

Technical Working Party for Ornamental Plants and Forest Trees TWO/51/10**Fifty-First Session
Christchurch, New Zealand, February 18 to 22, 2019****Original: English
Date: February 4, 2019****GROWING CYCLE VERSUS TESTING CYCLE***Document prepared by an expert from the European Union**Disclaimer: this document does not represent UPOV policies or guidance***BACKGROUND**

1. The TWO, at its fiftieth session, held in Victoria, British Columbia, Canada, from September 11 to 15, 2017, agreed that the term "growing cycle" was not precise for explaining the duration of DUS examination as it referred primarily to the life cycle of a crop. The TWO agreed to consider the possibility to replacing the term "growing cycle" by "testing cycle" in ASW 2(a) and (b) to clarify that the duration of DUS examination was related to the period of testing a variety regardless of the number of life cycles the crop would have completed during DUS examination (see document TWO/50/14 "Report", paragraph 27).

2. The TWF at its forty-fifth session, held in Marrakesh, Morocco, from May 26 to 30, 2014, considered the document TWF/45/27 "Duration of DUS Tests in the Fruit Sector" in which the following elements directly related to the definition of "growing cycle" were reported:

- start of the test (the definition on the EU level);
- potential inclusion of establishment periods in the total duration of the test (number of growing cycles);
- establishment and fruiting (observation) cycles;
- practical and legal implications of the definition of the growing cycle (for example if a clear lack of uniformity is observed in the establishment period, i.e. in the light of some definitions outside the foreseen number of growing cycles).

3. One of the outcomes of the survey among the leading experts and the CPVO entrusted examination offices presented at the forty-sixth and forty-seventh sessions of the TWF was a proposal to introduce the terms "*growing cycle for the purpose of establishment of plants*" and "*growing cycles for the purpose of observation of characteristics*" (see documents TWF/46/25 Rev. and TWF/47/19 "Duration of Tests in the Fruit Sector").

4. The TWF, at its forty-eighth session, held in Kelowna, British Columbia, Canada, from September 18 to 22, 2017, noted the concern expressed by the TWO that the term "growing cycle" was not precise for explaining the duration of DUS examination as it referred primarily to the life cycle of a crop. The TWF noted the proposal of the TWO to consider the possibility of replacing the term "growing cycle" by "testing cycle" in ASW 2(a) and (b) to clarify that the duration of DUS examination was related to the period of testing of a variety, regardless of the number of life cycles the crop would have completed during DUS examination. The TWF agreed that in the case of fruit the growing cycle did not necessarily correspond to the life cycle of the crop and acknowledged that there was a difference between the establishment period and the evaluation period (see document TWF/48/13 "Report", paragraph 32).

THE TERM "GROWING CYCLE"TGP/7/6 – Annex 2: Additional Standard Wording (ASW) for the TG Template:

5. Document TGP/7 "Development of Test Guidelines" provides the following additional standard wording for number of growing cycles (ASW 2):

"ASW 2 (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."

ASW 3 (Chapter 3.1.2) – Explanation of the term growing cycle

6. As for fruit crops, the term growing cycle has been defined adapted to the particularities of the different types (see section (a) to (d) hereafter). These definitions apply explicitly to fruit crops. These definitions allow separating the time span during which data are taken from the establishment period. With these various definitions of "growing cycle" it is not possible to deduct how many times a particular characteristic needs to be assessed. Where relevant, the "establishment period" can be separated as the term is quite "distinct". For ornamentals, only the additional wording of section (e) and (f) as reproduced hereafter are available.

7. Document TWF/45/27 "Duration of DUS Tests in the Fruit Sector" reports that in some fruit crops although the definition in ASW 3(a) suggests that the end of the test is after the dormant season when the swelling of the new season buds occurs, in practice, in the European Union the second growing cycle finished at harvest time or shortly after and the examination report was drafted without waiting until the end of the dormant period and swelling of new seasons buds.

"ASW 3 (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) Evergreen species with indeterminate growth

"The growing cycle is considered to be the period ranging from the beginning of development of an individual flower or inflorescence, through fruit development and concluding with the harvesting of fruit from the corresponding individual flower or inflorescence."

"(d) 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."

"(e) Two independent cycles in the form of two separate plantings

"Where appropriate, the following sentence may be added in Chapter 3.1:

"The two independent growing cycles should be in the form of two separate plantings."

"(f) Two independent cycles from a single planting

"Where appropriate, the following sentence may be added in Chapter 3.1:

"The two independent growing cycles may be observed from a single planting, examined in two separate growing cycles."

FURTHER TERMS USED

8. There are/were a number of other terms in use such as "Growing period", "Cycle of testing" (not to be confused with "Testing cycle" as set out in section 3b(!)), "Period of testing", "Life cycle", "Establishment period", "Time of observation" or "Evaluation period." Most of these terms were used before the adoption of document TGP/7 as cited above and they have an undefined use, may be confusing and should thus not be used.

PROPOSAL FOR A DEFINITION OF "GROWING CYCLE" AND OF "TESTING CYCLE" FOR ORNAMENTAL CROPS:

9. The following definition is proposed for the term "Growing cycle:"

"The growing cycle is considered to be the period ranging from sowing or planting until harvest or destruction of the plant material. Where a propagation step is part of the growing trial, the plant material propagated represents an independent growing cycle. A growing cycle is independent from the number of seasons a given set of plants are grown and it is independent from how many times a given characteristic is assessed."

10. The following definition is proposed for the term "Testing cycle:"

"The testing cycle is the event of assessing the set of characteristics of the test guideline once. If the entire set of characteristics is assessed the testing cycle is complete; if only some of the characteristics are assessed, the testing cycle is incomplete. The testing cycle is independent from the number of growing seasons. Where two or more testing cycles are conducted on the same material, these would be dependent testing cycles; where the two or more testing cycles are conducted using re-propagated plant material or plant material of a new submission, this would be independent testing cycles."

11. In many cases, a distinction of "growing cycle" and "testing cycle" is not necessary but it may be of relevance to specify in the Test Guidelines how many times certain or all characteristics need to be assessed.

12. The term "testing cycle" may become relevant where either:

- (a) a separation from the establishment period is intended; or
- (b) where more than one growing cycle is conducted but certain characteristics need to be observed only once (e.g. qualitative characteristics). However, in case of multi-annual testing, "growing cycle" would be identical with "testing cycle" where all characteristics are observed in each growing cycle.

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