CPVO-TP/35/2 Final
English
Date: 15/11/2006

European Union
Community Plant Variety Office

PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

***Prunus avium* L.**

SWEET CHERRY

UPOV Species Code: PRUNU_AVI

Adopted on 15/11/2006

I SUBJECT OF THE PROTOCOL

The protocol describes the technical procedures to be followed in order to meet the Council Regulation 2100/94 on Community Plant Variety Rights. The technical procedures have been agreed by the Administrative Council and are based on general UPOV Document TG/1/3 and UPOV Guideline TG/35/7 dated 05/04/2006 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies for all varieties of ***Prunus avium* L.**

II SUBMISSION OF SEED AND OTHER PLANT MATERIAL

1. The Community Plant Variety Office (CPVO) is responsible for informing the applicant of

   - the closing date for the receipt of plant material;
   - the minimum amount and quality of plant material required;
   - the examination office to which material is to be sent.

   A sub-sample of the material submitted for test will be held in the variety collection as the definitive sample of the candidate variety.

   The applicant is responsible for ensuring compliance with any customs and plant health requirements.

2. Final dates for receipt of documentation and material by the Examination Office

   The final dates for receipt of requests, technical questionnaires and the final date or submission period for plant material will be decided by the CPVO and each Examination Office chosen.

   The Examination Office is responsible for immediately acknowledging the receipt of requests for testing, and technical questionnaires. Immediately after the closing date for the receipt of plant material the Examination Office should inform the CPVO whether acceptable plant material has been received or not. However if unsatisfactory plant material is submitted the CPVO should be informed as soon as possible.

3. Plant material requirements

   The current quality and quantity requirements as well as the final dates for submission of the plant material are available on the CPVO website (www.cpvo.europa.eu) and are published in the CPVO gazette ‘S2’.

Quality of plants: Should not be less than the standards laid down in Council Directive 2000/29/EC and its amendments concerning quarantine organisms, and Council Directive 92/34/EEC and Commission Directive 93/48/EEC and their amendments concerning organisms impairing quality, at the date of adoption of this protocol; please refer to "Eur-Lex" for the full text and in case of any subsequent amendments to the four aforesaid Directives .

Quarantine organism (Directive 2000/29/EC). The plant material must be free from:

Insects, mites and nematodes at all stages of their development

- *Acleris* spp. (non-European)
- *Amauromyza maculosa*
- *Anomala orientalis*
- *Anoplophora chinensis*
- *Anoplophora malasiaca*
- *Arrhenodes minutus*
- *Bemisia tabaci* (non-European populations)
- *Carposina niponensis*
- *Choristoneura* spp. (non-European)
- *Cicadellidae* (non-European)
- *Conotrachelus nenuphar*
- *Enarmonia prunivora*
- *Enarmonia packardi*
- *Globodera pallida*
- *Globodera rostochiensis*
- *Grapholita inopinata*
- *Heliothis armigera*
- *Heliothis zea*
- *Liriomyza bryoniae*
- *Liriomyza huidobrensis*
- *Liriomyza trifolii*
- *Liriomyza sativae*
- *Longidorus diadecturus*
- *Monochamus* spp. (non-European)
- *Myndus crudus*
- *Nacobbus aberrans*
- *Opogona sacchari*
- *Popilia japonica*
- *Premnotrypes* spp. (non-European)
- *Pseudopityophthorus minutissimus*
- *Pseudopityophthorus pruinosus*
- *Scaphoideus luteolus*
- *Spodoptera eridania*
- *Spodoptera frugiperda*
- *Spodoptera littoralis*
- *Spodoptera litura*

- *Tephritidae* (non-European)
- *Trachypterellus quadrigibbus*
- *Thrips palmi*
- *Xiphinema americanum* (non-European populations)
- *Xiphinema californicum*

Bacteria
- *Clavibacter michiganensis*
- *Erwinia amylovora*
- *Pseudonomas solanacearum*
- *Xylella fastidiosa*

Fungi
- *Alternaria alternata*
- *Ceratocystis fagacearum*
- *Chrysomixa arctostaphyli*
- *Cronartium* spp. (non-European)
- *Endocronartium* spp. (non-European)
- *Guignardia laricina*
- *Guignardia piricola*
- *Gymnosporangium* spp. (non-European)
- *Inonotus weirii*
- *Melampsora medusae*
- *Melampsora farlowii*
- *Monilinia fructicola*
- *Mycosphaerella larici-leptolepis*
- *Mycosphaerella populorum*
- *Phoma andina*
- *Phyllosticta solitaria*
- *Septoria lycopersici*
- *Synchytrium endobioticum*
- *Thecaphora solani*
- *Trechispora brinkmannii*

Viruses and virus-like organisms

1. Elm phlöem mycoplasm
2. Potato viruses and virus-like organisms such as:
   - Andean potato latent virus
   - Andean potato mottle virus
   - Arracha virus B, oca strain
   - Potato black ringspot virus
   - Potato spindle tuber viroid
   - Potato virus T
   - Non-European isolates of potato viruses A, M, S, V, X and Y (including Yo, Yn and Yc) and Potato leafroll virus
3. Tobacco ringspot virus
4. Tomato ringspot virus

5. Viruses and virus-like organisms of *Cydonia* Mill., *Fragaria* L., *Malus* Mill., *Prunus* L., *Pyrus* L., *Ribes* L., *Rubus* L., and *Vitis* L., such as:
- Apple proliferation mycoplasm
- Apricot chlorotic leafroll mycoplasm
- Blueberry leaf mottle virus
- Cherry rasp leaf mottle virus (American)
- Peach mosaic virus (American)
- Peach phony rickettsia
- Peach rosette mosaic virus
- Peach rosette mycoplasm
- Peach-X disease mycoplasm
- Peach yellows mycoplasm
- Pear decline mycoplasm
- Plum line pattern virus (American)
- Raspberry leaf curl virus (American)
- Strawberry latent "C" virus
- Strawberry vein banding virus
- Strawberry witches' broom mycoplasm
- Non-European viruses and virus-like organisms of *Cydonia* Mill., *Fragaria* L., *Malus* Mill., *Prunus* L., *Pyrus* L., *Ribes* L., *Rubus* L., and *Vitis* L.,

6. Viruses transmitted by *Bemisia tabaci* Genn, such as:
- Bean golden mosaic virus
- Cowpea mild mottle virus
- Lettuce infectious yellows virus
- Pepper mild tigré virus
- Squash leaf curl virus
- Euphorbia mosaic virus
- Florida tomato virus

Parasitic plants
- *Arceuthobium* spp. (non-European)

Organisms impairing quality (Directive 92/34/EEC and 93/48/EEC. The plant material must, at least on visual inspection, be substantially free from any harmful organisms and diseases impairing quality or any signs or symptoms thereof and in particular be free from:

Insects, mites and nematodes at all stages of their development
- *Capnodis tenebrionis*
- *Meloidogyne* spp.
- Scale insects, in particular:
  Epidiaspis leperii, Pseudaulacaspis pentagona, Quadraspidiotus perniciosus

Bacteria
- *Agrobacterium tumefaciens*
- *Pseudomonas syringae* pv. *lors prunorum*
- *Pseudomonas syringae* pv. *syringae*

Fungi
- *Armillariella mellea*
- *Chondrostereum purpureum*
- *Nectria galligena*
- *Rosellinia necatrix*
- *Verticillium* spp.

Viruses and virus-like organisms
- Prune dwarf virus
- Prune necrotic ringspot virus

Chemical treatment: The plant material must not have undergone any treatment unless the CPVO and the examination office allow or request such treatment. If it has been treated, full details of the treatment must be given.

Labelling of individual plants in sample:
- Species
- File number of the application allocated by the CPVO
- Breeder's reference
- Examination office's reference (if known)
- Name of applicant
- The phrase "On request of the CPVO"

III CONDUCT OF TESTS

1. Variety collection

A variety collection will be maintained for the purpose of establishing distinctness of the candidate varieties in test. A variety collection may contain both living material and descriptive information. A variety will be included in a variety collection only if plant material is available to make a technical examination.

Pursuant to Article 7 of Council Regulation No. 2100/94, the basis for a collection should be the following:

- varieties listed or protected at the EU level or at least in one of the EEA Member States;
- varieties protected in other UPOV Member States;
- any other variety in common knowledge.

The composition of the variety collection in each Examination Office depends on the environmental conditions in which the Examination Office is located.

Variety collections will be held under conditions which ensure the long term maintenance of each accession. It is the responsibility of Examination Offices to replace reference material which has deteriorated or become depleted. Replacement material can only be introduced if appropriate tests confirm conformity with the existing reference material. If any difficulties arise for the replacement of reference material, Examination Offices must inform the CPVO. If authentic plant material of a variety cannot be supplied to an Examination Office the variety will be removed from the variety collection.

2. Material to be examined

Candidate varieties will be directly compared with other candidates for Community plant variety rights tested at the same Examination Office, and with appropriate varieties in the variety collection. When necessary an Examination Office may also include other candidates and varieties. Examination Offices should therefore make efforts to co-ordinate the work with other Offices involved in DUS testing of sweet cherry. There should be at least an exchange of technical questionnaires for each candidate variety, and during the test period, Examination Offices should notify each other and the CPVO of candidate varieties which are likely to present problems in establishing distinctness. In order to solve particular problems Examination Offices may exchange plant material.

3. Characteristics to be used

The characteristics to be used in DUS tests and preparation of descriptions shall be those referred to in the Annex 1. 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. In the latter case, the CPVO should be informed. In addition the existence of some other regulation e.g. plant health, may make the observation of the characteristic impossible.

The Administrative Council empowers the President, in accordance with Article 23 of Commission Regulation N° 1239/95, to insert additional characteristics and their expression in respect of a variety.

4. Grouping of varieties

The varieties and candidates to be compared will be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety and which in their various states of expression are fairly evenly distributed throughout the collection. In the case of continuous grouping characteristics overlapping states of expression between adjacent groups is required to reduce the risks of incorrect allocation of candidates to groups. The characters used for grouping could be the following:

a) Fruit: size (characteristic 20)

b) Fruit: colour of skin (characteristic 27)

c) Fruit: colour of flesh (characteristic 31)

d) Fruit: firmness (characteristic 33)

e) Time of beginning of flowering (characteristic 40)

f) Time of beginning of fruit ripening (characteristic 41)

5. Trial designs and growing conditions

The minimum duration of tests (independent growing cycles) will normally include at least two satisfactory crops of fruit. Tests will be carried out under conditions ensuring normal growth. The size of the plots will be such that plants or parts of plants may be removed for measuring and counting without prejudice to the observations which must be made up to the end of the growing period.

The test design is as follows

Each test should include 5 plants.

Unless otherwise indicated, all observations should be made on 5 plants or parts taken from each of 5 plants. In the case of parts of plants, the number to be taken from each of the plants should be 2. In particular, in the case of fruit and stone characteristics, observations should be made on 15 fruits, three taken from each of five trees.

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.

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

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

Fruit/Stone: Unless otherwise stated, all observations on the fruit and stone should be made at full maturity.

6. Special tests

In accordance with Article 83(3) of Council Regulation No. 2100/94 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 characters listed in the protocol.

7. Standards for decisions

a) **Distinctness**

A candidate variety will be considered to be distinct if it meets the requirements of Article 7 of Council Regulation No. 2100/94.

b) **Uniformity**

A candidate will be considered to be sufficiently uniform if the number of off-types does not exceed the number of plants as indicated in the table below. A population standard of 1% and an acceptance probability of 95% should be applied.

Table of maximum numbers of off-types allowed for uniformity standards.

Number of plants	off-types allowed
≤ 5	0

c) **Stability**

A candidate will be considered to be sufficiently stable when there is no evidence to indicate that it lacks uniformity.

IV REPORTING OF RESULTS

After each recording season the results will be summarised and reported to the CPVO in the form of a UPOV model interim report in which any problems will be indicated under the headings distinctness, uniformity and stability. Candidates may meet the DUS standards after two fruiting periods but in some cases three fruiting periods may be required. When tests are completed the results will be sent by the Examination Office to the CPVO in the form of a UPOV model final report.

If it is considered that the candidate complies with the DUS standards, the final report will be accompanied by a variety description in the format recommended by UPOV. If not the reasons for failure and a summary of the test results will be included with the final report.

The CPVO must receive interim reports and final reports by the date agreed between the CPVO and the examination office.

Interim reports and final examination reports shall be signed by the responsible member of the staff of the Examination Office and shall expressly acknowledge the exclusive rights of disposal of CPVO.

V LIAISON WITH THE APPLICANT

If problems arise during the course of the test the CPVO should be informed immediately so that the information can be passed on to the applicant. Subject to prior agreement, the applicant may be directly informed at the same time as the CPVO particularly if a visit to the trial is advisable.

The interim report as well as the final report shall be sent by the Examination Office to the CPVO.

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ANNEXES TO FOLLOW

ANNEX I

Legend:

(+) See explanations on the Table of characteristics
QL Qualitative characteristic
QN Quantitative characteristic
PQ Pseudo-qualitative characteristic

ANNEX II

ANNEX I

TABLE OF CHARACTERISTICS TO BE USED IN DUS-TEST AND PREPARATION OF DESCRIPTIONS

CPVO N°	UPOV N°	Characteristics		Examples	Note
1.	**1.**	**Tree: vigour**			
(+)	**(+)**		very weak	Compact Stella, Compact Van	1
QN	**QN**		weak	Sumpaca, Szomolyai fekete	3
			medium	Kordia, Stella, Sumtare	5
			strong	Hedelfinger Riesenkirsche	7
			very strong	Regina	9
2.	**2.**	**Tree: habit**	upright	Lapins, Melitopol'skaya rannyaya	1
(+)	**(+)**				
	(*)		semi-upright	Burlat, Napoléon	2
PQ	**PQ**		spreading	Sumtare, Vega, Vera	3
			drooping	Annabella, Jaboulay	4
3.	**3.**	**Tree: branching**			
(+)	**(+)**		weak	Merton Glory, Rainier	3
	(*)		medium	Hedelfinger Riesenkirsche	5
QN	**QN**		strong	Alex, Szomolyai fekete	7
4.	**4.**	**Young shoot: anthocyanin coloration of apex (during rapid growth)**	absent or very weak	Drogans Gelbe Knorpelkirsche	1
QN	**QN**		weak	Merton Glory, Van	3
			medium	Napoléon, Rebekka	5
			strong	Namosa, Rivan	7
			very strong	Aida, Merton Heart, Pat	9
5.	**5.**	**Young shoot: pubescence of apex (during rapid growth)**	weak	Hedelfinger Riesenkirsche, Van	3
QN	**QN**		medium	Kasins Frühe	5
			strong	Burlat, Early Rivers	7

CPVO N°	UPOV N°	Characteristics		Examples	Note
6. (+)	**6. (+) (*)**	**One-year-old shoot: length of internode**			
			normal	Burlat	1
QL	**QL**		short	Compact Lambert, Compact Stella	2
7.	**7.**	**One-year-old shoot: number of lenticels**	few	Kordia, Sam	3
QN	**QN**		medium	Hedelfinger Riesenkirsche, Van	5
			many	Krupnoplodnaya, Querfurter Königskirsche	7
8.	**8.**	**One-year-old shoot: thickness (at midlength)**	thin	Szomolyai fekete	3
QN	**QN**		medium	Hedelfinger Riesenkirsche	5
			thick	Kavics, Van	7
9.	**9.**	**Leaf blade: length**	short	Sumtare, Szomolyai fekete	3
QN	**QN**		medium	Napoléon, Vanda	5
			long	Merton Crane	7
10.	**10.**	**Leaf blade: width**	narrow	Sumtare, Sylvia	3
QN	**QN**		medium	Guillaume, Stella	5
			broad	Badacsonyi, Germersdorfi 45, Merton Crane	7
11.	**11. (*)**	**Leaf blade: ratio length/width**	small	Badacsonyi, Hudson	3
QN	**QN**		medium	Bing, Merton Crane	5
			large	Hedelfinger Riesenkirsche, Sylvia, Vanda	7
12.	**12.**	**Leaf blade: intensity of green colour of upper side**	light	Bigarreau d'Or, Sumtare	3
QN	**QN**		medium	Napoléon, Vanda	5
			dark	Burlat	7

CPVO N°	UPOV N°	Characteristics		Examples	Note
13.	**13. (*)**	**Leaf: length of petiole**			
			short	Sylvia, Van	3
QN	**QN**		medium	Sam, Stella	5
			long	Badacsonyi, Merton Crane	7
14.	**14.**	**Leaf: ratio length of blade/ length of petiole**	small	Badacsonyi, Lambert	3
QN	**QN**		medium	Burlat, Sam	5
			large	Hedelfinger Riesenkirsche, Stella	7
15. (+)	**15. (+) (*)**	**Leaf: presence of nectaries**			
			absent	Namosa, Sylvia	1
QL	**QL**		present	Summit, Sumtare	2
16. (+)	**16. (+)**	**Nectaries: colour**	greenish yellow	Drogans Gelbe Knorpelkirsche, Van	1
QN	**QN**		orange yellow	Hudson, Reverchon	2
			light red	Burlat, Sylvia	3
			dark red	Early Rivers, Germersdorfi 45	4
			purple	Gege, Paulus	5
17.	**17.**	**Flower: diameter**	small	Anita, Szomolyai fekete	3
(+)	**(+)**		medium	Sylvia, Van	5
QN	**QN**		large	Aida, Burlat	7
18. (+)	**18. (+)**	**Flower: shape of petal**	circular	Kordia, Schneiders Späte Knorpelkirsche	1
PQ	**PQ**		medium obovate	Burlat, Sunburst	2
			broad obovate	Hedelfinger Riesenkirsche, Van	3
19. (+)	**19. (+)**	**Flower: arrangement of petals**	free	Burlat, Sunburst	1
QN	**QN**		intermediate	Germersdorfi 45, Van	2
			overlapping	Hudson	3

CPVO N°	UPOV N°	Characteristics		Examples	Note
20.	**20.**	**Fruit: size**	very small	Müncheberger Frühernte	1
	(*)		small	Annonay, Szomolyai fekete	3
QN	**QN**		medium	Early Rivers, Schmidt	5
			large	Burlat, Rainier	7
			very large	Duroni 3, Sunburst	9
21.	**21.**	**Fruit: shape**	cordate	Kordia, Summit	1
(+)	**(+)**		reniform	Van, Vera	2
	(*)		oblate	Alex, Burlat	3
PQ	**PQ**		circular	Germersdorfi 45, Reverchon	4
			elliptic	Hedelfinger Riesenkirsche	5
22.	**22.**	**Fruit: pistil end**			
(+)	**(+)**		pointed	Guillaume, Kavics	1
QN	**QN**		flat	Hedelfinger Riesenkirsche, Van	2
			depressed	Reverchon, Sunburst	3
23.	**23.**	**Fruit: suture**	absent or very weakly conspicuous	Hedelfinger Riesenkirsche	1
QN	**QN**		weakly conspicuous	Germersdorfi 45	2
			strongly conspicuous	Burlat, Rita	3
24.	**24.**	**Fruit: length of stalk**	very short	Van	1
	(*)		short	Burlat, Szomolyai fekete	3
QN	**QN**		medium	Hedelfinger Riesenkirsche, Sunburst	5
			long	Kordia, Noire de Meched	7
			very long	Delflash	9
25.	**25.**	**Fruit: thickness of stalk**	thin	Hedelfinger Riesenkirsche, Kordia	3
QN	**QN**		medium	Sunburst, Germersdorfi 45	5
			thick	Van	7

CPVO N°	UPOV N°	Characteristics		Examples	Note
26.	**26.**	**Fruit: abscission layer between stalk and fruit**	absent	Burlat, Sunburst	1
QL	**QN**		present	Alex, Vittoria	9
27.	**27. (*)**	**Fruit: colour of skin**	yellow	Bigarreau d'Or, Dönnissens Gelbe	1
PQ	**PQ**		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
28.	**28.**	**Fruit: size of lenticels on skin**	small	Hedelfinger Riesenkirsche	3
QN	**QN**		medium	Guillaume	5
			large	Reverchon	7
29.	**29.**	**Fruit: number of lenticels on skin**	few	Burlat, Rita	3
QN	**QN**		medium	Sunburst	5
			many	Marmotte, Vera	7
30	**30.**	**Fruit: thickness of skin**	thin	Müncheberger Frühernte	1
QN	**QN**		intermediate	Germersdorfi 45	2
			thick	Carmen	3
31.	**31.**	**Fruit: colour of flesh**	cream	Napoléon	1
	(*)		yellow	Dönnissens Gelbe	2
PQ	**PQ**		pink	Reverchon, Sunburst	3
			medium red	Germersdorfi 45, Hedelfinger Riesenkirsche	4
			dark red	Rubin, Szomolyai fekete	5

CPVO N°	UPOV N°	Characteristics		Examples	Note
32.	**32.**	**Fruit: colour of juice**	colourless	Dönnissens Gelbe	1
PQ	**PQ**		light yellow	Napoléon	2
			pink	Reverchon, Sunburst	3
			red	Sam, Van	4
			purple	Hedelfinger Riesenkirsche, Kavics	5
33.	**33. (*)**	**Fruit: firmness**	soft	Early Rivers	3
QN	**QN**		medium	Kordia, Sunburst	5
			firm	Reverchon, Van	7
			very firm	Kavics, Sumtare	9
34.	**34.**	**Fruit: acidity**	low	Müncheberger Frühernte, Burlat	1
QN	**QN**		medium	Napoléon, Van	2
			high	Sunburst	3
35.	**35.**	**Fruit: sweetness**	low	Müncheberger Frühernte	3
QN	**QN**		medium	Burlat, Sunburst	5
			high	Bigarreau d'Or, Kordia	7
36.	**36.**	**Fruit: juiciness**	weak	Reverchon	3
QN	**QN**		medium	Early Rivers, Kordia	5
			strong	Sándor, Szomolyai fekete	7
37.	**37. (*)**	**Stone: size**	small	Hedelfinger Riesenkirsche, Van	3
QN	**QN**		medium	Burlat, Germersdorfi 45	5
			large	Guillaume, Merton Glory	7
			very large	Valerij Chkalov, Carmen	9
38. (+)	**38. (+) (*)**	**Stone: shape in ventral view**	medium elliptic	Kordia, Napoléon	1
PQ	**PQ**		broad elliptic	Knauffs, Rita	2
			circular	Germersdorfi 45, Van	3

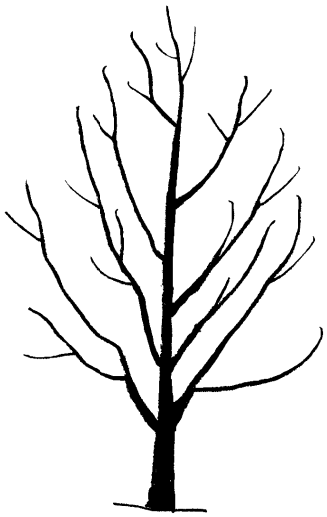
CPVO N°	UPOV N°	Characteristics		Examples	Note
39.	**39. (*)**	**Fruit: ratio weight of fruit/ weight of stone**	small	Müncheberger Frühernte	3
QN	**QN**		medium	Hedelfinger Riesenkirsche, Reverchon	5
			large	Sunburst, Vera	7
40. (+)	**40. (+) (*)**	**Time of beginning of flowering**	very early	Müncheberger Frühernte	1
QN	**QN**		early	Lapins, Marmotte, Sumtare	3
			medium	Merton Glory, Napoléon, Sumele	5
			late	Germersdorfi 45, Reverchon	7
			very late	Regina	9
41. (+)	**41. (+) (*)**	**Time of beginning of fruit ripening**	very early	Cristobalina, Hâtive de Bâle, Müncheberger Frühernte	1
QN	**QN**		early	Burlat, Early Rivers, Valerij Chkalov	3
			medium	Guillaume, Sunburst	5
			late	Hedelfinger Riesenkirsche, Katalin	7
			very late	Hudson, Regina, Vittoria	9

EXPLANATIONS AND METHODS

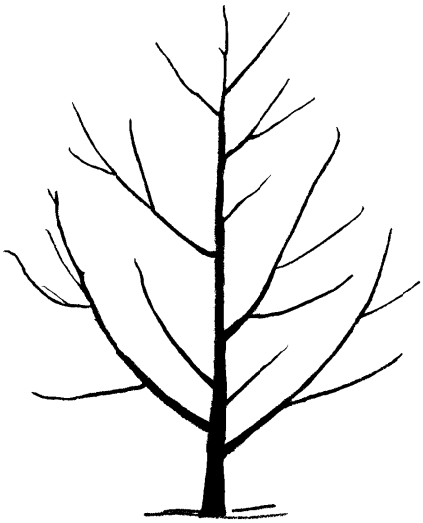
Ad. 1: Tree: vigour

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

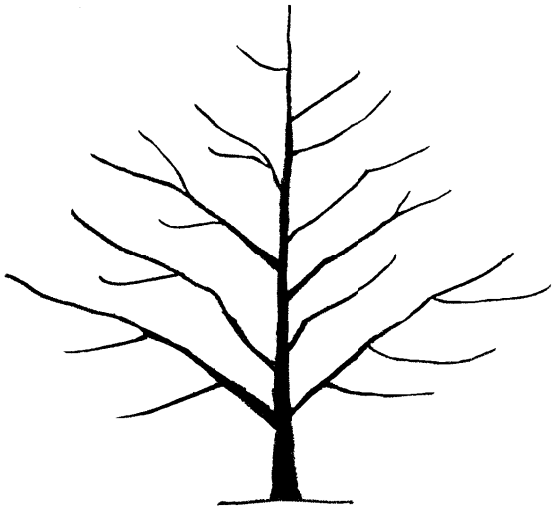
Ad. 2: Tree: habit



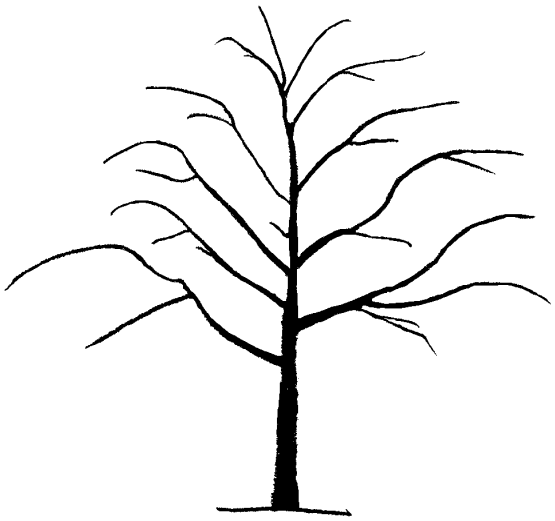
1
upright



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

1
normal

2
short

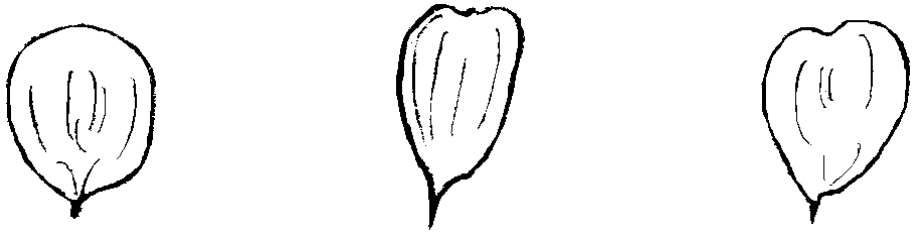
Ad. 15: Leaf: presence of nectaries
Ad. 16: Nectaries: colour

Observations of these characteristics should be made in summer on fully developed leaves from the middle third of a well developed current season's shoot.

Ad. 17: Flower: diameter

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

Ad. 18: Flower: shape of petal

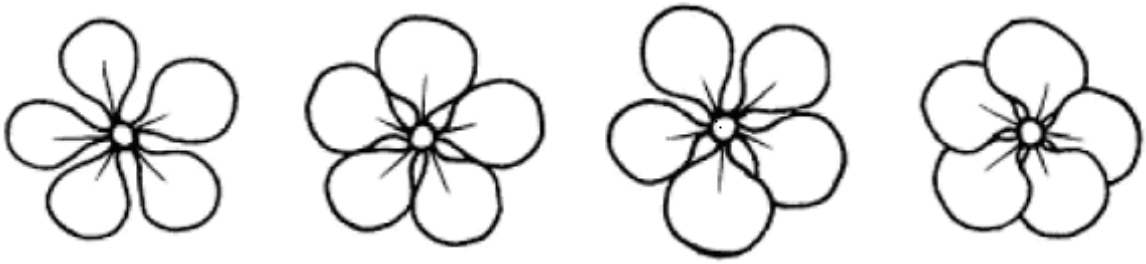


1
circular

2
medium obovate

3
broad obovate

Ad. 19: Flower: arrangement of petals

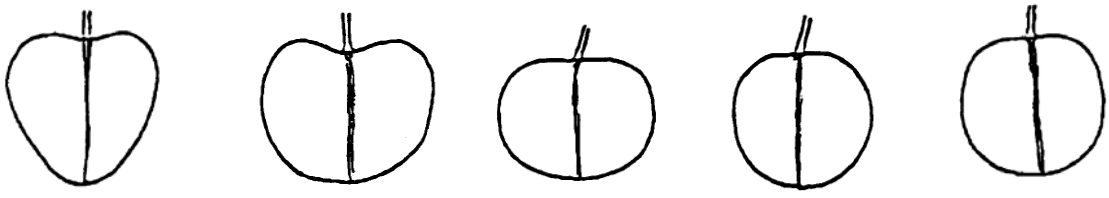


1
free

2
intermediate

3
overlapping

Ad. 21: Fruit: shape



1
cordate

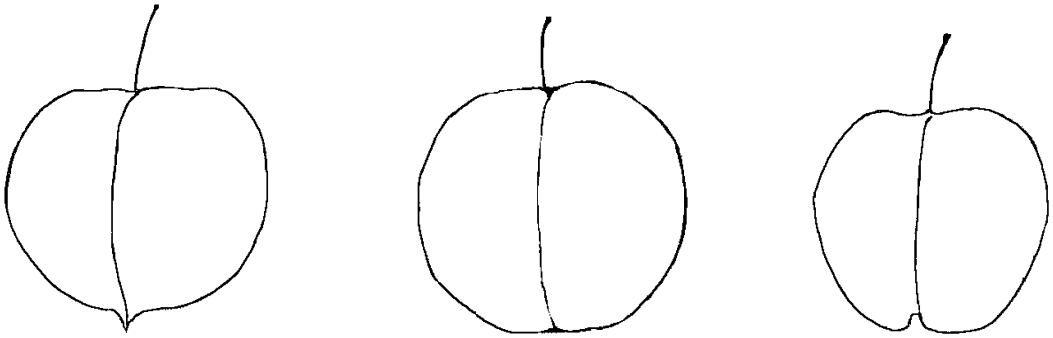
2
reniform

3
oblate

4
circular

5
elliptic

Ad 22: Fruit: pistil end

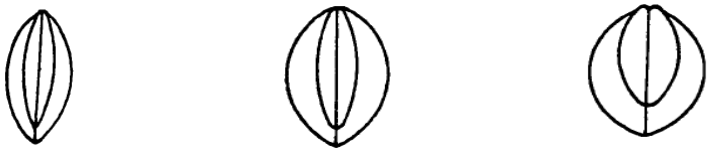


1
pointed

2
flat

3
depressed

Ad. 38: Stone: shape in ventral view



1
medium elliptic

2
broad elliptic

3
circular

Ad. 40: Time of beginning of flowering

When 5-10% open flowers can be observed.

Ad. 41: 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.

Synonym(s) of Example Varieties

Example Varieties	*Synonym(s)*
Burlat	Hâtif Burlat
Dönnissens Gelbe	Pietroase Dönissen
Hedelfinger Riesenkirsche	Hedelfinger
Müncheberger Frühernte	Primavera

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ANNEX II

European Union
Community Plant Variety Office

TECHNICAL QUESTIONNAIRE

to be completed in connection with an application for Community Plant Variety Rights
Please answer all questions. A question without any answer will lead to a non-attribution of an application date. In cases where a field / question is not applicable, please state so.

1. **Botanical taxon:** Name of the genus, species or sub-species to which the variety belongs and common name

***Prunus avium* L.**

SWEET CHERRY

2. **Applicant(s):** Name(s) and address(es), phone and fax number(s), Email address, and where appropriate name and address of the procedural representative

3. **Variety denomination**

a) Where appropriate proposal for a variety denomination:

b) Provisional designation (breeder's reference):

4. Information on origin, maintenance and reproduction of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

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

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

(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)..... [ ]

4.2 Method of propagation

4.2.1 Vegetative propagation

(a) budding or grafting ..... [ ]

(b) other (state method) ..... [ ]

4.2.2 Other (please provide details) ..... [ ]

4.3 Geographical origin of the variety: the region and the country in which the variety was bred or discovered and developed

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in the CPVO Protocol; please mark the state of expression which best corresponds).

Characteristics		Example varieties	Note
5.1 (20)	**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 [ ]

	Characteristics	Example varieties	Note
5.2 (27)	**Fruit: colour 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 (31)	**Fruit: colour 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 (33)	**Fruit: firmness**		
	soft	Early Rivers	1 [ ]
	medium	Kordia, Sunburst	3 [ ]
	firm	Reverchon, Van	5 [ ]
	very firm	Kavics, Sumtare	7 [ ]
5.5 (40)	**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 [ ]

Characteristics		Example varieties	Note
5.6 (41)	**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 [ ]

6. Similar varieties and differences from these varieties:

Denomination of similar variety	Characteristic in which the similar variety is different[1)]	State of expression of similar variety	State of expression of candidate variety

[1)] In the case of identical states of expressions of both varieties, please indicate the size of the difference

7. Additional information which may help to distinguish the variety

A representative printed-out colour photo of the variety **must** be added to the Technical Questionnaire.

7.1 Resistance to pests and diseases

7.2 Special conditions for the examination of the variety

[ ] YES, please specify

[ ] NO

7.3 Other information

[ ] YES, please specify

[ ] NO

8. GMO-information required

The variety represents a Genetically Modified Organism within the meaning of Article 2(2) of Council Directive EC/2001/18 of 12/03/2001.

[ ] YES [ ] NO

If yes, please add a copy of the written attestation of the responsible authorities stating that a technical examination of the variety under Articles 55 and 56 of the Basic Regulation does not pose risks to the environment according to the norms of the above-mentioned Directive.

9. Information on plant material to be examined

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 or pesticide)	[ ] Yes	[ ] No
(c) Tissue culture	[ ] Yes	[ ] No
(d) Other factors	[ ] Yes	[ ] No

Please provide details of where you have indicated "Yes":

I/we hereby declare that to the best of my/our knowledge the information given in this form is complete and correct.

Date Signature Name

[End of document]