CPVO · OCVV
Community Plant Variety Office
Office Communautaire des Variétés Végétales

PROTOCOL FOR TESTS ON DISTINCTNESS, UNIFORMITY AND STABILITY

Prunus cerasus L.;
Prunus ×gondouinii (Poit. & Turpin) Rehder

SOUR CHERRY, DUKE CHERRY

UPOV Code: PRUNU_CSS; PRUNU_GON

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1. SUBJECT OF THE PROTOCOL AND REPORTING

1.1 Scope of the technical protocol

This Technical Protocol applies to all varieties of *Prunus cerasus* L. and *Prunus ×gondouinii* (Poit. & Turpin) Rehder.

The protocol describes the technical procedures to be followed in order to meet the requirements of Council Regulation 2100/94 on Community Plant Variety Rights. The technical procedures have been agreed by the Administrative Council and are based on documents agreed by the International Union for the Protection of New Varieties of Plants (UPOV), such as the General Introduction to DUS (UPOV Document TG/1/3 http://www.upov.int/export/sites/upov/resource/en/tg_1_3.pdf), its associated TGP documents (http://www.upov.int/tgp/en/) and the relevant UPOV Test Guideline TG/230/2 dated 09/08/2024 (https://www.upov.int/edocs/tgdocs/en/tg230.pdf) for the conduct of tests for Distinctness, Uniformity and Stability.

1.2 Entry into Force

The present protocol enters into force on **31.03.2026** Any ongoing DUS examination of candidate varieties for which the first growing cycle for the purpose of observations has started (following the adequate period of establishment) before the aforesaid date will not be affected by the approval of the Technical Protocol.
Technical examinations of candidate varieties are carried out according to the TP in force when the first growing cycle for the purpose of observations following the adequate period of establishment starts.

In cases where the Office requests to take-over a DUS report for which the technical examination has either been finalized or which is in the process to be carried out at the moment of this request, such report can only be accepted if the technical examination has been carried out according to the CPVO TP which was in force at the moment when the first growing cycle for the purpose of observations following the adequate period of establishment started.

1.3 Reporting between Examination Office and CPVO and Liaison with Applicant

1.3.1 Reporting between Examination Office and CPVO

The Examination Office shall deliver to the CPVO a preliminary report ("the preliminary report") no later than four weeks after the date of the request for technical examination by the CPVO and in any case preferably before the submission period of the plant material.

The Examination Office shall also deliver to the CPVO a report relating to each growing period ("the interim report") and, when the Examination Office considers the results of the technical examination to be adequate to evaluate the variety or the CPVO so requests, a report relating to the examination ("the final report").

The final report shall state the opinion of the Examination Office on the distinctness, uniformity and stability of the variety. Where it considers those criteria to be satisfied, or where the CPVO so requests, a description of the variety shall be added to the report.

If a report is negative the Examination Office shall set out the detailed reasons for its findings.

The interim and the final reports shall be delivered to the CPVO as soon as possible and no later than on the deadlines as laid down in the designation agreement.

1.3.2 Informing on problems in the DUS test

In cases where the Examination Office identifies issues during the course of the technical examination that may lead to a negative report, the Examination Office shall inform the CPVO and in urgent cases the applicant/holder as soon as such issues become obvious.

1.3.3 Sample keeping in case of problems

As far as feasible the Examination Office shall keep a representative sample of any relevant testing material of the candidate variety and reference variety(ies) if the technical examination has resulted in a negative report. As soon as possible, the CPVO shall inform the Examination Office when the material can be destroyed.

2. MATERIAL REQUIRED

2.1 Plant material requirements

Information with respect to the agreed closing dates and submission requirements of plant material for the technical examination of varieties can be found on https://public.plantvarieties.eu/publication in the special issue S2/S3 of the Official Gazette of the Office. General requirements on submission of samples are also to be found following the same link.

2.2 Informing the applicant of plant material requirements

The CPVO informs the applicant that:

- he is responsible for ensuring compliance with any customs and plant health requirements;
- the plant material supplied should be visibly healthy, not lacking in vigour, nor affected by any important pest or disease;
- 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.

2.3 Informing about problems on the submission of material

The Examination Office shall report to the CPVO immediately in cases where the test material of the candidate variety has not arrived in time or in cases where the material submitted does not fulfil the conditions laid down in the request for submission of plant material issued by the CPVO.

In cases where the examination office encounters difficulties to obtain plant material of reference varieties the CPVO should be informed in writing.

3. METHOD OF EXAMINATION

3.1 Number of growing cycles

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

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

In particular, it is essential that the plants produce a satisfactory crop of fruit in each of the two growing cycles.
The two independent growing cycles may be observed from a single planting, examined in two separate growing cycles.

The growing cycle is considered to be the duration of a single growing season, beginning with the dormancy period, followed by bud burst (flowering and/or vegetative), flowering and fruit harvest and concluding when the following dormant period starts.

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" http://www.upov.int/edocs/tgpdocs/en/tgp_9.pdf.

3.3 Conditions for Conducting the Examination

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.

3.4 Test design

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

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

3.5 Special tests for additional characteristics

In accordance with Article 23 of Implementing Rules N° 874/2009 an applicant may claim either in the Technical Questionnaire or during the test that a candidate has a characteristic which would be helpful in establishing distinctness. If such a claim is made and is supported by reliable technical data, a special test may be undertaken providing that a technically acceptable test procedure can be devised.

Special tests will be undertaken, with the agreement of the President of CPVO, where distinctness is unlikely to be shown using the characteristics listed in the protocol.

3.6 Constitution and maintenance of a variety collection

The process for the constitution and the maintenance of a variety collection can be summarized as follows:

Step 1: Making an inventory of the varieties of common knowledge.

Step 2: Establishing a collection ("variety collection") of varieties of common knowledge which are relevant for the examination of distinctness of candidate varieties.

Step 3: Selecting the varieties from the variety collection which need to be included in the growing trial or other tests for the examination of distinctness of a particular candidate variety.

3.6.1 Forms of variety collection

The variety collection shall comprise variety descriptions and living plant material, thus a living reference collection. The variety description shall be produced by the EO unless special cooperation exists between EOs and the CPVO. The descriptive and pictorial information produced by the EO shall be held and maintained in a form of a database.

3.6.2 Range of the variety collection

The living variety collection shall cover at least those common knowledge varieties that are suitable to grow in the climatic conditions of a respective EO.

3.6.3 Making an inventory of varieties of common knowledge for inclusion in the variety collection

The inventory shall include varieties protected under National and Community PBR, varieties of National Catalogues (where such catalogues exist) and varieties in trade or in commercial registers.
The inventory shall take into account the list of varieties which are the subject of an on-going application for protection or official registration (candidate varieties).

In addition to the above, the inventory shall be extended to the appropriate to

- relevant example varieties referred to in the technical protocols.
- any commercial document in which varieties are marketed as propagating or harvested material, especially when there is no official registration system.
- any list including varieties which are publicly available within plant collections (varieties included in genetic resource collections, collection of old varieties, etc.).
- information provided by relevant plant experts.

3.6.4 Maintenance and renewal/update of a living variety collection

The EO shall maintain the variety collection under appropriate growing conditions where it shall be ensured that the plants are adequately irrigated, fertilised, pruned and protected from harmful pests and diseases.
Living material in variety collections representing varieties for which a DUS test was carried out at that EO shall be renewed after verification in a side-by-side comparison. In case where no living material is available anymore in the collection, such verification could be done with any other test that has proven to give similar results between the material in the collection and the new material.

4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY

The prescribed procedure is to assess distinctness, uniformity and stability in a growing trial.

4.1 Distinctness

4.1.1 General recommendations

It is of particular importance for users of this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 9 'Examining Distinctness' (http://www.upov.int/edocs/tgpdocs/en/tgp_9.pdf) prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in this Technical Protocol.

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 Technical Protocols are familiar with the recommendations contained in the UPOV-General Introduction to DUS prior to making decisions regarding distinctness.

Decision standards

4.1.3.1 If distinctness is assessed using the 2 x 1% criterion, the difference between two varieties is clear if the respective characteristics are significantly different in the same direction at the 1% level in at least two out of three years. The tests in each year are based on Student's two-tailed t-test of the differences between variety means with standard errors estimated using the residual mean square from the analysis of the variety x replicate plot means.

4.1.3.2 If distinctness is assessed by the combined over years distinctness analysis (COYD) the difference between two varieties is clear if the respective characteristics are different at the 1% significance level or less ($p<0.01$) in a test over either two or three years.

If the significance level or statistical methods prescribed are not appropriate the method used should be clearly described.

4.1.4 Number of plants/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 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 2.

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 third column of the Table of Characteristics (see document TGP/9 "Examining Distinctness", Section 4 "Observation of characteristics"):

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

Type of observation: visual (V) or measurement (M)
"Visual" observation (V) is an observation made on the basis of the expert's judgment. For the purposes of this document, "visual" observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g., diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g., colour 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 this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 10 'Examining Uniformity' (http://www.upov.int/edocs/tgpdocs/en/tgp_10.pdf) prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in this Technical Protocol:

4.2.2 This Technical Protocol has been developed for the examination of vegetatively propagated varieties. For varieties with other types of propagation the recommendations in the UPOV-General Introduction to DUS and document TGP/13 "Guidance for new types and species", Section 4.5 "Testing Uniformity" should be followed.

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 It is of particular importance for users of this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 11 'Examining Stability' (http://www.upov.int/edocs/tgpdocs/en/tgp_11.pd)

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.

5. GROUPING OF VARIETIES AND ORGANISATION 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 organise the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

a) Fruit: colour of skin (characteristic 36)

b) Fruit: colour of flesh (characteristic 37)

c) Fruit: colour of juice (characteristic 38)

d) Time of beginning of flowering (characteristic 46)

e) Time of beginning of fruit ripening (characteristic 47)

5.4 If characteristics other than those mentioned in the list of grouping characteristics and/or from the table of characteristics and/or from the Technical Questionnaire – sections 5 and 7. are used for the selection of varieties to be included into the growing trial, the EO shall inform the CPVO and seek the prior consent of the CPVO before using these characteristics.

5.5 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the UPOV-General Introduction to DUS and document TGP/9 "Examining Distinctness".

6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS

6.1 Characteristics to be used

The characteristics to be used in DUS tests and preparation of descriptions shall be those referred to in the table of characteristics. All the characteristics shall be used, providing that observation of a characteristic is not rendered impossible by the expression of any other characteristic, or the expression of a characteristic is prevented by the environmental conditions under which the test is conducted or by specific legislation on plant health. In the latter case, the CPVO should be informed.

The Administrative Council empowers the President, in accordance with Article 23 of Commission Regulation N°874/2009, to insert additional characteristics and their expressions in respect of a variety.

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. All relevant states of expression are presented in the characteristic.

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

6.3 Example Varieties

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

6.4 Legend

For column 'CPVO N°':

G	Grouping characteristic	-see Chapter 5
QL	Qualitative characteristic	
QN	Quantitative characteristic	
PQ	Pseudo-qualitative characteristic	
(+)	Explanations for individual characteristics	-see Chapter 8.2

For column 'UPOV N°':
The numbering of the characteristics is provided as a reference to the UPOV guideline.

(*)	UPOV Asterisked characteristic	-Characteristics that are important for the international harmonization of variety descriptions.

For column 'Stage, method':

MG, MS, VG, VS		-see Chapter 4.1.5
(a)-(e)	Explanations covering several Characteristics	-see Chapter 8.1

7. TABLE OF CHARACTERISTICS

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
1. (+)	**1.**	**VG**	**Tree: vigour**		
QN		**(a)**	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. (+)	**2. (*)**	**VG**	**Tree: habit**		
PQ		**(a)**	upright	Oblachinska, Piramis, Ţarina	1
			semi-upright	Safir, Újfehértói fürtös	2
			spreading	Karneol, Montmorency, Samor	3
			drooping	Cigánymeggy 7	4
3. (+)	**3. (*)**	**VG**	**Tree: density of branching**		
QN		**(a)**	very sparse	Piramis	1
			sparse	Meteor korai, Samor	2
			medium	Morsam, Pándy Bb. 119	3
			dense	Cigánymeggy 7, Montmorency, Safir	4
			very dense	Bianchi di Offagna	5
4.	**4.**	**VG**	**Tree: bud distribution**		
PQ		**(a)**	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

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
5. (+)	**5.**	**VG**	**Young shoot: anthocyanin coloration of apex**		
QN			absent or very weak	Cigánymeggy 59, Meteor	1
			weak	Kelleriis 14, Montmorency	2
			medium	Érdi bőtermő, Meteor korai, Schattenmorelle	3
			strong	Érdi jubileum, Fanal	4
			very strong	Érdi nagygyümölcsű, Topas	5
6. (+)	**6.**	**VG**	**Young shoot: pubescence of apex**		
QN			very sparse	Bianchi di Offagna	1
			sparse	Cigánymeggy 7, Csengődi, Karneol	2
			medium	Favorit, Morava	3
			dense	Cigánymeggy 59	4
			very dense	Schattenmorelle	5
7.	**7. (*)**	**VG**	**One-year-old shoot: length of internode**		
QN		**(a)**	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

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
8.	**8.**	**VG**	**One-year-old shoot: number of lenticels**		
QN		**(a)**	very few	Cigánymeggy 59	1
			few	Bianchi di Offagna, Cigánymeggy 7	2
			medium	Pándy Bb 119, Petri	3
			many	Érdi nagygyümölcsű	4
			very many	Piramis	5
9.	**9.**	**VG**	**Leaf blade: length**		
QN		**(b)**	very short	Oblachinska	1
			very short to short	Cigánymeggy 59	2
			short	Cigánymeggy C. 404, Meteor	3
			short to medium	Fanal	4
			medium	Kántorjánosi 3, Karneol, Kelleriis 16	5
			medium to long	Pándy 279	6
			long	Érdi bőtermő, Favorit, Maliga emléke	7
			long to very long	Csengődi	8
			very long	Márta	9
10.	**10.**	**VG**	**Leaf blade: width**		
QN		**(b)**	very narrow	Oblachinska	1
			very narrow to narrow	Cigánymeggy 7	2
			narrow	Montmorency, Schattenmorelle	3
			narrow to medium	Érdi ipari	4
			medium	Karneol, Kelleriis 16, Pándy Bb. 119	5
			medium to broad	Éva	6
			broad	Maliga emléke	7
			broad to very broad	Érdi nagygyümölcsű	8
			very broad	Márta	9

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
11.	**11. (*)**	**VG**	**Leaf blade: ratio length/width**		
QN		**(b)**	very low		1
			very low to low	Kelleriis 16	2
			low	Cigánymeggy 7	3
			low to medium	Samor	4
			medium	Karneol, Maliga emléke	5
			medium to high	Pándy 279	6
			high	Meteor korai, Oblachinska	7
			high to very high	Favorit	8
			very high	Montmorency	9
12.	**12.**	**VG**	**Leaf blade: intensity of green colour of upper side**		
QN		**(b)**	very light		1
			light	Csengődi	2
			medium	Cigánymeggy 7, Éva	3
			dark	Érdi nagygyümölcsű, Pándy Bb 119	4
			very dark	Fanal, Favorit	5
13.	**13.**	**VG**	**Leaf blade: glossiness**		
QN		**(b)**	absent or very 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

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
14.	**14. (*)**	**MG/VG**	**Leaf: length of petiole**		
QN		**(b)**	very short		1
			very short to short	Oblachinska	2
			short	Karneol, Kelleriis 16	3
			short to medium	Pándy 279	4
			medium	Maliga emléke, Montmorency, Újfehértói fürtös	5
			medium to long	Piramis	6
			long	Favorit	7
			long to very long	Márta	8
			very long		9
15.	**15.**	**VG**	**Petiole: intensity of anthocyanin coloration on upper side**		
QN		**(b)**	very weak	Érdi ipari	1
			weak	Gerema, Oblachinska	2
			medium	Favorit	3
			strong	Fanal, Montmorency, Safir	4
			very strong	Csengődi	5
16.	**16.**	**MG/VG**	**Leaf: ratio length of blade/length of petiole**		
QN		**(b)**	very low		1
			very low to low	Olibel	2
			low	Pipacs 1	3
			low to medium	Favorit	4
			medium	Montmorency	5
			medium to high	Érdi bőtermő, Erika	6
			high	Karneol, Kelleriis 16, Meteor	7
			high to very high	Debreceni bőtermő, Pándy 279	8
			very high	Nana, Petri	9

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
17.	**17. (*)**	**VG**	**Leaf: presence of nectaries**		
QL		**(b)**	absent	North Star, Oblachinska	1
			present	Favorit, Piramis	9
18.	**18.**	**VG**	**Leaf: position of nectaries**		
QN		**(c)**	at base of leaf blade 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.	**19.**	**VG**	**Leaf: colour of nectaries**		
PQ		**(c)**	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
20. (+)	**20.**	**VG**	**Stipule: attitude**		
QN		**(b)**	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.	**21.**	**VG**	**Stipule: size**		
QN		**(b)**	very small		1
			small	Favorit, Schattenmorelle, Újfehértói fürtös	2
			medium	Debreceni bőtermő, Maliga emléke, Samor	3
			large	Meteor korai, Morsam	4
			very large		5

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
22. (+)	**22.**	**VG**	**Stipule: degree of lobing**		
QN		**(b)**	absent or weak	Oblachinska, Schattenmorelle, Újfehértói fürtös	1
			medium	Piramis, Samor	2
			strong	Csengődi, Kelleriis 16, Meteor korai	3
23. (+)	**23.**	**MG/VG**	**Flower: diameter**		
QN		**(d)**	very small	Oblachinska	1
			very small to small	Samor	2
			small	Bianchi di Offagna, Erika	3
			small to medium	Fanal	4
			medium	Cigánymeggy 7, Montmorency	5
			medium to large	Kelleriis 16, Petri	6
			large	Érdi jubileum, Pándy Bb. 119	7
			large to very large	Márta	8
			very large	Csengődi	9
24. (+)	**24.**	**VG**	**Flower: arrangement of petals**		
QN		**(d)**	free	Kelleriis 16, Újfehértói fürtös	1
			intermediate	Érdi jubileum, Montmorency, Schattenmorelle	2
			overlapping	Favorit, Meteor korai, Oblachinska	3
25. (+)	**25.**	**VG**	**Flower: shape of petal**		
PQ		**(d)**	circular	Favorit, Meteor, Oblachinska	1
			medium obovate	Kelleriis 16, Pipacs 1, Safir	2
			broad obovate	Érdi bőtermő, Korai pipacs, Schattenmorelle	3

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
26. (+)	**26.**	**VG**	**Flower: arrangement**		
PQ		**(d)**	solitary	Cerella, Nabella	1
			double	Safir	2
			in clusters	Újfehértói fürtös	3
			irregular	Schattenmorelle	4
27.	**27. (*)**	**MG/VG**	**Fruit: size**		
QN		**(e)**	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
28. (+)	**28. (*)**	**VG**	**Fruit: shape in ventral view**		
PQ		**(e)**	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. (+)	**29.**	**VG**	**Fruit: shape of apex**		
QN		**(e)**	pointed	Favorit, Morsam	1
			flat	Korai pipacs, Samor	2
			depressed	Cigánymeggy C. 404, Montmorency, Schattenmorelle	3

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
30.	**30. (*)**	**MG/VG**	**Fruit: length of stalk**		
QN		**(e)**	very short		1
			very short to short	Erika	2
			short	Érdi bőtermő	3
			short to medium	Samor	4
			medium	Fanal	5
			medium to long	Morsam, Pándy Bb 119	6
			long	Kántorjánosi 3, Nana	7
			long to very long	Érdi nagygyümölcsű, Újfehértói fürtös	8
			very long	Bianchi di Offagna	9
31.	**31.**	**VG**	**Fruit: thickness of stalk**		
QN		**(e)**	very thin		1
			thin	Bianchi di Offagna	2
			medium	Cigánymeggy 7	3
			thick	Kántorjánosi 3	4
			very thick		5
32.	**32. (*)**	**VG**	**Fruit: anthocyanin coloration of stalk**		
QL		**(e)**	absent	Meteor korai	1
			present	Újfehértói fürtös	9
33.	**33.**	**VG**	**Fruit: number of bracts on stalk**		
QN		**(e)**	absent or few	Piramis, Ţarina	1
			medium	Érdi bőtermő, Morina	2
			many	Gerema, Kántorjánosi 3, Kelleriis 16	3

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
34.	**34.**	**VG**	**Fruit: size of bracts on stalk**		
QN		**(e)**	very small	Érdi jubileum	1
			small	Schattenmorelle	2
			medium	Kelleriis 16, Nana	3
			large	Kántorjánosi 3	4
			very large	Debreceni bőtermő	5
35.	**35.**	**VG**	**Fruit: abscission layer between stalk and fruit**		
QL		**(e)**	absent	Csengődi, Meteor korai	1
			present	Karneol, Újfehértói fürtös	9
36.	**36. (*)**	**VG**	**Fruit: colour of skin**		
PQ		**(e)**	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
G			blackish	Érdi jubileum, North Star	6
37.	**37. (*)**	**VG**	**Fruit: colour of flesh**		
PQ		**(e)**	yellowish	Montmorency, Pipacs 1	1
			pink	Meteor, Pándy 279	2
			medium red	Kántorjánosi 3, Karneol	3
G			dark red	Cigánymeggy 7, Fanal	4

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
38.	**38. (*)**	**VG**	**Fruit: colour of juice**		
PQ		**(e)**	colourless	Montmorency	1
			light yellow	Pipacs 1	2
			pink	Meteor, Pándy 7	3
			medium red	Kántorjánosi 3, Karneol	4
G			dark red	Cigánymeggy 7, Érdi jubileum, Fanal	5
39.	**39. (*)**	**MS/MG /VG**	**Fruit: firmness**		
QN		**(e)**	very soft		1
			very soft to soft	Cigánymeggy 59	2
			soft	Csengődi, Samor	3
			soft to medium	Debreceni bőtermő	4
			medium	Karneol, Pándy 279	5
			medium to firm	Morsam, Nana	6
			firm	Érdi jubileum	7
			firm to very firm	Petri	8
			very firm		9
40. (+)	**40.**	**MG/VG**	**Fruit: acidity**		
QN		**(e)**	very low	Meteor korai	1
			low	Érdi bőtermő, Spinell	2
			medium	Impératrice Eugénie, Pándy 279	3
			high	Meteor, Montmorency	4
			very high	Cigánymeggy 7, Schattenmorelle	5

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
41. (+)	**41.**	**MG/VG**	**Fruit: sweetness**		
QN		**(e)**	very low	Kelleriis 16	1
			very low to low		2
			low	Montmorency	3
			low to medium		4
			medium	Pándy 279	5
			medium to high		6
			high	Favorit	7
			high to very high	Petri	8
			very high	Érdi jubileum	9
42. (+)	**42.**	**VG**	**Fruit: juiciness**		
QN		**(e)**	very weak		1
			weak	Érdi jubileum	2
			medium	Petri	3
			strong	Érdi nagygyümölcsű, Fanal	4
			very strong	Erika	5
43.	**43. (*)**	**MG/VG**	**Stone: size**		
QN		**(e)**	very small	Érdi ipari	1
			very small to small	Erika	2
			small	Stevnsbaer	3
			small to medium	Favorit, Oblachinska	4
			medium	Érdi bőtermő, Schattenmorelle	5
			medium to large	Petri, Porthos	6
			large	Maliga emléke, Pándy Bb. 119	7
			large to very large	Fanal, Nana	8
			very large	Pipacs 1	9

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
44. (+)	**44. (*)**	**VG**	**Stone: shape in ventral view**		
PQ		**(e)**	narrow elliptic	Cass, Lake	1
			medium elliptic	Csengődi, Meteor	2
			broad elliptic	Fanal, Maliga emléke	3
			circular	Érdi jubileum, Kelleriis 16	4
45.	**45. (*)**	**MG/VG**	**Fruit: ratio size of fruit/size of stone**		
QN		**(e)**	very low	Oblachinska	1
			low	Pipacs 1	2
			medium	Éva, Pándy Bb 119	3
			high	Érdi nagygyümölcsű	4
			very high	Érdi ipari	5
46. (+)	**46. (*)**	**MG/VG**	**Time of beginning of flowering**		
QN			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
G			very late	Morsam	9

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
47. (+)	**47. (*)**	**MG/VG**	**Time of beginning of fruit ripening**		
QN			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
G			very late	Gerema, Vowi	9

8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS

8.1 Explanations covering several characteristics

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

a) Observations should be made during winter, on trees that have fruited at least once.

b) Observations should be made on fully developed leaves from the middle third of a shoot, in early summer.

c) Observations should be made on the fifth or sixth fully developed leaf from the base of a long shoot, during rapid growth.

d) Observations should be made on fully open flowers.

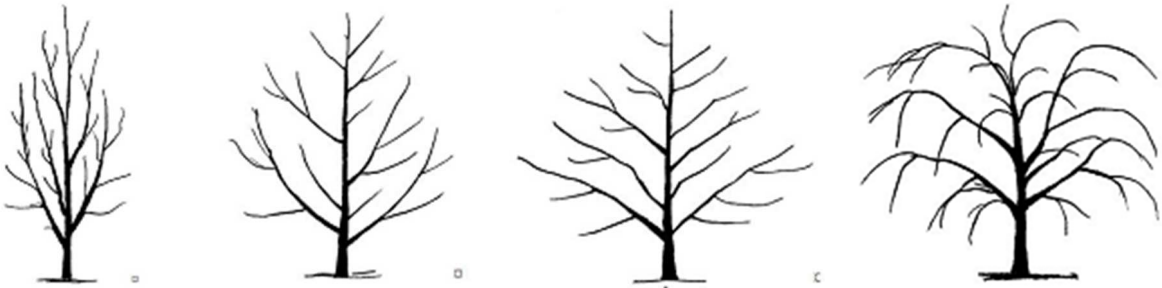
e) Observations should be made at full fruit maturity.

8.2 Explanations for individual characteristics

Ad. 1: Tree: vigour

Observations should be made on the overall abundance of vegetative growth, when the tree has reached the peak of vegetative growth.

Ad. 2: Tree: habit



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

Ad. 3: Tree: density of branching

Observations should be made in winter, on lateral branches with the density of branching being indicated by the number of lateral branches and shoots, excluding fruiting shoots.

Ad. 5: Young shoot: anthocyanin coloration of apex

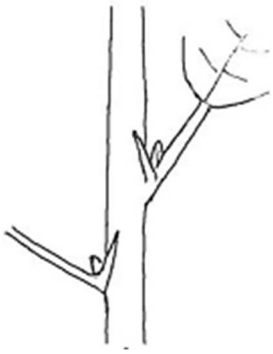
Observations should be made during rapid growth.

Ad. 6: Young shoot: pubescence of apex

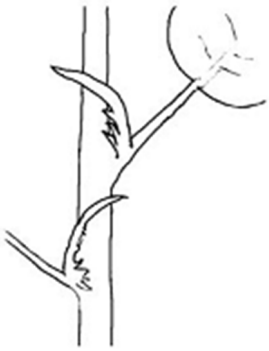
Observations should be made during rapid growth.

Ad. 20: Stipule: attitude

1
leaning away from shoot



2
adpressed to shoot



3
leaning across shoot

Ad. 22: Stipule: degree of lobing

1
absent or weak

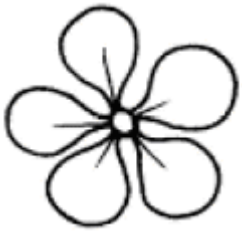
2
medium

3
strong

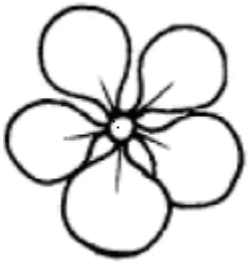
Ad. 23: Flower: diameter

Observations should be made on completely opened flowers with petals pressed into horizontal position.

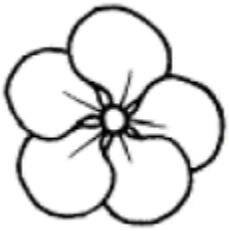
Ad. 24: Flower: arrangement of petals



1
free



2
intermediate



3
overlapping

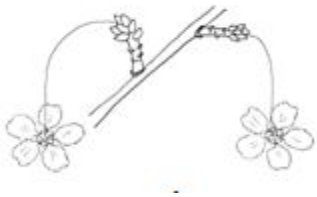
Ad. 25: Flower: shape of petals

1
circular

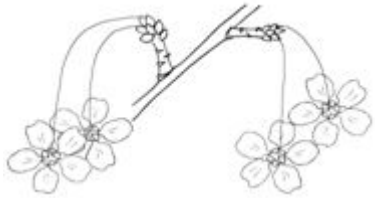
2
medium obovate

3
broad obovate

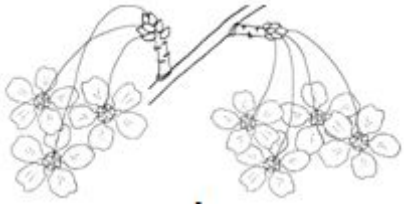
Ad. 26: Flower: arrangement



1
solitary



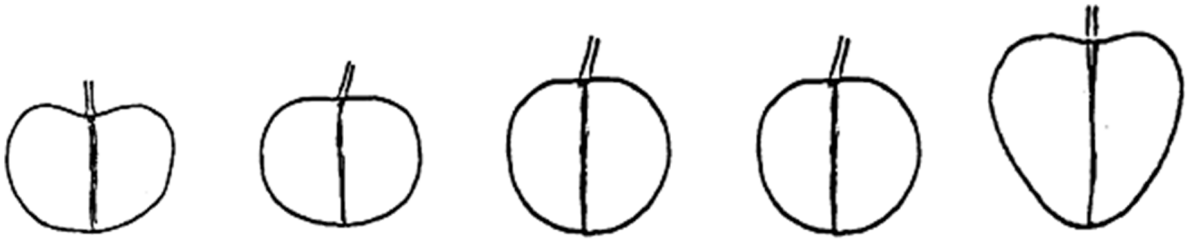
2
double



3
in clusters

4
irregular

Ad. 28: Fruit: shape in ventral view



1
reniform

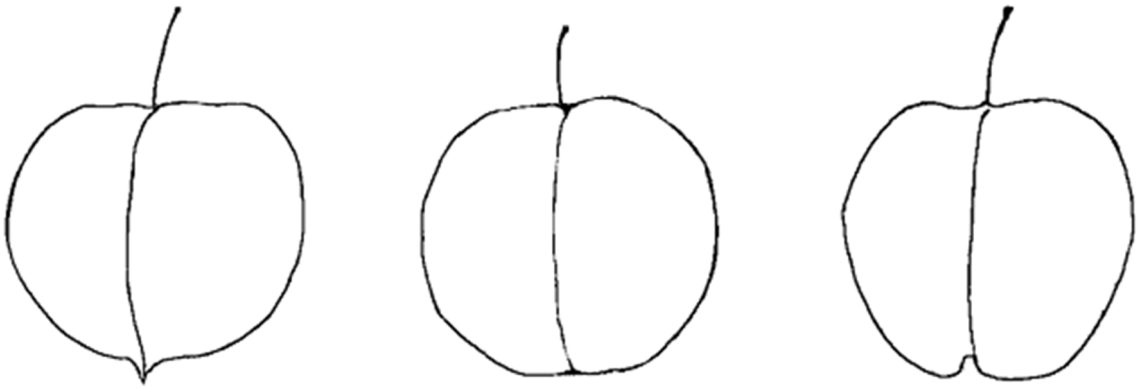
2
oblate

3
circular

4
elliptic

5
cordate

Ad. 29: Fruit: shape of apex



1
pointed

2
flat

3
depressed

Ad. 40: Fruit: acidity

The acidity of the fruit should be observed as the titratable acidity in meg 100/ml.

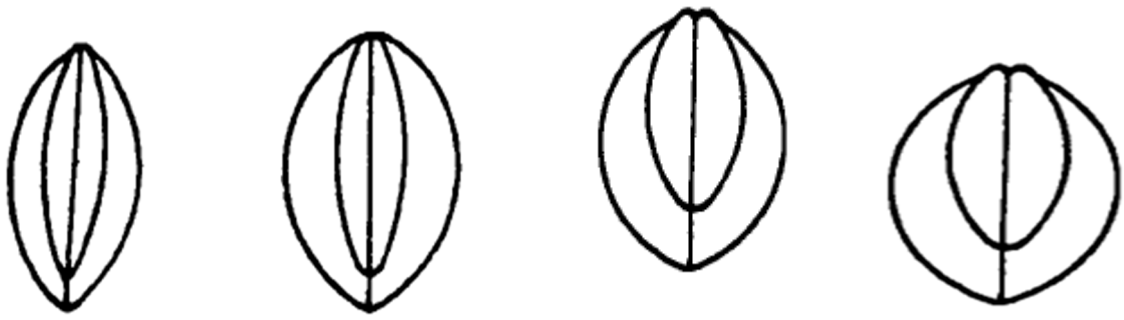
Ad. 41: Fruit: sweetness

The sweetness of the fruit should be observed in degrees Brix.

Ad. 42: Fruit: juiciness

Observations should be made on the juice content in relation to total fruit weight.

Ad. 44: Stone: shape in ventral view



1
narrow elliptic

2
medium elliptic

3
broad elliptic

4
circular

Ad. 46: Time of beginning of flowering

The time of beginning of flowering is reached when 10% of the flowers are full open.

Ad. 47: Time of beginning of fruit ripening

The time of beginning of fruit ripening is reached when 10% of the fruits are eating ripe. Fruit ripening should be considered as the time when the fruit can be most easily removed from the stalk and are ready to be eaten.

8.3 Synonyms(s) of Example Varieties

Example Varieties	Synonym(s)
Cigánymeggy	Zigeunersauerkirsche
Fanal	Fanal, Gorsemkriek, Heimann 23, Heimanns Konservenkirsche, Heimanns Konservenweichsel, Nefris
Kelleriis 16	Morellenfeuer
Petri	Lövőpetri
Schattenmorelle	Black Morello, Cerise du Nord, Dubbelte Morelkers, Griotte du Nord, Griotte Noire Tardive, Große Lange Lothkirsche, Große Lange Lotkirsche, Latos meggy, Lotovka, Lutowka, Łutówka, Moreillska, Morel, Morella pozdní, Morello, Noordkrieg, Nordkirsche, Sauerlothkirsche, Skyggemorel

9. LITERATURE

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10. TECHNICAL QUESTIONNAIRE

The Technical Questionnaire is available on the CPVO website under the following reference:
CPVO/TQ-230/1 Rev or 2 – *Prunus cerasus* L. – sour cherry, duke cherry

Link to e-TQ:

https://online.plantvarieties.eu/backOfficeFormQuestions?viewFormId=17798&viewFormType=TQ&viewFormLang=EN&speciesName=prunus%20ceras&status=1,2&order=formName