



TWF/33/13

ORIGINAL: English

DATE: October 21, 2002

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

**TECHNICAL WORKING PARTY
FOR
FRUIT CROPS****Thirty-Third Session
San Carlos de Bariloche, Argentina
November 25 to 29, 2002****WORKING PAPER ON DRAFT TEST GUIDELINES FOR APRICOT
(*Prunus armeniaca* L.)***Document prepared by experts from Italy and Hungary*

The attached document TG/70/4(proj.1) already incorporates the standard wording of document TGP/7.2, which was adopted by the Technical Committee at its thirty-eighth session in April 2002, and includes some additional standard wording from document TGP/7.1 Draft 1, also agreed at that session.

[Document TG/70/4(proj.1) follows]



TG/70/4(proj.1)(TWF/33/13)

ORIGINAL: English

DATE: October 21, 2002

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

**GUIDELINES****FOR THE CONDUCT OF TESTS****FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

Alternative Names: *

Latin	English	French	German	Spanish
Prunus armeniaca L.	Apricot	Abricotier	Aprikose	Albaricoquero
Armeniaca vulgaris Lam.	-	-	-	-

ASSOCIATED DOCUMENTS

These guidelines should be read in conjunction with document TG/1/3, "General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants" (hereinafter referred to as 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 GUIDELINES.....	3
2. MATERIAL REQUIRED	3
3. METHOD OF EXAMINATION	3
3.1 Duration of Tests	3
3.2 Testing Place	3
3.3 Conditions for Conducting the Examination	3
3.4 Test Design	4
3.5 Number of Plants/Parts of Plants to be Examined	4
3.6 Additional Tests	4
4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY	4
4.1 Distinctness	4
4.1.1 General Recommendations	4
4.1.2 Consistent Differences	5
4.1.3 Clear Differences	5
4.2 Uniformity	5
4.3 Stability	5
5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL.....	5
6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS	6
6.1 Categories of Characteristics	6
6.1.1 Standard Test Guidelines Characteristics	6
6.1.2 Asterisked Characteristics	6
6.2 States of Expression and Corresponding Notes	6
6.3 Types of Expression	6
6.4 Example Varieties	6
6.5 Legend	7
7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLADECARACTERES.....	8
8. EXPLANATIONS OF THE TABLE OF CHARACTERISTICS.....	24
9. LITERATURE.....	32
10. TECHNICAL QUESTIONNAIRE.....	34

1. Subject of these Guidelines

These Test Guidelines apply to all varieties of *Prunus armeniaca* L.

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of plants.

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

5 trees (one -year-old grafts) or
3 budsticks or
5 dormant shoots for grafting, sufficient to propagate 5 trees

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. If it has been produced by *in vitro* propagation this fact has to be stated by the applicant.

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 *Duration of Tests*

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

3.2 *Testing Place*

The tests should normally be conducted at one place. If any characteristics of the variety, which are relevant for the examination of DUS, cannot be seen at that place, the variety may be tested at an additional place.

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

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

- a) Tree/One-year-old shoot: Unless otherwise stated, all observations on the tree and on the one-year-old shoot should be made during winter, on trees that have fruited at least once.
- b) Leaf: Unless otherwise stated, all observations on the leaf should be made in summer on fully developed leaves from the middle third of a well developed current season's shoot.
- c) Flower: Unless otherwise stated, all observations on the flower should be made on fully developed flowers at the beginning of anther dehiscence.
- d) Fruit/Stone: All observations on the fruit and stone should be made on 25 fruits, five from each of five trees.

3.4 Test Design

3.4.1 Each test should be designed to result in a total of, at least 5 trees.

3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

3.5 Number of Plants/Parts of Plant to be Examined

Unless otherwise indicated, all observations determined by measuring or counting should be made on 5 plants or 3 parts taken from each of 5 plants. In particular, in the case of fruit and stone characteristics, observations should be made on 25 fruits, five taken from each of five trees.

3.6 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 minimum duration of tests recommended in section 3.1 reflects, in general, the need to ensure that any differences in a characteristic are sufficiently consistent.

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.

4.2 *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 The acceptable number of off-types tolerated in a sample size of 5 plants is none on the basis of a population standard of 1% and an acceptance probability of 95%.

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 tested, either by growing a further generation, or by testing a new seed or plant stock to ensure that it exhibits the same characteristics as those shown by the previous 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 is 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 others 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 trials so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

- (a) Fruit: size (characteristic 29);
- (b) Fruit: ground color of skin (characteristic 42);
- (c) Stone: bitterness of dry kernel (characteristic 52);
- (d) Time of beginning of flowering (5 - 10% open flowers) (characteristic 53);
- (e) Time of beginning of fruit ripening (characteristic 54).

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

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*

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.

6.3 *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*

- (*) Asterisk characteristic –seeSection6.1.2
- (QL) Qualitativecharacteristic –seeSection6.3
- (QN) Quantitativecharacteristic –seeSection6.3
- (PQ) Pseudo-Qualitativecharacteristic –seeSection6.3
- (+) SeeExplanationsontheTableofCharacteristicsinC hapter8
- | |
|---|
| a |
|---|

 to

d

 SeeSection3.3.1

7. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tablă de caractere

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota	
1.	a	Tree: vigor					
(+)							
	very weak				Sub-zero	1	
	weak				<i>Cannetta, Polonais</i>	3	
	medium				<i>Rouge du Roussillon, Peeka, Bergeron</i>	5	
	strong				<i>Palsteyn, Earle Orange, Magyarkajsi</i>	7	
	very strong				<i>Moniquí, Viceroy, Ceglédi bíbor</i>	9	
2.	a	Tree: habit (formerly No.3)					
(+)							
	fastigate				Japan's Early	1	
	upright				<i>Reale d'Imola, Earle Orange, Harcot</i>	3	
	spreading				<i>Blenheim, Hargrand, Magyarkajsi</i>	5	
	drooping				<i>Palsteyn, Polonais, Vesna</i>	7	
	weeping					9	

Proposal (ZA): Insert semi up right between upright and spreading, remove weeping; to change the denominations of the states on the drawing: spreading for semi upright (state 5) drooping for spreading (state 7) and weeping for drooping (state 9).

¹ Example varieties written by regular letters can be grown successfully under Mediterranean or similar climatic conditions, varieties written by italic letters can be grown successfully under Continental climatic conditions

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
3.	a	Tree: number of branches (formerly No.2)				
	week				Earle Orange, Roxana	3
	medium				San Castrese, <i>Bergeron</i> , <i>Magyarkajsi</i>	5
	strong				Prevete, <i>Vecot</i> , <i>Harlayne</i>	7
Proposal (ZA): Change Tree: number of branches for Tree: branching because number of branches can be manipulated						d, see other
<i>Prunus</i> description forms like Japanese apricot.						
4.	a	Tree: distribution of flowerbuds				
(*)						
	predominantly on spurs				Monaco Bello, <i>SunGlo</i> , <i>Earle Orange</i>	1
	predominantly on one-year old shoots				Ferriana, San Castrese, <i>Roxana</i>	2
	equally on spurs and on one-year old shoots				Palumella, Canino, <i>Bergeron</i>	3
5.		Young shoot: anthocyanin coloration of apex (during rapid growth)				
(*)						
	weak				Blenheim, <i>Hargrand</i> , <i>Samarkandskijrannij</i>	3
	medium				San Castrese, <i>Polonais</i> , <i>SunGlo</i>	5
	strong				Ohaicos, <i>Ceglédibíbor</i> , <i>Roxana</i>	7
6.	a	One-year old shoot: color on sunnyside (NEW!)				
(+)						
	orange brown				Grandir, <i>Ceglédiarany</i>	1
	brown				Palsteyn, <i>Ceglédióriás</i>	2
	red -purple brown				Royal, <i>Harcot</i>	3

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7.	a	One-yearoldshoot: sizeofbudsupport (formerlyNo.6)				
		small			Canino, <i>Harcot</i>	3
		medium			Palsteyn, <i>Hargrand</i> , <i>Magyarkajsi</i>	5
		large			Hamidi, <i>Roxana</i> , <i>Ceglédiarany</i>	7
8.	b	Leafblade:length (formerlyNo.7)				
		short			EarlyBiady, <i>Samarkandskijrannij</i>	3
		medium			RougeduRoussillon, Canino, <i>Veecot</i>	5
		long			Moniquí, <i>Ceglédiarany</i> , <i>Roxana</i>	7
9.	b	Leafblade:width (formerlyNo.8)				
		narrow			RougetdeSernhac, <i>Ceglédibíbor</i>	3
		medium			Canino, <i>Harcot</i> , <i>Veecot</i>	5
		broad			Moniquí, <i>CeglédiPiroska</i>	7
10.	b	Leafblade:ratio length/width (formerlyNo.9)				
		verysmall			Canino, <i>Búlida</i>	1
		small			Cafona, <i>Bergeron</i>	3
		medium			SanCastrese, <i>Harcot</i>	5
		large			RougetdeSernhac, <i>Ceglédibíbor</i>	7
		verylarge			ColoradoTemprano, Precoced'Imola	9

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11.	b	Leafblade:green color of upperside (formerly No.10)				
	light				Velasquez, <i>Veecot</i>	3
	medium				Verdun, <i>Harcot</i> , <i>Ceglédióriás</i>	5
	dark				Moniquí, <i>Earle Orange</i>	7
12.	b	Leafblade:shape of base (formerly No.11)				
(+)	acute				Rouget de Sernhac, <i>Ceglédibíbor</i>	1
	obtuse				Bhart, Magyarkajszai	2
	truncate				Canino, Blenheim, <i>Bergeron</i>	3
	cordate				Búlida, <i>Harogem</i>	4
13.	b	Leafblade:angle of apex (excluding tip) (formerly No.12)				
(+)	acute				Boccuccia	1
	right-angled				Ceglédióriás	2
	obtuse				Moniquí, <i>Harcot</i> , <i>Bergeron</i>	3
14.	b	Leafblade:length of tip (formerly No.13)				
	absent or very short				Alpha	1
	short				Harmat, Korai piros	3
	medium				Bhart, Magyarkajszai	5
	long				Roxana	7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
15.	b	Leafblade:incisions ofmargin(formerly No.14)				
(+)						
	crenate				Verdun	1
	bicrenate				Búlida, <i>Bhart</i>	2
	bluntlyserrate					3
	bluntlybiserrate				Roxana	4
	sharplyserrate				Boccuccia	5
	sharplybiserrate				Hamidi, <i>Rakovszky</i>	6
16.	b	Leafblade: undulationof margin(formerly No.15)				
	weak				Palsteyn, <i>Harcot</i>	3
	medium				Blenheim, <i>Roxana</i>	5
	strong				PietCillié, <i>Polonais</i>	7
17.	b	Leafblade:profile incrosssection (formerlyNo.16)				
(+)						
	straight				RougetdeSernhac, <i>EarleOrange</i>	1
	slightlyconcave				Moniquí,H âtifColomer, <i>Bergeron</i> ,	2
	stronglyconcave				Polonais	3
18.	b	Petiole:length (formerlyNo.17)				
(*)						
	short				Moniquí, SanFrancisco, <i>Polonais</i>	3
	medium				Frater,Cafona, <i>Magyarkajsi</i>	5
	long				Búlida, D' Alessandria,EtenBey	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
19. b	Leaf:ratio length of blade/length of petiole (formerly No. 18)					
	small				Rouget de Sernhac, <i>Earle Orange</i>	3
	medium				Hâtif Colomer, Rouge du Roussillon, <i>Magyarkajszí</i>	5
	large				Moniquí, <i>Polonais</i>	7
20. b	Petiole: thickness (formerly No. 19)					
	thin				Pineapple	3
	medium				Colomar, <i>Veecot, Harcot</i>	5
	thick				Búlida, Moniquí, <i>Ceglédiarany</i>	7
21. b	Petiole: anthocyanin coloration of upper side (formerly No. 20)					
	weak					3
	medium				Frater, <i>Borsirózsa</i>	5
	strong				Early Biady, <i>Ceglédibíbor</i>	7
22. (*) b	Petiole: predominant number of nectaries (formerly No. 21)					
	none or one				Rouget de Sernhac, <i>Mandulakajszí</i>	1
	two or three				Cafona, <i>Magyarkajszí, Veecot</i>	2
	more than three				Canino, Moniquí	3

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23.	b	Petiole: size of nectaries (formerly No.22)				
		small			Alpha	3
		medium			Tilton, <i>Magyarkajsz</i>	5
		large			Early Biady, <i>Harmat</i>	7
24. (*) (+)	c	Flower: diameter (formerly No.23)				
		small			Hâtif Colomer, <i>Borsirózsa</i>	3
		medium			Realed' Imola, <i>Magyarkajsz</i>	5
		large			Barese, <i>Harmat</i>	7
25.	c	Flower: position of stigma in relation to anthers (formerly No.24)				
		below			Canetta	1
		same level			Barese	2
		above			Dr. Mascle	3
Proposal (ZA): Flower: position of stigma as compared with anthers change to: Flower: position of stigma in relation to position of anthers						
26. (+)	c	Petal: shape (excluding claw) (formerly No.25)				
		broad elliptic			Boccuccia	1
		circular			Luizet	2
		transverse elliptic			Molodoj	3

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
27. (+)	c Petal:color on lower side (formerly No. 26)					
	white				Cafona, <i>Polonais</i>	1
	light pink				Magyarkajszai	2
	dark pink				Harcot	3
28.	c Petal: length of claw (formerly No. 27)					
	short				Gengary	
	medium				Early Biady	5
	long				Harmat	7
29. (*)	d Fruit: size (formerly No. 28)					
	very small				Haggith, Precoce Gialla, <i>Zard</i>	1
	small				Patriarca Temprano, Hâtif Colomer	3
	medium				Cafona, Canino, <i>Harcot</i>	5
	large				Moniquí, <i>Ceglédibíbor</i>	7
	very large			both	Palsteyn, <i>Hargrand</i> , <i>Ceglédióriás</i>	9

Proposal (ZA): To change this characteristic for Char. 29. Fruit: length and 30. Fruit: width in lateral view; both characteristics could have the same states. The problem is how to measure or observe size as fruit length or as fruit width.

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota	
30.	d	Fruit:shape in lateral view (formerly No.29)					
(+)							
	elliptic				Yerevani	1	
	circular				Rougedu Roussillon, <i>Polonais</i>	2	
	oblate				Patriarca Temprano	3	
	rectangular				Cafona	4	
	triangular				Luizet	5	
	ovate				Canino, <i>Bergeron</i>	6	
	obovate				Harcot, Harmat	7	
	rhombic				Vulcan	8	
Proposal(ZA): To change stat es because the sketches do not correlate to the notes: number 6 is obovate and not ovate, number 7 is ovate and not obovate and number 8 should be trapezoid instead of rhombic.							
31.	d	Fruit:shape in ventral view (formerly No.30)					
(+)							
	elliptic				Flaming Gold, <i>Ambrosia</i>	1	
	circular				Rougedu Roussillon, <i>Polonais</i>	2	
	oblate					3	
	rectangular				Hâtif Colomer, <i>Veecot</i>	4	
	triangular				Realed' Imola, <i>Luizet</i>	5	
	ovate				Canino, <i>Bergeron</i> , <i>Hargrand</i>	6	
	obovate				Harcot, Harmat	7	
32.	d	Fruit:ratio length/ventral width					
(+)							
	small				Patriarca Temprano	3	
	medium				Rougedu Roussillon, Canino, Peekka	5	
	large				Hâtif Colomer, <i>Bergeron</i>	7	

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
Proposal(ZA):TochangeFruit:ratiolength/ventralwidthforFruit:ratiolength/lateral width						
33.	d	Fruit:ratiolateral width/ventralwidth (formerlyNo.31)				
(+)						
		small			MariaFerez,Mandorlon	3
		medium			RougeduRoussillon <i>Luizet,Bergeron,</i>	5
		large			Canino, <i>Henderson</i>	7
34.	d	Fruit:predominant symmetryalong suture (formerlyNo. 33)				
		symmetric			HâtifColomer, <i>Polonais, Magyarkajszí</i>	2
		slightlyasymmetric			Boccuccia,Royal, <i>Ceglédióriás</i>	1
		clearlyasymmetric			Mammano, <i>Borsirózsa</i>	
Proposal(ZA):TochangeFruit:predominantsymmetryalongstaturefo view rFruit:predominantsymmetryalongstatureinventral						
35.	d	Fruit:depthof suture(formerlyNo. 34)				
(*)						
		shallow			RougeduRoussillon, <i>Magyarkajszí</i>	3
		medium			Peeka, <i>Pineapple, Ceglédióriás</i>	5
		deep			<i>Henderson,Dima, Kech-pshar</i>	7
36.	d	Fruit:depthofstalk cavity(formerlyNo. 35)				
(*)						
		shallow			RougeduRoussillon	3
		medium			Royal	5
		deep			HâtifColomer,Palsteyn	7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37. d (* (+)	Fruit:shapeofapex (formerlyNo.36)					
	acute				Realed'Imola	1
	rounded				Luzet,Bergeron	2
	truncate				HâtifColomer	3
	depressed				EarlyRil	4
38. d	Fruit:presenceof mucro(formerlyNo. 37)					
	absent				Blenheim, <i>Magyarkajsz</i>	1
	present				Bhart	9
39. d (*	Fruit:surface (formerlyNo.38)					
	smooth				RougeduRoussillon, Palsteyn, <i>Bergeron</i>	1
	bumpy				Canino,Búlida	2
40. d	Fruit:skin pubescence (formerlyNo.39)					
	absent				<i>GlattschaligeFrühmarille</i>	1
	present				Magyarkajsz, <i>Bergeron</i>	9
41. d	Fruit:glossinessof skin(NEW!)					
	absentorveryweakly expressed				Moorpark	1
	weaklyexpressed				<i>Bergeron</i>	2
	stronglyexpressed				Cluthagold	3

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
42. (*)	d Fruit:groundcolor of skin (formerly No.40)					
	white				Shirazskijbelyj	1
	yellowish				Moniquí, P ietCillié, <i>Yerevani</i>	2
	yellowgreen				<i>GrüneSpätmarille,</i> <i>KaisiAshtarak,</i> <i>SateniKarmir</i>	3
	lightorange				RougeduRoussillon, Canino, <i>Goldcot</i>	4
	mediumorange				HâtifColomer , <i>Luizet,</i> <i>Veecot</i>	5
	darkorange				Harogem, Harcot, Bhart	6
43.	d Fruit:amount of overcolor of skin (formerly No.42)					
	absent or very low				Moniquí, <i>Veecot</i>	1
	low				Cafona, Canino, <i>Sungiant</i>	3
	medium				HâtifColomer, Palsteyn, <i>Magyarkajszí</i>	5
	high				Portici, <i>Bergeron, Bhart</i>	7
44.	d Fruit: hue of over color of skin (NEW!)					
	orange					1
	orange red					2
	red					3
	pink					4

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
45.	d Fruit:intensityof overcolorofskin (formerlyNo.41)					
	light				Búlida	3
	medium				CapeEarly, <i>Magyarkajsz</i>	5
	dark				<i>Bergeron, Cegléd ibíbor, Bhart</i>	7
46.	d Fruit:colorofflesh (formerlyNo.43)					
(*)	whitishgreen				Chinan.1, <i>Amban</i>	1
	white				MouchbahMourry, <i>Spitak</i>	2
	cream				Moniquí, Malatya, PatriarcaTemprano	3
	lightorange				Canino, Japan'sEarly, <i>Yerevani,</i>	4
	mediumorange				RougeduRoussillon, Screara, <i>Harglow</i>	5
	darkorange				Palsteyn, H âtifColomer, <i>Harcot</i>	6
47.	d Fruit:textureof flesh (formerlyNo.44)					
	fine				Peeka	3
	medium				PietCillié	5
	coarse				Búlida, <i>Bergeron</i>	7

	MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
48.	d	Fruit:firmnessof flesh (formerlyNo.45)					
		verysoft				Viceroy	1
		soft				Canino, <i>Goldcot</i>	3
		medium				RougeduRoussillon, PietCillié	5
		firm				Palsteyn, <i>Bergeron</i>	7
		veryfirm				<i>Harogem,Borsirózsa, Čačanskozlato</i>	9
49.	d	Fruit:weightof stoneinrelationto weightoffruit (formerlyNo.46)					
		low				DeJouy, <i>Bergeron</i>	3
		medium				HâtifColomer, <i>Royal</i>	5
		high				Realed'Imola	7
50. (*)	d	Fruit:adherenceof stonetoflesh (formerlyNo.47)					
		absent orveryweak				Peeka, <i>Hargrand, Bergeron</i>	1
		weak				Canino, RougeduRoussillon	3
		medium				TardifdeBordaneil	5
		strong				Cafona,Precedi Toscana,Comandor	7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
51.	d	Stone:shapein lateralview (formerlyNo.48)				
(*)						
(+)						
	oblong				RougeduRoussillon, Palsteyn, CibodelParadiso	1
	elliptic				PrecediToscana, <i>Bergeron</i>	2
	circular				Canino,EtenBey, <i>Hargrand</i> ,	3
	ovate				Magyarkajszai,Goldcot	4
	obovate				Harcot,Harmat	5
52.	d	Stone:bitternessof dryker nel (formerlyNo.49)				
(*)						
(+)						
	absentorveryweak				Realed'Imola, <i>Bergeron</i> , <i>Harcot</i>	1
	weak				Moniquí, RougetdeSernhac	3
	medium				Palsteyn	5
	strong				Canino,H âtifColomer, <i>Viceroy</i>	7
	verystrong				Borsirózsa	9
53.		Timeofbe ginningof flowering (formerlyNo.50)				
(*)						
(+)						
	veryearly				Setacciara,SanCastrese, <i>Harmat</i>	1
	early				HâtifColomer,Jaubert - Foulon, <i>Harcot</i>	3
	medium				Cafona,Moniquí, <i>EarleOrange</i>	5
	late				Polonais, <i>Bergeron</i> , <i>Harlayne</i>	7
	verylate				Harglow,Skromnyj,Zard	9

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
54. (*) (+)	Time of beginning of fruit ripening (formerly No.51)					
	very early				Patriarca Temprano, <i>Rutbhart</i> , <i>Samarkandskij rannij</i>	1
	early				Rouget de Sernhac, Hâtif Colomer, <i>Bhart</i>	3
	medium				Moniquí, San Castr ese, <i>Luizet</i>	5
	late				<i>Polonais</i> , <i>Bergeron</i> , <i>Harlayne</i>	7
	very late				Tardif de Bordane il type 2, <i>Borsirózsa</i> , <i>Kech -pshar</i>	9

8. ExplanationsontheTableofCharacteristics

Ad.1:Tree:vigor

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

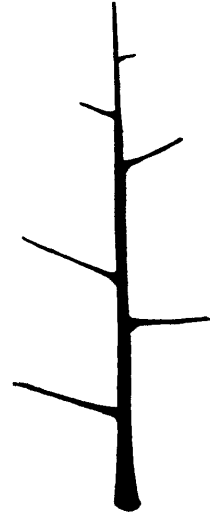
Ad.2:Tree:habit



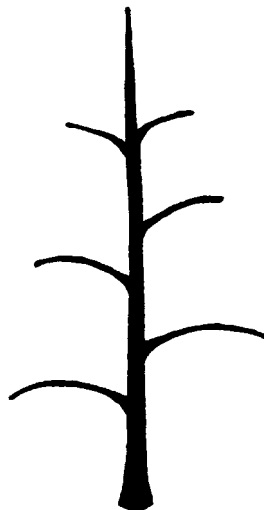
1
fastigate



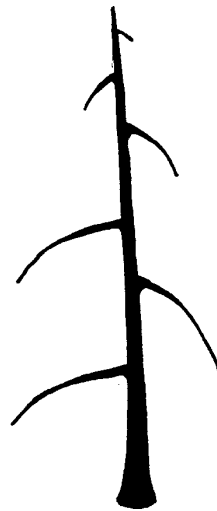
3
upright



5
spreading



7
drooping

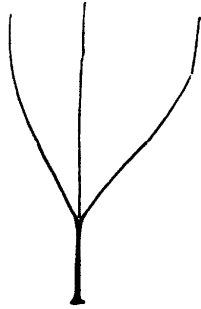


9
weeping

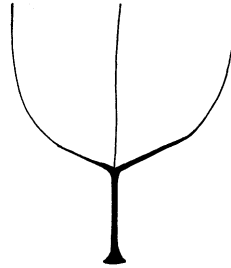
Ad.6:One -yearoldshoot:coloronsunnyside

Observationsshouldbecarriedoutinthemiddleofone -year-oldprimarysho ots.

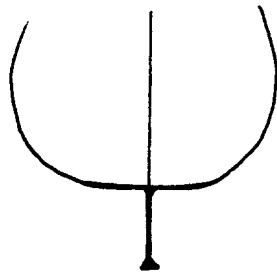
Ad.12:Leafblade:shapeofbase



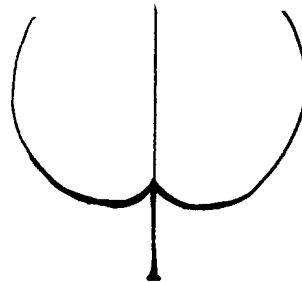
1
acute



2
obtuse

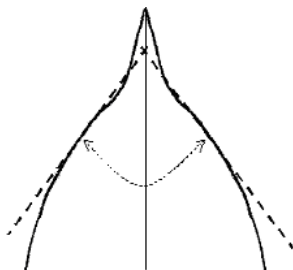


3
truncate

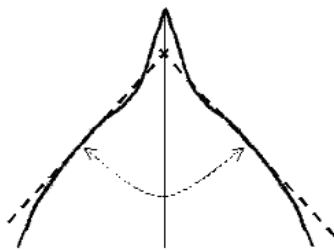


4
cordate

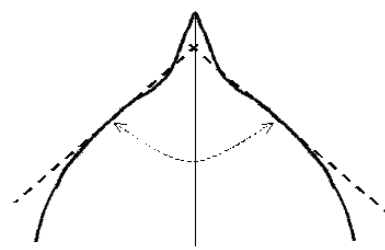
Ad.13:Leafblade:angleofapex(excludingtip)



1
acute



2
right-angled



3
obtuse

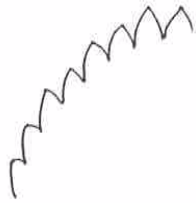
Ad.15:Leafblade:incisionsofmargin



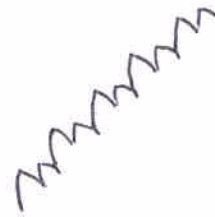
1
crenate



2
bicrenate



3
bluntly serrate



4
bluntly biserrate



5
sharply serrate



6
sharply biserrate

Ad17:Leafblade:profileincrosssection

Leaves observed should be on spur or at base of flowering shoots

Ad24.Flower:diameter

Observations or measurements should be carried out on flowers with petals pressed into horizontal position.

Ad.26:Petal:shape(excludingclaw)



1
broadelliptic



2
circular



3
transverseelliptic

Ad27.:Petal:color

Observationsshouldbecarriedoutjustafteropeningofsepalsonthelowerside.

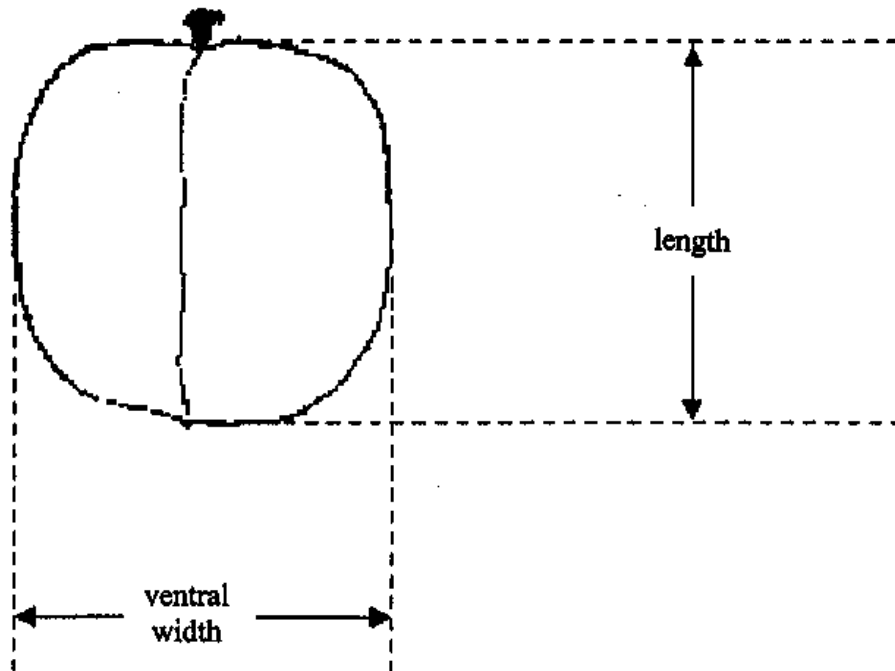
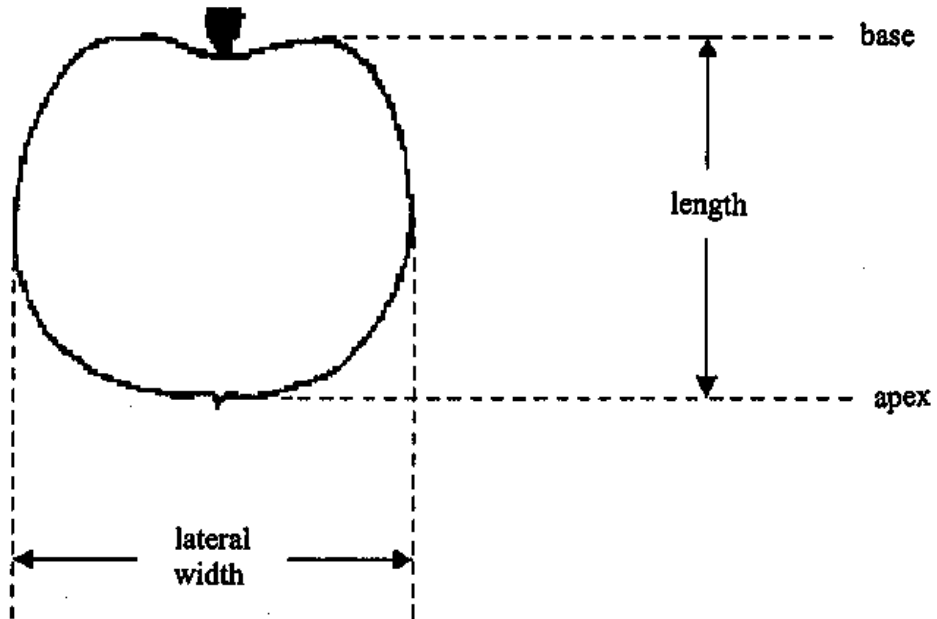
Ad.30:Fruit:shapeinlateralview

Ad.31:Fruit:shapeinventralview

Ad.32:Fruit:ratiolength/ventralwidth

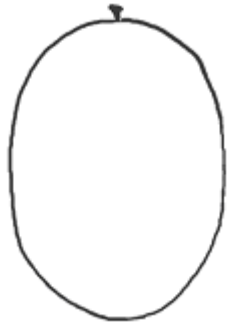
Ad.33:Fruit:ratiolateralwidth/ventralwidth

The following fruit shapes are presented as they appear in nature, nevertheless shape is to be observed in direction from the base (stalk end) to the top when observing shape (mainly when states are ovate or obovate) characteristics please rotate this drawings with 180°.



Ad.30:Fruit:shapeinlateralview
Ad.31:Fruit:shapeinventr alview

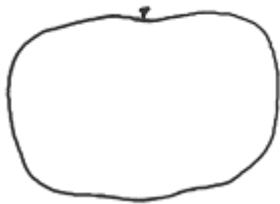
The following fruit shapes are presented as they appear in nature, nevertheless shape is to be observed in direction from the base (stalk end) to the top when observing shape (mainly when states are ovate or obovate) characteristics please rotate this drawings with 180°.



1
elliptic



2
circular



3
oblate



4
rectangular



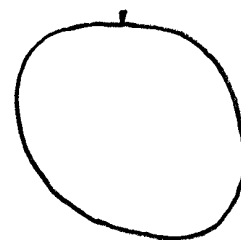
5
triangular



6
ovate



7
obovate



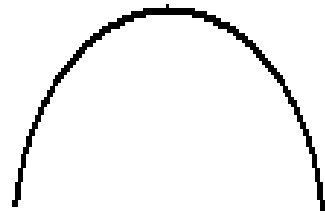
8
rhombic

Ad.37:Fruit:shapeofapex

Observationsshouldbecarriedoutonfruitsinlate ralcross -section.



1
acute



2
rounded

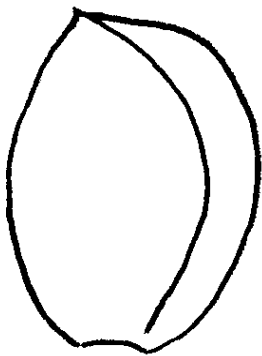


3
truncate

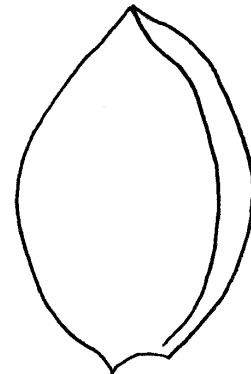


4
depressed

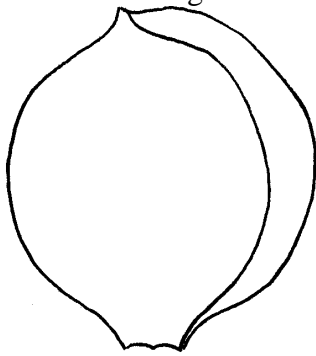
Ad.51:Stone:shapeinlateralview



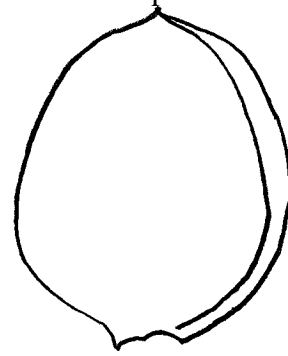
1
oblong



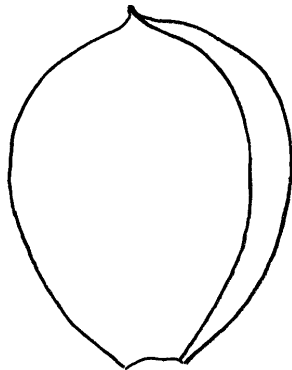
2
elliptic



3
circular



4
ovate



5

obovate

Ad. 53 Time of beginning of flowering

When 5 - 10% open flowers can be observed.

Synonym(s) of Example Varieties

Example Varieties	Synonym(s)
Bhart	NJA32
Borsirózsa	Kecskemeterrose, Ru žovaneskora, Trandafiriitirzi
Čačacansko zlato	Čačak's Gold
Earle Orange	Erle Orange, Stark Earli Orange
Magyarkajsi	Hungarian Best, Ungarische Beste, Meilleur d' Hongrie, Klosterneuburger Aprikose, Krasnoshchokij, Velkopavlovická, Mađarskanajbolja, Ceamaibun áde Ungaria
Pineapple	Ananas-Marille, Abricot d' Ananas, Ananasnyj
Rutbhart	Early Blush
Satani 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 Române". Vol. 1 -8, Editura Academiei Republicii Populare Române, 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 coltivazione di Albicocco". Istituto Sperimentale per la Frutticoltura, Roma, IT.

Guerriero, R., 1982: "L'albicocco, (Apricot)" Cultivar. R.E.D.A., Roma, 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: "Kajszi barack (Apricot)," Mezőgazdasági Kiadó, Budapest, HU.

Nyujtó, F., Tomcsányi, P., 1959: "A kajszi barack 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 sorty plodovykh i jagodnykh kul'tur Ukrain (New Fruit Varieties of Ukraine)." Urozhai, Kiev, UA.

Simirenko, L. P., 1963: "Pomologija." Vol. 1 -3. IzdS/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: "Novyeh sortakostochkovykh kul'tur, vyvedennykh 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 Moldovenyashke, Kishinev, MD.

Smykov, V. K., *et al.*, 1974: "Kul'tura abrikosa v neoroshayemykh 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, H U.

10. TechnicalQuestionnaire

TECHNICALQUESTIONNAIRE	Page{ x }of{ y }	ReferenceNumber:
		Applicationdate: (nottobefilledinbytheapplicant)
TECHNICALQUESTIONNAIRE tobecompletedinconnectionwithanapplicationforplantbreeders' rights		
1. SubjectoftheTechnicalQuestionnaire		
1.1 LatinName	<input type="text" value="Prunusarmeniaca L."/>	
1.2 CommonName	<input type="text" value="APRICOT"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
TelephoneNo.	<input type="text"/>	
FaxNo.	<input type="text"/>	
E-mailaddress	<input type="text"/>	
Breeder(ifdi fferentfromapplicant)	<input type="text"/>	
3. Proposeddenominationandbreeder'sreference		
Proposeddenomination (ifavailable)	<input type="text"/>	
Breeder'sreference	<input type="text"/>	

TECHNICALQUESTIONNAIRE	Page { x } of { y }	ReferenceNumber:
------------------------	---------------------	------------------

4. Informationonthebreedingschemeandpropagationofthevariety

4.1 BreedingScheme

“4.1.1 Varietyresultingfrom:

- (a) controlledcross
(pleasestateparentvarieties)
- (b) partiallyunknowncross
(pleasestateknownparentvariety(ies))
- (c) totallyunknowncross

4.1.2 Mutation
(pleasestateparentvariety)

4.1.3 Discovery
(pleasestatewhere,whenandhowdeveloped)

4.1.4 Other
(pleaseprovidedetails)

4.2 MethodofPropagatingtheVariety

4.2.1 *In vitro* propagation
Theplantmaterialofthecandidatevarietyhasbeenobtained
by*in vitro* propagation yes
no

4.2.2 Othertypeofmultiplication(seed,leafcutting,hardwoodcutting,
layer):
(pleasespecify)

.....

4.3 Virusstatus

4.3.1 Thevarietyisfreefromallknownvirusesasfollows:
(indicatefromwhichviruses)
.....

4.3.2 Theplantmaterialisvirustested(indicateagainstwhichviruses):
.....

4.3.3 Thevirusstatusisunknown

TECHNICALQUESTIONNAIRE	Page { x } of { y }	ReferenceNumber:
------------------------	---------------------	------------------

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

Characteristics	Example Varieties	Note
5.1 (29)		
Fruit: size		
verysmall	Haggith, Precoce Gialla, <i>Zard</i>	1[]
small	Patriarca Temprano, Hâtif Colomer	3[]
medium	Cafona, Canino, <i>Harcot</i>	5[]
large	Moniquí, <i>Ceglédibóbor</i>	7[]
verylarge	Palsteyn, <i>Hargrand</i> , <i>Ceglédióriás</i>	9[]
5.2 (42)		
Fruit: ground color of skin		
white	Shirazskijbelj	1[]
yellowish	Moniquí, Piet Cillié, <i>Yerevani</i>	2[]
yellowgreen	<i>Grüne Spätmarille</i> , <i>Kaisi Asharak</i> , <i>Sateni Karmir</i>	3[]
lightorange	Rougedu Roussillon, Canino, <i>Goldcot</i>	4[]
mediumorange	Hâtif Colomer, <i>Luizet</i> , <i>Veecot</i>	5[]
darkorange	Harogem, <i>Harcot</i> , <i>Bhart</i>	6[]

TECHNICALQUESTIONNAIRE		Page { x } of { y }	ReferenceNumber:
	Characteristics	ExampleVarieties	Note
5.3	Stone:bitternessofdrykernel		
(52)			
	absentorveryweak	Realed'Imola, <i>Bergeron</i> , <i>Harcot</i>	1[]
	weak	Moniquí,RougetdeSernhac	3[]
	medium	Palsteyn	5[]
	strong	Canino,H âtifColomer, <i>Viceroy</i>	7[]
	verystrong	<i>Borsirózsa</i>	9[]
5.4	Timeofbeginningofflowering		
(53)			
	veryearly	Setacciara,SanCastrese, <i>Harmat</i>	1[]
	early	Jaubert-Foulon, HâtifColomer, <i>Harcot</i>	3[]
	medium	Cafona,Moniquí, <i>EarleOrange</i>	5[]
	late	Polonais,Bergeron, <i>Harlayne</i>	7[]
	verylate	<i>Harglow,Skromnyj,Zard</i>	9[]
5.5	Timeofbeginningoffruitripening		
(54)			
	veryearly	PatriarcaTemprano, <i>Rutbhart</i> , <i>Samarkandskijrannij</i>	1[]
	early	RougetdeSernhac, HâtifColomer, <i>Bhart</i>	3[]
	medium	Moniquí,SanCastrese, <i>Luizet</i>	5[]
	late	<i>Polonais,Bergeron</i> , <i>Harlayne</i>	7[]
	verylate	TardifdeBordaneiltype2,	9[]

TECHNICALQUESTIONNAIRE	Page { x } of { y }	ReferenceNumber:
------------------------	---------------------	------------------

6. Similar varieties and differences from these varieties

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>(Example)</i>	<i>Plant: height</i>	<i>e.g. note 3</i>	<i>note 7</i>
		<i>e.g. short</i>	<i>tall</i>
		<i>e.g. 90cm</i>	<i>130cm</i>

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 Special conditions for the examination of the variety

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

Yes No

7.2.2 If yes, please give details:

7.3 Other information

TECHNICALQUESTIONNAIRE	Page { <input checked="" type="checkbox"/> } of { y }	ReferenceNumber:
------------------------	---	------------------

<p>8. Authorizationforrelease</p> <p>(a) Doesthevarietyrequirepriorauthorizationforreleaseunderlegislationconcerning theprotectionoftheenvironment,humanandanimalhealth?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(b) Hassuchauthorizationbeenobtained?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Iftheanswerto(b)isyes,pleaseattachacopyoftheauthorization.</p>

<p>9. Iherebydeclarethat,tothebestofmyknowledge ,theinformationprovidedinthisform iscorrect:</p> <p>Applicant'sname <input type="text"/></p> <p>Signature <input type="text"/> Date <input type="text"/></p>
--

[Endofdocument]