CALIBRATION MANUAL

Harmonized with

Naktuinbouw and NCSS(/NARO)

DUS Test for Celosia

Celosia L.

Established in March 24th, 2025

Compliance with UPOV TG/188/1

CALIBRATION MANUAL

DUS Test for Celosia

Contents

1. Purpose
   This Calibration Manual was established by collaborative activities between Naktuinbouw (Netherlands) and NCSS (/NARO) (Japan).
   The purpose of this Calibration Manual is to harmonize techniques used in DUS examination in the two countries and use it internationally.

2. Use of this Calibration Manual
   This Calibration Manual indicates methods of observation for characteristics included in UPOV Test Guidelines.

3. Explanations covering several characteristics

   (i) Unless otherwise indicated, all observations on single plants should be made on 10 plants or parts taken from 10 plants. Other observations should be made on all plants in the test, disregarding any off-type plants.

   (ii) Unless otherwise indicated, all observations should be made on plants with a full-grown inflorescence.
   In the Netherlands, inflorescence is considered to be full-grown when flowers release pollen.
   In Japan, since some varieties in (2) Plumosa Group have only a few flower and some varieties in (3) Cristate Group have many flowers, but their tepals rarely open fully, it is difficult for such varieties to confirm when flowers release pollen. For these reasons, the guideline for full-grown inflorescence is dependent on growth types.
   (1) Argentea Group (including Spicata Group) is when the flowers in the inflorescence are about 1/3 to 1/2 full bloom.
   (2) Plumosa Group is one month after the inflorescence appeared.
   (3) Cristate Group (including Kurume Group) is 3 to 4 weeks after the inflorescence appeared.

   All observations on the leaf should be made on a full-grown leaf, located at the middle third of the stem and all observations on the flower should be made at the beginning of anther dehiscence.

4. Growth types of varieties
Celosia.L varieties are typically divided into three groups:
(1) Argentea Group (including Spicata Group),
(2) Plumosa Group,
and
(3) Cristata Group (including Kurume Group).

(1) Argentea Group (including Spicata Group)

1/3 to 1/2 full bloom

1/3 to 1/2 full bloom

Argentea Group has erected inflorescences and each spikes bloom from the bottom up.

(2) Plumosa Group

28 days after the inflorescence appeared

28 days after the inflorescence appeared

Plumosa Group has feathery, paniculate inflorescences.

(3) Cristata Group

Kurume Group

21 days after the inflorescence appeared

Cristate Group has large, crested and often contorted inflorescence.

24 days after the inflorescence appeared

Kurume group has large, round inflorescence.

5. Grouping characteristics

The following have been agreed as useful grouping characteristics:

(a) Inflorescence: color (characteristic 24)

Group 1: white

Group 2: green

Group 3: yellow

Group 4: orange

Group 5: orange pink

Group 6: pink

Group 7: red

Group 8: purple

6. Disclaimer

The information contained in this Calibration Manual is for general information purposes only. The information is provided by Naktuinbouw and NCSS(/NARO) and while we endeavor to keep the information up to date and correct, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the Calibration Manual or the information contained on the Calibration Manual for any purpose. Any reliance you place on such information is therefore strictly at your own risk.

7. Method of Observation (example of characterization)

Legend

Method of Observation

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.

Types of Expression of Characteristics

To enable the appropriate use of characteristics in DUS testing, it is important to understand the different ways in which characteristics can be expressed. The following section identifies the different types of expression and considers their application in DUS testing.

QL: Qualitative Characteristics

“Qualitative characteristics” are those that are expressed in discontinuous states (e.g. sex of plant: dioecious female (1), dioecious male (2), monoecious unisexual (3), monoecious hermaphrodite (4)). These states are self-explanatory and independently meaningful. All states are necessary to describe the full range of the characteristic, and every form of expression can be described by a single state. The order of states is not important. As a rule, the characteristics are not influenced by environment.

QN: Quantitative Characteristics

“Quantitative characteristics” are those where the expression covers the full range of variation from one extreme to the other. The expression can be recorded on a one-dimensional, continuous or discrete, linear scale. The range of expression is divided into a number of states for the purpose of description (e.g. length of stem: very short (1), short (3), medium (5), long (7), very long (9)). The division seeks to provide, as far as is practical, an even distribution across the scale. The Test Guidelines do not specify the difference needed for distinctness. The states of expression should, however, be meaningful for DUS assessment.

PQ: Pseudo-Qualitative Characteristics

In the case of “pseudo-qualitative characteristics,” the range of expression is at least partly continuous, but varies in more than one dimension (e.g. shape: ovate (1), elliptic (2), circular (3), obovate (4)) and cannot be adequately described by just defining two ends of a linear range. In a similar way to qualitative (discontinuous) characteristics - hence the term “pseudo-qualitative” - each individual state of expression needs to be identified to adequately describe the range of the characteristic.

(*) Asterisked characteristic

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.

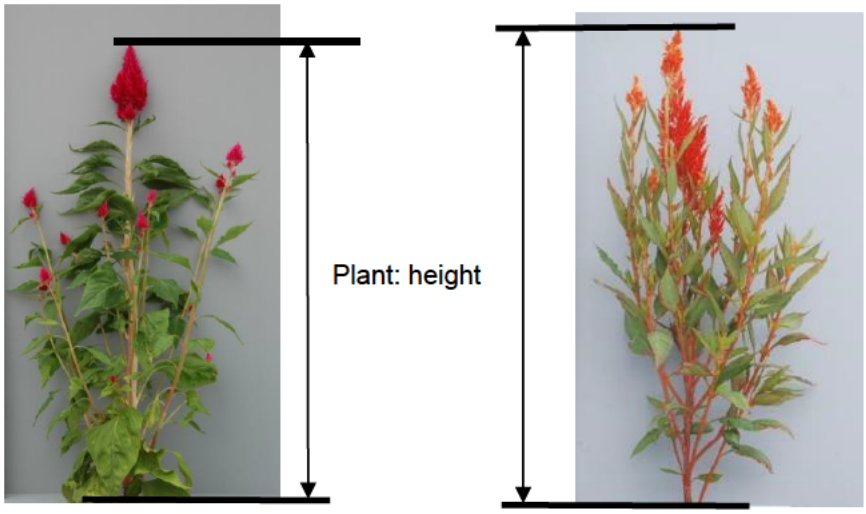
(+) Explanations on the Table of Characteristics is indicated by TG/188/1 Chapter Ⅷ.

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
1 (*)	**VG/ MS**	**Plant: height**				
QN		very short	Super Dwarf Kimono Orange			1
		short	Century Rose			3
		medium	Martine		Fireglow, Golden feather	5
		tall	Bombay			7
		very tall				9

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation or measurement. Use example varieties to calibrate. The measurement or visual observation should be taken from the ground level to the highest point of the plant including the inflorescence.



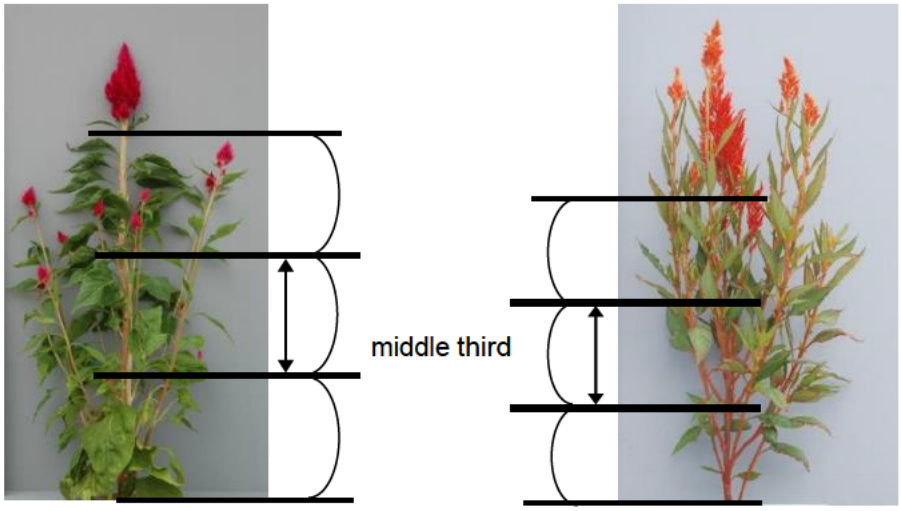
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
2 (*)	**VG/ MS**	**Stem: thickness**				
QN		thin	Yellow Flame			3
		medium	Bombay Gold			5
		thick	Boscorsun			7

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation or measurement. Use example varieties to calibrate.

Observe or measure the maximum diameter of the middle third of the main stem.



		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
3 (*)	**VG**	**Stem: presence of anthocyanin coloration at base**				
QL		absent	Yellow Flame		Golden feather	1
		present	Bombay, Purple Martine			9

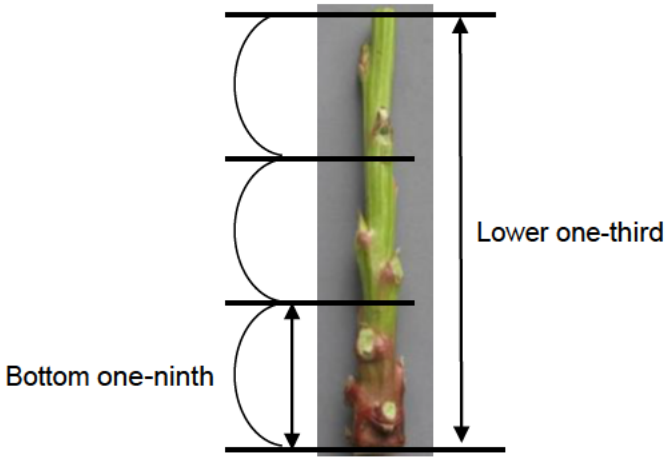
Remarks

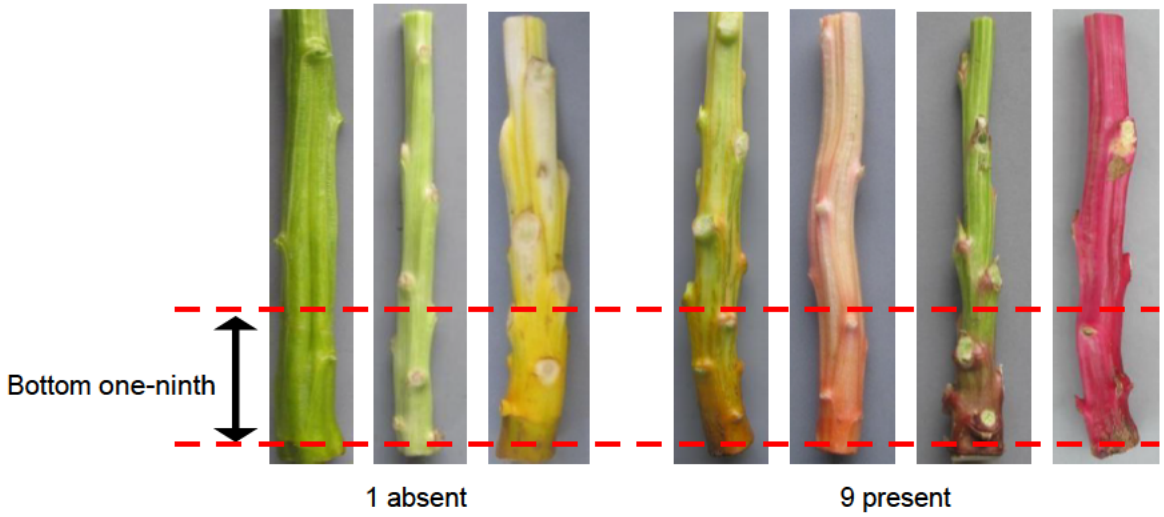
Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe the bottom one-ninth of the main stem.

*We would like to consider on TWO at the time of TG revision that regarding of the *Celosia* L., it should be betalain or betacyanine, not anthocyanin.





		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
4 (*)	**VG**	**Stem: intensity of anthocyanin coloration at base**				
QN		very weak	Bombay Yellow, Yellow Flame			1
		weak	Bombay Gold			3
		medium	Boscorcass		Fireglow	5
		strong	Bombay, Bombay Purple			7
		very strong	Enterprise Wine-red			9

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe the bottom one-ninth of the main stem. Evaluate comprehensively the anthocyanin coloration area and shade of coloration.

*We would like to consider on TWO at the time of TG revision that regarding of the *Celosia* L., it should be betalain or betacyanine, not anthocyanin.

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
5 (*)	**VG**	**Stem: color of basal part**				
PQ		light green	Enterprise White		Golden feather	1
		medium green				2
		dark green				3
		yellow	Celrayel, Martine Salmon			4
		orange	Bombay Salmon, Super Dwarf Kimono Orange		Fireglow	5
		pinkish red	Super Dwarf Kimono Cherry-red			6
		purple red	Celkopured, Enterprise Wine-red			7

Remarks

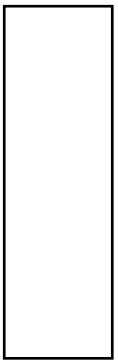
Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe the lower third of the main stem. If there are two colors, list the main color in characteristic description and the secondary color in the remark.

1 light green

2 medium green



3 dark green

4 yellow

5 orange

6 pinkish red

7 purple red

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
6 (*)	**VG**	**Stem: color of upper part**				
PQ		light green	Bombay Rose, Celrayel			1
		medium green	Martine Salmon			2
		dark green				3
		yellow				4
		orange				5
		pinkish red	Celkopured			6
		purple red	Super Dwarf Kimono Red			7

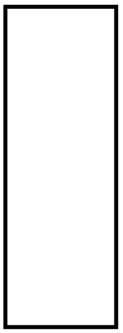
Remarks

Stage of observation: See Chapter 3, paragraph (ii)

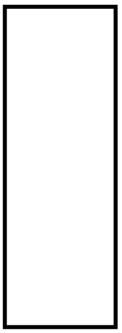
Method of observation: Visual observation.

Observe the upper third of the main stem. If there are two colors, list the main color in characteristic description and the secondary color in the remark.

1 light green



2 medium green



3 dark green

4 yellow

5 orange

6 pinkish red

7 purple red

In this case, describe main color as “2 green” and secondary color as “7 purple red”.

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
7 (*)	**VG**	**Stem: shape in cross section**				
QL		circular	Enterprise White			1
		flattened	Boscorcass			2

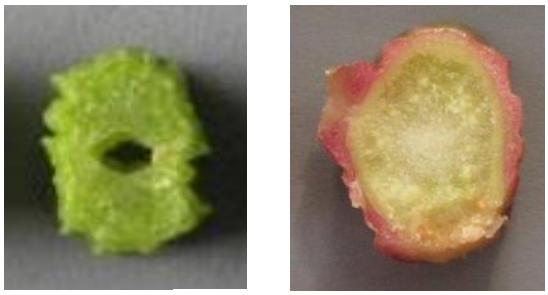
Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe middle third of the main stem. If the long and short diameters are about the same, it is considered to be circular, otherwise it is considered to be flattened.

1 circular



2 flattened

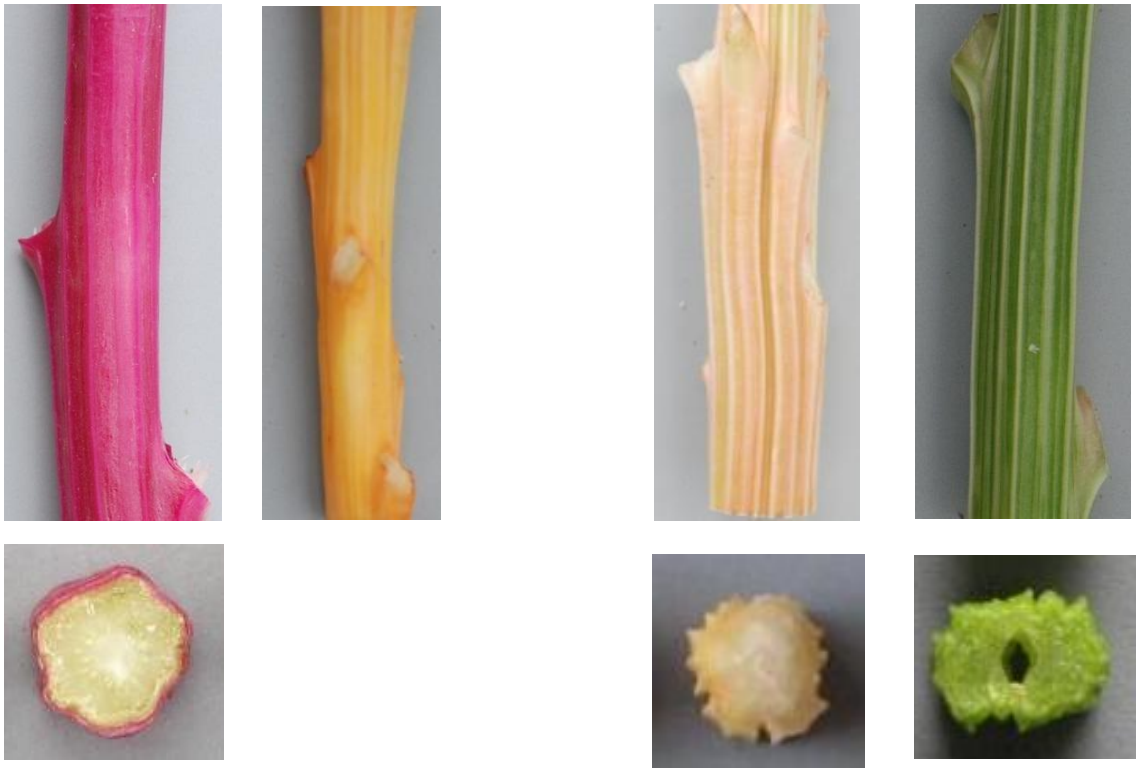
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
8 (*)	**VG**	**Stem: ribs**				
QL		absent	Martine Pink, Startrek lilac			1
		present				9

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe the raised lines on the middle-upper third of the main stem surface.



1 absent

9 present

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
9 (*)	**VG**	**Stem: flowering laterals**				
QL		absent	Bombay Pink, Boscorsun			1
		present	Enterprise White, Startrek Lilac			9

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe laterals with leaves and inflorescences.

1 absent

9 present

In the case of the photo which have inflorescences without lateral leaves, the status should be “1 absent”.

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
10 (*)	**VG/ MS**	**Petiole: length**				
QN		short	Celkopured			3
		medium	Bombay		Delhi Rainbow	5
		long	Enterprise White			7

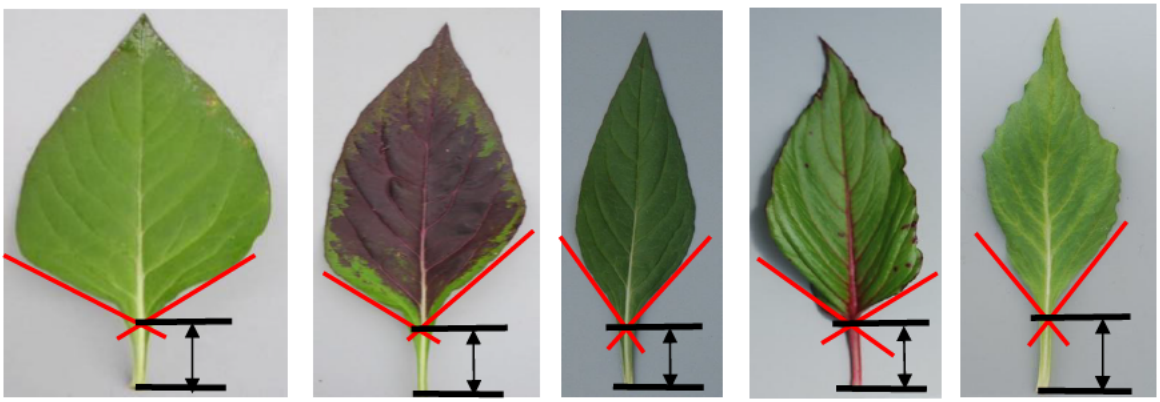
Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation or measurement. Use example varieties to calibrate.

Observe full grown leaves located at the middle third of the main stem.

The petiole and leaf blade are separated where tangents of leaf margin intersect.



		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
11 (*)	**VG**	**Petiole: presence of anthocyanin coloration**				
QL		absent	Bombay Rose, Celrayel		Golden feather	1
		present	Caripe, Celkopured			9

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe full grown leaves located at the middle third of the main stem.

*We would like to consider on TWO at the time of TG revision that regarding of the *Celosia* L., it should be betalain or betacyanine, not anthocyanin.

1 absent

9 present

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
12 (*)	**VG/ MS**	**Leaf blade: length**				
QN		short	Bombay Fire			3
		medium	Martine			5
		long	Bombay Rose, Caripe			7

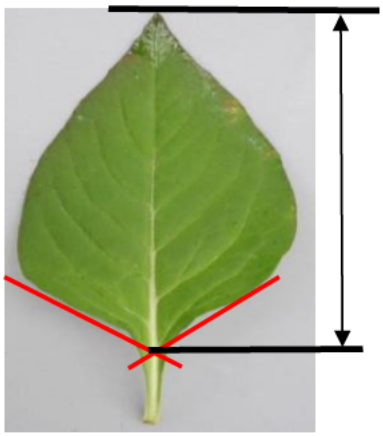
Remarks

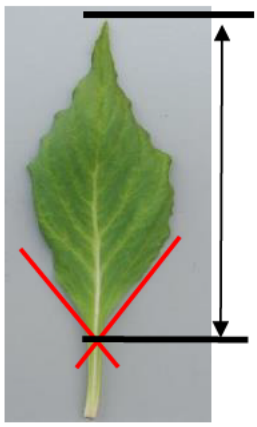
Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation or measurement. Use example varieties to calibrate.

Observe or measure full-grown leaves located at the middle third of the main stem.

The petiole and leaf blade are separated where tangents of leaf margins intersect.



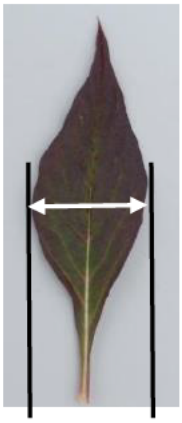


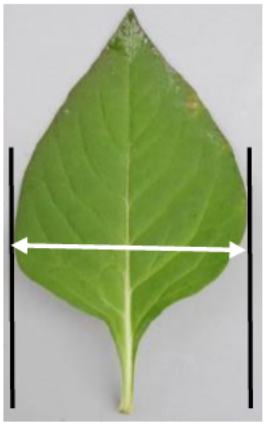
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
13 (*)	**VG/ MS**	**Leaf blade: width**				
QN		narrow	Bombay Fire			3
		medium	Bombay, Caripe, Martine, Salmon			5
		broad	Bombay Rose, Enterprise White			7

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation or measurement. Use example varieties to calibrate. Observe or measure the maximum width of full-grown leaves located at the middle third of the main stem.





		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
14 (*)	**VG**	**Leaf blade: shape**				
PQ		narrow elliptic	Sharon		Delhi Rainbow	1
		elliptic	Bombay Rose			2
		ovate	Bombay Purple			3
		broad ovate				4

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation. Use example varieties to calibrate.

Observe full-grown leaves located at the middle third of the main stem.

In the absence of example varieties, observations can be done using the following photos.

1 narrow elliptic

2 elliptic

3 ovate

4 broad ovate

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
15 (*)	**VG**	**Leaf blade: shape of apex**				
PQ		acute	Caripe, Sharon			1
		short acuminate	Bombay Salmon		Fireglow	2
		long acuminate	Celkopured			3

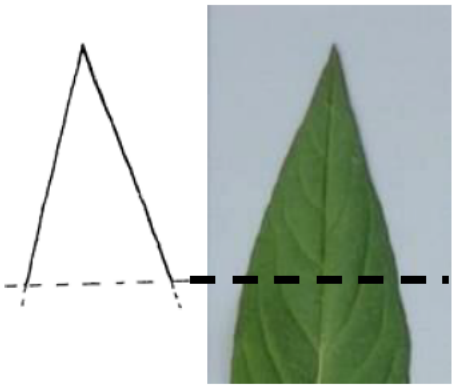
Remarks

Stage of observation: See Chapter 3, paragraph (ii)

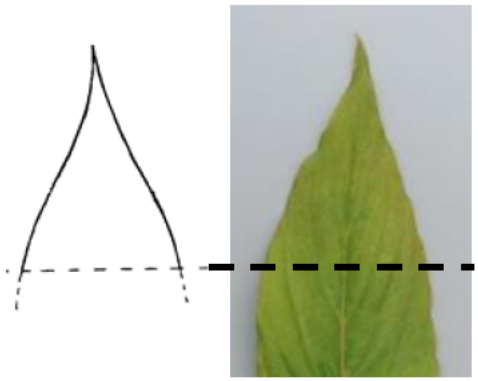
Method of observation: Visual observation. Use example varieties to calibrate.

Observe full-grown leaves located at the middle third of the main stem.

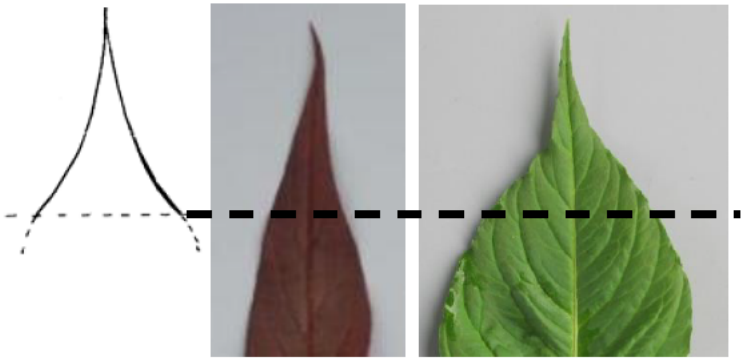
In the absence of example varieties, observations can be done using the following photos.



1 acute



2 short acuminate



3 long acuminate

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
16 (*)	**VG/ MS**	**Leaf blade: color**				
PQ		light green	Bombay Salmon, Enterprise White		Fireglow	1
		medium green			Yachiyo	2
		dark green	Celkopured			3
		greenish red	Flamingo Feather			4
		red purple				5

Remarks

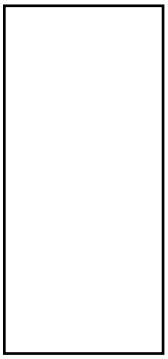
Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation. Use example varieties to calibrate.

Observe the color of upper side of full-grown leaves located at the middle third of the main stem.

1 light green

2 medium green



3 dark green

4 greenish red

5 red purple

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
17 (*)	**VG/ MS**	**Leaf blade: presence of anthocyanin coloration of main vein**				
QL		absent	Enterprise White			1
		present	Celkopured			9

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe the anthocyanin coloration of upper side of main vein. Observe full-grown leaves located at the middle third of the main stem.

If there are any part of the anthocyanin coloration in main vein, it is evaluated to be “9 present”.

*We would like to consider on TWO at the time of TG revision that regarding of the *Celosia* L., it should be betalain or betacyanine, not anthocyanin.

1 absent

9 present

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
18 (*)	**VG**	**Leaf blade: blistering**				
QN		absent or very weak	Bombay Pink			1
		weak	Celrayel, Enterprise Wine-red, Startrek Lilac			3
		medium	Bombay Rose, Celkopured			5
		strong	Enterprise White			7
		very strong				9

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation. Use example varieties to calibrate.

Observe full-grown leaves located at the middle third of the main stem. In the absence of example varieties, observations can be done using the following photos.

1 absent or very weak

3 weak

5 medium

7 strong

9 very strong

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
19 (*)	**VG**	**Leaf blade: undulation of margin**				
QL		absent	Bombay Rose, Enterprise White			1
		present				9

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe full-grown leaves located at the middle third of the main stem. In the case of the photo below which have overall leaf twisting, the status should be “1 absent”.

1 absent

9 present

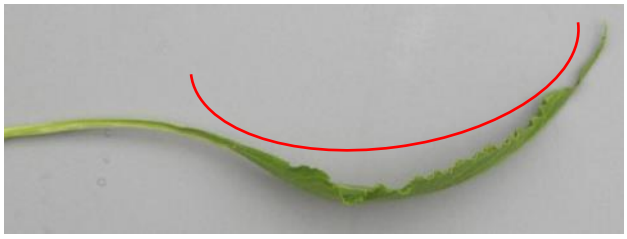
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
20 (*)	**VG**	**Leaf blade: curvature of longitudinal axis**				
QN		upwards				1
		straight				2
		downwards				3

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

Observe full-grown leaves located at the middle third of the main stem. Observations can be done using the following photos.



1 upwards

2 straight

In the case of the photo which have only a slight curvature, the status should be “2 straight”.

3 downwards

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
21 (*)	**VG**	**Inflorescence: main shape**				
PQ		spicate	Enterprise Wine-red, Flamingo Feather			1
		plumose	Hiryu no.2, Kimono Cherry-red			2
		paniculate	Gerana Orange			3
		cristate	Bombay Rose, Martine		Fireglow	4

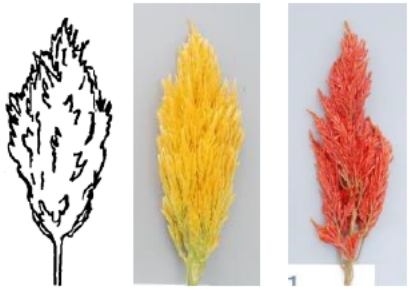
Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

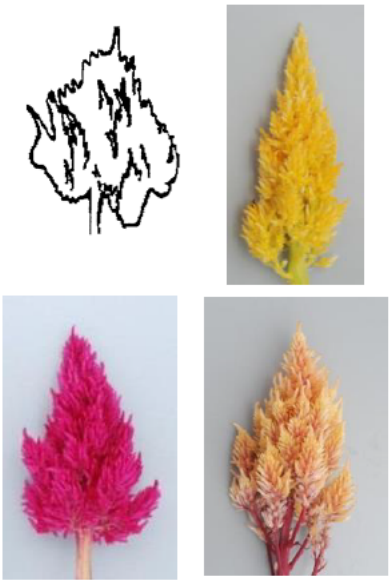
Observe terminal inflorescences. In the absence of example varieties, observations can be done using the following photos.

1 spicate

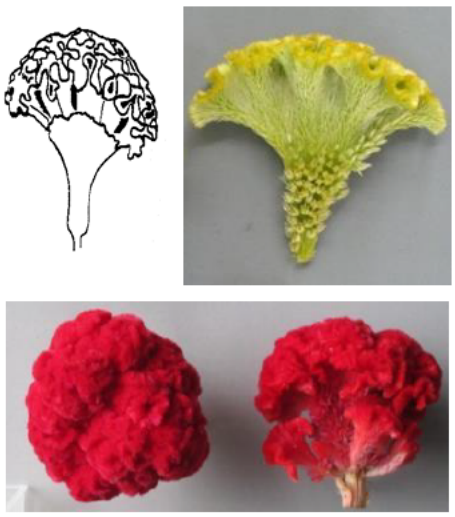


2 plumose

The arrow indicates terminal inflorescence.



3 paniculate



4 cristate

"4 cristate" includes varieties which have large round inflorescence.

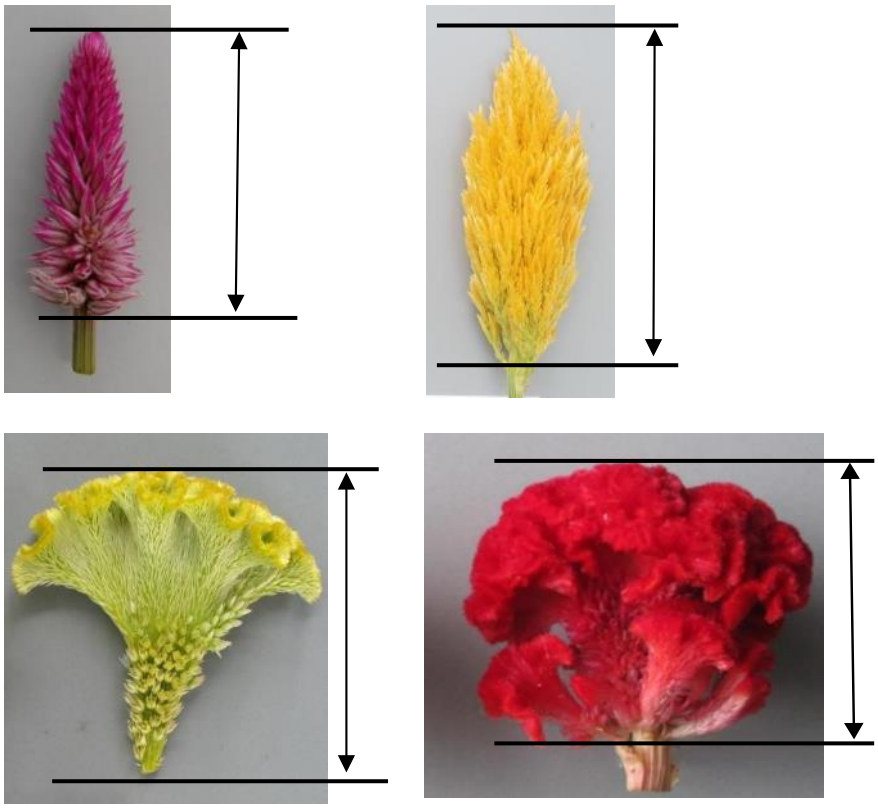
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
22 (*)	**VG/ MS**	**Inflorescence: length of main inflorescence**				
QN		short	Enterprise Salmon, Martine Pink			3
		medium	Bombay Salmon			5
		long	Caripe			7

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation or measurement.

Observe terminal inflorescences. Use example varieties to calibrate.



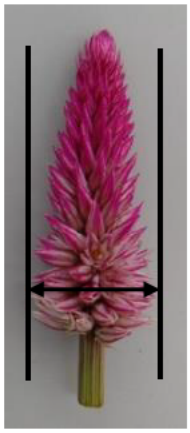
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
23 (*)	**VG/ MS**	**Inflorescence: width of main inflorescence**				
QN		narrow	Caripe, Enterprise Wine-red			3
		medium	Bombay Fire, Martine Pink			5
		broad	Bombay Salmon, Boscorcur			7

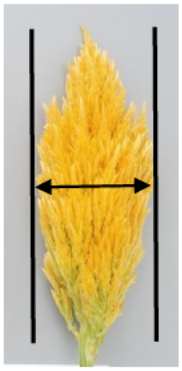
Remarks

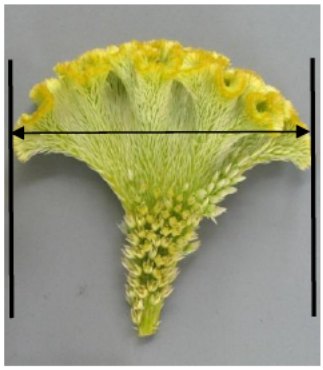
Stage of observation: See Chapter 3, paragraph (ii)

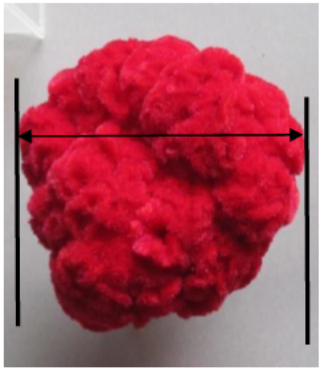
Method of observation: Visual observation or measurement. Use example varieties to calibrate.

Observe or measure the maximum width of terminal inflorescences.









		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
24 (*)	**VG**	**Inflorescence: color**				
PQ		white	Enterprise White			1
G		green				2
		yellow	Martine Yellow			3
		orange	Super Dwarf Kimono Orange			4
		orange pink				5
		pink	Bombay Rose			6
		red	Red Chief			7
		purple				8

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation (TG): Visual observation. Use example varieties to calibrate. Observe terminal inflorescences.

Method of observation (JP): Visual observation with use of the RHS colour chart. Observe terminal inflorescences.

Argentea Group (including Spicata Group) is observed the center of inflorescences just before flowers in that part bloom.

Plumosa group is observed in the center of inflorescences.

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
25 (*)	VG	**Cristate group only: inflorescence: color of prophylls on edge of top**				
PQ		white				1
		green				2
		yellow	Bombay Gold, Bombay Yellow			3
		orange	Bombay Orange			4
		orange pink	Boscorora			5
		pink	Bombay Rose			6
		red	Bombay Fire			7
		purple				8

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

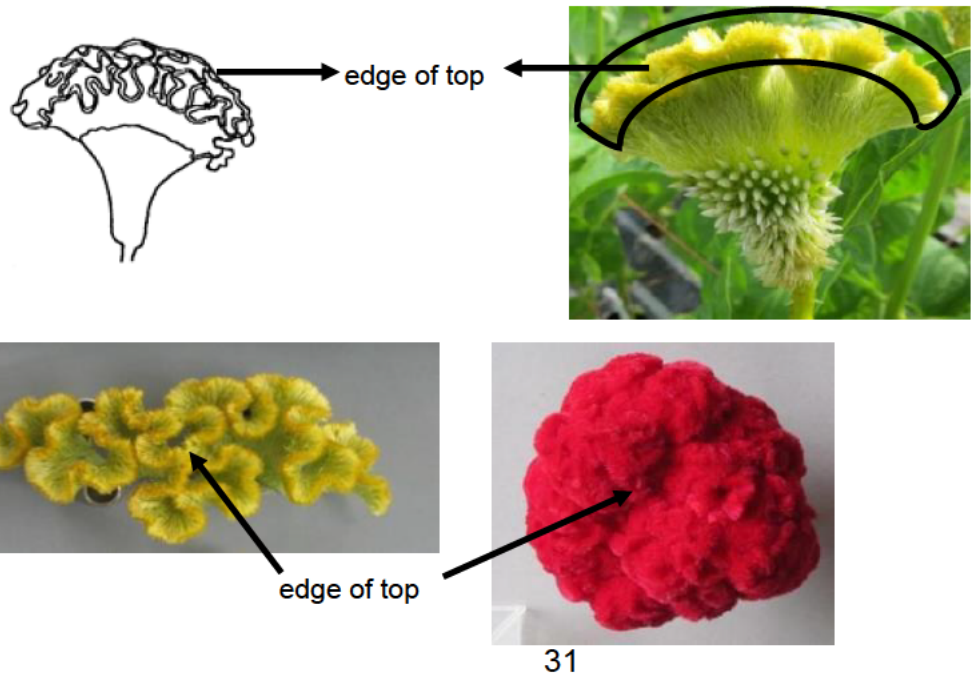
Method of observation (TG): Visual observation.

Observe terminal inflorescences on edge of top from directly above.

Method of observation (JP): Visual observation with use of the RHS colour chart.

Observe terminal inflorescences on edge of top from directly above.

*We would like to consider on TWO at the time of TG revision whether the name of fasciated part is "prophylls".



		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
26 (*)	**VG**	**<u>Cristate group only:</u> inflorescence: color of prophylls on distal part (excluding edge of top)**				
PQ		white	Bombay Gold, Bombay Yellow			1
		green				2
		yellow				3
		orange				4
		orange pink				5
		pink	Bombay Orange, Bombay Pink			6
		red				7
		purple	Bombay Fire			8

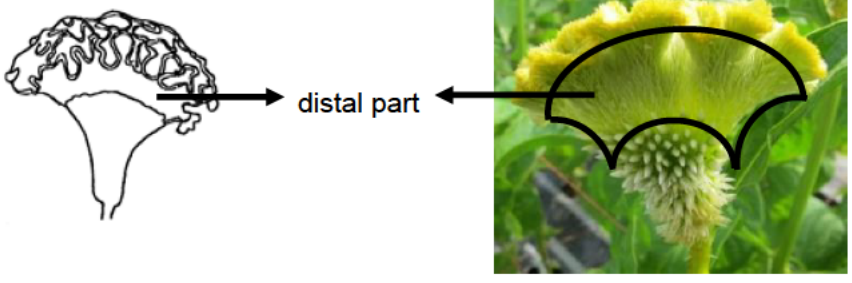
Remarks

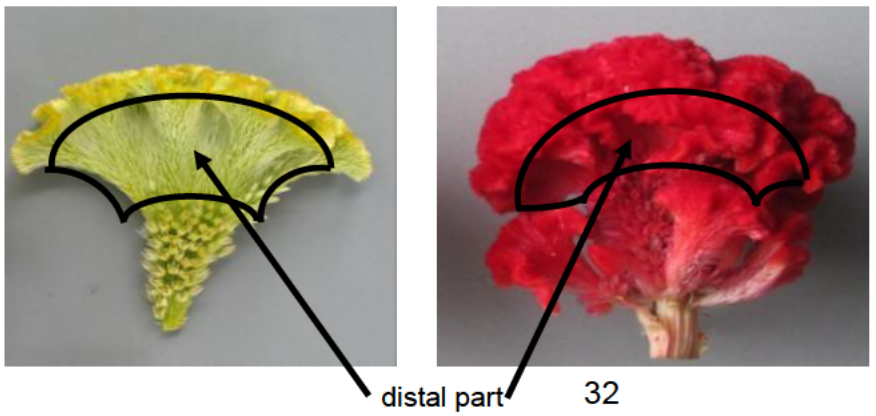
Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation. Use example varieties to calibrate.

Observe the center of terminal inflorescences on distal part from the side.

<u>*We would like to consider on TWO at the time of TG revision whether the name of fasciated part is "prophylls.</u>





Large round inflorescences need to be disassembled before observation.

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
27 (*)	**VG**	**<u>Cristate group only:</u> inflorescence: degree of undulation (viewed from above)**				
QN		weak	Bombay Rose			3
		medium	Bombay Fire, Celrayel			5
		strong	Bombay Dark-red, Boscorsun			7

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation. Use example varieties to calibrate. In the absence of example varieties, observations can be done using the following photos.

Observe terminal inflorescences. Evaluate comprehensively the strength and density of undulation.

2 weak to very weak

3 weak

5 medium

7 strong

8 strong to very strong

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
28 (*)	**VG**	**Tepal: shape**				
PQ		elliptic	Enterprise White, Enterprise Wine-red			1
		ovate	Martine, Martine Scarlet			2

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation.

In Japan, since some varieties in (2) Plumosa Group have only a few flower and some varieties in (3) Cristate Group have many flowers, but their tepals rarely open fully, observe several flowers at different flowering stage.

*We are considering that we should suggest and discuss on whether to modify “1 elliptic” to “1 ovate” and “2 ovate” to “2 narrow ovate” on TWO.

1 elliptic

2 ovate

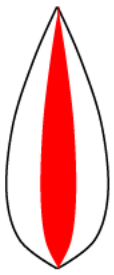
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
29 (*)	**VG**	**Tepal: color of median**				
PQ		RHS Colour Chart (indicate reference number)				

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation with use of the RHS colour chart.

If there are two colors on the median, list both colors together in the characteristic description. (JP) / list the main color in the characteristic description and the secondary color in the remark. (NL).



one color on the median

two colors on the median

		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
30 (*)	**VG**	**Stamen: color of filament**				
PQ		white	Enterprise White, Martine Scarlet			1
		green				2
		yellow				3
		orange				4
		orange pink	Boscorkir			5
		pink	Bombay Orange, Canaima			6
		red				7
		purple	Bombay Purple, Boscorcass			8

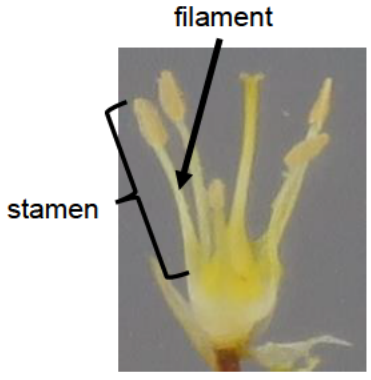
Remarks

Stage of observation: See Chapter 3, paragraph (ii)

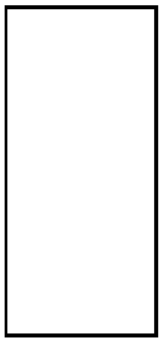
Method of observation: Visual observation. Use example varieties to calibrate.

Observe the darkest color of the filaments.

In the absence of example varieties, observations can be done using the following photos.

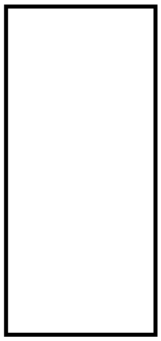


1 white



2 green

3 yellow



4 orange

5 orange pink

6 pink

7 red

8 purple

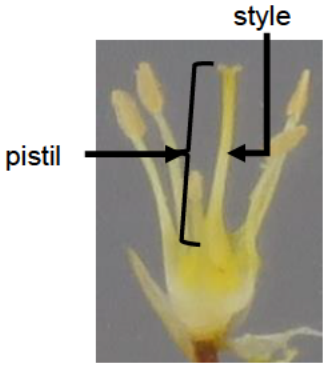
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
31 (*)	**VG**	**Pistil: color of style**				
PQ		white				1
		green				2
		yellow	Martine Yellow, Yellow Flame			3
		orange				4
		orange pink	Bombay Salmon, Bombay Velvet			5
		pink	Martine Salmon, Martine Scarlet			6
		red				7
		purple	Bombay Purple			8

Remarks

Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation. Use example varieties to calibrate.

Observe the darkest color of the style. In the absence of example varieties, observations can be done using the following photos.



1 white

2 green

3 yellow

4 orange

5 orange pink

6 pink

7 red

8 purple

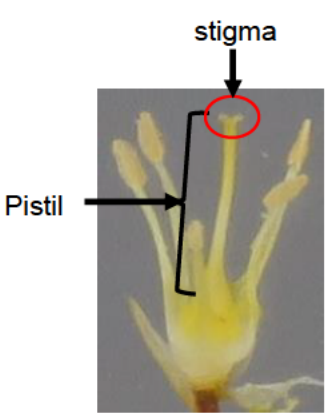
		English	UPOV Example Varieties	Netherlands Example Varieties	Japan Example Varieties	Note
32 (*)	**VG**	**Pistil: color of stigma**				
PQ		white				1
		green				2
		yellow				3
		orange				4
		orange pink				5
		pink				6
		red				7
		purple				8

Remarks

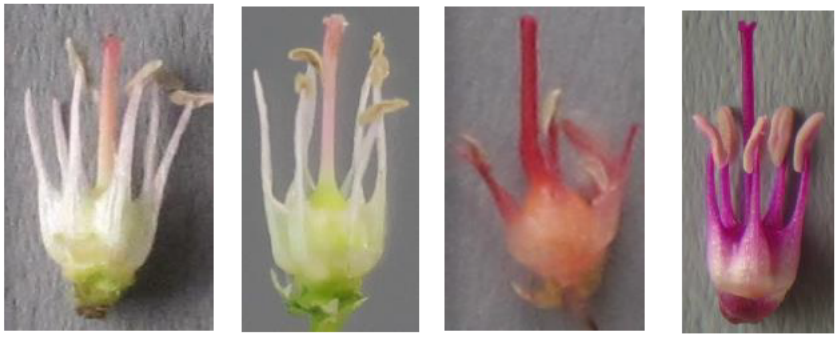
Stage of observation: See Chapter 3, paragraph (ii)

Method of observation: Visual observation. Use example varieties to calibrate.

Observe the darkest color of the stigma. In the absence of example varieties, observations can be done using the following photos.



1 white | 2 green | 3 yellow | 4 orange



5 orange pink | 6 pink | 7 red | 8 purple