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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

SWEET CHERRY*

UPOV Code(s):

PRUNU_AVI

Prunus avium (L.) L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from France
to be considered by the
Technical Working Party for Fruit Crops
at its fiftieth session, to be held in Budapest, Hungary,
from 2019-06-24 to 2019-06-28

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Prunus avium (L.) L., *Cerasus avium* (L.) Moench	Sweet Cherry	Bigarreaux, Cérisier doux	Süßkirsche	Cerezo dulce, Mollar

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.

Other associated UPOV documents: TG/187/2 Prunus Rootstocks

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Prunus avium* (L.) L. except for varieties used only as rootstock varieties (see TG/187/2).

2. Material Required

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

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

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

5 trees or 3 budsticks or 5 dormant shoots for grafting, sufficient to propagate 5 trees.
The rootstock to be used is specified by the competent authority.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 Number of Growing Cycles

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

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

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

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

3.2 Testing Place

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 “Examining Distinctness”.

3.3 Conditions for Conducting the Examination

3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.

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

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. The color chart and version used should be specified in the variety description.

3.4 Test Design

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

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

3.5 Additional Tests

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 Distinctness

4.1.1 General Recommendations

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

4.1.2 Consistent Differences

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

4.1.3 Clear Differences

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

4.1.4 Number of Plants or Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 5 plants or parts of plants taken from each of 5 plants and any other observations made on all plants in the test, disregarding any off-type plants.

In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 3.

4.1.5 Method of Observation

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

MG: single measurement of a group of plants or parts of plants
MS: measurement of a number of individual plants or parts of plants
VG: visual assessment by a single observation of a group of plants or parts of plants
VS: visual assessment by observation of individual plants or parts of plants

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

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

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

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

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

4.2 Uniformity

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

4.2.2 These Test Guidelines have been developed for the examination of vegetatively propagated varieties. For varieties with other types of propagation, the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.

4.2.3 For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 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 seed or 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:

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

6. Introduction to the Table of Characteristics

6.1 Categories of Characteristics

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 States of Expression and Corresponding Notes

6.2.1 States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	*Note*
small	3
medium	5
large	7

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

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

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

6.3 Types of Expression

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

6.4 Example Varieties

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

6.5 Legend

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1 2	**3 4**	**5 6**	**7**			
	Name of characteristics in English	**Nom du caractère en français**	**Name des Merkmals auf Deutsch**	**Nombre del carácter en español**		
	states of expression	types d'expression	Ausprägungsstufen	tipos de expresión		

1 Characteristic number

2 (*) Asterisked characteristic – see Chapter 6.1.2

3 Type of expression
QL Qualitative characteristic – see Chapter 6.3
QN Quantitative characteristic – see Chapter 6.3
PQ Pseudo-qualitative characteristic – see Chapter 6.3

4 Method of observation (and type of plot, if applicable)
MG, MS, VG, VS – see Chapter 4.1.5

5 (+) See Explanations on the Table of Characteristics in Chapter 8.1

6 Not applicable

7 Growth stage key 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.	**QN MG**					
	Tree: vigor	**Arbre: vigueur**	**Baum: Wuchsstärke**	**Árbol: vigor**		
	weak					1
	medium	faible	gering	débil		3
	strong	moyenne	mittel	medio		5
2.	**(*) PQ MG**					
	Tree: habit	**Arbre: port**	**Baum: Wuchsform**	**Árbol: porte**		
	upright	dressé	aufrecht	erecto	Lapins , Melitopol'skaya rannyaya	1
	semi-upright	demi- dressé	halbaufrecht	semierecto	Burlat , Napoléon	2
	spreading	étalé	breitwüchsig	extendido	Sumtare , Vega , Vera	3
	drooping	retombant	überhängend	colgante	Annabella , Jaboulay	4
3.	**(*) QN MG**					
	Tree: branching	**Arbre: degré de ramification**	**Baum: Verzweigung**	**Árbol: ramificación**		
	weak	faible	gering	débil	Merton Glory , Rainier	3
	medium	moyen	mittel	media	Hedelfinger Riesenkirsche	5
	strong	fort	stark	fuerte	Alex, Szomolyai fekete	7
4.	**QN MG**					
	Young shoot: anthocyanin coloration of apex (during rapid growth)	**Jeune rameau: pigmentation anthocyanique de l'apex (pendant la croissance rapide)**	**Junger Trieb: Anthocyanfärbung der Spitze (während des schnellen Wachstums)**	**Rama joven: coloración antocianica del ápice (durante crecimiento rápido)**		
	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Drogans Gelbe Knorpelkirsche	1
	weak	faible	gering	débil	Merton Glory , Van	3
	medium	moyenne	mittel	media	Napoléon, Rebekka	5
	strong	forte	stark	fuerte	Namosa , Rivan	7
	very strong	très forte	sehr stark	muy fuerte	Aida , Merton Heart , Pat	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5.		**QN MG**					
		Young shoot: pubescence of apex (during rapid growth)	**Jeune rameau: pilosité de l'apex (pendant la croissance rapide)**	**Junger Trieb: Behaarung der Spitze (während des schnellen Wachstums)**	**Rama de un año: pubescencia del ápice (durante crecimiento rápido)**		
		weak	faible	gering	débil	Hedelfinger Riesenkirsche , Van	3
		medium	moyenne	mittel	media	Kassins Frühe	5
		strong	forte	stark	fuerte	Burlat , Early Rivers	7
6.	**(*)**	**QL MG**	**(+)**				
		One-year-old shoot: length of internode	**Rameau d'un an: longueur de l'entre- nœud**	**Einjähriger Trieb: Länge des Internodiums**	**Rama de un año: longitud del entrenudo**		
		normal	normal	normal	normal	Burlat	1
		short	court	kurz	corto	Compact Lambert, Compact Stella	2
7.		**QN MG**					
		One-year-old shoot: number of lenticels	**Rameau d'un an: nombre de lenticelles**	**Einjähriger Trieb: Anzahl Lentizellen**	**Rama de un año: número de lenticelas**		
		few	petit	gering	bajo	Kordia, Sam	3
		medium	moyen	mittel	medio	Hedelfinger Riesenkirsche , Van	5
		many	grand	groß	alto	Krupnoplodnaya , Querfurter Königskirsche	7
8.		**QN MG**					
		One-year-old shoot: thickness (at midlength)	**Rameau d'un an: épaisseur (à mi- longueur)**	**Einjähriger Trieb: Dicke (in der Mitte)**	**Rama de un año: grosor (a media longitud)**		
		thin	fin	dünn	delgada	Szomolyai fekete	3
		medium	moyen	mittel	media	Hedelfinger Riesenkirsche	5
		thick	épais	dick	gruesa	Kavics, Van	7
9.		**PQ VG**					
		<u>Fruiting spur: shape of apex of flowering bud</u>					
		acute					1
		obtuse					2
		rounded					3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10.	**PQ VG**					
	One-year-old shoot: position of vegetative bud in relation to shoot					
	adpressed	appliquée	anliegend	alineada		1
	slightly held out	légèrement divergente	leicht abstehend	ligeramente divergente		2
	markedly held out	fortement divergente	deutlich abstehend	fuertemente divergente		3
11.	**QN MG**					
	Leaf blade: length	**Limbe: longueur**	**Blattspreite: Länge**	**Limbo: longitud**		
	short	court	kurz	corto	Sumtare, Szomolyai fekete	3
	medium	moyen	mittel	medio	Napoléon, Vanda	5
	long	long	lang	largo	Merton Crane	7
12.	**QN MG**					
	Leaf blade: width	**Limbe: largeur**	**Blattspreite: Breite**	**Limbo: anchura**		
	narrow	étroit	schmal	estrecho	Sumtare , Sylvia	3
	medium	moyen	mittel	medio	Guillaume, Stella	5
	broad	large	breit	ancho	Badacsonyi , Germersdorfi 45, Merton Crane	7
13. **(*)**	**QN MG**					
	Leaf blade: ratio length/width	**Limbe: rapport longueur/largeur**	**Blattspreite: Verhältnis Länge/Breite**	**Limbo: relación longitud/anchura**		
	small	petit	klein	pequeña	Badacsonyi , Hudson	3
	medium	moyen	mittel	media	Bing, Merton Crane	5
	large	grand	groß	grande	Hedelfinger Riesenkirsche , Sylvia, Vanda	7
14.	**QN MG**					
	Leaf blade: intensity of green colora of upper side	**Limbe: intensité de la couleur verte de la face supérieure**	**Blattspreite: Intensität der Grünfärbung der Oberseite**	**Limbo: intensidad del color verde de la parte superior**		
	light	claire	hell	claro	Bigarreau d'Or, Sumtare	3
	medium	moyenne	mittel	medio	Napoléon, Vanda	5
	dark	foncée	dunkel	oscuro	Burlat	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
15.	**(*) QN MG**					
	Leaf: length of petiole	**Feuille: longueur du pétiole**	**Blatt: Länge des Blattstiels**	**Hoja: longitud del peciolo**		
	short	court	kurz	corto	Sylvia, Van	3
	medium	moyen	mittel	medio	Sam, Stella	5
	long	long	lang	largo	Badacsonyi, Merton Crane	7
16.	**QN MG**					
	Leaf: ratio length of blade / length of petiole					
	small				Badacsonyi , Lambert	3
	medium				Burlat , Sam	5
	large				Hedelfinger Riesenkirsche, Stella	7
17.	**(*) QL MG**					
	Leaf: presence of nectaries	**Feuille: présence de nectaires**	**Blatt: Vorhandensein von Nektarien**	**Hoja: presencia de nectarios**		
	absent	absents	fehlend	ausentes	Namosa , Sylvia	1
	present	présents	vorhanden	presentes	Summit, Sumtare	9
18.	**PQ MG**					
	Leaf: color of nectaries					
	greenish yellow				Drogans Gelbe Knorpelkirsche, Van	1
	orange yellow				Hudson, Reverchon	2
	light red				Burlat , Sylvia	3
	dark red				Early Rivers, Germersdorfi 45	4
	purple				Gege , Paulus	5
19.	**QN VG**					
	Leaf: predominant number of nectaries					
	two					1
	more than two					2

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20.	**QN MG**					
	Flower: diameter	**Fleur: diamètre**	**Blüte: Durchmesser**	**Flor: diámetro**		
	small	petit	klein	pequeño	Anita, Szomolyai fekete	3
	medium	moyen	mittel	medio	Sylvia, Van	5
	large	grand	groß	grande	Aida, Burlat	7
21.	**PQ MG**					
	Flower: shape of petal	**Fleur: forme du pétale**	**Blüte: Form des Blütenblattes**	**Flor: forma del pétalo**		
	circular	circulaire	rund	circular	Kordia, Schneiders spaete Knorpelkirsche	1
	medium obovate	obovale moyen	mittel verkehrt eiförmig	oboval medio	Burlat , Sunburst	2
	broad obovate	obovale large	breit verkehrt eiförmig	oboval ancho	Hedelfinger Riesenkirsche , Van	3
22.	**QN MG**					
	Flower: arrangement of petals	**Fleur: disposition des pétales**	**Blüte: Anordnung der Blütenblätter**	**Flor: disposición de los pétalos**		
	free	disjoints	freistehend	abierta	Burlat , Sunburst	1
	intermediate	intermédiaires	mittel	intermedia	Germersdorfi 45, Van	2
	overlapping	chevauchants	überlappend	solapada	Hudson	3
23.	**QN VG**					
	Stamen: position compared to petals					
	below	au-dessous	unterhalb	por debajo		1
	same level	même niveau	gleiche Höhe	mismo nivel		2
	above	au-dessus	oberhalb	por encima		3
24.	**QN VG**					
	Stigma: position in relation to anthers					
	below	au-dessous	unterhalb	por debajo		1
	same level	au même niveau	auf gleicher Höhe	al mismo nivel		2
	above	au-dessus	oberhalb	por encima		3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25.	**(*)**	**QN** **MG**					
		Fruit: size	**Fruit: taille**	**Frucht: Größe**	**Fruto: tamaño**		
		very small	très petit	sehr klein	muy pequeño	Müncheberger Frühernte	1
		small	petit	klein	pequeño	Annonay, Szomolyai fekete	3
		medium	moyen	mittel	medio	Early Rivers, Schmidt	5
		large	gros	groß	grande	Burlat , Rainier	7
		very large	très gros	sehr groß	muy grande	Duroni 3, Sunburst	9
26.	**(*)**	**PQ** **MG**					
		Fruit: shape	**Fruit: forme**	**Frucht: Form**	**Fruto: forma**		
		cordate	cordiforme	herzförmig	cordiforme	Kordia, Summit	1
		reniform	réniforme	nierenförmig	reniforme	Van, Vera	2
		oblate	aplati	breitrund	oblata	Alex, Burlat	3
		circular	circulaire	rund	circular	Germersdorfi 45, Reverchon	4
		elliptic	elliptique	elliptisch	elíptica	Hedelfinger Riesenkirsche	5
27.		**PQ** **MG**					
		Fruit: pistil end	**Fruit: extrémité du pistil**	**Frucht: Kelchende**	**Fruto: extremo del pistilo**		
		pointed	pointue	zugespitzt	puntiagudo	Guillaume, Kavics	1
		flat	plate	eben	plano	Hedelfinger Riesenkirsche , Van	2
		depressed	déprimée	eingesenkt	hundido	Reverchon, Sunburst	3
28.		**QN** **MG**					
		Fruit: suture	**Fruit: suture**	**Frucht: Naht**	**Fruto: sutura**		
		absent or very weakly conspicuous	absente ou très peu nette	fehlend oder sehr schwach ausgeprägt	ausente o muy poco notable	Hedelfinger Riesenkirsche	1
		weakly conspicuous	peu nette	schwach ausgeprägt	poco notable	Germersdorfi 45	2
		strongly conspicuous	très nette	stark ausgeprägt	fuertemente notable	Burlat , Rita	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
29. (*)	**QN MG**					
	Fruit: length of stalk	**Fruit: longueur du pédoncule**	**Frucht: Länge des Stiels**	**Fruto: longitud del pedúnculo**		
	very short	très court	sehr kurz	muy corto	Van	1
	short	court	kurz	corto	Burlat, Szomolyai fekete	3
	medium	moyen	mittel	medio	Hedelfinger Riesenkirsche , Sunburst	5
	long	long	lang	largo	Kordia, Noire de Meched	7
	very long	très long	sehr lang	muy largo	Delflash	9
30.	**QN MG**					
	Fruit: thickness of stalk	**Fruit: épaisseur du pédoncule**	**Frucht: Dicke des Stiels**	**Fruto: grosor del pedúnculo**		
	thin	fin	dünn	delgado	Hedelfinger Riesenkirsche, Kordia	3
	medium	moyen	mittel	medio	Germersdorfi 45, Sunburst	5
	thick	épais	dick	grueso	Van	7
31.	**QL MG**					
	Fruit: abscission layer between stalk and fruit	**Fruit: couche d'abcission entre le pédoncule et le fruit**	**Frucht: Trennschicht zwischen Stiel und Frucht**	**Fruto: capa de absición entre el pedúnculo y el fruto**		
	absent	absente	fehlend	ausente	Burlat , Sunburst	1
	present	présente	vorhanden	presente	Alex , Vittoria	9
32. (*)	**PQ MG**					
	Fruit: color of skin	**Fruit: couleur de l'épiderme**	**Frucht: Farbe der Haut**	**Fruto: color de la epidermis**		
	yellow	jaune	gelb	amarillo	Bigarreau d'Or , Dönnissens Gelbe	1
	yellow with blush	jaune rougissant	gelb mit Rotfärbung	amarillo encarnado	Napoléon, Vega	2
	orange red	rouge orangé	orangerot	rojo anaranjado	Tardif de Vignola	3
	light red	rouge clair	hellrot	rojo claro	Krupnoplodnaya	4
	red	rouge	rot	rojo	Alex , Sunburst	5
	brown red	brun- rouge	braunrot	rojo parduzco	Burlat, Kordia, Lapins	6
	dark red	rouge foncé	dunkelrot	rojo oscuro	Hedelfinger Riesenkirsche, Stella	7
	blackish	noirâtre	schwärzlich	negruzco	Annabella , Knauffs Schwarze, Namosa	8

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
33.	**QN** **VG**					
	<u>Only yellow with blush varieties</u>:Fruit: relative area of over color					
	very small					1
	small					3
	medium					5
	large					7
	very large					9
34.	**QN** **MG**					
	Fruit: size of lenticels on skin	**Fruit: taille des lenticelles sur l'épiderme**	**Frucht: Größe der Lentizellen auf der Haut**	**Fruto: tamaño de las lenticelas en la epidermis**		
	small	petits	klein	pequeñas	Hedelfinger Riesenkirsche	3
	medium	moyens	mittel	medias	Guillaume	5
	large	grands	groß	grandes	Reverchon	7
35.	**QN** **MG**					
	Fruit: number of lenticels on skin	**Fruit: nombre de lenticelles sur l'épiderme**	**Frucht: Anzahl der Lentizellen auf der Haut**	**Fruto: número de lenticelas en la epidermis**		
	few	petit	gering	bajo	Burlat , Rita	3
	medium	moyen	mittel	medio	Sunburst	5
	many	grand	groß	alto	Marmotte, Vera	7
36.	**QN** **MG**					
	Fruit: thickness of skin	**Fruit: épaisseur de l'épiderme**	**Frucht: Dicke der Haut**	**Fruto: grosor de la epidermis**		
	thin	fine	dünn	delgada	Müncheberger Frühernte	1
	intermediate	intermédiaire	mittel	intermedia	Germersdorfi 45	2
	thick	épaisse	dick	gruesa	Carmen	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37. (*)	**PQ MG**					
	Fruit: color of flesh	**Fruit: couleur de la chair**	**Frucht: Farbe des Fleisches**	**Fruto: color de la pulpa**		
	cream	crème	cremefarben	crema	Napoléon	1
	yellow	jaune	gelb	amarillo	Dönnissens Gelbe	2
	pink	rose	rosa	rosa	Reverchon, Sunburst	3
	medium red	rouge moyen	mittelrot	rojo medio	Germersdorfi 45, Hedelfinger Riesenkirsche	4
	dark red	rouge foncé	dunkelrot	rojo oscuro	Rubin, Szomolyai fekete	5
38.	**PQ MG**					
	Fruit: color of juice	**Fruit: couleur du jus**	**Frucht: Farbe des Saftes**	**Fruto: color del jugo**		
	colorless	incolore	farblos	sin color	Dönnissens Gelbe	1
	light yellow	jaune clair	hellgelb	amarillo claro	Napoléon	2
	pink	rose	rosa	rosa	Reverchon, Sunburst	3
	red	rouge	rot	rojo	Sam, Van	4
	purple	pourpre	purpurn	púrpura	Hedelfinger Riesenkirsche , Kavics	5
39. (*)	**QN MG**					
	Fruit: firmness	**Fruit: fermeté**	**Frucht: Festigkeit**	**Fruto: firmeza**		
	soft	mou	weich	blando	Early Rivers	1
	medium	moyen	mittel	medio	Kordia, Sunburst	3
	firm	ferme	fest	consistente	Reverchon, Van	5
	very firm	très ferme	sehr fest	muy consistente	Kavics, Sumtare	7
40.	**QN MG**					
	Fruit: acidity	**Fruit: acidité**	**Frucht: Säure**	**Fruto: acidez**		
	low	faible	niedrig	baja	Burlat , Müncheberger Frühernte	1
	medium	moyenne	mittel	media	Napoléon, Van	2
	high	élevée	hoch	alta	Sunburst	3
41.	**PQ MG**					
	Fruit: sweetness	**Fruit: goût sucré**	**Frucht: Süße**	**Fruto: sabor dulce**		
	low	faible	niedrig	bajo	Müncheberger Frühernte	3
	medium	moyen	mittel	medio	Burlat , Sunburst	5
	high	élevé	hoch	alto	Bigarreau d'Or, Kordia	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
42.		**QN** **MG**					
		Fruit: juiciness	**Fruit: succulence**	**Frucht: Saftgehalt**	**Fruto: jugosidad**		
		weak	faible	niedrig	débil	Reverchon	3
		medium	moyenne	mittel	media	Early Rivers, Kordia	5
		strong	forte	hoch	fuerte	Sándor, Szomolyai fekete	7
43.	**(*)**	**QN** **MG**					
		Stone: size	**Noyau: taille**	**Stein: Größe**	**Hueso: tamaño**		
		small	petit	klein	pequeño	Hedelfinger Riesenkirsche , Van	3
		medium	moyen	mittel	medio	Burlat , Germersdorfi 45	5
		large	gros	groß	grande	Guillaume, Merton Crane	7
		very large	très gros	sehr groß	muy grande	Carmen, Valerij Chkalov	9
44.	**(*)**	**PQ** **MG**					
		Stone: shape in ventral view	**Noyau: forme en vue ventrale**	**Stein: Form in Bauchansicht**	**Hueso: forma en vista ventral**		
		medium	elliptique moyen	mittel elliptisch	elíptica media	Kordia, Napoléon	1
		broad elliptic	elliptique large	breit elliptisch	elíptica ancha	Knauffs, Rita	2
		circular	circulaire	rund	circular	Germersdorfi 45, Van	3
45.	**(*)**	**QN** **MG**					
		Fruit: ratio weight of fruit / weight of stone	**Fruit: rapport poids du fruit/poids du noyau**	**Frucht: Verhältnis Gewicht der Frucht/Gewicht des Steins**	**Fruto: relación peso del fruto/peso del hueso**		
		small	petit	klein	pequeña	Müncheberger Frühernte	3
		medium	moyen	mittel	media	Hedelfinger Riesenkirsche , Reverchon	5
		large	grand	groß	grande	Sunburst, Vera	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
46.	**(*)**	**QN** **MG**					
		Time of beginning of flowering	**Époque du début de la floraison**	**Zeitpunkt des Blühbeginns**	**Época del comienzo de la floración**		
		very early	très précoce	sehr früh	muy temprana	Müncheberger Frühernte	1
		early	précoce	früh	temprana	Lapins , Marmotte, Sumtare	3
		medium	moyenne	mittel	media	Merton Glory , Napoléon, Sumele	5
		late	tardive	spät	tardía	Germersdorfi 45, Reverchon	7
		very late	très tardive	sehr spät	muy tardía	Regina	9
47.	**(*)**	**QN** **MG**					
		Time of beginning of fruit ripening	**Époque du début de la maturité des fruits**	**Zeitpunkt des Beginns der Fruchtreife**	**Época del comienzo de la madurez del fruto**		
		very early	très précoce	sehr früh	muy temprana	Cristobalina, Hâtive de Bâle, Müncheberger Frühernte	1
		early	précoce	früh	temprana	Burlat , Early Rivers, Valerij Chkalov	3
		medium	moyenne	mittel	media	Guillaume , Sunburst	5
		late	tardive	spät	tardía	Hedelfinger Riesenkirsche , Katalin	7
		very late	très tardive	sehr spät	muy tardía	Hudson, Regina, Vittoria	9

8.1 Explanations for individual characteristics

Ad. 6: One-year-old shoot: length of internode

Observations of this characetristic should be made on the medium third of the one-year-old shoot.

8.2 to add growth stages from BBCH scale

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	*Prunus avium* (L.) L.
1.2 Common name	Sweet Cherry

2. Applicant

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

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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

#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

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

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

4.2 Method of propagating the variety

4.2.1 Other [ ]

(Please provide details)

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

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

	Characteristics	Example Varieties	Note
5.1 (25)	**Fruit: size**		
	very small	Müncheberger Frühernte	1 [ ]
	small	Annonay, Szomolyai fekete	3 [ ]
	medium	Early Rivers, Schmidt	5 [ ]
	large	Burlat , Rainier	7 [ ]
	very large	Duroni 3, Sunburst	9 [ ]
5.2 (32)	**Fruit: color of skin**		
	yellow	Bigarreau d'Or , Dönnissens Gelbe	1 [ ]
	yellow with blush	Napoléon, Vega	2 [ ]
	orange red	Tardif de Vignola	3 [ ]
	light red	Krupnoplodnaya	4 [ ]
	red	Alex , Sunburst	5 [ ]
	brown red	Burlat , Kordia, Lapins	6 [ ]
	dark red	Hedelfinger Riesenkirsche , Stella	7 [ ]
	blackish	Annabella , Knauffs Schwarze , Namosa	8 [ ]
5.3 (37)	**Fruit: color of flesh**		
	cream	Napoléon	1 [ ]
	yellow	Dönnissens Gelbe	2 [ ]
	pink	Reverchon, Sunburst	3 [ ]
	medium red	Germersdorfi 45, Hedelfinger Riesenkirsche	4 [ ]
	dark red	Rubin, Szomolyai fekete	5 [ ]
5.4 (39)	**Fruit: firmness**		
	soft	Early Rivers	1 [ ]
	medium	Kordia, Sunburst	3 [ ]
	firm	Reverchon, Van	5 [ ]
	very firm	Kavics, Sumtare	7 [ ]

	Characteristics	Example Varieties	Note
5.5 (46)	**Time of beginning of flowering**		
	very early	Müncheberger Frühernte	1 [ ]
	early	Lapins , Marmotte, Sumtare	3 [ ]
	medium	Merton Glory , Napoléon, Sumele	5 [ ]
	late	Germersdorfi 45, Reverchon	7 [ ]
	very late	Regina	9 [ ]
5.6 (47)	**Time of beginning of fruit ripening**		
	very early	Cristobalina, Hâtive de Bâle, Müncheberger Frühernte	1 [ ]
	early	Burlat , Early Rivers, Valerij Chkalov	3 [ ]
	medium	Guillaume , Sunburst	5 [ ]
	late	Hedelfinger Riesenkirsche , Katalin	7 [ ]
	very late	Hudson, Regina, Vittoria	9 [ ]

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

6. Similar varieties and differences from these varieties

Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the **similar** variety(ies)	Describe the expression of the characteristic(s) for **your** candidate variety
Example			

Comments:

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

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

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

Yes [ ] No [ ]

(If yes, please provide details)

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

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

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

[End of document]