



TWF/45/27

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

TECHNICAL WORKING PARTY FOR FRUIT CROPS**Forty-Fifth Session****Marrakesh, Morocco, from May 26 to 30, 2014**

DURATION OF DUS TESTS IN THE FRUIT SECTOR

Document prepared by the European Union

1. The TWF, at its forty-fourth session, proposed that a suitable agenda item be added to the program of its forty-fifth session, under which the following items would be discussed (see document TWF/44/31 "Report", paragraph 107):

- (a) Management of reference collections for DUS examination (documents to be prepared by France and the European Union)
- (b) Duration of DUS tests in the fruit sector (document to be prepared by the European Union)
- (c) Harmonized example varieties for Apple: historical data and possible new developments (documents to be prepared by Germany, New Zealand and the Office of the Union)

2. The annex to this document presents items for consideration by the TWF in relation to the duration of DUS test in the fruit sector.

[Annex follows]

CURRENT WORDING

The existing guidance in document TGP/7 on the duration of tests for fruit crops is as follows:

TG Template: Chapter 3.1 – Number of Growing Cycle

3.1 Number of Growing Cycles

The minimum duration of tests should normally be:

{ ASW 2 (Chapter 3.1(.1)) – number of growing cycles }

{ GN 8 (Chapter 3.1.2) – explanation of the growing cycle }

{ ASW 3 (Chapter 3.1.2) – explanation of the growing cycle }

ASW 2 (TG Template: Chapter 3.1) – Number of growing cycles

(a) Single growing cycle

“The minimum duration of tests should normally be a single growing cycle.”

(b) Two independent growing cycles

“The minimum duration of tests should normally be two independent growing cycles.”

GN 8 (TG Template: Chapter 3.1.2) – Explanation of the growing cycle

Chapter 3.1 makes reference to the number of growing cycles. In some cases it may be necessary to clarify what is meant by a growing cycle. Additional standard wording has been developed for some situations (see ASW 3).

ASW 3 (TG Template: Chapter 3.1.2) – Explanation of the growing cycle

(a) Fruit species with clearly defined dormant period

“3.1.2 The growing cycle is considered to be the duration of a single growing season, beginning with bud burst (flowering and/or vegetative), flowering and fruit harvest and concluding when the following dormant period ends with the swelling of new season buds.”

(b) Fruit species with no clearly defined dormant period

“3.1.2 The growing cycle is considered to be the period ranging from the beginning of active vegetative growth or flowering, continuing through active vegetative growth or flowering and fruit development and concluding with the harvesting of fruit.”

(c) Fruit species

In the case of Test Guidelines covering fruit species, the following sentence may be added in Chapter 3.1:

“In particular, it is essential that the [trees] / [plants] produce a satisfactory crop of fruit in each of the two growing cycles.”

ITEMS FOR CONSIDERATION

Start date of the test

The Community Plant Variety Office of the European Union (CPVO) interpretation of the start of the test is laid down in document CPVO-TP/TEMPLATE/0 dated 28/11/2012 (point 1.2 Entry into Force) adopted by the Administrative Council on 28/11/2012 and it reads as follows: "*The starting date of a DUS examination is considered to be the due date for submitting of plant material for the first test period*". This means that in practice the duration of the test starts at the time when the material is delivered and accepted by an examination office.

In fruit crops the first cycles after the submission of the plant material are in most cases considered to be establishment cycles. Those cycles are included in the total duration of the test. In the CPVO understanding every happening as from the submission and acceptance of a sample for testing may have a consequence on the outcome and is therefore considered a part of the DUS testing.

Some experts in the European Union (EU) reported that if the duration of the test was limited to fruiting periods only, they might have difficulties to draft a report at an earlier stage. This would mean that in such a case the report was prepared outside the duration of the test (for example in case a clear uniformity problem has been noted in vegetative characteristics).

There seems to be also differences as to the time when the observations are made by examiners. Some experts start observations before the fruiting cycles in case of fruiting varieties and hence the limitation of the duration to the fruiting periods or splitting the time when the variety is grown in trials into establishment and observations cycles might not be possible.

Furthermore, in the EU system, the examination offices are obliged to provide the CPVO with interim reports and breeders pay for each growing cycle regardless whether the report refers to an establishment or an observation cycle.

Apple Example

The UPOV TG for apple states (TG/14/9 dated 2005-04-06 Apple (fruit varieties)):

"3. Method of Examination

3.1 Number of Growing Cycles

The minimum duration of tests should normally be two independent growing cycles.

The growing cycle is considered to be the duration of a single growing season, beginning with bud burst (flowering and/or vegetative), flowering and fruit harvest and concluding when the following dormant period ends with the swelling of new season buds."

The above described duration of the test would suggest that the end of the test is after the dormant season when the swelling of the new season buds occurs. However, in practice, in the EU the second growing cycle finishes at harvest time or shortly after and the examination report is drafted without waiting until the end of the dormant period and swelling of new seasons buds.

A comprehensive explanation on the duration of the test referring to the need of the two fruiting periods (drafting a variety description) and clarifying the overall duration can be found on the website of the PVP Office in New Zealand:

Technical notes for the DUS testing of apple varieties at the Cultivar Centre (CC) - 19 May 2010 at <http://www.iponz.govt.nz/cms/pvr/technical-notes-guidelines/dus-testing-of-apple-varieties>

"2. Method of Evaluation and Length of Testing

Two independent growing seasons are generally required to complete the evaluation. The work to draft the Objective Description (OD) for the variety will normally commence in the second year of fruiting. The first year fruiting season is used to check whether the variety is true to type or to indicate any other matters. All steps are taken to ensure that the OD is completed in the second year of fruiting. For varieties originating as seedlings, one growing season for evaluation may be sufficient, depending on the number of fruit available in that season and the advice of the apple experts. For varieties originating as mutations, a minimum of two growing seasons are required. It is essential that a satisfactory crop of fruit is produced in each of the two seasons, with a satisfactory crop defined as in the vicinity of forty (40) fruit per tree.

In general, a minimum period of four years is required from when trees are planted to a possible decision."

This example illustrates that there is a need for additional information to be provided to breeders as regards the purpose of the test, referring to abundance of fruiting produced and overall duration of the test from planting in the trial until concluding the test.

Kiwifruit Example

TG/98/7 dated 2012-03-28 Actinidia

“3. Method of Examination

3.1 Number of Growing Cycles

3.1.1 The minimum duration of tests should normally be two independent growing cycles.

In particular, it is essential that the plants produce a satisfactory crop of fruit in each of the two growing cycles.

3.1.2 The growing cycle is considered to be the duration of a single growing season, beginning with vegetative bud burst, flowering and fruit harvest and concluding when the following dormant period ends with the swelling of new season buds.”

The EU expert for the crop remarked that for female and hermaphrodite varieties the minimum duration of tests will normally include at least two satisfactory crops of fruit. For male varieties one year of observations might be sufficient provided there is a good blossoming.

Different types of varieties to which a TG is referring to might need a careful consideration and different duration of the test foreseen depending on the type of varieties.

“Minimum” duration

It may also be noted on this occasion that the “minimum duration of tests” seems to refer only to positive reports and establishing variety descriptions as it is explained in the above cited description by the authorities in New Zealand.

In case of negative reports the duration might in practice be much shorter in case problems are noted an early stage of application and in the opinion of the examiner there are no doubts that the outcome is negative. However, there are also experts interpreting that the “minimum duration” should be respected and it is the right of the breeder and hence they tend to continue even if the problem and the final outcome is evident to the expert.

QUESTIONS:

1. The term “minimum duration” – is it appropriate? Would other wording be preferable, for example “standard duration” or “regular duration”? Should the aim be mentioned, for example for the purpose of establishing a variety description”?
2. Should there be any reference to overall duration of the test (for example, that the overall duration of the test will normally include ... satisfactory fruiting periods)?
3. Should there be a different wording for non-fruiting varieties covered by “fruit” TG (for example rootstock varieties, male varieties)?
4. Is the definition of fruit species with clearly defined dormant period necessary? If so, would it need any rewording to better reflect practice?

[End Annex and of document]