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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

ENLARGED EDITORIAL COMMITTEE

Geneva, January 7 and 8, 2015

PARTIAL REVISION OF THE TEST GUIDELINES FOR MANDARIN
(DOCUMENT TG/201/1)*Document prepared by the Office of the Union**Disclaimer: this document does not represent UPOV policies or guidance*

1. At its forty-fifth session held in Marrakesh, Morocco, from May 26 to 30, 2014, the Technical Working Party for Fruit Crops (TWF) considered a partial revision of the Test Guidelines for Mandarin (TG/201/1) on the basis of documents TG/201/1, TWF/45/30, TWF/45/31 Rev., TWF/45/31 Add. and TWF/45/31 Add. 2 Rev.; and proposed to revise the Test Guidelines for Mandarin as follows (see document TWF/45/32 "Report", paragraphs 85 to 95):

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

Characteristic 25: Anther: viable pollen

Current wording:

25.	Anther: viable pollen	Anthère: pollen viable	Anthere: keimfähiger Pollen	Antera: polen viable		
QL (b)	absent	absent	fehlend	ausente	Owari (SAT)	1
[239]	present	présent	vorhanden	presente		9

Proposed new wording:

25.	Anther: viable pollen	Anthère: pollen viable	Anthere: keimfähiger Pollen	Antera: polen viable		
(+)						
QN (b)	absent or very low	absent ou très faible	fehlend oder sehr gering	ausente o muy bajo	Owari (SAT)	1
	low	faible	gering	bajo		3
	medium	moyen	mittel	medio	Marisol (CLE)	5
	high	élevé	hoch	alto	Murcott (HMA)	7
[339]	very high	très élevé	sehr hoch	muy alto	Fortune (HMA)	9

8. Explanations on the Table of Characteristics

8.2 *Explanations for individual characteristics*

The proposal is to add the following:

Ad. 25: Anther: viable pollen

Method to determine the percentage of viable pollen:

The pollen should be collected when the petals begin to open (but with the anthers closed). The anthers should be introduced into a Petri dish and placed inside a silica gel dryer at room temperature, for 20-48 hours of darkness. When the anthers are open they should be moved to an 8 °C chamber with a 70-80 % Relative Humidity for one hour. Afterwards, the pollen should be brushed onto a microscope slide with 2 ml of Brewbacker medium (Brewbaker and Kwack. 1963). Finally, the microscope slide should be placed in a 24 °C chamber with a 75 % RH for 20 hours.

The percentage of pollen fertilization is calculated as the average of germinated pollen grains observed with a binocular in 15 visual fields from 2 different microscope slides.

(Brewbaker, J.L. and Kwack, B.H. 1963. The essential role of calcium ion in pollen germination and pollen tube growth. Amer. Jour. Botany. 50: 859-865.)

Percentage range indication for the states of expression:

Example varieties	Note	Range
Owari (SAT)	1	≤ 7%
	2	> 7 ≤ 14%
	3	> 14 ≤ 21%
	4	> 21 ≤ 28%
Marisol (CLE)	5	> 28 ≤ 35%
	6	> 35 ≤ 45%
Murcott (HMA)	7	> 45 < 55%
	8	> 55 < 65%
Fortune (HMA)	9	≥ 65%

2. The changes to the Test Guidelines for Mandarin would also be reflected in the overall Table of Characteristics included in the Annex to documents TG/83/4 (Trifoliate Orange (Poncirus) (Citrus L. – Group 5)), TG/201/1, TG/202/1 (Oranges (Citrus L. - Group 2)), TG/203/1 (Lemons and Limes (Citrus L. - Group 3)) and TG/204/1 (Grapefruit and Pummelo (Citrus L. - Group 4)) by means of a partial revision to those Test Guidelines as follows:

Current wording:

	Group/Groupe/Gruppe/Grupo					English	français	deutsch	español	Note/ Nota
	1	2	3	4	5					
239.	25	26	29	30	37	Anther: viable pollen	Anthère: pollen viable	Anthere: keimfähiger Pollen	Antera: polen viable	
						absent	absent	fehlend	ausente	1
QL						present	présent	vorhanden	presente	9

Proposed new wording:

	Group/Groupe/Gruppe/Grupo					English	français	deutsch	español	Note/ Nota
	1	2	3	4	5					
239.	25	26	29	30	37	Anther: viable pollen	Anthère: pollen viable	Anthere: keimfähiger Pollen	Antera: polen viable	
						absent	absent	fehlend	ausente	1
QL						present	présent	vorhanden	presente	9

	Group/Groupe/Gruppe/Grupo					English	français	deutsch	español	Note/ Nota
	1	2	3	4	5					
339.	25					Anther: viable pollen	Anthère: pollen viable	Anthere: keimfähiger Pollen	Antera: polen viable	
(+)						absent or very low	absent ou très faible	fehlend oder sehr gering	ausente o muy bajo	1
						low	faible	gering	bajo	3
QN						medium	moyen	mittel	medio	5
						high	élevé	hoch	alto	7
						very high	très élevé	sehr hoch	muy alto	9

[End of document]