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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
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TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS

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ADDENDUM TO
REVISION OF DOCUMENT TGP/10: NEW SECTION: ASSESSING UNIFORMITY BY OFF-TYPES
ON THE BASIS OF MORE THAN ONE GROWING CYCLE OR ON THE BASIS OF SUB-SAMPLES

Document prepared by the Office of the Union

Disclaimer: this document does not represent UPOV policies or guidance

The Annex to this document contains a copy of a presentation on “Assessing uniformity by off-types on the basis of more than one growing cycle. Drafting guidance” to be made by experts from Germany and the United Kingdom at the forty-fifth session of the Technical Working Party or Agricultural Crops (TWA).

[Annex follows]

ASSESSING UNIFORMITY BY OFF-TYPES ON THE BASIS OF MORE THAN ONE GROWING CYCLE.
DRAFTING GUIDANCE

Presentation by Mr. Adrian Roberts, Biomathematics & Statistics Scotland, United Kingdom,
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Assessing uniformity by off-types on the basis of more than one growing cycle

Drafting guidance

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Background

TWA/45/13

*“... proposal for revision of document TGP/10 “Examining uniformity”
to provide guidance on assessing uniformity by off-types on the basis of
more than one growing cycle or on the basis of sub-samples.”*

- UPOV/TC/TWPs developing guidance for assessment of uniformity by off-types on basis of more than one growing cycle
- Survey and subsequent discussions identified 3 different approaches as examples

Key points

- Additional guidance text needed
 - Introduction: context
 - e.g. when off-type in two cycles may be appropriate (e.g. depends on propagation)
 - Factors that might determine what approach to take
 - (may be different from 3 examples given)
- Discussion of factors influencing choice
- Practical experience of members
(eg. France TWC/34/27)

Factors influencing choice of approach

- Member testing system
- Crop type
- Crop expert experience
- Effect of environmental differences between cycles
- Costs
- Time to decision
- Risks
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Risks

Risk of making the wrong decision on uniformity

Why?

- Looking at a sample of plants from a much larger population

Risks: type I and type II errors

Type I error: declare variety non-uniform when population is uniform

1 – acceptance probability

Type II error: declare variety uniform when population is non-uniform

Depends on approach and numbers of plants

Risks: overall or cycle

- Can consider risks over whole test (2 or 3 cycles) or by cycle
 - Maximum number of off-types depends on this choice
- We think overall risks better
 - One decision not two (or three)
 - Similar to COYD and COYU
 - Overall risks can be calculated for all 3 example approaches

Conclusions

Proposal:

- TWPs discuss factors influencing choice of approach
- Gather practical experience
- Based on this, draft text for guidance
 - Context
 - Choice of approach

[End of Annex and of document]