UPOV
International Union for the Protection of New Varieties of Plants

E

Technical Working Party for Vegetables

TWV/60/6

Sixtieth Session
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REVISION OF DISEASE RESISTANCE CHARACTERISTICS IN THE EUROPEAN UNION

Document prepared by an expert from the European Union

Disclaimer: this document does not represent UPOV policies or guidance

The annex to this document contains a copy of a presentation “Revision of the disease resistance characteristics in EU”, to be made by an expert from the European Union, at the sixtieth session of the TWV.

[Annex follows]


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Revision of the disease resistance characteristics in EU
TWV/60 – 18 to 21 May 2026
Céline Morineau, CPVO technical expert

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Background of this initiative
Situation at UPOV TWV prior to 2024
Numerous revisions relating to disease resistance characteristics discussed in the framework of the TWV.
Most of these proposals originated from the EU, often led by experts from EU Member States.
2024
EU experts agreed to conduct the discussion within the CPVO vegetable experts group first and to present advanced proposals to UPOV for revising disease resistance characteristics in the vegetable TGs within the TWV.
2025
Launch of the EU Working Group on Disease Resistance Characteristics coordinated by CPVO ("WG-DRC"),
bringing together: DUS experts, Phytopathologists, Breeders' representatives (Euroseeds)
Structured in crop-specific working groups coordinated by designated chairs

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Objectives of the EU WG-DRC

1 - Establish a work programme to revise disease resistance characteristics, focusing on:

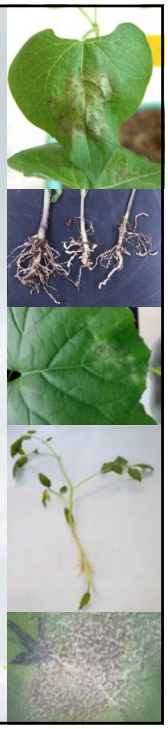
- Revision of existing characteristics (e.g., example varieties, state of expression etc.)
- Addition of new characteristics
- Revision of existing resistance testing protocols (bioassays/marker tests), including inter-laboratory ring tests
- Development of new protocols or methods to test the resistance (bioassays/marker tests), including inter-laboratory ring tests

> The characteristics and protocols are revised or developed according to UPOV documents TGP/7 "Development of Test Guidelines" and TGP/12 "Guidance on certain physiological characteristics".

> This work is carried out either through the EU WG-DRC or through follow-ups of CPVO co-funded R&D projects on diseases, as well as activities conducted by ISF on disease-related topics.

2 - Implementation of the agreed revisions in CPVO Technical Protocols (TPs).

3 - Regular reporting of the outcomes of the EU WG-DRC to UPOV TWV and propose corresponding revisions to the TGs.



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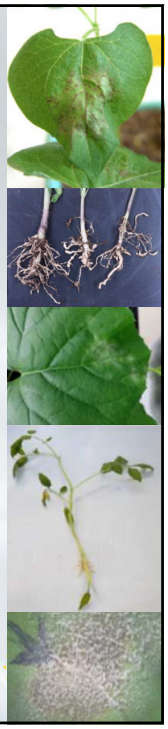
Annual Reporting to UPOV TWV and invitation to participate

CPVO will regularly

- update UPOV TWV, on behalf of the EU WG-DRC, regarding ongoing revisions in the EU that may be relevant for revisions of UPOV TGs.
- Share with UPOV TWV any issues of general interest related to disease resistances as raised within the WG-DRC

UPOV members are invited to join the crop-specific working groups to share their experiences and contribute to the revisions.

If interested to join the discussion on a disease resistance characteristic for a particular species or for a particular disease resistance characteristic -> please contact CPVO (morineau@cpvo.europa.eu)



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Annual Reporting to UPOV TWV – 2026

Crop-specific working groups

- **6 working groups** have been created
- Priorities have been established to implement the characteristics in the CPVO TPs (short-, mid-, and long-term).

Working groups	Species	Proposed disease resistance	Subject of the revision	Status of the revision	Stage of the revision at EU (**VEM***) /**UPOV** level	Priority
WG1 (2025)	French bean	*Southern bean mosaic virus* (SBMV)	protocol developed by NL, currently used as additional characteristic	pending	no revision foreseen yet	
WG2 (2025)	Cucumber	*Cucurbit aphid-borne yellows virus* (CABYV)	new characteristic (bioassay)	ongoing	no revision foreseen yet	
	Cucumber, Melon, Squash	*Tomato leaf curl New Delhi virus* (ToLCNDV)	new characteristic (bioassay)	ongoing	no revision foreseen yet	
WG3 (2025)	Melon	*Fusarium oxysporum* f.sp. *melonis race 0, 1, 2*	Development of a new method based on molecular markers in addition to the bioassay	ongoing	no revision foreseen yet	
		*Cucurbit yellow stunting disorder virus (*CYSDV)	new characteristic (bioassay)	ongoing	no revision foreseen yet	
		Melon necrotic spot virus (MNSV)	Development of a new method based on molecular markers in addition to the bioassay	ongoing	no revision foreseen yet	
WG4 (2025)	Pepper	*Leveillula Taurica* (Lt)	new characteristic (bioassay)	ongoing	no revision foreseen yet	

*** VEM**: EU Vegetable expert meeting

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Annual Reporting to UPOV TWV – 2026

Crop-specific working groups

- **6 working groups** have been created
- Priorities have been established to implement the characteristics in the CPVO TPs (short-, mid-, and long-term).

Working groups	Species	Proposed disease resistance	Subject of the revision	Status of the revision	Stage of the revision at EU (**VEM***) /**UPOV** level	Priority
WG5 (2025)	Tomato	*Passalora fulva* (Pf)	Development of a new method based on molecular markers in addition to the bioassay	ready for implementation	**VEM**: partial revision (May 2026)	
		Fusarium oxysporum f. sp. Lycopersici (Fol) (race 2 EU/3US).	Development of a new method based on molecular markers in addition to the bioassay	ready for implementation	**VEM**: partial revision (May 2026)	
		Tomato brown rugose fruit virus (ToBRFV)	new characteristic	ongoing	**VEM**: partial revision envisaged for end of 2026	
		Verticillium sp. (Va and Vd) race 0	Development of a new method based on molecular markers in addition to the bioassay	ongoing	no revision foreseen yet	
		Fusarium oxysporum f. sp. Lycopersici (Fol) (race 1 EU/2US).	Revision of the bioassay protocol (to replace the resistant control)	ongoing	no revision foreseen yet	
		Meloidogyne incognita (Mi)	Revision of the bioassay protocol (to replace the IR control)	ongoing	no revision foreseen yet	
	Tomato rootstocks	*Meloidogyne incognita* (Mi)	Revision of the bioassay protocol (to replace the HR control)	ongoing	**VEM**: partial revision envisaged for end of 2026 **UPOV**: revision foreseen at TWV/60	
		Fusarium oxysporum f. sp. Lycopersici (Fol) (race 2 EU/3US).	Development of a new method based on molecular markers in addition to the bioassay	pending	no revision foreseen yet	
WG6 (2026)	cabbage	*Fusarium oxysporum conglutians* (Foc) - biotest	Revision of the bioassay protocol	starting	no revision foreseen yet	
		Fusarium oxysporum conglutians (Foc) - marker test	Development of a new method based on molecular markers in addition to the bioassay	starting	no revision foreseen yet	

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Annual Reporting to UPOV TWV – 2026

Crop-specific working groups

- **Other initiatives and revisions have been discussed**
- Priorities have been established to implement the characteristics in the CPVO TPs (short-, mid-, and long-term).

Authority proposing the revision	Species	Proposed disease resistance	Subject of the revision	Status of the revision	Stage of the revision at EU (**VEM***) /**UPOV** level	Priority
Naktuinbouw (2025)	Different Brassica crops	*Plasmodiophora brassicae* (Pb) (clubroot)	new characteristic (bioassay)	done	**VEM**: partial revision scheduled at the VEM25 (Nov. 2025) **UPOV**: revised at the TWV/59 and adopted by the TC in 2025	
GEVES (2026)	lettuce	*Lettuce Mosaic Virus* (LMV)	Revision of the bioassay protocol	ready for implementation	**VEM**: partial revision (May-June 2026), with proposed entry into force: 1st July 2026 **UPOV**: a revision might be proposed to the TWV from 2027.	
GEVES (2026)	Cucumber	*Corynespora cassiicola* (Cca)	Revision of the bioassay protocol	pending	no revision foreseen for the time being *(Keep monitoring the need to revise the bioassay protocol)*	
GEVES (2026)	Melon	*Pososphaera xanthii* (Px)	addition of two new races	ready for implementation	**VEM**: partial revision scheduled for VEM26 (Nov. 2026) **UPOV**: the revision will be proposed to the TWV/60	
GEVES (2026) (Tobrag project)	Melon	*Aphis gossipii* (Ag)	new char. (new strain), revision of the bioassay protocol, development of a new method based on molecular markers	ready for implementation	**VEM**: partial revision scheduled for VEM26 (Nov. 2026) **UPOV**: the revision will be proposed to the TWV/60	
Naktuinbouw (2026)	pea	*Peronospora viciae* (Pv)	Additional characteritsic (NL), revision of the bioassay protocol (ISF)	ongoing	no revision foreseen for the time being	

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Thank you !

CPVO
Community Plant Variety Office
Community Plant Variety Office
3 Boulevard Maréchal Foch
49000 ANGERS – FR

Contacts
Tel: (+33) (0) 2-41.25.64.00
E-mail: cpvo@cpvo.europa.eu
Webmaster: webmaster@cpvo.europa.eu

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[End of Annex and of document]