E

TG/70/5(proj.5)
ORIGINAL: English
DATE: 2021-05-30

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

APRICOT

UPOV Code(s): PRUNU_ARM

Prunus armeniaca L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Hungary
to be considered by the
Technical Working Party for Fruit Crops
at its fifty-second session, to be held in Zhengzhou, China,
from 2021-07-12 to 2021-07-16

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Prunus armeniaca L.	Apricot	Abricotier	Aprikose, Marille	Albaricoquero, Chabacano

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.]

TABLE OF CONTENTS PAGE

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Prunus armeniaca* L. for fruit production. For the examination of rootstock varieties, the Test Guidelines for Prunus Rootstock TG/187 should be applied.

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 The material is to be supplied in the form of one-year-old grafts, budsticks or dormant shoots for grafting.

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

(a) varieties resulting from crossings
3 trees (one-year-old grafts) or
3 budsticks or dormant shoots

(b) varieties resulting from mutations
9 trees (one-year-old grafts) or
9 budsticks or dormant shoots

The rootstock to be used is specified by the competent authority.

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 may be observed from a single planting, examined in two separate growing cycles.

3.1.3 In particular, it is essential that the trees produce a satisfactory crop of fruit in each of the two growing cycles.

3.1.4 The growing cycle is considered to be the duration of a single growing season, beginning with bud burst (flowering and/or vegetative), flowering and fruit harvest and concluding when the following dormant period ends with the swelling of new season buds.

3.1.5 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

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 Varieties resulting from crossing: Each test should be designed to result in a total of at least 3 trees.
Varieties resulting from mutation: Each test should be designed to result in a total of at least 9 trees.

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

In the case of varieties resulting from crossing, unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 3 plants or parts taken from each of 3 plants and any other observation 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 5.

In the case of varieties resulting from mutation, unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 8 plants or parts taken from each of 8 plants and any other observation 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 2.

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 vegetatively 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 For the assessment of uniformity in a sample of 3 plants, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 3 plants, no off-types are allowed. For the assessment of uniformity in a sample of 9 plants, a population standard of 1 % and an acceptance probability of at least 95 % should be applied. In the case of a sample size of 9 plants, 1 off-type(s) is/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 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) Petal: color (characteristic 27)
(b) Fruit: weight (characteristic 29)
(c) Fruit: shape in lateral view (characteristic 30)
(d) Fruit: ground color of skin (characteristic 46)
(e) Fruit: relative area of over color (characteristic 49)
(f) Fruit: color of flesh (characteristic 51)
(g) Time of beginning of flowering (characteristic 58)
(h) Time of beginning of fruit ripening (characteristic 59)

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 (*) 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 VG**	**(+) (a)**				
		Tree: vigor					
		very weak				Sub-zero	1
		weak				Ninfa, Polonais, Rustic	2
		medium				Bergeron, Canino, Peeka, Rouge du Roussillon	3
		strong				Earle Orange, Magyar kajszi, Palsteyn, Pisana, Portici	4
		very strong				Monaco Bello, Moniquí, Solitaire, Viceroy	5
2.	**(*)**	**PQ VG**	**(+) (a)**				
		Tree: habit					
		fastigiate				Japan's Early	1
		upright				Harcot, Primando, Reale d'Imola	2
		upright to spreading				Ceglédi óriás, Paz, Proimo Tyrinthos, Veecot	3
		spreading				Blenheim, Canino, Grandir, Hargrand, Magyar kajszi	4
		drooping				Palsteyn, Pisana, Polonais, Vesna	5
3.		**QN VG**	**(+) (a)**				
		Tree: number of branches					
		few				Earle Orange, Roxana	1
		few to medium				Ceglédi zamatos	2
		medium				Bergeron, Magyar kajszi, San Castrese	3
		medium to many				Ceglédi napsugár	4
		many				Harlayne, Prevete, Roxy, Veecot	5
4.	**(*)**	**QN VG**	**(a)**				
		Tree: distribution of flower buds					
		predominantly on spurs				Earle Orange, Nugget, Roxy, Royal Roussillon, Sun Glo	1
		equally on spurs and on one-year-old shoots				Bergeron, Bulida, Canino, San Castrese, Veecot	2
		predominantly on one-year-old shoots				Amal, Ouardi, Rosa, Roxana	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5.		**PQ VG**	**(+) (a)**				
		One-year-old shoot: color on sunny side					
		yellow brown				Cape Bebeco, Grandir	1
		red brown				Palsteyn, Polonais, Royal, Veecot	2
		purple brown				Blenheim, Harcot	3
6.		**QN VG**	**(+) (a)**				
		One-year-old shoot: size of bud support					
		small				Canino, Cape Bebeco, Harcot, Vitillo	1
		medium				Hargrand, Magyar kajszi, Palsteyn, Portici, Tri Gems	2
		large				Ceglédi arany, Himidi, Moniquí, Roxana, Suapriseven	3
7.	**(*)**	**QN VG**	**(+)**				
		Young shoot: intensity of anthocyanin coloration of apex					
		very weak				Anderheart	1
		very weak to weak					2
		weak				Blenheim, Hargrand, Paz, Perla, Samarkandskij rannij	3
		weak to medium				Ceglédi szilárd, Mambo	4
		medium				Cape Bebeco, Polonais, San Castrese, Sun Glo	5
		medium to strong				Ceglédi gömbölyű, Samouraï	6
		strong				Ceglédi bíbor, Harcot, Ladisun, Ohaicos, Ravival, Roxana	7
		strong to very strong					8
		very strong				Rojo Passion	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
8.		**QN** **MG/MS/VG**	**(b)**				
		Leaf blade: length					
		short				Bulida, Early Biady, Perla, Samarkandskij rannij	3
		short to medium				Ceglédi bájos	4
		medium				Canino, Portici, Rouge du Roussillon, Veecot	5
		medium to long				Clarina, Lunafull	6
		long				A. Vecchioni, Calirose, Ceglédi arany, Moniquí, Roxana	7
		long to very long				César, Koolgat	8
9.		**QN** **MG/MS/VG**	**(b)**				
		Leaf blade: width					
		very narrow				Hurgat	1
		very narrow to narrow				Koolgat	2
		narrow				Ceglédi bíbor, Monaco Bello, Rouget de Sernhac, Veecot	3
		narrow to medium				Ceglédi napsugár, Nyujtó Ferenc emléke	4
		medium				Canino, Cape Bebeco, Harcot, Vitillo	5
		medium to broad					6
		broad				Ceglédi piroska, Moniquí, Pisana	7
10	**(*)**	**QN** **MG/VG**	**(b)**				
		Leaf blade: ratio length/width					
		very low				Canino, Portici	1
		very low to low				Ceglédi bájos	2
		low				Cafona, Hargrand, Supergold	3
		low to medium				Ceglédi szilárd	4
		medium				Harcot, Rouget de Sernhac, Rustic, San Castrese	5
		medium to high				Ceglédi napsugár	6
		high				A. Vecchioni, Big Cot, Ceglédi bíbor, Colorado	7
		high to very high				Titicot	8
		very high				Calirose, Koolgat, Noemi, Super Seven	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11	**QN** **VG**	**(b)**				
	Leaf blade: intensity of green color of upper side					
	light				Roxy, San Castrese, Veecot, Velasquez	1
	light to medium					2
	medium				Canino, Ceglédi óriás, Flaming Gold, Grandir, Harcot	3
	medium to dark				Roxana	4
	dark				A. Vecchioni, Earle Orange, Ninja	5
12	**PQ** **VG**	**(+)** **(b)**				
	Leaf blade: shape of base					
	acute				Ceglédi bíbor, Rouget de Sernhac, San Francesco	1
	obtuse				Bhart, Calirose, Magyar kajszi, Portici	2
	truncate				Bergeron, Blenheim, Canino, Perla	3
	cordate				Bulida, Monabri, Moniquí	4
13	**PQ** **VG**	**(+)** **(b)**				
	Leaf blade: angle of apex					
	acute				Koolgat, San Castrese	1
	right-angled				Bulida, Canino, Ceglédi óriás	2
	moderately obtuse				Bergeron, Farclo, Polonais, Portici	3
	strongly obtuse				Hargrand, Moniquí	4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14		**QN VG**	**(+) (b)**				
		Leaf blade: length of tip					
		absent or very short				Alpha	1
		very short to short				Vemina	2
		short				Amber Gold, Bhart, Harmat, Moniquí	3
		short to medium				Rambo	4
		medium				Koolgat, Magyar kajszi, Roxy	5
		medium to long				Nyujtó Ferenc emléke, Oscar	6
		long				Calirose, Fina, Ivonne Liverani, Memphis, Roxana	7
		long to very long				Playa Cot	8
15	**(*)**	**PQ VG**	**(+) (b)**				
		Leaf blade: incisions of margin					
		crenate				Canino, Royal Roussillon, San Castrese, Verdun	1
		bicrenate				Bhart, Ninfa	2
		serrate				Calirose, Vitillo	3
		biserrate				Farius, Himidi, Rakovszky, Roxana, San Francesco, Suapriseven	4
16		**QN VG**	**(b)**				
		Leaf blade: undulation of margin					
		absent or very weak				Colomer, Earle Orange	1
		weak				Harcot, Palsteyn, Portici	2
		medium				Blenheim, Cape Bebeco, Nonno, Roxana	3
		strong				Piet Cillié, Polonais, San Francesco	4
		very strong					5
17		**QN VG**	**(+) (b)**				
		Leaf blade: profile in cross section					
		slightly convex				Megatea	1
		flat or weakly concave				Earle Orange, Rouget de Sernhac, San Castrese	2
		moderately concave				Bergeron, Dulcinea, Moniquí, Rustic	3
		strongly concave				Polonais	4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18	**(*)**	**QN MG/MS/VG**	**(b)**				
		Petiole: length					
		very short					1
		very short to short				Cyrano	2
		short				Cape Bebeco, Madison, Moniquí, Ninfa, Veecot	3
		short to medium				Ceglédi bájos, Ceglédi gömbölyű, Koolgat	4
		medium				Bergeron, Bulida, Cafona, Canino, Hargrand	5
		medium to long				Ceglédi napsugár, Nyujtó Ferenc emléke, Samouraï, Totem	6
		long				Banzaï, Ladisun, Reale d'Imola, Skopska Krupna	7
		long to very long					8
		very long				HG nº1	9
19	**(*)**	**QN MG/MS/VG**	**(+)** **(b)**				
		Leaf: ratio length of blade /length of petiole					
		low				Earle Orange, Harcot, Pisana, Rouget de Sernhac	3
		low to medium				Apache, Banzaï	4
		medium				Bergeron, Calirose, Hâtif Colomer, Portici, Rouge du Roussillon	5
		medium to high				Koolgat	6
		high				Monaco Bello, Moniquí	7
20		**QN VG**	**(b)**				
		Petiole: thickness					
		thin				Flaming Gold, San Castrese, Veecot	1
		medium				Bulida, Harcot, Portici	2
		thick				Ceglédi arany, Moniquí, Reale d'Imola	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
21		**QN** **VG**	**(b)**				
		Petiole: intensity of anthocyanin coloration of upper side					
		absent or very weak					1
		weak				Cibo del Paradiso, Tri Gems	3
		weak to medium				Sublime	4
		medium				Bhart, Canino, Cape Bebeco, San Castrese	5
		medium to strong				Ninja, Oscar	6
		strong				Ceglédi bíbor, Early Biady, Grandir, Harogem	7
		strong to very strong				Cheyenne	8
22	**(*)**	**QN** **MG/VG**	**(+)** **(b)**				
		Petiole: number of nectaries					
		none or one				Colorado, Mandulakajszi, Rouget de Sernhac	1
		two or three				Banzaï, Cafona, Magyar kajszi, Ninja, Primarina, Veecot	2
		more than three				Bulida, Canino, Cape Bebeco, Moniquí, Pisana	3
23		**QN** **VG**	**(b)**				
		Petiole: size of nectaries					
		small				Alpha, Calirose, Colorado, Madison, San Francesco, Yerevani	1
		medium				Bulida, Ceglédi óriás, Samouraï, San Castrese, Tilton	2
		large				Canino, Early Biady, Harmat, Pisana, Red Blush	3
24	**(*)**	**QN** **MS/VG**	**(c)**				
		Flower: diameter					
		small				Borsi rózsa, Hâtif Colomer, Supergold	1
		small to medium					2
		medium				Calirose, Magyar kajszi, Polonais, Portici, Reale d'Imola	3
		medium to large				Ceglédi arany	4
		large				Hargrand, Harmat, San Castrese	5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25		**QN VG**	**(+) (c)**				
		Flower: position of stigma relative to anthers					
		below				Canetta, Harmat, Rouge du Roussillon	1
		same level				Hargrand, Palsteyn, Portici	2
		above				Canino, Grandir, Pisana, Polonais	3
26		**PQ VG**	**(+) (c)**				
		Petal: shape					
		elliptic				Rubilis	1
		circular				Faralia, Harcot, Luizet	2
		oblate				Canino, Polonais, Rustic, Vitillo	3
27	**(*)**	**PQ VG**	**(+) (c)**				
		Petal: color					
		white				Bulida, Cafona, Polonais	1
		pinkish white				Magyar kajszi, San Castrese	2
		light pink				Harcot	3
		dark pink				Cheyenne, Ninja	4
28		**QN VG**	**(+)**				
		Sepal: attitude					
		upwards				Ladisun	1
		outwards				Calirose, Colomer, Farbaly	2
		downwards				Bergeron, Cape Bebeco	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
29	**(*)**	**QN VG**	**(+) (d)**				
		Fruit: weight					
		very small				Haggith, Menace, Supergold, Tengeribarack C. 1426, Zard	1
		very small to small				Tengeribarack C. 2546	2
		small				Borsi rózsa, Hâtif Colomer, Ladisun, Patriarca Temprano	3
		small to medium				Val orange	4
		medium				Cafona, Canino, Harcot, Paz	5
		medium to large				Iziagat, Oscar	6
		large				Ceglédi bíbor, Moniquí, Portici	7
		large to very large				Swilate	8
		very large				Ceglédi óriás, Flamengo, Hargrand, Palsteyn, Pisana	9
30	**(*)**	**PQ VG**	**(+) (d)**				
		Fruit: shape in lateral view					
		triangular				Gilgat, Luizet	1
		ovate				Bergeron, Calirose, Pisana	2
		oblate				Korai zamatos, Nugget, Patriarca Temprano	3
		circular				Earle Orange, Grandir, Ninfa, Ouardi, Polonais	4
		oblong				Blenheim, Portici, Sundrop	5
		elliptic				Précoce d'Imola, Wenatchee, Yerevani	6
		oblique rhombic				Banga, Bulida, Canino, Vulcan	7
		obovate				Harcot, Harmat, Trevatt	8

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31	**(*)**	**PQ VG**	**(+) (d)**				
		Fruit: shape in ventral view					
		triangular				Gilgat, Luizet, Mandulakajszi, Reale d'Imola	1
		ovate				Bergeron, Calirose, Canino, Fracasso	2
		oblate				Nugget	3
		circular				Polonais, Rouge du Roussillon, San Castrese, Supergold, Viceroy	4
		oblong				Baracca, Hargrand, Hâtif Colomer, Veecot	5
		elliptic				Bella d'Imola, Flaming Gold, Yerevani	6
		obovate				Harcot, Harmat, Ladisun, Portici	7
32		**QN MG/VG**	**(d)**				
		Fruit: height					
		very short				Tengeribarack C. 1426	1
		very short to short				Tengeribarack C. 2546	2
		short				Patriarca Temprano, Samarkandskij rannij, Sayeb, Supergold	3
		short to medium				Val orange	4
		medium				Bergeron, Canino, Cape Bebeco, Polonais	5
		medium to tall				Ceglédi kedves, Ceglédi napsugár, Cheyenne, Iziagat	6
		tall				Calirose, Goldrich, Mandulakajszi, Vitillo	7
		tall to very tall				Flamengo	8

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
33	**QN MG/VG**	**(d)**				
	Fruit: width in lateral view					
	very narrow				Tengeribarack C. 1426	1
	very narrow to narrow				Tengeribarack C. 2546	2
	narrow				Cerasiello, Harmat, Manicot, Samarkandskij rannij, Supergold	3
	narrow to medium				Aprireve	4
	medium				Bergeron, Bhart, Cafona, Paz	5
	medium to broad				Ceglédi kedves, Ceglédi szilárd, Swilate	6
	broad				Hargrand, Moniquí, Sherpa, Vitillo	7
34	**QN MG/VG**	**(d)**				
	Fruit: width in ventral view					
	very narrow				Tengeribarack C. 1426	1
	very narrow to narrow				Tengeribarack C. 2546	2
	narrow				Cerasiello, Harlayne, Hâtif Colomer, Tri Gems	3
	narrow to medium				Ceglédi zamatos, Swired	4
	medium				Bhart, Cape Bebeco, Palummella	5
	medium to broad				Ceglédi gömbölyű, Swilate	6
	broad				Ceglédi arany, Flamengo, Goldrich, Moniquí	7
35	**QN MG/VG**	**(d)**				
	Fruit: ratio height /ventral width					
	low				Korai zamatos, Patriarca Temprano, Peeka	3
	low to medium				Ceglédi bájos	4
	medium				Cafona, Canino, Magyar kajszi, Rouge du Roussillon, Solitaire	5
	medium to high				Ceglédi napsugár, Cheyenne, Monaco Bello	6
	high				Bergeron, Hâtif Colomer, Tri Gems, Vitillo	7
	high to very high				Elgat, Lido	8
	very high				Farbella	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
36	**(*)**	**QN** **MG/VG**	**(d)**				
		Fruit: ratio lateral width/ventral width					
		very low				Monaco Bello	1
		very low to low				Lemeda	2
		low				Mandorlon, Maria Ferez, Rustic, Vesna	3
		low to medium				Ceglédi napsugár, Nyujtó Ferenc emléke	4
		medium				Bergeron, Luizet, Pisana, Rouge du Roussillon	5
		medium to high				Aprireve, Ceglédi zamatos	6
		high				Borsi rózsa, Calicot, Henderson, IPS 660, Swired	7
		high to very high				Titicot, Tudor	8
		very high					9
37	**(*)**	**QN** **VG**	**(+)** **(d)**				
		Fruit: symmetry in ventral view					
		symmetric				Canino, Hâtif Colomer, Magyar kajszi, Paz, Polonais, Portici	1
		slightly asymmetric				Boccuccia, Calirose, Ceglédi óriás, Meligat, Royal	2
		strongly asymmetric				Borsi rózsa, Grandir, Milord, Reale d'Imola	3
38	**(*)**	**PQ** **VG**	**(+)** **(d)**				
		Fruit: suture					
		raised				Priboto	1
		slightly sunken				Calirose, Magyar kajszi, Ninfa, Rouge du Roussillon	2
		moderately sunken				Bergeron, Ladisun, Monaco Bello, Pineapple	3
		strongly sunken				Cape Bebeco, Dima, Henderson, Kech-pshar, Portici	4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
39		**QN VG**	**(d)**				
		Fruit: depth of stalk cavity					
		shallow				Harlayne, Peeka, Rouge du Roussillon, San Castrese	1
		shallow to medium					2
		medium				Blenheim, Grandir, Magyar kajszi, Vitillo	3
		medium to deep				Roxana	4
		deep				Banzaï, Canino, Ceglédi óriás, Hâtif Colomer, Kayzee, Palsteyn	5
40	**(*)**	**PQ VG**	**(+) (d)**				
		Fruit: shape of apex in lateral view					
		acute				Hula Blush, Mandulakajszi, Reale d'Imola	1
		rounded				Bergeron, Calirose, Goldrich, Luizet, Portici	2
		truncate				Bella d'Imola, Hargrand, Hâtif Colomer, Royal	3
41		**PQ VG**	**(+) (d)**				
		Fruit:shape of pistil end in lateral view					
		pointed				Mediabel	1
		flat				Farbaly	2
		weakly depressed				Suapriseven	3
		strongly depressed				Primaya	4
42	**(*)**	**QL VG**	**(+) (d)**				
		Fruit: presence of mucron					
		absent				Blenheim, Bulida, Canino, San Castrese	1
		present				Bhart, Pisana	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
43		**PQ VG**	**(d)**				
		Fruit: surface					
		smooth				Bergeron, Ninja, Palsteyn, Portici, Rouge du Roussillon	1
		slightly bumpy				Cape Bebeco, Oscar, Supergold	2
		moderately bumpy				Canino, Ceglédi óriás, Faralia, Nonno, Sherpa	3
		very bumpy				Lotte, Rosa	4
44	**(*)**	**QL VG**	**(d)**				
		Fruit: pubescence					
		absent				Badami, Glattschalige Frühmarille	1
		present				Bergeron, Bulida, Canino, Magyar kajszi	9
45		**QN VG**	**(d)**				
		Fruit: glossiness					
		absent or weak				Rouge du Roussillon	1
		medium				Harcot, Oscar	2
		strong				Lotte, Maravilla, Sun Glo	3
46	**(*)**	**PQ VG**	**(+) (d)**				
		Fruit: ground color of skin					
		not visible				Ravicille, Ravilong	1
		white				San Nicola, Shirazskij belyj	2
		yellowish				Piet Cillié, Soldonné, Vitillo, Yerevani	3
		yellow green				Grüne Spätmarille, Kaisi Ashtarak, Roxy, Sateni Karmir	4
		light orange				Canino, Goldcot, Hargrand, Portici, Rouge du Roussillon	5
		medium orange				Calirose, Hâtif Colomer, Luizet, Pisana, Veecot	6
		dark orange				Bhart, Harcot, Harogem	7

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
47	**(*)**	**PQ**	**VG**	**(+)**	**(d)**				
		Fruit: hue of over color							
		orange red						Cape Bebeco, Kayzee	1
		red						Bhart, Faralia	2
		pink						Colorado, Palsteyn, Rustic	3
		purple						Rubissia, Totem	4
48		**QN**	**VG**		**(d)**				
		Fruit: intensity of over color							
		light						Big Cot, Ceglédi napsugár	3
		light to medium						IPS 16121	4
		medium						Calirose, Swilate	5
		medium to dark							6
		dark						Flash Cot, Primarina	7
		dark to very dark						Rubely	8
		very dark						Apridelice	9
49	**(*)**	**QN**	**VG**	**(+)**	**(d)**				
		Fruit: relative area of over color							
		absent or very small						Ceglédi gömbölyű, Charisma, Maria Matilde, Moniquí, Yerevani	1
		absent or very small to small							2
		small						Cafona, Canino, Cape Bebeco, Goldrich	3
		small to medium						Ceglédi kedves	4
		medium						Hâtif Colomer, Magyar kajszi, Palsteyn, Portici, Roxy	5
		medium to large						Ceglédi szilárd	6
		large						Bergeron, Bhart, Golden Blush, Pisana	7
		large to very large						Cheyenne	8
		very large						Ravicille, Ravilong	9

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
50	**(*)**	**PQ**	**VG**	**(+)**	**(d)**				
		Fruit: pattern of over color							
		isolated spots						Big Cot, Margotina, Rouge du Roussillon	1
		solid flush						Bergeron, Cape Bebeco, Ninja	2
		covered all over with very small spots						Grandir, Moniquí, Pieve	3
51	**(*)**	**PQ**	**VG**		**(d)**				
		Fruit: color of flesh							
		white						Cibo del Paradiso, Mouchbah Mourry, Spitak	1
		whitish green						Amban	2
		yellowish white						Barese, Malatya, Moniquí, Patriarca Temprano	3
		light orange						Canino, Cape Bebeco, Harmat, San Castrese, Yerevani	4
		medium orange						Grandir, Harglow, Pisana, Rouge du Roussillon, Screara	5
		dark orange						Bhart, Francese, Harcot, Hâtif Colomer, Palsteyn	6
		red							7
52		**QN**	**VG**		**(d)**				
		Fruit: texture of flesh							
		fine						Fracasso, Harlayne, Koolgat, Peeka	1
		medium						Canino, Cape Bebeco, Magyar kajszi, Piet Cillié	2
		coarse						Bergeron, Précoce d'Imola	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
53		**QN MG/MS/VG**	**(+) (d)**				
		Fruit: firmness of flesh					
		very soft				Viceroy	1
		soft				Alessandrino, Goldcot, Grandir	3
		medium				Cape Bebeco, Magyar kajszi, Piet Cillié, Rouge du Roussillon, San Castrese	5
		firm				Bella d'Imola, Bergeron, Palsteyn, Suapriseven	7
		very firm				Boccuccia Liscia, Borsi rózsa, Cacansko zlato, Harogem	9
54		**QN MG**	**(d)**				
		Fruit: ratio weight of fruit/weight of stone					
		low				Borsi rózsa, Reale d'Imola	3
		low to medium				Ceglédi zamatos	4
		medium				Blenheim, Hâtif Colomer, Portici, Primaya	5
		medium to high				Ceglédi napsugár	6
		high				Badami, Bergeron, Hula Blush, San Castrese	7
		high to very high				Hollycot	8
		very high				Flamengo	9
55	**(*)**	**QN VG**	**(d)**				
		Fruit: adherence of stone to flesh					
		absent or very weak				Bergeron, Bhart, Hargrand, Ninfa, Peeka	1
		very weak to weak				Canino, Nonno, Paz, Rouge du Roussillon, Sirena	2
		medium				Ceglédi arany, Tardif de Bordaneil	3
		medium to strong				Ceglédi napsugár	4
		strong				Cafona, Comandor, Flamengo, Precoce di Toscana	5

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
56	**(*)**	**PQ**	**VG**	**(+)**	**(d)**				
		Stone: shape in lateral view							
		ovate						Goldcot, Grandir, Magyar kajszi, Portici	1
		circular						Canino, Eten Bey, Hargrand, Monaco Bello, Suaprieight	2
		elliptic						Bergeron, Vitillo	3
		oblong						Bella d'Imola, Calirose, Palsteyn, Rouge du Roussillon	4
		obovate						Harcot, Harmat	5
57	**(*)**	**QN**	**VG**	**(+)**	**(d)**				
		Kernel: bitterness							
		absent or weak						Bergeron, Harcot, Magyar kajszi, Orange Red, Reale d'Imola	1
		medium						Bella d'Imola, Harlayne, Ninja, Palsteyn, Suaprieight, Swired	2
		strong						Borsi rózsa, Canino, Colorado, Manicot, Memphis, Prevete, Samouraï, Supergold	3
58	**(*)**	**QN**	**MG/VG**	**(+)**					
		Time of beginning of flowering							
		very early						Bakour, Colorado, Currots, Harmat, Ninfa, Solitaire	1
		very early to early						Rambo	2
		early						Canino, Harcot, Hâtif Colomer, San Castrese	3
		early to medium						Ceglédi szilárd, Goldrich	4
		medium						Bhart, Magyar kajszi, Moniquí, Portici, San Francesco, Supergold	5
		medium to late						Ceglédi zamatos, Digat	6
		late						Bergeron, Boccuccia Liscia, Farius, Harlayne, Ladisun, Polonais	7
		late to very late						Hurgat	8
		very late						Badami, Harglow, Skromnyj, Stella, Zard	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
59	**(*)**	**QN** **MG/VG**	**(+)**				
		Time of beginning of fruit ripening					
		very early				Bakour, Ninfa, Patriarca Temprano, Rutbhart, Samarkandskij rannij	1
		very early to early				Monabri, Tsunami	2
		early				Bhart, Hâtif Colomer, Ladisun, Monaco Bello, Rouget de Sernhac, Tomcot	3
		early to medium				Goldrich, Hargrand, Magyar kajszi	4
		medium				Amber Gold, Bergeron, Harlayne, Pisana, Polonais	5
		medium to late				Anegat, Swired	6
		late				Faralia, Larquen	7
		late to very late				Fartoli	8
		very late				Farclo, Farlis, Lartago	9

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

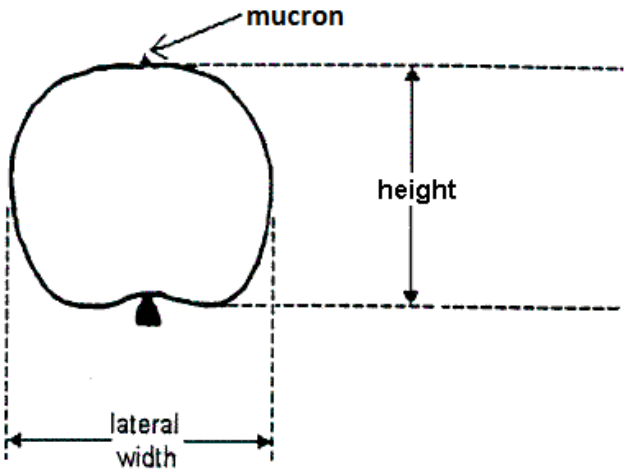
Characteristics containing the following key in the Table of Characteristics should be examined as indicated below:

(a) Observations should be made during the dormant period and before the beginning of flowering, on trees that have fruited at least once.

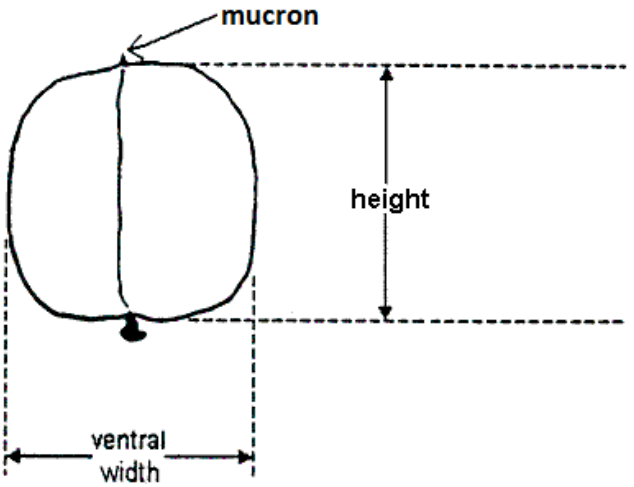
(b) Observations should be made on fully developed leaves from the middle third of a well developed current season's long shoot.

(c) Observations should be made on fully developed flowers at the beginning of dehiscence.

(d) Lateral view



Ventral view

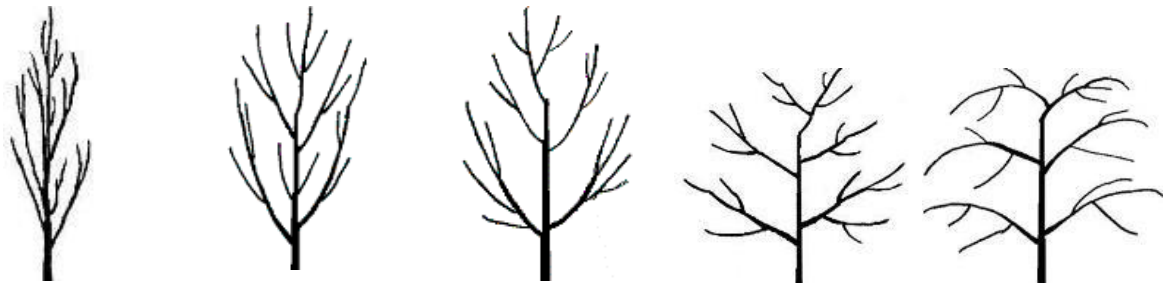


8.2 Explanations for individual characteristics

Ad. 1: Tree: vigor

The tree vigor should be considered as the overall abundance of vegetative growth.

Ad. 2: Tree: habit



1 fastigiate | 2 upright | 3 upright to spreading | 4 spreading | 5 drooping

Ad. 3: Tree: number of branches

Observations should relate to the number of lateral branches and shoots, excluding spurs.

Ad. 5: One-year-old shoot: color on sunny side

Observations should be made in the middle of one-year-old primary shoots.

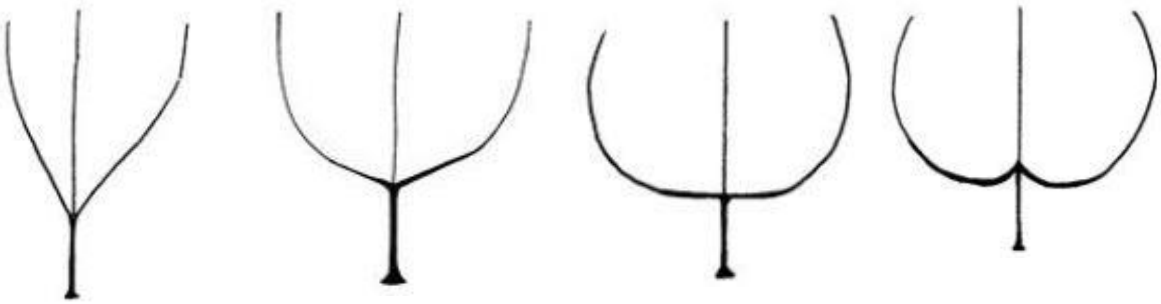
Ad. 6: One-year-old shoot: size of bud support

1 small | 2 medium | 3 large

Ad. 7: Young shoot: intensity of anthocyanin coloration of apex

Observation should be made during rapid growth, when the intensity of anthocyanin coloration of apex expresses at its maximum.

Ad. 12: Leaf blade: shape of base



1
acute

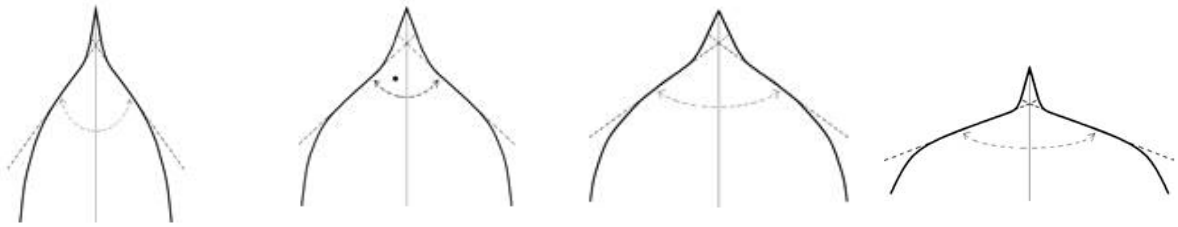
2
obtuse

3
truncate

4
cordate

Ad. 13: Leaf blade: angle of apex

Observation should exclude the tip.



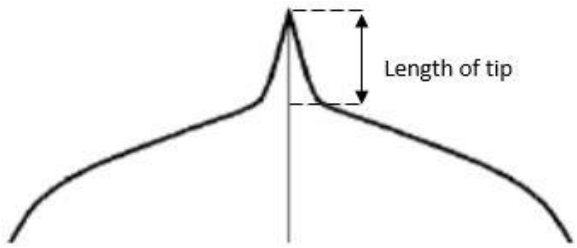
1
acute

2
right-angled

3
moderately obtuse

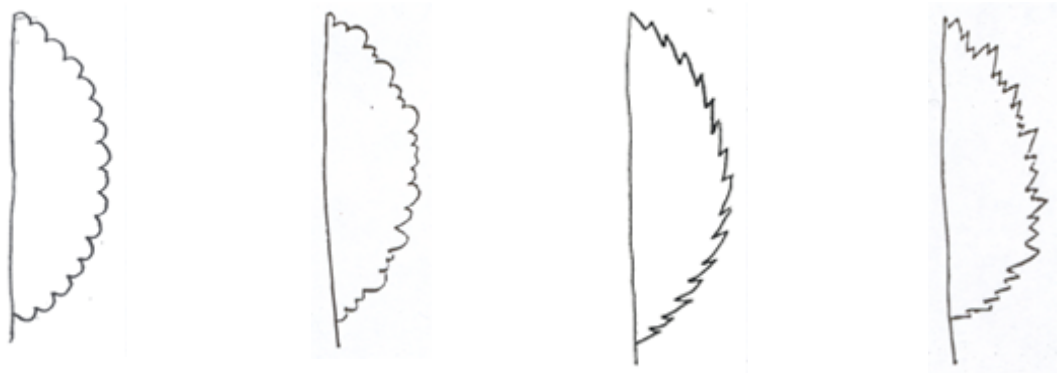
4
strongly obtuse

Ad. 14: Leaf blade: length of tip



Ad. 15: Leaf blade: incisions of margin

Observation should be made on the upper part of the leaf excluding the tip of the leaf blade.



1
crenate

2
bicrenate

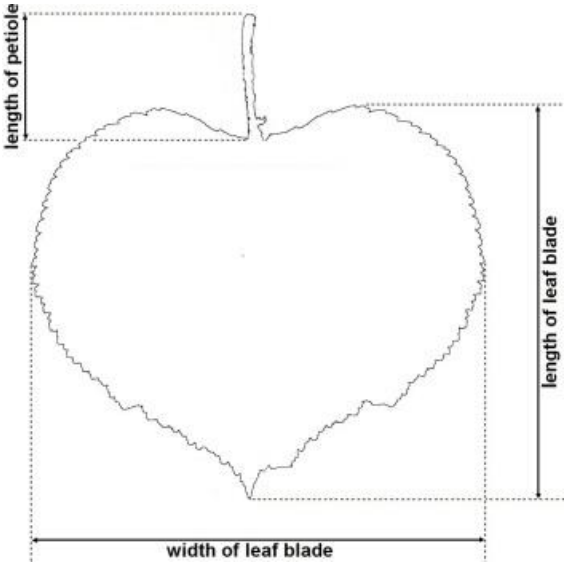
3
serrate

4
biserrate

Ad. 17: Leaf blade: profile in cross section

Leaves observed should be on spurs or at base of flowering shoots.

Ad. 19: Leaf: ratio length of blade /length of petiole



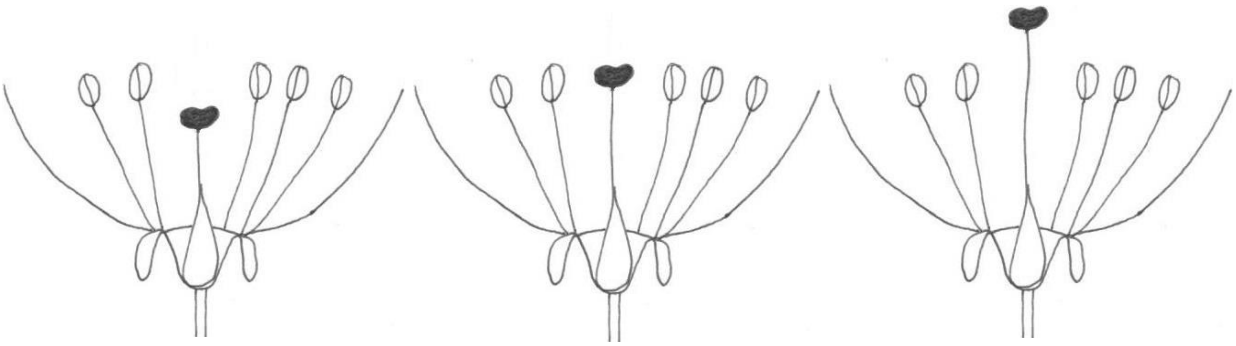
Ad. 22: Petiole: number of nectaries

1
none or one

2
two or three

3
more than three

Ad. 25: Flower: position of stigma relative to anthers



1
below

2
same level

3
above

Ad. 26: Petal: shape

Observations should exclude the claw.

1
elliptic

2
circular

3
oblate

Ad. 27: Petal: color

Observations should be made on the petals at balloon stage.

Ad. 28: Sepal: attitude

Observations should be made on fully opened flowers.

1
upwards

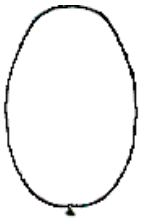
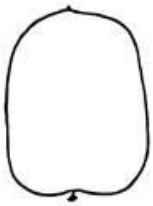
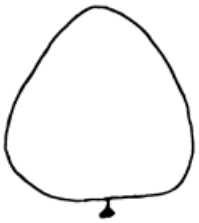
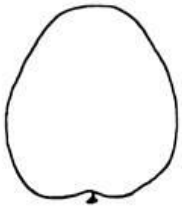
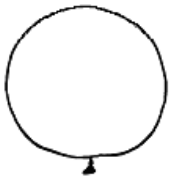
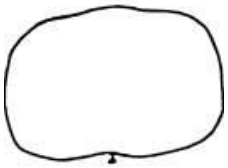
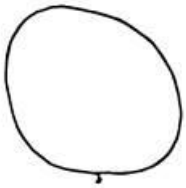
2
outwards

3
downwards

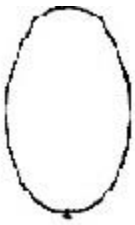
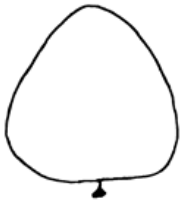
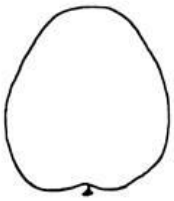
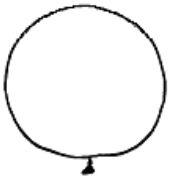
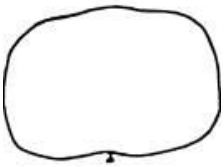
Ad. 29: Fruit: weight

Observation should be made on the overall size of the fruit.

Ad. 30: Fruit: shape in lateral view

relative width	←broadest part → below middle		at middle	above middle
narrow (high)			 6 elliptic	
medium (medium)			 5 oblong	
	 1 triangular	 2 ovate	 4 circular	 8 obovate
broad (low)			 3 oblate	 7 oblique rhombic

Ad. 31: Fruit: shape in ventral view

relative width	← broadest part →			
	below middle		at middle	above middle
narrow			 6 elliptic	
medium			 5 oblong	
	 1 triangular	 2 ovate	 4 circular	 7 obovate
broad			 3 oblate	

Ad. 37: Fruit: symmetry in ventral view

1
symmetric

2
slightly asymmetric

3
clearly asymmetric

Ad. 38: Fruit: suture

1
raised

2
slightly sunken

3
moderately sunken

4
deeply sunken

Ad. 40: Fruit: shape of apex in lateral view

Observations should be made on fruits in lateral view.

1
acute

2
rounded

3
truncate

Ad. 41: Fruit:shape of pistil end in lateral view

Observations should exclude the mucron tip.

1
pointed

2
flat

3
weakly depressed

4
strongly depressed

Ad. 42: Fruit: presence of mucron

1
absent

9
present

Ad. 46: Fruit: ground color of skin

The ground color is the first color to appear chronologically during the development of the skin and upon which the over color will develop in time. It is not always necessarily the largest area of the skin.

Ad. 47: Fruit: hue of over color

The cover color is the main anthocyanin coloration of skin with the largest surface area.

Ad. 49: Fruit: relative area of over color

1
absent or very small

3
small

5
medium

7
large

9
very large

Ad. 50: Fruit: pattern of over color

1
isolated spots

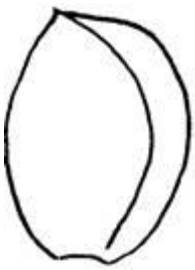
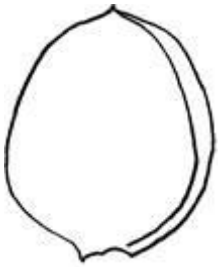
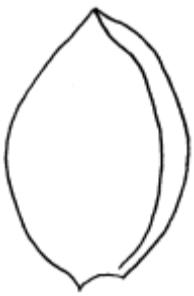
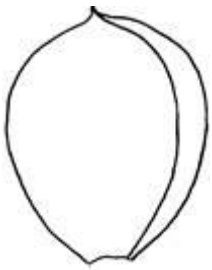
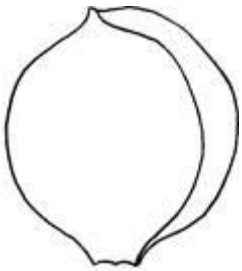
2
solid flush

3
covered all over with very small spots

Ad. 53: Fruit: firmness of flesh

Observation is made by squeezing the fruit.

Ad. 56: Stone: shape in lateral view

relative width	←broadest part →		
	below middle	at middle	above middle
narrow		 4 oblong	
medium	 1 ovate	 3 elliptic	 5 obovate
broad		 2 circular	

Ad. 57: Kernel: bitterness

Observation is made by tasting the kernel.

Ad. 58: Time of beginning of flowering

Observations or measurement should be made when 5-10% of the flowers are open.

Ad. 59: Time of beginning of fruit ripening

The assessment should be made when 5-10% ripen fruits can be observed. Fruit ripening should be considered as the time of eating maturity.

8.3 Synonyms of example varieties

Example Varieties	Synonym(s)
Sant' Ambrogio	Ambrosia, Saint Ambroise
Bhart	NJA 32
Borsi rózsa	Kecskemeter rose, Ružova neskora, Trandafirii tirzi
Čačacansko zlato	Čačak's Gold
Earle Orange	Erle Orange, Stark Earli Orange, Early Orange
Goldrich	Sungiant
Magyar kajszi	Cea mai bună de Ungaria, Hungarian Best, Klosterneuburger Aprikose, Krasnoshchokij, Mađarska najbolja, Meilleur d'Hongrie, Ungarische Beste,
Pineapple	Abricot d'Ananas, Ananas-Marille, Ananasnyj
Proimo Tyrinthos	Précoce de Tyrinthe
Sateni Karmir	Tabarza
Yerevani	Shalakh

9. Literature

Anonymous, 1997: "The Brooks and Olmo register of new fruit and nut varieties". Third edition, ASHS Press, Alexandria, VA, US.

Agulian, S. L., *et al*., 1977: "Abrikosy Armenii" "Apricots of Armenia" (bilingual book). Izdatel'stvo Aiastan, Yerevan, AM.

Boček, O., 1954: "Pomologie". Státní Zemědělske Nakladatelství, Praha, CZ.

Beketovskaya, A. A., 1977: "Dima". Sadovodstvo No.7, p. 28, Moskva, RU.

Bordeianu, T., *et al.*, 1963: "Pomologia Republicii Populare Romîne". Vol. 1-8, Editura Academiei Republicii Populare Romîne, Bucuresti, RO.

Cifranič, P., *et al.*, 1978: "Pomologia". Priroda, Bratislava, SK.

Couranjou, J., 1977: "Variétés d'abricotiers". INVUFLEC, Paris, FR.

Della Strada, G., Pennone, F., Fideghelli, C., Monastra, F., Cobianchi, D., 1989: "Monografia di cultivar di albicocco". Istituto Sperimentale per la Frutticoltura, Roma, IT.

Guerriero, R., 1982: "L'albicocco, (Apricot)" Cultivar. R.E.D.A., Roma, IT.

Guerriero R., Monteleone P., 1992: "Distribuzione di alcuni caratteri tassonomici in una collezione di oltre 100 cultivar di albicocco". Atti del Congresso su "Germoplasma frutticolo. Salvaguardia e valorizzazione delle risorse genetiche" Alghero; p. 343-348, IT.

Guerriero R., Monteleone P., 1992: "Principali caratteristiche tassonomiche e agronomiche di 28 cultivar di albicocco italiane in pericolo di estinzione". Atti del Congresso su "Germoplasma frutticolo. Salvaguardia e valorizzazione delle risorse genetiche" Alghero; 349-356, IT.

G. Tóth M., 1997. "Gyümölcsészet (Pomology)" PRIMOM, Nyíregyháza, HU.

Krümmel, H., Groh, W., Friedrich, G., 1964: "Deutsche Obstsorten". Bd. 1-3. Deutscher Landwirtschaftsverlag, Berlin, DE.

Löschnig, J., Passecker, F., 1954: "Die Marille (Aprikose) und ihre Kultur". Österreichischer Agrarverlag, Wien, AT.

Nagano-ken, 1980: "The report on the characterization and classification of apricot varieties", Nagano-ken Fruit Tree Experiment Station (by consignment of the MAFF), JP.

Nyujtó, F., Surányi, D., 1981: "Kajszibarack (Apricot)", Mezőgazdasági Kiadó, Budapest, HU.

Nyujtó, F., Tomcsányi, P., 1959: "A kajszibarack és termesztése (Apricot growing)", Mezőgazdasági Kiadó, Budapest, HU.

Pochyba, D., *et al.*, 1964: "Pomologia", Slov. Vyd. Polnohosp. Lit., Bratislava, SK.
Rayman, J., Tomcsányi, P., 1964: "Gyümölcsfajták zsebkönyve. Almagyümölcsűek és csonthéjasok (Pocket manual of fruit varieties 1.)". Mezőgazdasági Kiadó, Budapest, HU.

Shepelskij, A. I., 1966: "Novye sorta plodovykh i yagodnykh kul'tur Ukrain (New fruit varieties of Ukraine)". Urozhai, Kiev, UA.

Simirenko, L. P., 1963: "Pomologiia". Vol. 1-3. Izd S/h. Lit. Ukr. SSR, Kiev, UA.

Sinskaya, E. N., 1949: "Kulturnaya flora SSSR. XVIII. Plodovye kostochkovye" (Cultivated plants of USSR. Stone fruits)". OGIZ-Sel'khozgiz, Moskva-Leningrad, RU.

Smirnov, V. F., 1972: "Novye sorta kostochkovykh kul'tur, vyvedennye v SSSR (New stone fruit varieties bred in USSR)". Izdatel'stvo Nauka, Moskva, RU.

Smykov, V. K., *et al.*, 1974: "Kostochkovye kul'tury (Stone fruits)". Izdatel'stvo Kartya Moldovenyaske, Kishinev, MD.

Smykov, V. K., *et al.*, 1974: "Kul'tura abrikosa v neoroshaemykh usloviyakh Moldavii (Apricot growing under non-irrigated conditions of Moldavia)". Izdatel'stvo Stiinca, Kishinev, MD.

Stoichkov, J., *et al.*, 1960: "B''lgarska pomologiya (Bulgarian Pomology)". Zemizdat, Sofia, BG.

Tomcsányi, P., *et al.*, 1979: "Gyümölcsfajtáink, Gyakorlati pomológia (Practical Pomology)". Mezőgazdasági Kiadó, Budapest, HU.

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	*Prunus armeniaca* L.
1.2	Common name	Apricot

2. Applicant

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

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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

[#]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 variety)

(……..……..…) x (……..……..…)

female parent male parent

(b) partially known cross [ ]

(please state known parent variety(ies))

(……..……..…) x (……..……..…)

female parent male parent

(c) unknown cross [ ]

4.1.2 Mutation [ ]
(please state parent variety)

4.1.3 Discovery and development [ ]
(please state where and when discovered and how developed)

4.1.4 Other [ ]
(Please provide details)

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

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

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

(a) Cuttings [ ]
(b) *In vitro* propagation [ ]
(c) Other (state method) [ ]

4.2.2 Other [ ]
(Please provide details)

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

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

	Characteristics	Example Varieties	Note
5.1 (27)	**Petal: color**		
	white	Bulida, Cafona, Polonais	1 [ ]
	pinkish white	Magyar kajszi, San Castrese	2 [ ]
	light pink	Harcot	3 [ ]
	dark pink	Cheyenne, Ninja	4 [ ]
5.2 (29)	**Fruit: weight**		
	very small	Haggith, Menace, Supergold, Tengeribarack C. 1426, Zard	1 [ ]
	very small to small	Tengeribarack C. 2546	2 [ ]
	small	Borsi rózsa, Hâtif Colomer, Ladisun, Patriarca Temprano	3 [ ]
	small to medium	Val orange	4 [ ]
	medium	Cafona, Canino, Harcot, Paz	5 [ ]
	medium to large	Iziagat, Oscar	6 [ ]
	large	Ceglédi bíbor, Moniquí, Portici	7 [ ]
	large to very large	Swilate	8 [ ]
	very large	Ceglédi óriás, Flamengo, Hargrand, Palsteyn, Pisana	9 [ ]
5.3 (30)	**Fruit: shape in lateral view**		
	triangular	Gilgat, Luizet	1 [ ]
	ovate	Bergeron, Calirose, Pisana	2 [ ]
	oblate	Korai zamatos, Nugget, Patriarca Temprano	3 [ ]
	circular	Earle Orange, Grandir, Ninfa, Ouardi, Polonais	4 [ ]
	oblong	Blenheim, Portici, Sundrop	5 [ ]
	elliptic	Précoce d'Imola, Wenatchee, Yerevani	6 [ ]
	oblique rhombic	Banga, Bulida, Canino, Vulcan	7 [ ]
	obovate	Harcot, Harmat, Trevatt	8 [ ]

	Characteristics	Example Varieties	Note
5.4 (46)	**Fruit: ground color of skin**		
	not visible	Ravicille, Ravilong	1 [ ]
	white	San Nicola, Shirazskij belyj	2 [ ]
	yellowish	Piet Cillié, Soldonné, Vitillo, Yerevani	3 [ ]
	yellow green	Grüne Spätmarille, Kaisi Ashtarak, Roxy, Sateni Karmir	4 [ ]
	light orange	Canino, Goldcot, Hargrand, Portici, Rouge du Roussillon	5 [ ]
	medium orange	Calirose, Hâtif Colomer, Luizet, Pisana, Veecot	6 [ ]
	dark orange	Bhart, Harcot, Harogem	7 [ ]
5.5 (49)	**Fruit: relative area of over color**		
	absent or very small	Ceglédi gömbölyű, Charisma, Maria Matilde, Moniquí, Yerevani	1 [ ]
	absent or very small to small		2 [ ]
	small	Cafona, Canino, Cape Bebeco, Goldrich	3 [ ]
	small to medium	Ceglédi kedves	4 [ ]
	medium	Hâtif Colomer, Magyar kajszi, Palsteyn, Portici, Roxy	5 [ ]
	medium to large	Ceglédi szilárd	6 [ ]
	large	Bergeron, Bhart, Golden Blush, Pisana	7 [ ]
	large to very large	Cheyenne	8 [ ]
	very large	Ravicille, Ravilong	9 [ ]
5.6 (51)	**Fruit: color of flesh**		
	white	Cibo del Paradiso, Mouchbah Mourry, Spitak	1 [ ]
	whitish green	Amban	2 [ ]
	yellowish white	Barese, Malatya, Moniquí, Patriarca Temprano	3 [ ]
	light orange	Canino, Cape Bebeco, Harmat, San Castrese, Yerevani	4 [ ]
	medium orange	Grandir, Harglow, Pisana, Rouge du Roussillon, Screara	5 [ ]
	dark orange	Bhart, Francese, Harcot, Hâtif Colomer, Palsteyn	6 [ ]
	red		7 [ ]

	Characteristics	Example Varieties	Note
5.7 (58)	**Time of beginning of flowering**		
	very early	Bakour, Colorado, Currots, Harmat, Ninfa, Solitaire	1 [ ]
	very early to early	Rambo	2 [ ]
	early	Canino, Harcot, Hâtif Colomer, San Castrese	3 [ ]
	early to medium	Ceglédi szilárd, Goldrich	4 [ ]
	medium	Bhart, Magyar kajszi, Moniquí, Portici, San Francesco, Supergold	5 [ ]
	medium to late	Ceglédi zamatos, Digat	6 [ ]
	late	Bergeron, Boccuccia Liscia, Farius, Harlayne, Ladisun, Polonais	7 [ ]
	late to very late	Hurgat	8 [ ]
	very late	Badami, Harglow, Skromnyj, Stella, Zard	9 [ ]
5.8 (59)	**Time of beginning of fruit ripening**		
	very early	Bakour, Ninfa, Patriarca Temprano, Rutbhart, Samarkandskij rannij	1 [ ]
	very early to early	Monabri, Tsunami	2 [ ]
	early	Bhart, Hâtif Colomer, Ladisun, Monaco Bello, Rouget de Sernhac, Tomcot	3 [ ]
	early to medium	Goldrich, Hargrand, Magyar kajszi	4 [ ]
	medium	Amber Gold, Bergeron, Harlayne, Pisana, Polonais	5 [ ]
	medium to late	Anegat, Swired	6 [ ]
	late	Faralia, Larquen	7 [ ]
	late to very late	Fartoli	8 [ ]
	very late	Farclo, Farlis, Lartago	9 [ ]

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

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
Example	*Fruit: ground color of skin*	*light orange*	*dark orange*

Comments:

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

[#]7. Additional information which may help in the examination of the variety

7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?

Yes [ ] No [ ]

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

A representative color photograph of the variety displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)"

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (http://www.upov.int/tgp/en/).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

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

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”.

.....

9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens?

Yes [ ]

(please provide details as specified by the Authority)

No [ ]

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]