present	Halloween, Little Boo, Small Sugar	1
Miniature Pumpkin	transverse elliptical	long	present	absent or very weak	smooth		orange	absent		present	Jack Be Little	2
Scallop	flattened disc shaped with equatorial margin	absent or very short or short	absent or very shallow	absent or very weak			cream	present		present	Patty Pan, Scallopini	3
Acorn	top shaped with furrows	absent or very short					orange	absent		present	Table Queen	4
Neck	bottle-shaped with pointed blossom end	absent or very short			warts	orange		present		present	Early Prolific Straightneck, Yellow Summer Crookneck	5

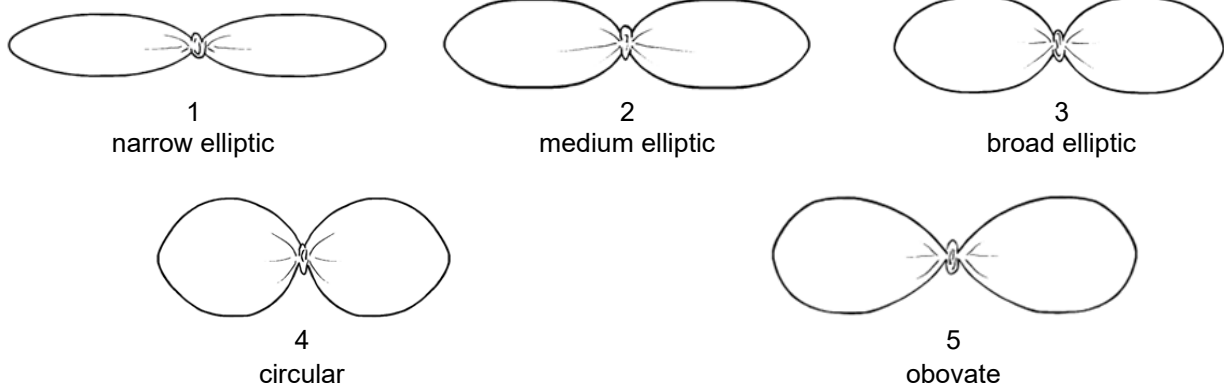
8.1 Explanations covering several characteristics

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

- (a) All observations on the seedling should be made when the cotyledons are fully developed and before the development of the first leaf.
- (b) All observations regarding the growth type, branching and stem should be made when the first flower(s) are visible, but before the first young fruit is developed.
- (c) All observations on the leaf blade and the petiole should be made on fully developed leaves on the main vine, preferably on the 5th to 8th leaf when already 12 to 15 leaves are fully developed.
- (d) All observations on the flower should only be made on fully developed flowers on the main vein.
- (e) All observations on the young fruit should be made when the fruit reached 10% of the final size and before the color changes, if applicable.
- (f) All observations on fruits should be made when the first fruits are fully developed and before they change the color due to ripening.
- (g) All observations on ripe fruits should be made on physiologically ripe fruits, when 90% of the peduncles are dry and the fruits have changed color, if applicable.
- (h) All observations on the seed should be made on fully developed and dry seeds, harvested from the ripe fruits.

8.2 Explanations for individual characteristics

Ad. 1: Seedling: shape of cotyledons



Ad. 3: Seedling: cross section of cotyledons



1
concave

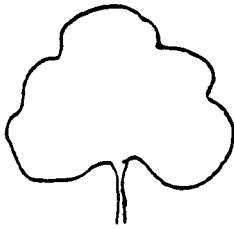


2
straight



3
convex

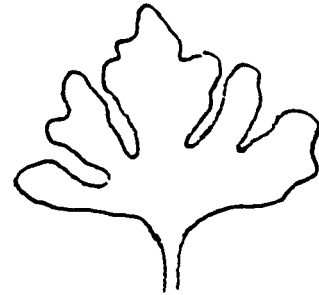
Ad. 13: Leaf blade: incisions



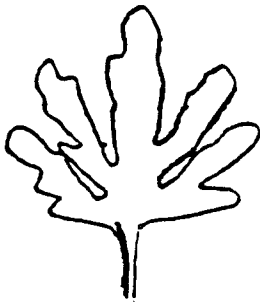
1
absent or very shallow



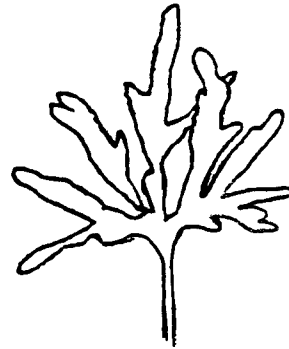
3
shallow



5
medium



7
deep



9
very deep

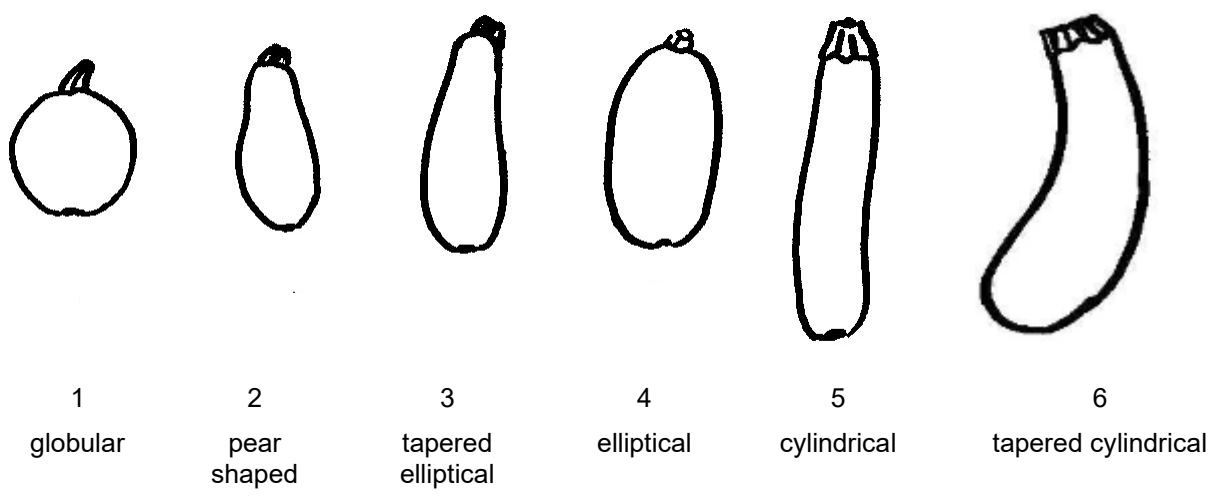
Ad. 18: Time of flowering of female flower

The time of flowering of the female flower is when 10% of the plants have the first female flower open.

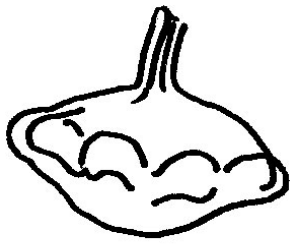
Ad. 19: Time of flowering of male flower

The time of flowering of the male flower is when 10% of the plants have the first male flower open.

Ad. 27: Only Zucchini and Rounded Zucchini type varieties: Young fruit: general shape



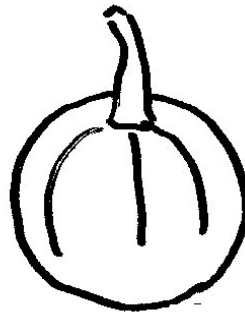
Ad. 31: Fruit: general shape



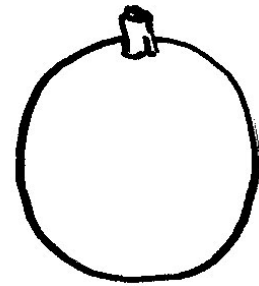
1
disc shaped



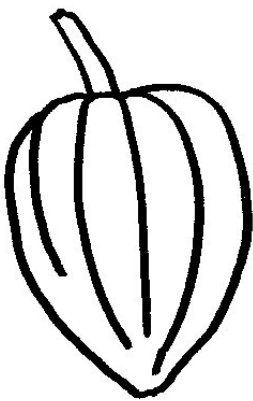
2
transverse elliptical



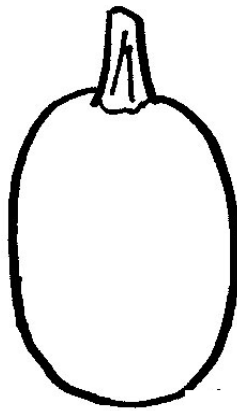
3
transverse broad elliptical



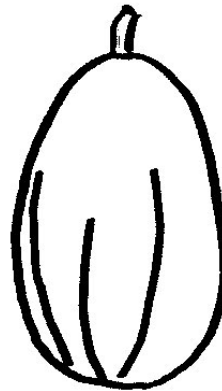
4
globular



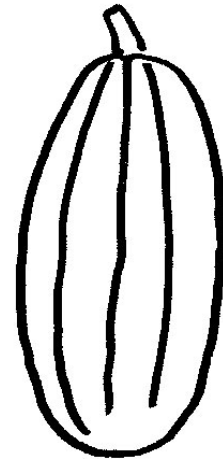
5
top shaped



6
broad elliptical



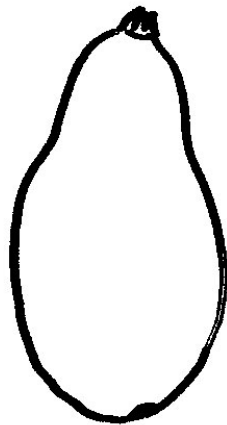
7
ovate



8
elliptical



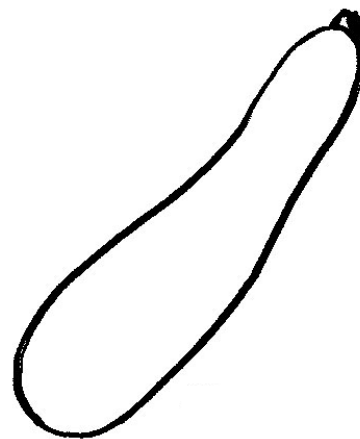
9
cylindrical



10
pear shaped



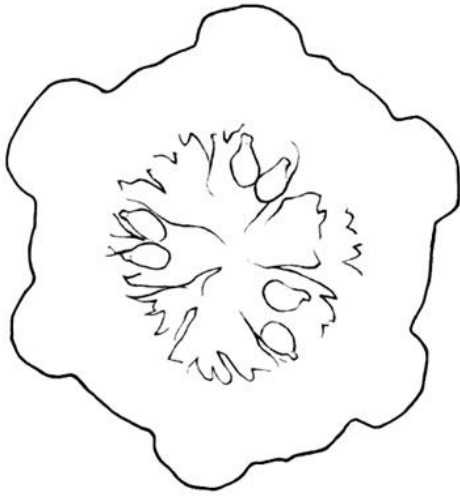
11
bottle shaped



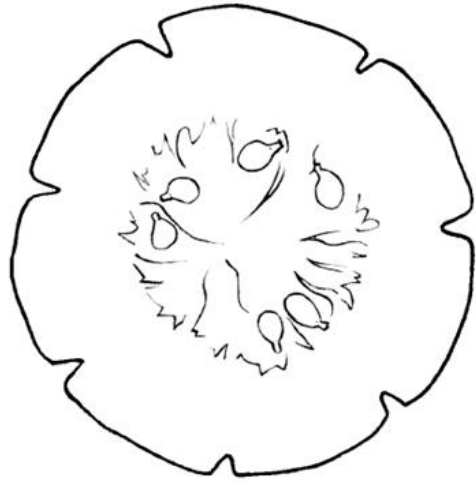
12
club shaped

Ad. 60: Fruit: depth of grooves

Comparison of ribs and grooves

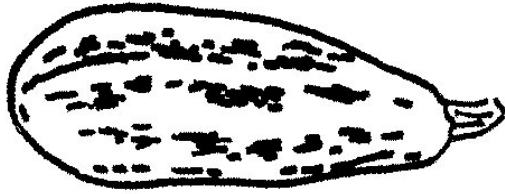


ribs

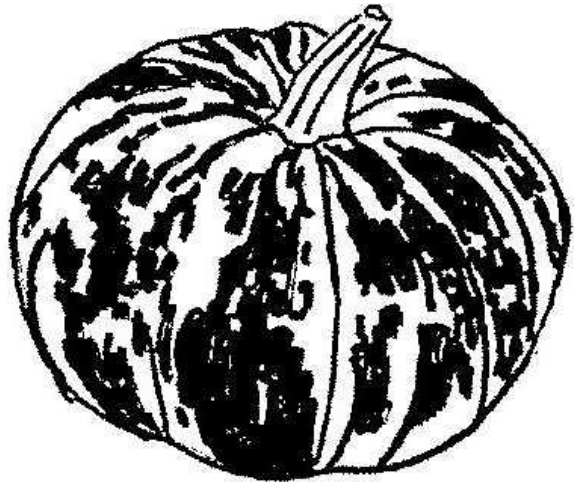


grooves

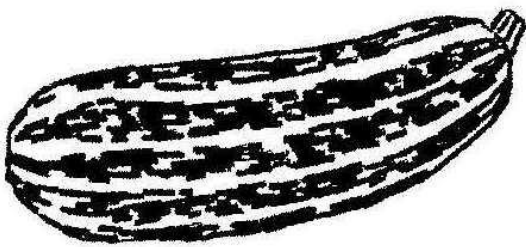
Ad. 68: Only varieties with Fruit: secondary green color: present: Fruit: distribution of secondary green color



1
sparse patches



2
dense patches



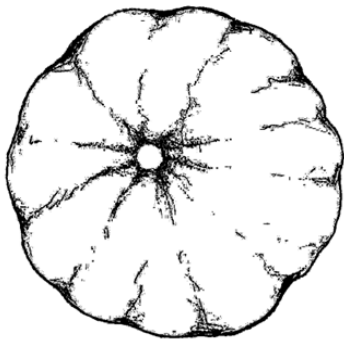
3
one colored stripes



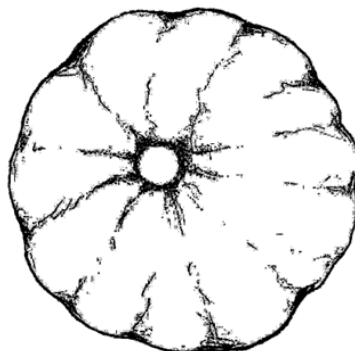
5
one colored bands covering the whole surface
6
two colored bands covering the whole surface

4
two colored stripes

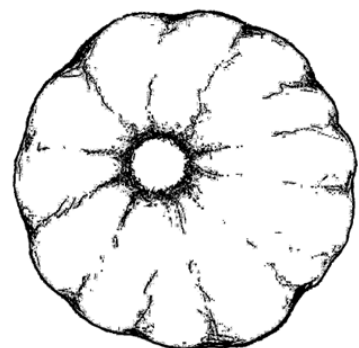
Ad. 70: Fruit: size of flower scar



3
small



5
medium



7
large

Ad. 71: Fruit: length of peduncle



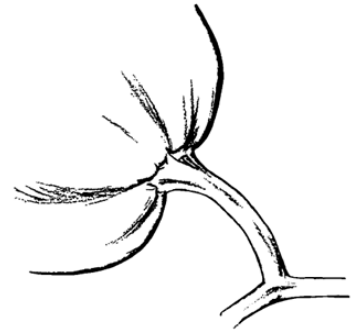
3

short



5

medium



7

long

Ad. 75: Time of maturity

Time of maturity is reached when 90% of the fruits have a dried peduncle and the leaves are dried up.

Ad. 76: Number of ripe fruits per plant

The plants per plot are counted. At the end of the vegetation period the fully developed, ripe fruits are counted.

With these two values the number of ripe fruits per plant is calculated:

$$\text{Number of ripe fruits per plant} = \frac{\text{number of fully developed, ripe fruits}}{\text{number of plants}}$$

Ad. 89: Only varieties with Seed: hull: absent: color of seeds



1

yellow green

2

light green

3

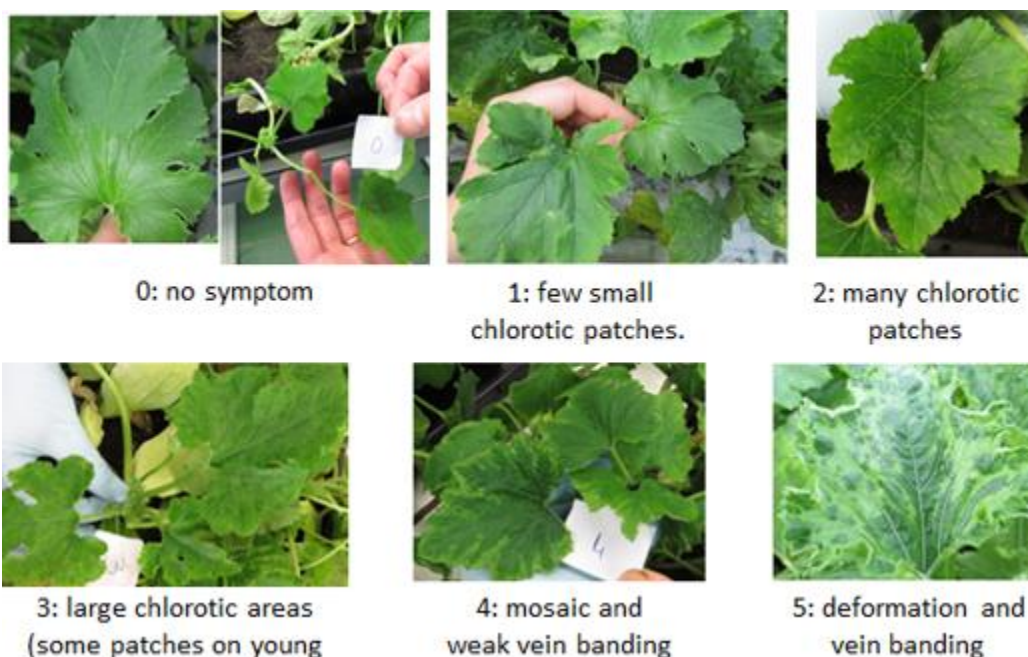
medium green

4

dark green

Ad. 90: Resistance to *Zucchini yellow mosaic virus* (ZYMV)

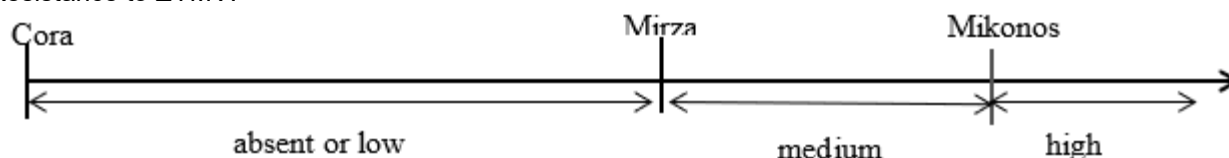
1.	Pathogen	<i>Zucchini yellow mosaic virus</i> (ZYMV)
2.	Quarantine status	No
3.	Host species	<i>Cucurbita pepo</i> L.
4.	Source of inoculum	GEVES (FR)[1]
5.	Isolate	e.g. strain E9 = MAT/REF/06-08-02-02
6.	Establishment isolate identity	-
7.	Establishment pathogenicity	Symptoms on susceptible squash variety
8.	Multiplication inoculum	
8.1	Multiplication medium	Living plant
8.2	Multiplication variety	e.g. Cora
8.3	Plant stage at inoculation	-
8.4	Inoculation medium	-
8.5	Inoculation method	-
8.6	Harvest of inoculum	-
8.7	Check of harvested inoculum	-
8.8	Shelf life/viability inoculum	-
9.	Format of the test	
9.1	Number of plants per genotype	At least 20
9.2	Number of replicates	At least 2 (e.g. 2x10 plants)
9.3	Control varieties	To illustrate and define the UPOV states <ul style="list-style-type: none"> • absent or low resistance (=susceptible): Cora • medium resistance: Mirza (low threshold of medium resistance level): • high resistance: Mikonos (low threshold of high resistance level)
9.4	Test design	add non inoculated plants
9.5	Test facility	Climatic room or greenhouse
9.6	Temperature	e.g. 22°C or 24°C/18°C
9.7	Light	12h-16h
9.8	Season	
9.9	Special measures	keep glasshouse free of aphids
10.	Inoculation	
10.1	Preparation inoculum	1 g leaf with symptoms with 4 mL of PBS with carborundum (400 mg) and activated carbon (400 mg) or similar buffer, homogenize
10.2	Quantification inoculum	
10.3	Plant stage at inoculation	First expanded leaf
10.4	Inoculation method	Rubbing cotyledons with virus suspension Optional: repeat the inoculation after 3 days
10.5	First observation	14 days post-inoculation
10.6	Second observation	-
10.7	Final observations	21 days post-inoculation
11.	Observations	
11.1	Method	Visual observation
11.2	Observation scale	Class 0: no symptom Class 1: few small chlorotic patches Class 2: many chlorotic patches Class 3: large chlorotic areas (some patches on young leaves) Class 4: mosaic and weak vein banding Class 5: deformation and vein banding



Courtesy of GEVES-SNES

11.3	Validation of test	<p>The high resistance control (Mikonos), the medium resistance control (Mirza) and the absent to low resistance (=susceptible) control (Cora) are necessary to validate the aggressiveness of test.</p> <p>Results should be compared with results of controls, based on disease index (DI) and distribution of plants over the classes.</p>
11.4	Off-types	-
12.	Interpretation of data in terms of UPOV characteristic states	<p>- Note 1: Most plants are in class 4 and/or 5 (absent or low resistance = susceptible)</p> <p>- Note 2: Most plants are in class 2 and/or 3 (medium resistance)</p> <p>- Note 3: Most plants are in class 0 and/or 1 (high resistance)</p> <p>A variety with a lower resistance than Mirza (note 2) will be described note 1. A variety with a lower resistance than Mikonos (note 3), will be described note 2.</p> <p>An additional statistical analysis can be used to finalize the pathologist's raw observation to the assessment of uniformity, and relative position regarding the controls results.</p>

Resistance to ZYMV:



13.	Critical control points	<p>Date of notation may be adapted depending on expression of symptoms on controls.</p> <p>Environmental conditions can influence the expression of symptoms over time. In this case a second notation could be necessary.</p> <p>Aphids may transmit ZYMV as well as other viruses that may contaminate the ZYMV strain. Test should be in aphid-free compartment.</p>
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Ad. 91: Resistance to *Watermelon mosaic virus* (WMV)

1.	Pathogen	<i>Watermelon mosaic virus</i> (WMV)
2.	Quarantine status	No
3.	Host species	<i>Cucurbita pepo</i> L.
4.	Source of inoculum	GEVES (FR)[1]
5.	Isolate	e.g., strain LL1A = MAT/REF/06-09-01 2
6.	Establishment isolate identity	-
7.	Establishment pathogenicity	Symptoms on susceptible squash variety
8.	Multiplication inoculum	
8.1	Multiplication medium	Living plant
8.2	Multiplication variety	e.g. Cora
8.3	Plant stage at inoculation	-
8.4	Inoculation medium	-
8.5	Inoculation method	-
8.6	Harvest of inoculum	-
8.7	Check of harvested inoculum	-
8.8	Shelf life/viability inoculum	-
9.	Format of the test	
9.1	Number of plants per genotype	At least 20
9.2	Number of replicates	At least 2 (e.g. 2 x 10 plants)
9.3	Control varieties	To illustrate UPOV notes: <ul style="list-style-type: none"> • resistance absent: Cora • resistance present: Sofia (minimum resistance level) Mikonos, Syros have higher resistance than Sofia, but not resistant enough to illustrate a high resistance.
9.4	Test design	add non inoculated plants
9.5	Test facility	Climatic room or greenhouse
9.6	Temperature	e.g., 22°C or 24°C/18°C
9.7	Light	12h-16h
9.8	Season	
9.9	Special measures	Keep glasshouse free of aphids
10.	Inoculation	
10.1	Preparation inoculum	1 g leaf with symptoms with 4mL of PBS with carborundum (400mg) and activated carbon (400mg) or similar buffer, homogenize
10.2	Quantification inoculum	-
10.3	Plant stage at inoculation	First expanded leaf
10.4	Inoculation method	Rubbing cotyledons with virus suspension Optional: repeat the inoculation after 3 days
10.5	First observation	14 days post-inoculation
10.6	Second observation	-
10.7	Final observations	21 days post-inoculation
11.	Observations	
11.1	Method	Visual observation
11.2	Observation scale	Class 0: no symptom Class 1: few small chlorotic patches Class 2: many chlorotic patches Class 3: large chlorotic areas (some patches on young leaves) Class 4: mosaic, weak vein banding Class 5: deformation and vein banding



0: no symptom



1: few small chlorotic patches



2: many chlorotic patches



3: large chlorotic areas (some patches on young leaves)



4: mosaic, weak vein banding



5: deformation and vein banding

Courtesy of GEVES-SNES

11.3	Validation of test	<p>On three controls: Cora, Sofia, Mikonos or Syros The presence of Syros or Mikonos (and not only Sofia) is necessary to validate the aggressiveness of the test.</p> <p>Results should be compared with the results of controls, based on disease index (DI) and distribution of plants over the classes.</p>
11.4	Off-types	-
12.	Interpretation of data in terms of UPOV characteristic states	<p>Note 1: Most plants are in class 4 and/or 5 (resistance absent or low to be considered) Note 9: Most plants are in class 0, 1, 2 and/or 3 (resistance present -more or less intensely)</p> <p>A variety with a lower level of resistance than Sofia (note 9), will be described as note 1</p> <p>An additional statistical analysis can be used to finalize the pathologist's raw observation to the assessment of uniformity, and relative position regarding the controls results.</p>
13.	Critical control points	<p>Date of notation may be adapted depending on expression of symptoms on controls.</p> <p>Environmental conditions can influence the expression of symptoms over time. In this case a second notation could be necessary.</p> <p>Aphids may transmit WMV as well as other viruses that may contaminate the WMV strain. Test should be in aphid-free compartment.</p>

9. Literature

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10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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		Application date: (not to be filled in by the applicant)
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TECHNICAL QUESTIONNAIRE
 to be completed in connection with an application for plant breeders' rights

In the case of hybrid varieties which are the subject of an application for plant breeders' rights, and where the parent lines are to be submitted as a part of the examination of the hybrid variety, this Technical Questionnaire should be completed for each of the parent lines, in addition to being completed for the hybrid variety.

1. Subject of the Technical Questionnaire

1.1.1	Botanical name	<input type="text" value="Cucurbita pepo L."/>	<input type="checkbox"/>
1.1.2	Common name	<input type="text" value="VEGETABLE MARROW"/>	
1.2.1	Botanical name	<input type="text" value="Cucurbita pepo L. var. styriaca Greb."/>	<input type="checkbox"/>
1.2.2	Common name	<input type="text" value="OILPUMPKIN"/>	

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) unknown cross []

4.1.2 Mutation

(please state parent varieties)

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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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 (4)	Plant: growth habit		
	bush	Greyzini	1 []
	trailing	Becky, Cinderella, Everest, Long Green Trailing, Twickers	2 []
5.2 (5)	Plant: length of trail		
	absent or very short (bush)	Greyzini	1 []
	short		2 []
	medium		3 []
	long		4 []
5.3 (6)	Plant: degree of branching		
	absent or very weak	Goldi	1 []
	very weak to weak		2 []
	weak		3 []
	weak to medium		4 []
	medium		5 []
	medium to strong		6 []
	strong		7 []
	strong to very strong		8 []
	very strong		9 []
5.4 (8)	Stem: color		
	completely green	Becky	1 []
	partly green and partly yellow	Autumn Gold	2 []
5.5 (9)	Stem: intensity of green color		
	very light	Maayan	1 []
	very light to light		2 []
	light	Bianchini	3 []
	light to medium		4 []
	medium	Cinderella	5 []
	medium to dark		6 []
	dark	Greyzini	7 []
	dark to very dark		8 []
	very dark	Goldrush	9 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note
5.6 (13) Leaf blade: incisions absent or very shallow very shallow to shallow shallow shallow to medium medium medium to deep deep deep to very deep very deep	Scallopini Everest Jackpot Civac Isotta	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []
5.7 (15) Leaf blade: relative area covered by silvery patches absent or very small very small to small small small to medium medium medium to large large large to very large very large	Albo, Black Forest, Scallopini Aziz Ambassador Cora Summerstar	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []
5.8 (16) Petiole: length very short very short to short short short to medium medium medium to long long long to very long very long	Jack be Little Karioka Autumn Gold, Baikal	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
Characteristics	Example Varieties	Note	
5.9 (27)	<u>Only Zucchini and Rounded Zucchini type varieties:</u> Young fruit: general shape		
globular	De Nice à Fruit Rond	1 []	
pear shaped	Clarita	2 []	
tapered elliptical	Top Kapi	3 []	
elliptical	Table Dainty	4 []	
cylindrical	Ambassador, Ibis	5 []	
tapered cylindrical		6 []	
5.10 (28)	Young fruit: main color of skin (excluding color of dots, patches, stripes and bands)		
white	Yellow Bush Scallop	1 []	
cream	Tivoli	2 []	
yellow	Goldi	3 []	
green	Elite, Opal, Romano	4 []	
partly white and partly yellow	Sunburst, Zephyr	5 []	
partly white and partly green		6 []	
partly yellow and partly green		7 []	
5.11 (30)	<u>Only varieties with green color of skin:</u> Young fruit: intensity of green color of skin (as for 28)		
very light	Clarita, Goya, Patty Green Tint	1 []	
very light to light		2 []	
light	Arlika	3 []	
light to medium		4 []	
medium	Baccara	5 []	
medium to dark		6 []	
dark	Arlesa, Sandra, Zefira	7 []	
dark to very dark		8 []	
very dark	Carnaval, Corsair	9 []	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note
5.12 (31) Fruit: general shape disc shaped transverse elliptical transverse broad elliptical globular top shaped broad elliptical ovate elliptical cylindrical pear shaped bottle shaped club shaped		1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 [] 10 [] 11 [] 12 []
5.13 (32) <u>Only Scallop type varieties:</u> Fruit: length very short very short to short short short to medium medium medium to long long long to very long very long	Bennings Green Tint Sunburst Yellow Bush Scallop	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note
5.14 (33) <u>Only Acorn type varieties:</u> Fruit: length		
very short		1 []
very short to short		2 []
short	Table Gold	3 []
short to medium		4 []
medium	Swan White Acorn	5 []
medium to long		6 []
long	Ebony Table Queen	7 []
long to very long		8 []
very long		9 []
5.15 (34) <u>Only Neck type varieties:</u> Fruit: length		
very short		1 []
very short to short		2 []
short	Wryneck	3 []
short to medium		4 []
medium	Yellow Summer Crookneck	5 []
medium to long		6 []
long	Sunbar	7 []
long to very long		8 []
very long		9 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note
5.16 (35) <u>Only Zucchini type varieties:</u> Fruit: length very short very short to short short short to medium medium medium to long long long to very long very long	Jedida Cora Carlotta	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []
5.17 (36) <u>Only Scallop type varieties:</u> Fruit: maximum diameter very small very small to small small small to medium medium medium to large large large to very large very large	Scallopini Yellow Bush Scallop White Bush Scallop	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note
5.18 (37) <u>Only Acorn type varieties:</u> Fruit: maximum diameter very small very small to small small small to medium medium medium to large large large to very large very large	Table Gold Table King Swan White Acorn	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []
5.19 (38) <u>Only Zucchini type varieties:</u> Fruit: maximum diameter very small very small to small small small to medium medium medium to large large large to very large very large	Goldi Opal Jericho, Spidi	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []
5.20 (42) <u>Only Pumpkin type varieties:</u> Fruit: size very small very small to small small small to medium medium medium to large large large to very large very large	Wee-B-Little Peek-a-Boo Spirit Ghost Rider Howden	1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note
5.21 (43)	<u>Only Rondini type varieties:</u> Fruit: size	
very small		1 []
very small to small		2 []
small	Pomme d'Or	3 []
small to medium		4 []
medium	Rolet	5 []
medium to large		6 []
large	Little Gem	7 []
large to very large		8 []
very large		9 []
5.22 (56)	Fruit: main color of skin (excluding color of dots, patches, stripes and bands)	
white	Pâtisson blanc panaché de vert	1 []
cream	Early White Bush Scallop, Little Boo	2 []
yellow	Autumn Gold	3 []
orange		4 []
green	Ambassador, Baby Bear	5 []
partly white and partly yellow	Sunburst, Zephyr	6 []
partly white and partly green		7 []
partly yellow and partly green		8 []
5.23 (57)	<u>Only varieties with yellow color of skin:</u> Fruit: intensity of yellow color of skin (as for 56)	
very light		1 []
very light to light		2 []
light		3 []
light to medium		4 []
medium		5 []
medium to dark		6 []
dark		7 []
dark to very dark		8 []
very dark		9 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note
5.24 (58)	<u>Only varieties with green color of skin:</u> Fruit: intensity of green color of skin (as for 56)	
very light	Cora	1 []
very light to light		2 []
light	Baby Bear, Sardane	3 []
light to medium		4 []
medium		5 []
medium to dark		6 []
dark		7 []
dark to very dark		8 []
very dark		9 []
5.25 (60)	<u>Only varieties with Fruit: grooves: present:</u> Fruit: depth of grooves	
absent or very shallow	Spooktacular	1 []
very shallow to shallow		2 []
shallow	Connecticut Field	3 []
shallow to medium		4 []
medium	Delicata, Table Queen	5 []
medium to deep		6 []
deep	Jack Be Little, Swan White Acorn	7 []
deep to very deep		8 []
very deep	Heart of Gold, Sweet Dumpling	9 []
5.26 (61)	Fruit: stripes in grooves	
absent	Baby Bear, Jack Be Little	1 []
present	Delicata, Heart of Gold, Pâtisson jaune panaché de vert	9 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
	Characteristics	Example Varieties	Note
5.27 (65)	Fruit: size of main dots		
	absent very small	Badger Cross	1 []
	very small to small		2 []
	small	Ambassador	3 []
	small to medium		4 []
	medium	Grey Zucchini	5 []
	medium to large		6 []
	large	Kingsize	7 []
	large to very large		8 []
	very large	Becky	9 []
5.28 (66)	Fruit: secondary green color (excluding dots)		
	absent	Grey Zucchini, Small Sugar	1 []
	present	Beatrice, Greyzini, Heart of Gold, Tonda Padana, Zubi	9 []
5.29 (68)	Only varieties with secondary green color: present: Fruit: distribution of secondary green color		
	sparse patches	Elite, Greyzini	1 []
	dense patches		2 []
	one colored stripes	Altea	3 []
	two colored stripes	Badger Cross, Twickers, Zubi	4 []
	one colored bands covering the whole surface	Beatrice	5 []
	two colored bands covering the whole surface		6 []
5.30 (77)	Ripe fruit: main color of skin (excluding dots, patches, stripes and bands)		
	white	Pâtisson blanc panaché de vert	1 []
	whitish	White Bush Scallop	2 []
	cream	Bianchini, Opal	3 []
	yellow	Gold Rush	4 []
	orange	Autumn Gold	5 []
	green		6 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note
5.31 (79)	Ripe fruit: secondary color of skin (as for 77)	
	whitish	1 []
	cream	2 []
	yellow	3 []
	orange	4 []
	green	5 []
5.32 (81)	Ripe fruit: color of flesh	
	cream	Elite 1 []
	yellow	Sunburst, Vegetable Spaghetti 2 []
	orange	Autumn Gold 3 []
5.33 (90)	Resistance to <i>Zucchini yellow mosaic virus</i> (ZYMV)	
	absent or low	Cora 1 []
	medium	Mirza 2 []
	high	Mikonos 3 []
5.34 (91)	Resistance to <i>Watermelon mosaic virus</i> (WMV)	
	absent	Cora 1 []
	present	Mikonos, Sofia, Syros 9 []
5.35	Types of varieties: Fruit: Type	
	Pumpkin	Halloween, Little Boo, Small Sugar 1 []
	Miniature Pumpkin	Jack Be Little 2 []
	Scallop	Patty Pan, Scallopini 3 []
	Acorn	Table Queen 4 []
	Neck	Early Prolific Straightneck, Yellow Summer Crookneck 5 []
	Zucchini	Ambassador, Beirut, Clarita, Elite, Ibis, Romano 6 []
	Rounded Zucchini	De Nice à fruit rond, Redondo 7 []
	Delicata	Delicata 8 []
	Spaghetti Squash	Pasta, Vegetable Spaghetti 9 []
	Rondini	Little Gem 10 []
	Oilpumpkin	GL Rudolf 11 []
	Other	12 []

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: general shape</i>	<i>transverse elliptical</i>	<i>club shaped</i>

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<p>Comments</p>

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

- Resistance to Pests and Diseases

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".

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]