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## 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 South Africa  
to be considered by the  
Technical Working Party for Fruit Crops  
at its fiftieth session, to be held in Budapest, Hungary,  
from 2019-06-24 to 2019-06-28*

*Disclaimer: this document does not represent UPOV policies or guidance*

## Alternative names:\*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Prunus armeniaca</i> 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](http://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 *Prunus armeniaca* L. Add comment, if appropriate .

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 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  
5 budsticks or

(b) varieties resulting from mutations  
10 trees (one-year-old grafts) or  
10 budsticks

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.

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

#### 3.4 *Test Design*

- 3.4.1 Each test should be designed to result in a total of at least 3 trees.
- 3.4.2 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

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 3 plants or parts of plants taken from each of 3 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 5.

##### 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 of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 3 plants, no 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 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) Tree: vigor (characteristic 1)
  - (b) Tree: habit (characteristic 2)
  - (c) Fruit: size (characteristic 29)
  - (d) Fruit: shape in lateral view (characteristic 30)
  - (e) Fruit: ground color of skin (characteristic 46)
  - (f) Fruit: relative area of over color (characteristic 47)
  - (g) Fruit: color of flesh (characteristic 51)
  - (h) Time of beginning of flowering (characteristic 58)
  - (i) 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 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	Note
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 "Development of Test Guidelines".

### 6.3 *Types of Expression*

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

### 6.4 *Example Varieties*

Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

6.5 Legend

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
	<b>Name of characteristics in English</b>	<b>Nom du caractère en français</b>	<b>Name des Merkmals auf Deutsch</b>	<b>Nombre del carácter en español</b>		
	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. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>1. (*)</b>	<b>QN MG/VG</b>	<b>(+) (a)</b>				
	<b>Tree: vigor</b>					
	very weak				Sub-zero	1
	weak				Ninfa, Polonais, Rustic	3
	medium				Bergeron, Canino, Peeka, Rouge du Roussillon	5
	strong				Earle Orange, Magyar kajszí, Palsteyn, Pisana, Portici	7
	very strong				Monaco Bello, Moniquí, Solitaire, Viceroy	9
<b>2. (*)</b>	<b>PQ VG</b>	<b>(+) (a)</b>				
	<b>Tree: habit</b>					
	fastigate				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 kajszí	4
	drooping				Palsteyn, Pisana, Polonais, Vesna	5
<b>3.</b>	<b>QN VG</b>	<b>(+) (a)</b>				
	<b>Tree: number of branches</b>					
	few				Earle Orange, Roxana	3
	medium				Bergeron, Magyar kajszí, Roxanne, San Castrese	5
	many				Harlayne, Prevete, Roxy, Veecot	7
<b>4. (*)</b>	<b>QN VG</b>	<b>(a)</b>				
	<b>Tree: distribution of flower buds</b>					
	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
<b>5. (*)</b>	<b>QN VG</b>	<b>(+)</b>				
	<b>Young shoot: intensity of anthocyanin coloration of apex</b>					
	absent or very weak					1
	weak				Blenheim, Hargrand, Paz, Perla, Samarkandskij rannij	3
	medium				Cape Bebeco, Polonais, San Castrese, Sun Glo	5
	strong				Ceglédi bíbor, Harcot, Ladisun, Ohaicos, Ravival, Roxana	7
<b>6.</b>	<b>PQ VG</b>	<b>(+)</b>	<b>(a)</b>			
	<b>One-year-old shoot: color on sunny side</b>					
	yellow brown				Cape Bebeco, Grandir	1
	red brown				Palsteyn, Polonais, Royal, Veccot	2
	purple brown				Blenheim, Harcot	3
<b>7.</b>	<b>QN VG</b>		<b>(a)</b>			
	<b>One-year-old shoot: size of bud support</b>					
	small				Canino, Cape Bebeco, Harcot, Vitillo	1
	medium				Hargrand, Magyar kajcsi, Palsteyn, Portici, Tri Gems	2
	large				Ceglédi arany, Himidi, Moniquí, Roxana, Suapriseven	3
<b>8.</b>	<b>QN MS/VG</b>		<b>(b)</b>			
	<b>Leaf blade: length</b>					
	short				Bulida, Early Biady, Perla, Samarkandskij rannij	3
	medium				Canino, Portici, Rouge du Roussillon, Veccot	5
	long				A. Vecchioni, Calirose, Ceglédi arany, Moniquí, Roxana	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>9.</b>	<b>QN MS/VG</b>	<b>(b)</b>				
	<b>Leaf blade: width</b>					
	narrow				Ceglédi bíbor, Monaco Bello, Rouget de Sernhac, Veecot	3
	medium				Canino, Cape Bebeco, Harcot, Víttilo	5
	broad				Ceglédi piroska, Moniquí, Pisana	7
<b>10. (*)</b>	<b>QN MG/VG</b>	<b>(b)</b>				
	<b>Leaf blade: ratio length/width</b>					
	very low				Canino, Portici	1
	low				Cafona, Hargrand, Supergold	3
	medium				Harcot, Rouget de Sernhac, Rustic, San Castrese	5
	high				A. Vecchioni, Big Cot, Ceglédi bíbor, Colorado	7
	very high				Calirose, Koolgat, Noemi, Super Seven	9
<b>11.</b>	<b>QN VG</b>	<b>(b)</b>				
	<b>Leaf blade: intensity of green color of upper side</b>					
	light				Roxy, San Castrese, Veecot, Velasquez	1
	medium				Canino, Ceglédi óriás, Flaming Gold, Grandir, Harcot	3
	dark				A. Vecchioni, Earle Orange, Ninja	5
<b>12.</b>	<b>PQ VG</b>	<b>(+)</b>	<b>(b)</b>			
	<b>Leaf blade: shape of base</b>					
	acute				Ceglédi bíbor, Rouget de Sernhac, San Francesco	1
	obtuse				Bhart, Calirose, Magyar kajszí, Portici	2
	truncate				Bergeron, Blenheim, Canino, Perla	3
	cordate				Bulida, Monabri, Moniquí	4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>13.</b>	<b>PQ VG</b>	<b>(+)</b>	<b>(b)</b>			
	<b>Leaf blade: angle of apex</b>					
	acute				Koolgat, San Castrese	1
	right-angled				Bulida, Canino, Ceglédi óriás	2
	moderately obtuse				Bergeron, Farclo, Polonais, Portici	3
	strongly obtuse				Hargrand, Moniquí	4
<b>14.</b>	<b>QN VG</b>	<b>(+)</b>	<b>(b)</b>			
	<b>Leaf blade: length of tip</b>					
	absent or very short				Alpha	1
	short				Amber Gold, Bhart, Harmat, Moniquí	3
	medium				Koolgat, Magyar kajszi, Roxy	5
	long				Calirose, Fina, Ivonne Liverani, Memphis, Roxana	7
<b>15. (*)</b>	<b>PQ VG</b>	<b>(+)</b>	<b>(b)</b>			
	<b>Leaf blade: incisions of margin</b>					
	crenate				Canino, Royal Roussillon, San Castrese, Verdun	1
	bicrenate				Bhart, Ninfa	2
	serrate				Calirose, Víttilo	3
	biserrate				Farius, Himidi, Rakovszky, Roxana, San Francesco, Suapriseven	4
<b>16.</b>	<b>QN VG</b>		<b>(b)</b>			
	<b>Leaf blade: undulation of margin</b>					
	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	5

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>17.</b>	<b>QN VG</b>	<b>(+)</b>	<b>(b)</b>			
	<b>Leaf blade: profile in cross section</b>					
	slightly convex				Megatea	1
	straight or weakly concave				Earle Orange, Rouget de Sernhac, San Castrese	2
	moderately concave				Bergeron, Dulcinea, Moniquí, Rustic	3
	strongly concave				Polonais	4
<b>18. (*)</b>	<b>QN MG/VG</b>		<b>(b)</b>			
	<b>Petiole: length</b>					
	short				Cape Bebeco, Madison, Moniquí, Ninfa, Veecot	3
	medium				Bergeron, Bulida, Cafona, Canino, Hargrand	5
	long				Banzaï, HG n°1, Ladisun, Reale d'Imola, sSkopska Krupna	7
<b>19. (*)</b>	<b>QN MG/VG</b>		<b>(b)</b>			
	<b>Leaf: ratio length of blade /length of petiole</b>					
	low				Earle Orange, Harcot, Pisana, Rouget de Sernhac	3
	medium				Bergeron, Calirose, Hâtif Colomer, Portici, Rouge du Roussillon	5
	high				Monaco Bello, Moniquí	7
<b>20.</b>	<b>QN VG</b>		<b>(b)</b>			
	<b>Petiole: thickness</b>					
	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
<b>21.</b>	<b>QN VG</b>	<b>(b)</b>				
	<b>Petiole: intensity of anthocyanin coloration of upper side</b>					
	weak				Cibo del Paradiso, Tri Gems	3
	medium				Bhart, Canino, Cape Bebeco, San Castrese	5
	strong				Ceglédi bíbor, Early Biady, Grandir, Harogem	7
<b>22. (*)</b>	<b>QN MG</b>	<b>(+)</b>	<b>(b)</b>			
	<b>Petiole: number of nectaries</b>					
	none or one				Colorado, Mandulakajsi, Rouget de Sernhac	1
	two or three				Banzaï, Cafona, Magyar kajsi, Ninja, Primarina, Veecot	2
	more than three				Bulida, Canino, Cape Bebeco, Moniquí, Pisana	3
<b>23.</b>	<b>QN VG</b>	<b>(b)</b>				
	<b>Petiole: size of nectaries</b>					
	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
<b>24. (*)</b>	<b>QN MS/VG</b>	<b>(c)</b>				
	<b>Flower: diameter</b>					
	small				Borsi rózsa, Hâtif Colomer, Supergold	1
	medium				Calirose, Magyar kajsi, Polonais, Portici, Reale d'Imola	3
	large				Hargrand, Harmat, San Castrese	5

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>25</b>	<b>QN VG</b>	<b>(+) (c)</b>				
	<b>Flower: position of stigma relative to anthers</b>					
	below				Canetta, Harmat, Rouge du Roussillon	1
	same level				Hargrand, Palsteyn, Portici	2
	above				Canino, Grandir, Pisana, Polonais	3
<b>26</b>	<b>PQ VG</b>	<b>(+) (c)</b>				
	<b>Petal: shape</b>					
	elliptic				Rubilis	1
	circular				Faralia, Harcot, Luizet	2
	oblate				Canino, Polonais, Rustic, Vitillo	3
<b>27</b>	<b>PQ VG</b>	<b>(+) (c)</b>				
	<b>Petal: color on lower side</b>					
	white				Bulida, Cafona, Polonais	1
	whitish pink					2
	light pink				Cheyenne, Harcot, Magyar kajszi, Ninja, San Castrese	3
	dark pink					4
<b>28</b>	<b>QN VG</b>	<b>(+)</b>				
	<b>Sepal: attitude</b>					
	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
<b>29</b> (*)	<b>QN VG</b>	<b>(+)</b>	<b>(d)</b>			
	<b>Fruit: size</b>					
	very small				Haggith, Menace, Supergold, Zard	1
	small				Borsi rózsa, Hâtif Colomer, Ladisun, Patriarca Temprano	3
	medium				Cafona, Canino, Harcot, Paz	5
	large				Ceglédi bíbor, Moniquí, Portici	7
	very large				Ceglédi óriás, Hargrand, Palsteyn, Pisana	9
<b>30</b> (*)	<b>PQ VG</b>	<b>(+)</b>	<b>(d)</b>			
	<b>Fruit: shape in lateral view</b>					
	triangular				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
<b>31</b>	<b>(*) PQ VG</b>	<b>(+)</b>	<b>(d)</b>			
	<b>Fruit: shape in ventral view</b>					
	triangular				Luizet, Mandulakajszí, 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
<b>32</b>	<b>QN MG/MS/VG</b>		<b>(d)</b>			
	<b>Fruit: height</b>					
	short				Patriarca Temprano, Samarkandskij rannij, Sayeb, Supergold	3
	medium				Bergeron, Canino, Cape Bebeco, Polonais	5
	tall				Calirose, Goldrich, Mandulakajszí, Vitillo	7
<b>33</b>	<b>QN MG/MS/VG</b>		<b>(d)</b>			
	<b>Fruit: width in lateral view</b>					
	narrow				Cerasiello, Harmat, Manicot, Samarkandskij rannij, Supergold	3
	medium				Bergeron, Bhart, Cafona, Paz	5
	broad				Hargrand, Moniquí, Roxanne, Vitillo	7
<b>34</b>	<b>QN MG/MS/VG</b>		<b>(d)</b>			
	<b>Fruit: width in ventral view</b>					
	narrow				Cerasiello, Harlayne, Hâtif Colomer, Tri Gems	3
	medium				Bhart, Cape Bebeco, Palummella	5
	broad				Ceglédi arany, Goldrich, Moniquí, Roxanne	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>35.</b>	<b>QN</b>	<b>MG/VG</b>	<b>(d)</b>			
	<b>Fruit: ratio height /ventral width</b>					
	low				Korai zamatos, Patriarca Temprano, Peeka	3
	medium				Cafona, Canino, Magyar kajsz, Rouge du Roussillon, Solitaire	5
	high				Bergeron, Hâtif Colomer, Tri Gems, Vitillo	7
<b>36. (*)</b>	<b>QN</b>	<b>MG/VG</b>	<b>(d)</b>			
	<b>Fruit: ratio lateral width/ventral width</b>					
	very low				Monaco Bello	1
	low				Mandorlon, Maria Ferez, Rustic, Vesna	3
	medium				Bergeron, Luizet, Pisana, Rouge du Roussillon	5
	high				Borsi rózsa, Calicot, Henderson, IP 660	7
	very high				Swired	9
<b>37. (*)</b>	<b>QN</b>	<b>VG</b>	<b>(+)</b>	<b>(d)</b>		
	<b>Fruit: symmetry in ventral view</b>					
	symmetric				Canino, Hâtif Colomer, Magyar kajsz, Paz, Polonais, Portici	1
	slightly asymmetric				Boccuccia, Calirose, Ceglédi óriás, Royal	2
	strongly asymmetric				Borsi rózsa, Grandir, Reale d'Imola	3
<b>38. (*)</b>	<b>PQ</b>	<b>VG</b>	<b>(+)</b>	<b>(d)</b>		
	<b>Fruit: suture</b>					
	raised				Priboto	1
	slightly sunken				Calirose, Magyar kajsz, Ninfa, Rouge du Roussillon	2
	moderately sunken				Bergeron, Ladisun, Monaco Bello, Pineapple	3
	deeply sunken				Cape Bebeco, Dima, Henderson, Kech-pshar, Portici	4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>39</b>	<b>QN VG</b>	<b>(d)</b>				
	<b>Fruit: depth of stalk cavity</b>					
	shallow				Harlayne, Peeka, Rouge du Roussillon, San Castrese	1
	medium				Blenheim, Grandir, Magyar kajszí, Víttilo	3
	deep				Banzaï, Canino, Ceglédi óriás, Hâtif Colomer, Kayzee, Palsteyn	5
<b>40 (*)</b>	<b>PQ VG</b>	<b>(+) (d)</b>				
	<b>Fruit: shape of apex</b>					
	acute				Hula Blush, Mandulakajszí, Reale d'Imola	1
	rounded				Bergeron, Calirose, Goldrich, Luizet, Portici	2
	truncate				Bella d'Imola, Hargrand, Hâtif Colomer, Royal	3
	retuse				Flash Cot	4
<b>41</b>	<b>PQ VG</b>	<b>(+) (d)</b>				
	<b>Fruit: shape of tip</b>					
	pointed				Mediabel	1
	flat				Farbaly	2
	weakly depressed				Suapriseven	3
	strongly depressed				Primaya	4
<b>42 (*)</b>	<b>QL VG</b>	<b>(d)</b>				
	<b>Fruit: presence of mucron</b>					
	absent				Blenheim, Bulida, Canino, San Castrese	1
	present				Bhart, Pisana	9
<b>43</b>	<b>QN VG</b>	<b>(d)</b>				
	<b>Fruit: surface</b>					
	smooth				Bergeron, Ninja, Palsteyn, Portici, Rouge du Roussillon	1
	slightly bumpy				Cape Bebeco, Oscar, Supergold	2
	moderately bumpy				Canino, Ceglédi óriás, Falaria, Nonno, Sherpa	3
	very bumpy				Lotte, Rosa	4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>44. (*)</b>	<b>QL VG</b>	<b>(d)</b>				
	<b>Fruit: pubescence</b>					
	absent				Badami, Glattschalige Frühmarille	1
	present				Bergeron, Bulida, Canino, Magyar kajsi	9
<b>45.</b>	<b>QN VG</b>	<b>(d)</b>				
	<b>Fruit: glossiness</b>					
	absent or weak				Rouge du Roussillon	1
	medium				Harcot	2
	strong				Maravilla, Sun Glo	3
<b>46. (*)</b>	<b>PQ VG</b>	<b>(d)</b>				
	<b>Fruit: ground color of skin</b>					
	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, Roxanne	5
	medium orange				Calirose, Hâtif Colomer, Luizet, Pisana, Veecot	6
	dark orange				Bhart, Harcot, Harogem	7
<b>47. (*)</b>	<b>QN VG</b>	<b>(+)</b>	<b>(d)</b>			
	<b>Fruit: relative area of over color</b>					
	absent or very small				Charisma, Maria Matilde, Moniqué, Yerevani	1
	small				Cafona, Canino, Cape Bebeco, Goldrich	3
	medium				Hâtif Colomer, Magyar kajsi, Palsteyn, Portici, Roxy	5
	large				Bergeron, Bhart, Golden Blush, Pisana	7
	very large				Ravicille, Ravilong	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>48. (*)</b>	<b>PQ VG</b>					
	<b>Fruit: hue of over color</b>					
	orange red				Cape Bebeco, Kayzee	1
	red				Bhart, Faralia	2
	pink				Colorado, Palsteyn, Rustic	3
	purple				Rubissia, Totem	4
<b>49.</b>	<b>QN VG</b>					
	<b>Fruit: intensity of over color</b>					
	light				Big Cot	3
	medium				Calirose	5
	dark				Flash Cot, Primarina	7
<b>50. (*)</b>	<b>PQ VG</b>	<b>(+)</b>				
	<b>Fruit: pattern of over color</b>					
	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
<b>51. (*)</b>	<b>PQ VG</b>					
	<b>Fruit: color of flesh</b>					
	white				Cibo del Paradiso, Mouchbah Mourry, Spatak	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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>52.</b>	<b>QN VG</b>	<b>(d)</b>				
	<b>Fruit: texture of flesh</b>					
	fine				Fracasso, Harlayne, Koolgat, Peeka	1
	medium				Canino, Cape Bebeco, Magyar kajszí, Piet Cillié	2
	coarse				Bergeron, Précoce d'Imola	3
<b>53.</b>	<b>QN VG</b>	<b>(+)</b>	<b>(d)</b>			
	<b>Fruit: firmness of flesh</b>					
	very soft				Viceroy	1
	soft				Alessandrino, Goldcot, Grandir	3
	medium				Cape Bebeco, Magyar kajszí, Piet Cillié, Rouge du Roussillon, San Castrese	5
	firm				Bella d'Imola, Bergeron, Palsteyn, Suapriseven	7
	very firm				Boccuccia Liscia, Borsi rózsza, Cacansko zlato, Harogem	9
<b>54.</b>	<b>QN MG</b>		<b>(d)</b>			
	<b>Fruit: ratio weight of fruit/weight of stone</b>					
	low				Borsi rózsza, Reale d'Imola	3
	medium				Blenheim, Hâtif Colomer, Portici, Primaya	5
	high				Badami, Bergeron, Hula Blush, San Castrese	7
<b>55. (*)</b>	<b>QN VG</b>		<b>(d)</b>			
	<b>Fruit: adherence of stone to flesh</b>					
	absent or very weak				Bergeron, Hargrand, Ninfa, Peeka	1
	weak				Canino, Nonno, Paz, Rouge du Roussillon, Sirena	3
	medium				Tardif de Bordaneil	5
	strong				Comandor, Precoce di Toscana	7

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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>59</b>	<b>(*) QN MG/VG</b>	<b>(+)</b>				
	<b>Time of beginning of fruit ripening</b>					
	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 kajszí	4
	medium				Amber Gold, Bergeron, Harlayne, Pisana, Polonais	5
	medium to late				Anegat	6
	late				Faralia, Larquen	7
	late to very late				Fartoli	8
	very late				Farclo, Lartago	9



8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

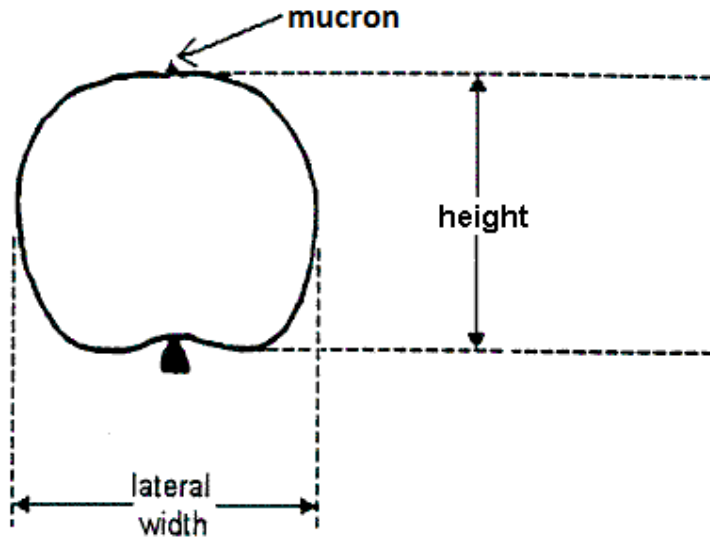
Characteristics containing the following key in the Table of Characteristics should be examined as indicated below:

- (a) Tree/One-year-old shoot: All observations on the tree and on the one-year-old shoot should be made during the dormant period, on trees that have fruited at least once.
- (b) Leaf: All observations on the leaf should be made on fully developed leaves from the middle third of a well developed current season's shoot.
- (c) Flower: All observations on the flower should be made on fully developed flowers at the beginning of dehiscence.

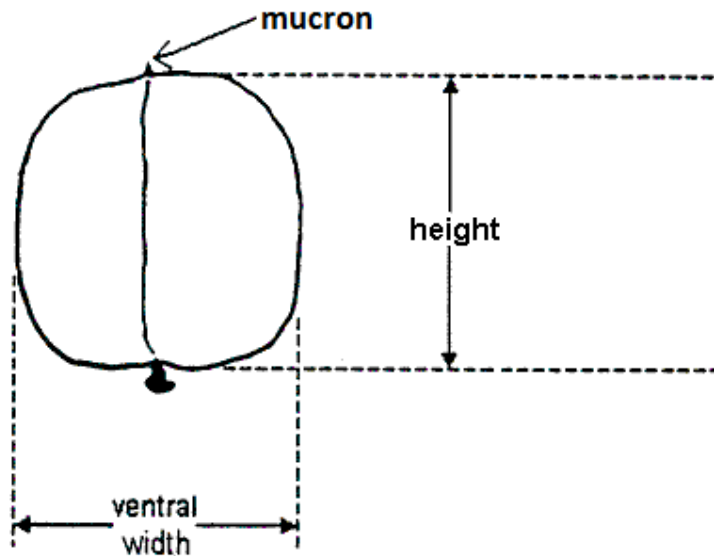
- (d) Fruit/Stone: All observations on the fruit and stone should be made on 15 fruits, five from each of three trees. In the case of ten trees, 20 fruits should be observed, two from each tree.

Fruit: All observations on the fruit height, lateral and ventral width the ratio of the fruit as well as the mucron should be done according to the illustrations.

### Lateral view



### Ventral view

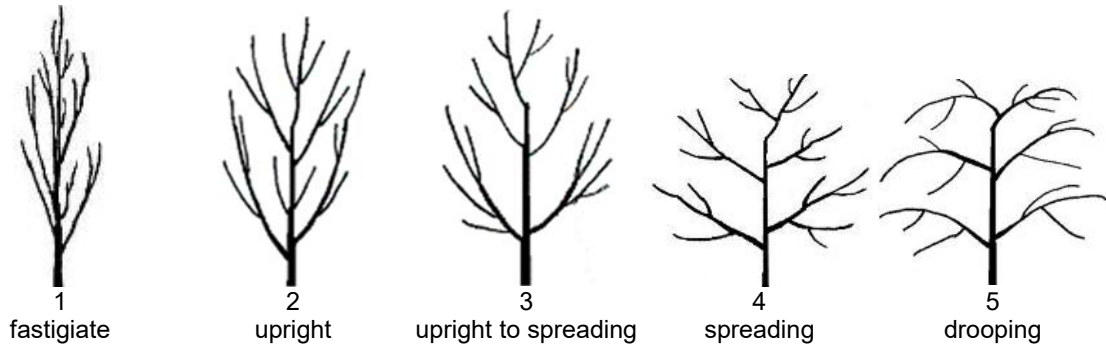


## 8.2 Explanations for individual characteristics

### Ad. 1: Tree: vigor

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

### Ad. 2: Tree: habit



### Ad. 3: Tree: number of branches

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

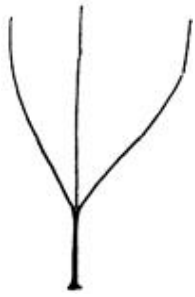
### Ad. 5: Young shoot: intensity of anthocyanin coloration of apex

Observation should be done during rapid growth.

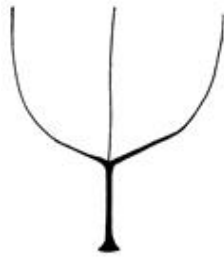
### Ad. 6: One-year-old shoot: color on sunny side

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

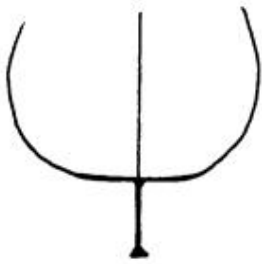
Ad. 12: Leaf blade: shape of base



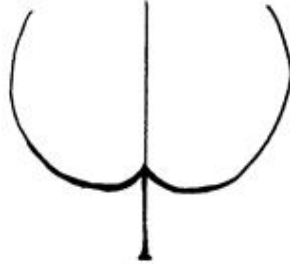
1  
acute



2  
obtuse

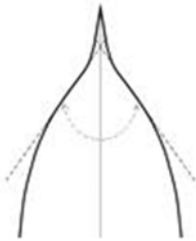


3  
truncate

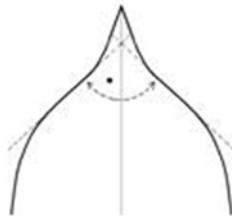


4  
cordate

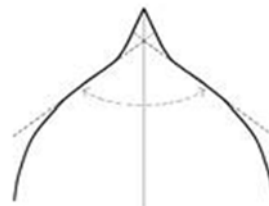
Ad. 13: Leaf blade: angle of apex



1  
acute



2  
right-angled

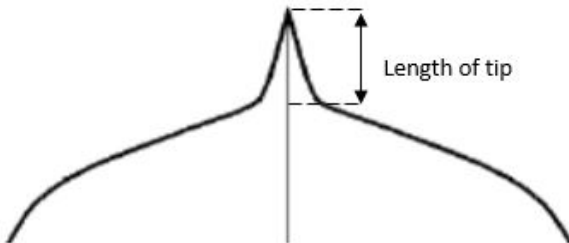


3  
moderately obtuse



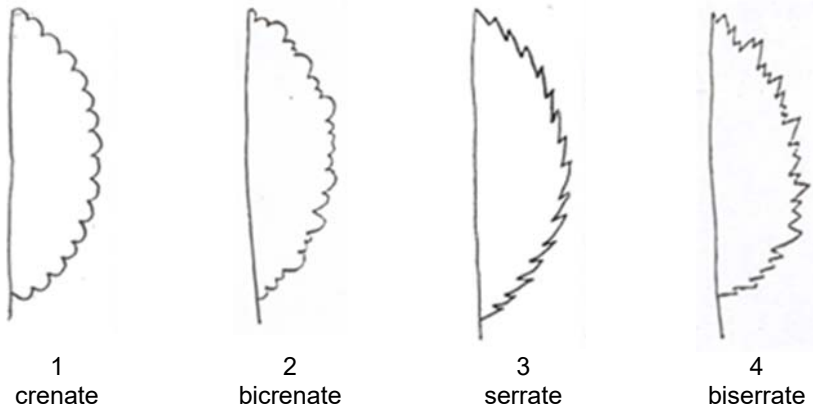
4  
strongly obtuse

Ad. 14: Leaf blade: length of tip



Ad. 15: Leaf blade: incisions of margin

Observations should be done on the apical part of the leaf.



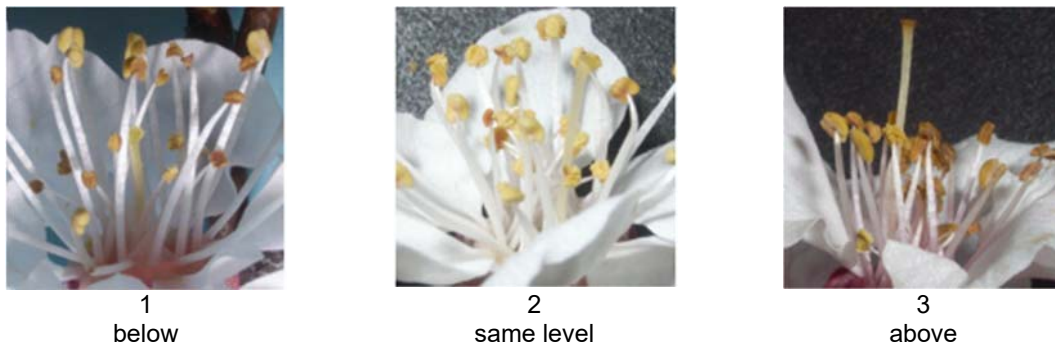
Ad. 17: Leaf blade: profile in cross section

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

Ad. 22: Petiole: number of nectaries

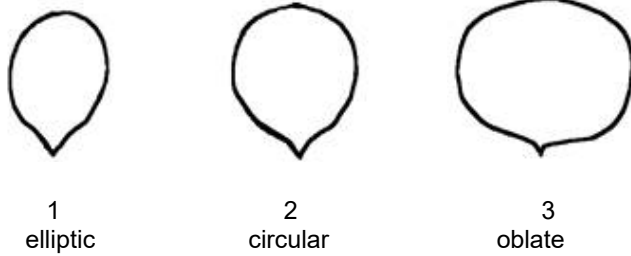


Ad. 25: Flower: position of stigma relative to anthers



Ad. 26: Petal: shape

Observations should exclude the claw.



Ad. 27: Petal: color on lower side

Observations should be made just after opening of sepals on the lower side.

Ad. 28: Sepal: attitude

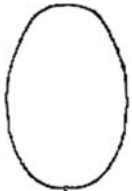
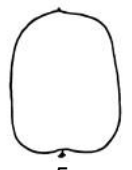
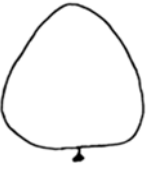
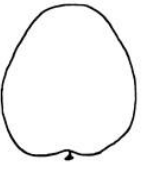
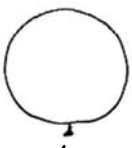

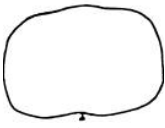
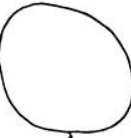
Observations should be made on fully opened flowers.





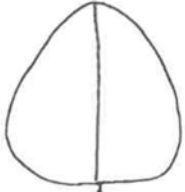
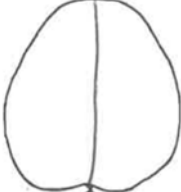
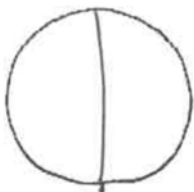

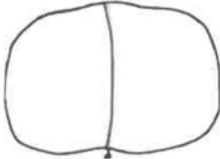
Ad. 29: Fruit: size

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

Ad. 30: Fruit: shape in lateral view

		← broadest part →			
		below middle	at middle	above middle	
width (ratio length/width)					
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

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



Ad. 37: Fruit: symmetry in ventral view



1  
symmetric



2  
slightly asymmetric



3  
strongly asymmetric

Ad. 38: Fruit: suture



1  
raised



2  
slightly sunken



3  
moderately sunken



4  
deeply sunken

Ad. 40: Fruit: shape of apex

Observations should be made on fruits in lateral view.



1  
acute



2  
rounded



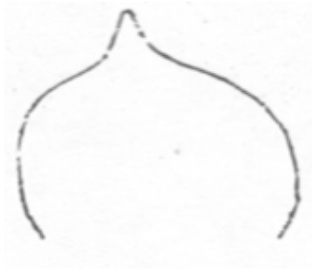
3  
truncate



4  
retuse

Ad. 41: Fruit: shape of tip

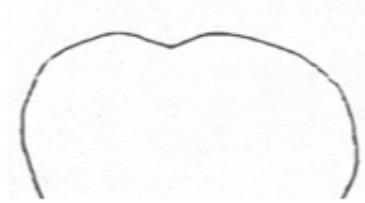
Observations should exclude the mucron tip.



1  
pointed



2  
flat



3  
weakly depressed

4  
strongly depressed

Ad. 47: 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

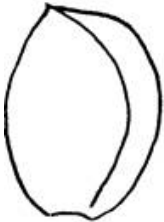
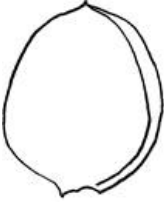

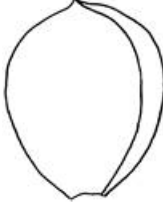



3  
covered all over with very small spots

Ad. 53: Fruit: firmness of flesh

Observation is made by squeezing the fruit.

Ad. 56: Stone: shape in lateral view

		← broadest part →		
		below middle	at middle	above middle
width (ratio length/width)				
narrow (high)			 4 oblong	
medium (medium)		 1 ovate	 3 elliptic	 5 obovate
broad (low)			 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

When 5-10% ripen fruits can be observed. Fruit ripening should be considered as the time of eating ripeness.

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 kajszí	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 Zemědělské 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: "Pomologija". 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	<input type="text" value="Prunus armeniaca L."/>
1.2	Common name	<input type="text" value="Apricot"/>
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"/>

#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) partially known cross [ ]  
(please state known parent variety(ies))

(please state known parent varieties)  
(.....) 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)



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

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

Characteristics	Example Varieties	Note
<b>5.1 Tree: vigor (1)</b>		
very weak	Sub-zero	1 [ ]
very weak to weak		2 [ ]
weak	Ninfa, Polonais, Rustic	3 [ ]
weak to medium		4 [ ]
medium	Bergeron, Canino, Peek, Rouge du Roussillon	5 [ ]
medium to strong		6 [ ]
strong	Earle Orange, Magyar kajszi, Palsteyn, Pisana, Portici	7 [ ]
strong to very strong		8 [ ]
very strong	Monaco Bello, Moniqui, Solitaire, Viceroy	9 [ ]
<b>5.2 Tree: habit (2)</b>		
fastigate	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 [ ]
<b>5.3 Fruit: size (29)</b>		
very small	Haggith, Menace, Supergold, Zard	1 [ ]
very small to small		2 [ ]
small	Borsi rózsza, Hâtif Colomer, Ladisun, Patriarca Temprano	3 [ ]
small to medium		4 [ ]
medium	Cafona, Canino, Harcot, Paz	5 [ ]
medium to large		6 [ ]
large	Ceglédi bíbor, Moniqui, Portici	7 [ ]
large to very large		8 [ ]
very large	Ceglédi óriás, Hargrand, Palsteyn, Pisana	9 [ ]

Characteristics	Example Varieties	Note
<b>5.4 Fruit: shape in lateral view (30)</b>		
triangular	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 [ ]
<b>5.5 Fruit: ground color of skin (46)</b>		
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, Roxanne	5 [ ]
medium orange	Calirose, Hâtif Colomer, Luizet, Pisana, Veecot	6 [ ]
dark orange	Bhart, Harcot, Harogem	7 [ ]
<b>5.6 Fruit: relative area of over color (47)</b>		
absent or very small	Charisma, Maria Matilde, Moniquí, Yerevani	1 [ ]
small	Cafona, Canino, Cape Bebeco, Goldrich	3 [ ]
medium	Hâtif Colomer, Magyar kajszi, Palsteyn, Portici, Roxy	5 [ ]
large	Bergeron, Bhart, Golden Blush, Pisana	7 [ ]
very large	Ravicille, Ravilong	9 [ ]
<b>5.7 Fruit: color of flesh (51)</b>		
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
<b>5.8 Time of beginning of flowering (58)</b>		
very early	Bakour, Colorado, Currots, Harmat, Ninfa, Solitaire	1 [ ]
early	Canino, Harcot, Hâtif Colomer, Roxanne, San Castrese	3 [ ]
medium	Bhart, Magyar kajszai, Moniquí, Portici, San Francesco, Supergold	5 [ ]
late	Bergeron, Boccuccia Liscia, Farius, Harlayne, Ladisun, Polonais	7 [ ]
very late	Badami, Harglow, Skromnyj, Stella, Zard	9 [ ]
<b>5.9 Time of beginning of fruit ripening (59)</b>		
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 kajszai	4 [ ]
medium	Amber Gold, Bergeron, Harlayne, Pisana, Polonais	5 [ ]
medium to late	Anegat	6 [ ]
late	Faralia, Larquen	7 [ ]
late to very late	Fartoli	8 [ ]
very late	Farclo, Lartago	9 [ ]

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 <b>similar</b> variety(ies)	Describe the expression of the characteristic(s) for <b>your</b> candidate variety
<i>Example</i>	<i>Fruit: ground color of skin</i>	<i>light orange</i>	<i>dark orange</i>
Comments:			

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#7. Additional information which may help in the examination of the variety

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

Yes  No

(If yes, please provide details)

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

Yes  No

(If yes, please provide details)

7.3 Other information

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.]

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".

.....

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]