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

DRAFT

AFRICAN LILY \*

UPOV Code: AGAPA

*Agapanthus* L'Hér.

## GUIDELINES

## FOR THE CONDUCT OF TESTS

## FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by an expert from South Africa*

to be considered by

*the Technical Working Party for Ornamental Plants and Forest Trees  
at its forty-third session, to be held in Cuernavaca, Morelos State, Mexico,  
from September 20 to 24, 2010*

Alternative Names: \*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Agapanthus</i> L'Hér.	African lily; Agapanthus; Blue lily; Lily of the Nile	Agapanthe; Fleur d'amour	Agapanthus; Schmucklilie	Agapanto; Estrella de mar

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

## ASSOCIATED DOCUMENTS

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

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

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## 1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Agapanthus* L'Héritier of the family *Agapanthaceae*.

## 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 capable of expressing all relevant characteristics of the variety during 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 **Observation of color by eye**

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, all observations for the purposes of distinctness should be made on 10 plants or parts taken from each of 10 plants, 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 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 seed or 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) Plant: type (characteristic 1)
- (b) Leaf: variegation (characteristic 7)
- (c) Leaf: anthocyanin coloration at base (characteristic 12)
- (d) Inflorescence bract: opening (characteristic 15)
- (e) Inflorescence: number of flowers (characteristic 22)
- (f) Flower bud: main color (characteristic 26) with the following groups:
  - Gr. 1: white
  - Gr. 2: yellow green
  - Gr. 3: violet
  - Gr. 4: violet blue
  - Gr. 5: blue
- (g) Flower: type (characteristic 33)
- (h) Anther: color (characteristic 47)

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)-(f) 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
<b>1.</b>	<b>Plant: type</b>					
(*)						
(+)						
<b>PQ</b>	deciduous				Deep Blue	1
	semi-deciduous				Lilac Bells	2
	evergreen				Cloudy Skies	3
<b>2.</b>	<b>Plant: density of foliage</b>					
<b>QN (a)</b>	sparse				Baby Pete	3
	medium				Snow Cloud	5
	dense				Snowstorm	7
<b>3.</b>	<b>Plant: number of leaves per shoot</b>					
<b>QN (a)</b>	few				Lapis	1
	medium				Regal Beauty	2
	many				Snow Cloud	3
<b>4.</b>	<b>Leaf: length</b>					
<b>QN (a)</b>	short				Tinkerbelle	3
<b>(b)</b>	medium				Everblue	5
	long				Deep Blue	7
<b>5.</b>	<b>Leaf: width</b>					
(*)						
<b>QN (a)</b>	narrow				Deep Blue	3
<b>(b)</b>	medium				Buddy Blue	5
	broad				Glen Avon	7
<b>6.</b>	<b>Leaf: curvature</b>					
<b>QN (a)</b>	absent or slightly recurved				Tinkerbelle	1
<b>(b)</b>	moderately recurved				Aureovittatus	2
	strongly recurved				Summer Gold	3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>7.</b>	<b>Leaf: variegation</b>					
(*)						
<b>QL</b>	(a) absent				Blue Velvet	1
	(c) present				Tinkerbelle	9
<b>8.</b>	<b>Leaf: type of variegation</b>					
(*)						
(+)						
<b>PQ</b>	(a) apical				Meibont	1
	(c) marginal				Silver Star	2
	striped				Blue Zebra	3
<b>9.</b>	<b>Leaf: fading of variegation with development</b>					
<b>QN</b>	(a) absent or weak				Tinkerbelle	1
	(b) medium					2
	strong				Lemon & Lime	3
<b>10.</b>	<b>Leaf: main color of upper side</b>					
<b>PQ</b>	(a) white					1
	(b) yellow white					2
	(d) pinkish white					3
	yellow				Summer Gold	4
	yellow green					5
	light green				Sybil Martin	6
	medium green				Snowstorm	7
	dark green				Blue Horizons	8
	grey green				Goldstrike	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
<b>11.</b>	<b>Leaf: secondary color of upper side</b>						
<b>PQ</b>	(a) white				Tinkerbell	1	
	(b) yellow white				Silver Star	2	
	(d) pinkish white					3	
	yellow					4	
	yellow green					5	
	light green					6	
	medium green					7	
	dark green					8	
	grey green					9	
<b>12.</b> (* (+)	<b>Leaf: anthocyanin coloration at base</b>						
<b>QN</b>	(a) absent				Blue Velvet	1	
	present				Wiley J	9	
<b>13.</b> (+)	<b>Inflorescence bract: length of apex relative to total length of bract</b>						
<b>QN</b>	(a) very short				Wiley J	1	
	short				Lilac Beauty	3	
	medium				Nana Blue	5	
	long				Smurfy Blue	7	
	very long				Hartenbos White	9	
<b>14.</b>	<b>Inflorescence bract: anthocyanin coloration</b>						
<b>QN</b>	(a) absent or weak				ATlblu	1	
	medium				Peter Pan	2	
	strong				Victoria Bay	3	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
<b>15.</b>	<b>Inflorescence bract:</b>						
(*)	<b>opening</b>						
(+)							
<b>QL</b>	one side				Wiley J	1	
	both sides				Double Diamond	2	
<b>16.</b>	<b>Time of beginning of</b>						
(*)	<b>flowering</b>						
(+)							
<b>QN</b>	early				ATlblu	3	
	medium				Blue Velvet	5	
	late				New Blue	7	
<b>17.</b>	<b>Plant: height</b>						
	<b>(including the</b>						
	<b>inflorescence)</b>						
<b>QN</b>	short				Sarah	3	
	medium				Snowstorm	5	
	tall				Black Pantha	7	
<b>18.</b>	<b>Peduncle: length</b>						
(*)							
<b>QN</b>	very short				Double Diamond	1	
	short				Princess Margaret	3	
	medium				Shinkai	5	
	long				Ivory Bells	7	
	very long				Purple Cloud	9	
<b>19.</b>	<b>Peduncle: thickness</b>						
<b>QN</b>	(e) thin				Everblue	3	
	medium				Buddy Blue	5	
	thick				Cloudy Skies	7	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>20.</b>	<b>Peduncle: shape in cross section</b>					
<b>PQ</b>	(e) circular				Peter Pan	1
	elliptic				Wiley J	2
	oblong				Blue Velvet	3
<b>21.</b>	<b>Peduncle: anthocyanin coloration</b>					
<b>QN</b>	(e) absent or weak				Peter Pan	1
	medium				Midnight Blue	2
	strong				Black Beauty	3
<b>22.</b>	<b>Inflorescence: number of flowers</b>					
<b>(*)</b>						
<b>QN</b>	very few				Peter Pan	1
	few				Bright Eyes	3
	medium				Blue Velvet	5
	many				Magnifico	7
	very many				Maximus	9
<b>23.</b>	<b>Inflorescence: density</b>					
<b>QN</b>	sparse				Bright Eyes	3
	medium				Blue Velvet	5
	dense				Magnifico	7
<b>24.</b>	<b>Inflorescence: diameter</b>					
<b>QN</b>	very small				Franni	1
	small				Adonis	3
	medium				Atlas	5
	large				Colossus	7
	very large				Trudy	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>25.</b>	<b>Inflorescence: shape in lateral view</b>					
(+)						
<b>PQ</b>	elliptic				Tall Boy	1
	circular				Pinchbeck	2
	oblate				Deep Blue	3
	transverse elliptic				Loch Hope	4
<b>26.</b>	<b>Flower bud: main color</b>					
(*)						
<b>PQ</b>	(d) RHS Colour Chart (indicate reference number)					
	(f)					
<b>27.</b>	<b>Flower bud: secondary color</b>					
(*)						
<b>PQ</b>	(d) absent				Double Diamond	1
	(f) towards base				Cloudy Skies	2
	towards apex				White Beauty	3
<b>28.</b>	<b>Flower bud: secondary color</b>					
<b>PQ</b>	(d) RHS Colour Chart (indicate reference number)					
	(f)					
<b>29.</b>	<b>Pedicel: length</b>					
<b>QN</b>	(f) short				Deep Blue	3
	medium				Blue Velvet	5
	long				Cloudy Skies	7
<b>30.</b>	<b>Pedicel: anthocyanin coloration</b>					
<b>QN</b>	(f) absent or weak				Stéphanie Charm	1
	medium				Silver Jubilee	2
	strong				Black Beauty	3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>31.</b>	<b>Pedicle: distribution of anthocyanin coloration</b>					
(+)						
<b>PQ</b>	(f) entire				Black Beauty	1
	only on middle third				Everblue	2
	only on upper and lower third				Victoria Bay	3
<b>32.</b>	<b>Flower: shape</b>					
(*)						
(+)						
<b>PQ</b>	(g) globose				Buddy Blue	1
	tubular				Graskop	2
	funnel				Amethyst	3
	campanulate				Blue Stars	4
<b>33.</b>	<b>Flower: type</b>					
(*)						
(+)						
<b>QL</b>	(g) single				Blue Velvet	1
	semi-double				Double Diamond	2
<b>34.</b>	<b>Perianth: length</b>					
(+)						
<b>QN</b>	(g) short				Lilliput	3
	medium				Blue Velvet	5
	long				Graskop	7
<b>35.</b>	<b>Perianth: diameter</b>					
(+)						
<b>QN</b>	(g) small				Graskop	3
	medium				Amethyst	5
	large				Atlantic Ocean	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>36.</b>	<b>Perianth: overlapping of tepal lobes</b>					
(+)						
<b>PQ</b>	(g) absent				Goliath	1
	incomplete				Amethyst	2
	complete				Graskop	3
<b>37.</b>	<b>Perianth tube: length</b>					
(+)						
<b>QN</b>	(g) short				Peter Pan	3
	medium				Goliath	5
	long				Graskop	7
<b>38.</b>	<b>Perianth tube: main color of outer side</b>					
<b>PQ</b>	(d) RHS Colour Chart (indicate reference number)					
	(g)					
<b>39.</b>	<b>Tepal lobe: ratio length/width (excluding varieties with complete overlapping of tepals)</b>					
(+)						
<b>QN</b>	(g) slightly elongated				Blue Globe	1
	moderately elongated				Elisabeth	2
	strongly elongated				Atlantic Ocean	3
<b>40.</b>	<b>Tepal lobe: color of marginal zone of inner side</b>					
<b>PQ</b>	(g) RHS Colour Chart (indicate reference number)					
	(g)					
<b>41.</b>	<b>Tepal lobe: color of midrib zone of inner side</b>					
<b>PQ</b>	(g) RHS Colour Chart (indicate reference number)					
	(g)					



	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>42.</b>	<b>Tepal lobe: transparency of midrib zone of inner side</b>					
<b>QN</b>	(g) absent or weak				Amethyst	1
	medium				To be provided	2
	strong				Windsor Grey	3
<b>43.</b>	<b>Tepal lobe: undulation of margin</b>					
<b>QN</b>	(g) weak				Amethyst	1
	medium				Blue Heaven	2
	strong				Blue Stars	3
<b>44.</b>	<b>Flower: tepal-like staminodes and pistillodes</b>					
(+)						
<b>QL</b>	(g) absent				Blue Velvet	1
	present				Flore Pleno	9
<b>45.</b>	<b>Stamens: protrusion in relation to apex of tepal lobes</b>					
(*)						
(+)						
<b>QN</b>	(g) absent or weak				Kama	1
	medium				Blue Velvet	2
	strong				Blue Stars	3
<b>46.</b>	<b>Filament: color</b>					
<b>PQ</b>	(g) white				Blue Moon	1
	violet				Wiley J	2
	violet blue				Black Pantha	3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>47.</b>	<b>Anther: color</b>					
(*)						
(+)						
<b>PQ</b>	white				Lavender Haze	1
	green				Blue Brush	2
	blue green				Glen Avon	3
	light yellow				Ossato Snow	4
	medium yellow				Polar Ice	5
	purple				Corinne	6
	brown				Umbellatus Albus	7
	blue grey				Sarah	8
	black				Aberdeen	9
<b>48.</b>	<b>Style: color</b>					
<b>PQ (g)</b>	white				Blue Moon	1
	violet				Wiley J	2
	violet blue				Glen Avon	3

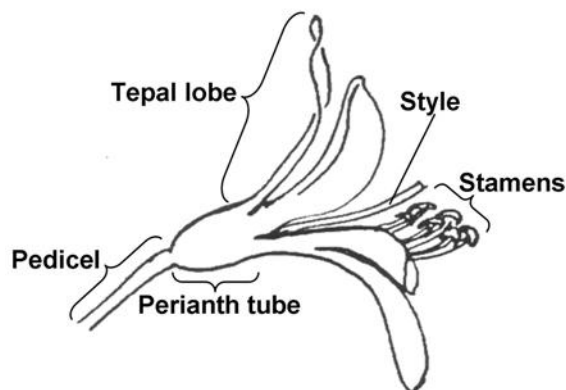
8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

Unless otherwise indicated, all characteristics should be observed at the time when at least 50% of all flowers have opened.

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

- (a) To be observed when the first flower bud starts to protrude from the inflorescence bract.
- (b) Observations on the leaf should be made on fully developed leaves.
- (c) Observations on leaf variegation should be made on young leaves.
- (d) The main color is the color of the largest surface area. In cases where it is difficult to determine the largest surface area, the darkest color is considered to be the main color. The secondary color is the color of the second largest surface area.
- (e) To be observed in the middle third of the peduncle.
- (f) Observations on the flower bud should be made when the flower bud is fully expanded, just prior to reflexing of the tepals.
- (g) Observations on the flower and flower parts should be made on fresh fully open flowers. Diagram of flower parts:



8.2 *Explanations for individual characteristics*

Ad. 1: Plant: type

Observations should be made during winter and spring.

Ad. 8: Leaf: type of variegation

To be provided

1  
apical



2  
marginal



3  
striped

Ad. 12: Leaf: anthocyanin coloration at base



1  
absent



9  
present

Ad. 13: Inflorescence bract: length of apex relative to total length of bract



Ad. 15: Inflorescence bract: opening

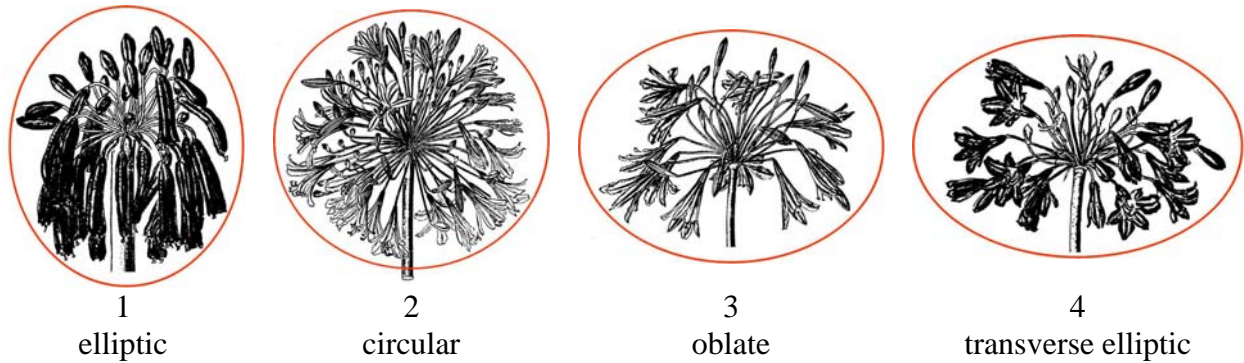
To be observed when most of the flower buds have protruded.



Ad. 16: Time of beginning of flowering

Time of beginning of flowering is when 50% of plants have at least one flower fully open.

Ad. 25: Inflorescence: shape in lateral view



Ad. 31: Pedicel: distribution of anthocyanin coloration

To be provided

To be provided

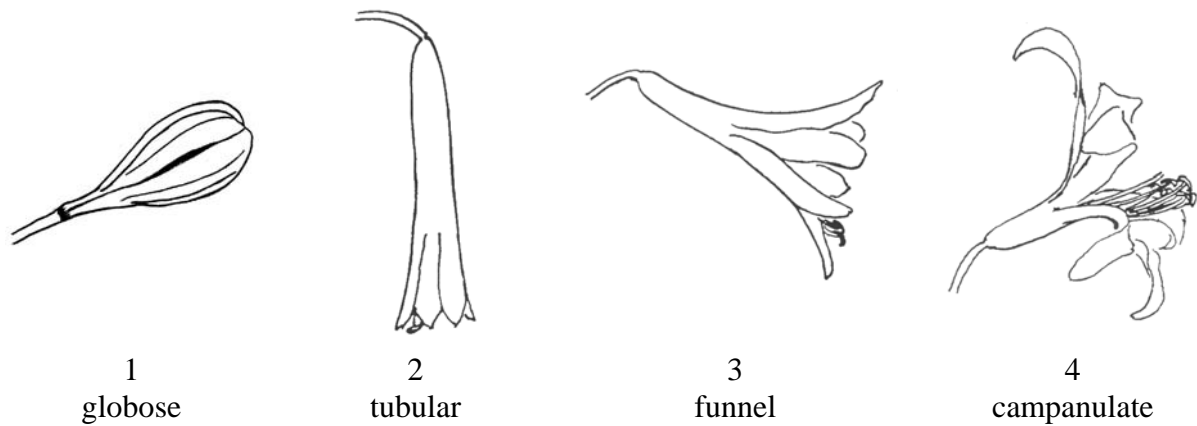
To be provided

1  
entire

2  
only on middle third

3  
only on upper and lower third

Ad. 32: Flower: shape



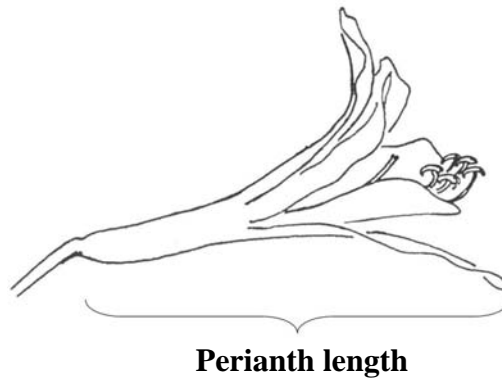
Ad. 33: Flower: type

Single type flowers have six tepals.

Semi-double type flowers have more than six tepals.

Ad. 34: Perianth: length

The natural length should be assessed.

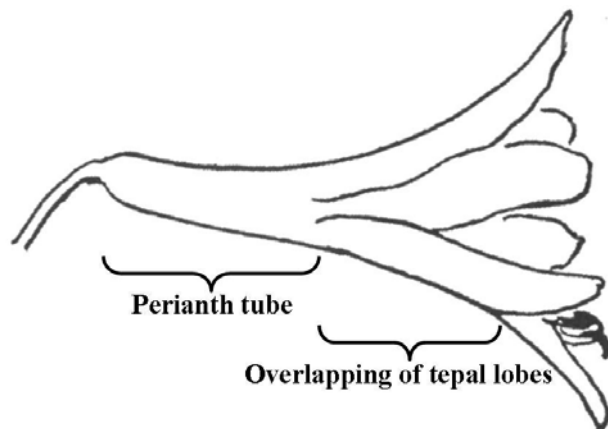


Ad. 35: Perianth: diameter

The maximum natural diameter should be assessed.

Ad. 36: Perianth: overlapping of tepal lobes

Ad. 37: Perianth tube: length



Ad. 39: Tepal lobe: ratio length/width

The tepal lobe is the part of the tepal that does not form part of the perianth tube.

Ad. 44: Flower: tepal-like staminodes and pistilodes

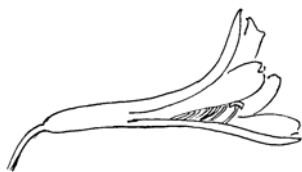


1  
absent

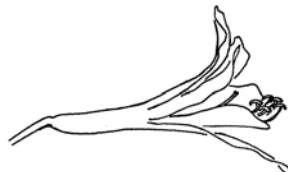


9  
present

Ad. 45: Stamens: protrusion in relation to apex of tepal lobes



1  
absent or weak



2  
medium



3  
strong

Ad. 47: Anther: color

The color of the anthers should be observed just before dehiscence.



9. Literature

Duncan, G.D., 1998: Kirstenbosch Gardening Series: Grow Agapanthus: a guide to the species, cultivation and propagation of the genus Agapanthus. National Botanical Institute, Kirstenbosch, Cape Town, ZA, 32 pp.

Germishuizen, G., Meyer, N.L., Steenkamp, Y., Keith, M., 2006: A checklist of South African plants. Southern African Botanical Diversity Network Report No. 41, SABONET, Pretoria.

Hattatt, L., 2001: Encyclopedia of garden plants and flowers. Parragon, Bath, UK, 256 pp.

Leighton, F.M., 1965: The genus *Agapanthus* L'Heritier. Journal of South African Botany, Supplementary Volume No. IV, 50 pp.

Perry, F. (ed.), 1980: The Macdonald encyclopedia of plants & flowers. Macdonald General Books, London, UK,.

Snoeijer, W., 2004: *Agapanthus*: a revision of the genus. Timber Press, Inc., Portland, Oregon, US, 320 pp.

Zonneveld, B.J.M., Duncan, G.D., 2003: Taxonomic implications of genome size and pollen colour and vitality for species of *Agapanthus* L'Heritier (Agapanthaceae). Plant Syst. Evol. 241: 115-123

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	<input type="text" value="Agapanthus L'Heritier"/>	
1.1.2 Common name	<input type="text" value="African lily, Agapanthus, Blue lily, Lily of the Nile"/>	
1.2 Species / Group (please complete)	<input type="text"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	

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

Proposed denomination  
(if available)

Breeder's reference

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

(a) controlled cross [ ]  
(please state parent varieties)

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

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

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

(c) unknown cross [ ]

4.1.2 Mutation [ ]  
(please state parent variety)

--

4.1.3 Discovery and development [ ]  
(please state where and when discovered and how developed)

--

4.1.4 Other [ ]  
(please provide details)

--

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

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

### 4.2.1 Vegetative propagation

(a) cuttings

(b) *in vitro* propagation

(c) other (state method)

4.2.2 Other

(please provide details)

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

Characteristics	Example Varieties	Note
<b>5.1 Plant: type</b> (1)		
deciduous	Deep Blue	1[ ]
semi-deciduous	Lilac Bells	2[ ]
evergreen	Cloudy Skies	3[ ]
<b>5.2 Leaf: variegation</b> (7)		
absent	Blue Velvet	1[ ]
present	Tinkerbelle	9[ ]
<b>5.3 Leaf: anthocyanin coloration at base</b> (12)		
absent	Blue Velvet	1[ ]
present	Wiley J	9[ ]
<b>5.4 Inflorescence bract: opening</b> (15)		
one side	Wiley J	1[ ]
both sides	Double Diamond	2[ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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<b>5.5 Inflorescence: number of flowers</b>		
<b>(22)</b>		
very few	Peter Pan	1[ ]
very few to few		2[ ]
few	Bright Eyes	3[ ]
few to medium		4[ ]
medium	Blue Velvet	5[ ]
medium to many		6[ ]
many	Magnifico	7[ ]
many to very many		8[ ]
very many	Maximus	9[ ]
<b>5.6(i) Flower bud: main color</b>		
<b>(26)</b>		
	RHS Colour Chart	
	(indicate reference number)	
<b>5.6(ii) Flower bud: main color</b>		
<b>(26)</b>		
white	Double Diamond	1[ ]
yellow green		2[ ]
violet	Amethyst	3[ ]
violet blue	Blue Velvet	4[ ]
blue		5[ ]
<b>5.7 Flower: type</b>		
<b>(33)</b>		
single	Blue Velvet	1[ ]
semi-double	Double Diamond	2[ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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<b>5.8 Anther: color</b> <b>(51)</b>		
white	Lavender Haze	1[ ]
green	Blue Brush	2[ ]
blue green	Glen Avon	3[ ]
light yellow	Ossato Snow	4[ ]
medium yellow	Polar Ice	5[ ]
purple	Corinne	6[ ]
brown	Umbellatus Albus	7[ ]
blue grey	Sarah	8[ ]
black	Aberdeen	9[ ]



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

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

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the <b>similar</b> variety(ies)	Describe the expression of the characteristic(s) for <b>your</b> candidate variety
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<i>Example</i>	<i>Plant: type</i>	<i>deciduous</i>	<i>evergreen</i>
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Comments:

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#7. Additional information which may help in the examination of the variety

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

Yes [ ] No [ ]

(If yes, please provide details)

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

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

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

8. Authorization for release

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

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

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

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

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

**Suggestions not included – to be discussed**

**NZ**

1. delete .....of the family Agapanthaceae

Character 3. Suggest Plant: number of leaves per fan

This will increase clarity as the plant produces fanlike shoots and a fan is what you observe.

Character 11. Leaf: fading of colouration with maturity

We have observed all colours to fade.

Character 32 Can you have globose? Are there varieties with effectively closed perianths?  
They never open fully? Slightly opened or partially opened flowers tend to be tube like.

Character 42 An explanation

**GB**

Char 32 Does this also capture the overall pose [upright, drooping etc.] of the flowers?

Ad. 10 See above, also they both look striped!