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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
Geneva

TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS

Forty-Fifth Session
Mexico City, Mexico, July 11 to 15, 2016

ADDENDUM TO

NUMBER OF GROWING CYCLES IN DUS EXAMINATION

Document prepared by the Netherlands


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The Annex to this document contains a copy of the presentation "Minimum Number of Growing Cycles" to be made by an expert from the Netherlands at the forty-fifth session of the Technical Working Party for Agricultural Crops (TWA).

[Annex follows]


MINIMUM NUMBER OF GROWING CYCLES

Presentation by Ms. Lysbeth Hof, on behalf of Mr. Kees van Ettekoven, Netherlands



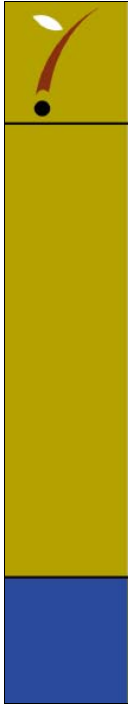
Minimum Number of growing cycles

March 2016
Kees van Ettekoven
Head Variety testing Department
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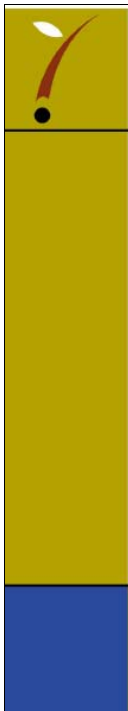
Importance

- TGP 8:
1.2.2.7 The rationale for using independent growing cycles is that if the observed difference in a characteristic results from a genotypic difference between varieties, then that difference should be observed if the varieties are compared again in a similar environment but in an independent growing cycle



Importance


- In TGP 8 solely linked to Distinctness
- Also important for high quality stable descriptions!



Number of growing cycles

Mentioned in TG's based on factors:


- the number of varieties to be compared in the growing trial
- the influence of the environment on the expression of the characteristics, and
- the degree of variation within varieties
- the features of propagation of the variety e.g. whether it is a vegetatively propagated, self-pollinated, cross-pollinated or a hybrid variety.



Independent growing cycles

- When a characteristic is observed in a growing trial in two independent growing cycles, it is generally observed in two separate plantings or sowings.

However, in some perennial crops, such as fruit trees, the growing cycles take the form of one trial observed in two successive years.



Independent growing cycles

Two cycles in same place

- Usually two years to have comparable environment. Two plantings in one place in one year is possible with sufficient time between plantings.

Two cycles in one year in two places

- Possible with sufficient distance between places, but risk to introduce new variation



Practice

Roughly the present UPOV practice:

- Seed propagated agricultural and vegetable crops: two independent growing cycles
- Fruit crops: two independent growing cycles
- Vegetatively propagated ornamentals: one growing cycle



Full growing cycles?

- **Bolting characteristics in separate trial once, also for crops with two cycles**
- **Disease resistant tests in separate trial once, also for crops with two cycles**
- **Some additional tests as Light Sprout tests in potato separate from normal growing trial**
- **Can DNA test replace one year of growing trial?**



Items for discussion

- Re-think the **criteria** to establish the number of cycles. Apply on a crop by crop basis or application by application.
- Can we consider two independent **tests** instead of growing cycles? E.g.
One full growing cycle plus an additional test such as a resistance test, a light sprout test or a DNA test?
- Will applicants accept a less predictable system (costs)?

[End of Annex and of document]