European Union
Community Plant Variety Office

PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

***Rhododendron* L.**

RHODODENDRON

UPOV Species Code: RHODD

Adopted on 1st December 2005

I - SUBJECT OF THE PROTOCOL

The protocol describes the technical procedures to be followed in order to meet the requirement of 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/42/6 dated 20/10/1995 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies to all vegetatively propagated varieties of ***Rhododendron* L.**, except *Rhododendron simsii* Planch. and other pot azalea varieties of the family *Ericaceae*.

II - SUBMISSION OF 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.

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. If no or unsatisfactory plant material is submitted the CPVO should be informed as soon as possible.

3. Plant material requirements:

   Information with respect to closing dates and submission requirements of plant material for the technical examination of varieties can be found on the CPVO website (www.cpvo.europa.eu) and in the special Issue S2 of the Official Gazette of the Office published yearly in the month of September.

Quality:	The plant material supplied should be visibly healthy, not lacking in vigour or affected by any important pest or disease, especially virus. 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 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 reference 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.

It is the responsibility of Examination Office to keep the variety collection up to date.

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.

3. Characteristics to be used:

The characteristics to be used in DUS tests and preparation of descriptions shall be those referred to in 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 later 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 expressions 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 are the following:

(a) Plant: persistence of leaves: (characteristic 1)

(b) Corolla lobe: colour of middle of upper side (characteristic 26)

(c) Time of beginning of flowering (characteristic 34)

5. Trial designs and growing conditions:

The minimum duration of tests will normally be one growing cycle if the results on distinctness and uniformity are conclusive. 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:

As a minimum, each test should include a total of 6 plants. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

All observations on single plants for vegetatively propagated varieties determined by measurement or counting should be made on 3 plants or parts taken from each of 3 plants and any other observations made on all plants in the test.

All observation on the flower colour should be made on 6 plants during full flowering.

All observations on the young leaf should be made on leaves of the current season's shoot as soon as they have reached full size.

All observations on the mature leaf should be made in autumn on the second leaf below the terminal bud at the time of end of growth.

The test should normally be conducted at two places (at the first place all measurements should be taken). The second place is used to observe distinctness, since the living reference collection is present there.

The test should be carried out in the open, under conditions ensuring normal growth.

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

For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% with an acceptance probability of at least 95% should be applied.

For a sample size between 6 and 35 plants for vegetatively propagated varieties, only 1 off-type is allowed.

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 growing cycle 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 one growing cycle but in some cases two or more growing cycles 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 and final report shall be sent by the Examination Office to the CPVO.

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ANNEXES TO FOLLOW

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(+) See explanations on the Table of characteristics

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Technical questionnaire

ANNEX I
TABLE OF CHARACTERISTICS

CPVO N°	UPOV N°	Characteristics		Examples	Note
1.	**1.**	**Plant: persistence of leaves**			
			deciduous	Annabella	1
			evergreen	Feuerschein	2
2.	**2.**	**Plant: growth habit**			
			very narrow bushy	Rosa Regen	1
			narrow bushy	Dr. H.C. Dresselhuys	3
			medium bushy		5
			broad bushy	Brigitte	7
			very broad bushy	Böhlje's Sämling	9
3.	**3.**	**Terminal inflorescence bud: shape**			
			narrow elliptic	Kokardia	3
			elliptic	Feuerschein	5
			broad elliptic	Goldkrone	7
4.	**4.**	**Young leaf: bloom on <u>upper</u> side**			
			absent or very weak		1
			weak	August Lamken	3
			medium	Brigitte	5
			strong	Sneezy	7
			very strong		9
5.	**5.**	**Young leaf: anthocyanin coloration of <u>upper</u> side**			
			absent or very weak		1
			weak	Berlin	3
			medium	Willbritt	5
			strong	Annabella	7
			very strong		9

CPVO N°	UPOV N°	Characteristics		Examples	Note
6.	**6.**	**Mature leaf: colour of <u>upper</u> side**			
			yellow green	Caractus	1
			light green	Ludwig Leopold Liebig	2
			medium green		3
			dark green	Nova Zembla	4
			blue green		5
			reddish green		6
7.	**7.**	**Mature leaf: colour of <u>lower</u> side**			
			whitish green	King's Ride	1
			light green	Mrs. William Agnew	2
			medium green	Mrs. William Watson	3
			dark green		4
			blue green	Schlaraffia	5
			light brown	Katinka	6
			reddish brown	Rosvallon	7
			dark brown	Grumpy	8
8.	**8.**	**Mature leaf: length including petiole**			
			short	Bambi	3
			medium	Annica Bricogne	5
			long	White Cloud	7
9.	**9.**	**Mature leaf: width**			
			narrow	Rosa Perle	3
			medium	Lugano	5
			broad	White Campanula	7

CPVO N°	UPOV N°	Characteristics		Examples	Note
10.	**10.**	**Mature leaf: shape of blade**			
			slightly ovate	August Lamken	1
			strongly ovate		3
			elliptic	Kokardia	5
			slightly obovate		7
			strongly obovate		9
11.	**11.**	**Mature leaf: shape of cross section of blade**			
			strongly concave		1
			strongly concave to concave		2
			concave	Kokardia	3
			concave to straight		4
			straight	Goldkrone	5
			straight to convex		6
			convex	Graf Zeppelin	7
			convex to strongly convex		8
			strongly convex		9
12.	**12.**	**Mature leaf: glossiness of <u>upper</u> side**			
			absent or very weak		1
			weak		3
			medium	Brigitte	5
			strong	Party Glanz	7
			very strong		9

CPVO N°	UPOV N°	Characteristics		Examples	Note
13.	**13.**	**Inflorescence: number of flowers**			
			few	Rödhätte	3
			medium	Maruschka	5
			many	Pierre Moser	7
14.	**14.**	**<u>Varieties with more than 6 flowers per inflorescence only</u>: Inflorescence: shape**			
			flat		1
			slightly domed		2
			strongly domed		3
			conical		4
15.	**15.**	**Pedicel: length**			
			short		3
			medium	Kokardia	5
			long	Goldkrone	7
16.	**16.**	**Pedicel: colour on sunny side**			
			yellow green		1
			light green		2
			dark green		3
			red green		4
			bronze		5
			red		6
			purple		7
17.	**17.**	**Calyx: presence**			
			absent		1
			present		9

CPVO N°	UPOV N°	Characteristics		Examples	Note
18.	**18.**	**Calyx lobes: length of longest**			
			short		3
			medium	Tarantella	5
			long	Gomer Waterer	7
19. (+)	**19. (+)**	**Flower: shape**			
			wide funnel-shaped	Germania, Helga	1
			open funnel-shaped	Kokardia, Viscy	2
			funnel-shaped	Dr. H.C. Dresselhuys	3
			ventricose-funnel-shaped	Gartendirektor Glocker	4
			tubular funnel-shaped		5
			open funnel-campanulate		6
			wide funnel-campanulate	Abendsonne	7
			campanulate		8
			tubular campanulate		9
20.	**20.**	**Flower: diameter**			
			very narrow		1
			narrow	Lavender Queen	3
			medium	Tarantella	5
			broad	Mother of Pearl	7
			very broad	Loderi Venus	9
21.	**21.**	**Flower: fragrance**			
			absent or very weak	Belle Fontaine	1
			weak	Duchess of York	3
			medium	Saba	5
			strong	Calfort	7
			very strong	Sir Charles Butler	9

CPVO N°	UPOV N°	Characteristics		Examples	Note
22.	**22.**	**Flower: type**			
			single	Erato	1
			double	Madame J. Moser	2
23.	**23.**	**Varieties with double corolla only: Flower: number of petals**			
			few	Double Date	3
			medium	Fastuosum Flore Pleno	5
			many	Madame J. Moser	7
24.	**24.**	**Corolla lobes: undulation of margin**			
			absent or very weak		1
			weak	Allotria	3
			medium	Dr. A. Blok	5
			strong	Lavender Queen	7
			very strong	Passion	9
25.	**25.**	**Corolla lobe: colour of margin of upper side**	RHS Colour Chart (indicate reference number)		
26.	**26.**	**Corolla lobe: colour of middle of upper side**	RHS Colour Chart (indicate reference number)		
27.	**27.**	**Corolla lobe: colour of middle of lower side**	RHS Colour Chart (indicate reference number)		

CPVO N°	UPOV N°	Characteristics		Examples	Note
28.	**28.**	**Corolla lobe: conspicuousness of markings of the throat**			
			absent or very weak	Helene Schiffner	1
			weak	Tarantella	3
			medium	Humbolt	5
			strong	Kokardia	7
			very strong	James Nasmyth	9
29.	**29.**	**Corolla lobe: type of markings**			
			spots not touching each other	Anilin, Feuerschein	1
			spots touching each other	Belkanto	2
			blotches surrounded by spots	Kokardia	3
			one blotch only	Madame Linden	4
30.	**30.**	**Corolla lobe: colour of markings**			
			RHS Colour Chart (indicate reference number)		
31.	**31.**	**Anthers: colour**			
			white	Cunningham's White	1
			yellow	Madame Fr. J. Chauvin	2
			green		3
			red		4
			brown	Goldbukett	5
			purple	Mademoiselle Marie van Houtte	6
			violet	Madame Linden	7
			black	Taunus	8

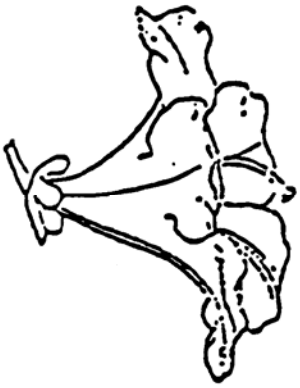
CPVO N°	UPOV N°	Characteristics		Examples	Note
32.	**32.**	**Pistil: length in comparison with stamens**			
			shorter	Nicoletta	1
			equal	Haaga	2
			longer	Gomer Waterer	3
33.	**33.**	**Pistil: colour of stigma**			
			white		1
			yellow	Madame Fr. J. Chauvin	2
			green	Gartendirektor Glocker	3
			red		4
			purple	Roseum Elegans	5
			brown	Belkanto	6
34.	**34.**	**Time of beginning of flowering**			
			very early		1
			early	Cunningham’s White	3
			medium		5
			late	Belkanto	7
			very late	Erato	9

EXPLANATIONS ON THE TABLE OF CHARACTERISTICS

Ad. 19[*)]: Flower: shape

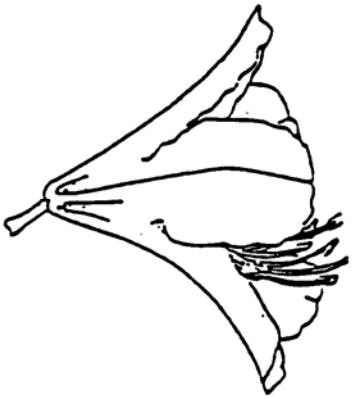
1

wide funnel-shaped



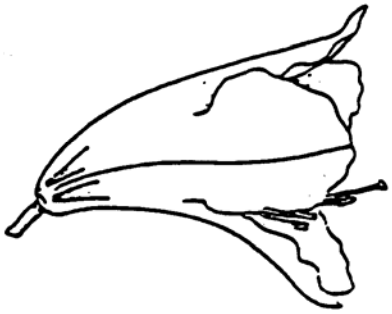
2

open funnel-shaped



3

funnel-shaped



4

ventricose-funnel-shaped

5

tubular funnel-shaped

6

open funnel-campanulate

7	8	9
wide funnel-campanulate	campanulate	tubular campanulate

*) Drawings reproduced and adapted from "Flower shapes of Lepidote and Elepidote Rhododendrons, The Rhododendron Species, H.H. Davidian, 1982," with the kind permission of B.T. Batsford Ltd, London & Timber Press Inc., Portland, Oregon

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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

***Rhododendron* L.**

RHODODENDRON
(except *Rhododendron simsii* Planch. and other pot azalea varieties of the familiy *Ericaceae)*

Species (indicate) **…….**

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 Origin

(a) Seedling (indicate parent varieties) ..... [ ]

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(b) Mutation (indicate parent variety) ..... [ ]

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(c) Discovery (indicate where, when and how the variety has been developed):..... [ ]

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.....

(d) Other (please specify) ..... [ ]

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4.2 Method of propagation

(a) Cuttings ..... [ ]

(b) *In vitro* propagation ..... [ ]

(c) Seed ..... [ ]

(d) Grafting (indicate rootstock used) ..... [ ]

.....
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(e) Other (please specify): ..... [ ]

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4.3 Other information

In the case of seed propagated varieties: method of production:

(a) Self-pollinated ..... [ ]

(b) Cross-pollinated (please give details) ..... [ ]

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.....

(c) Hybrid (please give details) ..... [ ]

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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 (1)	**Plant: persistence of leaves**		
	deciduous	Annabella	1 [ ]
	evergreen	Feuerschein	2 [ ]
5.2 (19)	**Flower: shape**		
	wide funnel-shaped	Germania, Helga	1 [ ]
	open funnel-shaped	Kokardia, Viscy	2 [ ]
	funnel-shaped	Dr. H.C. Dresselhuys	3 [ ]
	ventricose-funnel-shaped	Gartendirektor Glocker	4 [ ]
	tubular funnel-shaped		5 [ ]
	open funnel-campanulate		6 [ ]
	wide funnel-campanulate	Abendsonne	7 [ ]
	campanulate		8 [ ]
	tubular campanulate		9 [ ]
5.3 (20)	**Flower: diameter**		
	very narrow		1 [ ]
	narrow	Lavender Queen	3 [ ]
	medium	Tarantella	5 [ ]
	broad	Mother of Pearl	7 [ ]
	very broad	Loderi Venus	9 [ ]
	Please fill in point (i) if possible, otherwise point (ii)		
5.4 (i) (26)	**Corolla lobe: colour of <u>middle</u> of <u>upper</u> side**		
	RHS Colour Chart (indicate reference number)		
	……		

Characteristics		Example varieties	Note
5.4 (ii) (26)	**Corolla lobe: colour of <u>middle</u> of <u>upper</u> side**		
	white		1 [ ]
	yellow		2 [ ]
	pink		3 [ ]
	red		4 [ ]
	violet		5 [ ]
	other colour (indicate)		6 [ ]
5.5 (34)	**Time of beginning of flowering**		
	very early		1 [ ]
	early	Cunningham's White	3 [ ]
	medium		5 [ ]
	late	Belkanto	7 [ ]
	very late	Erato	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”:

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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

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