

UPOV

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

POT AZALEA

UPOV Code: RHODD_SIM
and linked hybrid codes*Rhododendron simsii* Planch.
and its hybrids

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by an expert from Germany**to be considered by the
Technical Working Party for Ornamental Plants and Forest Trees
at its thirty-eighth session,
to be held in Seoul, Republic of Korea, from September 12 to 16, 2005*

Alternative Names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Rhododendron simsii</i> Planch.	Pot Azalea	Azalée en pot	Topfazalee	

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

Other associated UPOV documents: TG/42 (Rhododendron)

* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website (www.upov.int), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Rhododendron simsii* Planch., as well as to hybrids between that species and other species of *Rhododendron* L.

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of potted plants, pinched twice.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

30 plants

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 *Number of Growing Cycles*

The minimum duration of tests should normally be a single growing cycle.

3.2 *Testing Place*

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 "Examining Distinctness".

3.3 *Conditions for Conducting the Examination*

3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination. The optimum stage of development for the assessment of the characteristics is at the time of full flowering, when half of the flowers per plant are fully open.

3.3.2 Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 30 plants.

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

3.5 *Number of Plants / Parts of Plants to be Examined*

Unless otherwise indicated, all observations on single plants should be made on 10 plants or parts taken from each of 10 plants and any other observations made on all plants in the test.

3.6 *Additional Tests*

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.2 *Uniformity*

4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.2.2 For the assessment of uniformity a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 30 plants, 2 off-types are allowed.

4.3 *Stability*

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be tested, either by growing a further generation, or by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

- (a) Flower: type of corolla (characteristic 14)
- (b) Corolla lobe: color of middle of inner side (characteristic 17) with the following groups:
 - Gr. 1: white
 - Gr. 2: light pink
 - Gr. 3: medium pink
 - Gr. 4: dark pink
 - Gr. 5: orange red
 - Gr. 6: light red
 - Gr. 7: medium red
 - Gr. 8: purple
 - Gr. 9: violet
- (c) Time of beginning of flowering (characteristic 25)

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

6. Introduction to the Table of Characteristics

6.1 *Categories of Characteristics*

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 *States of Expression and Corresponding Notes*

States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.3 *Types of Expression*

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 *Example Varieties*

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

6.5 *Legend*

(*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3

QN Quantitative characteristic – see Chapter 6.3

PQ Pseudo-Qualitative characteristic – see Chapter 6.3

(+) See Explanations on the Table of Characteristics in Chapter 8.2.

7. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. (+)	Young leaf: color of upper side		Junges Blatt: Farbe der Oberseite			
PQ	yellow green		gelbgrün			1
	light green		hellgrün			2
	medium green		mittelgrün			3
	dark green		dunkelgrün			4
	red green		rotgrün			5
	blue green		blaugrün			6
2. (*)	Mature leaf: length (including petiole)		Ausgewachsenes Blatt: Länge (einschließlich Stiel)			
QN	short		kurz			3
	medium		mittel			5
	long		lang			7
3. (*)	Mature leaf: width		Ausgewachsenes Blatt: Breite			
QN	narrow		schmal			3
	medium		mittel			5
	broad		breit			7
4. (*)	Mature leaf: shape		Ausgewachsenes Blatt: Form			
QL	obovate		verkehrt eiförmig			1
	elliptic		elliptisch			2
5. (*)	Mature leaf: color of <u>upper</u> side		Ausgewachsenes Blatt: Farbe der <u>Ober</u>seite			
PQ	light green		hellgrün			1
	medium green		mittelgrün			2
	dark green		dunkelgrün			3
	reddish green		rötlichgrün			4
	blue green		blaugrün			5

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6. (*)	Mature leaf: color of <u>lower</u> side		Ausgewachsenes Blatt: Farbe der <u>Unterseite</u>			
PQ	light green		hellgrün			1
	medium green		mittelgrün			2
	dark green		dunkelgrün			3
	blue green		blaugrün			4
7. (*)	Inflorescence: number of flowers		Blütenstand: Anzahl der Blüten			
QN	few		gering			3
	medium		mittel			5
	many		groß			7
8.	PediceL: length		Blütenstiel: Länge			
QN	short		kurz			3
	medium		mittel			5
	long		lang			7
9. (*)	Calyx: presence		Kelch: Vorhandensein			
QL	absent		fehlend			1
	present		vorhanden			9
10. (+)	Calyx: formation of a corolla form		Kelch: Bildung einer Kronenform			
QN	absent or very weak		fehlend oder sehr gering			1
	weak		gering			3
	medium		mittel			5
	strong		stark			7
	very strong (hose in hose)		sehr stark			9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11. (*)	Flower: diameter		Blüte: Durchmesser			
QN	very small		sehr klein			1
	small		klein			3
	medium		mittel			5
	large		groß			7
	very large		sehr groß			9
12. (+)	Flower: shape		Blüte: Form			
PQ	wide funnel-shaped		breite Trichterform			1
	open funnel-shaped		offene Trichterform			2
	medium funnel-shaped		Trichterform			3
	ventricose funnel-shaped		bauchige Trichterform			4
	narrow funnel-campanulate		schmale Trichter-Glockenform			5
	wide funnel-campanulate		breite Trichter-Glockenform			6
	medium campanulate		Glockenform			7
13.	Flower: fragrance		Blüte: Duft			
QN	absent or weak		fehlend oder sehr gering			1
	medium		mittel			2
	strong		stark			3
14. (*)	Flower: type of corolla		Blüte: Typ der Krone			
QL	single		einfach			1
	double		gefüllt			2

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
15.	<u>Only varieties with double corolla:</u>		<u>Nur Sorten mit gefüllter Krone:</u>			
	Flower: number of petals		Blüte: Anzahl der Blütenblätter			
QN	few		gering			3
	medium		mittel			5
	many		groß			7
16. (*)	Corolla lobe: color of margin of <u>inner</u> side		Kronzipfel: Farbe des Randes der <u>Innenseite</u>			
PQ	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			
17. (*)	Corolla lobe: color of middle of <u>inner</u> side		Kronzipfel: Farbe der Mitte der <u>Innenseite</u>			
PQ	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			
18.	Corolla lobe: color of middle of <u>outer</u> side		Kronzipfel: Farbe der Mitte der <u>Außenseite</u>			
PQ	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			
19. (*)	Corolla lobe: undulation of margin		Kronzipfel: Randwellung			
QN	absent or very weak		fehlend oder sehr gering			1
	weak		gering			3
	medium		mittel			5
	strong		stark			7
	very strong		sehr stark			9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20. (*)	Flower throat: conspicuousness of markings		Blütenschlund: Ausprägung der Zeichnung			
QN	absent or very weak		fehlend oder sehr gering			1
	weak		gering			3
	medium		mittel			5
	strong		stark			7
	very strong		sehr stark			9
21.	Flower throat: type of markings		Blütenschlund: Art der Zeichnung			
PQ	spots not touching each other		Punkte nicht ineinander fließend			1
	spots touching each other		Punkte ineinander fließend			2
	blotches surrounded by spots		Flecke umgeben von Punkten			3
	one blotch only		nur ein Fleck			4
22.	Flower throat: color of markings		Blütenschlund: Farbe der Zeichnung			
PQ	yellow green		gelbgrün			1
	red		rot			2
	brown red		braunrot			3
	violet		violett			4
23. (*)	Flower throat: color compared to color of inner side of corolla lobe		Blütenschlund: Farbe im Vergleich zur Farbe der Mitte der <u>Innenseite</u> der Kronzipfel			
QN	lighter		heller			1
	same color		gleichfarbig			2
	darker		dunkler			3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24.	Anther: color		Anthere: Farbe			
PQ	yellow		gelb			1
	light brown		hellbraun			2
	dark brown		dunkelbraun			3
	violet		violett			4
	purple		purpurn			5
25. (* (+)	Time of beginning of flowering		Zeitpunkt des Blühbeginns			
QN	very early		sehr früh			1
	early		früh			3
	medium		mittel			5
	late		spät			7
	very late		sehr spät			9

8. Explanations on the Table of Characteristics

Ad. 1: Young leaf: color of upper side

To be observed on the fully developed leaf of the shoot grown after the last pinching.

Ad. 10: Calyx: formation of a corolla form

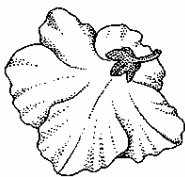
The sepals may be enlarged and transformed gradually into petals:

Note 1 Calyx consists of green sepals (normal calyx) or one or more sepals are transformed slightly into colored petals - like segments.

Note 5 Calyx consists of sepals transformed into petals - like segments of medium size (half the size of the petals).

Note 9 Calyx and corolla have the same shape and colour and give the impression of a corolla superimposed onto another (hose- in - hose flower).

Notes 2 to 4 and 6 to 8 cover the intermediate states of transformation.



1
absent or very weak



3
weak



5
medium

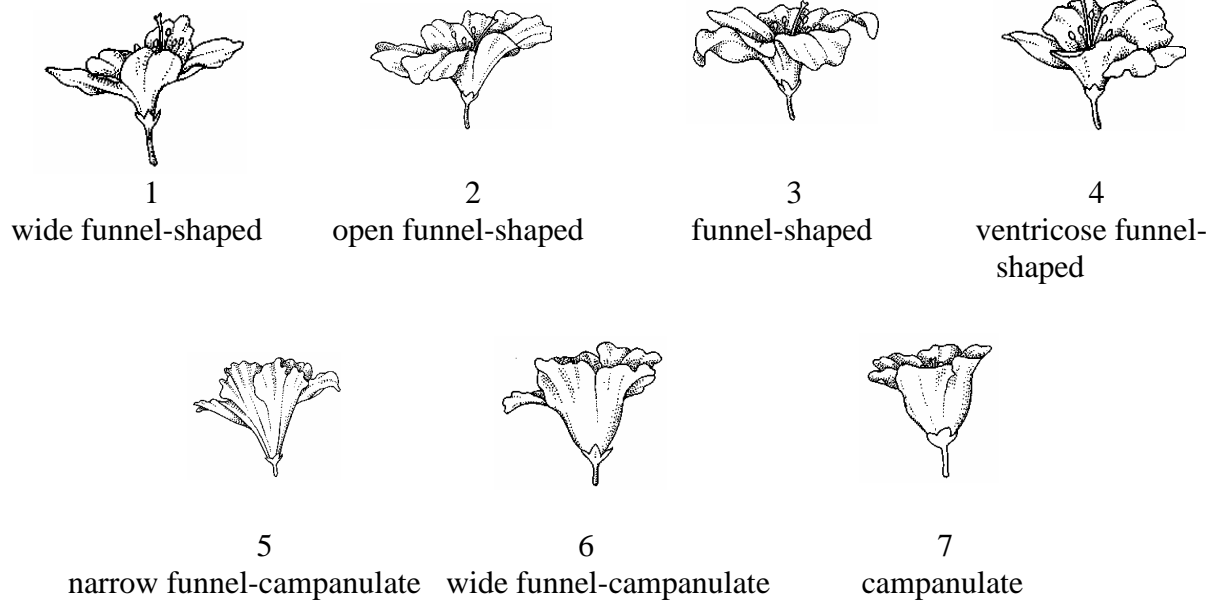


7
strong



9
very strong

Ad. 12: Flower: shape



Ad. 25: Time of beginning of flowering

The time of flowering is when 50% of the plants have at least one flower fully open.

9. Literature

Vogel, H., 1982: Azaleen, Eriken, Kamelien. Verlag Paul Parey, Berlin und Hamburg.

Struppek, G., 1983: Treibfibel, Wegweiser für die Treiberei von Topfazaleen. Lehr- und Versuchsanstalt Bad Zwischenahn.

Bundessortenamt, 2000: Beschreibende Sortenliste Topfazalee. 2. Auflage, Deutscher Landwirtschaftsverlag, Hannover.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights		
1. Subject of the Technical Questionnaire		
1.1.1 Botanical name	<input type="text" value="Rhododendron simsii Planch."/>	[]
1.1.2 Common name	<input type="text" value="Pot Azalea"/>	
Hybrid: please indicate name(s) of species used in the crossing		
1.2.1 Botanical name(s)	<input type="text"/>	[]
1.2.2 Common name	<input type="text"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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3. Proposed denomination and breeder's reference

Proposed denomination
(if available)

Breeder's reference

#4. Information on the breeding scheme and propagation 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(ies))

(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)"

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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4.2 Method of propagating the variety

4.2.1 Vegetative propagation

- (a) cuttings
- (b) *in vitro* propagation
- (c) other (state method)

4.2.2 Seed

4.2.3 Other
(please provide details)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

Characteristics	Example Varieties	Note
5.1 Flower: shape		
(12) wide funnel-shaped		1 []
open funnel-shaped		2 []
medium funnel-shaped		3 []
tubular funnel-shaped		4 []
open funnel-campanulate		5 []
wide funnel-campanulate		6 []
medium campanulate		7 []
5.2 Flower: type of corolla		
(14) single		1 []
double		2 []
5.3i Corolla lobe: colour of margin of <u>inner</u> side		
(16)		
RHS Colour Chart (indicate reference number)	
5.3ii Corolla lobe: colour of margin of <u>inner</u> side		
(16)		
white		1 []
light pink		2 []
medium pink		3 []
dark pink		4 []
orange red		5 []
light red		6 []
medium red		7 []
purple		8 []
violet		9 []
other color (indicate)	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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5.4i Corolla lobe: colour of middle of <u>inner</u> side (17)	
RHS Colour Chart (indicate reference number)
5.4ii Corolla lobe: colour of middle of <u>inner</u> side (17)	
white	1[]
light pink	2[]
medium pink	3[]
dark pink	4[]
orange red	5[]
light red	6[]
medium red	7[]
purple	8[]
violet	9[]
other color (indicate) 10[]
5.5 Time of beginning of flowering (25)	
very early	1[]
early	3[]
medium	5[]
late	7[]
very late	9[]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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6. Similar varieties and differences from these varieties

Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>(Example)</i>	<i>Corolla lobe: color of middle of inner side</i>	<i>white</i>	<i>light pink</i>

#7. Additional information which may help in the examination of the variety

7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?

Yes [] No []

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [] No []

(If yes, please provide details)

7.3 Other information

A representative color photograph of the variety should accompany the Technical Questionnaire.

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes [] No []

(b) Has such authorization been obtained?

Yes [] No []

If the answer to (b) is yes, please attach a copy of the authorization.

9. Information on plant material to be examined or submitted for examination.

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

Please provide details for where you have indicated "yes".

.....

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature Date