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## INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

PEACH

UPOV Code: PRUNU\_PER

*Prunus persica* (L.) Batsch

## GUIDELINES

## FOR THE CONDUCT OF TESTS

## FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by an expert from France**to be considered by the**Technical Working Party for Fruit Crops**at its thirty-ninth session, to be held in Lisbon, Portugal, from June 2 to 6, 2008*

Alternative Names:\*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Prunus persica</i> (L.) Batsch, <i>Persica vulgaris</i> Mill., <i>Prunus</i> L. subg. <i>Persica</i> ,	Peach	Pêcher	Pfirsich,	Duraznero, Durazno, Melocotonero

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, its associated TGP documents and the Test Guidelines for Prunus Rootstocks, document TG/187/1

\* 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.]

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
1. SUBJECT OF THESE TEST GUIDELINES.....	3
2. MATERIAL REQUIRED .....	3
3. METHOD OF EXAMINATION.....	3
3.1 Number of Growing Cycles .....	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
4.2 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
6.2 States of Expression and Corresponding Notes.....	6
6.3 Types of Expression.....	6
6.4 Example Varieties .....	6
6.5 Legend.....	6
7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES.....	7
8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS .....	30
8.1 Explanations covering several characteristics .....	30
8.2 Explanations for individual characteristics .....	30
9. LITERATURE .....	36
10. TECHNICAL QUESTIONNAIRE .....	38

## 1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of peach (including nectarine) of the species *Prunus persica* (L.) Batsch.

## 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, dormant shoots for grafting, [France 2008: *or standard grafted trees, with dormant buds or not,*], grafted on appropriate peach rootstock to be selected by the competent authorities.  
Fr 08: *France mind you on the risk to adopt budsticks furniture (off types buds...)*

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);
- 5 dormant shoots for grafting, sufficient to propagate 5 trees (to be sent at grafting time); [France 2008: *this furniture point is not to be understood as it is written*] or
- 5 trees grafted, Fr 08: *with dormant buds or not,* on appropriate peach rootstock to be selected by the competent authorities

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*

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

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

3.3.3 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.

### 3.4 *Test Design*

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

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 Plants to be Examined*

Unless otherwise indicated, all observations should be made on 5 plants or parts taken from each of 5 plants. In the case of parts of plants, the number to be taken from each of the plants should be **5**.

### 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 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.

#### 4.2 *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 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 tested, either by growing a further generation, or by testing a new 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 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: size (characteristic 1)
- (b) Flower: type (characteristic 8)
- (c) Petiole: nectaries (characteristic 28)
- (d) Fruit: pubescence (characteristic 48)
- (e) Fruit: main color of flesh (characteristic 55)
- (f) Stone: adherence to flesh (characteristic 68)
- (g) Time of beginning of flowering (characteristic 76)
- (h) Time of maturity for consumption (characteristic 78)

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*

(\*) 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

(a)-(f) See Explanations on the Table of Characteristics in Chapter 8.1

(+) See Explanations on the Table of Characteristics in Chapter 8.2

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

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplares	Note/ Nota
<b>1.</b> (*)	<b>Tree: size</b> (Fr 08: in winter)	<b>Arbre: taille</b> (Fr 08 : en hiver)	<b>Baum: Größe</b>			
QN	very small	très petit	sehr klein		Bonanza	1
	small	petit	klein		Richaven	3
	medium	moyen	mittel		Robin	5
	large	grand	groß		Redhaven	7
	very large	très grand	sehr groß		Champion	9
<b>2.</b> (+)	<b>Tree: vigor</b> (Fr 08: during growing period)	<b>Arbre: vigueur</b> (Fr 08: en végétation)	<b>Baum: Wuchsstärke</b>			
QN	weak	faible	gering		J. H. Hale	3
	medium	moyenne	mittel		Robin	5
	strong	forte	stark		Springtime	7
<b>3.</b> (*) (+)	<b>Tree: habit</b> (Fr 08: in winter)	<b>Arbre: port</b>	<b>Baum: Wuchsform</b>			
QN	upright	dressé	aufrecht		Nectarose, Pillar	1
	upright to spreading				Fairhaven, Redwing	2
	spreading	étalé	breitwüchsig		Elegant Lady, O'Henry Albertina	3
	drooping	retombant	überhängend		Cocont Ice, Scarlet O'Hara	4
	weeping	très retombant	lang überhängend		Biancopenulo	5
<b>4.</b> (+)	<b>Flowering shoot: thickness</b> (Fr 08: in winter)	<b>Rameau mixte: grosueur</b>	<b>Blütentrieb: Dicke</b>			
QN	thin	fin	dünn		Mayred	3
	medium	moyen	mittel		Redhaven	5
	thick	gros	dick		Lizzie, Flavorcrest	7

2007 - 4a to check if characteristic "tendency to produce on brindilles" is necessary. France: not necessary, can be added in the observations if needed. TWF 2007: Answer to be not introduced – France 08: keep it

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>5.</b>	<b>Flowering shoot: length of internodes (as for 4)</b>	<b>Rameau mixte: longueur des entrenœuds (comme pour 4)</b>	<b>Blütentrieb: Länge der Internodien (wie unter 4)</b>			
<b>QN</b>	very short	très courts	sehr kurz		Bonanza	1
	short	courts	kurz		June Gold, Merrill Sundance	3
	medium	moyens	mittel		Redhaven	5
	long	longs	lang		Fairhaven	7
	very long	très longs	sehr lang			9
<del><b>6.</b></del> (*)	<del><b>Flowering shoot: anthocyanin coloration</b></del> <i>DELETED in 2007 and combined with the New 6 below</i>	<del><b>Rameau mixte: pigmentation anthocyanique (comme pour 4, coté ensoleillé exclu)</b></del>	<del><b>Wahrer Fruchttrieb: Anthocyanfärbung (wie unter 4, nicht auf der Sonnenseite)</b></del>			
<b>?</b>	absent	absente	fehlend		De flor doble blanca	1
	present	présente	vorhanden		Springtime	9
<b>6.</b> (*)	<b>Flowering shoot: intensity of anthocyanin coloration (shaded side)</b>	<b>Rameau mixte: intensité de la pigmentation anthocyanique (sur la face à l'ombre)</b>	<b>Wahrer Fruchttrieb: Dichte der Blütenknospen (.....)</b>		<i>(Fr 08: would like to have absent (1) and very weak (3)...</i>	
<b>?</b>	absent or very weak	absent ou très faible			De flor doble blanca	1
	weak	faible	gering		Springtime	3
	medium	moyenne	mittel		Fuzalode	5
	strong	forte	stark		Robin, Sanguine Chanas	7



English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
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*Remarks from NZ and Brazil for the low variability in their material for this characteristic, but not in the European one (pascal) Datas inserted for information for the drafters : TWF 2007 T.Pascal arguments accepted*

7. (+)	<b>Flowering shoot: density of flower buds (as for 4)</b>	<b>Rameau mixte: densité des boutons floraux (comme pour 4)</b>	<b>Wahrer Fruchttrieb: vorwiegende Anordnung der Blütenknospen (wie unter 4)</b>		
QN	very sparse	très peu dense < 10 fleurs/m		Monline	1
	sparse	peu dense 10 a 20 fleurs/m	locker	Bigtop, O'Henry	3
	medium	moyenne 20 a 30 fleurs/m	mittel	Mélina, Michelini, Richlady	5
	dense	dense 30 a 40 fleurs/m	dicht	Jade, Redhaven	7
	very dense	très dense >40 fleurs/m		Amrking, Harco	9

*NZ proposes to delete (France can accept the deletion) : TWF 2007 : deleted*

9. -	<b>Flowering shoot: general distribution of flower buds (as for 4)</b>	<b>Rameau mixte: répartition générale des boutons floraux (comme pour 4)</b>	<b>Wahrer Fruchttrieb: vorwie- gende Anordnung der Blütenknospen (wie unter 4)</b>		
	single	isolés	einzeln	Flavortop	1
	in groups of two or more	par deux ou plus	doppelt oder zu mehreren	Tejon, Redhaven, Sundred	2

*Drawing or photos from France*

8. (* (+)	<b>Flower: type</b>	<b>Fleur: type</b>	<b>Blüte: Typ</b>		
QL	<b>campanulate</b>	campanulée	campanulaceen typ	Springtime	1
	<b>rosette</b>	rosacée	rosaceen typ	Robin	2

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>9.</b> (*)	<b>Calyx: color of inner side (opened flower, before falling of petals)</b>	<b>Calice: couleur de la face interne (fleur épanouie, avant la chute des pétales)</b>	<b>Kelch: Farbe der Innenseite (geöffnete Blüte, vor dem Abfallen der Blütenblätter)</b>			
<b>QL</b>	greenish yellow	jaune verdâtre	grünlichgelb		Robin	1
	orange	orangée	orange		Redhaven	2
<b>10.</b> (*)	<b>Corolla: main color (inner side)</b>	<b>Corolle: couleur principale (face interne)</b>	<b>Blütendrone: vorwiegende Farbe (Innenseite)</b>			
<b>PQ</b>	white	blanc	weiß		Bianco, De flor doble blanca, Pendulo	1
	very light pink	rose très pale	sehr hellrosa		Cardinal	2
	light pink	rose pale	hellrosa		Michelini	3
	medium pink	rose moyen	mittelrosa		Fuzalode	4
	dark pink	rose foncé	dunkelrosa		Vivian	5
	violet pink	rose violacé	violettrosa		Candor	6
	red	rouge	rot		Red Flower Peach	7
<i>Char 12 to check if the states “very light pink” and “light pink” can be combined, the same for “dark pink” and “violet pink”. Nz and France propose to split into two characteristics:</i>						
<i>Flower: predominant color (inner side) 1 white, 2 pink, 3 red and 4 violet</i>						
<i>Flower: intensity of color (inner side) (excluding white petals) 3 light, 5 medium and 7 dark.</i>						
<i>TWF 2007 refuses this proposal- (Fr 08 wants to maintain the proposal)</i>						
<b>11.</b> (*) <b>Fr08:</b> (+)	<b>Petal: shape</b>	<b>Pétale: forme</b>	<b>Blütenblatt: Form</b>			
<b>PQ</b>	ovate	ovale			AS08: May Glo, Independance	1
	narrow elliptic	elliptique étroit	breit elliptisch			2
	broad elliptic	elliptique large	breit elliptisch		Earlibelle	3
	circular	rond	rund		Springtime	4

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>12.</b> (*) (+)	<b>Petal: size</b>	<b>Pétale: taille</b>	<b>Blütenblatt: Größe</b>			
QN	very small	très petit	sehr klein		Redhaven	1
	small	petit	klein		Shasta	3
	medium	moyen	mittel		Robin, Sunhigh	5
	large	grand	groß		Michelini	7
	very large	très grand	sehr groß		Veteran	9
<b>13.</b> (*)	<b>Flower: number of petals</b>	<b>Pétales: nombre de pétales</b>	<b>Blütenblätter: Anzahl</b>			
QL	five	cinq	fünf		Redhaven	1
	more than five	plus de cinq	mehr als fünf		Red Flower Peach, Royal Glo	2
<i>To be placed after characteristic 8</i>						
<b>14.</b> (+)	<b>Stamens: position compared to petals</b>	<b>Étamines: position par rapport aux pétales</b>	<b>Staubgefäße: Stellung im Verhältnis zu den Blütenblättern</b>			
QN	below	au-dessous	unterhalb		Loring	1
	at same level	au même niveau	auf gleicher Höhe		Robin, Springtime	2
	above	au-dessus	oberhalb		Redhaven	3
<b>15.</b> (*) (+)	<b>Stigma: position compared to anthers</b>	<b>Stigmate: position par rapport aux anthères</b>	<b>Narbe: Stellung im Verhältnis zu den Antheren</b>			
QN	below	au-dessous	unterhalb		Vivian	1
	same level	au même niveau	auf gleicher Höhe		Crimson Gold	2
	above	au-dessus	oberhalb		Fuzalode	3
<b>16.</b> (*)	<b>Anthers: pollen</b>	<b>Anthères: pollen</b>	<b>Antheren: Pollen</b>			
QL	absent	absent	fehlend		J. H. Hale	1
	present	présent	vorhanden		Redhaven	9

English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<i>NZ, DE proposes to delete as directly correlated with Character 45</i>					
<i>France: exact, but it's easy and evident to observe 45 and it takes few time for 19. (permits early identification ...between peach/nectarines...)</i> <b>TWF 2007: deleted - Fr 08: this early observation</b>					
<b>19.</b> (*)	<b>Ovary: pubescence</b>	<b>Ovaire: pubescence</b>	<b>Fruchtknoten: Behaarung</b>		
<b>QL</b>	absent	absente	fehlend	Fuzalode	1
	present	présente	vorhanden	redhaven	9
<b>17.</b> (+)	<b>Stipule: length (on fully expanded leaf on young shoot)</b>	<b>Stipule: longueur (feuille complètement développée sur jeune rameau)</b>	<b>Junger Trieb: Länge des Nebenblattes (voll entwickeltes Blatt)</b>		
<b>QN</b>	short	court	kurz	Redhaven	3
	medium	moyen	mittel	Robin	5
	long	long	lang	Dixired	7
<b>FRANCE to provide example varieties for 18 and 19</b>					
<b>18.</b> (*) (+)	<b>Leaf blade: length</b>	<b>Limbe longueur</b>	<b>Blattspreite: Länge</b>		
<b>QN</b>	short	court	kurz	Jeronimo	3
	medium	moyen	mittel	Fairhaven	5
	long	long	lang	Southland	7
<b>19.</b> (*) (+)	<b>Leaf blade: width</b>	<b>Limbe: largeur</b>	<b>Blattspreite: Breite</b>		
<b>QN</b>	narrow	étroit	schmal	Redhaven	3
	medium	moyen	mittel	Robin	5
	broad	large	breit	Dixinel	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>20.</b> (*) (+)	<b>Leaf blade: ratio length/width</b>	<b>Limbe: rapport longueur/largeur</b>	<b>Blattspreite: Verhältnis Länge/Breite</b>			
QN	low	petit	klein		Mountaingold	3
	medium	moyen	mittel		Early Sungrand	5
	high	grand	groß		Springtime, Vivian	7
<b>21.</b>	<b>Leaf blade: shape in cross section</b>	<b>Limbe: forme en section transversale</b>	<b>Blattspreite : Form im Querschnitt</b>			
QN	concave	concave	konkav		Merrill Gemfree	1
	flat	droite	eben		Mayred	2
	convex	convexe	konvex		<i>Fr 08 :To be deleted</i>	3
<b>25.</b>	<i>DELETED in 2007</i> <b>Leaf blade: recurvature of apex</b>	<b>Limbe: courbure de l'extrémité</b>	<b>Blattspreite: Umbiegung der Spitze</b>			
QL	absent	absente	fehlend		Merrill Sundancee	1
	present	présente	vorhanden		Flavortop	9
<b>22.</b> New	<b>Leaf : margin</b>	<b>Limbe: bord</b>				
QL	serrate				Crimson Glo	1
	crenate				Fiesta Red	2
<b>23.</b> (+)	<b>Leaf blade: angle at base</b>	<b>Limbe: angle au sommet</b>	<b>Blattspreite: Winkel an der Spitze</b>			
QN	acute	aigu	spitz		Springtime	1
	right angle	à angle droit			Redhaven	2
	obtuse	obtus	stumpf		Merrill	3
<b>24.</b> (+)	<b>Leaf blade: angle at apex</b>	<b>Limbe: angle au sommet</b>	<b>Blattspreite: Farbe</b>			
QN	small	petit	klein		Red June	3
	medium	moyen	mittel		Earlired	5
	large	grand	groß		Merrill Franciscan	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>25.</b>	<b>Leaf blade: color</b>	<b>Limbe: couleur</b>	<b>Blattspreite: Farbe</b>			
<b>PQ</b>	greenish yellow	jaune verdâtre	grünlichgelb		Redhaven	1
	<b>TWF07 light green</b>	vert	grün		<b>Fr 08: not necessary/ AS 08 : Silver Fire</b>	2
	<b>medium green</b>				<b>Robin ??</b>	3
	<b>TWF 07 dark green</b>				<b>Fr 08: not necessary/ AS 08: Fiesta Red</b>	4
	purplish red	rouge pourpre	purpurrot		Rubira	5
<b>26.</b>	<b>Leaf blade: red mid-vein on the lower side</b>	<b>Nervure principale rouge face inférieure</b>	<b>Blattspreite: rote Hauptader auf der Unterseite</b>			
<b>QL</b>	absent	absente	fehlend		Redhaven	1
	present	présente	vorhanden		Sanguine Chanas	9
<b>27.</b>	<b>Petiole: length</b>	<b>Pétiole: longueur</b>	<b>Blattstiel: Länge</b>			
<b>(+)</b>						
<b>QN</b>	short	court	kurz		Redhaven	3
	medium	moyen	mittel		Genadix 7	5
	long	long	lang		Andross	7
<b>28.</b>	<b>Petiole: nectaries</b>	<b>Pétiole: nectaires</b>	<b>Blattstiel: Nektarien</b>			
<b>(*)</b>						
<b>(+)</b>						
<b>QL</b>	absent	absente	fehlend		<b>Crimson Glo</b> , Tejon	1
	present	présente	vorhanden		Redhaven	9
<b>29.</b>	<b>Petiole: shape of nectaries</b>	<b>Pétiole: forme des nectaires</b>	<b>Blattstiel: Form der Nektarien</b>			
<b>(*)</b>						
<b>(+)</b>						
<b>QL</b>	round	circulaires	rund		Springtime	1
	reniform	réniformes	nierenförmig		Redhaven	2

English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplos	Note/ Nota
<b>DELETED in 2007 – France 08 estimates the characteristic easy to assess and reliable</b>					
<b>32.</b> <b>Fr08</b> <b>(+)</b>	<b>Petiole:</b> <b>predominant</b> <b>number of nectaries</b>	<b>Pétiole: nombre</b> <b>prédominant de</b> <b>nectaires</b>	<b>Blattstiel:</b> <b>überwiegende</b> <b>Anzahl Nektarien</b>		
two	deux	zwei		Genadix 7	1
more than two	plus de deux	mehr als zwei		Everts	2
<b>30.</b> <b>(*)</b>	<b>Fruit: size</b>	<b>Fruit: taille</b>	<b>Frucht: Größe</b>		
<b>QN</b>	very small	très petit	sehr klein	Nectarine-Cerise	1
	small	petit	klein	Maycrest, Springtime	3
	medium	moyen	mittel	Jade, Springlady, Sunhaven	5
	large	grand	groß	Bigtop, Loring, Royalglory	7
	very large	très grand	sehr groß	Comanche, Maillarbig	9
<b>31.</b> <b>New</b>	<b>Fruit: length</b>	<i>Fr 08 estimates the work too heavy to be processed and not necessary, as 30 is robust</i>	<i>AS 08: change in height JP 08: “Fruit: width (in ventral view) narrow (3), medium (5), broad (7)”</i>		
<b>QN</b>	short				3
	medium				5
	long				7
<b>32.</b> <b>New</b>	<b>Fruit: height</b>	<i>Fr 08 estimates the work too heavy to be processed and not necessary, as 30 is robust</i>	<i>AS 08: change in ventral width</i>		
<b>QN</b>	short				3
	medium				5
	tall				7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>33.</b> New AS08 Add	<b>Fruit: lateral width</b>					
<b>34.</b> New	<b>Fruit: ratio length/height</b>	<i>Fr 08 estimates the work too heavy to be processed and not necessary, as 30 is robust</i>	<i>AS 08: Change to ratio height/ventralwidth</i>  <i>JP 08: To read "ratio width/hight small (3), medium (5), large(7)"</i>			
<b>QN</b>	low					3
	medium					5
	high					7
<b>35.</b> New	<b>Fruit: position of broadest part</b>	<i>Fr 08 estimates the work too heavy to be processed and not necessary, as 30 is robust</i>				
<b>?</b>	at middle					1
	slightly towards stalk end					2
	moderately towards stalk end					3
<b>36.</b> (* (+)	<b>Fruit: shape (in ventral view)</b>	<b>Fruit: forme (vue ventrale)</b>	<b>Frucht: Form (in Bauchansicht)</b>			
<b>?</b>	broad oblate	aplati large	breit abgeflacht		Bailou , Plate de Chine, Platicarpe??	1
	oblate	aplati	abgeflacht		Robin	2
	<b>circular</b>	rond	rund		Redwing	3
	ovate	ovale	eiförmig		Cavalier	4
	broad elliptic	elliptique	<b>large</b> elliptisch		Elberta	5



	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>37.</b>	<b>Fruit: shape of pistil end (excluding mucron tip)</b>	<b>Fruit: forme de l'extrémité pistillaire (à l'exclusion de la zone du mucron)</b>	<b>Frucht: Form des Kelchendes</b>		<i>Fr 08: combine 36 and New 37-see documentation</i>	
<b>QN</b>	<b>pointed</b>	pointu			Jerseyland	1
	<b>flat</b>	plan	eben		Redhaven	2
	<b>depressed</b>	en cuvette			Bailou, Plate de Chine	3
<b>38. New</b>	<b>Fruit/ mucron tip at pistil end</b>	<i>Fr 08: combine 36 and New 37- see documentation</i>			<b>Témoins TP</b>	
<b>QL</b>	<b>absent</b>					1
	<b>present</b>					9
<b>39. (+)</b>	<b>Fruit: symmetry (viewed from pistil end)</b>	<b>Fruit: symétrie (vue de l'extrémité pistillaire)</b>	<b>Frucht: Symmetrie (vom Kelchende aus gesehen)</b>			
<b>QN</b>	<b>symmetric</b>	symétrique	symmetrisch		Redhaven	1
	<b>moderately asymmetric</b>	modérément asymétrique			<i>Fr 08: this level not necessary</i>	2
	<b>strongly asymmetric</b>	fortement asymétrique			Prococissima Moretini	3
<b>40.</b>	<b>Fruit: prominence of suture</b>	<b>Fruit : proéminence de la suture</b>	<b>Frucht: Ausprägung der Naht</b>		<i>Fr 08: Drawing or photo</i>	
<b>QN</b>	weak	faible	gering		Redhaven	3
	medium	moyenne	mittel			5
	strong	forte	stark		Precocissima Moretini	7
<b>41. (+)</b>	<b>Fruit: depth of stalk cavity</b>	<b>Fruit: profondeur de la cavité pédicellaire</b>	<b>Frucht: Tiefe der Stielhöhe</b>			
<b>QN</b>	shallow	peu profonde	flach		Robin	3
	medium	moyenne	mittel			5
	deep	profonde	tief		Southland	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>42.</b>	<b>Fruit: width of stalk cavity</b>	<b>Fruit: largeur de la cavité pédicellaire</b>	<b>Frucht: Breite der Stielhöhe</b>			
<b>QN</b>	narrow	étroite	schmal		Redhaven	3
	medium	moyenne	mittel			5
	broad	large	breit		Robin	7

*To replace cream by a wording more adopted, and reorder the states/Brazil proposal light yellow for it.*

<b>43.</b> (*)	<b>Fruit: ground color</b> <i>Not visible</i>	<b>Fruit: couleur de fond</b>	<b>Frucht: Grundfarbe</b>		<i>Fiesta Red</i>	
<b>PQ</b>	green	verte	grün		Rubberima	1
	cream green	vert crème	cremegrün		Carman	2
	greenish white	blanc verdâtre	grünlichweiß		Morton	3
	cream white	blanc crème	cremeweiß		Michelini	4
	cream	crème	cremefarben		Amsden	5
	pink white	blanc rosé	rosaweiß		Précoce de Hale	6
	greenish yellow	jaune verdâtre	grünlichgelb		Veteran	7
	cream yellow	jaune crème	cremegelb		Fuzalode	8
	yellow	jaune	gelb		<i>Spain or TP to provide, Sudanero</i>	9
	orange yellow	jaune orange	orangegelb		Redtop	10

*NZ and France suggest the following states:*

1 green, 2 whitish green, 3 near white (old 5), 4 greenish white (old 3), 5 yellowish white (old 4), 6 pinkish white, 7 greenish yellow, 8 whitish yellow, 9 yellow, 10 orange yellow

*This NZ and France proposal to be review on the basis of the comments received in 2008*

<b>44.</b>	<b>Fruit: over color</b>	<b>Fruit: couleur du lavis</b>	<b>Frucht: Deckfarbe</b>			
<b>QL</b>	absent	absente	fehlend			1
	present	présente	vorhanden			9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>45.</b>	<b>Fruit: over color</b>	<b>Fruit: couleur du lavis</b>	<b>Frucht: Ton der Deckfarbe</b>		<b>Fr 08: photo</b>	
<b>PQ</b>	orange red	rouge orangé	orangerot		Velvet	1
	pink	rosé	rosa		Genard	2
	pink red	rouge rosé	rosarot		Fuzalode	3
	light red	rouge clair	hellrot		Redtop	4
	medium red	rouge moyen	mittelrot		Red Diamond	5
	dark red	rouge foncé	dunkelrot		Redwing	6
	blackish red	rouge vineux			Monec, Monid	7
<i>NZ and France: still to be discussed ?? TP ??</i>						
<i>-Character 44 changed states 1 orange red, 2 pink red, 4 red, 5 blackish red</i>						
<i>-Add New 44a Fruit: intensity of over color – light (3), medium (5), dark (7)</i>						
<b>46.</b>	<b>Fruit: pattern of over color</b>	<b>Fruit: répartition de la couleur du lavis</b>	<b>Frucht: Ausbreitungsform der Deckfarbe</b>		<b>Fr 08: photo, not easy to understand without</b>	
<b>PQ</b>	solid flush	en plages continues	ganzflächig		Flavorcrest	1
	striped	en stries	gestreift		Velvet	2
	mottled	moucheté	punktiert		Merill Sundance	3
	marbled	marbre	marmoriert		Genadix	4
<b>47. (*)</b>	<b>Fruit: proportion of over color</b>	<b>Fruit: extension de la couleur du lavis</b>	<b>Frucht: Ausbreitung der Deckfarbe</b>			
<b>QN</b>	very small	très petit	sehr klein		Veteran	1
	small	petit	klein		Amsden	3
	medium	moyen	mittel		Redhaven	5
	large	grand	groß		Redtop, <i>Delete</i> , Suncrest <i>to be deleted</i> for Fr 08	7
	very large	très grand	sehr groß		Rich Lady, Bigtop (= Zaitaro) <i>Delete: Red Top</i>	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<i>To replace the culti group by varietal denominations (Brazil...) T.Pascal to propose a text for char 47</i>						
<b>48.</b> (*)	<b>Fruit: pubescence</b>	<b>Fruit: pubescence</b>	<b>Frucht: Behaarung</b>			
<b>QL</b>	absent	absente	fehlend		Nectarine/Brugnon/ Nectarine	1
	present	présente	vorhanden		Peach/Peche/Pfirsich	9
<b>49.</b> (*)	<b>Fruit: density of pubescence</b>	<b>Fruit:</b>	<b>Frucht: Dichte der Behaarung</b>			
<b>QN</b>	very sparse	très faible	sehr gering		Merrill Gemfree	1
	sparse	faible	gering		Suncrest	3
	medium	moyenne	mittel		Dixired	5
	dense	forte	stark		Earlyvee, Veteran	7
	very dense	très forte	sehr stark		Arp Beauty, Triumph	9
<b>50.</b> New	<b>Only varieties with fruit pubescence: absent: Fruit: glossiness</b>				<b>Témoins TP ou AS</b>	
<b>QN</b>	absent or very weak					1
	medium					2
	strong					3
<b>51.</b> New	<b>Only varieties with fruit pubescence: absent: Fruit: size of lenticels</b>					
<b>QN</b>	small				Flavortop	1
	medium				Ruby Diamond	2
	large				Roy and grem	3
<b>52.</b>	<b>Fruit: thickness of skin</b>	<b>Fruit: épaisseur de l'épiderme</b>	<b>Frucht: Dicke der Haut</b>			
<b>?</b>	thin	faible	dünn		Fuzalode	1
	medium	moyenne	mittel		Mme Girard	2
	thick	forte	dick		Carman	3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>53.</b>	<b>Fruit: adherence of skin to flesh</b>	<b>Fruit: adhérence de l'épiderme a la chair</b>	<b>Frucht: Haften der Haut am Fleisch</b>			
<b>QN</b>	<b>very weak</b>	<b>très faible</b>	fehlend oder sehr gering		Mme Girard	1
	weak	faible	gering		Redhaven	3
	medium	moyenne	mittel		Early Sungrand	5
	strong	forte	stark		Babygold 5	7
	very strong	très forte	sehr stark		Vivian	9
<b>54. (* (+)</b>	<b>Fruit: firmness of flesh</b>	<b>Fruit: fermeté de la chair</b>	<b>Frucht: Festigkeit des Fleisches</b>			
<b>QN</b>	very soft	très molle	sehr weich		Amsden, <i>Delete</i> : Tejon	1
	soft	molle	weich		Fairhaven : <i>Delete</i> : Amsden	3
	medium	moyenne	mittel		Redhaven, <i>Delete</i> : Fairhaven	5
	firm	ferme	fest		Redtop, <i>Del</i> : Redhaven	7
	very firm	très ferme	sehr fest		Babygold, Vivian	9
<i>NZ and France suggest Fruit: predominant color of flesh. (it is not really a ground color) 'main' adopted in 2007</i>						
<i>Fr 08: main color is also represented and correlated by the intensity of caroténoïdes and the caroténoïdes coloration of flesh</i>						
<b>55. (*</b>	<b>Fruit: <b>main</b> color of flesh</b>	<b>Fruit: couleur <b>principale</b> de la chair</b>	<b>Frucht: Grundfarbe des Fleisches</b>			
<b>PQ</b>	greenish white	blanc verdâtre	grünlichweiß		Charles Roux	1
	white	blanche	weiß		Springtime	2
	cream white	blanc crème	cremeweiß		Michelini	3
	light yellow	jaune clair	hellgelb		Armking	4
	yellow	jaune	gelb		Early Sungrand	5
	orange yellow	jaune orange	orangegelb		Merril Franciscan	6
	orange	orange	orange		Sungold	7
	red	rouge	rot	<i>Fr 08: red level is redudant with char 55</i>	Sanguine Chanas	8

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>56.</b> (*)	<b>Fruit: anthocyanin coloration directly under skin</b>	<b>Fruit: pigmentation anthocyanique sous-épidermique</b>	<b>Frucht: Anthocyanfärbung direkt unter der Haut</b>			
<b>QN</b>	<b>absent or weak</b>	<b>absente ou faible</b>	fehlend oder sehr gering ausgeprägt		Redhaven	1
	<b>medium</b>	<b>moyenne</b>	gering ausgeprägt			2
	<b>strong</b>	<b>forte</b>	stark ausgeprägt		Sanguine Chanas	3
<b>57.</b> (*)	<b>Fruit: anthocyanin coloration of flesh</b>	<b>Fruit: pigmentation anthocyanique de la chair</b>	<b>Frucht: Anthocyanfärbung des Fleisches</b>		<b>Témoins TP</b>	
<b>QN</b>	<b>absent or very weak</b>	<b>absente ou très faiblement</b>	fehlend oder sehr gering ausgeprägt			<b>1</b>
	<b>weak</b>	<b>faible</b>	gering ausgeprägt			<b>2</b>
	<b>medium</b>	<b>moyenne</b>				<b>3</b>
	<b>strong</b>	<b>forte</b>	stark ausgeprägt			<b>4</b>
	<b>very strong</b>	<b>très forte</b>				<b>5</b>
<b>58.</b> (*)	<b>Fruit: anthocyanin coloration of the flesh around stone</b>	<b>Fruit: pigmentation anthocyanique de la chair autour du noyau</b>	<b>Frucht: Anthocyanfärbung im Bereich des Steines</b>		<b>Témoins TP</b>	
<b>QN</b>	<b>absent or weak</b>	<b>absente ou très faiblement</b>	fehlend oder sehr gering ausgeprägt		Springtime	1
	<b>medium</b>	<b>moyenne</b>	gering ausgeprägt			2
	<b>strong</b>	<b>forte</b>	stark ausgeprägt			3
<b>59.</b>	<b>Fruit: flesh fiber</b>	<b>Fruit: chair fibreuse</b>	<b>Frucht: Beschaffenheit des Fleisches</b>			
<b>QL</b>	<b>absent</b>	<b>absente</b>	nicht faserig		Redhaven	1
	<b>present</b>	<b>présente</b>	faserig		Sunhigh	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>60.</b> New	<b>Fruit: flesh type</b>				<b>Témoins TP</b>	
(+)						
<b>?</b>	melting					1
	stony hard (=crisp)				Jim Dandy, Manami, Nishio gold, Odoraki	2
	non-melting				Yumyeong	3

*The following characteristics 62 à 79 will be studied in june 2008 at TWF*

<b>61.</b>	<b>Fruit: sweetness or IR (% Brix)</b>	<b>Fruit: goût sucré</b>	<b>Frucht: Süße</b>			
<b>?</b>	low	faible IR <10	gering		Armking, Alexandra, <i>Delete:</i> Merrill Gemfree	3
	medium	moyen IR >10-13	mittel		Dixired, Redhaven	5
	high	fort IR >13	stark		Philp, (Bonbon) = Maillardou	7

*See below the new proposal from France: values as for information for drafters*

<b>62.</b>	<b>Fruit: acidity (Acidity titrable) in meq 100/ml</b>	<b>Fruit: acidité</b>	<b>Frucht: saure</b>			
<b>?</b>	very low <5	très faible	sehr gering		Ambre, Kevina, Nacre, Opale, Redwing	1
	low 5-8	faible	gering		Big Boum, Bigtop, , Emeraude, Felicia, <i>Delete:</i> Redwing	3
	medium 8-12	moyenne	mittel		O'Henry, Redtop, Ryan Sun. <i>Delete:</i> Redtop	5
	high 12-15	forte	stark		Hermione, Orion, Primerose, Richmay <i>Delete:</i> Armking	7
	very high >15	très forte	sehr stark		Armking, Bracid, Maycrest, Red Robin, Star Bright	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplos	Note/ Nota
<b>63.</b> (*)	<b>Stone: size compared to fruit</b>	<b>Noyau: taille par rapport à celle du fruit</b>	<b>Stein: Größe im Verhältnis zur Frucht</b>			
<b>?</b>	small	petit	klein		Robin	3
	medium	moyen	mittel		Redhaven	5
	large	gros	groß		Somervee	7
<b>64.</b> (*) (+)	<b>Stone: shape (in lateral view)</b>	<b>Noyau: forme (vue latérale)</b>	<b>Stein: Form (in Seitenansicht)</b>			
<b>?</b>	oblate	aplati	abgeflacht		Saturne, <i>Delete:</i> Plate de Chine Platicarpa	1
	round = <i>AS/Fr</i> <i>08:circular</i>	rond	rund		Robin	2
	elliptic	elliptique	elliptisch		Loring	3
	obovate	obovoide	verkehrt eiförmig		Rubidoux	4
<b>65.</b>	<b>Stone: intensity of brown color</b>	<b>Noyau: intensité de la couleur brune</b>	<b>Stein: Aussehen der Oberfläche</b>			
<b>?</b>	light	claire	hell		Robin	3
	medium	moyenne	mittel			5
	dark	foncée	dunkel		Vivian	7
<b>66.</b> (+)	<b>Stone: relief of surface</b>	<b>Noyau : relief de la surface</b>	<b>Stein: Aussehen der Oberfläche</b>			
<b>?</b>	small pits	petites cavités	kleine Vertiefungen		Ribet	1
	large pits	grandes cavités	große Vertiefungen		Dugelay	2
	grooves	sillons	Furchen		Charles Roux	3
	pits and grooves	cavités et sillons	Vertiefungen und Furchen		Madame Girerd	4



English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplos	Note/ Nota
<i>NZ proposes to delete, linked with shape. France and Japan do not agree in 2007 and 2008. This characteristic is genetically determined, even if as many quantitative characteristics its expression can interfere with farming practices and environment: the breeding takes account of the characteristic. Opening (absent/present) and tendency of splitting (at peak harvest) has to be taken in account...keep them- AS 08 : delete it is correlated to farming practices and environment.</i>					
<b>67.</b>	<b>Stone: tendency of splitting (at peak harvest)</b>	<b>Noyau: tendance a la fente (en pleine récolte)</b>	<b>Stein: Tendenz zur Spaltung (zur Haupternte)</b>		
?	absent or very low	nul ou très faible	fehlend oder sehr gering	Fairhaven	1
	low	faible	gering	Dixired	3
	medium	moyen	mittel	Springold	5
	high	élevé	groß	Cardinal	7
	very high	très élevé	sehr groß	Earlired	9
<b>68. (*)</b>	<b>Stone: adherence to flesh</b>	<b>Noyau : adhérence a la chair</b>	<b>Stein: Anhaften am Fleisch</b>		
?	absent	absente	fehlend	Fairhaven, Fuzalode	1
	present	présente	vorhanden	Vivian, Sweet Gold	9
<b>69.</b>	<b>Stone: degree of adherence to flesh</b>	<b>Noyau: degré d'adhérence a la chair</b>	<b>Stein: Stärke des Anhaftens am Fleisch</b>		
?	weak	faible	gering	Dixired	3
	medium	moyenne	mittel	Springcrest	5
	strong	forte	stark	Vivian	7
<b>70. New Add AS08</b>	<b>Stone: length</b>				
?	short				
	medium				
	long				

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplos	Note/ Nota
<b>71.</b> New Add AS 08	<b>Stone: lateral width</b>					
	narrow					
	medium					
	broad					
<b>72.</b> New Add AS 08	<b>Stone: ratio length/width</b>					
?	low					
	medium					
	high					
<b>73.</b> New Add AS08	<b>Stone: broadest part</b>					
?	towards stalk end					
	middle					
	towards pistil end					
<b>74.</b> New Add AS 08	<b>Stone: anthocyanin coloration on stone</b>					
?	absent or very weak					
	weak					
	medium					
	strong					
	very strong					

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplos	Note/ Nota
<b>75.</b>	<b>Time of leaf bud burst</b>	<b>Époque de début de floraison</b>	<b>Zeitpunkt des Blühbeginns</b>			
<b>?</b>	very early	très précoce	sehr früh		Sunred	1
	early	précoce	früh		Springtime	3
	medium	moyenne	mittel		Redhaven	5
	late	tardive	spät		Genadix 7	7
	very late	tres tardive	sehr spät		Philp	9

*Value and trade marks as for informations for drafters, all to be deleted after use by the group*

<b>76.</b> (*)	<b>Time of beginning of flowering</b>	<b>Époque de début de floraison</b>	<b>Zeitpunkt des Blühbeginns</b>			
<b>?</b>	very early	très précoce < 1 mars*	sehr früh		Earlytop (Zaibop), Queen Red (Zaitolio), Sunred	1
	early	précoce 1-7 mars	früh		Richlady, Springtime	3
	medium	moyenne 8-14 mars	mittel		Bigtop (Zaitabo), Emeraude (Monnude) <i>Delete</i> : Red Haven	5
	late	tardive 15-21 mars	spät		Laurired (Maillarlau) Sweetcap (Maillarflat). <i>Delete</i> : Philp	7
	very late	très tardive > 21 mars	sehr spät		Summerqueen	9
<b>77.</b> (*)	<b>Duration of flowering</b>	<b>Durée de floraison</b>	<b>Dauer der Blüte</b>			
<b>?</b>	short	courte	kurz		Philp	3
	medium	moyenne	mittel		Redhaven	5
	long	longue	lang		Springtime	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplos	Note/ Nota
<b>78.</b> (*)	<b>Time of maturity for consumption (or for eating NZ)</b>	<b>Époque de maturité pour la consommation</b>	<b>Zeitpunkt der Genussreife</b>			
<b>?</b>	very early	très précoce	sehr früh		Springtime	1
	early	précoce	früh		Robin	3
	medium	moyenne	mittel		Fairhaven	5
	late	tardive	spät		Veteran	7
	very late	très tardive	sehr spät		Firetime, Rubidoux	9

*Characteristic 78: Time of maturity: do we have to decline it by varietal group (peach, nectarine, pavia, brugnon)?*

<b>1:</b>	< 10 juin very early	Ricmay, (Amanda) Zaibaro
<b>2:</b>	10-24 juin	(Rubriich) Zainoar, (Anita) Zaitani
<b>3:</b>	25-10 juil early	Redwing, Rich Lady
<b>4:</b>	11-25 juil	Diamond Princess, (Melina) Craucail
<b>5:</b>	26-10 août medium	Fantasia, Summer Bright, Zee Lady
<b>6:</b>	11-25 août	(Big Sun) Maillarbig, Savana red, (Mid gold) Zaimor
<b>7:</b>	26-10 sept late	Fairlane, (Sun Late) Zairova, (Gladys) Zailati, Western red,
<b>8:</b>	> 10	(Honey Gold) Andgold, Tardibelle

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplos	Note/ Nota
<b>79.</b>	<b>Tendency to preharvest drop</b>	<b>Tendance a la chute avant la récolte</b>	<b>Neigung zum Fruchtfall vor der Ernte</b>			
<b>?</b>	absent or very weak	nulle ou très faible	fehlend oder sehr gering		Redhaven	1
	weak	faible	gering		Shasta	3
	medium	moyenne	mittel		Vesuvio	5
	strong	forte	stark		Sudanell	7
	very strong	très forte	sehr stark		Jeronimo	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) Unless otherwise stated, all observations on the leaf should be made on fully developed leaves in the central third of a current season shoot.

(b) All observations on the nectaries (glands) should be made on leaves as soon as they are fully developed.

(c) All observations on the flowering shoot and the flower should be made in the central third of the shoot.

(d) Unless otherwise indicated, all observations on the flower should be made on fully opened flowers at the beginning of anther dehiscence. The time of beginning of flowering is reached when 10% of the flowers on the tree are fully opened. The end of flowering is reached at 90% petal fall.

(e) All observations on the fruit should be made on fruits mature for eating.

(f) All observations on the stone should be made on the dry stone after removal of the flesh.

### 8.2 *Explanations for individual characteristics*

#### Ad. 2: Tree: vigor

To give an explanation with a + (chapter 8) by M.Harsanyi (Hungary)

#### Ad. 3: Tree habit

To be observed the year before the main pruning, with a drawing as in the TG apricot and the TGP 142 1 2 p 29

#### Ad. 4: Flowering shoot: thickness

To be observed excluding 'brindilles' (french and English term)  
Does 'Rameau mixte' means flowering shoot' ? TP

#### Ad. 7: Flowering shoot: density of flower buds (as for 4)

To be observed 1 meter in the shoot

#### Ad. 8: Flower: type

To observe "just before opening"  
'Campanulate' means 'non showy', 'rosette' means 'showy'

Ad. 12: Petal: size

Ad. 14: Stamens: position compared to petals

Ad. 15: Stamens: position compared to anthers

To be evaluated on 25 flowers

Ad. 17: Stipule: length (on fully expanded leaf on young shoot)

To be evaluated on 25 stipules

Ad. 18: Leaf blade: length

Ad. 23: Leaf blade: angle at base

Ad. 24: Leaf blade: angle at apex

Ad. 27: Petiole: length

To be evaluated on 25 leaves

Ad. 19: Leaf blade: width

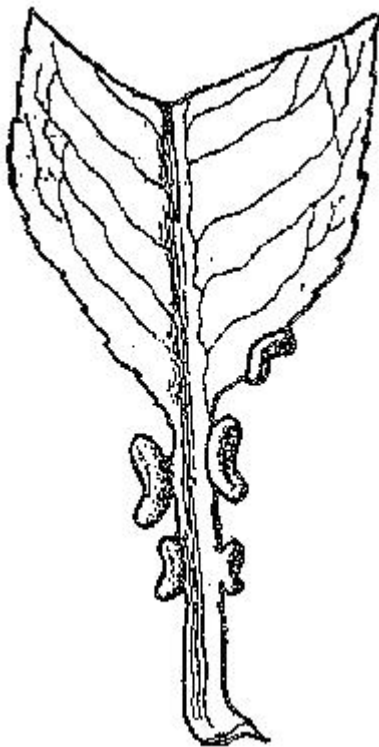
[to be provided]

Ad. 20: Leaf blade: ratio length/width

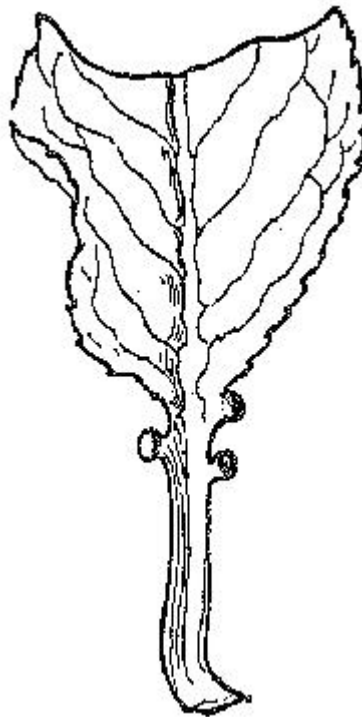
[to be provided]

Ad. 28: Petiole: nectaries

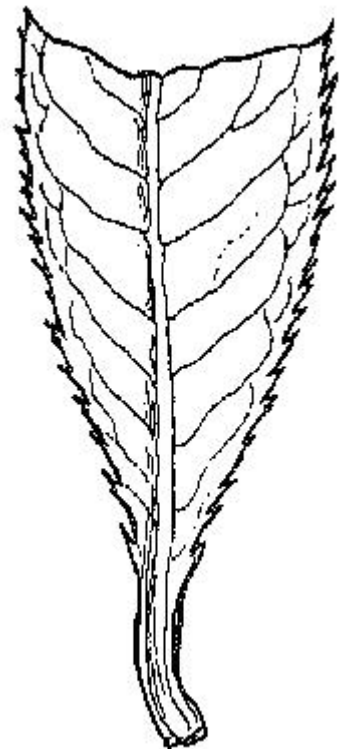
NZ comments: Nectaries are not only on the superior part of petiole, but also the leaf.  
France answer: More precisely on the base of the leaf (see at the end of this document: biblio. ref.: Handbook of peach and nectarine varieties – Performance in the Southeastern United States and index of names, W. R. Okie - United State Department of Agriculture - Agriculture Research Service - Agriculture Handbook Number 1714 – May 1998: page 12). This character, both on petiole and leaf, is fluctuant during the season ... So, the most important is that the shape and the number of glands, as well as the area (petiole/leaf), must be determined on adult, full-sized leaves of mature trees (*on the young leaves in growth, they are more or less well constituted and on too old leaves, they dry out and fall*), if possible in July for the UE countries, during a short period of one or two weeks for a set of varieties in experimentation / characterization.



nectaires réniformes



nectaires circulaires



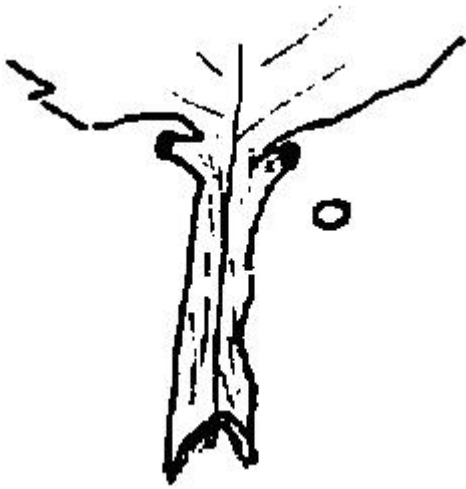
absence de nectaire



Ad. 29: Petiole:shape of nectaries

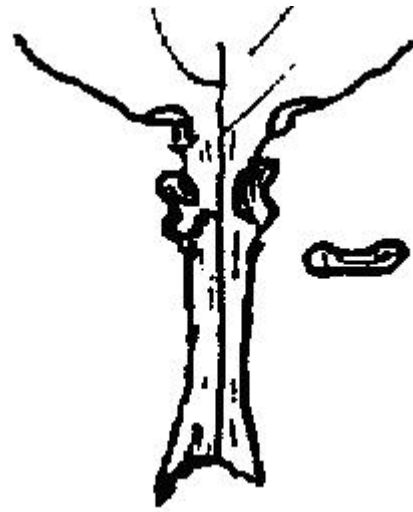
Add. 29: Pétale: forme des nectaires

Zu 29: Blattstiel: Form der Nektarien



1

round/circulaires/rund



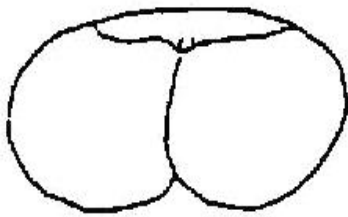
2

reniform/réniformes/nierenförmig

Ad. 36: Frucht: shape (in ventral view)

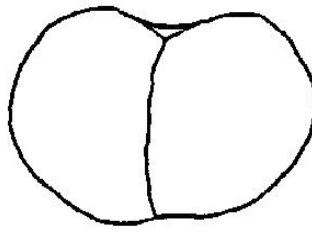
Add. 36: Fruit: forme (vue ventrale)

Zu 36: Frucht: Form (in Bauchansicht)



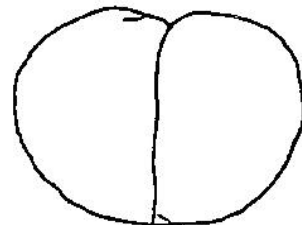
1

broad oblate/aplati large/breit  
abgeflacht



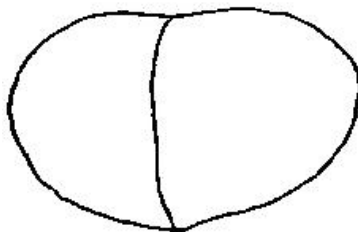
2

oblate/aplati/abgeflacht



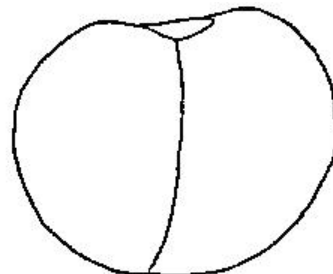
3

circular/rond/rund



4

ovate/ovale/eiförmig



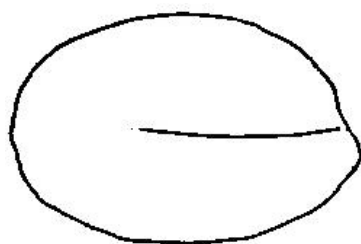
5

broad  
elliptic/elliptique/**large**  
elliptisch

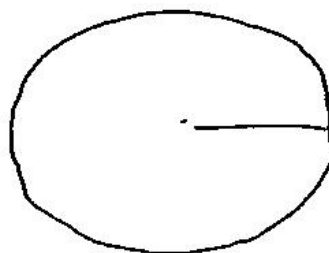
Ad. 39: Fruit: symmetry (viewed from pistil end)

Add. 39 : Fruit: symétrie (vue de l'extrémité pistillaire)

Zu 39: Frucht: Symmetrie (vom Kelchende aus gesehen)



1  
asymmetric/dissymétrique/  
asymmetrisch

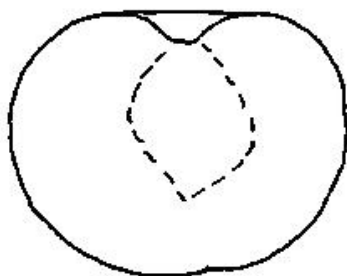


2  
symmetric/symétrique/  
symmetrisch

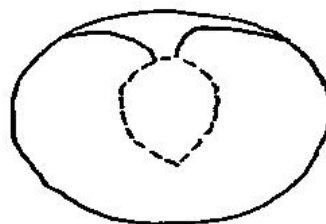
Ad. 41: Fruit: depth of stalk cavity

Add. 41: Fruit: profondeur de la cavité pédicellaire

Zu 41: Frucht: Tiefe der Stielhöhle



3  
shallow/peu profonde/flach



7  
deep/profonde/tief

Ad. 54: Fruit: firmness of flesh

To be observed at eating ripeness

Ad. 60: Fruit: flesh type

[to be provided]

Ad. 64: Stone: shape (in lateral view)

Add. 64: Noyau: forme (vue latérale)

Zu 64: Stein: Form (in Seitenansicht)



1

oblate/aplati/  
abgeflacht



2

round= AS/Fr  
Ø8:circular  
/rond/rund



3

elliptic/elliptique/  
elliptisch



4

obovate/obovoide  
/verkehrt eiförmig

Ad. 66: Stone: relief of surface

Add. 66: Noyau: relief de la surface

Zu 66: Stein: Aussehen der Oberfläche



1

small pits/  
petites cavités/  
kleine  
Vertiefungen



2

large pits/ grandes  
cavités/ grosse  
Vertiefungen



3

grooves/ sillons/  
Furchen



4

pits and grooves/  
cavités et sillons/  
Vertiefungen und  
Furchen

9. Literature

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10 Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)
<b>TECHNICAL QUESTIONNAIRE</b> to be completed in connection with an application for plant breeders' rights		
1. Subject of the Technical Questionnaire		
1.1.1 Botanical name	<input type="text" value="Prunus persica (L.) Batsch var. persica"/>	
1.1.2 Common name	<input type="text" value="Peach"/>	[...]
1.2.1 Botanical name	<input type="text" value="Prunus persica (L.) Batsch var. nucipersica (Suckow) C. K. Schneid."/>	
1.2.2 Common name	<input type="text" value="Nectarine"/>	[...]
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:
<p>#4. Information on the breeding scheme and propagation of the variety</p> <p>4.1 Breeding scheme</p> <p>Variety resulting from:</p> <p>4.1.1 Crossing</p> <p>(a) controlled cross [ ] (please state parent varieties)</p> <p>(b) partially known cross [ ] (please state known parent variety(ies))</p> <p>(c) unknown cross [ ]</p> <p>4.1.2 Mutation [ ] (please state parent variety)</p> <p>4.1.3 Discovery and development [ ] (please state where and when discovered and how developed)</p> <p>4.1.4 Other [ ] (please provide details)</p> <p>4.2 Method of propagating the variety</p> <p>4.2.1 Vegetative propagation</p> <p>(a) cuttings [ ]</p> <p>(b) <i>in vitro</i> propagation [ ]</p> <p>(c) other (state method) [ ]</p> <p>4.2.2 Other [ ] (please provide details)</p>		

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

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
<p>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).</p>			
Characteristics	Example Varieties	Note	
<p><b>5.1 Tree: size</b> (1)</p> <p>very small</p> <p>small</p> <p>medium</p> <p>large</p> <p>very large</p>	<p>Bonanza</p> <p>Richaven</p> <p>Robin</p> <p>Redhaven</p> <p>Champion</p>	<p>1 [ ]</p> <p>3 [ ]</p> <p>5 [ ]</p> <p>7 [ ]</p> <p>9 [ ]</p>	
<p><b>5.2 Flowering shoot: intensity of anthocyanin coloration</b> (6) (shaded side)</p> <p>absent or very weak</p> <p>weak</p> <p>medium</p> <p>strong</p>	<p>De Flor doble blanca</p> <p>Springtime</p> <p>Fuzalode</p> <p>Robin, Sangtuine Chanas</p>	<p>1 [ ]</p> <p>3 [ ]</p> <p>5 [ ]</p> <p>7 [ ]</p>	
<p><b>5.3 Flower: type</b> (8)</p> <p>campanulate</p> <p>rosette</p>	<p>Springtime</p> <p>Robin</p>	<p>1 [ ]</p> <p>2 [ ]</p>	
<p><b>5.4 Petal: size</b> (12)</p> <p>very small</p> <p>small</p> <p>medium</p> <p>large</p> <p>very large</p>	<p>Redhaven</p> <p>Shasta</p> <p>Robin, Sunhigh</p> <p>Michelini</p> <p>Veteran</p>	<p>1 [ ]</p> <p>3 [ ]</p> <p>5 [ ]</p> <p>7 [ ]</p> <p>9 [ ]</p>	



TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
Characteristics	Example Varieties	Note	
<b>5.5 Petiole: nectaries</b> (28)			
absent	Crimson Glo, Tejon	1[ ]	
present	Redhaven	9[ ]	
<b>5.6 Petiole: shape of nectaries</b> (29)			
round	Springtime	1[ ]	
reniform	Redhaven	2[ ]	
<b>5.7 Fruit: main color of flesh</b> (55)			
greenish white	Charles Roux	1[ ]	
white	Springtime	2[ ]	
cream white	Michelini	3[ ]	
light yellow	Armking	4[ ]	
yellow	Early Sungrand	5[ ]	
orange yellow	Merril Franciscan	6[ ]	
orange	Sungold	7[ ]	
red	Sanguine Chanas	8[ ]	
<b>5.8 Stone: adherence to flesh</b> (68)			
absent	Fairhaven, Fuzalode	1[ ]	
present	Vivian, Sweet Gold	9[ ]	

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics		Example Varieties	Note
<b>5.9 Time of beginning of flowering (76)</b>			
very early		Earlytop (Zaibop), Queen Red (Zaitolio), Sunred	1[ ]
early		Richlady, Springtime	3[ ]
medium		Bigtop (Zaitabo), Emeraude (Monnude) <i>Delete</i> : Red Haven	5[ ]
late		Laurired (Maillarlau) Sweetcap (Maillarflat) <i>Delete</i> : Philp	7[ ]
very late		Summerqueen	9[ ]
<b>5.10 Time of maturity for consumption (78)</b>			
very early		Springtime	1[ ]
early		Robin	3[ ]
medium		Fairhaven	5[ ]
late		Veteran	7[ ]
very late		Firetime, Rubidoux	9[ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
<p>6. Similar varieties and differences from these varieties</p> <p><i>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.</i></p>			
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>Flower color</i>	<i>orange</i>	<i>orange red</i>
<p>Comments:</p>			

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
<p>#7. Additional information which may help in the examination of the variety</p>		
<p>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?</p>		
<p>Yes [ ] No [ ]</p>		
<p>(If yes, please provide details)</p>		
<p>7.2 Are there any special conditions for growing the variety or conducting the examination?</p>		
<p>Yes [ ] No [ ]</p>		
<p>(If yes, please provide details)</p>		
<p>7.3 Other information</p>		
<p>A representative color photograph of the variety should accompany the Technical Questionnaire.</p>		
<p>4.2 <u>In vitro propagation/Multiplication in vitro/In-vitro-Vermehrung:</u></p>		
<p>The plant material has been obtained by <u>in vitro</u> propagation/ yes/oui/ja [ ]</p>		
<p>le matériel végétal a été obtenu par multiplication <u>in vitro</u>/</p>		
<p>Das Pflanzenmaterial wurde mit Hilfe der <u>In-vitro</u>-Vermehrung erzeugt no/non/nein</p>		
<p>4.3 <u>Pollinator/Pollinisateur/Pollenspender</u></p>		
<p>Good pollinators are the following varieties/Les variétés suivantes sont de bons pollinisateurs/Folgende Sorten sind gute Pollenspender:</p>		
<p>.....</p>		
<p>4.4 <u>Virus status/Etat sanitaire vis-à-vis des virus/Virusstatus</u></p>		
<p>The variety is/La variété est/Die Sorte ist</p>		
<p>(i)virus free/indemne de virus/virusfrei [ ]</p>		
<p>(indicate viruses/préciser les virus/Viren angeben)</p>		
<p>.....</p>		
<p>(ii) virus tested/testée vis-à-vis des virus/virusgetestet</p>		
<p>(indicate against which virus/préciser contre quel(s) virus/angeben gegen welche Viren)</p>		
<p>.....</p>		
<p>(iii) The virus status is unknown/L'état sanitaire vis-à-vis des virus est [ ]</p>		
<p>inconnu/Der Virusstatus ist nicht bekannt</p>		

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

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

8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

If the answer to (b) is yes, please attach a copy of the authorization.

9. Information on plant material to be examined or submitted for examination.

9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc.

9.2 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

(a) Microorganisms (e.g. virus, bacteria, phytoplasma) Yes [ ] No [ ]

(b) Chemical treatment (e.g. growth retardant, pesticide) Yes [ ] No [ ]

(c) Tissue culture Yes [ ] No [ ]

(d) Other factors Yes [ ] No [ ]

Please provide details for where you have indicated "yes".

.....

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature

Date