



TWV/49/27

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**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**

Geneva

**TECHNICAL WORKING PARTY FOR VEGETABLES****Forty-Ninth Session  
Angers, France, June 15 to 19, 2015****PARTIAL REVISION OF THE TEST GUIDELINES FOR TOMATO ROOTSTOCKS  
(DOCUMENT TG/294/1)***Document prepared by an expert from the European Union**Disclaimer: this document does not represent UPOV policies or guidance*

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 Tomato Rootstocks (document TG/294/1) be partially revised for disease resistance characteristics (see document TWV/48/43, Annex IV).
2. The purpose of this document is to present a proposal for a partial revision that the Test Guidelines for Tomato Rootstocks (document TG/294/1).
3. The following changes are proposed:
  - Deletion of asterisk from Characteristic 23 "Resistance to *Verticillium* sp. (Va and Vd) – Race 0"
  - Deletion of asterisk from Characteristic 28 "Resistance to *Pyrenochaeta lycopersici* (PI)"
4. The changes to Characteristics 23 and 28 are presented in highlight and ~~striktthrough~~ (deletion) in Annex I to this document, in conjunction with comments by the Leading Expert, Mr. Sergio Semon, European Union.
5. Comments received on the proposed changes by the Subgroup of Interested Experts are presented in Annex II to this document.

[Annex I follows]

## ANNEX I

Changes Proposed to Characteristic 23 “Resistance to *Verticillium* sp. (Va and Vd) – Race 0”

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23. (*) (+)	<b>VG</b> Resistance to <i>Verticillium</i> sp. (Va and Vd) – Race 0	Résistance à <i>Verticillium</i> sp. (Va et Vd) – Pathotype 0	Resistenz gegen <i>Verticillium</i> sp. (Va und Vd) – Pathotyp 0	Resistencia a <i>Verticillium</i> sp. (Va y Vd) – Raza 0		
QL	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente	Big Power	9

*Comment by the Leading Expert, Mr. Sergio Semon, European Union:*

In the current UPOV Test Guidelines this characteristic appears with an asterisk (\*), which means that it should always be examined for DUS and included in the variety description by all members of the Union.

In recent discussions between examination authorities within the European Union, there was the opinion that this characteristic may not be sufficiently useful to observe in a systematic way for each candidate tomato rootstock variety. Furthermore, not all examination authorities have the capability to test for this disease in tomato rootstock. The group of European Union experts therefore concluded that the asterisk should be removed from this characteristic.

Proposal: To remove the asterisk from Characteristic 23 of the Test Guidelines for Tomato Rootstocks.

Changes Proposed to Characteristic 28 “Resistance to *Pyrenochaeta lycopersici* (PI)”

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
28. (*) (+)	<b>VG</b> Resistance to <i>Pyrenochaeta lycopersici</i> (PI)	Résistance au <i>Pyrenochaeta lycopersici</i> (PI)	Resistenz gegen <i>Pyrenochaeta lycopersici</i> (PI)	Resistencia a <i>Pyrenochaeta lycopersici</i> (PI)		
QL	absent	absente	fehlend	ausente	Zaralto	1
	present	présente	vorhanden	presente	Emperador	9

*Comment by the Leading Expert, Mr. Sergio Semon, European Union:*

In the current UPOV Test Guidelines this characteristic appears with an asterisk (\*), which means that it should always be examined for DUS and included in the variety description by all members of the Union.

In recent discussions between examination authorities within the European Union, several examination authorities expressed that the methodology outlined under Ad.28 in section 8.2 of the guideline was not fully mastered by them. The results of a test for *Pyrenochaeta lycopersici* (PI) could thus not be guaranteed, and as such, some of the examination authorities opted not to undertake testing for this particular disease resistance characteristic. An improved methodology is currently being investigated by a couple of examination authorities. In the meantime though, the group of European Union experts concluded that the asterisk should be removed from this characteristic.

Proposal: To remove the asterisk from Characteristic 28 of the Test Guidelines for Tomato Rootstocks.

[Annex II follows]

Comments by Interested Experts

*France*

- Characteristic 23 "Resistance to *Verticillium* sp. (Va and Vd) – Race 0":

In the current UPOV Test Guidelines this characteristic appears with an asterisk (\*), which means that it should always be examined for DUS and included in the variety description by all members of the Union.

This characteristic is a high topic and basic breeding trait for tomato rootstock. Any EO accredited for tomato rootstock have the capability to test for this disease in tomato rootstock or to cooperate to get a result from another EO. GEVES concludes that the asterisk should be for this characteristic. The test is harmonized between EO at EU level.

Proposal: To maintain the asterisk from Characteristic 23 of the Test Guidelines for Tomato Rootstocks.

- Characteristic 28 "Resistance to *Pyrenochaeta lycopersici* (PI)":

In the current UPOV Test Guidelines this characteristic appears with an asterisk (\*), which means that it should always be examined for DUS and included in the variety description by all members of the Union.

This characteristic is a high topic and basic breeding trait for tomato rootstock. Any EO accredited for tomato rootstock have the capability to test for this disease in tomato rootstock or to cooperate to get a result from another EO. GEVES concludes that the asterisk should be for this characteristic.

Bio test methodologies have been developed by INRA from the 70's and have been improved by seed companies. Recently, improved methodology is currently being investigated by a couple of examination authorities to permit a better harmonization between the EO's and seed companies.

These characteristics are suitable and necessary to group varieties for DUS examination.

In the frame work of the EU catalogue and the demonstration of sustainable agriculture, the breeding and control of the genetic disease resistance of tomato rootstock, especially *Verticillium* and *Pyrenochaeta*, is essential.

Proposal: To maintain the asterisk from characteristic 28 of the Test Guidelines for Tomato Rootstocks.

*Netherlands*

We agree with your proposal to delete some of the asterisks in the tomato rootstock guideline.

*Spain*

Only a pair of comments about the possible revision of asterisks in tomato rootstock guideline at next UPOV meeting.

In the meeting of vegetable experts in Angers in December of 2013, it was decided to open this discussion at level of UPOV TWV. (See paragraph 121 of the minutes).

The origin of the proposal was different for both diseases. For *Verticillium* it was more to simplify a bit the technical examination avoiding the obligation of test officially the candidate varieties because the characteristic was seen as not discriminating.

In the case of *Pyrenochaeta* the reason was that the actual test protocol was found not appropriate by NL and ES, and indirectly also by FR, renouncing to perform the test for the CPVO R&D project of priming seeds in the last year. (We accepted the asterisk for *Pyrenochaeta* in the first protocol, with the wrong confidence of be appropriate)

My opinion is that in the case of *Verticillium* the decision may be reconsidered, but in the case of *Pyrenochaeta*, the asterisk must be deleted until a new test protocol be proposed, checked in their own laboratories by the entrusted offices and accepted. This is the actual way in the CPVO.

Obviously delete the asterisk doesn't mean delete the characteristic, so it will not create a big problem for breeders.

*European Seed Association (ESA)*

ESA does not support the proposal. Disease resistance characteristics are considered as important by most of the companies active in breeding of vegetable species. Indeed in the European Union we have discussed the obligatory use of disease resistance characteristics and decided to introduce a phasing in period of x years when introducing a new asterisk (\*). At the same time it was agreed not to alter the current asterisks unless specifically required. ESA members active in breeding of tomato rootstocks insist on maintaining the asterisk for resistance to *Verticillium*. We therefore do not support the proposal.

[End of Annex II and of document]