

TWA/40/9 Add.
ORIGINAL: English
DATE: May 15, 2011

# INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS GENEVA

## **TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS**

# Fortieth Session Brasilia, May 16 to 20, 2011

### ADDENDUM TO

ASSESSING UNIFORMITY BY OFF-TYPES ON THE BASIS OF MORE THAN ONE SAMPLE OR SUB-SAMPLE

Document prepared by the Office of the Union

The annex to this document contains a revised version of the reply from Germany (see document TWA/40/9, Annex I, page 13) to the questionnaire "Population standards used for assessing uniformity by off-types on the basis of more than one sample or sub-sample", issued by means of Circular E-1466 of February 7, 2011.

[Annex follows]

#### TWA/40/9 Add.

### ANNEX I

Replies to the Questionnaire "Population standards used for assessing uniformity by off-types on the basis of more than one sample" for

#### **WHEAT**

### Corrected reply from Germany

<u>Crop/Species</u>: Wheat<sup>1</sup>

Test Guidelines: TG/3/11 + Corr.

*I* - *For the assessment of uniformity of characteristics observed on a sample size of 2000 plants or part of plants.* 

<u>Sample size</u>: 2000 plants <u>Population standard</u>: 0.3 % <u>Acceptance probability</u>: 95 %

<u>Uniformity standard</u>: The number of off-type plants or parts of plants should not exceed 10 in 2000.

II – For the assessment of uniformity of characteristics observed on a sample size of 100 plants or parts of plants - Example of 2-step test

Sample size: 100 plants or parts of plants

Population standard: 1 %

Acceptance probability: 95 %

**Uniformity standard:** 

First step, 20 plants or parts of plants are observed.

- No off-type plants in 20 plants = the variety does not exceed the number of allowed off-types for this characteristic for this growing cycle.
- More than 3 off-type plants = the variety exceeds the number of allowed off-types for this characteristic for this growing cycle.
- 1 to 3 off-type plants = go to second step

Second step: further 80 plants or parts of plants are observed

- 3 or less off-type plants in 100 (20 of step 1 + 80 of step 2) plants = the variety does not exceed the number of allowed off-types for this characteristic for this growing cycle.
- More than 3 off-type plants in 100 (20 of step 1 + 80 of step 2) plants = the variety exceeds the number of allowed off-types for this characteristic for this growing cycle.

If wheat is not suitable for the member of the Union concerned, to complete the questionnaire for another self-pollinated cereal.

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<u>Decision rule</u>: A variety is considered within the uniformity standard in a given growing cycle if the number of off-types in all samples does not exceed the number of allowed off-types in either of the samples.

A variety is considered to be uniform if it is within the uniformity standard in both of the two growing cycles

A variety is considered to be non uniform if it fails to meet the uniformity standard in both of the two growing cycles

If at the end of the two growing cycles the variety is within the uniformity standard in one growing cycle but is not within the uniformity standard in the other growing cycle, then uniformity is assessed in a third growing cycle. If in the third growing cycle the variety is within the uniformity standard, the variety is considered uniform. If at the end of the third growing cycle the variety fails to meet the uniformity standard, the variety is considered non uniform

Country/Organization:	Bundessortenamt, Germany
Person completing the form	
Name:	Swenja Tams
E-mail:	Swenja.Tams@bundessortenamt.de
Tel. No.:	0049 511 9566 5607
Fax No.:	0049 511 9566 9600

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<u>Crop/Species</u>: Potato<sup>2</sup>

Test Guidelines: TG/23/6

*I -* For the assessment of uniformity of characteristics observed on a sample size of 10 plants or part of plants (Light sprout characteristics).

<u>Sample size</u>: 10 tubers<u>Population standard</u>: 1 %<u>Acceptance probability</u>: 95 %

<u>Uniformity standard</u>: the number of off-type plants or parts of plants should not exceed 1 in 10 tubers.

II – For the assessment of uniformity of characteristics observed on a sample size of 66 plants or parts of plants (Characteristics observed in the field trial)

Sample size: 66 plants or parts of plants

Population standard: 1 %

Acceptance probability: 95 %

<u>Uniformity standard</u>: The number of off-type plants or parts of plants should not exceed 2 in 66 tubers.

<u>Decision rule</u>: A variety is considered within the uniformity standard in a given growing cycle if the number of off-types in all samples does not exceed the number of allowed off-types in either of the samples.

A variety is considered to be uniform if it is within the uniformity standard in both of the two growing cycles

A variety is considered to be non uniform if it fails to meet the uniformity standard in both of the two growing cycles

If at the end of the two growing cycles the variety is within the uniformity standard in one growing cycle but is not within the uniformity standard in the other growing cycle, then uniformity is assessed in a third growing cycle. If in the third growing cycle the variety is within the uniformity standard, the variety is considered uniform. If at the end of the third growing cycle the variety fails to meet the uniformity standard, the variety is considered non uniform

Country/Organization:	Bundessortenamt, Germany
Person completing the form	
Name:	Swenja Tams
E-mail:	Swenja.Tams@bundessortenamt.de
Tel. No.:	0049 511 9566 5607
Fax No.:	0049 511 9566 9600

If potato is not suitable for the member of the Union concerned, to complete the questionnaire for another vegetatively propagated root crop.

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<u>Crop/Species</u>: Apple<sup>3</sup>

Test Guidelines: TG/14/9

<u>Sample size</u>: 5 plants for varieties resulting from seedlings

10 plants for varieties resulting from mutations

Population standard: 1%

Acceptance probability: 95%

<u>Uniformity standard</u>: No off-type plant is allowed in a sample size of 5 plants. In a sample size of 10 plants, the number of off-type plants should not exceed 1.

<u>Decision rule</u>: A variety is considered within the uniformity standard in a given growing cycle if the number of off-types plants does not exceed the number of allowed off-types.

A variety is considered to be uniform if it is within the uniformity standard in both of the two growing cycles.

A variety is considered to be non uniform if it fails to meet the uniformity standard in both of the two growing cycles

If the uniformity standard is exceeded in the first growing cycle, the variety is considered to be non uniform without observing a second growing cycle because observations in the second growing cycle would be done on the same plants and cannot lead to a different result. In such situations, a second (or third) growing cycle would only be observed in cases of doubt.

Country/Organization:	Bundessortenamt, Germany
Person completing the form	
Name:	Swenja Tams
E-mail:	Swenja.Tams@bundessortenamt.de
Tel. No.:	0049 511 9566 5607
Fax No.:	0049 511 9566 9600

[End of Annex and of document]

If apple is not suitable for the member of the Union concerned, to complete the questionnaire for another vegetatively propagated fruit crop.