



EUROPEAN UNION

COMMUNITY PLANT VARIETY OFFICE

PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

Rubus idaeus L.

RASPBERRY

UPOV Species Code: RUBUS_IDA

Adopted on 06/11/2003

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/43/8 dated 09/04/2003 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies to fruit varieties of *Rubus idaeus* L. and their hybrids as far as they are morphologically similar to *Rubus idaeus* 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 final dates for request for technical examination and sending of Technical Questionnaire by the CPVO as well as submission date of plant material by the applicant can be consulted in the S2 supplement of the CPVO Official Gazette and the CPVO website (www.cpvo.europa.eu).

Quality of plants: Should not be less than the standards laid down in Council Directives 77/93/EEC and 92/34/EEC and their implementing measures. The plant material must be free from:-

Insects, mites and nematodes at all stages of their development:

- *Aceria essigi*

Bacteria:

- *Agrobacterium rhizogenes*
- *Agrobacterium tumefaciens*
- *Agrobacterium fasciens*

Fungi:

- *Amillariella mellea*
- *Didymelia applanata*
- *Peronospora rubi*
- *Phytophthora fragariae* var. *rubi*
- *Verticillium* spp.

Viruses and virus-like organisms, and in particular:

- Raspberry bushy dwarf virus
- Raspberry leaf curl 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.

Special requirements: The plant material should preferably not have been obtained directly by *in vitro* propagation.

Labelling of sample:

- Species
- File number of the application allocated by the CPVO
- Breeder's reference
- Examination 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 raspberry. 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 characteristics which could be used for grouping are the following:

- a) Very young shoot: anthocyanin coloration of apex during rapid growth (characteristic 3);
- b) Spines: presence (characteristic 12);
- c) Fruit: colour (characteristic 35);
- d) Fruit: main bearing type (characteristic 39);
- e) Varieties which fruit on previous year's cane in summer: Time of beginning of fruit ripening on previous year's canes (characteristic 44)
or
Varieties which fruit on current year's cane in autumn: Time of beginning of fruit ripening on current year's cane (characteristic 45)

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 10 plants.

All observations should be made on 10 plants or parts of 10 plants.

All observations on the very young shoots (characteristics 1 and 2) should be made when the shoots are 15 cm long; all observations on the young shoots (characteristics 3 to 6) should be made when the shoots are about 1 m long; all observations on the full grown shoot (characteristics 7 and 8) and on the leaf should be made after picking.

The number of young shoots should be observed as the number per metre length of row before thinning for the first time beginning with the second year.

The habit of all winter characteristics of the canes should be observed when the canes are dormant (after frost has occurred). If the canes peel, the dominant colour should be the colour of the bark in the non peeled area.

The time of flowering should be observed when 80% of the flowers have opened.

The time of fruit ripening should be recorded as the time of first picking.

All observations on the fruit should be made on fruits collected during the second and third pickings.

All observations on the flower and the fruit as well as the length of the fruiting period should be recorded from the summer harvest only except for varieties whose main fruiting is on the current year's cane in autumn. For these varieties observations should be made during the autumn fruiting period.

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
6-35	1

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.

ANNEXES TO FOLLOW

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ANNEX II

Technical Questionnaire

ANNEX I

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

CPVO N°	UPOV N°	Characteristics	Examples	Note
1. (+)	Plant: habit	upright	Ontario, Watson	1
		semi-upright	Autumn Bliss, Preußen, Schönemann	2
		arching	Joan Squire, Malling Joy, Meeker	3
2. (+)	Plant: number of current season's shoots	few	Rubaca, Rucami	3
		medium	Glen Ample, Multiraspa, Rumiloba	5
		many	Glen Cova, Skeena	7
		very many	Sumner	9
3.	Very young shoot: anthocyanin coloration of apex during rapid growth	absent	Gelbe Antwerpener	1
		present	Malling Promise	9
4.	Very young shoot: intensity of anthocyanin coloration of apex during rapid growth	weak	Rumiloba, Rusilva	3
		medium	Cola 1, Rucami, Veten	5
		strong	Malling Joy, Rubaca	7
5.	Current season's cane: bloom	absent or very weak	Heritage, Williamette	1
		weak	Malling Promise, Zefa 2	3
		medium	Malling Delight	5
		strong	Glen Ample, September	7
		very strong	Ontario	9

CPVO N°	UPOV N°	Characteristics	Examples	Note	
6.		Current season's cane: anthocyanin coloration	absent or very weak	Chiliwak, Golden Bliss	1
			weak	Malling Leo, Tulameen	3
			medium	Malling Orion	5
			strong	Rode Radboud, Rubaca	7
7.		Current season's cane: length of internode	short	Zefa 3	3
			medium	Rusilva, Zefa 2	5
			long	Caliber, Malling Joy	7
8. (+)		Current season's cane: length of vegetative bud	short	Wilkran	3
			medium	Veten	5
			long	Baronne de Wavre, Phyllis King	7
9.		<u>Varieties which fruit on previous season's cane in summer:</u> Dormant cane: length	short	Loganlike	3
			medium	Zefa 2	5
			long	Meeker, Schönemann	7
10.		<u>Varieties which fruit on current season's cane in autumn:</u> Current season's cane: length	short	Orange Marie	3
			medium	Dinkum	5
			long	Watson	7
11. (+)		<u>Varieties which fruit on previous season's cane in summer:</u> Dormant cane: colour	brownish grey	Malling Leo, Schönemann	1
			greyish brown	Malling Orion	2
			brown	Caliber, Glenn Cova	3
			purplish brown	Festival, Malling Landmark	4
			brownish purple	Royalty, Titan	5
12.		Spines: presence	absent	Glen Moy	1
			present	Malling Promise	9

CPVO N°	UPOV N°	Characteristics	Examples	Note	
13.		<u>Varieties with spines present only: Spines: density</u>	sparse	Malling Orion, Rafzmach, Spica	3
			medium	Maultiraspa, Zefa 2	5
			dense	Autumn Bliss, Malling Exploit	7
14.		<u>Varieties with spines present only: Spines: size of base</u>	very small	Reveille	1
			small	Pujallup, Resa	3
			medium	Gevalo, Malling Exploit	5
			large	Autumn Bliss, Köstliche Selita	7
			very large	Malling Landmark, Matterhorn	9
15.		<u>Varieties with spines present only: Spines: length</u>	short	Gigant, Malling Delight, Vetén	3
			medium	Malling Leo	5
			long	Malling Exploit	7
16.		<u>Varieties with spines present only: Spines: colour</u>	green	Golden Bliss, Malling Delight	1
			brownish green	Malling Landmark	2
			greenish brown	Rode Radboud, Watson	3
			brown	Malling Orion, Spica	4
			purplish brown	Malling Leo, Pujallup	5
			brownish purple	Resa, Tulameen	6
			purple	Sirius, Vetén, Zefa 3	7
17.		Leaf: green colour of upper side	light	Watson, Skeena	3
			medium	Malling Orion	5
			dark	Malling Landamark, Resa, Rubaca	7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
18.		Leaf: predominant number of leaflets	three	Veten, Zefa 3	1
			equally three and five	Malling Exploit, Multiraspa, Sirius	2
			five	Ontario, Pujallup, Rusilva	3
19.		Leaf: profile of leaflets in cross section	concave	Clen Clova, Glen Moy	1
			straight	Gevalo	2
			convex	Gigant	3
20.		Leaf: rugosity	very weak	Heritage, Watson	1
			weak	Rusilva	3
			medium	Caliber, Pujallup, Malling Landmark	5
			strong	Malling Exploit, Spica	7
			very strong	Korbfüller	9
21. (+)		Leaf: relative position of lateral leaflets	free	Williamette	1
			touching	Malling Orion	2
			overlapping	Gigant, Resa, Rumiloba	3
22.		Terminal leaflet: length	short	Royalty	3
			medium	Norfolk Giant, Wilkran	5
			long	Malling Joy	7
23.		Terminal leaflet: width	narrow	Rusilva	3
			medium	Zefa 2	5
			broad	Glen Ample	7
24.		Pedice: number of spines	absent or very few	Glen Ample	1
			few	Maultiraspa, Pechts Gigant	3
			medium	Glen Clova, Malling Leo	5
			many	Malling Joy, Orange Marie	7
			very many	Ariadne, Golden Bliss	9

CPVO N°	UPOV N°	Characteristics		Examples	Note
25.		Peduncle: presence of anthocyanin coloration	absent	Gelbe Antwerpener, Golden Bliss	1
			present	Williamette	9
26.		Peduncle: intensity of anthocyanin coloration	very weak	Julia, Rumilo	1
			weak	Joan Squire, Malling Delight	3
			medium	Gevalo, Pujallup	5
			strong	Loganlike, Williamette	7
			very strong	Rafzmach	9
27.		Flower: size	small	Ontario	3
			medium	Rucami, Spica	5
			large	Gevalo, Isabel	7
28.		<u>Varieties which fruit on previous season's cane in summer:</u> Fruiting lateral: attitude	erect	Malling Landmark, Ontario	1
			semi-erect	Schönemann	2
			horizontal to drooping	Rucami	3
29.		<u>Varieties which fruit on previous season's cane in summer:</u> Fruiting lateral: length	very short	Galante, Glen Moy	1
			short	Multiraspa, Rafzmach	3
			medium	Gradina, Tulameen	5
			long	Meeker	7
			very long	Malling Joy, Malling Leo	9
30.		Fruit: length	short	Malling Promise, Ontario	3
			medium	Rafzmach	5
			long	Malling Delight	7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
31.		Fruit: width	narrow	Haida	3
			medium	Meeker, Schönemann	5
			broad	Glen Ample	7
32.		Fruit: ratio length/ width	small	Caliber, Zefa 2	3
			medium	Glen Clova, Rafzeter	5
			large	Malling Delight, Tulameen	7
33. (+)		Fruit: general shape in lateral view	circular	Malling Landmark, Ontario	1
			broad conical	Malling Orion, Meeker	2
			conical	Annamaria, Rafzmach	3
			trapezoidal	Gradina	4
34.		Fruit: size of single drupe	small	Malling Admiral, Polana	3
			medium	Autumn Bliss, Malling Orion	5
			large	Dinkum, Festival, Rafzeter	7
35.		Fruit: colour	yellow	Gelbe Antwerpener, Golden Bliss	1
			orange	Orange Marie	2
			light red	Malling Delight	3
			medium red	Glen Clova, Malling Orion	4
			dark red	Gigant, Schönemann, Zefa 2	5
			purple	Royalty	6
			dark purple	Deep Purple	7
36.		Fruit: glossiness	weak	Gigant, Rumilo	3
			medium	Comox	5
			strong	Rafzmach, Tulameen	7
			very strong	Resa	9

CPVO N°	UPOV N°	Characteristics	Examples	Note	
37.		Fruit: firmness	very soft	Caliber, Malling Delight	1
			soft	Gigant, Malling Landmark	3
			medium	Glen Clova, Malling Promise	5
			firm	Tulameen	7
			very firm	Glen Prosen	9
38.		Fruit: adherence to plug	very weak	Nootka	1
			weak	Rumilo, Zefa 2	3
			medium	Glen Clova, Meeker	5
			strong	Malling Delight	7
			very strong	Malling Landmark	9
39.		Fruit: main bearing type	only on previous season's cane in summer	Malling Promise	1
			both on previous season's cane in summer and on current season's cane in autumn	Isabel	2
			only on current season's cane in autumn	Autumn Bliss	3
40. (+)		<u>Varieties which fruit on previous season's cane in summer:</u> Plant: time of vegetative bud burst	early	Glen Moy, Malling Promise	3
			medium	Delmes, Glen Clova	5
			late	Malling Orion, Multiraspa	7
			very late	Malling Joy	9
41. (+)		<u>Varieties which fruit on previous season's cane in autumn:</u> Time of cane emergence	early	Polana	3
			medium	Autumn Bliss	5
			late	Watson	7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
42. (+)		<u>Varieties which fruit on previous season's cane in summer: Time of beginning of flowering on previous season's cane</u>	very early	Glen Moy, Rafzmach	1
			early	Gevalo, Willamette	3
			medium	Rumiloba, Skeena	5
			late	Glen Prosen	7
			very late	Malling Joy, Malling Leo	9
43. (+)		<u>Varieties which fruit on current season's cane in autumn: Time of beginning of flowering on current season's cane</u>	very early	Ariadne	1
			early	Autumn Bliss	3
			medium	Orange Marie	5
			late	Watson	7
			very late	September	9
44. (+)		<u>Varieties which fruit on previous season's cane in summer: Time of beginning of fruit ripening on previous season's cane</u>	very early	Vene	1
			early	Glen Clova, Glen Moy, Rafzmach	3
			medium	Rusilva, Willamette	5
			late	Malling Landmark, Schönemann	7
			very late	Malling Leo	9
45. (+)		<u>Varieties which fruit on current season's cane in autumn: Time of beginning of fruit ripening on current season's cane</u>	very early	Ariadne	1
			early	Polana	3
			medium	Orange Marie, Watson	5
			late	Korbfüller	7
			very late	Baronne de Wavre	9

CPVO N°	UPOV N°	Characteristics	Examples	Note	
46. (+)		<u>Varieties which fruit on previous season's cane in summer: Length of fruiting period on previous season's cane</u>	short	Glen Moy	3
			medium	Glen Clova	5
			long	Schönemann	7
47. (+)		<u>Varieties which fruit on current season's cane in autumn: Length of fruiting period on current season's cane</u>	short	Boheme	3
			medium	Autumn Bliss, Heritage	5
			long	Polana	7

EXPLANATIONS AND METHODS

EXPLANATIONS COVERING SEVERAL CHARACTERISTICS

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

- (a) Very young shoot: Observations on the very young shoot should be made when the shoots are about 15 cm long.
- (b) Current season's cane: Observations on the current season's cane should be made when the cane is about 1 m to 1.50 m long. For summer bearing varieties, these observations should be made just before harvest, for autumn bearing ones just before or at harvest. The bloom of the current season's cane should only be observed when fully grown.
- (c) Spine: Observations on spines should be made in the middle third of the current season's cane, when the cane is about 1 m to 1.50 m long.
- (d) Leaf: Observations on the leaf should be made on fully developed leaves from the middle third of the cane.
- (e) Fruit: Observations on the fruit should be made on fruit picked during the second and third harvest.
- (f) Flower/fruit/length of fruiting period: Observations on the flower and the fruit, as well as the length of the fruiting period, should be recorded from the summer harvest at fruiting laterals only, except for varieties whose main fruiting is on the current season's cane in autumn. For these varieties, observations should be made during the autumn fruiting period.

EXPLANATIONS FOR INDIVIDUAL CHARACTERISTICS

Ad. 1: Plant: habit



1
upright



2
semi-upright



3
arching

Ad. 2: Plant: number of current season's shoots

The number of current season's shoots should be considered as the number per metre length of the row before thinning for the first time observed in the beginning of the second year.

Ad. 8: Current season's cane: length of vegetative bud

Observations on the vegetative bud should be made in the middle third of the cane.



3
short



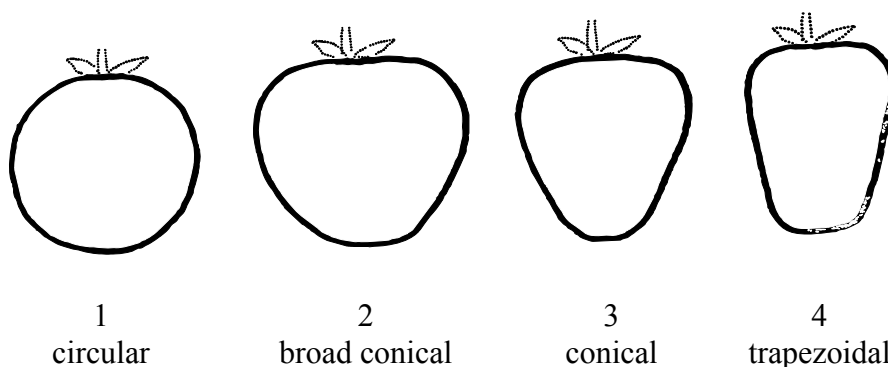
5
medium



7
long

Ad. 11: Varieties which fruit on previous year's cane in summer: Dormant cane: colour

If the cane peels, the dominant colour should be the colour of the bark in an unpeeled area.

Ad. 21: Leaf: relative position of lateral leafletsAd. 33: Fruit: general shape in lateral viewAds. 40, 42, 44, 46: Varieties which fruit on previous year's cane in summer:

Plant: time of vegetative bud burst (40)

Time of beginning of flowering on previous year's cane (42)

Time of beginning of fruit ripening on previous year's cane (44)

Length of fruiting period on previous year's cane (46)

These characteristics apply to all varieties which either fruit on previous season's cane in summer only, or which fruit on both previous season's cane in summer and on current season's cane in autumn.

LITERATURE

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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

Rubus ideaus L.

RASPBERRY

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, maintenance and reproduction of the variety

Please indicate breeding scheme, parents and other relevant information

Variety resulting from:

- (a) Crossing
 - (i) controlled cross (indicate parent varieties) []
 - (ii) partially unknown cross (indicate known parent varieties)..... []
 - (iii) totally unknown cross []
- (b) Mutation (indicate parent variety) []
- (c) Discovery (indicate where, when and how the variety has been developed): []
- (d) Other (please provide details) []

4.2 Method of propagation

- (a) Vegetative propagation
 - (i) in vitro propagation..... []
 - (ii) other (e.g. leaf cutting, hardwood cutting, layer)
(state method)..... []
- (b) Seed []
- (c) Other (please provide details)..... []

4.3 Virus status

- (a) The variety is free from all known viruses as follows
(indicate from which viruses) []
- (b) The plant material is virus tested
(indicate against which viruses)..... []
- (c) The virus status is unknown []

4.4 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 (2)	Plant: number of current season's shoots		
	few	Rubaca, Rucami	3 []
	medium	Glen Ample, Multiraspa, Rumiloba	5 []
	many	Glen Clova, Skeena	7 []
	very many	Summer	9 []
5.2 (3)	Very young shoot: anthocyanin coloration of apex during rapid growth		
	absent	Gelbe Antwerpener	1 []
	present	Malling Promise	9 []
5.3 (11)	Varieties which fruit on previous season's cane in summer: Dormant cane: colour		
	brownish grey	Malling Leo, Schönemann	1 []
	greyish brown	Malling Orion	2 []
	brown	Caliber, Glen Cova	3 []
	purplish brown	Festival, Malling Landmark	4 []
	brownish purple	Royalty, Titan	5 []
5.4 (12)	Spines: presence		
	absent	Glen Moy	1 []
	present	Malling Promise	9 []
5.5 (33)	Fruit: general shape in lateral view		
	circular	Malling Landmark, Ontario	1 []
	broad conical	Malling Orion, Meeker	2 []
	conical	Annamaria, Rafzmach	3 []
	trapezoidal	Gradina	4 []

	Characteristics	Example varieties	Note
5.6 (35)	Fruit: colour		
	yellow	Gelbe Antwerpener, Golden Bliss	1 []
	orange	Orange Marie	2 []
	light red	Malling Delight	3 []
	medium red	Glen Clova, Malling Orion	4 []
	dark red	Gigant, Schönemann, Zefa 2	5 []
	purple	Royalty	6 []
	dark purple	Deep Purple	7 []
5.7 (39)	Fruit: main bearing type		
	only on previous year's cane in summer	Malling Promise	1 []
	both on previous year's cane in summer and on current year's cane in autumn	Isabel	2 []
	only on current year's cane in autumn	Autumn Bliss	3 []
5.8 (44)	<u>Varieties which fruit on previous season's cane in summer:</u> Time of beginning of fruit ripening on previous season's cane		
	very early	Vene	1 []
	early	Glen Clova, Glen Moy, Rafzmach	3 []
	medium	Rusilva, Willamette	5 []
	late	Malling Landmark, Schönemann	7 []
	very late	Malling Leo	9 []
5.9 (45)	<u>Varieties which fruit on current season's cane in autumn:</u> Time of beginning of fruit ripening on current season's cane		
	very early	Ariadne	1 []
	early	Polana	3 []
	medium	Orange Marie, Watson	5 []
	late	Korbfüller	7 []
	very late	Baronne de Wavre	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
<hr/> <p>¹⁾ In the case of identical states of expressions of both varieties, please indicate the size of the difference</p>			
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 <input type="checkbox"/> YES, please specify <input type="checkbox"/> 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) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (b) Chemical treatment (e.g. growth retardant or pesticide) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (c) Tissue culture | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (d) Other factors | <input type="checkbox"/> Yes | <input type="checkbox"/> 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]