

**UPOV**

**TG/ZINNIA(proj.2)**

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**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**

Geneva

**DRAFT**

**ZINNIA**

(UPOV Code: ZINNI)

*Zinnia* L.

**GUIDELINES**

**FOR THE CONDUCT OF TESTS**

**FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

*prepared by an expert from Mexico*

*to be considered by the*

*Technical Working Party for Ornamental Plants and Forest Trees  
at its forty-fifth session, to be held in Jeju, Republic of Korea, from August 6 to 10, 2012*

Alternative Names:\*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Zinnia</i> sp. Jacq	Zinnia	Zinnia	Zinnia	Miguelito, Carolina

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.

\* 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](http://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 *Zinnia* 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 seeds.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be a sufficient quantity of seeds to produce 40 plants.

The seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should, be stated by the applicant.

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. In particular, unless otherwise indicated, all observations should be made at the time of full flowering of main head.

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. The color chart and version used should be specified in the variety description.

### 3.4 *Test Design*

3.4.1 In the case of seed-propagated varieties, each test should be designed to result in a total of at least 40 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 *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.

#### 4.1.4 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test, disregarding any off-type plants.

#### 4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 "Examining Distinctness", Section 4 "Observation of characteristics"):

MG: single measurement of a group of plants or parts of plants

MS: measurement of a number of individual plants or parts of plants

VG: visual assessment by a single observation of a group of plants or parts of plants

VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

"Visual" observation (V) is an observation made on the basis of the expert's judgment. For the purposes of this document, "visual" observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual

plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.”

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

#### 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 The assessment of uniformity for seed-propagated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.

#### 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 further examined by testing a new seed stock to ensure that it exhibits the same characteristics as those shown by the initial 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) Plant: height (characteristic 1)
- (b) Plant: growth habit (characteristic 2)
- (c) Flower head: type (characteristic 14)
- (d) Ray floret: Only varieties with one color: main color of inner side (characteristic 23)  
with the following groups:

- Gr. 1: white
- Gr. 2: green
- Gr. 3: yellow
- Gr. 4: orange
- Gr. 5: pink
- Gr. 6: red

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

## 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*

6.2.1 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.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	Note
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 "Development of Test Guidelines".

### 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*

- (\*) Asterisk 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
  
- MG, MS, VG, VS – see Chapter 4.1.5
  
- (a)-(e) See Explanations on the Table of Characteristics in Chapter 8.1”
  
- (+) 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 Beispielsorten Variedades ejemplo	Note/ Nota
<b>1.</b>	<b>VG/ MS</b>	<b>Plant: height</b>		<b>Planta: altura</b>		
<b>QN</b>	short			pequeña	Pepermint	3
	medium			media	Witworna	5
	tall			grande	Inca	7
<b>2.</b>	<b>VG (* (+)</b>	<b>Plant: growth habit</b>		<b>Planta: porte</b>		
<b>PQ</b>	upright			erecto	Pepermint	1
	semi upright			semierecto	Profusion	2
	spreading			abierto	Solcito	3
<b>3.</b>	<b>VG (* (+)</b>	<b>Plant: branching</b>		<b>Planta: ramificación</b>		
<b>QN</b>	absent or weak			ausente o débil	Witworna	1
	medium			media	Pepermint	2
	strong			fuerte	Profusion	3
<b>4.</b>	<b>VG (* (+)</b>	<b>Stem: anthocyanin coloration</b>		<b>Tallo: pigmentación antociánica</b>		
<b>QN</b>	absent or very weak			ausente o muy débil	Dreamland	1
	weak			débil	Lilliput	3
	medium			medio	Profusion	5
	strong			fuerte	Arcos	7
<b>5.</b>	<b>VG (* (+)</b>	<b>Stem: density of pubescence</b>		<b>Tallo: densidad de pubescenci</b>		
<b>QN</b>	absent or very sparse			ausente o muy escaso	Zahara	1
	sparse			escaza	Zestr	2
	medium			media	Uproar	3
	dense			densa	Short Stuff	4



	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>6.</b>	<b>VG</b>	<b>Leaf: shape</b>		<b>Hoja: forma</b>		
<b>(*)</b>						
<b>(+)</b>						
<b>PQ</b>		lanceolate		lanceolada		1
		oblanceolate		oblanceolada		2
		narrow ovate		ovada estrecha		3
		ovate		ovada		4
<b>7.</b>	<b>VG/ MS</b>	<b>Leaf: length</b>		<b>Hoja: longitud</b>		
<b>(*)</b>						
<b>QN</b>		short		corta		1
		medium		media		2
		long		larga		3
<b>8.</b>	<b>VG/ MS</b>	<b>Leaf: width</b>		<b>Hoja: anchura</b>		
<b>(*)</b>						
<b>QN</b>		narrow		estrecha		1
		medium		media		2
		broad		ancha		3
<b>9.</b>	<b>VG</b>	<b>Leaf: profile in cross section</b>		<b>Hoja: perfil en sección transversal</b>		
<b>(*)</b>						
<b>(+)</b>						
<b>QN</b>		flat		plano		1
		moderately concave		moderadamente cóncavo		2
		strongly concave		fuertemente cóncavo		3
<b>10.</b>	<b>VG</b>	<b>Leaf: undulation of margin</b>		<b>Hoja: ondulación del margen</b>		
<b>QN</b>		absent or very weak		ausente o muy débi		1
		medium		medio		2
		strong		fuerte		3
<b>11.</b>	<b>VG</b>	<b>Leaf: intensity of green color</b>		<b>Hoja: intensidad del color verde</b>		
<b>QN</b>		very light		muy claro		1
		light		claro		2
		medium		medio		3
		dark		oscuro		4
		very dark		muy oscuro		5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
12.	VG (* (+)	Leaf: anthocyanin coloration at the base			Hoja: coloración antociánica en la base		
QN		absent or very weak			ausente o muy débil		1
		weak			débil		2
		medium			medio		3
		strong			fuerte		4
13.	VG/ MS (+)	Peduncle: length			Pedúnculo: longitud		
QN		short			corto	Zahara	3
		medium			medio	Wytworna	5
		long			largo	Uproar	7
14.	VG (* (+)	Flower head: type			Capítulo: tipo		
PQ		single			sencillo	Star	1
		semi double			semidoble	Zowie	2
		double			doble	Lilliput	3
15.	VG	<u>Only varieties with double flower head:</u> Flower head: density			<u>Únicamente variedades con capítulo doble:</u> Capítulo: densidad		
QN		sparse			escaso	Thumbelina	3
		medium			medio	Short Stuff	5
		dense			denso	Uproar	7
16.	QN	Only varieties with single or semi-double flower head: Flower head: number of ray florets			Únicamente variedades con capítulo simple o semidoble: Capítulo: número de flores liguladas		
MS		few			pocas	Star	3
		medium			media	Zahara	5
		many			muchas	Zowie	7
17.	MS	Flower head: diameter			Capítulo: diámetro		
QN		small			pequeño	Lilliput	3
		medium			medio	Oklahoma	5
		large			grande	Inca	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>18.</b>	<b>VG</b>	<b>Ray floret: shape</b>			<b>Flor ligulada: forma</b>		
	<b>(+)</b>						
<b>PQ</b>		elliptic			elíptica	Zahara	1
		narrow obovate			obovada estrecha	Zowie	2
		medium obovate			obovada media	Short Stuff	3
		broad obovate			obovada amplia	Zinnita	4
<b>19.</b>	<b>VG</b>	<b>Ray floret: profile in cross section</b>			<b>Flor ligulada: perfil en sección transversal</b>		
	<b>(+)</b>						
<b>QN</b>		concave			cóncavo		1
		flat			plano		2
		convex			convexo		3
		strongly concave			fuerte cóncavo		4
<b>20.</b>	<b>VG</b>	<b>Ray floret: shape of the apex</b>			<b>Flor ligulada: forma del ápice</b>		
	<b>(*)</b>						
	<b>(+)</b>						
<b>PQ</b>		flat			plano		1
		rounded			redondo		2
		acuminate			acuminado		3
<b>21.</b>	<b>VG</b>	<b>Ray floret: Apex: depth of indentation</b>			<b>Flor ligulada: Apice: profundidad de la indentación</b>		
	<b>(*)</b>						
	<b>(+)</b>						
<b>QN</b>		shallow			superficial		
		medium			medio	Profusion	
		deep			profundo	Zinnita	
<b>22.</b>	<b>VG/ MS</b>	<b>Ray floret: length</b>			<b>Flor ligulada: longitud</b>		
<b>QN</b>		short			corta	Lilliput	3
		medium			media	Zestr	5
		long			larga	Inca	7
<b>23.</b>	<b>VG</b>	<b>Ray floret: Only varieties with one color: main color of inner side</b>			<b>Flor ligulada: Únicamente variedades con un color: color del lado interno</b>		
	<b>(*)</b>						
<b>PQ</b>		RHS Colour Chart (indicate reference number)			Carta de colores RHS (indíquese el número de referencia)		

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24. (* )	<b>VG</b> Ray floret: secondary color of inner side			<b>Flor ligulada: color secundario del lado interno</b>		
PQ	RHS Colour Chart (indicate reference number)			Carta de colores RHS (indíquese el número de referencia)		
25. (* (+)	<b>VG</b> Ray floret: distribution of secondary color of inner side			<b>Flor ligulada: distribución del color secundario del lado interno</b>		
PQ	basal			parte basal	Zahara	1
	distal			parte superior	Zwizzle	2
				manchas	Peppermint	3
				bandas		4
26. (* )	<b>Ray floret: only varieties with more than two colors: tertiary color of inner side</b>			<b>Flor ligulada: Únicamente variedades con más de dos colores: color terciariodel lado interno</b>		
PQ	RHS Colour Chart (indicate reference number)			Carta de colores RHS (indíquese el número de referencia)		
27.	<b>Ray floret: only varieties with more than one color: distribution of tertiary color of inner side</b>			<b>Flor ligulada: solo variedades con más de un color: distribución del color terciariodel lado interno</b>		
	basal			parte basal	Zowie	1
	distal			parte superior		2
				manchas		3
				bandas		4
28.	<b>VG</b> <b>Flower head: Only varieties with flower head type: single and semi double: color of disc</b>			<b>Disco del capítulo: Solo variedades sencillas y semidobles: color del disco</b>		
PQ	RHS Colour Chart (indicate reference number)			Carta de colores RHS (indíquese el número de referencia)		

## 8. Explanations on the Table of Characteristics

### 8.1 *Explanations covering several characteristics*

Unless otherwise indicated, all characteristics should be examined at the time of full flowering.

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

- (a) Leaf characteristics are recorded on typical leaves taken from the middle third of the stem, and are recorded on the whole leaf, looking at the upper surface.
- (b) Single flower head has only one row of ray florets. Semi double flower head: has more than two rows of ray florets and a visible flower head disc. Double flower head, has no flower head disc.
- (c) Ray floret length characteristics should be observed on the outermost row of ray florets.
- (d) In all but single flowered varieties, all ray floret characteristics, other than length and width characteristics (see note (b)), should be observed on the most typical florets, excluding the innermost and outermost rows, unless otherwise stated.
- (e) The main color is the color with the largest total surface area, the secondary color (if present) is the color with the second largest total surface area, and the tertiary color (if present) is that with the third largest total surface

### 8.2 *Explanations for individual characteristics*

Ad. 1: Plant: height

3  
short

5  
medium

7  
tall

Ad. 2: Plant: growth habit



1  
upright



2  
semi-upright



3  
spreading

Ad. 3: Plant: branching

1  
absent or weak

2  
medium

3  
strong

Ad. 5: Stem: density of pubescence



2  
sparse



3  
medium



4  
dense

Ad. 6: Leaf: shape

1  
lanceolate

2  
oblanceolate

3  
narrow ovate

4  
ovate

Ad. 9: Leaf: profile in cross section



1  
flat



3  
strongly concave

2  
moderately concave

Ad. 12: Leaf: anthocyanin coloration at the base

1  
absent or very weak

2  
weak

3  
medium

4  
strong

Ad. 13: Peduncle: length



3  
short



5  
medium



7  
long

Ad. 14: Flower head: type



1  
single



2  
semi double



3  
double

Ad. 18: Ray floret: shape

1  
elliptic

2  
narrow obovate

3  
medium obovate

4  
broad obovate

Ad. 19: Ray floret: profile in cross section

1  
flat

2  
weakly concave

3  
medium concave

4  
strongly concave

Ad. 20: Ray floret: shape of the apex

1  
flat

2  
rounded

3  
acuminate



Ad. 21: Ray floret: Apex: depth of indentation

1  
absent or very weak

2  
medium

3  
strong

Ad. 25: Ray floret: distribution of secondary color of inner side

basal

distal

9. Literature

Calderon de Rzedowski, G. y Rzedowski, J., 2006: Flora Fanerogámica del Valle de México. Ed. Instituto de Ecología A.C. y Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. MX. 983 p.

Smith, A.R. 226. Zinnia L. In: Flora of North America Vol. 21. Oxford University Press.

Torres, A.M. 1963: Taxonomy of Zinnia. Brittonia 15: pp.1-25.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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	Application date: (not to be filled in by the applicant)
--	-------------------------------------------------------------

**TECHNICAL QUESTIONNAIRE**  
 to be completed in connection with an application for plant breeders' rights

In the case of hybrid varieties which are the subject of an application for plant breeders' rights, and where the parent lines are to be submitted as a part of the examination of the hybrid variety, this Technical Questionnaire should be completed for each of the parent lines, in addition to being completed for the hybrid variety."

1. Subject of the Technical Questionnaire

1.1 Botanical name

1.2 Common name

Hybrid: please indicate name(s) of species used in the crossing

2. Applicant

Name

Address

Telephone No.

Fax No.

E-mail address

Breeder (if different from applicant)

3. Proposed denomination and breeder's reference

Proposed denomination (if available)

Breeder's reference

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#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)

(.....) x (.....)  
female parent male parent

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

(.....) x (.....)  
female parent male parent

(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.

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4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

- (a) Self-pollination [ ]
- (b) Cross-pollination
  - (i) population [ ]
  - (ii) synthetic variety [ ]
- (c) Hybrid [ ]
- (d) Other [ ]  
(please provide details)

[ ]

4.2.2 Vegetatively propagated varieties

- 4.2.3 Other [ ]  
(please provide details)

[ ]

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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)"

.....

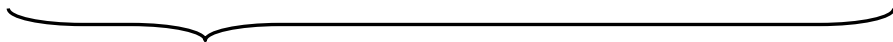
In the case of hybrid varieties the production scheme for the hybrid should be provided on a separate sheet. This should provide details of all the parent lines required for propagating the hybrid e.g.

*Single Hybrid*

(.....) x (.....)  
 female parent male parent

*Three-Way Hybrid*

(.....) x (.....)  
 female line male line



(.....) x (.....)  
 single hybrid used as female parent male parent

and should identify in particular:

- a) any male sterile lines  
 "(b) maintenance system of male sterile lines.

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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

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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 <b>similar</b> variety(ies)	Describe the expression of the characteristic(s) for <b>your</b> candidate variety
<i>Example</i>			
Comments:			



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#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 image of the variety should accompany the Technical Questionnaire."**

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.

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

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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".

.....

"9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens?

Yes [ ]  
(please provide details as specified by the Authority)

No [ ]"

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

Applicant's name

Signature

Date

[End of document]