



**TC/47/14 Add.**

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

**TECHNICAL COMMITTEE**

**Forty-Seventh Session**  
**Geneva, April 4 to 6, 2011**

**ADDENDUM**

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

*Document prepared by the Office of the Union*

The Annex to this document contains the reply from Estonia to the questionnaire “Population standards used for assessing uniformity by off-types on the basis of more than one sample or sub-sample”.

[Annex follows]

ANNEX

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

WHEAT

Reply from: Estonia

Crop/Species: Wheat

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.*

Sample size: 2000 plants

Population standard: 0.3 %

Acceptance probability:  $\geq 95$  %

Uniformity standard: the number of off-type plants or parts of plants should not exceed 10 in 2000.

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

Sample size: 100 plants or parts of plants

Population standard: 1 %

Acceptance probability:  $\geq 95$  %

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.
- if 1 to 3 off-types are observed = go to second step

Second step: additional sample of 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.

Decision rule: 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 uniform if it is within the uniformity standard in both of the two growing cycles

A variety is considered 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

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[End of Annex and of document]