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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

SALVIA

UPOV Code: SALVI

Salvia L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Japan

to be considered by the

Technical Working Party for Ornamental Plants and Forest Trees
at its forty-seventh session, to be held in Naivasha, Kenya, from May 19 to 23, 2014

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Salvia L.	Salvia, Sage	Sauge	Salbei	Salvia

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 Salvia L.. The characteristics in these Test Guidelines have been developed to distinguish between ornamental varieties and additional characteristics and states of expression may be needed in order to examine herbal varieties.

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, or seed.

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

vegetatively propagated varieties: 10 plants
seed propagated varieties: a sufficient quantity of seed to produce 40 plants

In the case of seed, the seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should be stated by the applicant.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 Number of Growing Cycles

The minimum duration of tests should normally be a single growing cycle.

3.2 Testing Place

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 “Examining Distinctness”.

3.3 Conditions for Conducting the Examination

3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.

3.3.2 Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background. The color chart and version used should be specified in the variety description.

3.4 Test Design

3.4.1 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

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 Distinctness

4.1.1 General Recommendations

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

4.1.2 Consistent Differences

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

4.1.3 Clear Differences

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

4.1.4 Number of Plants / Parts of Plants to be Examined

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

4.1.4.2 Unless otherwise indicated, for seed-propagated varieties, 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 second column of the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation of characteristics”):

MG: single measurement of a group of plants or parts of plants
MS: measurement of a number of individual plants or parts of plants
VG: visual assessment by a single observation of a group of plants or parts of plants
VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations

where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, "G" provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

4.2 Uniformity

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

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

4.2.3 For the assessment of uniformity of seed-propagated varieties which are self-pollinated, 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.

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

4.3 Stability

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be further examined by testing a new seed or plant stock to ensure that it exhibits the same characteristics as those shown by the initial material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

(a) Plant: 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 color 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) Corolla lower lip: main color 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) Corolla lower lip: secondary color of inner side (characteristic 44) 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

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

6. Introduction to the Table of Characteristics

6.1 Categories of Characteristics

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 States of Expression and Corresponding Notes

6.2.1 States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	Note
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

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

6.3 Types of Expression

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

6.4 Example Varieties

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

6.5 Legend

(*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3
QN Quantitative characteristic – see Chapter 6.3
PQ Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS – see Chapter 4.1.5

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

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

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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. **(*)** **(+)**	**VG**	**Plant: growth habit**					
QN		upright				Yellow Majesty	1
		semi-upright				Sunsaruki	2
		spreading				Santa Barbara	3
		trailing					4
2. **(*)** **(+)**	**VG/ MG/ MS**	**Plant: height**					
QN		very short					1
		short				Hot Jazz	3
		medium				Lady in Red	5
		tall					7
		very tall				Yellow Majesty	9
3.	**VG/ MG/ MS**	**Plant: width**					
QN		narrow				Hot Jazz	3
		medium				Lady in Red	5
		broad				Santa Barbara	7
4.	**VG**	**Plant: density of shoots**					
QN		sparse					1
		medium				Lady in Red	3
		dense					5
5.	**VG**	**Stem: anthocyanin coloration**					
QN	**(a)**	absent or very weak					1
		weak					2
		medium					3
		strong					4
		very strong					5
6.	**VG**	**Stem: pubescence**					
QN	**(a)**	absent or very sparse				Hot Jazz	1
		sparse					2
		medium					3
		dense				Santa Barbara	4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7. **(+)**	**VG/ MG/ MS**	**Petiole: length**					
QN	**(a)**	absent or very short					1
		short				Sunsaruki	3
		medium					5
		long				Yellow Majesty	7
8. **(*)** **(+)**	**VG/ MG/ MS**	**Leaf blade: length**					
QN	**(a)**	short				Sunsaruki	3
		medium				Lady in Red	5
		long				Yellow Majesty	7
9. **(*)** **(+)**	**VG/ MG/ MS**	**Leaf blade: width**					
QN	**(a)**	narrow				Sunsaruki	3
		medium				Lady in Red	5
		broad				Yellow Majesty	7
10. **(*)**	**VG/ MG/ MS**	**Leaf blade: ratio length/width**					
QN	**(a)**	low					3
		medium					5
		high					7
11. **(+)**	**VG**	**Leaf blade: position of broadest part**					
QN	**(a)**	strongly towards base					1
		moderately towards base					2
		at middle					3
		moderately towards apex					4
12. **(+)**	**VG**	**Leaf blade: shape of apex**					
PQ	**(a)**	acuminate					1
		acute					2
		obtuse					3
		rounded					4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13.	**VG**	**Leaf blade: shape of base**					
(+)							
PQ	**(a)**	acute					1
		obtuse					2
		rounded					3
		truncate					4
		cordate					5
14.	**VG**	**Leaf blade: main color of upper side**					
PQ	**(a)**	white					1
	(b)	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
		purplish green					8
		purple					9
15.	**VG**	**Leaf blade: variegation**					
(*)							
QL	**(a)**	absent				Hot Jazz	1
		present				Dancing Flame	9
16.	**VG**	**Leaf blade: distribution of variegation**					
(+)							
PQ	**(a)**	marginal zone				Caramba	1
		throughout				Dancing Flame	2
17.	**VG**	**Leaf blade: color of variegation**					
PQ	**(a)**	white					1
		yellowish white				Caramba	2
		yellow				Dancing Flame	3
		light green				Omaha Gold	4
		light purple					5
18.	**VG**	**Leaf blade: pubescence on upper side**					
QN	**(a)**	absent or very sparse				Hot Jazz	1
		sparse					2
		medium					3
		dense					4
		very dense					5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
19.	**VG**	**Leaf blade: rugosity**					
(+)							
QN	**(a)**	absent or very weak					1
		weak					2
		medium					3
		strong					4
		very strong				Omaha Gold	5
20. **(*)** **(+)**	**VG**	**Leaf blade: incisions of margin**					
QN	**(a)**	absent or very shallow					1
		shallow					3
		medium				Hot Jazz	5
		deep					7
		very deep					9
21.	**VG**	**Leaf blade: lobing**					
(+)							
QL	**(a)**	absent					1
		present					9
22. **(+)**	**VG**	**Leaf blade: undulation of margin**					
QN	**(a)**	absent or very weak					1
		weak					3
		medium					5
		strong					7
23. **(*)** **(+)**	**VG/ MG/ MS**	**Inflorescence: length**					
QN	**(c)**	short					3
		medium				Lady in Red	5
		long				Santa Barbara	7
24. **(*)** **(+)**	**VG/ MG/ MS**	**Inflorescence: length of internode**					
QN	**(c)**	short				Hot Jazz	3
		medium					5
		long					7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25. **(*)** **(+)**	**VG**	**Inflorescence: number of florets per node**					
QN	**(c)**	very few					1
		few				Sunsaruki	2
		medium				Yellow Majesty	3
		many					4
		very many					5
26. **(+)**	**VG**	**Inflorescence: number of lateral branches**					
QN	**(c)**	absent or very few					1
		few					2
		medium					3
		many					4
		very many					5
27. **(+)**	**VG**	**Inflorescence: attitude of tip**					
QN	**(c)**	upright				Caradonna, Yellow Majesty	1
		semi-upright					2
		outwards					3
		semi-downwards					4
		downwards					5
28.	**VG**	**Bract: persistence**					
QN		absent or very weak					1
		weak					2
		medium					3
		strong					4
		very strong					5
29. **(+)**	**VG/ MG/ MS**	**Bract: length**					
QN		short					3
		medium					5
		long					7
30. **(+)** **(*)**	**VG**	**Bract: main color of outer side**					
PQ	**(b)**	RHS Colour Chart (indicate reference number)					

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31. (*) (+)	**VG/ MG/ MS**	**Calyx: length**					
QN		short					1
		medium					3
		long					5
32. (*)	**VG**	**Calyx: main color of outer side**					
PQ	**(b)**	RHS Colour Chart (indicate reference number)					
33.	**VG**	**Calyx: pubescence on outer side**					
QN		absent or very sparse				Lady in Red	1
		sparse					2
		medium					3
		dense				Santa Barbara	4
34. (*) (+)	**VG/ MG/ MS**	**Corolla: length**					
QN	**(d)**	short					3
		medium					5
		long				Hot Jazz, Yellow Majesty	7
35. (*) (+)	**VG/ MG/ MS**	**Corolla: height**					
QN	**(d)**	low					3
		medium					5
		high					7
36. (*) (+)	**VG/ MG/ MS**	**Corolla tube: length**					
QN	**(d)**	short					1
		medium				Lady in Red	3
		long				Hot Jazz	5
37. (*)	**VG**	**Corolla tube: main color of outer side**					
PQ	**(b) (d)**	RHS Colour Chart (indicate reference number)					
38. (*)	**VG**	**Corolla upper lip: main color of outer side**					
PQ	**(b) (d)**	RHS Colour Chart (indicate reference number)					

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
39.	**VG**	**Corolla upper lip: secondary color of outer side**					
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)					
40.	**VG**	**Corolla upper lip: pubescence on outer side**					
QN	**(d)**	absent or very sparse					1
		sparse				Hot Jazz	2
		medium					3
		dense				Santa Barbara	4
41. **(*)** **(+)**	**VG/** **MG/** **MS**	**Corolla lower lip: width**					
QN	**(d)**	narrow					1
		medium				Lady in Red	3
		broad					5
42. **(+)**	**VG**	**Corolla lower lip: direction (relative to corolla tube)**					
QN	**(d)**	forward					1
		slightly downwards					2
		downwards					3
		slightly backwards					4
		strongly backwards					5
43. **(*)**	**VG**	**Corolla lower lip: main color of inner side**					
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)					
44. **(*)**	**VG**	**Corolla lower lip: secondary color of inner side**					
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)					
45. **(*)** **(+)**	**VG**	**Corolla lower lip: distribution of secondary color of inner side**					
PQ	**(b)**	at base					1
	(d)	basal third				Hot Lips	2
		central zone					3
		at margin					4
		randomly throughout				Pinafore Purplestream	5

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

Unless otherwise indicated, characteristics should be examined at the time of full flowering.

Characteristics containing the following key in the second 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 color is the color with the largest surface area. The secondary color is the color with the second largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color.
(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

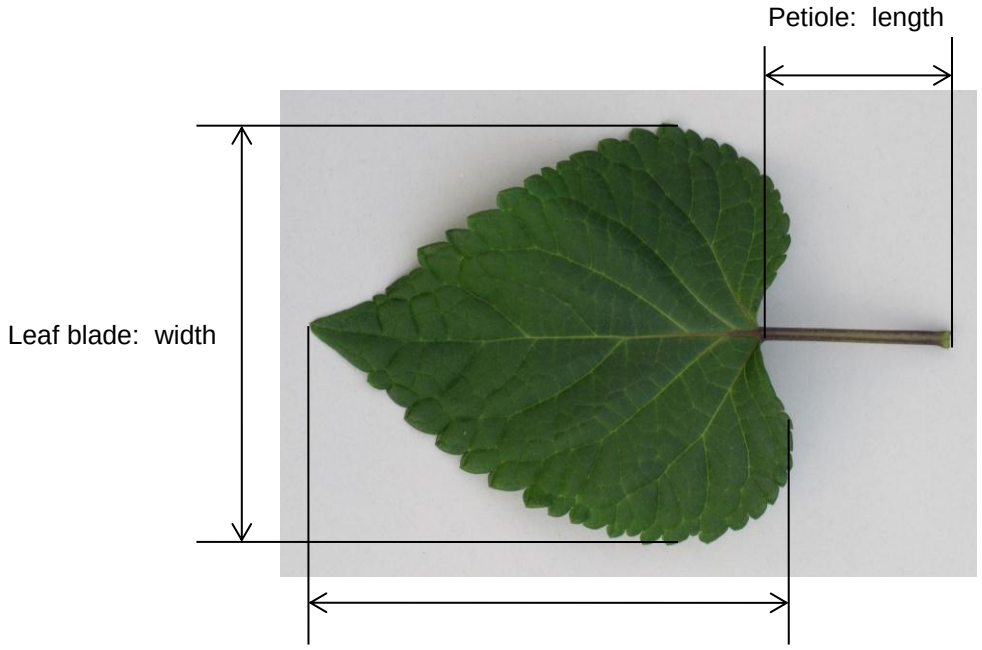
Ad. 1: Plant: growth habit

1	2	3	4
upright	semi-upright	spreading	trailing

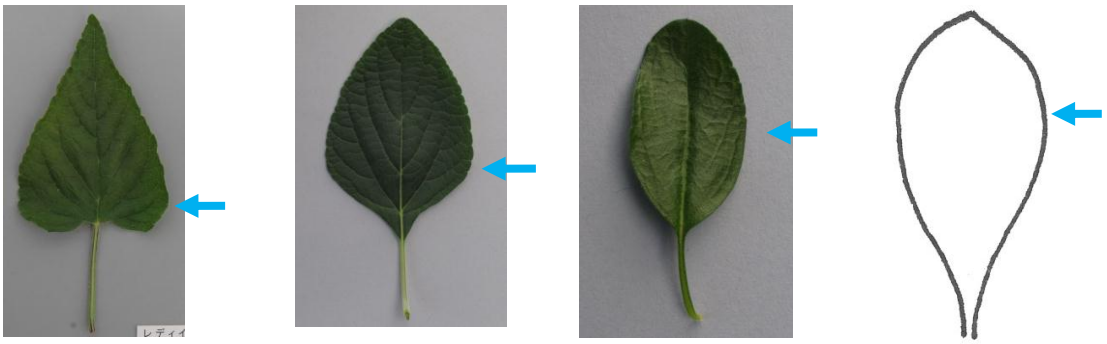
Ad. 2: Plant: height

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

Ad. 7: Petiole: length
Ad. 8: Leaf blade: length
Ad. 9: Leaf blade: width



Ad. 11: Leaf blade: position of broadest part



1	2	3	4
strongly towards base	moderately towards base	at middle	moderately towards apex

Ad. 12: Leaf blade: shape of apex

1	2	3	4
acuminate	acute	obtuse	rounded

Ad. 13: Leaf blade: shape of base


1
acute


2
obtuse

3
rounded


4
truncate


5
cordate

Ad. 16: Leaf blade: distribution of variegation


1
marginal zone


2
throughout

Ad. 19: Leaf blade: rugosity


1
absent or very weak

2
weak

3
medium

4
strong


5
very strong

Ad. 20: Leaf blade: incisions of margin


1
absent or very shallow


3
shallow


5
medium

7
deep

9
very deep

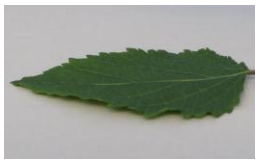
Ad. 21: Leaf blade: lobing

1
absent

9
present

Ad. 22: Leaf blade: undulation of margin

1
absent or very weak

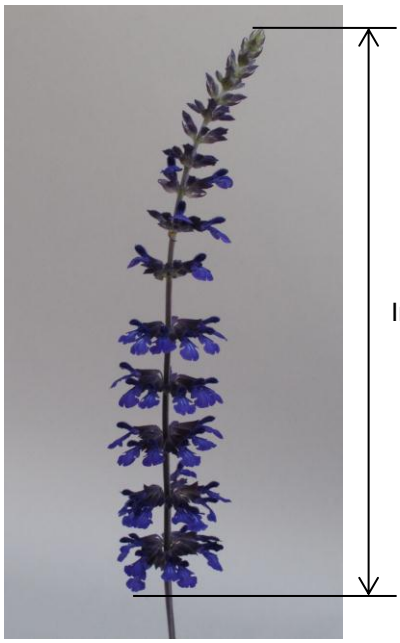


3
weak

5
medium

7
strong

Ad. 23: Inflorescence: length



The length of Inflorescence should be observed at natural 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

1	2	3	4	5
very few	few	medium	many	very many

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

Ad. 26: Inflorescence: number of lateral branches

Ad. 27: Inflorescence: attitude of tip

1	2	3	4	5
upright	semi-upright	outwards	semi-downwards	downwards

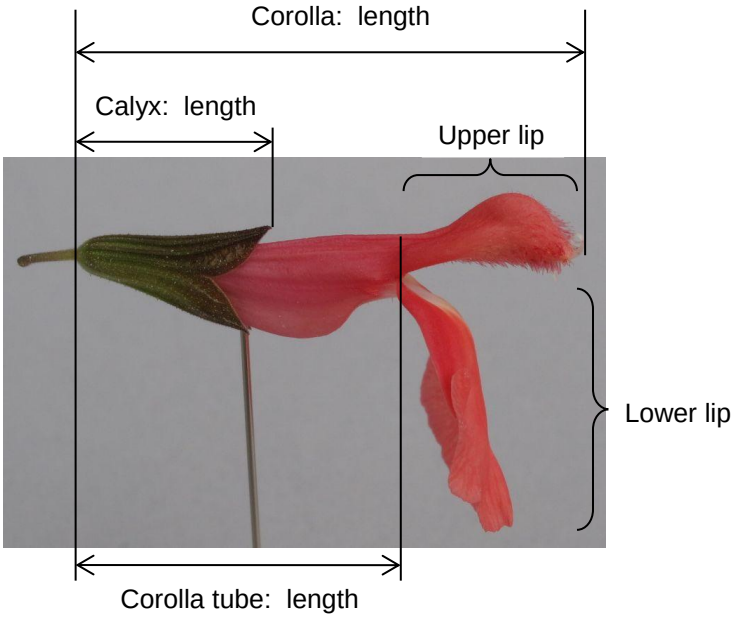
Ad. 29: Bract: length

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

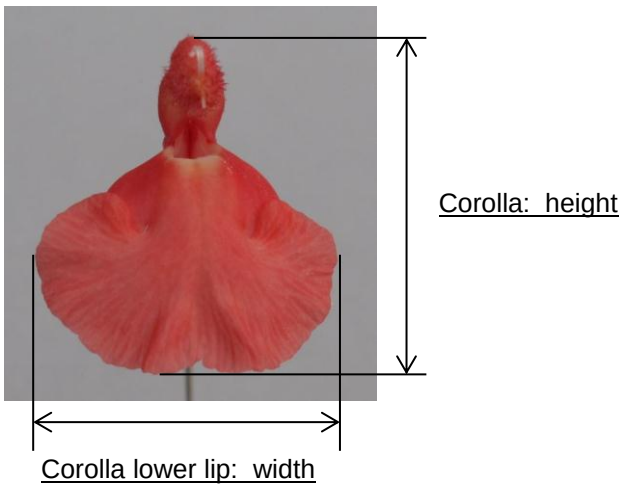
Ad. 30: Bract: main color of outer side

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

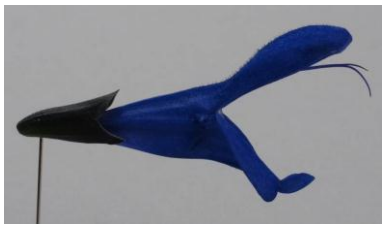


Ad. 35: Corolla: height
Ad. 41: Corolla lower lip: width



Ad. 42: Corolla lower lip: direction (relative to corolla tube)

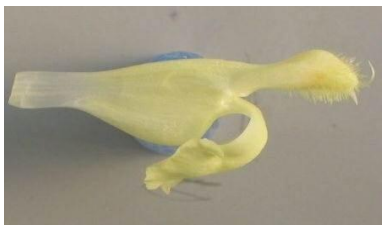
1
forward



2
slightly downwards

3
downwards

4
slightly backwards



5
strongly backwards

Ad. 45: Corolla lower lip: distribution of secondary color of inner side

1
at base

2
basal third

3
central zone

4
at margin

5
randomly throughout

9. Literature

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

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

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

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

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

Nishikawa, A.,2001: Salvia. NHK Publishing. Tokyo, JP

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	*Salvia* L.
1.2 Common name	Salvia
1.3 Species (please complete)	

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	
Breeder (if different from applicant)	

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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

[#]4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

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

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

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

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

(c) unknown cross [ ]

4.1.2 Mutation [ ]
(please state parent variety)

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

4.1.4 Other [ ]
(please provide details)

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

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

4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

(a)	Self-pollination	[ ]
(b)	Cross-pollination	
	(i) population	[ ]
	(ii) synthetic variety	[ ]
(c)	Hybrid	[ ]
(d)	Other (please provide details)	[ ]

4.2.2 Vegetative propagation

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

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

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

	Characteristics	Example Varieties	Note
5.1 (1)	**Plant: growth habit**		
	upright	Yellow Majesty	1[ ]
	semi-upright	Sunsaruki	2[ ]
	spreading	Santa Barbara	3[ ]
	trailing		4[ ]
5.2 (2)	**Plant: height**		
	very short		1[ ]
	very short to short		2[ ]
	short	Hot Jazz	3[ ]
	short to medium		4[ ]
	medium	Lady in Red	5[ ]
	medium to tall		6[ ]
	tall		7[ ]
	tall to very tall		8[ ]
	very tall	Yellow Majesty	9[ ]
5.3 (15)	**Leaf blade: variegation**		
	absent	Hot Jazz	1[ ]
	present	Dancing Flame	9[ ]
5.4 (25)	**Inflorescence: number of florets per node**		
	very few		1[ ]
	few	Sunsaruki	2[ ]
	medium	Yellow Majesty	3[ ]
	many		4[ ]
	very many		5[ ]
5.5 (i) (37)	**Corolla tube: main color of outer side**		
	RHS Colour Chart (indicate reference number)	…….……	

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

	Characteristics	Example Varieties	Note
5.5 (ii) (37)	**Corolla tube: main color of outer side**		
	white		1[ ]
	green		2[ ]
	yellow		3[ ]
	orange		4[ ]
	pink		5[ ]
	red		6[ ]
	purple		7[ ]
	violet		8[ ]
	blue		9[ ]
5.6 (i) (43)	**Corolla lower lip: main color of inner side**		
	RHS Colour Chart (indicate reference number)	……..……	
5.6 (ii) (43)	**Corolla lower lip: main color of inner side**		
	white		1[ ]
	green		2[ ]
	yellow		3[ ]
	orange		4[ ]
	pink		5[ ]
	red		6[ ]
	purple		7[ ]
	violet		8[ ]
	blue		9[ ]
5.7 (i) (44)	**Corolla lower lip: secondary color of inner side**		
	RHS Colour Chart (indicate reference number)	……..……	

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

	Characteristics	Example Varieties	Note
5.7 (ii) (44)	**Corolla lower lip: secondary color of inner side**		
	white		1[ ]
	green		2[ ]
	yellow		3[ ]
	orange		4[ ]
	pink		5[ ]
	red		6[ ]
	purple		7[ ]
	violet		8[ ]
	blue		9[ ]

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

6. Similar varieties and differences from these varieties

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

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the **similar** variety(ies)	Describe the expression of the characteristic(s) for **your** candidate variety
Example	*Plant: growth habit*	*upright*	*semi-upright*

Comments:

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

[#]7. Additional information which may help in the examination of the variety

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

Yes [ ] No [ ]

(If yes, please provide details)

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

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

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

8. Authorization for release

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

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

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

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

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

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

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

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

(a) Microorganisms (e.g. virus, bacteria, phytoplasma) Yes [ ] No [ ]

(b) Chemical treatment (e.g. growth retardant, pesticide) Yes [ ] No [ ]

(c) Tissue culture Yes [ ] No [ ]

(d) Other factors Yes [ ] No [ ]

Please provide details for where you have indicated “yes”.

……

9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens?

Yes [ ]
(please provide details as specified by the Authority)

No [ ]

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]