

Technical Committee

TC/59/21

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PARTIAL REVISION OF THE TEST GUIDELINES FOR RADISH, BLACK RADISH

Document prepared by an expert from France

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1. The purpose of this document is to present a proposal for a partial revision of the Test Guidelines for Radish, Black Radish (document TG/63/7-TG/64/7 Rev. Corr.).

2. The Technical Working Party for Vegetables (TWV), at its fifty-seventh session¹, considered a proposal for a partial revision of the Test Guidelines for Radish, black radish (*Raphanus sativus* L. var. *sativus*; *Raphanus sativus* L. var. *niger* (Mill.) S. Kerner) on the basis of documents TG/63/7-TG/64/7 Rev. Corr. and TWV/57/9 “Partial revision of the Test Guidelines for Radish, Black Radish” and proposed the following changes (see document TWV/57/26 “Report”, paragraph 72):

(a) Revision of characteristic and explanation Ad. 1 “Only N-type varieties: Ploidy”

3. The proposed new wording is presented below. The proposed changes are presented in highlight and underline (insertion) and ~~striketrough~~ (deletion) in the Annex to this document (in English only).

Proposed revision of characteristic 1 “Only N-type varieties: Ploidy”

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. MG (* (+)	<u>Only N-type varieties:</u> C Ploidy	<u>Uniquement les variétés de type N :</u> ploïdie	<u>Nur N-Typen:</u> Ploidie	<u>Únicamente variedades tipo-N:</u> Ploidía		
QL	diploid	diploïde	diploid	diploide	April Cross (N), Snowbird (N),	2
	tetraploid	tétraploïde	tetraploid	tetraploide	Rex (N)	4

¹ held in Antalya, Türkiye, from May 1 to 5, 2023

Proposed revision of explanation Ad. 1 “Only N-type varieties: Ploidy”

Ad. 1: Only N-type varieties: ploidy

The ploidy status of the plant can be checked by different methods as:

- determination of the number of chromosomes of the non-thickened root meristem
- length of stomata on the lower side of the cotyledon (tetraploid varieties have more and longer stomata than diploid varieties)
- examination of chloroplasts of the guard cells on the lower side of the cotyledon (the guard cells of tetraploid varieties are bigger and contain more chloroplasts (> 20) than those of diploid varieties (> 10)).
- Flow cytometry (DNA quantification method)

Observations should be made on at least 5 plants.

[Annex follows]

PROPOSED CHANGES PRESENTED IN HIGHLIGHT
(in English only)

Proposed revision of characteristic 1 “Only N-type varieties: Ploidy”

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplo	Note/ Nota
1. MG (* (+)	Only N-type varieties: Ploidy	Uniquement les variétés de type N : ploïdie	Nur N-Typen: Ploidie	Únicamente variedades tipo-N: Ploidía		
QL	diploid	diploïde	diploid	diploïde	<u>Halblanger weißer Sommer (N)</u> <u>April Cross (N)</u> <u>Snowbird (N)</u>	2
	tetraploid	tétraploïde	tetraploid	tetraploïde	Rex (N)	4

Proposed revision of explanation Ad. 1 “Only N-type varieties: Ploidy”

Ad. 1: Only N-type varieties: ploidy

The ploidy status of the plant can be checked by different methods as determination of the number:

- determination of the number of chromosomes of the non-thickened root meristem
- ~~and~~ length of stomata on the lower side of the cotyledon (tetraploid varieties have more and longer stomata than diploid varieties)
- examination of chloroplasts of the guard cells on the lower side of the cotyledon (the guard cells of tetraploid varieties are bigger and contain more chloroplasts (> 20) than those of diploid varieties (> 10)).
- Flow cytometry (DNA quantification method)

~~Another efficient method to determine the ploidy status is the flow cytometry.~~

Observations should be made on at least 5 plants.

[End of Annex and of document]