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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-second session, to be held in Angers, France, from September 14 to 18, 2009*

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	.....	.....	.....

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'Hér. 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 of flowering size.

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

10 plants of flowering size

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 The optimum stage of development for the assessment of each characteristic is indicated by a number in the second column of the Table of Characteristics. The stages of development denoted by each number are described at the end of Chapter 8.

3.3.3 The recommended method of observing the characteristic is indicated by the following key in the second column of the Table 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

3.3.4 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.

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

Unless otherwise indicated, all observations should be made on 10 plants or parts taken from each of 10 plants.

### 3.6 *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.

#### 4.2 *Uniformity*

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:

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 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) Leaf: variegation (characteristic 7)
- (b) Leaf: anthocyanin coloration at base (characteristic 11)
- (c) Inflorescence bract: opening (characteristic 14)
- (d) Inflorescence: number of flowers (characteristic 21)
- (e) Flower bud: main color (characteristic 25)
- (f) Flower: type (characteristic 32)
- (g) Anther: color (characteristic 51)
- (h) Plant: type (characteristic 55)

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

## 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*

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.

### 6.3 *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 3.3.1

(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/ Beispielsorten/ Variedades ejemplo	Note/ Nota
<b>1.</b>	<b>VG</b>	<b>Plant: density of foliage</b>				
<b>QN</b>	<b>(a)</b>	sparse			NZ to provide	3
		medium			NZ to provide	5
		dense			NZ to provide	7
<b>2.</b>	<b>VG</b>	<b>Plant: number of leaves per shoot</b>				
<b>QN</b>	<b>(a)</b>	few			NZ to provide	3
		medium			NZ to provide	5
		many			NZ to provide	7
<b>3.</b>	<b>MG/MS/ VG</b>	<b>Leaf: length</b>				
<b>QN</b>	<b>(a)</b>	short			Tinkerbelle	3
	<b>(b)</b>	medium			Lab Blue	5
		long			Deep Blue	7
<b>4. (*).</b>	<b>MG/MS/ VG</b>	<b>Leaf: width</b>				
<b>QN</b>	<b>(a)</b>	narrow			Deep Blue	3
	<b>(b)</b>	medium			Buddy Blue	5
		broad			Glen Avon	7
<b>5.</b>	<b>VG</b>	<b>Leaf: curvature</b>				
<b>QN</b>	<b>(a)</b>	absent or slightly recurved			Tinkerbelle	1
	<b>(b)</b>	moderately recurved			Aureovittatus	2
		strongly recurved			Hinag	3



		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>6.</b>	<b>VG</b>	<b>Leaf: main color of upper side</b>					
<b>PQ</b>	<b>(a)</b>	yellow green				NZ to provide	1
	<b>(b)</b>	light green				NZ to provide	2
		medium green				NZ to provide	3
		dark green				NZ to provide	4
		grey green				NZ to provide	5
<b>7. (* )</b>	<b>VG</b>	<b>Leaf: variegation</b>					
<b>QL</b>	<b>(a)</b>	absent				Malandon	1
		present				Hinag	9
<b>8.</b>	<b>VG</b>	<b>Leaf: color of variegation</b>					
<b>PQ</b>	<b>(a)</b>	white				Tinkerbelle	1
		yellow white				Aureovittatus	2
		pinkish white				NZ to provide	3
		yellow				Hinag	4
<b>9. (* )</b>	<b>VG</b>	<b>Leaf: type of variegation</b>					
<b>QL</b>	<b>(a)</b>	apical				Meibont	1
		marginal				Tigerleaf	2
		striped				Tinkerbelle	3
<b>10.</b>	<b>VG</b>	<b>Leaf: fading of variegation with development</b>					
<b>QL</b>	<b>(a)</b>	absent				Tinkerbelle	1
		present				Lemon & Lime	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>11.</b>	<b>VG</b>	<b>Leaf: anthocyanin coloration at base</b>					
(*)							
(+)							
<b>QL</b>	<b>(a)</b>	absent				Malandon	1
		present				Wiley J	9
<b>12.</b>	<b>VG</b>	<b>Inflorescence bract: length of apex relative to total length of bract</b>					
<b>QN</b>	<b>(a)</b>	very short				Wiley J	1
		short				DW Ag Purple 2	3
		medium				Nana Blue	5
		long				Smurfy Blue	7
		very long				Hartenbos White	9
<b>13.</b>	<b>VG</b>	<b>Inflorescence bract: anthocyanin coloration</b>					
<b>QN</b>	<b>(a)</b>	absent or weak				ATlblu	1
		medium				Peter Pan	2
		strong				Victoria Bay	3
<b>14.</b>	<b>VG</b>	<b>Inflorescence bract: opening</b>					
(*)							
<b>QL</b>	<b>(c)</b>	one side				Johanna	1
		two sides				Martine	2
<b>15.</b>	<b>VG</b>	<b>Time of beginning of flowering</b>					
(*)							
<b>QN</b>	<b>(c)</b>	early				ATlblu	3
		medium				Malandon	5
		late				New Blue	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>16.</b>	<b>MG/MS/ VG</b>	<b>Plant: height (including the inflorescence)</b>				
<b>QN</b>	short				NZ to provide	3
	medium				NZ to provide	5
	tall				NZ to provide	7
<b>17. (* )</b>	<b>MG/MS/ VG</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>18.</b>	<b>MG/MS/ VG</b>	<b>Peduncle: thickness</b>				
<b>QN</b>	(d) thin				Lab Blue	3
	medium				Buddy Blue	5
	thick				Cloudy Skies	7
<b>19.</b>	<b>VG</b>	<b>Peduncle: shape in cross section</b>				
<b>PQ</b>	(d) circular				Peter Pan	1
	elliptic				Wiley J	2
	oblong				Malandon	3
<b>20.</b>	<b>VG</b>	<b>Peduncle: anthocyanin coloration</b>				
<b>QN</b>	(d) absent or weak				Peter Pan	1
	medium				Midnight Blue	2
	strong				Black Beauty	3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>21.</b> (*)	<b>MG/MS/ VG</b>	<b>Inflorescence: number of flowers</b>				
<b>QN</b>	very few				Peter Pan	1
	few				Bright Eyes	3
	medium				Malandon	5
	many				Magnifico	7
	very many				Maximus	9
<b>22.</b>	<b>MG/MS/ VG</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
<b>23.</b> (+)	<b>VG</b>	<b>Inflorescence: shape in lateral view</b>				
<b>PQ</b>	ellipsoid to globose				Tall Boy	1
	globose				Pinchbeck	2
	globose to obloid				Deep Blue	3
	obloid				Loch Hope	4
<b>24.</b> (*) (+)	<b>VG</b>	<b>Flower bud: reflexing of tepals</b>				
<b>QL</b>	absent				Buddy Blue	1
	present				Malandon	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>25.</b>	<b>VG</b>	<b>Flower bud: main color</b>					
<b>(*)</b>							
<b>PQ</b>	<b>(e)</b>	white				Double Diamond	1
		non-white				Malandon	2
<b>26.</b>	<b>VG</b>	<b>Flower bud: secondary color</b>					
<b>(*)</b>							
<b>QL</b>	<b>(e)</b>	absent				Double Diamond	1
		towards base				Cloudy Skies	2
		towards apex				White Beauty	3
<b>27.</b>	<b>VG</b>	<b>Flower bud: secondary color</b>					
<b>PQ</b>	<b>(e)</b>	RHS Colour Chart (indicate reference number)					
<b>28.</b>	<b>VG</b>	<b><u>Only varieties with mainly non- white flower buds:</u> Flower bud: color of base relative to main color</b>					
<b>QN</b>	<b>(e)</b>	lighter				Ultramarine	3
		same color				Wiley J	5
		darker				Wolga	7
<b>29.</b>	<b>VG</b>	<b>Flower bud: greenish coloration at base</b>					
<b>QL</b>	<b>(e)</b>	absent				Wiley J	1
		present				Deep Blue	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>30.</b>	<b>VG</b>	<b>Flower: attitude</b>					
<b>QN</b>		semi-erect				Blanc Meoni	3
		horizontal				Pinchbeck	5
		semi-pendulous				Lydenburg	7
		pendulous				Graskop	9
<b>31.</b> (*) (+)	<b>VG</b>	<b>Flower: shape</b>					
<b>PQ</b>	<b>(f)</b>	tubular				Graskop	1
		narrow funnel-shaped				Wtg 001	2
		narrow campanulate-shaped				ATlblu	3
		broad campanulate-shaped				Lilliput	4
<b>32.</b> (*) (+)	<b>VG</b>	<b>Flower: type</b>					
<b>QL</b>	<b>(f)</b>	single				Malandon	1
		double				Double Diamond	2
<b>33.</b>	<b>MG/MS/ VG</b>	<b>Pedicel: length</b>					
<b>QN</b>	<b>(f)</b>	short				Deep Blue	3
		medium				Malandon	5
		long				Cloudy Skies	7
<b>34.</b>	<b>VG</b>	<b>Pedicel: anthocyanin coloration</b>					
<b>QN</b>	<b>(f)</b>	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>35.</b>	<b>VG</b>	<b>Pedicel: distribution of anthocyanin coloration</b>					
<b>PQ</b>	<b>(f)</b>	only at central part				Lab Blue	1
		evenly distributed				Black Beauty	2
		only at base and flower end				Victoria Bay	3
<b>36.</b>	<b>MG/MS/ VG</b>	<b>Perianth: length</b>					
	<b>(+)</b>						
<b>QN</b>	<b>(f)</b>	short				Lilliput	3
		medium				Malandon	5
		long				Graskop	7
<b>37.</b>	<b>MG/MS/ VG</b>	<b>Perianth: maximum diameter</b>					
	<b>(+)</b>						
<b>QN</b>	<b>(f)</b>	small				Graskop	3
		medium				Wtg 001	5
		large				Atlantic Ocean	7
<b>38.</b>	<b>MG/MS/ VG</b>	<b>Perianth: ratio length/maximum diameter</b>					
<b>QN</b>	<b>(f)</b>	compressed				Lilliput	1
		medium				ATlblu	2
		elongated				Wtg 001	3
		very elongated				Graskop	4

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>39.</b>	<b>VG</b>	<b>Perianth: overlapping of tepals</b>					
<b>PQ</b>	<b>(f)</b>	absent				Goliath	1
		partially				Wtg 001	2
		along the whole length				Graskop	3
<b>40.</b>	<b>MG/MS/ VG</b>	<b>Perianth tube: length</b>					
<b>QN</b>	<b>(f)</b>	short				Peter Pan	3
		medium				Goliath	5
		long				Graskop	7
<b>41.</b>	<b>VG</b>	<b>Perianth tube: main color of outer side</b>					
<b>PQ</b>	<b>(f)</b>	RHS Colour Chart (indicate reference number)					
<b>42.</b>	<b>MG/MS/ VG</b>	<b>Perianth lobe: ratio length/width</b>					
<b>PQ</b>	<b>(f)</b>	slightly elongated				Blue Globe	1
		moderately elongated				Elisabeth	2
		strongly elongated				Atlantic Ocean	3
<b>43.</b>	<b>VG</b>	<b>Perianth lobe: main color of outer side</b>					
<b>PQ</b>	<b>(f)</b>	RHS Colour Chart (indicate reference number)					
<b>44.</b>	<b>VG</b>	<b>Perianth lobe: color of midrib of inner side</b>					
<b>PQ</b>	<b>(f)</b>	RHS Colour Chart (indicate reference number)					



		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>45.</b>	<b>VG</b>	<b>Perianth lobe: transparency of midrib of inner side</b>					
<b>QN</b>	<b>(f)</b>	absent				Malandon	1
		present				Windsor Grey	9
<b>46.</b>	<b>VG</b>	<b>Perianth lobe: color of marginal zone of inner side</b>					
<b>PQ</b>	<b>(f)</b>	RHS Colour Chart (indicate reference number)					
<b>47.</b>	<b>VG</b>	<b>Perianth lobe: undulation of margin</b>					
<b>QN</b>	<b>(f)</b>	weak				Wtg 001	3
		medium				Blue Heaven	5
		strong				Malan Blue & White	7
<b>48.</b>	<b>VG</b>	<b>Presence of tepal-like staminodes and pistillodes</b>					
<b>QL</b>	<b>(f)</b>	absent				Waga	1
		present				Flore Pleno	9
<b>49. (* (+)</b>	<b>VG</b>	<b>Stamens: protrusion from perianth</b>					
<b>QN</b>	<b>(f)</b>	absent				Kama	1
		present				Helsinki	9
<b>50.</b>	<b>VG</b>	<b>Filament: color</b>					
<b>PQ</b>	<b>(f)</b>	white				DW Ag B+W	1
		purple				Wiley J	2
		violet blue				NZ to provide	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplo	Note/ Nota	
<b>51.</b>	<b>VG</b>	<b>Anther: color</b>						
(*)								
(+)								
<b>PQ</b>		white				NZ to provide	1	
		green				NZ to provide	2	
		blue green				NZ to provide	3	
		light yellow				Ossato Snow	4	
		medium yellow				Polar Ice	5	
		purple				Corinne	6	
		brown				Umbellatus Albus	7	
		blue grey				NZ to provide	8	
		black				Aberdeen	9	
<b>52.</b>	<b>VG</b>	<b>Style: color</b>						
<b>PQ</b>	<b>(f)</b>	white				DW Ag B+W	1	
		purple				Wiley J	2	
		violet blue				NZ to provide	3	
<b>53.</b>	<b>VG</b>	<b>Inflorescence bract: duration of attachment</b>						
(+)								
<b>QL</b>		remains attached				Cambridge	1	
		caducous				White Smile	2	
<b>54.</b>	<b>VG</b>	<b>Fruit: anthocyanin coloration</b>						
(+)								
<b>QL</b>		absent				Malandon	1	
		present				Intermedius	9	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>55.</b> (*) (+)	<b>VG</b>	<b>Plant: type</b>				
<b>PQ</b>	deciduous				Deep Blue	1
	semi-deciduous				Lilac Bells	2
	evergreen				Cloudy Skies	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) To be observed when the first flower is fully open.
- (d) To be observed in the middle third of the peduncle.
- (e) Observations on the flower bud should be made when the flower bud is fully expanded, just prior to reflexing of the tepals.
- (f) Observations on the flower and flower parts should be made on fresh fully open flowers.

### 8.2 *Explanations for individual characteristics*

#### Ad. 11: Leaf: anthocyanin coloration at base



1  
absent



9  
present

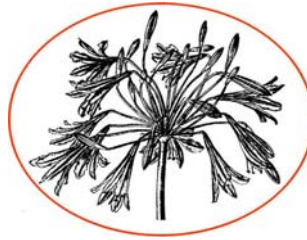
Ad. 23: Inflorescence: shape in lateral view



1  
ellipsoid to  
globose



2  
globose



3  
globose to obloid



4  
obloid

Ad. 24: Flower bud: reflexing of tepals



1  
absent



9  
present

Ad. 31: Flower: shape



1  
tubular



2  
narrow funnel-shaped



3  
narrow campanulate-  
shaped



4  
broad campanulate-  
shaped

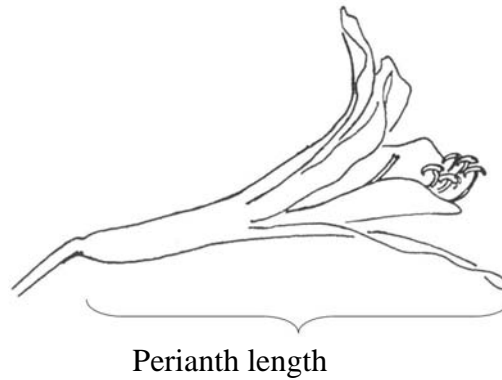
Ad. 32: Flower: type

Single type flowers have six tepals.

Double type flowers have more than six tepals.

Ad. 36: Perianth: length

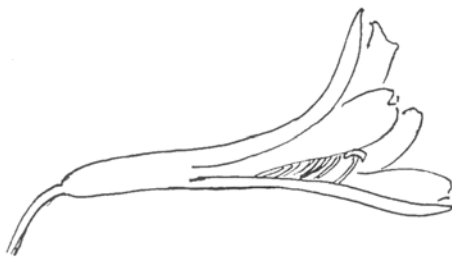
The natural length should be assessed.



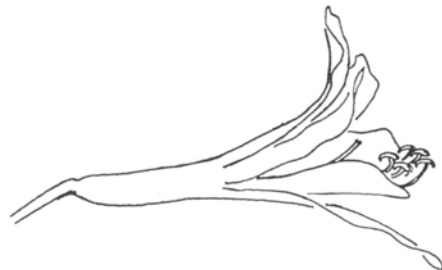
Ad. 37: Perianth: maximum diameter

The natural diameter should be assessed.

Ad. 49: Stamens: protrusion from perianth



1  
absent



9  
present

Ad. 51: Anther: color

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

Ad. 53: Inflorescence bract: duration of attachment

To be observed when at least 90% of all flowers have opened.

Ad. 54: Fruit: anthocyanin coloration

Observations should be made 4 weeks after the last flower has faded.

Ad. 55: Plant: type

Observations should be made during winter and spring.

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)
<b>TECHNICAL QUESTIONNAIRE</b> 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'Her."/>	
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)

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

(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)

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

(a) division [ ]  
(b) *in vitro* propagation [ ]  
(c) other (state method) [ ]

4.2.2 Seed [ ]

4.2.3 Other [ ]  
(please provide details)

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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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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 Leaf: variegation</b> (7)		
absent	Malandon	1[ ]
present	Hinag	9[ ]
<b>5.2 Leaf: anthocyanin coloration at base</b> (11)		
absent	Malandon	1[ ]
present	Wiley J	9[ ]
<b>5.3 Inflorescence bract: opening</b> (14)		
one side	Johanna	1[ ]
two sides	Martine	2[ ]
<b>5.4 Inflorescence: number of flowers</b> (21)		
very few	Peter Pan	1[ ]
few	Bright Eyes	3[ ]
medium	Malandon	5[ ]
many	Magnifico	7[ ]
very many	Maximus	9[ ]
<b>5.5 Flower bud: main color</b> (25)		
white	Double Diamond	1[ ]
non-white	Malandon	2[ ]
<b>5.6 Flower: type</b> (32)		
single	Malandon	1[ ]
double	Double Diamond	2[ ]

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics		Example Varieties	Note
<b>5.7 Anther: color</b> <b>(51)</b>			
white		NZ to provide	1[ ]
green		NZ to provide	2[ ]
blue green		NZ to provide	3[ ]
light yellow		Ossato Snow	4[ ]
medium yellow		Polar Ice	5[ ]
purple		Corinne	6[ ]
brown		Umbellatus Albus	7[ ]
blue grey		NZ to provide	8[ ]
black		Aberdeen	9[ ]
<b>5.8 Plant: type</b> <b>(55)</b>			
deciduous		Deep Blue	1[ ]
semi-deciduous		Lilac Bells	2[ ]
evergreen		Cloudy Skies	3[ ]

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
<i>Example</i>	<i>Plant: type</i>	<i>deciduous</i>	<i>evergreen</i>

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]