



TWO/45/34

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# INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

## TECHNICAL WORKING PARTY FOR ORNAMENTAL PLANTS AND FOREST TREES

### Forty-Fifth Session

Jeju, Republic of Korea, August 6 to 10, 2012

#### MATTERS TO BE RESOLVED CONCERNING TEST GUIDELINES CONSIDERED BY THE TECHNICAL COMMITTEE: TEST GUIDELINES FOR TREE PAEONY

*Document prepared by the Office of the Union*

1. The structure of the document is as follows:

I	BACKGROUND.....	1
II	MATTERS RAISED BY THE TECHNICAL COMMITTEE AND LEADING EXPERT RESPONSES.....	1
III	FURTHER CHANGES PROPOSED BY THE LEADING EXPERT .....	5
ANNEX I	Leading Expert Proposal for Amendment of Characteristic 23 "Flower: most complex form"	
ANNEX II	Leading Expert Proposal for Amendment of Characteristic and Ad. 33 "Petal: shape of blotch"	
ANNEX III	Leading Expert Proposal for Amendment of Characteristic and Ad. 5 "Lateral leaflets: shape"	
ANNEX IV	Leading Expert Proposal for Amendment of Characteristic and Ad. 19 "Lateral leaflets: shape" and Amendment of Ad. 20 "Lateral leaflets: depth of sinus"	
ANNEX V	Leading Expert Proposal for Amendment of Ad. 21 "Flower bud: shape in lateral view"	
ANNEX VI	Leading Expert Proposal for Amendment of Characteristic and Ad. 38 "Petal: shape (excluding petaloid)"	
ANNEX VII	Leading Expert Proposal for Amendment of Ad. 47 "Petaloid pistil on the most complex form: type"	

#### I BACKGROUND

2. The Technical Working Party for Ornamental Plants and Forest Trees (TWO), at its forty-fourth session, held in Fukuyama City, Japan, from November 7 to 11, 2011, agreed to submit the draft Test Guidelines for Tree Paeony (document TG/PAEON(proj.4)) to the Technical Committee (TC) for adoption at its forty-eighth session, held in Geneva from March 26 to 28, 2012 (see document TWO/44/25, paragraph 80).

#### II MATTERS RAISED BY THE TECHNICAL COMMITTEE AND LEADING EXPERT RESPONSES

3. The TC, at its forty-eighth session, held in Geneva from March 26 to 28, 2012, considered the draft Test Guidelines for Tree Paeony (document TG/PAEON(proj.6)) and agreed, on the basis of the recommendation of the Enlarged Editorial Committee (TC-EDC), that the draft Test Guidelines for Tree Paeony should be referred back to the TWO in order to resolve technical issues as presented in the comments by the TC-EDC (see document TC/48/22 "Report on the Conclusions", paragraph 150).

4. The following table contains the comments made by the TC-EDC and the proposals made by the Leading Expert in response to those comments:







(a) Changes to document TG/PAEON(proj.5), made on the basis of comments received from members of the Enlarged Editorial Committee in January 2012, which were already incorporated in the draft Test Guidelines (document TG/PAEON(proj.6)), submitted to the TC, a copy of which is provided on the TWO/45 page of the UPOV website:

Ad. 5, 19, 21, 33, 38	The legend of length/width should be placed separately
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(b) Changes proposed by the TC-EDC in January and March 2012, which are to be included in the Test Guidelines submitted to the TC:

	TC-EDC Comments	Leading Expert / Chairman's proposals
Box on front page, Botanical names, Chapter 1	to review consistency of coverage of Test Guidelines	Leading Experts proposal: Box on cover page and Chapter 1: to indicate the following botanical names: " <i>Paeonia suffruticosa</i> , <i>Paeonia qiui</i> , <i>Paeonia jishanensis</i> , <i>Paeonia ostii</i> , <i>Paeonia rockii</i> , <i>Paeonia delavayi</i> , <i>Paeonia ludlowii</i> "
Cover page	- to correct Spanish name to "Peonia" - to correct French name to "Pivoine arbustive" - to add space after comma in third line of botanical names	Leading Expert agrees
4.1.4	to read "Unless otherwise indicated, for the purposes of distinctness, all observations should be made on 5 plants or parts taken from each of 5 plants. In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 2."	Leading Expert agrees
5.3	Number and quality of grouping characteristics should be checked.	Leading Expert proposes following Grouping characteristics: (a) Plant: growth habit (characteristic 1) (b) Plant: height (characteristic 2) (c) Leaf: type (characteristic12) (d) Leaf: number of leaflet (characteristic13) (e) Lateral leaflets: depth of sinus (characteristic 20) (f) Flower: form (characteristic23) (g) Flower: main color (characteristic 26) with the following groups: Gr.1: white Gr.2: light green Gr.3: yellow Gr.4: orange Gr.5: pink Gr.6: red Gr.7: purple Gr.8: dark red purple (h) Petal: basal blotch (inner side) (characteristic 32) (i) Petal: size of blotch (characteristic 34) (j) Flowering: time of beginning of the first flowering (characteristic 51)
Char. 2	to be indicated as VG/MS	Leading Expert agrees
Char. 10	to be indicated as VG/MS	Leading Expert agrees
Char. 12	to delete MG	Leading Expert agrees
Char. 13	to be indicated as PQ	Leading Expert agrees
Char. 14	to be indicated as MS	Leading Expert agrees

Char. 15	to be indicated as MS	Leading Expert agrees
Char. 16	to be indicated as VG	Leading Expert agrees
Char. 23	to read "Flower: form" and to add explanation that the most complex flower within a plant should be observed	Leading Expert agrees, explanation to read "A variety may have more than one flower forms, the most complex flower within a plant should be observed."
Char. 23	to check if high number of states is appropriate	see Leading Expert proposal in Annex I
Chars. 24	VG or MS, but not MG	Leading Expert: to be indicated as VG/MS
Char. 25, 29, 30, 31, 46, 47, 48	to delete reference to "most complex form"	Leading Expert agrees
Char. 25, 29, 30, 31, 46, 47, 48	to add explanation in 8.1 that observation should be done on flowers with most complex form	Leading expert added explanation to Chapter 8.1 (g) and allocated the letter to the concerned characteristics
Chars. 26 and 27	to check whether to add color groups to chapter 5.3 and/or TQ 5.11 and 5.12	see 5.3, Leading Expert agrees to add color groups to chapter 5.3 and TQ 5 for characteristic 26, but not for characteristic 27 as many varieties do not have a secondary color
Char. 33	Differences between the forms are not clear. Too many states?	see Leading Expert proposal in Annex II
Char. 34	to be indicated VG/MS	Leading Expert agrees
Char. 50	to read "Time of beginning of the first flowering"	the TWO/44 agreed to delete the characteristic "Flowering: number of flowering periods in one year". The TC-EDC proposes to rename char. 50 "Flowering: Time of beginning of the first flowering" to read "Time of beginning of the first flowering"
8.1 (a)	- to delete 8.1(a) and remove (a) from char. 1 - to add to Ad. 1: "Observed after leaf fall in the winter" - to add (+) to char. 2 and create the following Ad. 2: <u>"Ad. 2: Plant height</u> Observed when plants are in flower."	Leading Expert agrees
8.1 (b)	reword to read "Observations on the mixed bud shape and color should be made on the first lateral bud from the apex on a current year branch during after leaf fall in the autumn. A current year branch is a branch which is current or belongs to the present year."	Leading Expert agrees
8.1 (c)	- to delete 8.1 (c) and remove (c) from char. 8 - to add (+) to char. 8 and create following Ad. 8: <u>"Ad. 8: One year old branch: length</u> Observed after leaf fall on current year branches, excluding basal shoots." - to add (+) to char. 9 and create following Ad. 9: <u>"Ad. 9: Two-year-old branch: number of flowering branches</u> Two year old branches are those developed and flower buds differentiated on last year." [should this be "on last year's branches"?]	Leading Expert agrees
8.1 (d)	- to move to Ad. 7 and reword to read "Very young shoots are less than 10 cm in length. The color of very young shoots excludes that of flower buds." - to remove (d) from char. 7	Leading Expert agrees

8.1 (e)	<ul style="list-style-type: none"> <li>- to amend to read "Except for leaf color, all observations on the petiole, leaf and leaflet should be made on the third and fourth fully developed leaves from the base on current year's branch in flower."</li> <li>- to add (e) to char. 13</li> </ul>	Leading Expert agrees
8.1 (f)	<ul style="list-style-type: none"> <li>- to delete 8.1 (f)</li> <li>- char. 16: to delete (f) and add (+)</li> <li>- char. 17: to change (f) to (e)</li> <li>- char. 18: to change (f) to (e)</li> <li>- to create following Ad. 16: <u>"Ad16: Leaf: color of upper side Observed at the beginning of flowering."</u></li> </ul>	Leading Expert agrees
8.1 (g)	to read "All observations on flower, petal, stamen and pistil should be made on the terminal flower on a primary branch. Observations on the shape of flower bud should be made when the bud is beginning to show the color. All observations on the petal should be made when the flower is fully open, except for the observations on the petal color which are made on the middle part of the petal at the time of flower opening."	Leading expert proposal: "All observations on flower, petal, stamen and pistil should be made on the terminal flower on a primary flowering branch. Observations on the shape of flower bud should be made when the bud is beginning to show the color. All observations on the petal should be made when the flower is fully open, except for the observations on the petal color which are made on the middle part of the petal at the time of flower fully opening. Observations on the flower form should be done on the flowers with most complex form."
8.1 (h)	to read "Blotch: an irregularly shaped and sized spot at the base of the petal. All observations on the blotch should be made on the first inner 1~2 wheel petals when the flower is fully open."	Leading Expert agrees
8.2	several explanations are missing	Done
Ad. 3, 4	current Ad. 3, 4, 5 does not cover chars. 3 and 4; Ad. 3 and 4 should be added	Leading Expert agrees
	<p>to add Ad. 3 and 4 according to TWO report and as provided by Leading Expert:</p> <p><u>Ad. 3</u></p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  1 upward         </div> <div style="text-align: center;">  2 outward         </div> <div style="text-align: center;">  3 downward         </div> </div> <p><u>Ad. 4</u></p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  3 within         </div> <div style="text-align: center;">  5 same level or nearly same level         </div> <div style="text-align: center;">  7 above         </div> </div>	Leading Expert agrees
Ad. 5	presentation in table not appropriate	Leading Expert proposes to change characteristic and Ad. 5 as presented in Annex III
Ad. 10, 14, 15	to delete small arrows.	Leading Expert agrees
Ad. 19, 20	Presentation to be improved. Difficult to identify which illustration shall show what.	we propose to reword the states and adapt the grid accordingly, please see Annex IV
Ad. 21	presentation in table not appropriate	see Leading Expert proposal in Annex V

Ad. 22	could be deleted	Leading Expert agrees
Ad. 23	See char. 23 - What is the "most complex form"?	see characteristic 23, explanation added to Ad. 23
Ad. 27	to be provided	to add explanation: "The secondary color is determined as the color with the secondary largest surface area present on the upper side of a flower. If 50/50, the main color is light one. The secondary color excludes the blotch and basal color."
Ad. 38	Presentation in table not appropriate.	see Leading Expert proposal in Annex VI
Ad. 42	Images not clear.	Leading Expert comment: We think it is very clear. In the first illustration, we show the the position of the disc and carpel, if it is be read carefully, the openness of the disc is very clear. TWO Chairperson's comment: If I understand correctly, the openness of the disc is related to exposure of the carpels. If "closed" then the carpels are not visible. If "fully open" then carpels are fully exposed. If this is correct then I think the images are clear.
Ad. 44	Shall it be texture? Photos do not provide useful information	to delete Ad. 44, as example varieties are provided in characteristic 44
Ad. 47	Difference between (1) and (2) not clear	see Leading Expert proposal in Annex VII
Ad. 50	- to read "The beginning of flowering is determined when 10% of all flower buds have opened." - (d) is not correct, to be deleted?	please see comment on char. 50
TQ 1.3	to add "(Please indicate)"	Leading Expert agrees
TQ 5	- to check if all requested characteristics are appropriate. - to add char. 13 and 24 (grouping chars.)	Leading expert agreed to add characteristics 13 and 24 and deleted characteristics 8, 10, 14, 15, 19, 27, 28, 29, 33, 34, 35, 39, 41, 42, 43, 45, 46, 47, 48, 49, 50

### III FURTHER CHANGES PROPOSED BY THE LEADING EXPERT

5. In addition to the amendments proposed in response to the request of the TC, the Leading Expert further proposed to change characteristic and Ad. 28 "Flower: distribution of secondary color" as follows:

28. (*) (+)	VG	Flower: distribution of secondary color	Fleur : distribution de la couleur secondaire	Blüte: Verteilung der Sekundärfarbe	Flor: distribución del color secundario		
PQ	(g)	none	aucune	keine	ninguno	Luo Yang Hong	1
		stripe	bande	Streifen	en rayas	He Pin Hua Er Qiao	2
		block	bloc	Block	en bloques	Hua Er Qiao	3
		center	centre	Mitte	en el centro	Yuan Yang Pu	4
		circle	cercle	Kreis	en círculos	Tao Yang Jin	5
		edge					6

Ad. 28: Flower: distribution of secondary color



stripe  
2



block  
3



center  
4



circle  
5



edge  
6

[Annexes follow]

## ANNEX I

Leading Expert Proposal for Amendment of Characteristic 23 “Flower: most complex form”

23. (*) (+)	VG	Flower: most complex form	Fleur : forme la plus complexe	Blüte: komplexeste Form	Flor: forma más compleja		
PQ	(g)	single form	en forme unique	einfache Form	forma simple	Shu Sheng Peng Mo	1
		lotus form	en forme de lotus	Lotusform	forma de loto	Yu Ban Bai	2
		chrysanthemum form	en forme de chrysanthème	Chrysanthemenform	forma de crisantemo	Cong Zhong Xiao, Ru Hua Si Yu	3
		rose form	en forme de rose	Rosenform	forma de rosa	Luo Yang Hong	4
		golden stamen form	en forme d'étamine dorée	goldene Staubblattform	forma de estambre dorado	Yao Huang	5
		anemone form	en forme d'anémone	Anemonenform	forma de anémona	Yin Si Guan Ding	6
		golden circle form	en forme de cercle doré	goldene Kreisform	forma de círculo dorado	Fen Mian Tao Hua	7
		crown form	en forme de couronne	Kronenform	forma de corona	Shou An Hong	8
		globular form	en forme circulaire	Kugelform	forma globular	Fen Yu Qiu	9
		hundred petals proliferation form				Jun Yan Hong	10
		crown proliferation form				Xian Tao	11

[Annex II follows]











## ANNEX II

Leading Expert Proposal for Amendment of Characteristic and Ad. 33 "Petal: shape of blotch"

33. VG Petal: shape of blotch  
(\*)  
(+)

PQ	(d)	square	1
		medium ovate	2
		narrow ovate	3
		oblong	4
		circle	5
		oblate	6
		oblanceolate	7
		medium obovate	8
		broad obovate	9
		obtriangular	10

Ad.33: Petal: shape of blotch

		Position of broadest part			
		Below middle	At the middle	Above the middle	
width (ratio length/width) →	narrow (elongated)	 3 narrow ovate		 7 oblanceolate	
		 2 medium ovate	 4 oblong	 8 medium obovate	
		 1 square	 5 circle	 9 broad obovate	 10 obtriangular
	broad (compressed) ←		 6 oblate		

[Annex III follows]






## ANNEX III

Leading Expert Proposal for Amendment of Characteristic and Ad. 5 “Lateral leaflets: shape”

5.	VG	Mixed bud: shape in lateral view	Bourgeon mixte : forme en vue latérale	Gemischte Knospe: Form in Seitenansicht	Yema mixta: forma en perspectiva lateral	
(+)						
PQ	(b)	<del>very narrow ovate</del>	<del>ovale très étroit</del>	<del>sehr schmal-eiförmig</del>	<del>oval muy estrecha</del>	<del>1</del>
		narrow ovate	ovale étroit	schmal eiförmig	oval estrecha	Qing Long Wo MO Chi, Rou Fu Rong <del>2</del> <b>3</b>
		medium ovate	ovale moyen	mittel eiförmig	oval media	LuoYang Hong <del>3</del> <b>5</b>
		rounded	arrondi	abgerundet	redonda	Cai Xia, Cong zhong xiao, <del>4</del> <b>7</b>

Ad. 5: Lateral leaflets: shape

				←	broadest part	→
				(below middle)	at middle	(above middle)
<div> <div>narrow (elongated)</div> <div>→</div> <div>width (ratio length/width)</div> <div>←</div> <div>broad (compressed)</div> </div>						
		<b>3</b> narrow ovate	<b>5</b> medium ovate			
						
			<b>7</b> rounded			

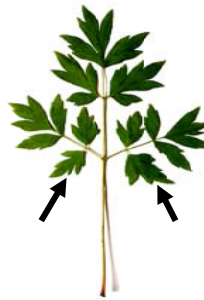
[Annex IV follows]

Leading Expert Proposal for Amendment of Characteristic and Ad. 19 “Lateral leaflets: shape”






19. (*) (+)	VG	Lateral leaflets: shape	Folioles latérales : forme	Seitliche Blattfiedern: Form	Foliolos laterales: forma	
PQ	(e)	lanceolate	lancéolée	lanzettlich	lanceolada	1
		medium ovate	ovale moyen	mittel eiförmig	oval media	2
		broad ovate	ovale large	breit eiförmig	oval ancha	3
		narrow elliptic	elliptique étroite	schmal elliptisch	elíptica estrecha	4
		broad elliptic	elliptique large	breit elliptisch	elíptica ancha	5

Ad. 19: Lateral leaflets:shape

The shape of leaflet blade








position of observed leaflet blade

Position of broadest part			
	Below the middle	At the middle	Above middle
narrow (elongated) →	 1 lanceolate	 4 narrow elliptic	
width (ratio length/width) ←	 2 medium ovate	 5 broad elliptic	
broad (compressed)	 3 broad ovate		





Leading Expert Proposal for Amendment of Ad. 20 “Lateral leaflets: depth of sinus”

Ad. 20: Lateral leaflet: depth of sinus

 1 absent or very shallow	 3 shallow	 5 medium	 7 deep	 9 very deep
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[Annex V follows]

Leading Expert Proposal for Amendment of Ad. 21 “Flower bud: shape in lateral view”Ad. 21: Flower bud: shape in lateral view




Position of broadest part			
	Below the middle	At the middle	Above middle
narrow (elongated) →	 1 narrow ovate		
width (ratio length/width) ←	 2 broad ovate	 3 circular	
broad (compressed)		 4 oblate	

[Annex VI follows]

Leading Expert Proposal for Amendment of Characteristic and Ad. 38 "Petal: shape (excluding petaloid)"

38.	VG	Petal: shape (excluding petaloid)	Pétale : forme (à l'exclusion du pétaloïde)	Blütenblatt: Form (Petaloiden ausgenommen)	Pétalo: forma (excluidos los petaloideos)	
(+)						
PQ	(g)	circular	circulaire	kreisförmig	circular	1
		oblate	aplatie	breitrund	achatada	2
		obovate	obovale	verkehrt eiförmig	oboval	3

Ad. 38: Petal: shape (excluding petaloid)

Position of broadest part			
	Below the middle	At the middle	Above middle
narrow (elongated) →			 3 obovate
width (ratio length/width) ←		 1 circular	
broad (compressed)		 2 oblate	

[Annex VII follows]

Leading Expert Proposal for Amendment of Ad. 47 “Petaloid pistil on the most complex form: type”

Ad. 47: Petaloid pistil on the most complex form: type



1  
only stigma



2  
partly petaloid



3  
completely petaloid



[End of Annex VII and of document]