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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

ZINNIA *

UPOV Code(s): ZINNI_ANG; ZINNI_ELE; ZINNI_HAA; ZINNI_PER

Zinnia elegans Jacq.;
Zinnia haageana Regel;
Zinnia peruviana (L.) L.;
Zinnia angustifolia Kunth

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Mexico
to be considered by the
Technical Working Party for Ornamental Plants and Forest Trees
at its fiftieth session, to be held in Victoria, British Columbia, Canada
from 2017-09-11 to 2017-09-15

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Zinnia angustifolia Kunth				
Zinnia elegans Jacq., *Zinnia violacea* Cav.	Youth and age, Youth-and-old-age	Zinnia élégant	Zinnie	Rascamoño, Zinnia
Zinnia haageana Regel				
Zinnia peruviana (L.) L.	Field zinnia, Peruvian zinnia, Wild zinnia			

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), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Zinnia angustifolia* Kunth, *Zinnia elegans* Jacq., *Zinnia haageana* Rege and *Zinnia peruviana* (L.) 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 10 plants for F1 hybrids and 40 plants for cross-pollinated varieties

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.

The applicant must indicate if the material comes from F1 hybrids or from open pollinated varieties

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

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.

3.3.3 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 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.

3.4.2 Each test should be designed to result in a total of at least 10 plants for F1 hybrids and 40 plants for cross-pollinated varieties.

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 or parts of plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 10 plants or parts of plants taken from each of 10 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.

4.1.6 Unless otherwise indicated, for the purposes of distinctness all observations on single plants should be made on 9 plants for F1 hybrids and at least 20 for cross-polinated varieties or parts taken from each plant and any other observations made on all plants in the test, disregarding any off-type plants.

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 F-1 hybrid varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.

4.2.3 The assessment of uniformity for hybrid varieties depends on the type of hybrid and should be according to the recommendations for hybrid varieties in the General Introduction.

4.2.4 For cross-polinated varieties, the assessement of uniformity should be according to the recommendations for cross-polinated varieties as appropiate, 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.

4.3.3 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.

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: growth habit (characteristic 1)
(b) Plant: branching (characteristic 3)
(c) Stem: density of pubescence (characteristic 5)
(d) Leaf: length/width ratio (characteristic 8)
(e) Leaf: position of broadest part (characteristic 9)
(f) Leaf: profile in cross section (characteristic 10)
(g) Leaf: undulation of margin (characteristic 11)
(h) Leaf: anthocyanin coloration at base (characteristic 13)
(i) Flower head: peduncle length (characteristic 14)
(j) Flower head: type (characteristic 15)
(k) Ray floret: profile in cross section at mid point (characteristic 21)
(l) Ray floret: longitudinal axis (characteristic 22)
(m) Ray floret:strength of curvature (characteristic 24)
(n) Ray floret: shape of apex (characteristic 25)
(o) Ray floret: pattern of secondary color of inner side (characteristic 29)

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

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1	**2**	**3**	**4**	**5**	**6**	**7**			
		Name of characteristics in English		**Nom du caractère en français**		**Name des Merkmals auf Deutsch**	**Nombre del carácter en español**		
		states of expression		types d'expression		Ausprägungsstufen	tipos de expresión		

1 Characteristic number

2 (*) Asterisked characteristic – see Chapter 6.1.2

3 Type of expression
QL Qualitative characteristic – see Chapter 6.3
QN Quantitative characteristic – see Chapter 6.3
PQ Pseudo-qualitative characteristic – see Chapter 6.3

4 Method of observation (and type of plot, if applicable)
MG, MS, VG, VS – see Chapter 4.1.5

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

6 (a)-(e) See Explanations on the Table of Characteristics in Chapter 8.1

7 Growth stage key See Explanations on the Table of Characteristics in Chapter 8

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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. (*)	**PQ VG**					
	Plant: growth habit	**Plante: port**	**Pflanze: Wuchsform**	**Planta: porte**		
	upright	dressé	aufrecht	erecta	Peppermint	1
	semi-upright	demi-dressé	halbaufrecht	semierecta	Profussion	2
	spreading	étalé	breitwüchsig	extendido	Solecito	3
2. (*)	**QN MS/VG**					
	Plant: height	**Plante: hauteur**	**Pflanze: Höhe**	**Planta: altura**		
	short	basse	niedrig	baja	Peppermint	3
	medium	moyenne	mittel	media	Witworna	5
	tall	haute	hoch	alta	Inca	7
3. (*)	**QN VG**					
	Plant: branching	**Plante : ramification**	**Pflanze: Verzweigung**	**Planta: ramificación**		
	absent or very weak				Witworna	1
	weak					2
	medium				Peppermint	3
	strong					4
	very strong				Profussion	5
4. (*)	**QN VG**					
	Stem: anthocyanin coloration on upper third	**Tige : pigmentation anthocyanique au tiers supérieur**	**Stengel: Anthocyanfärbung im oberen Drittel**	**Tallo: pigmentación antociánica del tercio superior**		
	absent or weak	nulle ou faible	fehlend oder gering	ausente o débil	Dreamland	1
	weak				Lilliput	3
	medium	moyenne	mittel	media	Profussion	5
	very strong				Arcos	7
5.	**QN VG**					
	Stem: density of pubescence					
	absent or sparse				Zestr	1
	medium				Uproar	2
	dense				Short stuff	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	**(*)**	**QN MS/VG**	**(a)**				
		Leaf:width					
		narrow				Starbright	3
		medium				Yellow flame	5
		long				Short stuff	6
7.	**(*)**	**QN MS/VG**	**(a)**				
		Leaf: length	**Feuille : longueur**	**Blatt: Länge**	**Hoja: longitud**		
		short				Zinnita	3
		medium				Zahara Double Cherry	5
		long				State Fair	7
8.	**(*)**	**QN MS/VG**	**(a)**				
		Leaf: length/width ratio					
		low				Crystal yellow	3
		medium					5
		high				Dreamland rose	7
9.		**QN VG**	**(a)**				
		Leaf: position of broadest part	**Feuille : position de la partie la plus large**	**Blatt: Position der breitesten Stelle**	**Hoja: posición de la parte más ancha**		
		towards base				Dreamland rose	1
		towards middle				Cherry ivory, Swizzle	2
		towards apex				Oklahoma	3
10.	**(*)**	**QN VG**	**(a)**				
		Leaf: profile in cross section					
		flat				Profusion Knee High Red	1
		moderately concave				Lilliput	2
		strongly concave				State Fair	3
11.		**QN VG**	**(a)**				
		Leaf: undulation of margin	**Feuille: ondulation du bord**	**Blatt: Wellung des Randes**	**Hoja: ondulación del margen**		
		absent or weak	nulle ou faible	fehlend oder gering	ausente o débil		1
		medium	moyenne	mittel	media		2
		strong	forte	stark	fuerte		3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
12.		**QN** **VG**	**(a)**				
		Leaf: intensity of green color					
		very light					1
		light				Oklahoma	2
		medium					3
		dark				Starbright	4
		very dark					5
13.	**(*)**	**QN** **VG**	**(a)**				
		Leaf: anthocyanin coloration at base					
		absent or weak				Oklahoma	1
		medium				Uproar Rose	2
		strong				State Fair	3
14.		**QN** **MS/VG**					
		Flower head: peduncle length					
		short				Zahara Coral Rose	3
		medium				Witworna	5
		long				Uproar Rose	7
15.	**(*)**	**PQ** **VG**	**(b)**				
		Flower head: type					
		single				Star	1
		semi-double				Yellow flame	2
		double				Lilliput	3
16.		**QN** **MS/VG**					
		Flower head: number of ray florets	**Capitule : nombre de fleurs ligulées**	**Blütenstand: Anzahl der Randblüten**	**Capítulo: número de flores liguladas**		
		few				Zowwie Yellow Flame	3
		medium				Uproar Rose	5
		many				Swizzle Scarlet Yellow	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
17.		**QN MS/VG**					
		Flower head: diameter	**Capitule : diamètre**	**Blütenstand: Durchmesser**	**Capítulo: diámetro**		
		small				Lilliput	3
		medium				Oklahoma	5
		large				Inca	7
18.	**(*)**	**QN MS/VG**	**(c)**				
		Ray floret: length	**Fleur ligulée: longueur**	**Randblüte: Länge**	**Flor ligulada: longitud**		
		short	courte	kurz	corta	Lilliput	3
		medium	moyenne	mittel	media	Peppermint stick, Profussion knee	5
		long	longue	lang	larga	Inca	7
19.	**(*)**	**QN MS/VG**	**(c)**				
		Ray floret: width	**Fleur ligulée: largeur**	**Zungenblüte: Breite**	**Flor ligulada: anchura**		
		narrow	étroite	schmal	estrecha	Star Starbright	3
		medium	moyenne	mittel	media	Ruffles	5
		broad	large	breit	ancha	Inca	7
20.	**(*)**	**QN MS/VG**	**(c), (d)**				
		Ray floret: length/width ratio	**Fleur ligulée : rapport longueur/largeur**	**Randblüte: Verhältnis Länge/Breite**	**Flor ligulada: relación entre la longitud y la altura**		
		low	faible	klein	baja	Profusion Knee High Red	3
		medium	moyen	mittel	media	Ruffles	5
		high	élevé	groß	elevada	Swizzle Scarlet Yellow	7
21.		**QN VG**	**(d)**				
		Ray floret: profile in cross section at mid point	**Fleuron: profil en section transversale au point médian**	**Zungenblüte: Profil im Querschnitt am Mittelpunkt**	**Lígula: perfil en sección transversal en el punto medio**		
		strongly concave					1
		moderately concave	moyennement concave	mittel konkav	moderadamente cóncava		2
		weakly concave	faiblement concave	schwach konkav	débilmente cóncava		3
		flat	plat	flach	plana		4
		weakly convex	faiblement convexe	schwach konvex	débilmente convexa		5
		moderately convex	moyennement convexe	mittel konvex	moderadamente convexa		6
		strongly convex	fortement convexe	stark konvex	fuertemente convexa		7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22.		**QN VG**	**(d)**				
		Ray floret: longitudinal axis	**Fleuron: axe longitudinal**	**Zungenblüte: Längsachse**	**Lígula: eje longitudinal**		
		incurving	incurvé	aufgebogen	curvado hacia arriba		1
		straight	droit	gerade	recto		2
		reflexing	recourbé	zurückgebogen	curvado hacia abajo		3
23.		**QN VG**	**(d)**				
		Ray floret: part of axis curved	**Fleuron: partie de l'axe courbé**	**Zungenblüte: Teils der gebogenen Achse**	**Lígula: parte del eje que es curvado**		
		distal quarter	quart distal	distales Viertel	cuarto distal		1
		distal half	moitié distale	distale Hälfte	mitad distal		2
		distal three quarters	trois quarts distaux	distale drei Viertel	tres cuartos, zona distal		3
24.		**QN VG**	**(d)**				
		Ray floret:strength of curvature					
		weak				Uproar Rose	3
		medium				Swizzle cherry ivory	5
		strong				Inca	7
25.	**(*)**	**PQ VG**	**(d)**				
		Ray floret: shape of apex					
		mucronate					1
		truncate					2
		rounded					3
		emarginated					4
26.		**PQ VG**	**(e)**				
		Ray floret: secondary color of inner side (if present)					
		RHS Colour Chart (indicate reference number)					
27.	**(*)**	**PQ VG**	**(d), (e)**				
		Ray floret: main color of inner side					
		RHS Colour Chart (indicate reference number)					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
28.	**PQ** **VG**	**(e)**				
	Ray floret: distribution of secondary color of inner side					
	none				Ruffles	1
	basal part				Swizzle	2
	distal part					3
	along midrib					4
	throughout				Peppermint Stick	5
29.	**PQ** **VG**					
	Ray floret: pattern of secondary color of inner side					
	solid					1
	blotches					2
	stripes					3
30.	**PQ** **VG**	**(e)**				
	Ray floret: tertiary color of inner side (if present)					
	RHS colour chart (indicate reference number)					
31.	**PQ** **VG**					
	Ray floret pattern of tertiary color of inner side					
	solid					1
	blotches					2
	stripes					3
32.	**PQ** **VG**					
	Ray floret: distribution of tertiary color of inner side					
	basal					1
	distal					2
	striped					3
	blotched				Peppermint Stick	4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
33.	**PQ** **VG**					
	Flower head: color of disc (if present)					
	RHS Colour chart (indicate reference number)					

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

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

(a) 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 one row of ray florets and a visible flower head disc. Double flower head: has no flower head disc, at any state of development.

(c) The characteristics of ray florets should be observed on the outer most rows of ray florets.

(d)

(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 surface area; the tertiary color (if present) is that with the third largest total surface. In case of when none of the colors is clearly predominant, then the darkest color will be the main color.

8.2 Explanations for individual characteristics

8.3

9. Literature

Calderón de Rzedowski, G. y J. Rzedowski. 2006. Flora Fanerogámica del Valle de México. Ed. Instituto de Ecología A.C. y Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. México. 983 p. Flora of North America. 2003. Flora of North America, North of Mexico. Editorial Committee. Vol 25. New York (NY): Oxford University Press. 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: 1-25.

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	*Zinnia elegans* Jacq.	[ ]
1.1.2	Common name	Youth and age, Youth-and-old-age	
1.2.1	Botanical name	*Zinnia angustifolia* Kunth	[ ]
1.2.2	Common name		
1.3.1	Botanical name	*Zinnia haageana* Regel	[ ]
1.3.2	Common name		
1.4.1	Botanical name	*Zinnia peruviana* (L.) L.	[ ]
1.4.2	Common name	Field zinnia, Peruvian zinnia, Wild zinnia	

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:

#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

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 Other [ ]

(Please provide details)

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

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 (1)	**Plant: growth habit**		
	upright	Peppermint	1 [ ]
	semi-upright	Profussion	2 [ ]
	spreading	Solecito	3 [ ]
5.2 (2)	**Plant: height**		
	short	Peppermint	3 [ ]
	medium	Witworna	5 [ ]
	tall	Inca	7 [ ]
5.3 (15)	**Flower head: type**		
	single	Star	1 [ ]
	semi-double	Yellow flame	2 [ ]
	double	Lilliput	3 [ ]
5.4 (24)	**Ray floret:strength of curvature**		
	weak	Uproar Rose	3 [ ]
	medium	Swizzle cherry ivory	5 [ ]
	strong	Inca	7 [ ]

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

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
Example			

Comments:

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

#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

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:

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

[End of document]