



TWV/49/26

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

TECHNICAL WORKING PARTY FOR VEGETABLES

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PARTIAL REVISION OF THE TEST GUIDELINES FOR SPINACH (DOCUMENT TG/55/7 REV.3)

Document prepared by an expert from the Netherlands

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1. The Technical Working Party for Vegetables (TWV), at its forty-eighth session, held in Paestum, Italy, from June 23 to 27, 2014, agreed that the Test Guidelines for Spinach (document TG/55/7 Rev.3) be partially revised for Characteristic 18 "Resistance to Peronospora farinosa f. sp. spinaciae" (see document TWV/48/43, Annex IV).
2. The purpose of this document is to present a proposal for the partial revision of the Test Guidelines for Spinach (document TG/55/7 Rev.3).
3. The following changes are proposed:
 - Revision of Characteristic 18 "Resistance to Peronospora farinosa f. sp. spinaciae":
 - (a) addition of "Race Pfs: 15", including example varieties and to add to TQ 7.3;
 - (b) revision of explanation Ad. 18 in Chapter 8.2 "Explanations for individual characteristics"
4. The changes to Characteristic 18 "Resistance to Peronospora farinosa f. sp. spinaciae" are presented in highlight and underline (insertion) and ~~strikthrough~~ (deletion).

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
18. VG (+)	Resistance to <u>Peronospora farinosa</u> f. sp. <u>spinaciae</u> (Pfs)	Résistance à <u>Peronospora farinosa</u> f. sp. <u>spinaciae</u> (Pfs)	Resistenz gegen <u>Peronospora farinosa</u> f. sp. <u>spinaciae</u> (Pfs)	Resistencia a <u>Peronospora farinosa</u> f. sp. <u>spinaciae</u> (Pfs)		
18.1	Race Pfs: 1	Race Pfs: 1	Pathotyp Pfs: 1	Raza Pfs: 1		
QL	absent	absente	fehlend	ausente	Viroflay, Winterreuzen	1
	present	présente	vorhanden	presente	Califlay, Resistoflay	9
18.2	Race Pfs: 2	Race Pfs: 2	Pathotyp Pfs: 2	Raza Pfs: 2		
QL	absent	absente	fehlend	ausente	Califlay	1
	present	présente	vorhanden	presente	Resistoflay	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
18.3	Race Pfs: 3	Race Pfs: 3	Pathotyp Pfs: 3	Raza Pfs: 3		
QL	absent	absente	fehlend	ausente	Resistoflay	1
	present	présente	vorhanden	presente	Califlay, Clermont	9
18.4	Race Pfs: 4	Race Pfs: 4	Pathotyp Pfs: 4	Raza Pfs: 4		
QL	absent	absente	fehlend	ausente	Califlay	1
	present	présente	vorhanden	presente	Clermont	9
18.5	Race Pfs: 5	Race Pfs: 5	Pathotyp Pfs: 5	Raza Pfs: 5		
QL	absent	absente	fehlend	ausente	Clermont	1
	present	présente	vorhanden	presente	Califlay, Campania	9
18.6	Race Pfs: 6	Race Pfs: 6	Pathotyp Pfs: 6	Raza Pfs: 6		
QL	absent	absente	fehlend	ausente	Califlay, Campania	1
	present	présente	vorhanden	presente	Boeing	9
18.7	Race Pfs: 7	Race Pfs: 7	Pathotyp Pfs: 7	Raza Pfs: 7		
QL	absent	absente	fehlend	ausente	Califlay	1
	present	présente	vorhanden	presente	Campania	9
18.8	Race Pfs: 8	Race Pfs: 8	Pathotyp Pfs: 8	Raza Pfs: 8		
QL	absent	absente	fehlend	ausente	Boeing, Campania	1
	present	présente	vorhanden	presente	Lazio, Lion	9
18.9	Race Pfs: 10	Race Pfs: 10	Pathotyp Pfs:10	Raza Pfs:10		
QL	absent	absente	fehlend	ausente	Boeing, Campania, Lion	1
	present	présente	vorhanden	presente	Lazio	9
18.10	Race Pfs: 11	Race Pfs: 11	Pathotyp Pfs: 11	Raza Pfs: 11		
QL	absent	absente	fehlend	ausente	Lazio	1
	present	présente	vorhanden	presente	Boeing, Califlay, Campania, Lion	9
18.11	Race Pfs: 12	Race Pfs: 12	Pathotyp Pfs: 12	Raza Pfs: 12		
QL	absent	absente	fehlend	ausente	Boeing, Campania	1
	present	présente	vorhanden	presente	Finch, Pigeon, Red Kitten, Zebu	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
18.12	Race Pfs: 13	Race Pfs: 13	Pathotyp Pfs: 13	Raza Pfs: 13		
QL	absent	absente	fehlend	ausente	Campania	1
	present	présente	vorhanden	presente	Boeing, Lion	9
18.13	Race Pfs: 14	Race Pfs: 14	Pathotyp Pfs: 14	Raza Pfs: 14		
QL	absent	absente	fehlend	ausente	Campania, Pigeon	1
	present	présente	vorhanden	presente	Califlay, Lion	9
18.14	Race Pfs: 15	Race Pfs: 15	Pathotyp Pfs: 15	Raza Pfs: 15		
QL	<u>absent</u>	<u>absente</u>	<u>fehlend</u>	<u>ausente</u>	<u>Caladonia</u>	<u>1</u>
	<u>present</u>	<u>présente</u>	<u>vorhanden</u>	<u>presente</u>	<u>Pigeon</u>	<u>9</u>

5. It is proposed to add column Pf: 15 to the table of differential varieties to identify races in Ad. 18 “Resistance to *Peronospora farinosa* f. sp. *spinaciae* (Pfs)” (see yellow highlight):

“Differential varieties to identify races

“Races Pfs: 1-8 and 10-15 of *Peronospora farinosa* f. sp. *spinaciae* are defined with a standard set of ‘differential varieties’ according to the following table:

Differential variety	Pfs: 1	Pfs: 2	Pfs: 3	Pfs: 4	Pfs: 5	Pfs: 6	Pfs: 7	Pfs: 8	Pfs: 10	Pfs: 11	Pfs: 12	Pfs: 13	Pfs:14	Pfs: 15
Viroflay	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Resistoflay	R	R	S	S	S	S	S	S	S	S	S	S	S	S
Califlay	R	S	R	S	R	S	S	R	S	R	R	S	R	S
Clermont	R	R	R	R	S	S	S	S	S	S	S	S	S	R
Campania	R	R	R	R	R	S	R	S	S	R	S	S	S	R
Boeing	R	R	R	R	R	R	R	S	S	R	S	R	S	R
Lion	R	R	R	R	R	R	R	R	S	R	R	R	R	R
Lazio	R	R	R	R	R	R	R	R	R	S	S	S	S	R
Whale	R	R	R	R	R	R	R	R	S	R	R	S	R	S
Pigeon	R	R	R	R	R	R	R	R	R	R	R	R	S	R
Caladonia	R	R	R	R	R	R	R	R	R	R	R	R	R	S

Legend: R= resistance present; S = resistance absent, susceptible”

6. It is proposed to add Race Pfs: 15 to Chapter 10 “Technical Questionnaire”, Section 7.3 (b) (i) as follows:

“7.3 Other information

[...]

“(b) Resistance to pests and diseases (specify)

“(i) Resistance to *Peronospora farinosa* f. sp. *spinaciae*

Race Pfs: 1	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 2	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 3	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 4	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 5	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 6	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 7	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 8	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 10	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 11	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 12	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 13	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 14	<input type="checkbox"/>	absent	<input type="checkbox"/>	present
Race Pfs: 15	<input type="checkbox"/>	absent	<input type="checkbox"/>	present

[...]”

[End of document]