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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

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DRAFT

DIANELLA

UPOV Code: DIANE

Dianella Lam. ex Juss.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Australia

to be considered by the

Technical Committee at its forty-ninth session,
to be held in Geneva from March 18 to 20, 2013

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Dianella Lam. ex Juss.	Flax-lily, Dianella	Dianella	Flachslilie, Dianella	Dianella

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 *Dianella* Lam. ex Juss..

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 plants expressing relevant characteristics of the variety in the first growing cycle.

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

10 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.

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 10 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 9 plants or parts taken from each of 9 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 of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95 % should be applied. In the case of a sample size of 10 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 further examined by testing a new plant 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) Leaf: glaucosity of upper side (characteristic 8)
(b) Leaf: variegation (characteristic 9)
(c) Leaf blade: shape (characteristic 14)
(d) Leaf: spines on margin (characteristic 17)
(e) Basal sheath: anthocyanin coloration (characteristic 22)

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)-(c)	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. (*)	**VG/ MG**	**Plant: height (excluding inflorescence)**	**Plante : hauteur (à l'exclusion de l'inflorescence)**	**Pflanze: Höhe (ohne Blütenstand)**	**Planta: altura (excluida la inflorescencia)**		
QN	**(a)**	very short	très courte	sehr niedrig	muy corta	Dinky Di	1
		short	courte	niedrig	corta		3
		medium	moyenne	mittel	media	Little Devil	5
		tall	haute	hoch	alta	REV101	7
		very tall	très haute	sehr hoch	muy alta	Goddess	9
2. (*) (+)	**VG**	**Plant: density**	**Plante : densité**	**Pflanze: Dichte**	**Planta: densidad**		
QN	**(a)**	very sparse	très lâche	sehr locker	muy laxa		1
		sparse	lâche	locker	laxa	LHC1	3
		medium	moyenne	mittel	media	Rainbow	5
		dense	dense	dicht	densa	Little Devil	7
		very dense	très dense	sehr dicht	muy densa	Dinky Di	9
3. (+)	**VG/ MG**	**Stem: internode length**	**Tige : longueur de l'entre-nœud**	**Stengel: Internodienlänge**	**Tallo: longitud del entrenudo**		
QN	**(a)**	very short	très court	sehr kurz	muy corto	TAS300	1
		short	court	kurz	corto	TR20	3
		medium	moyen	mittel	medio		5
		long	long	lang	largo	Goddess	7
		very long	très long	sehr lang	muy largo		9
4. (*) (+)	**VG**	**Leaf: attitude of basal third**	**Feuille : port du tiers basal**	**Blatt: Haltung des basalen Drittels**	**Hoja: porte del tercio basal**		
QN	**(b)**	erect	dressé	aufrecht	erecto	Little Devil	1
		erect to semi-erect	dressé à demi-dressé	aufrecht bis halbaufrecht	erecto a semierecto	Rainbow	2
		semi-erect	demi-dressé	halbaufrecht	semierecto	TAS300	3
5. (*) (+)	**VG**	**Leaf: curvature of upper third**	**Feuille : courbure du tiers supérieur**	**Blatt: Biegung des oberen Drittels**	**Hoja: curvatura del tercio superior**		
QN	**(b)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	LHC1	1
		weak	faible	gering	débil	TAS300	3
		medium	moyenne	mittel	media	TAS100	5
		strong	forte	stark	fuerte	DT23	7
		very strong	très forte	sehr stark	muy fuerte		9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	**VG/ MS**	**Leaf: length**	**Feuille : longueur**	**Blatt: Länge**	**Hoja: longitud**		
QN	**(b)**	short	courte	kurz	corta	DTN03	3
		medium	moyenne	mittel	media	Allyn-Citation	5
		long	longue	lang	larga		7
7. (*)	**VG/ MS**	**Leaf: width**	**Feuille : largeur**	**Blatt: Breite**	**Hoja: anchura**		
QN	**(b)**	narrow	étroite	schmal	estrecha	Little Devil	3
		medium	moyenne	mittel	media	TAS100	5
		wide	large	breit	ancha	Goddess	7
8. (*) (+)	**VG**	**Leaf: glaucosity of upper side**	**Feuille : glaucescence de la face supérieure**	**Blatt: Bereifung der Oberseite**	**Hoja: glauescencia en el haz**		
QN	**(b)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Goddess, TR20	1
		weak	faible	gering	débil	DT23	2
		medium	moyenne	mittel	media	Little Devil	3
		strong	forte	stark	fuerte	DR5000	4
9. (*)	**VG**	**Leaf: variegation**	**Feuille : panachure**	**Blatt: Panaschierung**	**Hoja: variegación**		
QL	**(b)**	absent	absente	fehlend	ausente	Splice	1
		present	présente	vorhanden	presente	Rainbow	9
10. (*)	**VG**	**Leaf: main color of upper side**	**Feuille : couleur principale de la face supérieure**	**Blatt: Hauptfarbe der Oberseite**	**Hoja: color principal del haz**		
PQ	**(b)**	yellow	jaune	gelb	amarillo	Rainbow	1
		yellow green	vert jaune	gelbgrün	verde amarillento	DCMP01	2
		light green	vert clair	hellgrün	verde claro	TR20	3
		medium green	vert moyen	mittelgrün	verde medio	DR 2006	4
		dark green	vert foncé	dunkelgrün	verde oscuro	TAS300	5
		blue green	vert bleu	blaugrün	verde azulado		6
		brown green	vert brun	braungrün	verde amarronado		7
11. (*) (+)	**VG**	**Leaf: secondary color of upper side**	**Feuille : couleur secondaire de la face supérieure**	**Blatt: Sekundärfarbe der Oberseite**	**Hoja: color secundario del haz**		
PQ	**(b)**	whitish	blanchâtre	weißlich	blanquecino	Border Silver	1
		whitish yellow	jaune blanchâtre	weißlich gelb	amarillo blanquecino	DarwinGold	2
		yellow	jaune	gelb	amarillo	Rainbow	3
		yellow green	vert jaune	gelbgrün	verde amarillento		4
		light green	vert clair	hellgrün	verde claro		5
		medium green	vert moyen	mittelgrün	verde medio		6
		dark green	vert foncé	dunkelgrün	verde oscuro		7
		blue green	vert bleu	blaugrün	verde azulado		8
		brown green	vert brun	braungrün	verde amarronado		9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
12.	**VG**	**Leaf: distribution of secondary color on upper side**	**Feuille : répartition de la couleur secondaire sur la face supérieure**	**Blatt: Verteilung der Sekundärfarbe auf der Oberseite**	**Hoja: distribución del color secundario en el haz**		
PQ	**(b)**	marginal	marginale	marginal	en el margen		1
		between margin and midrib	entre le bord et la nervure médiane	zwischen Rand und Mittelrippe	entre el margen y el nervio central		2
		midrib	nervure médiane	Mittelrippe	nervio central		3
13. **(*)**	**VG**	**Leaf: main color of lower side**	**Feuille : couleur principale de la face inférieure**	**Blatt: Hauptfarbe der Unterseite**	**Hoja: color principal del envés**		
PQ	**(b)**	yellow	jaune	gelb	amarillo	Rainbow	1
		yellow green	vert jaune	gelbgrün	verde amarillento	DCMP01	2
		light green	vert clair	hellgrün	verde claro	TR20	3
		medium green	vert moyen	mittelgrün	verde medio	DR 2006	4
		dark green	vert foncé	dunkelgrün	verde oscuro	DTN03	5
		blue green	vert bleu	blaugrün	verde azulado		6
		brown green	vert brun	braungrün	verde amarronado		7
		grey green	vert gris	graugrün	verde grisáceo	TAS300	8
14. **(*)** **(+)**	**VG**	**Leaf blade: shape**	**Limbe : forme**	**Blattspreite: Form**	**Limbo: forma**		
PQ	**(b)**	ligulate	ligulé	zungenförmig	ligulado	Dinky Di	1
		linear	linéaire	linear	lineal	TAS300	2
		ensiform	ensiforme	schwertförmig	ensiforme	Border Silver	3
15. **(*)** **(+)**	**VG**	**Leaf: shape of apex**	**Feuille : forme du sommet**	**Blatt: Form der Spitze**	**Hoja: forma del ápice**		
PQ	**(b)**	acute	aigu	spitz	agudo	Dinky Di	1
		acuminate	acuminé	zugespitzt	acuminado	Goddess	2
		apiculate	apiculé	fein zugespitzt	apiculado	Rainbow	3
16. **(+)**	**VG**	**Leaf: profile in cross section**	**Feuille : profil en section transversale**	**Blatt: Profil im Querschnitt**	**Hoja: perfil en sección transversal**		
QN	**(b)**	flat	plat	flach	plano		1
		slightly convex	légèrement convexe	leicht konvex	ligeramente convexo	TR20	2
		medium convex	moyennement convexe	mittel konvex	medianamente convexo	Goddess	3
		strongly convex	fortement convexe	stark konvex	fuertemente convexo	DCMP01	4
		revolute	révoluté	zurückgerollt	revoluto		5
17. **(*)**	**VG**	**Leaf: spines on margin**	**Feuille : épines au bord**	**Blatt: Stacheln am Rand**	**Hoja: espinas en el margen**		
QL	**(b)**	absent	absentes	fehlend	ausentes	REV101	1
		present	présentes	vorhanden	presentes	Rainbow	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. **(+)**	**VG**	**Leaf: prominence of spines on margin**	**Feuille : netteté des épines au bord**	**Blatt: Ausprägung der Stacheln am Rand**	**Hoja: prominencia de las espinas en el margen**		
QN	**(b)**	weak	faible	gering	débil	Little Devil	1
		medium	moyenne	mittel	media	Rainbow	2
		strong	forte	stark	fuerte		3
19.	**VG**	**Leaf: color on margin**	**Feuille : couleur au bord**	**Blatt: Farbe am Rand**	**Hoja: color en el margen**		
QL	**(b)**	green	vert	grün	verde	Goddess	1
		red	rouge	rot	rojo	Rainbow	2
20. **(*)** **(+)**	**VG**	**Leaf midrib: spines on lower side**	**Nervure médiane de la feuille : épines sur la face inférieure**	**Mittelrippe des Blattes: Stacheln auf der Unterseite**	**Nervio central de la hoja: espinas en el envés**		
QL	**(b)**	absent	absentes	fehlend	ausente	REV101	1
		present	présentes	vorhanden	presente	Goddess	9
21. **(+)**	**VG**	**Leaf midrib: prominence of spines on lower side**	**Nervure médiane de la feuille : netteté des épines sur la face inférieure**	**Mittelrippe des Blattes: Ausprägung der Stacheln auf der Unterseite**	**Nervio central de la hoja: prominencia de las espinas en el envés**		
QN	**(b)**	weak	faible	gering	débil	DTN03	1
		medium	moyenne	mittel	media	Goddess	2
		strong	forte	stark	fuerte	DT23	3
22. **(*)** **(+)**	**VG**	**Basal sheath: anthocyanin coloration**	**Base de la gaine: pigmentation anthocyanique**	**Basale Blattscheide: Anthocyanfärbung:**	**Vaina basal: pigmentación antociánica**		
PQ	**(b)**	light red purple	rouge pourpre clair	hellrotpurpurn	púrpura rojizo claro	Goddess, Dinky Di	1
		medium red purple	rouge pourpre moyen	mittelrotpurpurn	púrpura rojizo medio	LHC1	2
		dark red purple	rouge pourpre foncé	dunkelrotpurpurn	púrpura rojizo oscuro	Little Devil, TAS300	3
		light red brown	rouge brune clair	hellrotbraun	marrón rojizo claro	REV101	4
		medium red brown	rouge brune moyen	mittelrotbraun	marrón rojizo medio		5
		dark red brown	rouge brune foncé	dunkelrotbraun	marrón rojizo oscuro	TR20	6
		brown	brune	braun	marrón		7
23. **(+)**	**VG**	**Inflorescence: position in relation to foliage**	**Inflorescence : position par rapport au feuillage**	**Blütenstand: Stellung im Vergleich zum Laub**	**Inflorescencia: posición en relación con follaje**		
QN	**(c)**	above	au-dessus	oberhalb	por encima	Little Devil	1
		same level	au même niveau	auf gleicher Höhe	al mismo nivel		2
		below	en dessous	unterhalb	por debajo	Border Silver	3
24.	**VG**	**Flowering stem: color of middle third**	**Tige en floraison : couleur du tiers moyen**	**Blütentrieb: Farbe des mittleren Drittels**	**Tallo floral: color del tercio medio**		
PQ	**(c)**	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)		

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25.	**VG/ MS**	**Flowering stem: length of flowering part**	**Tige en floraison : longueur de la partie en floraison**	**Blütentrieb: Länge des blühenden Teils**	**Tallo floral: longitud de la parte en floración**		
QN	**(c)**	short	courte	kurz	corto		3
		medium	moyenne	mittel	medio		5
		long	longue	lang	largo		7
26.	**VG**	**Inflorescence: density of flowers**	**Inflorescence : densité des fleurs**	**Blütenstand: Dichte der Blüten**	**Inflorescencia: densidad de flores**		
QN	**(c)**	sparse	lâche	locker	laxa		3
		medium	moyenne	mittel	media		5
		dense	dense	dicht	densa		7
27.	**VG/ MG**	**Perianth: diameter**	**Périanthe : diamètre**	**Blütenhülle: Durchmesser**	**Perianto: diámetro**		
QN	**(c)**	small	petit	klein	pequeño		1
		medium	moyen	mittel	medio		2
		large	grand	groß	grande		3
28.	**VG**	**Perianth: color**	**Périanthe : couleur**	**Blütenhülle: Farbe**	**Perianto: color**		
PQ	**(c)**	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)		
29.	**VG**	**Anther: color**	**Anthère : couleur**	**Staubblatt: Farbe**	**Antera: color**		
PQ	**(c)**	yellow	jaune	gelb	amarillo	Border Silver	1
		orange	orange	orange	naranja	Splice	2
		brown	brune	braun	marrón	Goddess	3
30.	**VG**	**Immature fruit: color**	**Fruit immature : couleur**	**Unreife Frucht: Farbe**	**Fruto no maduro: color**		
PQ	**(c)**	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)		
31.	**VG**	**Mature fruit: color**	**Fruit mûr : couleur**	**Reife Frucht: Farbe**	**Fruto maduro: color**		
PQ	**(c)**	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. 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) The assessment of plant, shoot and stem characteristics should be carried out towards the end of active vegetative growth.

(b) Observations on the leaf should be made on the youngest fully expanded leaves on either side of young leaves. Leaf colors for glaucous varieties should be observed with the waxy coating removed by rubbing. The main color is the color with the largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color. Upper side is the leaf surface facing towards the axis, adaxial. Lower side is the leaf surface facing away from the axis, abaxial.

(c) Observations on the inflorescence, flower and fruit should be made on the main flower inflorescence.

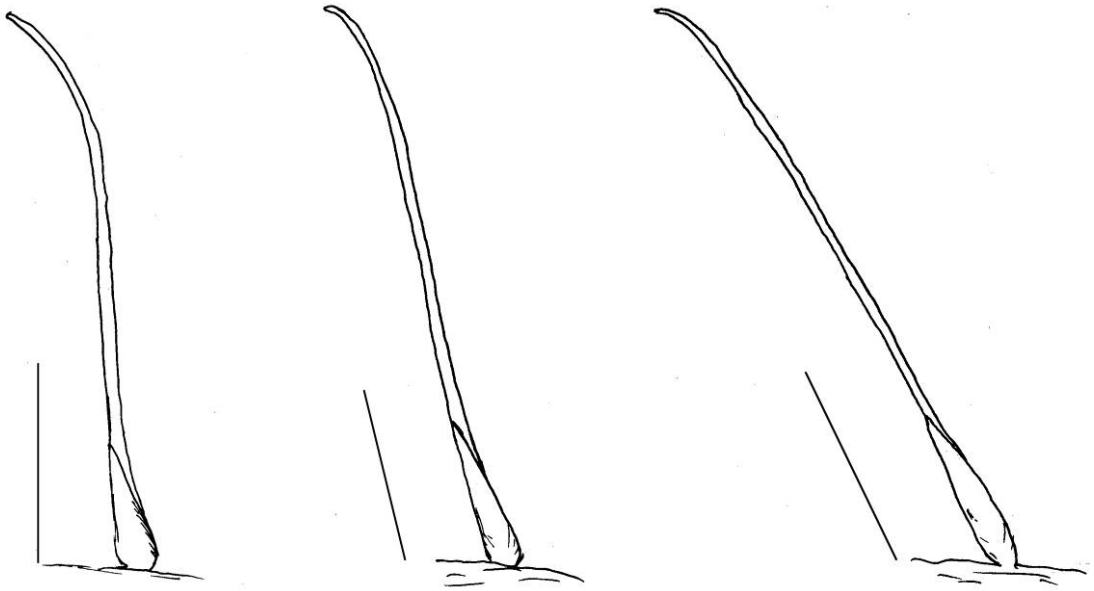
8.2 Explanations for individual characteristics

Ad. 2: Plant: density

The plant density is observed as the overall density of foliage.

Ad. 3: Stem: internode length

Ad. 4: Leaf: attitude of basal third

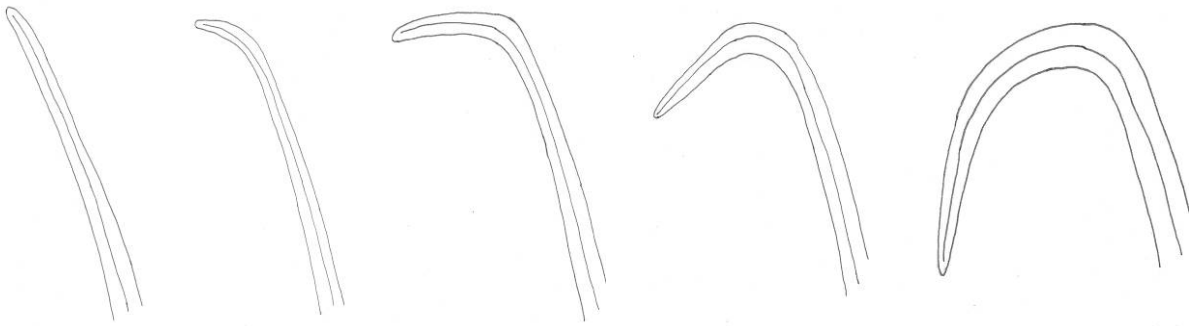


1
erect

2
erect to semi-erect

3
semi-erect

Ad. 5: Leaf: curvature of upper third



1
absent or very weak

3
weak

5
medium

7
strong

9
very strong

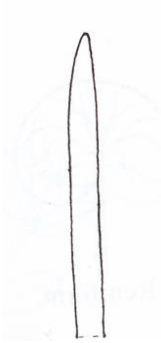
Ad. 8: Leaf: glaucosity of upper side

The glaucosity is the waxy layer covering the leaf surface and generally gives a leaf a bluish or whitish coloration. The layer can be removed by rubbing. It should be observed on the upper side of the middle third of the leaf.

Ad. 11: Leaf : secondary color of upper side

The secondary color is determined as the color with the second largest surface area, usually observed as a defined pattern on the upper side of a leaf. For varieties with glaucosity, the waxy layer is removed.

Ad. 14: Leaf blade: shape

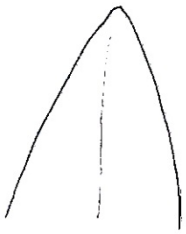


1
ligulate
lateral margins parallel along most of length, tapering towards apex, strap shaped.

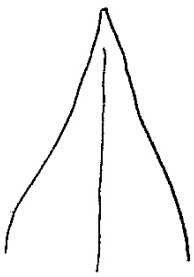
2
linear
lateral margins parallel along entire length to apex

3
ensiform
widest point above the middle, sword shaped

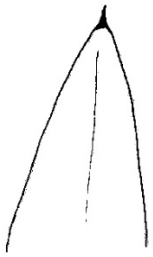
Ad. 15: Leaf: shape of apex



1
acute



2
acuminate



3
apiculate

Ad. 16: Leaf: profile in cross section

To be observed on the middle third of fully expanded leaf.

1
flat

2
slightly convex

3
medium convex

4
strongly convex

5
revolute

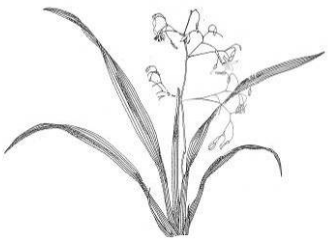
Ad.18: Leaf: prominence of spines on margin
Ad. 20: Leaf midrib: spines on lower side
Ad. 21: Leaf midrib: prominence of spines on lower side

Prominence of spines is assessed visually and by touch. If spines can be seen easily with the naked eye at arm's length then prominence is very strong. If spines cannot be seen but are felt by running the index finger backwards along the leaf then prominence is very weak.

Ad. 22: Basal sheath: anthocyanin coloration

Ad. 23: Inflorescence: position in relation to foliage

1
above



2
same level

3
below

Ad. 30: Immature fruit: color

Assessed when fruit has reached full size.

Ad. 31: Mature fruit: color

Assessed when fruit has fully colored and before deterioration.

9. Literature

Henderson R.J.F., 1987: Flora of Australia vol 45. Australian Government Publishing Service. Canberra, Australian Capital Territory, AU, pp. 194 to 225.

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 Botanical name	*Dianella* Lam. ex Juss.
1.2 Common name	Flax-lily, Dianella

1.2 Species
(please indicate)

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) division [ ]

(c) *in vitro* propagation [ ]

(d) other (state method) [ ]

4.2.2 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 (8)	**Leaf: glaucosity of upper side**		
	absent or very weak	Goddess, TR20	1 [ ]
	weak	DT23	2 [ ]
	medium	Little Devil	3 [ ]
	strong	DR5000	4 [ ]
5.2 (9)	**Leaf: variegation**		
	absent	Splice	1 [ ]
	present	Rainbow	9 [ ]
5.3 (14)	**Leaf blade: shape**		
	ligulate	Dinky Di	1 [ ]
	linear	TAS300	2 [ ]
	ensiform	Border Silver	3 [ ]
5.4 (17)	**Leaf: spines on margin**		
	absent	REV101	1 [ ]
	present	Rainbow	9 [ ]
5.5 (22)	**Basal sheath: anthocyanin coloration**		
	light red purple	Goddess, Dinky Di	1 [ ]
	medium red purple	LHC1	2 [ ]
	dark red purple	Little Devil, TAS300	3 [ ]
	light red brown	REV101	4 [ ]
	medium red brown		5 [ ]
	dark red brown	TR20	6 [ ]
	brown		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	*Plant: density*	*sparse*	*dense*

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

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.

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

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]