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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT**ALMOND**

UPOV Code: PRUNU_DUL

Prunus amygdalus (L) Focke.**GUIDELINES****FOR THE CONDUCT OF TESTS****FOR DISTINCTNESS, UNIFORMITY AND STABILITY***prepared by an expert from South Africa**to be considered by*

*the Technical Working Party for Fruit Crops
at its forty-first session, to be held in Cuernavaca, Morelos State, Mexico,
from September 27 to October, 2010*

Alternative Names: *

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Prunus amygdalus</i> (L), <i>Prunus dulcis</i> (Mill.) D.A. Webb	Almond			

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website (www.upov.int), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of vegetatively propagated fruit varieties of *Prunus amygdalus* (L) and *Prunus dulcis* (Mill.) D.A. Webb.

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 budsticks.

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

- 5 budsticks with sufficient buds to propagate 5 trees (to be sent at budding time) or
- 5 dormant shoots for grafting, sufficient to propagate 5 trees (to be sent at grafting time); or
- 5 one-year-old trees grafted on a rootstock selected by the testing 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. In particular, it is essential that the plants produce a satisfactory crop of fruit in each of the two growing cycles.

3.1.2 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 seasons 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 Stage of development for the assessment

The optimum stage of development for the assessment of each characteristic is indicated by a number in the second column of the Table of Characteristics. The stages of development denoted by each number are described at the end of Chapter 8.

3.4 *Test Design*

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

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

3.5 *Additional Tests*

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.1.4 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, all observations for the purposes of distinctness should be made on 5 plants or parts taken from each of 5 plants, disregarding any off-type plants. In the case of observations of parts of plants, the number of parts to be taken from each of the plants should be 2.

4.1.5 Method of Observation

The recommended method of observing the characteristic is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation of characteristics”):

MG: single measurement of a group of plants or parts of plants

MS: measurement of a number of individual plants or parts of plants

VG: visual assessment by a single observation of a group of plants or parts of plants

VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.”

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

4.2 *Uniformity*

For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95 % should be applied. In the case of a sample size of 5 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: **ZA proposes**

- (a) **Tree: habit** (characteristic 2)
- (b) **Stone: cracking** (characteristic 37)
- (c) **Time of beginning of flowering** (characteristic 44)
- (d) **Time of harvest** (characteristic 45)

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*

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*

(*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3

QN Quantitative characteristic – see Chapter 6.3

PQ Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS – see Chapter 4.1.5

(a)-{d} See Explanations on the Table of Characteristics in Chapter 8.1

(+) See Explanations on the Table of Characteristics in Chapter 8.

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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. VG Tree: vigor						
(+)						
QN	weak				Marcona.Tuono, Volcani 59/4	3
	medium				Nonpareil	5
	strong				Barte, Flour en bas, Peerless	7
2. VG Tree: habit						
(*)						
PQ	upright				Fournat de Brezenaud	1
	upright to spreading				Ferragnes	2
	spreading				Ne Plus Ultra	3
	drooping				Primorskii, Volcani 59/4	4
3. VG Plant: texture of bark			ZAproposes			
QL QN	smooth		Tree		Barte, Volcani 5	1
	moderately cracked					2
	strongly cracked				Ferragnes	3
4. VG One-year-old shoot: thickness						
QN	thin				Ai	3
	medium				Nonpareil	5
	thick				Texas, Primorski	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota	
5. (old 6)	VG	One-year-old shoot: intensity of anthocyanin coloration (on sunny side)					
QN	(a)	absent or very weak					1
		weak				Desmayo Largueta	3
		medium				Barte, Nonpareil	5
		strong				Marcona, Ferragnes, Texas	7
6. (old 7)	VG	One-year-old shoot: feathering					
(+)							
QN		absent or very weak				Barte	1
		weak				Texas	3
		medium				Desmayo Largueta	5
		strong				Marcona	7
		very strong				Ai	9
7. (old 9)	VG	Tree: density of foliage					
QN		sparse				Fournat de Brezenaud	3
		medium				Nonpareil	5
		dense				Peerless	7
8. (old 16)	VG	Tree: distribution of flower buds					
QN	(b)	predominantly on spurs				Cristomorto	1
		equally on spurs and one year old shoots				Ferragnes	2
		predominantly on one year old shoots				Nonpareil	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9. MS (old 10)	Leaf blade: length					
QN	(a)	short			Ai	3
		medium			Primorskii	5
		long			Barte	7
10. MS (old 11)	Leaf blade: width					
QN	(a)	narrow			Ai	3
		medium			Ne Plus Ultra	5
		broad			Barte	7
11. MS (old 12)	Leaf : ratio length/width		ZA proposes			
QN	(a)	low	slightly elongated		Nonpareil	3
		medium	moderately elongated		Ne Plus Ultra, Texas	5
		high	very elongated		Volcani 5	7
12. VG (old 13)	Leaf blade: intensity of green color					
QN	(a)	light			Barte	3
		medium			Nonpareil	5
		dark			Texas	7
13. VG (old 14)	Leaf blade: incisions of margin					
QL	(a)	serrate				1
		crenate			Texas	2

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14. MS	Petiole: length					
(old 15)						
QL	(a) short				Ferragnes	3
QN	medium				Primorskii	5
	long				Peerless	7
15. VG	Flower bud: shape					
(old 17)						
PQ	(a) triangular				Ai	1
	ovate				Desmayo Largueta	2
	circular				Cristomorto	3
16. VG	Flower bud: color of tip of petals	ZA proposes				
(old 18)						
PQ	(a) white	Color of tip of petals just before opening			Ardecchoise	1
	pink				Barte, Marcona	2
	red				Ai, Trell	3
17. VG	Flower bud: color of sepals					
(old 19)						
PQ	(a) green				Cristomorto	1
	brown				Tuono	2
	red				Desmayo Largueta	3
18. VG	Flower bud: pubescence of sepals		ZA proposes			
(old 20)						
QN	absent or very weak		Pubescence of sepals on lower side		Marcona	1
	weak				Ardechoise	3
	medium				Barte	5
	strong					7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
19.	VG	Flower: size				
(old 22).						
QN	(b)	small			Volcani 59/4	1
		medium			Peerless	3
		large			Ne Plus Ultra	5
20.	VG	Petal: shape				
(old 23)						
(+)						
PQ	(b)	narrow elliptic			Volcani 5	1
		medium elliptic			Butte	2
		circular			Texas Mission	3
		rhombic			Volcani 59/4	4
21.	VG	Petal: color of inner side				
(old 24)						
(*)						
PQ	(b)	white			Barte	1
		light pink			Ai	2
		medium pink			Marcona	3
		dark pink			Trell	4
22.	VG	Petal: undulation of margin				
(old 25)						
(+)						
QN	(b)	absent or very weak			Carmel	1
		weak			Butte	3
		medium			Ne Plus Ultra	5
		strong			Texas Mission	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23. VG (old 26)	Flower: number of stamens					
QN	few				Cristomorto	3
	medium				Ai	5
	many				Barte	7
24. (old 29)	Stamen: anthocyanin coloration of filament					
QL	(b)	absent or very weak				1
QN		moderate				2
		strong				3
25. VG (old 28).	Stigma: position in relation to anthers					
QN	(b)	below			Drake	1
		same level			Ne Plus Ultra	2
		above			Desmayo Largueta	3
26. VG (old 30)	Stigma: size					
QN	(b)	small			Desmayo Largueta	1
		medium				2
		large			Ai	3
27. (old 30)	Fruit: size					
QN	(c)	very small				1
		small			Texas	3
		medium			Nonpareil	5
		large			Ardechoise	7
		very large			Barte	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
28.	VG	Fruit: shape (in lateral view)				
(old 32)						
(+)						
PQ	(c)	ovate			Marcona	1
		elliptic			Ai	2
		circular			Ne Plus Ultra	3
		obovate			Ardechoise	4
29.	VG	Fruit: shape of apex				
(old 33)						
PQ	(c)	acute			Carmel	1
		obtuse			Price	2
		rounded			Texas Mission	3
30.		Fruit: pubescence (density)				
(old 34)						
QN	(c)	sparse				3
		medium			Desmayo Largueta	5
		dense			Ferraduel	7
31.	VG	Stone: length				
(old 36)						
QN	(d)	short				3
		medium				5
		long				7
32.	VG	Stone: width (in lateral view)				
(old 37)						
QN	(d)	narrow				3
		medium				5
		broad				7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
33. (old 38)	Stone: length/width in lateral view ratio		ZA proposes DELETION			
QN	(d)	small				3
		medium				5
		large				7
34. (old 39)	VG	Stone: shape (in lateral view)				
	(+)					
PQ	(d)	ovate			Montrone, Marcona	1
		elliptic			Catuccia	2
		circular			Nonpareil	3
		obovate			Ne Plus Ultra	4
35. (old 40) (*)	VG	Stone: shape of apex				
PQ	(d)	acute				1
		obtuse				2
		rounded				3
36. (old 41)	VG	Stone: thickness of endocarp				
QN	(d)	thin			Nonpareil	1
		medium			Ferragnes	2
		thick			Barte	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37. VG	Stone: cracking					
(old 42)						
(+)						
QN	(d)					
*	absent or very weak				Nonpareil	1
	weak				Princess	3
	medium				Texas	5
	strong				Desmayo Largueta	7
	very strong				Barte	9
38. VG	Stone: keel development	ZA proposes				
(old 43)						
(+)						
QN	(d)					
	absent or very weak				Drake	1
	weak	weak		Peerless	Marcona	3
	medium	medium		Ne Plus Ultra		5
	strong	strong		Nonpareil	Ardechoise	7
	very strong					9
39. VG	Kernel: size					
(old 46)						
QN	very small				Kapareil	1
	small				Texas	3
	medium				Nonpareil	5
	large				Ferragnes	7
	very large				Barte	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
40. (old 48)	VG	Kernel: main color		ZA proposes		
			Kernel: Intensity of brown color			
PQ	yellow		light		Nonpareil	1
QN	brown		medium			2
	red		dark			3
41. (old 49)		Kernel: intensity of color		ZA proposes to delete		
QN	light				Nonpareil, Price	
	medium				Nonpareil, Texas	
	dark				Marcona, Ne Plus Ultra	
42. (old 50)		Kernel: rugosity of surface		ZA proposes		
QN	Very weak		weak		Texas Mission	1
	Weak		medium		Volcani 59/4	Nonpareil
	Medium		strong		Carmel	Texas
	Strong				Ardechoise	7
	Very strong					9
43. (old 8)	VG	Time of leaf bud burst in relation to beginning of flowering				
PQ	earlier				Cavaliera	3
	same				Ferragnes	5
	later				Texas	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota	
44.	Time of beginning of flowering						
(old 21)							
(+)							
QN	very early				Volcani 59/4	1	
	early					3	
	medium				Ne Plus Ultra	5	
	late					7	
	very late				Peerless	9	
45. VG	Time of harvest						
(old 35)							
(+)*							
QN	very early				Cavaliere, Volcani 59/4	1	
	early				Ne Plus Ultra	3	
	medium				Ferragnes	5	
	late				Marcona	7	
	very late				Texas	9	

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

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

- (a) All observations on the bud, the leaf and the shoot should be made at the central third of the shoot. The observations on the leaves should be made on mature leaves from current season's shoots.
- (b) All observations on the flower should be made at the time of full flowering.
- (c) All observations on the fruit should be done 80 days after full flowering.
- (d) All observations on the stone should be done after splitting or cracking of the flesh of the fruit.

8.2 *Explanations for individual characteristics*

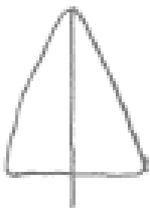
Ad. 1: Tree: vigor

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

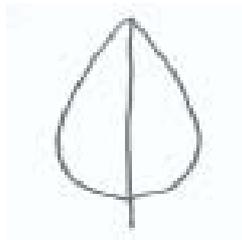
Ad. 6: One year old shoot: feathering

Secondary shoots growing on one year old shoots.

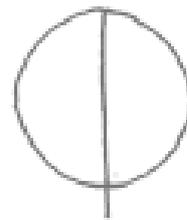
Ad. 15: Flower bud: shape



1
triangular



2
ovoid



3
circular

Ad. 20: Petal: shape



1
narrow elliptic

2
medium elliptic

3
circular

4
rhombic

Ad. 22: Petal: Undulation of margin



1
absent or very weak

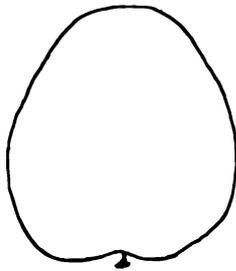
3
weak

5
medium

7
strong

Ad. 28: Fruit: shape (in lateral view)

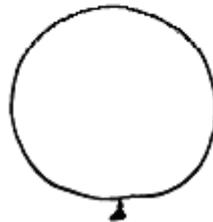
Ad. 34: Stone: shape (in lateral view)



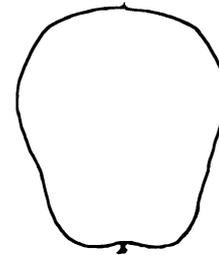
1
ovate



2
elliptic



3
circular

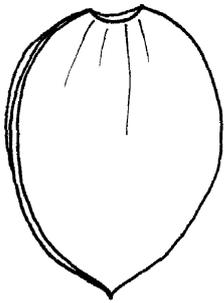


4
obovate

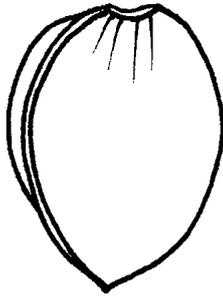
Ad. 37: Stone: cracking

The ease with which the stone can be broken by hand.

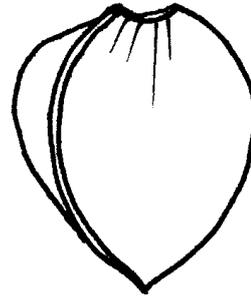
Ad. 38: Stone: keel development



3
weak



5
medium

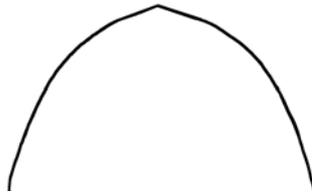


7
strong

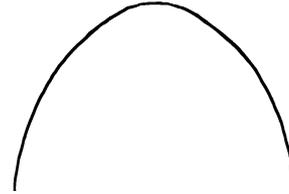
Ad. 35: Stone: shape of apex



1
acute



2
obtuse



3
rounded

Ad. 44: Time of beginning of flowering

Beginning of flowering is when 10% of flowers have fully opened.

Ad. 45: Time of harvest

When 50% of the fruits on the tree split.

9. Literature

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 amygdalus (L)"/>	
1.2 Common name	<input type="text" value="ALMOND"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	
3. Proposed denomination and breeder's reference		
Proposed denomination (if available)	<input type="text"/>	
Breeder's reference	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

(a) controlled cross []
(please state parent varieties)

(.....)		(.....)
female parent		male parent

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

(.....)		(.....)
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)

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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) *in vitro* propagation

(c) other (state method)

4.2.2 Seed

4.2.3 Other

(please provide details)

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

Characteristics	Example Varieties	Note
5.3 Tree habit (2)		
upright	Fournat de Brezenaud	1[]
semi-upright	Ferragnes	2[]
spreading	Ne Plus Ultra	3[]
drooping	Primorskii, Volcani 59/4	4[]
5.4 Stone: cracking (37)		
absent or very weak		1[]
very weak to weak		2[]
weak		3[]
weak to medium		4[]
medium		5[]
medium to strong		6[]
strong		7[]
strong to very strong		8[]
very strong		9[]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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	Characteristics	Example Varieties	Note
5.1 (44)	Time of beginning of flowering		
	very early	Volcani 59/4	1[]
	very early to early		2[]
	early		3[]
	early to medium		4[]
	medium	Ne Plus Ultra	5[]
	medium to late		6[]
	late		7[]
	late to very late		8[]
	very late	Peerless	9[]
5.2 (45)	Time of harvest		
	very early	Cavaliera, Volcani 59/4	1[]
	very early to early		2[]
	early	Ne Plus Ultra	3[]
	early to medium		4[]
	medium	Ferragnes	5[]
	medium to late		6[]
	late	Marcona	7[]
	late to very late		8[]
	very late	Texas	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 similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>Example</i>	<i>Fruit color</i>	<i>orange red</i>	<i>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 image of the variety should accompany the Technical Questionnaire.

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.

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