



EUROPEAN UNION

COMMUNITY PLANT VARIETY OFFICE

PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

***Ribes uva-crispa* L.**

GOOSEBERRY

UPOV Species Code: RIBES_UVA

Adopted on 18/11/2004

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/51/6 dated 07/10/1987 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies to fruit varieties of *Ribes uva-crispa* 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 of technical examination and sending of Technical Questionnaire by the CPVO as well as submission date, quantity and quality of plant material by the applicant can be found in the S2 supplement of the CPVO Official Gazette and the CPVO website (www.cpvo.europa.eu).

Quality of plants: As regards the health status, should not be less than the standards laid down in Council Directive 77/93/EEC, 92/34/EEC and 2000/29/EC. The plant material must be free from :

Insects, mites and nematodes at all stages of their development

- *Aphelenchoides* spp.
- *Cecidophyopsis ribis*
- *Synanthedon tipuliformis*

Bacteria

- *Agrobacterium tumefaciens*

Fungi

- *Armillaria mellea*
- *Drepanopeziza ribis*
- *Nectria cinnabarina*
- *Rosellinia necatrix*
- *Sphaeroteca mors -uvae*
- *Verticillium* spp.

Viruses and virus-like organisms, and in particular

- Black currant reversion
- Black currant infections variegation agent

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 gooseberry. 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) Shoot: prickles (characteristic 7)
- b) Fruit : colour (characteristic 27)

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 4 plants.

All observations should be made on 20 parts of 4 plants.

All observations on the whole plant should be made during the dormant season before pruning.

All observations on the prickles and bristles should be made on one year old shoots during the dormant season before pruning. Prickles should be counted on at least 1m of shoot.

All observations on the young shoot should be made after the beginning of growth on shoots of approximately 25 cm in length.

All observations on the young leaf should be made after the beginning of growth when the leaflets are about 2 cm wide and the shoots 3 to 5 cm long.

All observations on the mature leaf should be made at the stage of fruit maturity on the upper third of typical shoots.

All observations on the flower should be made at the time of full flowering.

All observations on the fruit should be made at the time when the fruit is physiologically ripe.

The description of the variety should be supplemented by a shadowgraph of 8 typical leaves.

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.

ANNEXES TO FOLLOW

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Legend:

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

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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. QN	1.	Plant: vigour	very weak	1
			weak	3
			medium	5
			strong	7
			very strong	9
2. QN	2.	Plant: density	very sparse	1
			sparse	3
			medium	5
			dense	7
			very dense	9
3. (+) PQ	3.	Plant: shape	obovoid	1
			globose	2
			transverse ellipsoid	3
4. QN	4.	Plant: attitude of one-year-old shoot	upright	3
			oblique	5
			horizontal	7
5. QN	5.	Plant: curvature of one-year-old shoot	very weak	1
			weak	3
			medium	5
			strong	7
			very strong	9

CPVO N°	UPOV N°	Characteristics	Examples	Note
6. QN	6.	Plant: number of basal shoots	few	Rote Triumph 3
			medium	Golden Lion 5
			many	Hönings Früheste 7
7. QL	7.	Shoot: prickles	absent	Captivator Mutchless, Pixwell, Spinefree 1
			present	9
8. QN	8.	Shoot: number of single prickles	none or very few	1
			few	3
			medium	5
			many	7
			very many	9
9. QN	9.	Shoot: number of double prickles	none or very few	1
			few	3
			medium	5
			many	7
			very many	9
10. QN	10.	Shoot: number of triple prickles	none or very few	1
			few	3
			medium	5
			many	7
			very many	9
11. QN	11.	Shoot: number of points of attachment of prickles	very few	1
			few	3
			medium	5
			many	7
			very many	9

CPVO N°	UPOV N°	Characteristics	Examples	Note
12. QN	12.	Shoot: number of points of attachment of prickles on upper third very few few medium many very many	 Mark	 1 3 5 7 9
13. QN	13.	Shoot: number of bristles on upper third none or very few few medium many very many	 Maiherzog Rote Orléans Werdersche Frühe Hönings Früheste	 3 5 7 9
14. QN	14.	Young shoot: anthocyanin coloration absent or very weak weak medium strong very strong	 Goliath Rote Triumph Risulfa Siloba	 1 3 5 7 9
15. QN	15.	Young leaf: green coloration very light light medium dark very dark	 Maiherzog Rote Frankfurter Resistentia Reverta	 1 3 5 7 9
16. QN	16.	Young leaf: anthocyanin coloration absent or very weak weak medium strong very strong	 Goliath Gelbe Triumph Weiße Triumph Risulfa	 1 3 5 7 9

CPVO N°	UPOV N°	Characteristics	Examples	Note
17. QN	17.	Fully developed leaf: size of blade	small medium large	Golde Gelbe Triumph Lady Delamere
18. (+) QN	18.	Fully developed leaf: angle of base of blade with petiole	very acute acute right angle obtuse very obtuse	Risulfa California Rote Orléans Lauffener Gelbe
19. QN	19.	Fully developed leaf: glossiness of upper side	weak medium strong	Maurers Sämling Rote Orléans Crown Bob
20. QL	20.	Inflorescence: predominant number of flowers	one two three more than three	1 2 3 4
21. QN	21.	Sepal: anthocyanin coloration	absent or very weak weak medium strong very strong	Spinefree Crown Bob Rote Triumph Reverta
22. QN	22.	Ovary: anthocyanin coloration	absent or very weak weak medium strong very strong	Rote Frankfurter Grüne Kugel Gelbe Triumph Reverta

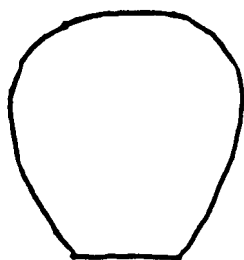
CPVO N°	UPOV N°	Characteristics		Examples	Note
23. QN	23.	Ovary: pubescence	absent or very weak	Rochusbeere	1
			weak	Oakmere	3
			medium	Dams Mistake	5
			strong	Starkls Mehлтаufreie	7
			very strong		9
24. QN	24.	Fruit: size	very small	Amerikanische Gebirgsstachelbeere	1
			small	Early Green	3
			medium	Gelbe Triumph	5
			large	Grüne Kugel	7
			very large	Catherina	9
25. QN	25.	Fruit: ratio length/width	small	Early Green	3
			medium	Rote Orléans	5
			large	Grüne Flaschenbeere	7
26. PQ	26.	Fruit: shape	globose	Bila	1
			ellipsoid	Weißer Volltragende	2
			pyriform	Grüne Flaschenbeere	3
27. PQ	27.	Fruit: colour	yellow	Golden Lion	1
			yellow green	Gelbe Triumph	2
			green with white tinge	Weißer Neckartaler	3
			green	Grüne Kugel	4
			red	Maiherzog, Remarka	5
28. QN	28.	Fruit: bloom	absent or very weak	Maiherzog	1
			weak	Weißer Triumph	3
			medium	Grüne Kugel	5
			strong	Resistentia	7
			very strong	Rochusbeere	9

CPVO N°	UPOV N°	Characteristics		Examples	Note
29. QN	29.	Fruit: hairiness	absent or very weak	Remarka	1
			weak	Bila	3
			medium	Golden Lion	5
			strong	Hönings Früheste	7
			very strong		9
30. QN	30.	Fruit: veining	weak	Mauks Frühe Rote	3
			medium	Gelbe Triumph	5
			strong	Rote Preis	7
31. QN	31.	Fruit: toughness of skin	weak	Mauks Frühe Rote	3
			medium	Gelbe Triumph	5
			strong	Rote Orléans	7
32. (+) QN	32.	Fruit: elongation of base	short	Maiherzog	3
			medium	Mark, Wendersche Frühe	5
			long	Weißer Kristall	7
33. (+) QN	33.	Peduncle: length	short	Maiherzog	3
			medium	Rote Orléans	5
			long	Maurers Sämling	7
34. QN	34.	Time of bud burst	very early	Bila	1
			early	Rote Frankfurter	3
			medium	Früheste von Neuwied	5
			late	Grüner Edelstein	7
			very late	Green Gem	9
35. QN	35.	Time of beginning of flowering	early	Maiherzog	3
			medium	Rote Triumph	5
			late	Rote Orléans	7

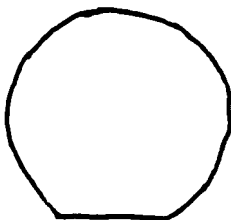
CPVO N°	UPOV N°	Characteristics	Examples	Note	
36. QN	36.	Time of fruit ripening	very early	Risulfa	1
			early	Mauks Frühe Rote	3
			medium	Rote Frankfurter	5
			late	Rote Orléans	7
			very late	Green Gem	9

EXPLANATIONS AND METHODS

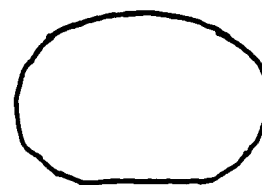
Ad. 3: Plant: Shape



1
obovoid

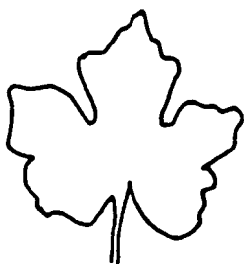


2
globose



3
transverse ellipsoid

Ad. 18: Fully developed leaf: angle of base of blade with petiole



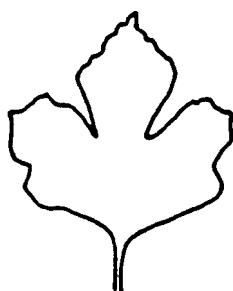
1
very acute



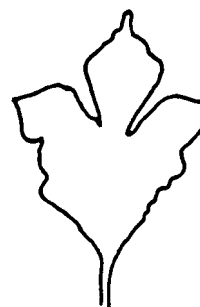
3
acute



5
right angle

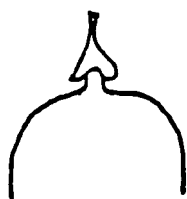


7
obtuse

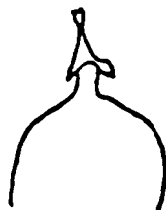


9
very obtuse

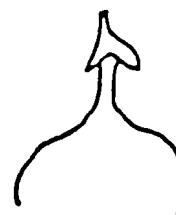
Ad. 32: Fruit: elongation of base



3
short

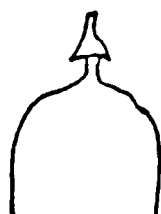


5
medium

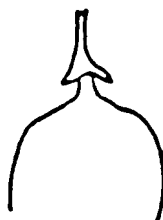


7
long

Ad. 33: Fruit: length of peduncle



3
short



5
medium



7
long

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

Ribes uva-crispa L.

GOOSEBERRY

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

- (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)
(indicate 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
5.1	Plant: shape	
(3)	obovoid	Hönings Früheste 1 []
	globose	Runde Gelbe 2 []
	transverse ellipsoid	Ingelheimer Rote 3 []
5.2	Shoot: prickles	
(7)	absent	Captivator Mutchless, Pixwell, Spinefree 1 []
	present	9 []

	Characteristics	Example varieties	Note
5.3 (24)	Fruit: size		
	very small	Amerikanische Gebirgstachelbeere	1 []
	small	Earky Green	3 []
	medium	Gelbe Triumph	5 []
	large	Grüne Kugel	7 []
	very large	Catherina	9 []
5.4 (26)	Fruit: shape		
	globose	Bila	1 []
	ellipsoid	Weiße Volltragende	2 []
	pyriform	Grüne Flaschenbeere	3 []
5.5 (27)	Fruit: colour		
	yellow	Golden Lion	1 []
	yellow green	Gelbe Triumph	2 []
	green with white tinge	Weiße Neckartaler	3 []
	green	Grüne Kugel	4 []
	red	Maiherzog, Remarka	5 []
5.6 (36)	Time of fruit ripening		
	very early	Risulfa	1 []
	early	Mauks Frühe Rote	3 []
	medium	Rote Frankfurter	5 []
	late	Rote Orléans	7 []
	very late	Green Gem	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]