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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

LAGERSTROEMIA*

UPOV Code(s): LAGER

Lagerstroemia L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

Alternative names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Lagerstroemia</i> L.	Lagerstroemia, Crape Myrtle, Crepe Myrtle	Lagerstroemia	Lagerstroemia	Lagerstroemia, Lagestroemia

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 *Lagerstroemia* L.

2. Material Required

- 2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.
- 2.2 The material is to be supplied in the form of plants capable of flowering and 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:
- 6 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*

- 3.1.1 The minimum duration of tests should normally be two independent growing cycles.
- 3.1.2 The two independent growing cycles may be observed from a single planting, examined in two separate growing cycles.
- 3.1.3 The testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test.

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*

Each test should be designed to result in a total of at least 6 plants.

3.5 *Additional Tests*

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.1.4 Number of Plants or Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 5 plants or parts of plants taken from each of 5 plants and any other observations made on all plants in the test, disregarding any off-type plants.

In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 5.

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 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 These Test Guidelines have been developed for the examination of vegetatively propagated varieties. For varieties with other types of propagation, the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.

4.2.3 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 6 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) Plant: height (characteristic 1)
- (b) Leaf blade: distribution of anthocyanin coloration (characteristic 7)
- (c) Leaf blade: intensity of anthocyanin coloration (characteristic 8)
- (d) Petal: main color of inner side (characteristic 24) with the followings groups:
 - Gr. 1: white
 - Gr. 2: light pink
 - Gr. 3: dark pink
 - Gr. 4: red
 - Gr. 5: purple
- (e) Time of beginning of flowering (characteristic 37)

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 All relevant states of expression are presented in the characteristic.

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 "Development of Test Guidelines".

6.3 *Types of Expression*

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 *Example Varieties*

Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

6.5 Legend

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

1 Characteristic number

2 (*) Asterisked characteristic – see Chapter 6.1.2

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

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

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

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

7 Not applicable

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

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. (*)	QN	MS/VG	(a)				
	Plant: height	Plante : hauteur	Pflanze: Höhe	Planta: altura			
	short	courte	niedrig	baja	DABLAGE01		1
	short to medium	courte à moyenne	niedrig bis mittel	baja a media			2
	medium	moyenne	mittel	media	Desal 173		3
	medium to tall	moyenne à haute	mittel bis hoch	media a alta			4
	tall	haute	hoch	alta	Watermelon		5
2. (*)	PQ	VG	(+)	(a)			
	Plant: growth habit	Plante : port	Pflanze: Wuchsform	Planta: hábito de crecimiento			
	upright	dressé	aufrecht	erecto	Lucas Red, Whit II		1
	semi-upright	demi-dressé	halbaufrecht	semierecto	Desber 102		2
	spreading	étalé	breitwüchsig	extendido	Houston, Petit' Canaille Blanc		3
3. (*)	QN	VG	(+)				
	Stem: anthocyanin coloration	Tige : pigmentation anthocyanique	Trieb: Anthocyanfärbung	Tallo: pigmentación antociánica			
	very weak	très faible	sehr gering	muy débil			1
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil			2
	weak	faible	gering	débil	Deskim, Grand Cru		3
	weak to medium	faible à moyenne	gering bis mittel	débil a media			4
	medium	moyenne	mittel	media	Coral Filli, INDYFUS, MILAPERL		5
	medium to strong	moyenne à forte	mittel bis stark	media a fuerte			6
	strong	forte	stark	fuerte	Lucas Red		7
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte			8
	very strong	très forte	sehr stark	muy fuerte			9

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
4. (*)	QN	MS/VG	(b)				
	Leaf blade: length	Limbe : longueur	Blattspreite: Länge	Limbo: longitud			
	very short	très courte	sehr kurz	muy corta			1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta			2
	short	courte	kurz	corta	Coral Filli		3
	short to medium	courte à moyenne	kurz bis mittel	corta a media			4
	medium	moyenne	mittel	media	Desper		5
	medium to long	moyenne à longue	mittel bis lang	media a larga			6
	long	longue	lang	larga	Burgundy Cotton		7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga			8
	very long	très longue	sehr lang	muy larga			9
5. (*)	QN	MS/VG	(b)				
	Leaf blade: width	Limbe : largeur	Blattspreite: Breite	Limbo: anchura			
	very narrow	très étroite	sehr schmal	muy estrecha			1
	very narrow to narrow	très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha			2
	narrow	étroite	schmal	estrecha	Petit' Canaille Blanc		3
	narrow to medium	étroite à moyenne	schmal bis mittel	estrecha a media			4
	medium	moyenne	mittel	media	INDYBRA		5
	medium to broad	moyenne à large	mittel bis breit	media a ancha			6
	broad	large	breit	ancha	Hopi		7
	broad to very broad	large à très large	breit bis sehr breit	ancha muy ancha			8
	very broad	très large	sehr breit	muy ancha			9
6. (*)	PQ	VG	(b)				
	Leaf blade: shape	Limbe : forme	Blattspreite: Form	Limbo: forma			
	only elliptic	uniquement elliptique	nur elliptisch	solo elíptica	Whit IV		1
	mainly elliptic	principalement elliptique	überwiegend elliptisch	principalmente elíptica	Royal Velvet, Violet Filli		2
	mainly obovate	principalement obovale	überwiegend verkehrt eiförmig	principalmente oboval	INDYCAM, Red Filli		3
	only obovate	uniquement obovale	nur verkehrt eiförmig	solo oboval	CAP11		4

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7. (*)	PQ	VG	(+)	(b)				
	Leaf blade: distribution of anthocyanin coloration	Limbe : distribution de la pigmentation anthocyanique	Blattspreite: Verteilung der Anthocyanfärbung	Limbo: distribución de la pigmentación antocianica				
	absent	absente	fehlend	ausente		Petit' Canaille Blanc	1	
	on margin	au bord	am Rand	en el borde		Main Little Chief, Whit IV	2	
	irregular	irrégulière	unregelmäßig	irregular		Burgundy Cotton	3	
	throughout	partout	überall	en la totalidad		Lucas Red	4	
8. (*)	QN	VG	(b)					
	Leaf blade: intensity of anthocyanin coloration	Limbe : intensité de la pigmentation anthocyanique	Blattspreite: Intensität der Anthocyanfärbung	Limbo: intensidad de la pigmentación antocianica				
	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil			1	
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil			2	
	weak	faible	gering	débil		Coral Filli	3	
	weak to medium	faible à moyenne	gering bis mittel	débil a media			4	
	medium	moyenne	mittel	media		Royal Velvet	5	
	medium to strong	moyenne à forte	mittel bis stark	media a fuerte			6	
	strong	forte	stark	fuerte		Whit II	7	
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte			8	
	very strong	très forte	sehr stark	muy fuerte			9	
9. (*)	QN	VG	(b)					
	Leaf blade: intensity of green color	Limbe : intensité de la couleur verte	Blattspreite: Intensität der Grünfärbung	Limbo: intensidad del color verde				
	very light	très claire	sehr hell	muy clara		CAP18	1	
	very light to light	très claire à claire	sehr hell bis hell	muy clara a clara			2	
	light	claire	hell	clara		Desyan, Nana Lavender	3	
	light to medium	claire à moyenne	hell bis mittel	clara a media			4	
	medium	moyenne	mittel	media		Tonto	5	
	medium to dark	moyenne à foncée	mittel bis dunkel	media a oscura			6	
	dark	foncée	dunkel	oscura		Desemi 103	7	
	dark to very dark	foncée à très foncée	dunkel bis sehr dunkel	oscura a muy oscurs			8	
	very dark	très foncée	sehr dunkel	muy oscura			9	

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10. (*)	QN	VG	(+)	(b)				
	Leaf blade: undulation of margin	Limbe : ondulation du bord	Blattspreite: Wellung des Randes	Limbo: ondulación del borde				
	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Deschin, Petit' Canaille Blanc		1	
	weak	faible	gering	débil	INDYFUS		2	
	medium	moyenne	mittel	media	Superviolacea		3	
	strong	forte	stark	fuerte	Descha		4	
	very strong	très forte	sehr stark	muy fuerte			5	
11. (*)	QN	VG		(b)				
	Leaf blade: glossiness of upper side	Limbe : brillance de la face supérieure	Blattspreite: Glanz der Oberseite	Limbo: brillo del haz				
	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Desper		1	
	weak	faible	gering	débil	Petit' Canaille Blanc		2	
	medium	moyenne	mittel	medio	INDYVIO		3	
	strong	forte	stark	fuerte	INDYBRA		4	
	very strong	très forte	sehr stark	muy fuerte			5	
12. (*)	QL	VG	(+)	(b)				
	Leaf blade: variegation	Limbe : panachure	Blattspreite: Panaschierung	Limbo: variegación				
	absent	absente	fehlend	ausente	Whit II		1	
	white and grey green	blanche et gris-vert	weiß und graugrün	blanca y verde grisácea	Shirohakekomifu		2	
	yellow	jaune	gelb	amarilla	Kibotafu		3	
13.	QN	MG/VG		(c)				
	Flower bud: length	Bouton floral : longueur	Blütenknospe: Länge	Botón floral: longitud				
	very short	très courte	sehr kurz	muy corta			1	
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta			2	
	short	courte	kurz	corta	Coral Filli		3	
	short to medium	courte à moyenne	kurz bis mittel	corta a media			4	
	medium	moyenne	mittel	media	Deschin		5	
	medium to long	moyenne à longue	mittel bis lang	media a larga			6	
	long	longue	lang	larga	Desmou 083		7	
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga			8	
	very long	très longue	sehr lang	muy larga			9	

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14.	QN	MG/VG	(c)				
	Flower bud: width		Bouton floral : largeur	Blütenknospe: Breite	Botón floral: anchura		
	very narrow		très étroite	sehr schmal	muy estrecha		1
	very narrow to narrow		très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha		2
	narrow		étroite	schmal	estrecha	Petite Red	3
	narrow to medium		étroite à moyenne	schmal bis mittel	estrecha a media		4
	medium		moyenne	mittel	media	Dessoi 062, Petit' Canaille Rouge	5
	medium to broad		moyenne à large	mittel bis breit	media a ancha		6
	broad		large	breit	ancha	Desemi 103, Watermelon	7
	broad to very broad		large à très large	breit bis sehr breit	ancha muy ancha		8
	very broad		très large	sehr breit	muy ancha		9
15. (*)	PQ	VG	(+)	(c)			
	Flower bud: shape		Bouton floral : forme	Blütenknospe: Form	Botón floral: forma		
	circular		circulaire	kreisförmig	circular	Desemi 103, Despan 001	1
	broad oblong		oblongue large	breit rechteckig	oblonga ancha	Dessoi 062, Petite Orchid	2
	narrow oblong		oblongue étroite	schmal rechteckig	oblonga estrecha	Red Imperator	3
	narrow obovate		obovale étroite	schmal verkehrt eiförmig	oboval estrecha	Desber 102, Seminole	4
	broad obovate		obovale large	breit verkehrt eiförmig	oboval ancha	Potomac	5
16.	QN	VG	(+)	(c)			
	Flower bud: prominence of ridges		Bouton floral : proéminence des cannelures	Blütenknospe: Ausprägung der Rippen	Botón floral: prominencia de las aristas		
	absent or weak		absente ou faible	fehlend oder gering	ausente o débil	Deskim	1
	weak to medium		faible à moyenne	gering bis mittel	débil a media		2
	medium		moyenne	mittel	media	Desyan	3
	medium to strong		moyenne à forte	mittel bis stark	media a fuerte		4
	strong		forte	stark	fuerte	Majestic Orchid, Petit' Canaille Blanc	5
17. (*)	QN	VG	(+)	(c)			
	Flower bud: area of anthocyanin coloration		Bouton floral : surface de la pigmentation anthocyanique	Blütenknospe: Fläche der Anthocyanfärbung	Botón floral: superficie de la pigmentación antocianica		
	absent or small		absente ou petite	fehlend oder klein	ausente o pequeña	Near East	1
	small to medium		petite à moyenne	klein bis mittel	pequeña a media		2
	medium		moyenne	mittel	media	INDYVIO	3
	medium to large		moyenne à grande	mittel bis groß	media a grande		4
	large		grande	groß	grande	Lucas Red	5

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18.	QN	VG	(c)				
	Flower bud: glossiness	Bouton floral : brillance	Blütenknospe: Glanz	Botón floral: brillo			
	weak	faible	gering	débil	La Valette		1
	medium	moyenne	mittel	medio	Margaux		2
	strong	forte	stark	fuerte	INDYBRA		3
19. (*)	QN	VG	(d)				
	Plant: number of thyrses	Plante : nombre de thyrses	Pflanze: Anzahl Thyrsi	Planta: número de tirso			
	very few	très petit	sehr gering	muy bajo			1
	very few to few	très petit à petit	sehr gering bis gering	muy bajo a bajo			2
	few	petit	gering	bajo	Lucas Red, Nivea		3
	few to medium	petit à moyen	gering bis mittel	bajo a medio			4
	medium	moyen	mittel	medio	INDYFUS, Orlando		5
	medium to many	moyen à élevé	mittel bis groß	medio a alto			6
	many	élevé	groß	alto	Desal 173, Petite Orchid		7
	many to very many	élevé à très élevé	groß bis sehr groß	alto a muy alto			8
	very many	très élevé	sehr groß	muy alto			9
20. (*)	PQ	VG	(+) (d)				
	Thyrse: shape	Thyrse : forme	Thyrsus: Form	Tirso: forma			
	globose	globuleuse	kugelförmig	globosa	Nivea		1
	conic	conique	kegelförmig	cónica	Desmon		2
	sagittate	sagittée	pfeilspitzenförmig	sagitada	Royal Velvet		3
	irregular	irrégulière	unregelmäßig	irregular	Desjac 124		4
21. (*)	QN	VG	(+) (d)				
	Thyrse: length	Thyrse : longueur	Thyrsus: Länge	Tirso: longitud			
	very short	très courte	sehr kurz	muy corta			1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta			2
	short	courte	kurz	corta	Provence, Tonto		3
	short to medium	courte à moyenne	kurz bis mittel	corta a media			4
	medium	moyenne	mittel	media	Desper		5
	medium to long	moyenne à longue	mittel bis lang	media a larga			6
	long	longue	lang	larga	Seminole		7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga			8
	very long	très longue	sehr lang	muy larga			9

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22. (*)	QN	VG	(d)				
	Thyrse: number of flowers	Thyrse : nombre de fleurs	Thyrsus: Anzahl Blüten	Tirso: número de flores			
	very few	très petit	sehr gering	muy bajo			1
	very few to few	très petit à petit	sehr gering bis gering	muy bajo a bajo			2
	few	petit	gering	bajo	Despan 001, Pink Blush		3
	few to medium	petit à moyen	gering bis mittel	bajo a medio			4
	medium	moyen	mittel	medio	Deskim		5
	medium to many	moyen à élevé	mittel bis groß	medio a alto			6
	many	élevé	groß	alto	Deschin, Desjac 124		7
	many to very many	élevé à très élevé	groß bis sehr groß	alto a muy alto			8
	very many	très élevé	sehr groß	muy alto			9
23. (*)	QN	VG	(e)				
	Flower: diameter	Fleur : diamètre	Blüte: Durchmesser	Flor: diámetro			
	very small	très petit	sehr klein	muy pequenõ			1
	very small to small	très petit à petit	sehr klein bis klein	muy pequenõ a pequenõ			2
	small	petit	klein	pequenõ	Petit' Canaille Rouge, Superviolacea		3
	small to medium	petit à moyen	klein bis mittel	pequenõ a medio			4
	medium	moyen	mittel	medio	Desal 173, Seminole		5
	medium to large	moyen à grand	mittel bis groß	medio a grande			6
	large	grand	groß	grande	Deskim, Desmou 083		7
	large to very large	grand à très grand	groß bis sehr groß	grande a muy grande			8
	very large	très grand	sehr groß	muy grande			9
24. (*)	PQ	VG	(e), (f)				
	Petal: main color of inner side	Pétale : couleur principale de la face interne	Blütenblatt: Hauptfarbe der Innenseite	Pétalo: color principal de la cara interna			
	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)			
25. (*)	PQ	VG	(e), (f)				
	Petal: secondary color of inner side	Pétale : couleur secondaire de la face interne	Blütenblatt: Sekundärfarbe der Innenseite	Pétalo: color secundario de la cara interna			
	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
26.	(*)	QN	VG	(+)	(e)			
		Petal: undulation	Pétale : ondulation	Blütenblatt: Wellung	Pétalo: ondulación			
		weak	faible	gering	débil	Desber 102, Orlando	1	
		medium	moyenne	mittel	media	Hopi, Houston	2	
		strong	forte	stark	fuerte	MILAVIO, Piilag VII	3	
27.		QN	VG	(+)	(e)			
		Petal claw: length	Onglet du pétale : longueur	Blütenblattnagel: Länge	Uña del pétalo: longitud			
		short	courte	kurz	corta	Berlingot Menthe	1	
		medium	moyenne	mittel	media	Catawba, Descha	2	
		long	longue	lang	larga	Potomac	3	
28.		PQ	VG		(e), (f)			
		Petal claw: color	Onglet du pétale: couleur	Blütenblattnagel: Farbe	Uña del pétalo: color			
		white	blanc	weiß	blanco	Enduring Summer White	1	
		light pink	rose clair	hellrosa	rosa claro	Near East	2	
		medium pink	rose moyen	mittelrosa	rosa medio	Catawba, Deskim, MILAPERL	3	
		dark pink	rose foncé	dunkelrosa	rosa oscuro	La Valette, Lucas Red	4	
		red	rouge	rot	rojo	Watermelon	5	
29.	(*)	QL	VG	(+)	(e)			
		Stamen: conspicuousness	Étamine : netteté	Staubgefäß: Ausprägung	Estambres: visibilidad			
		inconspicuous	peu nette	unauffällig	poco visible	Red Emperor, Rocamadour	1	
		conspicuous	nette	auffällig	claramente visible	Desber 102, Grand Cru	2	

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
30.	QN	VG	(g)				
	Plant: number of fruits	Plante : nombre de fruits	Pflanze: Anzahl Früchte	Planta: número de frutos			
	very few	très petit	sehr gering	muy bajo			1
	very few to few	très petit à petit	sehr gering bis gering	muy bajo a bajo			2
	few	petit	gering	bajo	Petite Red, Rocamadour		3
	few to medium	petit à moyen	gering bis mittel	bajo a medio			4
	medium	moyen	mittel	medio	Orlando, Potomac		5
	medium to many	moyen à élevé	mittel bis groß	medio a alto			6
	many	élevé	groß	alto	Violet Filli		7
	many to very many	élevé à très élevé	groß bis sehr groß	alto a muy alto			8
	very many	très élevé	sehr groß	muy alto			9
31. (*)	QN	VG	(g)				
	Fruit: length	Fruit : longueur	Frucht: Länge	Fruto: longitud			
	short	courte	kurz	corta	Coral Filli		1
	medium	moyenne	mittel	media	INDYCAM		2
	long	longue	lang	larga	MILAVIO		3
32. (*)	QN	VG	(g)				
	Fruit: diameter	Fruit : diamètre	Frucht: Durchmesser	Fruto: diámetro			
	small	petit	klein	pequeño	Margaux		1
	medium	moyen	mittel	medio	Royal Velvet		2
	large	grand	groß	grande	INDYFUS		3
33. (*)	QN	VG	(+)	(g)			
	Fruit: ratio length/diameter	Fruit : rapport longueur/diamètre	Frucht: Verhältnis Länge/Durchmesser	Fruto: relación longitud/diámetro			
	low	bas	klein	baja	INDYFUS		1
	medium	moyen	mittel	media	INDYCAM		2
	high	élevé	groß	alta	MILAVIO		3

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
34. (*)	QN	VG	(+)	(g)				
	Fruit: intensity of green color	Fruit : intensité de la couleur verte	Frucht: Intensität der Grünfärbung	Fruto: intensidad del color verde				
	very light	très claire	sehr hell	muy clara	CAP18		1	
	very light to light	très claire à claire	sehr hell bis hell	muy clara a clara			2	
	light	claire	hell	clara	Catawba, Powhatan		3	
	light to medium	claire à moyenne	hell bis mittel	clara a media			4	
	medium	moyenne	mittel	media	Desyan		5	
	medium to dark	moyenne à foncée	mittel bis dunkel	media a oscura			6	
	dark	foncée	dunkel	oscura	Desand 081		7	
	dark to very dark	foncée à très foncée	dunkel bis sehr dunkel	oscura a muy oscura			8	
	very dark	très foncée	sehr dunkel	muy oscura			9	
35.	QN	VG	(g)					
	Fruit: anthocyanin coloration	Fruit : pigmentation anthocyanique	Frucht: Anthocyanfärbung	Fruto: pigmentación antocianica				
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Potomac		1	
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil			2	
	weak	faible	gering	débil	Milarosso		3	
	weak to medium	faible à moyenne	gering bis mittel	débil a media			4	
	medium	moyenne	mittel	media	Pure white		5	
	medium to strong	moyenne à forte	mittel bis stark	media a fuerte			6	
	strong	forte	stark	fuerte	CAP18		7	
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte			8	
	very strong	très forte	sehr stark	muy fuerte	Red Hot		9	
36. (*)	QN	VG	(+)					
	Time of vegetative bud burst	Époque du débourrement végétatif	Zeitpunkt des Aufbruchs der vegetativen Knospe	Época de brotación de las yemas vegetativas				
	very early	très précoce	sehr früh	muy temprana	MILAVIO		1	
	very early to early	très précoce à précoce	sehr früh bis früh	muy temprana a temprana			2	
	early	précoce	früh	temprana	Petite Red		3	
	early to medium	précoce à moyenne	früh bis mittel	temprana a media			4	
	medium	moyenne	mittel	media	Despan 001, Dessoi 062		5	
	medium to late	moyenne à tardive	mittel bis spät	media a tardía			6	
	late	tardive	spät	tardía	Berlingot Menthe, Deskim		7	
	late to very late	tardive à très tardive	spat bis sehr spät	tardía a muy tardía			8	
	very late	très tardive	sehr spät	muy tardía			9	

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37. (*)	QN	MG/VG	(+)			
	Time of beginning of flowering	Époque de début de floraison	Zeitpunkt des Blühbeginns	Época de inicio de la floración		
	very early	très précoce	sehr früh	muy temprana	MILAROSA	1
	very early to early	très précoce à précoce	sehr früh bis früh	muy temprana a temprana		2
	early	précoce	früh	temprana	Desper, Near East	3
	early to medium	précoce à moyenne	früh bis mittel	temprana a media		4
	medium	moyenne	mittel	media	Tonto	5
	medium to late	moyenne à tardive	mittel bis spät	media a tardía		6
	late	tardive	spät	tardía	Whit IV	7
	late to very late	tardive à très tardive	spat bis sehr spät	tardía a muy tardía		8
	very late	très tardive	sehr spät	muy tardía	Crimson red	9

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

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

- (a) Observations should be made just before flowering.
- (b) Observations should be made on fully expanded leaves from the middle third of the stem.
- (c) Observations should be made on the broadest flower bud from the top of the primary thyrses, just before opening of the flower bud.
- (d) Observations should be made on fully developed thyrses when all flowers are open.
- (e) Observations should be made on just opened flowers.
- (f) The main color is the color with the largest surface area. The secondary color is the color with the second largest surface area. The tertiary color is the color with the third 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 darker color is considered to be the main color. In cases where the areas of the secondary color and tertiary color are too similar to reliably decide which color has the largest area, the darker color is considered to be the secondary color.
- (g) Observations should be made on well-developed ripe fruits, from the top of the primary thyrses.

8.2 *Explanations for individual characteristics*

Ad. 2: Plant: growth habit



1
upright



2
semi-upright

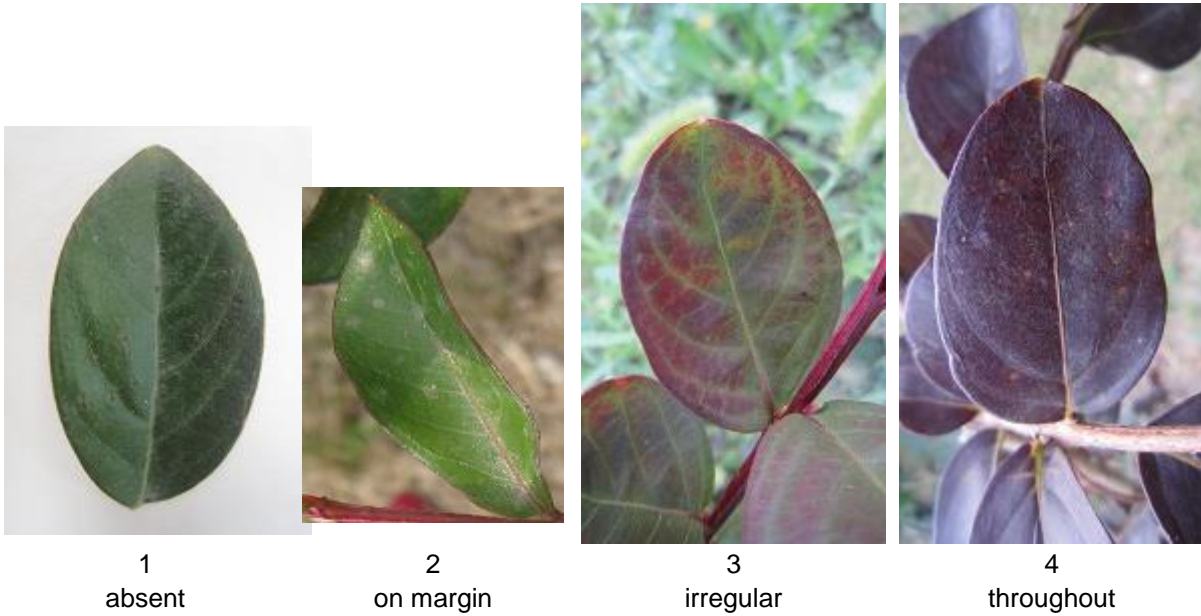


3
spreading

Ad. 3: Stem: anthocyanin coloration

Observations should be made on the middle third of the stem, just before flowering.

Ad. 7: Leaf blade: distribution of anthocyanin coloration



Ad. 10: Leaf blade: undulation of margin



Ad. 12: Leaf blade: variegation

Observations should be made excluding anthocyanin coloration.

Ad. 15: Flower bud: shape



1
circular



2
broad oblong



3
narrow oblong



4
narrow obovate



5
broad obovate

Ad. 16: Flower bud: prominence of ridges



1
absent or weak



3
medium



5
strong

Ad. 17: Flower bud: area of anthocyanin coloration



1
absent or small

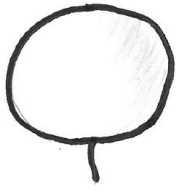


3
medium



5
large

Ad. 20: Thyse: shape



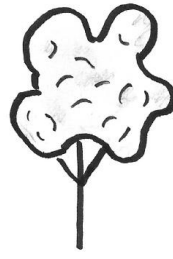
1
globose



2
conic



3
sagittate



4
irregular

Ad. 21: Thyse: length



Ad. 26: Petal: undulation



1
weak

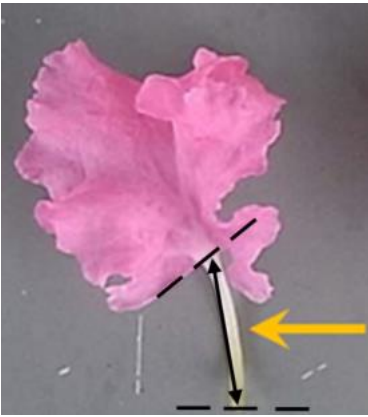


2
medium



3
strong

Ad. 27: Petal claw: length



Ad. 29: Stamen: conspicuousness



1
inconspicuous



2
conspicuous

Ad. 33: Fruit: ratio length/diameter



1
low



3
high

Ad. 34: Fruit: intensity of green color

Not possible to be observed when fully covered by anthocyanin over color.

Ad. 36: Time of vegetative bud burst

The time of vegetative bud burst is reached when the first leaves appear on all plants.

Ad. 37: Time of beginning of flowering

The time of beginning of flowering is reached when all plants have some open flowers on approximately 10% of thyrses.

9. Literature

Byers, MD., 1997: Crape Myrtle. Owl Bay Pub. Cornell University, Ithaca, New York State 14850, US, 180pp.

Edwards, AD., 1994: Freezing Tolerance of Lagerstroemia Indica X Fauriei Cultivars in USDA Zones 7 and 8. Mississippi State University. Department of Plant and Soil Sciences. US, 66 pp.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights		
1. Subject of the Technical Questionnaire		
1.1	Botanical name	<input type="text" value="Lagerstroemia L."/>
1.2	Common name	<input type="text" value="Lagerstroemia, Crape Myrtle, Crepe Myrtle"/>
1.3	Species (please specify):	<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"/>
3. Proposed denomination and breeder's reference		
	Proposed denomination (if available)	<input type="text"/>
	Breeder's reference	<input type="text"/>

#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 variety)
(.....) 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
5.1 Plant: height (1)		
short	DABLAGE01	1 []
short to medium		2 []
medium	Desal 173	3 []
medium to tall		4 []
tall	Watermelon	5 []
5.2 Plant: growth habit (2)		
upright	Lucas Red, Whit II	1 []
semi-upright	Desber 102	2 []
spreading	Houston, Petit' Canaille Blanc	3 []
5.3 Stem: anthocyanin coloration (3)		
very weak		1 []
very weak to weak		2 []
weak	Deskim, Grand Cru	3 []
weak to medium		4 []
medium	Coral Filli, INDYFUS, MILAPERL	5 []
medium to strong		6 []
strong	Lucas Red	7 []
strong to very strong		8 []
very strong		9 []
5.4 Leaf blade: distribution of anthocyanin coloration (7)		
absent	Petit' Canaille Blanc	1 []
on margin	Main Little Chief, Whit IV	2 []
irregular	Burgundy Cotton	3 []
throughout	Lucas Red	4 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
5.5 Leaf blade: intensity of anthocyanin coloration (8)		
absent or very weak		1 []
very weak to weak		2 []
weak	Coral Filli	3 []
weak to medium		4 []
medium	Royal Velvet	5 []
medium to strong		6 []
strong	Whit II	7 []
strong to very strong		8 []
very strong		9 []
5.6 Leaf blade: variegation (12)		
absent	Whit II	1 []
white and grey green	Shirohakekomifu	2 []
yellow	Kibotafu	3 []
5.7 Thyrses: shape (20)		
globose	Nivea	1 []
conic	Desmon	2 []
sagittate	Royal Velvet	3 []
irregular	Desjac 124	4 []
5.8(i) Petal: main color of inner side (24)		
RHS Colour Chart (indicate reference number)		
5.8(ii) Petal: main color of inner side (24)		
white		1 []
light pink		2 []
dark pink		3 []
red		4 []
purple		5 []
other (please indicate)		6 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
5.9 Time of beginning of flowering (37)		
very early	MILAROSA	1 []
very early to early		2 []
early	Desper, Near East	3 []
early to medium		4 []
medium	Tonto	5 []
medium to late		6 []
late	Whit IV	7 []
late to very late		8 []
very late	Crimson red	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 similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>Example</i>	<i>Flower bud: shape</i>	<i>circular</i>	<i>narrow obovate</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 displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)"

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (<http://www.upov.int/tgp/en/>).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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8. Authorization for release

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

Yes [] No []

(b) Has such authorization been obtained?

Yes [] No []

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

9. Information on plant material to be examined or submitted for examination

9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc.

9.2 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

(a) Microorganisms (e.g. virus, bacteria, phytoplasma)	Yes []	No []
(b) Chemical treatment (e.g. growth retardant, pesticide)	Yes []	No []
(c) Tissue culture	Yes []	No []
(d) Other factors	Yes []	No []

Please provide details for where you have indicated "yes".

.....

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature Date

[End of document]