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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

SOUR CHERRY; DUKE CHERRY

UPOV Code(s): PRUNU_CSD; PRUNU_GON

Prunus cerasus L.,
Prunus × *gondouinii* (Poit. & Turpin) Rehder and *P. avium* [L.] L. x P. *cerasus* L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Hungary
to be considered by the
Technical Working Party for Fruit Crops
at its fifty-third session, to be held virtually,
from 2022-07-11 to 2022-07-15

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Prunus cerasus L., *Cerasus vulgaris* Mill.	Sour cherry, Tart cherry, Morello	Cerisier acide	Sauerkirsche	Cerezo ácido, Guindo
Prunus × *gondouinii* (Poit. & Turpin) Rehder, *P. avium* × *P. cerasus*	Duke cherry	Griotte		Cerezo Duke

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

ASSOCIATED DOCUMENTS

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

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

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Prunus cerasus* L., *Prunus* × *gondouinii* (Poit. & Turpin) Rehder and *P. avium L.* x *P. cerasus* L.

2. Material Required

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

2.2 The material is to be supplied in the form of 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:

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 plants 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.

3.1.5 The testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test.

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.

3.4 Test Design

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

3.5 Additional Tests

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 Distinctness

4.1.1 General Recommendations

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

4.1.2 Consistent Differences

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

4.1.3 Clear Differences

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

4.1.4 Number of Plants or Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 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.

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.

4.3 Stability

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be further examined by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the initial material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

(a) Fruit: size (characteristic 27)
(b) Fruit: color of skin (characteristic 36)
(c) Fruit: color of flesh (characteristic 37)
(d) Fruit: color of juice (characteristic 38)
(e) Time of beginning of flowering (characteristic 46)
(f) Time of beginning of fruit ripening (characteristic 47)

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 All relevant states of expression are presented in the characteristic.

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 Be ejemplo	Note
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 (a)–(f) See Explanations on the Table of Characteristics in Chapter 8.2

7 Not applicable

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 VG**	**(a)**				
		Tree: vigor					
		very weak				Demesova, Kelleriis 14, Samor	1
		very weak to weak					2
		weak				Gerema, Nana	3
		weak to medium					4
		medium				Karneol, Montmorency	5
		medium to strong					6
		strong				Kántorjánosi 3, Pándy Bb. 119	7
		strong to very strong					8
		very strong				Érdi nagygyümölcsű, Piramis	9
2.	**(*)**	**PQ VG**	**(+) (a)**				
		Tree: habit					
		upright				Oblachinska, Piramis, Ţarina	1
		semi-upright				Safir, Újfehértói fürtös	2
		spreading				Karneol, Montmorency, Samor	3
		drooping				Cigánymeggy 7	4
3.	**(*)**	**QN VG**	**(+) (a)**				
		Tree: branching					
		very weak					1
		very weak to weak				Piramis	2
		weak				Meteor korai, Samor	3
		weak to medium					4
		medium				Morsam, Pándy Bb. 119	5
		medium to strong					6
		strong				Cigánymeggy 7, Montmorency, Safir	7
		strong to very strong				Erika	8
		very strong				Bianchi di Offagna	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
4.	**PQ VG**	**(+) (a)**				
	Tree: bud distribution					
	along entire branch				Coralin, Maliga emléke, Piramis	1
	only on middle and distal part of branch				Érdi jubileum, Meteor, Morava	2
	only on distal part of branch				Cigánymeggy 7, Samor, Schattenmorelle	3
5.	**QN VG**					
	Young shoot: anthocyanin coloration of apex (during rapid growth)					
	absent or very weak				Cigánymeggy 59, Meteor	1
	very weak to weak					2
	weak				Kelleriis 14, Montmorency	3
	weak to medium					4
	medium				Érdi bőtermő, Meteor korai, Schattenmorelle	5
	medium to strong					6
	strong				Érdi jubileum, Fanal	7
	strong to very strong					8
	very strong				Érdi nagygyümölcsű, Topas	9
6.	**QN VG**					
	Young shoot: pubescence of apex (during rapid growth)					
	very weak					1
	very weak to weak					2
	weak				Cigánymeggy 7, Csengődi, Karneol	3
	weak to medium					4
	medium				Favorit, Morava	5
	medium to strong					6
	strong				Cigánymeggy 59	7
	strong to very strong					8
	very strong					9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7.	**(*)** **QN** **VG**		**(+)** **(a)**				
		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**		
		very short				Erika	1
		very short to short				Nana, Samor	2
		short				Meteor, Schattenmorelle	3
		short to medium				Fanal	4
		medium				Cigánymeggy 7, Petri	5
		medium to long				Maliga emléke	6
		long				Érdi bőtermő	7
		long to very long				Érdi jubileum, Érdi nagygyümölcsű	8
		very long				Érdi ipari	9
8.	**QN** **VG**			**(a)**			
		One-year-old shoot: number of lenticels					
		very few					1
		few					2
		medium					3
		many					4
		very many					5
9.	**QN** **VG**			**(b)**			
		Leaf blade: length					
		very short					1
		very short to short					2
		short				Cigánymeggy C. 404, Meteor, Oblachinska	3
		short to medium					4
		medium				Kántorjánosi 3, Karneol, Kelleriis 16	5
		medium to long					6
		long				Érdi bőtermő, Favorit, Maliga emléke	7
		long to very long					8
		very long					9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10		**QN VG**	**(b)**				
		Leaf blade: width					
		very narrow					1
		very narrow to narrow					2
		narrow				Montmorency, Schattenmorelle	3
		narrow to medium					4
		medium				Karneol, Kelleriis 16, Pándy Bb. 119	5
		medium to broad					6
		broad				Érdi bőtermő, Maliga emléke	7
		broad to very broad					8
		very broad					9
11	**(*)**	**QN VG**	**(b)**				
		Leaf blade: ratio length/width					
		very small					1
		very small to small					2
		small				Cigánymeggy 7, Kelleriis 16	3
		small to medium					4
		medium				Karneol, Maliga emléke	5
		lmedium to large					6
		large				Favorit, Meteor korai, Oblachinska	7
		large to very large					8
		very large					9
12		**QN VG**	**(b)**				
		Leaf blade: intensity of green color of upper side					
		very light					1
		light					2
		medium					3
		dark					4
		very dark					5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13		**QN** **VG**	**(b)**				
		Leaf blade: glossiness					
		absent or weak				Csengődi	1
		very weak to weak					2
		weak				Schattenmorelle	3
		weak to medium					4
		medium				Debreceni bőtermő	5
		medium to strong					6
		strong				Karneol, Pándy 279	7
		strong to very strong					8
		very strong				Maliga emléke	9
14	**(*)**	**QN** **MG/VG**	**(b)**				
		Leaf: length of petiole					
		very short					1
		very short to short					2
		short				Karneol, Kelleriis 16, Oblachinska	3
		short to medium					4
		medium				Maliga emléke, Montmorency, Újfehértói fürtös	5
		medium to long					6
		long				Favorit, Piramis	7
		long to very long					8
		very long					9
15		**QN** **VG**	**(b)**				
		Leaf: intensitiy of anthocyanin coloration of petiole (upper side)					
		weak				Gerema, Oblachinska	3
		medium				Favorit	5
		strong				Fanal, Montmorency, Safir	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16		**QN MG/VG**	**(b)**				
		Leaf: ratio length of blade / length of petiole					
		very small					1
		very small to small					2
		small				Favorit, Pipacs 1	3
		small to medium					4
		medium				Montmorency, Schattenmorelle	5
		medium to large					6
		large				Karneol, Kelleriis 16, Meteor	7
		large to very large					8
		very large					9
17	**(*)**	**QL VG**	**(b)**				
		Leaf: presence of nectaries					
		absent				North Star, Oblachinska	1
		present				Favorit, Piramis	9
18		**QN VG**	**(c)**				
		Nectaries: position					
		at base of leaf only				Karneol, Meteor	1
		both at base of leaf blade and on petiole				Favorit, Montmorency	2
		on petiole only				Kántorjánosi 3, Pipacs 1, Ţarina	3
19		**PQ VG**	**(+)** **(c)**				
		Nectaries: color					
		greenish yellow				Coralin, Samor	1
		orange yellow				Kántorjánosi 3, Topas	2
		light red				Cigánymeggy 7, Érdi bőtermő, Oblachinska	3
		dark red				Meteor, Nana	4
		brownish				Karneol, Morina	5

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20	**QN VG**	**(+) (d)**				
	Stipule: attitude					
	leaning away from shoot				Kelleriis 16, Meteor, Samor	1
	adpressed to shoot				Favorit, Pándy 279	2
	leaning across shoot				Csengődi, Pipacs 1, Piramis	3
21	**QN VG**	**(d)**				
	Stipule: size					
	very small					1
	small				Favorit, Schattenmorelle, Újfehértói fürtös	2
	medium				Debreceni bőtermő, Maliga emléke, Samor	3
	large				Meteor korai, Morsam	4
	very large					5
22	**QN VG**	**(+) (d)**				
	Stipule: extensions of margins					
	absent or weak				Oblachinska, Schattenmorelle, Újfehértói fürtös	1
	medium				Piramis, Samor	2
	strong				Csengődi, Kelleriis 16, Meteor korai	3
23	**QN MG/VG**	**(+) (e)**				
	Flower: diameter					
	very small					1
	very small to small					2
	small				Oblachinska, Samor	3
	small to medium					4
	medium				Kelleriis 16, Montmorency, Újfehértói fürtös	5
	medium to large					6
	large				Érdi bőtermő, Kántorjánosi 3, Pándy Bb. 119	7
	large to vary large					8
	very large					9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24		**QN VG**	**(+) (e)**				
		Flower: arrangement of petals					
		free				Kelleriis 16, Újfehértói fürtös	1
		intermediate				Érdi jubileum, Montmorency, Schattenmorelle	2
		overlapping				Favorit, Meteor korai, Oblachinska	3
25		**PQ VG**	**(+) (e)**				
		Flower: shape of petal					
		circular				Favorit, Meteor, Oblachinska	1
		medium obovate				Kelleriis 16, Pipacs 1, Safir	2
		broad obovate				Érdi bőtermő, Korai pipacs, Schattenmorelle	3
26		**PQ VG**	**(+) (e)**				
		Flower: arrangement					
		solitary				Cerella, Nabella	1
		double				Safir	2
		in clusters				Újfehértói fürtös	3
		irregular				Schattenmorelle	4
27	**(*)**	**QN MG/VG**	**(f)**				
		Fruit: size					
		very small				Oblachinska	1
		very small to small				Erika	2
		small				Cigánymeggy 7, Cigánymeggy C. 404	3
		small to medium				Korai pipacs	4
		medium				Érdi bőtermő, Schattenmorelle	5
		medium to large				Favorit, Kelleriis 16	6
		large				Éva, Karneol, Morsam	7
		large to very large				Pándy Bb 119	8
		very large				Petri, Piramis, Safir	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
28	**(*)**	**PQ VG**	**(+) (f)**				
		Fruit: shape in ventral view					
		reniform				Érdi jubileum, Pándy Bb. 119	1
		oblate				Montmorency, Morina	2
		circular				Maliga emléke, Nana	3
		elliptic				Csengődi, Karneol, Morsam	4
		cordate				Érdi bíbor	5
29		**QN VG**	**(+) (f)**				
		Fruit: pistil end					
		pointed				Favorit, Morsam	1
		flat				Korai pipacs, Samor	2
		depressed				Cigánymeggy C. 404, Montmorency, Schattenmorelle	3
30	**(*)**	**QN MG/VG**	**(f)**				
		Fruit: length of stalk					
		very short					1
		very short to short					2
		short					3
		short to medium					4
		medium					5
		medium to long					6
		long					7
		long to very long					8
		very long					9
31		**QN VG**	**(f)**				
		Fruit: thickness of stalk					
		very thin					1
		thin					2
		medium					3
		thick					4
		very thick					5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
32	**(*)**	**QL** **VG**	**(f)**				
		Fruit: anthocyanin coloration of stalk					
		absent				Meteor korai	1
		present				Újfehértói fürtös	9
33		**QN** **VG**	**(f)**				
		Fruit: number of bracts on stalk					
		absent or few				Piramis, Ţarina	1
		medium				Érdi bőtermő, Morina	2
		many				Gerema, Kántorjánosi 3, Kelleriis 16	3
34		**QN** **VG**	**(f)**				
		Fruit: size of bracts on stalk					
		very small					1
		small					2
		medium					3
		large					4
		very large					5
35		**QL** **VG**	**(f)**				
		Fruit: abscission layer between stalk and fruit					
		absent				Csengődi, Meteor korai	1
		present				Karneol, Újfehértói fürtös	9
36	**(*)**	**PQ** **VG**	**(f)**				
		Fruit: color of skin					
		orange red				Meteor, Pipacs 1	1
		light red				Favorit, Montmorency	2
		medium red				Pándy Bb 119	3
		dark red				Cigánymeggy 7, Gerema, Nana	4
		brown red				Karneol, Kelleriis 16, Schattenmorelle	5
		blackish				Érdi jubileum, North Star	6

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37	**(*)**	**PQ VG**	**(f)**				
		Fruit: color of flesh					
		yellowish				Montmorency, Pipacs 1	1
		pink				Meteor, Pándy 279	2
		medium red				Kántorjánosi 3, Karneol	3
		dark red				Cigánymeggy 7, Fanal	4
38	**(*)**	**PQ VG**	**(f)**				
		Fruit: color of juice					
		colorless				Montmorency	1
		light yellow				Pipacs 1	2
		pink				Meteor, Pándy 7	3
		medium red				Kántorjánosi 3, Karneol	4
		dark red				Cigánymeggy 7, Érdi jubileum, Fanal	5
39	**(*)**	**QN MG/VG**	**(f)**				
		Fruit: firmness					
		very soft					1
		very soft to soft					2
		soft				Csengődi, Samor	3
		soft to medium					4
		medium				Karneol, Pándy 279	5
		medium to firm					6
		firm				Érdi jubileum	7
		firm to very firm					8
		very firm					9
40		**QN VG**	**(f)**				
		Fruit: acidity					
		very low				Meteor korai	1
		very low to low					2
		low				Érdi bőtermő, Spinell	3
		low to medium					4
		medium				Impératrice Eugénie, Pándy 279	5
		medium to high				Újfehértói fürtös	6
		high				Meteor, Montmorency	7
		high to very high				Erika	8
		very high				Cigánymeggy 7, Schattenmorelle	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
41		**QN** **VG**	**(f)**				
		Fruit: sweetness					
		very low					1
		very low to low					2
		low				Montmorency	3
		low to medium					4
		medium				Pándy 279	5
		medium to high					6
		high				Érdi jubileum, Favorit	7
		high to high					8
		very high					9
42		**QN** **VG**	**(f)**				
		Fruit: juiciness					
		very weak					1
		weak					2
		medium					3
		strong					4
		very strong					5
43	**(*)**	**QN** **MG/VG**	**(f)**				
		Stone: size					
		very small					1
		very small to small					2
		small				Oblachinska, Stevnsbaer	3
		small to medium					4
		medium				Érdi bőtermő, Schattenmorelle	5
		medium to large					6
		large				Maliga emléke, Pándy Bb. 119	7
		large to very large					8
		very large					9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
44	**(*)**	**QN** **VG**	**(+)** **(f)**				
		Stone: shape in ventral view					
		narrow elliptic				Csengődi, Meteor	1
		broad elliptic				Fanal, Maliga emléke	2
		circular				Érdi jubileum, Kelleriis 16	3
45	**(*)**	**QN** **MG/VG**	**(f)**				
		Fruit: ratio weight of fruit / weight of stone					
		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
46	**(*)**	**QN** **MG/VG**	**(+)**				
		Time of beginning of flowering					
		very early				Érdi ipari	1
		very early to early				Bianchi di Offagna, Érdi bőtermő	2
		early				Favorit, Meteor korai	3
		early to medium				Fanal	4
		medium				Cigánymeggy 7, Vowi	5
		medium to late				Érdi nagygyümölcsű	6
		late				Gerema, Kelleriis 16	7
		late to very late				Schattenmorelle	8
		very late				Morsam	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
47	**(*)**	**QN MG/VG**	**(+)**				
		Time of beginning of fruit ripening					
		very early				Érdi ipari, Ţarina	1
		very early to early				Érdi jubileum	2
		early				Meteor korai, Piramis	3
		early to medium				Érdi nagygyümölcsű	4
		medium				Érdi bőtermő, Favorit	5
		medium to late				Pándy 7	6
		late				Kántorjánosi 3, Pándy 279	7
		late to very late				Bianchi di Offagna	8
		very late				Gerema, Vowi	9

8.1 Explanations covering several characteristics

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

(a) Tree/One-year-old shoot: Unless otherwise stated, all observations on the tree and on the one-year-old shoot should be made during winter, on trees that have fruited at least once.

(b) Leaf: Unless otherwise stated, all observations of the leaf should be made on the middle fully developed leaves of a spur in early summer.

(c) Nectaries: Observations of nectaries should be made in early summer on fully developed leaves from the middle third of a well-developed current season's shoot.

(d) Stipule: Observations of stipule should be made on the fifth or sixth fully developed leaf of a long shoot, during the rapid growth.

(e) Flower: Unless otherwise stated, all observations on the flower should be made on fully developed flowers at the beginning of anther dehiscence.

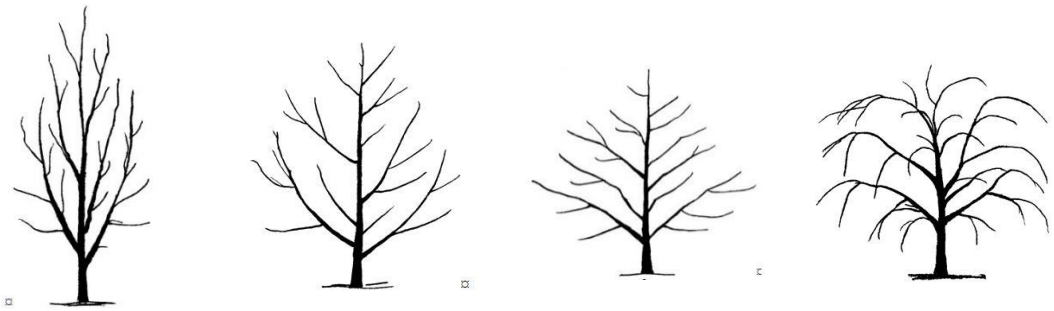
(f) Fruit and Stone: All observations on the fruit and stone should be made at full maturity.

8.2 Explanations for individual characteristics

Ad. 1: Tree: vigor

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

Ad. 2: Tree: habit



1 upright | 2 semi-upright | 3 spreading | 4 drooping

Ad. 3: Tree: branching

Observations should be carried out on scaffold branches with the degree of branching being indicated by the density of lateral branches and shoots, excluding fruiting shoots.

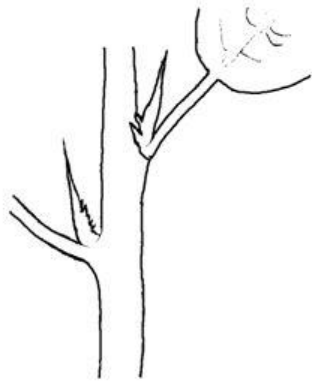
Ad. 4: Tree: bud distribution

Observations should be carried out before picking time.

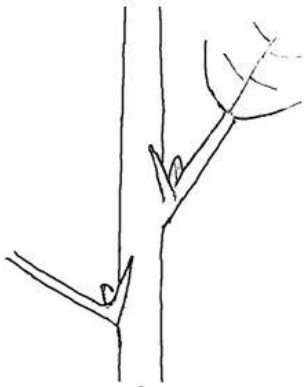
Ad. 7: One-year-old shoot: lenght of internode

Should be observed in the dormant period.

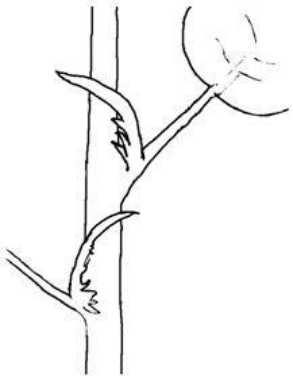
Ad. 20: Stipule: attitude



1
leaning away from shoot

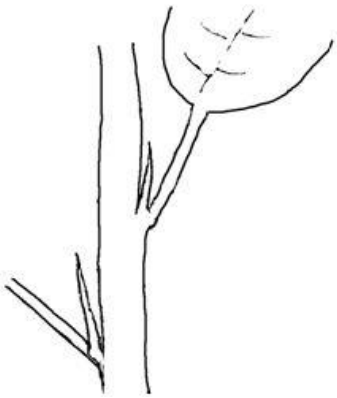


2
adpressed to shoot

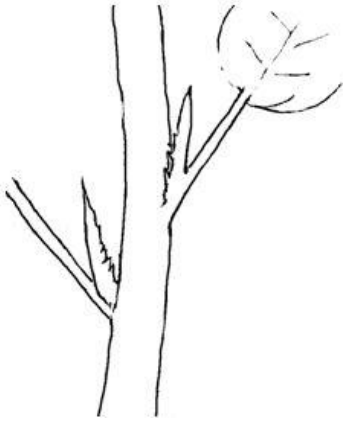


3
leaning across shoot

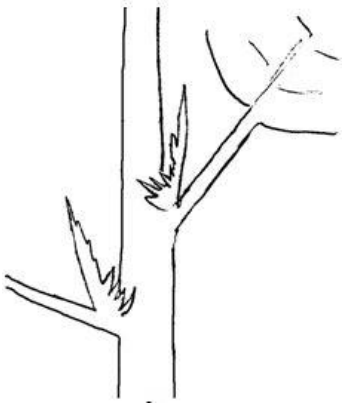
Ad. 22: Stipule: extensions of margins



1
absent or weak



2
medium



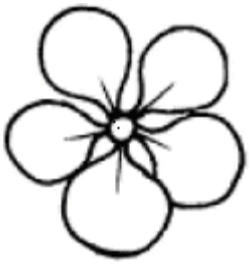
3
strong

Ad. 23: Flower: diameter

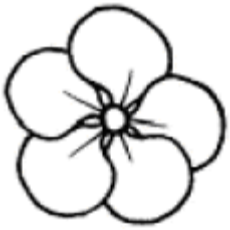
Observations or measurements should be carried out on completely opened flowers with petals pressed into horizontal position.

Ad. 24: Flower: arrangement of petals

1
free



2
intermediate

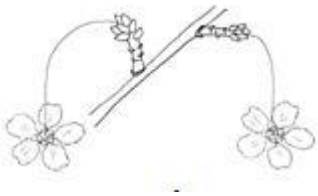


3
overlapping

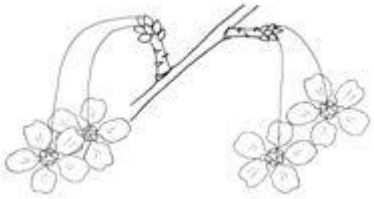
Ad. 25: Flower: shape of petal

1 circular | 2 medium obovate | 3 broad obovate

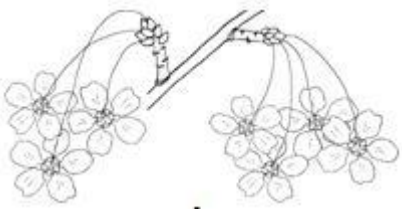
Ad. 26: Flower: arrangement



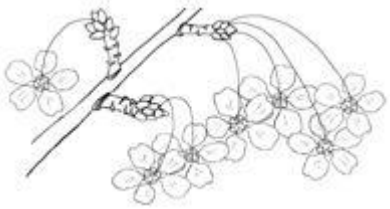
1 solitary



2 double

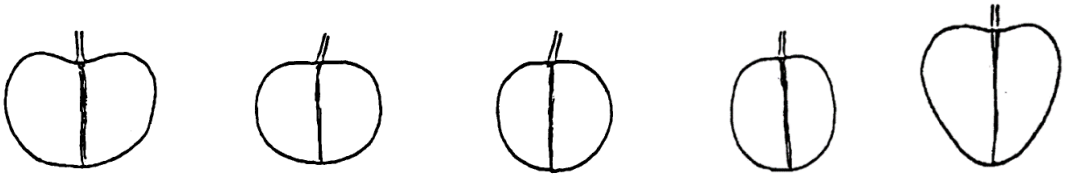


3 in clusters



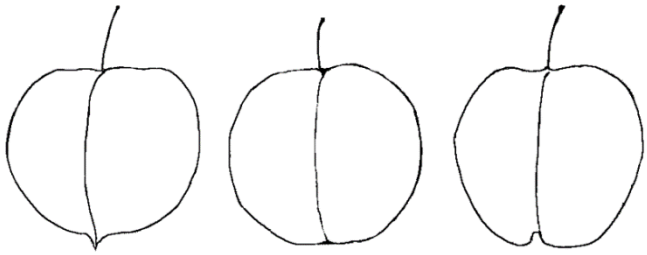
4 irregular

Ad. 28: Fruit: shape in ventral view



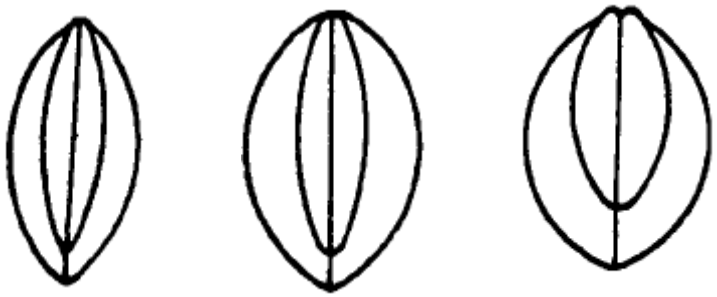
1 reniform | 2 oblate | 3 circular | 4 elliptic | 5 cordate

Ad. 29: Fruit: pistil end



1 pointed | 2 flat | 3 depressed

Ad. 44: Stone: shape in ventral view



1 narrow elliptic | 2 broad elliptic | 3 circular

Ad. 46: Time of beginning of flowering

When 5-10% open flowers can be observed.

Ad. 47: Time of beginning of fruit ripening

When 5-10% ripe fruits can be observed. Fruit ripening should be considered as the time of eating ripeness, when the fruit can be most easily removed from the stalk.

8.3 Synonym(s) of Example Varieties

Example Varieties	Synonym(s)
Cigánymeggy	Zigeunersauerkirsche
Fanal	Heimanns Konservenweichsel
Kelleriis 16	Morellenfeuer
Petri	Lövőpetri
Schattenmorelle	Griotte du Nord, Lotovka, Latos meggy, Łutówka, Morella pozdní

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)

TECHNICAL QUESTIONNAIRE
to be completed in connection with an application for plant breeders' rights

1. Subject of the Technical Questionnaire

1.1.1	Botanical name	*Prunus cerasus* L.	[ ]
1.1.2	Common name	Sour cherry, Tart cherry, Morello	
1.2.1	Botanical name	*Prunus* × *gondouinii* (Poit. & Turpin) Rehder	[ ]
1.2.2	Common name	Duke cherry	
1.3.1	Botanical name	*P. avium* L. x *P. cerasus* L	[ ]
1.3.2	Common name		

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:

4.1.1 Crossing

(a) controlled cross [ ]

(b) partially known cross [ ]

(please state known parent variety(ies))

(……..……..…) x (……..……..…)

female parent male parent

(c) unknown cross [ ]

4.1.2 Mutation [ ]
(please state parent variety)

4.1.3 Discovery and development [ ]
(please state where and when discovered and how developed)

4.1.4 Other [ ]
(Please provide details)

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 Vegetative propagation

(a) Budding or grafting [ ]
(b) Other (state method) [ ]

4.2.2 Other [ ]
(Please provide details)

In the case of hybrid varieties the production scheme for the hybrid should be provided on a separate sheet. This should provide details of all the parent lines required for propagating the hybrid e.g.

Single Hybrid

(……..……..…) x (……..……..…)

female parent male parent

Three-Way Hybrid

(……..……..…) x (……..……..…)

female line male line

(……..……..…) x (……..……..…)

single hybrid used as female parent male parent

and should identify in particular:

(a) any male sterile lines

(b) maintenance system of male sterile lines.

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 (27)	**Fruit: size**		
	very small	Oblachinska	1 [ ]
	very small to small	Erika	2 [ ]
	small	Cigánymeggy 7, Cigánymeggy C. 404	3 [ ]
	small to medium	Korai pipacs	4 [ ]
	medium	Schattenmorelle, Érdi bőtermő	5 [ ]
	medium to large	Favorit, Kelleriis 16	6 [ ]
	large	Karneol, Morsam, Éva	7 [ ]
	large to very large	Pándy Bb 119	8 [ ]
	very large	Petri, Piramis, Safir	9 [ ]
5.2 (36)	**Fruit: color of skin**		
	orange red	Meteor, Pipacs 1	1 [ ]
	light red	Favorit, Montmorency	2 [ ]
	medium red	Pándy Bb 119	3 [ ]
	dark red	Cigánymeggy 7, Gerema, Nana	4 [ ]
	brown red	Karneol, Kelleriis 16, Schattenmorelle	5 [ ]
	blackish	North Star, Érdi jubileum	6 [ ]
5.3 (37)	**Fruit: color of flesh**		
	yellowish	Montmorency, Pipacs 1	1 [ ]
	pink	Meteor, Pándy 279	2 [ ]
	medium red	Karneol, Kántorjánosi 3	3 [ ]
	dark red	Cigánymeggy 7, Fanal	4 [ ]
5.4 (38)	**Fruit: color of juice**		
	colorless	Montmorency	1 [ ]
	light yellow	Pipacs 1	2 [ ]
	pink	Meteor, Pándy 7	3 [ ]
	medium red	Karneol, Kántorjánosi 3	4 [ ]
	dark red	Cigánymeggy 7, Fanal, Érdi jubileum	5 [ ]

	Characteristics	Example Varieties	Note
5.5 (46)	**Time of beginning of flowering**		
	very early	Érdi ipari	1 [ ]
	very early to early	Bianchi di Offagna, Érdi bőtermő	2 [ ]
	early	Favorit, Meteor korai	3 [ ]
	early to medium	Fanal	4 [ ]
	medium	Cigánymeggy 7, Vowi	5 [ ]
	medium to late	Érdi nagygyümölcsű	6 [ ]
	late	Gerema, Kelleriis 16	7 [ ]
	late to very late	Schattenmorelle	8 [ ]
	very late	Morsam	9 [ ]
5.6 (47)	**Time of beginning of fruit ripening**		
	very early	Érdi ipari, Ţarina	1 [ ]
	very early to early	Érdi jubileum	2 [ ]
	early	Meteor korai, Piramis	3 [ ]
	early to medium	Érdi nagygyümölcsű	4 [ ]
	medium	Favorit, Érdi bőtermő	5 [ ]
	medium to late	Pándy 7	6 [ ]
	late	Kántorjánosi 3, Pándy 279	7 [ ]
	late to very late	Bianchi di Offagna	8 [ ]
	very late	Gerema, Vowi	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

A representative color photograph of the variety displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)"

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (http://www.upov.int/tgp/en/).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

[#] 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]