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UPOV

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

CANNA *

UPOV Code: CANNA

Canna L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from France

to be considered by the

Technical Committee at its forty-eighth session,
to be held in Geneva from March 26 to 28, 2012

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Canna L.	Canna	Balisier, Canna	Blumenrohr	Platanillo

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 *Canna* 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 rhizomes or young plants which will flower within one year and display all characteristics of the variety.

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

8 young plants or 8 rhizomes.

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.

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 Each test should be designed to result in a total of at least 8 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 7 plants or parts taken from each of 7 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 For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 8 plants, 1 off-type is 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) Plant: height at beginning of flowering (characteristic 1)

(b) Leaf blade: main color (characteristic 7) with the following groups:
Gr. 1: yellowish white
Gr. 2: yellow
Gr. 3: yellow green
Gr. 4: green
Gr. 5: orange
Gr. 6: orange brown
Gr. 7: brown
Gr. 8: purple

(c) Leaf blade: secondary color (excluding veins) (characteristic 8) with the following groups:
Gr. 1: none
Gr. 2: white
Gr. 3: purple

(d) Staminode: ground color (characteristic 16) with the following groups:
Gr. 1: yellowish white
Gr. 2: yellow
Gr. 3: orange
Gr. 4: pink
Gr. 5: 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

(*)	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
MG, MS, VG, VS		– see Chapter 4.1.5

(a) 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/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. (*) (+)	**MG**	**Plant: height at beginning of flowering**	**Plante : hauteur au début de la floraison**	**Pflanze: Höhe bei Blühbeginn**	**Planta: altura al comienzo de la floración**		
QN		short	basse	niedrig	corta	Tafraout	3
		medium	moyenne	mittel	media	Oiseau de feu	5
		tall	haute	hoch	alta	Liberté	7
2.	**VG**	**Plant: growth habit**	**Plante : port**	**Pflanze: Wuchsform**	**Planta: porte**		
QN		upright	dressé	aufrecht	erguido	Liberté	1
		upright to semi upright	dressé à demi-dressé	aufrecht bis halbaufrecht	erguido a semi-erguido		2
		semi upright	demi-dressé	halbaufrecht	semi-erguido	Pretoria, Prince Charmant	3
3. (*)	**MG**	**Leaf blade: length**	**Limbe foliaire : longueur**	**Blattspreite: Länge**	**Limbo: longitud**		
QN		short	courte	kurz	corta	Lolita, Turcano	3
		medium	moyenne	mittel	media	Oiseau d'or	5
		long	longue	lang	larga	Liberté	7
4. (*)	**MG**	**Leaf blade: width**	**Limbe foliaire : largeur**	**Blattspreite: Breite**	**Limbo: anchura**		
QN		narrow	étroite	schmal	estrecha	Caballero	3
		medium	moyenne	mittel	media	Oiseau de feu	5
		broad	large	breit	ancha	Liberté	7
5.	**VG**	**Leaf blade: glossiness**	**Limbe foliaire : brillance**	**Blattspreite: Glanz**	**Limbo: brillo**		
QN		weak	faible	gering	débil	Strasbourg	1
		medium	moyenne	mittel	medio	Oiseau D'Or	2
		strong	forte	stark	fuerte	Russian Red	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
6. (*)	**VG**	**Leaf: color of veins**	**Feuille : couleur des nervures**	**Frucht: Farbe der Adern**	**Hoja: color de las venas**		
PQ		light green	vert clair	hellgrün	verde claro	Oiseau D'or	1
		yellow	jaune	gelb	amarillo	Panach	2
		orange	orange	orange	anaranjado	Andalucia	3
		red	rouge	rot	rojo	Phasion	4
		purple	pourpre	purpurn	púrpura	Liberté	5
7. (*) (+) PQ	**VG**	**Leaf blade: main color**	**Limbe foliaire : couleur principale**	**Blattspreite: Hauptfarbe**	**Limbo: color principal**		
		RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
8. (*) (+)	**VG**	**Leaf blade: secondary color (excluding veins)**	**Limbe foliaire : couleur secondaire (sans les nervures)**	**Blattspreite: Sekundärfarbe (ohne Adern)**	**Limbo: color secundario (excluidas las venas)**		
PQ		none	aucune	keine	ninguno	Oiseau d'or	1
		white	blanche	weiß	blanco	Stuttgart	2
		purple	pourpre	purpurn	púrpura	Cleopatra	3
9. (*) (+)	**VG**	**Leaf blade: pattern of secondary color (excluding veins)**	**Limbe foliaire : distribution de la couleur secondaire (sans les nervures)**	**Blattspreite: Muster der Sekundärfarbe (ohne Adern)**	**Limbo: distribución del color secundario (excluidas las venas)**		
PQ		diffused	diffuse	diffus	difuso		1
		in sectors	en taches	flächig	en sectores	Cleopatra	2
		marbled	marbrée	mamoriert	jaspeado	Stuttgart	3
10.	**VG**	**Inflorescence: position in relation to foliage**	**Inflorescence : position par rapport au feuillage**	**Blütenstand: Stellung im Vergleich zum Laub**	**Inflorescencia: posición en relación con el follaje**		
QN		at same level	au même niveau	auf gleicher Höhe	al mismo nivel	Flamèche	1
		moderately above	légèrement au-dessus	etwas oberhalb	moderadamente por encima	Félix Ragot	2
		strongly above	nettement au-dessus	stark oberhalb	muy por encima	Liberté	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
11.	**VG**	**Inflorescence: length (excluding peduncle)**	**Inflorescence : longueur (en excluant le pédoncule)**	**Blütenstand: Länge (ohne Blütenstiel)**	**Inflorescencia: longitud (excluido el pedúnculo)**		
QN		short	courte	kurz	corta	Flamèche	3
		medium	moyenne	mittel	media	Roi Soleil	5
		long	longue	lang	larga	Marabout	7
12. (*) (+)	**VG**	**Inflorescence: arrangement of staminodes**	**Inflorescence : position des staminodes**	**Blütenstand: Anordnung der Staminodien**	**Inflorescencia: disposición de los estaminodios**		
QN	**(a)**	free	libres	freistehend	separados	Perkéo	1
		moderately overlapping	modérément recouvrants	mäßig überlappend	moderadamente solapados	Mactro	2
		strongly overlapping	fortement recouvrants	stark überlappend	fuertemente solapados	Peau Rouge	3
13. (*)	**VG**	**Staminode: width (excluding first flower)**	**Staminode : largeur (en excluant la première fleur)**	**Staminodie: Breite (ohne erste Blüte)**	**Estaminodio: anchura (excluida la primera flor)**		
QN	**(a)**	narrow	étroit	schmal	estrecha	Fiesta	3
		medium	moyen	mittel	media	Angèle Martin	5
		broad	large	breit	ancha	Prince Charmant	7
14. (*) (+)	**VG**	**Staminode: reflexing**	**Staminode : courbure**	**Staminodie: Biegung**	**Estaminodio: curvatura**		
QN	**(a)**	weak	faible	gering	débil	Angèle Martin	1
		medium	moyenne	mittel	media	Peau rouge	2
		strong	forte	stark	fuerte	Roma	3
15. (*)	**VG**	**Staminode: undulation**	**Staminode : ondulation**	**Staminodie: Wellung**	**Estaminodio: ondulación**		
QN	**(a)**	absent or weak	absente ou faible	fehlend oder gering	ausente o débil		1
		medium	moyenne	mittel	media	Mactro	2
		strong	forte	stark	fuerte	Alberich	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
16. (*) (+)	**VG**	**Staminode: ground color**	**Staminode : couleur de fond**	**Staminodie: Grundfarbe**	**Estaminodio: color de fondo**		
PQ	**(a)**	yellowish white	blanc jaunâtre	gelblichweiß	blanco amarillento	Niagara	1
		yellow	jaune	gelb	amarillo	Félix Ragot	2
		orange	orange	orange	anaranjado	Liberté	3
		pink	rose	rosa	rosa	Carmen	4
		red	rouge	rot	rojo	Roi Soleil	5
17. (*) (+)	**VG**	**Staminode: color of flush**	**Staminode : couleur de la zone irisée**	**Staminodie: Farbe der Flammung**	**Estaminodio: color de los tintes**		
PQ	**(a)**	none	aucune	keine	ninguno	Roi Soleil	1
		yellowish white	blanc jaunâtre	gelblichweiß	blanco amarillento		2
		yellow	jaune	gelb	amarillo		3
		yellow orange	jaune orange	gelborange	naranja amarillento		4
		red	rouge	rot	rojo	Talisman	5
18. (*) (+)	**VG**	**Staminode: color of flames**	**Staminode : couleur des flammes**	**Staminodie: Farbe der Flammen**	**Estaminodio: color de las llamaradas**		
PQ	**(a)**	none	aucune	keine	ninguno	Roi Soleil	1
		yellowish white	blanc jaunâtre	gelblichweiß	blanco amarillento		2
		yellow	jaune	gelb	amarillo		3
		yellow orange	jaune orange	gelborange	anaranjado amarillo		4
		red	rouge	rot	rojo		5

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
19. (*) (+)	**VG**	**Staminode: ground color of blotches**	**Staminode : couleur de fond des taches**	**Staminodie: Grundfarbe der Flecken**	**Estaminodio: color de fondo de las manchas**		
PQ	**(a)**	none	aucune	keine	ninguno	Roi Soleil	1
		yellowish white	blanc jaunâtre	gelblichweiß	blanco amarillento		2
		yellow	jaune	gelb	amarillo		3
		yellow orange	jaune orange	gelborange	anaranjado amarillo		4
		red	rouge	rot	rojo	Dollar	5
20. (*) (+)	**VG**	**Staminode: color of marginal zone**	**Staminode : couleur de la bordure**	**Staminodie: Farbe der Randzone**	**Estaminodio: color de la zona del borde**		
PQ	**(a)**	same as base color	aucune	wie die Grundfarbe	igual al color base	Roi Soleil	1
		yellowish white	blanc jaunâtre	gelblichweiß	blanco amarillento		2
		yellow	jaune	gelb	amarillo	Lolita, Lucifer, Reine Charlotte	3
		yellow orange	jaune orange	gelborange	anaranjado amarillo	Mactro	4
		orange	orange	orange	anaranjado		5
		pink	rose	rosa	rosa		6
		orange red	rouge orangé	orangerot	rojo anaranjado		7
		red	rouge	rot	rojo		8
21. (+)	**MG**	**Time of beginning of flowering**	**Époque de début de floraison**	**Zeitpunkt des Blühbeginns**	**Época del inicio de la floración**		
QN		early	précoce	früh	temprana	Corial	3
		medium	moyenne	mittel	media	Roi Soleil	5
		late	tardive	spät	tardía	Liberté	7

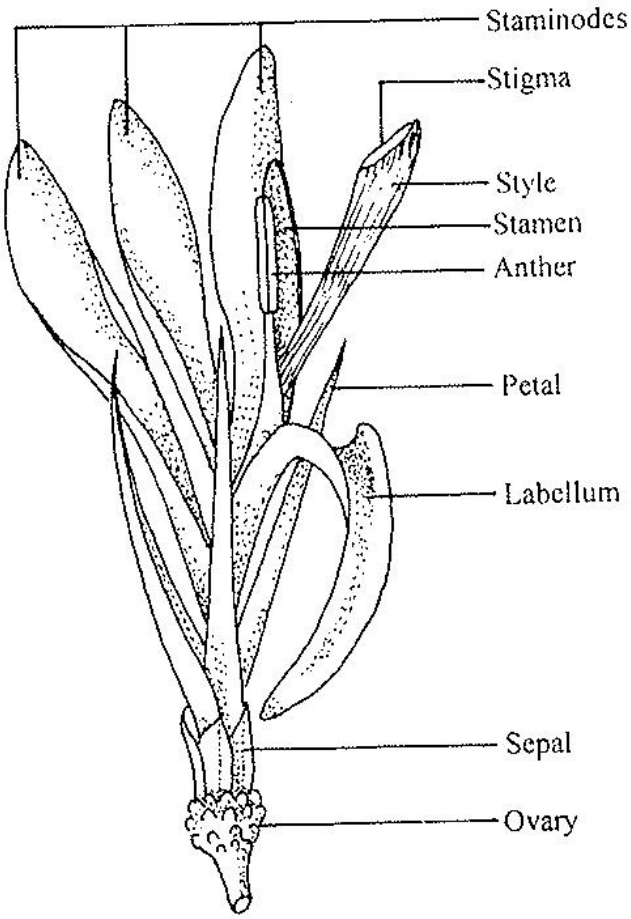
8. Explanations on the Table of Characteristics

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): all observations on the staminode should be made on an open flower.

General terminology



Flower of *Canna indica*

8.2 Explanations for individual characteristics

Ad. 1: Plant: height at beginning of flowering

Plant height includes the inflorescence (the flower spike) and is determined at the beginning of flowering.

Ad. 7: Leaf blade: main color

Main color is the color with largest surface area.

Ad. 8: Leaf blade: secondary color (excluding veins)

Secondary color is the color with the second largest surface area excluding the color of the veins.

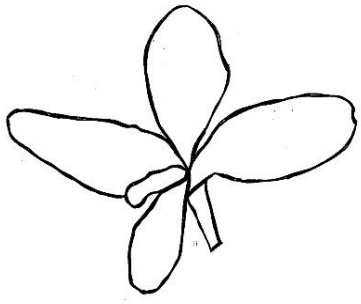
Ad. 9: Leaf blade: pattern of secondary color (excluding veins)

1
diffused

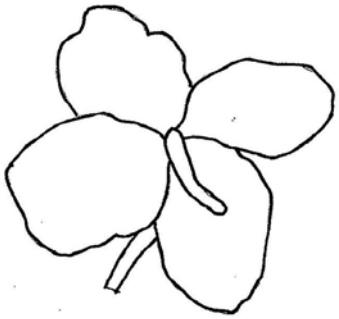
2
in sectors

3
marbled

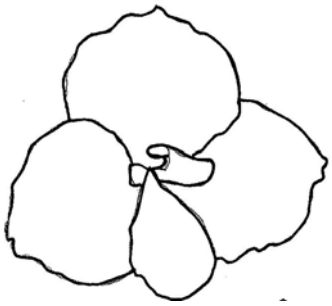
Ad. 12: Inflorescence: arrangement of staminodes



1
free



2
moderately overlapping



3
strongly overlapping

Ad. 14: Staminode: reflexing

1
weak

2
medium

3
strong

Ad. 16: Staminode: ground color

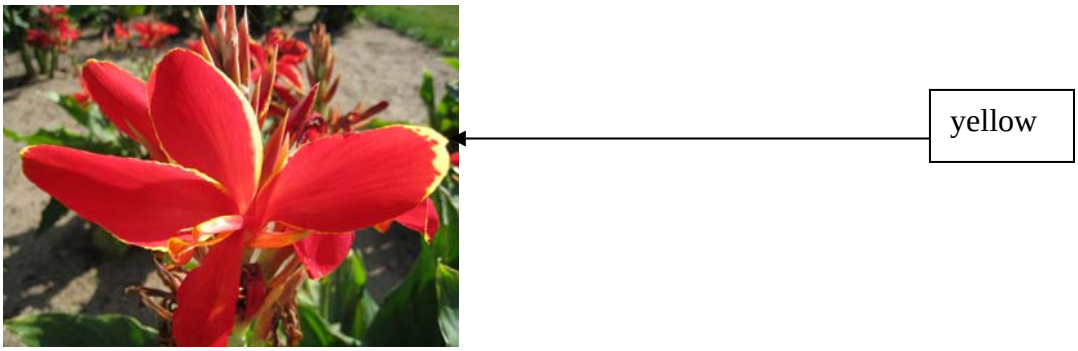
The ground color is the first color to appear chronologically during the development of the plant part. Other colors may develop in time in the form of spots, blotches, or a color flush or blush. The ground color is not always the color occupying the largest surface area of the plant part concerned. The ground color can be the main color of the lower side of an organ.

Ad. 17: Staminode: color of flush

Ad. 18: Staminode: color of flames

Ad. 19: Staminode: ground color of blotches

Ad. 20: Staminode: color of marginal zone



Ad. 21: Time of beginning of flowering

The time of beginning of flowering is when the first flower has fully opened on 50% of the plants.

9. Literature

Cooke, I., 2001: Gardeners Guide to Growing Cannas. Timber Press. 160 pp.

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 Genus

1.1.1 Botanical name	*Canna* L.
1.1.2 Common name	Canna
1.2 Species (please complete)	

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

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.

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

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)

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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 (1)	**Plant: height at beginning of flowering**		
	very short		1[ ]
	very short to short		2[ ]
	short	Tarfraout	3[ ]
	short to medium		4[ ]
	medium	Oiseau de feu	5[ ]
	medium to tall		6[ ]
	tall	Liberté	7[ ]
	tall to very tall		8[ ]
	very tall		9[ ]
5.2 i (7)	**Leaf blade: main color**		
	RHS Colour Chart (indicate reference number)		
5.2 ii (7)	**Leaf blade: main color**		
	yellowish white		1[ ]
	yellow		2[ ]
	yellow green	Pretoria	3[ ]
	green	Oiseau d'or	4[ ]
	orange		5[ ]
	orange brown		6[ ]
	brown		7[ ]
	purple	Liberté	8[ ]

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	Characteristics	Example Varieties	Note
5.3 (8)	**Leaf blade: secondary color (excluding veins)**		
	none	Oiseau d'or	1[ ]
	white	Stuttgart	2[ ]
	purple	Cleopatra	3[ ]
5.4 (16)	**Staminode: ground color**		
	yellowish white	Niagara	1[ ]
	yellow	Félix Ragot	2[ ]
	orange	Liberté	3[ ]
	pink	Carmen	4[ ]
	red	Roi Soleil	5[ ]

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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
Example	*Staminode : main color*	*yellowish white*	*yellow*

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

7.3.1 Main use

(a) garden plant [ ]
(b) pot plant [ ]
(c) cut-flower [ ]
(d) other [ ]
(please provide details)

7.3.2 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.

[#] 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”.

……

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]