



PROTOCOL FOR TESTS ON DISTINCTNESS, UNIFORMITY AND STABILITY

Salvia L.

SALVIA

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1. SUBJECT OF THE PROTOCOL AND REPORTING

1.1 Scope of the technical protocol

This Technical Protocol applies to all varieties of *Salvia L.*

The characteristics in these Test Guidelines have been developed to distinguish between ornamental varieties. It may also be used to distinguish herbal types of varieties although additional characteristics and states of expression may be needed

The protocol describes the technical procedures to be followed in order to meet the requirements of Council Regulation 2100/94 on Community Plant Variety Rights. The technical procedures have been agreed by the Administrative Council and are based on documents agreed by the International Union for the Protection of New Varieties of Plants (UPOV), such as the General Introduction to DUS (UPOV Document TG/1/3 http://www.upov.int/en/publications/intro_dus.htm), its associated TGP documents (<http://www.upov.int/en/publications/tgp/>) and the relevant UPOV Test Guideline TG/316/1 dated 16/03/2016 (<http://www.upov.int/edocs/tgdocs/en/tg316.pdf>) for the conduct of tests for Distinctness, Uniformity and Stability.

1.2 Entry into Force

The present protocol enters into force on **04.10.2017**. Any ongoing DUS examination of candidate varieties started before the aforesaid date will not be affected by the approval of the Technical Protocol. Technical examinations of candidate varieties are carried out according to the TP in force when the DUS test starts. The starting date of a DUS examination is considered to be the due date for submitting of plant material for the first test period.

In cases where the Office requests to take-over a DUS report for which the technical examination has either been finalized or which is in the process to be carried out at the moment of this request, such report can only be accepted if the technical examination has been carried out according to the CPVO TP which was in force at the moment when the technical examination started.

1.3 Reporting between Examination Office and CPVO and Liaison with Applicant

1.3.1 Reporting between Examination Office and CPVO

The Examination Office shall deliver to the CPVO a preliminary report ("the preliminary report") no later than two weeks after the date of the request for technical examination by the CPVO.

The Examination Office shall also deliver to the CPVO a report relating to each growing period ("the interim report") and, when the Examination Office considers the results of the technical examination to be adequate to evaluate the variety or the CPVO so requests, a report relating to the examination ("the final report").

The final report shall state the opinion of the Examination Office on the distinctness, uniformity and stability of the variety. Where it considers those criteria to be satisfied, or where the CPVO so requests, a description of the variety shall be added to the report. If a report is negative the Examination Office shall set out the detailed reasons for its findings.

The interim and the final reports shall be delivered to the CPVO as soon as possible and no later than on the deadlines as laid down in the designation agreement.

1.3.2 Informing on problems in the DUS test

If problems arise during the course of the test the CPVO should be informed immediately so that the information can be passed on to the applicant. Subject to prior permanent agreement, the applicant may be directly informed at the same time as the CPVO particularly if a visit to the trial is advisable.

1.3.3 Sample keeping in case of problems

If the technical examination has resulted in a negative report, the CPVO shall inform the Examination Office as soon as possible in case that a representative sample of any relevant testing material shall be kept.

2. MATERIAL REQUIRED

2.1 Plant material requirements

Information with respect to the agreed closing dates and submission requirements of plant material for the technical examination of varieties can be found on <http://www.cpvo.europa.eu/main/en/home/documents-and-publications/s2-gazette> in the special issue S2 of the Official Gazette of the Office. General requirements on submission of samples are also to be found following the same link.

2.2 Informing the applicant of plant material requirements

The CPVO informs the applicant that

- he is responsible for ensuring compliance with any customs and plant health requirements.
- the plant material supplied should be visibly healthy, not lacking in vigour, nor affected by any important pest or disease.
- 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.

2.3 Informing about problems on the submission of material

The Examination Office shall report to the CPVO immediately in cases where the test material of the candidate variety has not arrived in time or in cases where the material submitted does not fulfil the conditions laid down in the request for material issued by the CPVO.

In cases where the examination office encounters difficulties to obtain plant material of reference varieties the CPVO should be informed.

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"

http://www.upov.int/export/sites/upov/en/publications/tgp/documents/tgp_9_1.pdf.

3.3 Conditions for Conducting the Examination

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.

Because daylight varies, colour determinations made against a colour 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 colour chart and version used should be specified in the variety description.

3.4 Test design

3.4.1 Vegetatively propagated varieties: each test should be designed to result in a total of at least 10 plants.

3.4.2 Seed propagated varieties: each test should be designed to result in a total of at least 40 plants.

3.4.3 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

In accordance with Article 83(3) of Council Regulation No. 2100/94 an applicant may claim either in the Technical Questionnaire or during the test that a candidate has a characteristic which would be helpful in establishing distinctness. If such a claim is made and is supported by reliable technical data, an additional test may be undertaken providing that a technically acceptable test procedure can be devised.

Additional tests will be undertaken, with the agreement of the President of CPVO, where distinctness is unlikely to be shown using the characters listed in the protocol.

3.6 Constitution and maintenance of a variety collection

The process for the constitution and the maintenance of a variety collection can be summarized as follows:

Step 1: Making an inventory of the varieties of common knowledge

Step 2: Establishing a collection ("variety collection") of varieties of common knowledge which are relevant for the examination of distinctness of candidate varieties

Step 3: Selecting the varieties from the variety collection which need to be included in the growing trial or other tests for the examination of distinctness of a particular candidate variety.

3.6.1 Forms of variety collection

The variety collection shall comprise variety descriptions and may comprise living plant material. The variety description shall be produced by the EO unless special cooperation exists between EOs and the CPVO. The descriptive and pictorial information produced by the EO shall be held and maintained in a form of a database.

3.6.2 Living Plant Material

The EO shall obtain living plant material of reference varieties as and when those varieties need to be included in growing trials or other tests.

3.6.3 Making an inventory of varieties of common knowledge for inclusion in the variety collection

The inventory shall include varieties protected under National and Community PBR and varieties in trade or in commercial registers. In addition to the above, the inventory shall be extended to the appropriate to

- any commercial document in which varieties are marketed as propagating or harvested material, especially when there is no official registration system;
- any list including varieties which are publicly available within plant collections (varieties included in genetic resource collections, collection of old varieties, etc.);
- information provided by relevant plant experts;
- relevant example varieties referred to in the technical protocols for the examination of distinctness.

3.6.4 Maintenance and renewal/update of a living variety collection

(a) Seed propagated varieties

The EO shall maintain seeds in conditions which will ensure germination and viability, periodical checks, and renewal as required. For the renewal of existing living material the identity of replacement living plant material shall be verified by conducting side-by-side plot comparisons between the material in the collection and the new material.

(b) Vegetatively propagated varieties

The EO shall maintain the variety collection under appropriate growing conditions (e.g. glasshouse, orchard, in vitro), where it shall be ensured that the plants are adequately irrigated, fertilised, pruned and protected from harmful pests and diseases. For the renewal of existing living material the identity of replacement living plant material shall be verified by conducting side-by-side plot comparisons between the material in the collection and the new material or by checking the identity of the new material against the variety description.

4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY

The prescribed procedure is to assess distinctness, uniformity and stability in a growing trial.

4.1 Distinctness

4.1.1 General recommendations

It is of particular importance for users of this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 9 'Examining Distinctness' (http://www.upov.int/export/sites/upov/en/publications/tgp/documents/tgp_9_1.pdf) prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in this Technical Protocol.

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 Technical Protocols are familiar with the recommendations contained in the UPOV-General Introduction to DUS prior to making decisions regarding distinctness.

4.1.4 Number of plants/parts of plants to be examined

In the case of vegetatively propagated varieties, unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 9 plants or parts taken from each of 9 plants and any other observations made on all plants in the test, disregarding any off-type plants.

In the case of seed-propagated varieties, unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test, disregarding any off-type plants.

4.1.5 Method of observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the third 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. colour 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**

It is of particular importance for users of this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 10 'Examining Uniformity' (http://www.upov.int/export/sites/upov/en/publications/tgp/documents/tgp_10_1.pdf) prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in this Technical Protocol:

For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 10 plants, 1 off type is allowed.

For the assessment of uniformity of self-pollinated seed-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 40 plants, 2 off-types are allowed.

For the assessment of uniformity of cross-pollinated seed-propagated varieties, the recommendations in the General Introduction for cross-pollinated varieties should be followed, as appropriate.

4.3 Stability

4.3.1 It is of particular importance for users of this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 11 'Examining Stability' (http://www.upov.int/export/sites/upov/en/publications/tgp/documents/tgp_11_1.pdf)

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: growth habit (characteristic 1)
- b) Plant: height (characteristic 2)
- c) Leaf blade: variegation (characteristic 15)
- d) Inflorescence: number of florets per node (characteristic 25)
- e) Corolla tube: main colour of outer side (characteristic 37) with the following groups:
 - Gr. 1: white
 - Gr. 2: green
 - Gr. 3: yellow
 - Gr. 4: orange
 - Gr. 5: pink
 - Gr. 6: red
 - Gr. 7: purple
 - Gr. 8: violet
 - Gr. 9: blue
- f) Lower lip: main colour of inner side (characteristic 43) with the following groups:
 - Gr. 1: white
 - Gr. 2: green
 - Gr. 3: yellow
 - Gr. 4: orange
 - Gr. 5: pink
 - Gr. 6: red
 - Gr. 7: purple
 - Gr. 8: violet
 - Gr. 9: blue
- g) Lower lip: secondary colour of inner side (characteristic 44) with the following groups:
 - Gr. 1: none
 - Gr. 2: white
 - Gr. 3: green
 - Gr. 4: yellow
 - Gr. 5: orange
 - Gr. 6: pink
 - Gr. 7: red
 - Gr. 8: purple
 - Gr. 9: violet
 - Gr. 10: blue

- 5.4** If other characteristics than those from the TP are used for the selection of varieties to be included into the growing trial, the EO shall inform the CPVO and seek the prior consent of the CPVO before using these characteristics.

6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS

6.1 Characteristics to be used

The characteristics to be used in DUS tests and preparation of descriptions shall be those referred to in the table of characteristics. All the characteristics shall be used, providing that observation of a characteristic is not rendered impossible by the expression of any other characteristic, or the expression of a characteristic is prevented by the environmental conditions under which the test is conducted or by specific legislation on plant health. In the latter case, the CPVO should be informed.

The Administrative Council empowers the President, in accordance with Article 23 of Commission Regulation N°874/2009, to insert additional characteristics and their expressions in respect of a variety.

States of expression and corresponding notes

In the case of qualitative and pseudo-qualitative characteristics, 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 Example Varieties

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

6.3 Legend

For the CPVO N° column:

G	Grouping characteristic	- see Chapter 5
QL	Qualitative characteristic	
QN	Quantitative characteristic	
PQ	Pseudo-qualitative characteristic	
(+)	Explanations for individual characteristics	- see Chapter 8.2

For the UPOV N° column:

The numbering of the characteristics is provided as a reference to the ad hoc UPOV guideline.

(*)	UPOV Asterisked characteristic	- Characteristics that are important for the international harmonization of variety descriptions.
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For column 'Stage, method':

MG, MS, VG, VS	- see Chapter 4.1.5
(a)-(d)	Explanations covering several Characteristics - see Chapter 8.1

7. TABLE OF CHARACTERISTICS

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note	
1. (+)	1. (*)	VG	Plant: growth habit			
			PQ	upright	Yellow Majesty	1
				semi-upright	Sunsaruki	2
				spreading	Santa Barbara	3
			G	trailing		4
2. (+)	2. (*)	VG/MS /MG	Plant: height			
			QN	very short	Haeumanarc	1
				short	Hot Jazz	3
				medium	Lady in Red	5
			G	tall		7
	very tall	Yellow Majesty	9			
3.	3.	VG/MS /MG	Plant: width			
			QN	narrow	Hot Jazz	3
				medium	Lady in Red	5
			broad	Santa Barbara	7	
4.	4.	VG	Plant: density of shoots			
			QN	sparse	Artemis	1
				medium	Lady in Red	3
			dense	Santa Barbara	5	
5.	5.	VG	Stem: anthocyanin coloration			
			QN	absent or very weak	West Texas Form	1
				weak		2
				medium	Lady in Red	3
				strong		4
	very strong	Caradonna	5			

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
6. QN	6.	VG (a)	Stem: pubescence		
			absent or very sparse	Hot Jazz	1
			sparse		2
			medium		3
			dense		4
			very dense	Santa Barbara	5
7. (+) QL	7.	VG (a)	Leaf: type		
			simple		1
			compound		2
8. (+) QN	8.	VG/MS /MG (a)	Petiole: length		
			absent or very short		1
			short	Sunsaruki	3
			medium		5
			long	Yellow Majesty	7
9. (+) QN	9. (*)	VG/MS /MG (a)	Leaf blade: length		
			short	Sunsaruki	3
			medium	Lady in Red	5
			long	Yellow Majesty	7
10. (+) QN	10. (*)	VG/MS /MG (a)	Leaf blade: width		
			narrow	Sunsaruki	3
			medium	Lady in Red	5
			broad	Yellow Majesty	7

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note		
11. (+)	11. (*)	VG/MS /MG	Leaf blade: ratio length/width				
			QN	(a)	low		3
					medium		5
					high	Santa Barbara	7
			very high	West Texas Form	9		
12. (+)	12.	VG	Leaf blade: position of broadest part				
			QN	(a)	strongly towards base		1
					moderately towards base		2
					at middle		3
			moderately towards apex		4		
13. (+)	13.	VG	Leaf blade: shape of base				
			PQ	(a)	acute		1
					obtuse		2
					rounded		3
					truncate		4
			cordate		5		
14. (+)	14.	VG	Leaf blade: shape of apex				
			PQ	(a)	acuminate		1
					acute		2
					obtuse		3
			rounded		4		
15.	15. (*)	VG	Leaf blade: variegation				
			QL	(a)	absent	Hot Jazz	1
G			present	Dancing Flame	9		

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
16. PQ	16.	VG (a) (b)	Leaf blade: main colour		
			white		1
			yellowish white		2
			yellow	Dancing Flame	3
			yellow green	Golden Delicious	4
			light green		5
			medium green	Lady in Red	6
			dark green	Hot Jazz	7
			grey green		8
			purplish green		9
		purple		10	
17. PQ	17.	VG (a) (b)	Leaf blade: secondary colour		
			white		1
			yellowish white		2
			yellow		3
			yellow green		4
			light green		5
			medium green		6
			dark green		7
			grey green		8
			purplish green		9
		purple		10	
18. (+) PQ	18.	VG (a) (b)	Leaf blade: distribution of secondary colour		
			marginal zone	Caramba	1
			central zone		2
		throughout	Dancing Flame	3	

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
19. QN	19.	VG (a)	Leaf blade: pubescence		
			absent or very sparse	Hot Jazz	1
			sparse		2
			medium		3
			dense		4
			very dense	Artemis	5
20. (+) QN	20.	VG (a)	Leaf blade: rugosity		
			absent or very weak		1
			weak	Lady in Red	2
			medium		3
			strong		4
			very strong	Omaha Gold	5
21. (+) QN	21. (*)	VG (a)	Leaf blade: incision of margin		
			absent or very shallow		1
			shallow		2
			medium	Hot Jazz	3
			deep		4
			very deep		5
22. (+) QN	22.	VG (a)	Leaf blade: undulation of margin		
			absent or weak		1
			medium		2
			strong		3
23. (+) QN	23. (*)	VG/MS /MG (c)	Inflorescence: length		
			short		3
			medium	Lady in Red	5
			long	Santa Barbara	7

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note		
24. (+)	24. (*)	VG/MS /MG	Inflorescence: length of internode				
			QN	(c)	short	Heatwave Glimmer, Hot Jazz	3
					medium	Insalgosca	5
					long	Wendys Wish	7
25. (+)	25. (*)	VG	Inflorescence: number of florets per node				
			QN	(c)	few	Hot Lips	1
					medium		2
			G		many	Yellow Majesty	3
26.	26.	VG	Inflorescence: number of lateral branches				
			QN	(c)	absent or very few	Insalgosca	1
					few	Wendys Wish	2
					medium	Haeumanarc	3
					many	Blaukönigin	4
					very many	Schneehügel	5
27. (+)	27.	VG	Inflorescence: attitude of tip				
			QN	(c)	erect	Caradonna, Yellow Majesty	1
					semi-erect	Haeumanarc	2
					outwards		3
					semi-downwards	Insalgosca	4
					downwards	Wendys Wish	5
28. (+)	28.	VG	Bract: persistence				
			QN		absent or very weak		1
					weak	Insalgosca	2
					medium	Wendys Wish	3
					strong		4
					very strong	Haeumanarc	5

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
29. (+) QN	29.	VG/MS /MG	Bract: length		
			very short		1
			short	Haeumanarc	2
			medium	Insalgosca	3
			long		4
			very long		5
30. (+) PQ	30. (*)	VG	Bract: main colour of outer side		
			(b)	RHS Colour Chart (indicate reference number)	
31. (+) QN	31. (*)	VG/MS /MG	Calyx: length		
			short		1
			medium		3
			long		5
32. PQ	32. (*)	VG	Calyx: main colour of outer side		
			(b)	RHS Colour Chart (indicate reference number)	
33. QN	33.	VG	Calyx: pubescence on outer side		
			absent or very sparse	Lady in Red	1
			sparse		2
			medium		3
			dense		4
			very dense	Santa Barbara	5

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note		
34. (+)	34. (*)	VG/MS /MG	Corolla: length				
			QN	(d)	very short	Haeumanarc	1
					short	Mainacht	3
					medium	Heatwave Glimmer	5
					long	Hot Jazz, Yellow Majesty	7
			very long	Wendys Wish	9		
35. (+)	35. (*)	VG/MS /MG	Corolla: height				
			QN	(d)	short	Mainacht	3
					medium	Wendys Wish	5
			tall		7		
36. (+)	36. (*)	VG/MS /MG	Corolla tube: length				
			QN	(d)	short		1
					medium	Lady in Red	3
			long	Hot Jazz	5		
37. (*)	37. (*)	VG	Corolla tube: main colour of outer side				
			PQ G	(b) (d)	RHS Colour Chart (indicate reference number)		
38. (*)	38. (*)	VG	Upper lip: main colour of outer side				
			PQ	(b) (d)	RHS Colour Chart (indicate reference number)		
39.	39.	VG	Upper lip: secondary colour of outer side				
			PQ	(b) (d)	RHS Colour Chart (indicate reference number)		

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
40.	40.	VG	Upper lip: pubescence on outer side		
QN		(d)	absent or very sparse		1
			sparse	Hot Jazz	2
			medium		3
			dense		4
			very dense	Santa Barbara	5
41. (+)	41. (*)	VG/MS /MG	Lower lip: width		
QN		(d)	narrow	Haeumanarc	1
			medium	Dansalfun 1, Lady in Red	3
			broad	Heatwave Blast	5
42. (+)	42.	VG	Lower lip: attitude relative to corolla tube		
QN		(d)	parallel		1
			moderately downwards		2
			strongly downwards		3
			moderately reflexed		4
			strongly reflexed		5
43.	43. (*)	VG	Lower lip: main colour of inner side		
PQ G		(b) (d)	RHS Colour Chart (indicate reference number)		
44.	44. (*)	VG	Lower lip: secondary colour of inner side		
PQ G		(b) (d)	RHS Colour Chart (indicate reference number)		

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
45. (+)	45. (*)	VG	Lower lip: distribution of secondary colour of inner side		
		(b)	at base		1
		(d)	basal third	Hot Lips	2
			central zone		3
			at margin		4
			throughout	Pinafore Purplestream	5
46. (+)	46.	VG	Lower lip: undulation of margin		
		(d)	absent or weak		1
			medium		2
			strong		3

8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS

8.1 Explanations covering several characteristics

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

- a) Observations on the stem and leaf should be made on the middle third of a flowering stem, excluding the inflorescence. Observations of the leaf blade should be made on the upper side.
- b) The main colour is the colour with the largest surface area. The secondary colour is the colour with the second largest surface area. In cases where the areas of the main and secondary colour are too similar to reliably decide which colour has the largest area, the darker colour is considered to be the main colour.
- c) Observations on the inflorescence should be made before the lowest flower in the inflorescence fades.
- d) Observations on the corolla should be made on fresh fully open flowers.

8.2 Explanations for individual characteristics

Ad. 1: Plant: growth habit



2
semi-upright



3
spreading



4
trailing

Ad. 2: Plant: height

Plant height should be observed from the surface of the growing medium to the top of the plant, including inflorescence.

Ad. 7: Leaf: type



1
simple

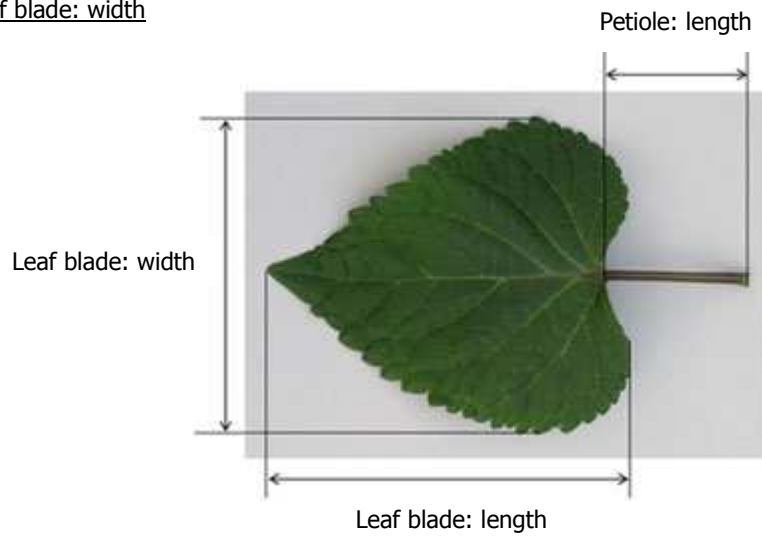


2
compound

Ad. 8: Petiole: length

Ad. 9: Leaf blade: length

Ad. 10: Leaf blade: width



Ad. 11: Leaf blade: ratio length/width



3
low



5
medium



7
high



9
very high

Ad. 12: Leaf blade: position of broadest part



1
strongly towards base

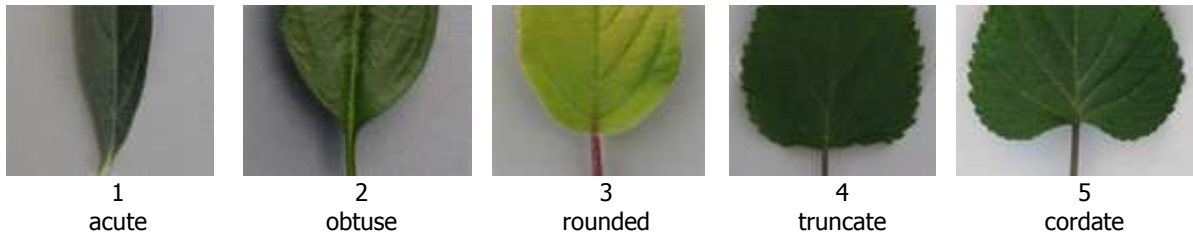


2
moderately towards base



3
at middle

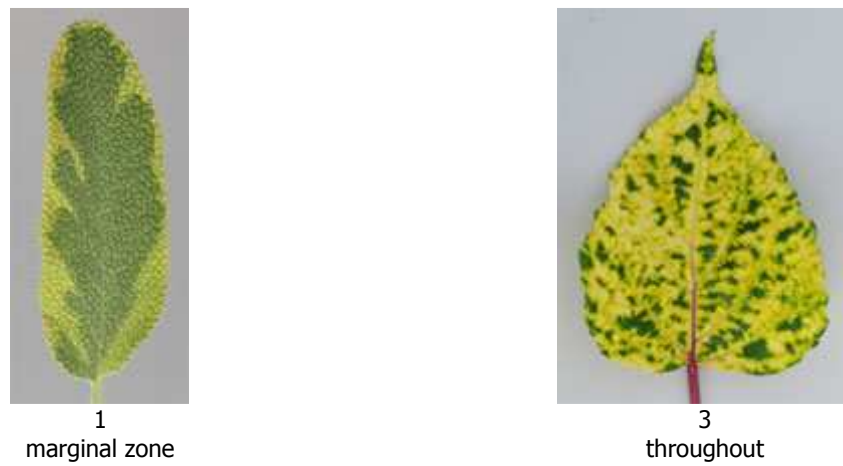
Ad. 13: Leaf blade: shape of base



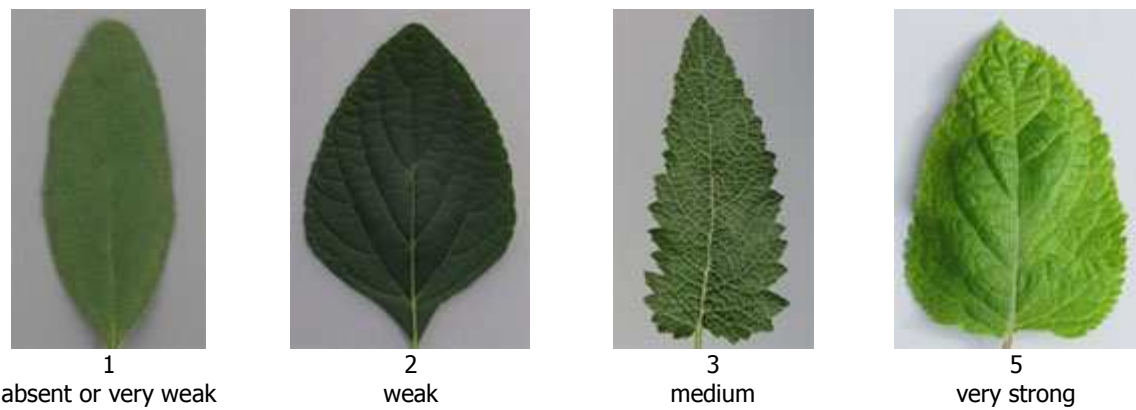
Ad. 14: Leaf blade: shape of apex



Ad. 18: Leaf blade: distribution of secondary colour



Ad. 20: Leaf blade: rugosity



Ad. 21: Leaf blade: incisions of margin



1
absent or very shallow



2
shallow



3
medium



4
deep

Ad. 22: Leaf blade: undulation of margin



1
absent or weak



3
strong

Ad. 23: Inflorescence: length

The natural length of inflorescence should be observed.



Inflorescence: length

Ad. 24: Inflorescence: length of internode

The internode should be observed on the middle third of an inflorescence.

Ad. 25: Inflorescence: number of florets per node

The number of florets should be observed on a node from the middle third of an inflorescence.



1
few



2
medium



3
many

Ad. 27: Inflorescence: attitude of tip



1
erect



2
semi-erect

Ad. 28: Bract: persistence

Bract persistence should be observed at the stage of flowering when the bract detaches from the inflorescence. Varieties with stronger bract persistence will retain the bracts for longer during the flowering of an inflorescence. Varieties with weaker bract persistence will lose the bracts at an early stage of flowering.

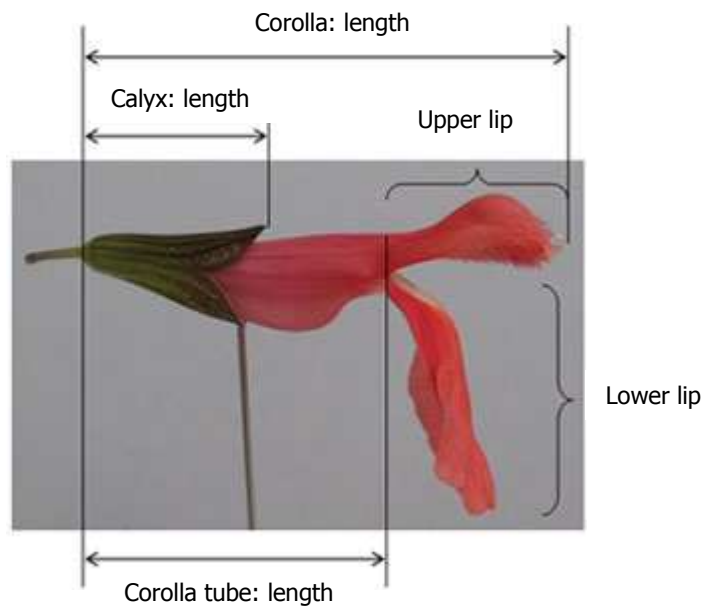
Ad. 29: Bract: length

Bract length should be observed on the lowest bract still remaining in the inflorescence.

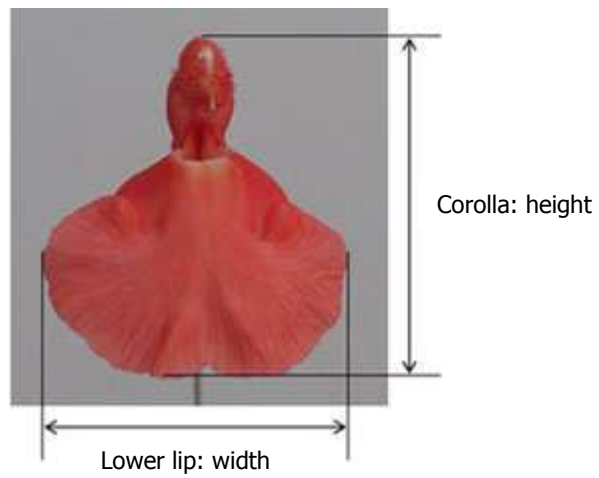
Ad. 30: Bract: main colour of outer side

Observation should be made on a bract towards the tip of the inflorescence.

Ad. 31: Calyx: length
Ad. 34: Corolla: length
Ad. 36: Corolla tube: length



Ad. 35: Corolla: height
Ad. 41: Lower lip: width



Ad. 42: Lower lip: attitude relative to corolla tube



1
parallel



2
moderately downwards



3
strongly downwards



4
moderately reflexed



5
strongly reflexed

Ad. 45: Lower lip: distribution of secondary colour of inner side



1
at base



2
basal third



3
central zone



4
at margin



5
throughout

Ad. 46: Lower lip: undulation of margin



1
absent or weak



2
medium



3
strong

9. LITERATURE

Clebsch, B., 2008: *The New Book of Salvias: Sages for Every Garden*. Timber Press, Inc. Oregon, USA, 344 pp.

Froissart, C., 2008: *La Connaissance des Sauges*. Edisud. Aix-en-Provence, Fr, 320 pp.

Nishikawa, A., 2001: *Salvia*. NHK Publishing. Tokyo, JP, 127 pp.

Tsukamoto, Y., 1994: *The Grand Dictionary of Horticulture, Compact version*. Shogakukan. Tokyo, JP, pp.1085-1089

Yeo, C., 1995: *Salvias*. Pleasant View Nursery. Newton Abbot, Devon, GB, 52 pp.

Yeo, C., 1997: *Salvias II*. Pleasant View Nursery. Newton Abbot, Devon, GB

10. TECHNICAL QUESTIONNAIRE

The Technical Questionnaire is available on the CPVO website under the following reference:
CPVO-TQ/316/1.