RULES on standard methods

for testing the distinctness, uniformity and stability of new varieties of plant

(Official Gazette of the Republic of Slovenia, No. 30/99)

Article 1

These Rules shall define the procedures and methods of testing the distinctness, uniformity and stability (hereinafter referred to as: DUS testing) of new plant varieties.

1. DUS TESTING PROCEDURE

Article 2

The DUS testing procedure for a new variety contains the variety tests and laboratory and other tests, conducted according to the generally recognised procedures and methods for testing varieties, which the Plant Variety Protection and Registration Office (hereinafter referred to as: Office) publishes for individual species or groups of plants in the official journal of the Office as the technical instructions for DUS testing.

Variety tests and laboratory tests shall be conducted by an expert institution (hereinafter referred to as: contractor), which the Office shall appoint for individual new varieties.

The Office may appoint a contractor for conducting DUS tests of new varieties in a foreign country, a signatory of international treaties or conventions which the Republic of Slovenia has signed or to which it has acceded, but only under the condition that the contractor has already been appointed for this purpose by the country's authorised plant variety protection office. In the case of DUS tests of a new variety conducted in a foreign country the Office shall determine beforehand whether the agro-ecological conditions in the country in which the tests are to be conducted are comparable with agro-ecological conditions in the Republic of Slovenia.

Mutual obligations and the manner of cooperation between the Office and the contractor shall be specified in a contract.

The Office shall send the contractor referred to in the preceding paragraph a copy of the application for the protection of a new variety.

Article 3

In the case that the Office cannot appoint a contractor for conducting DUS tests in the Republic of Slovenia or in a country which is a signatory of the international treaties or conventions which the Republic of Slovenia has signed or to which it has acceded, the applicant or another person authorised by the applicant shall organise DUS testing for a new variety, at the Office's request.

In the case referred to in the preceding paragraph the applicant shall be obliged to prepare, in cooperation with the Office, the technical instructions for the DUS testing for a new variety and to inform the Office about the contractor. Prior to beginning DUS testing, the Office shall issue the technical instructions and approve the contractor.

Article 4

The Office shall inform the applicant about the contractor for the DUS testing, the necessary quantity of seeds and propagating material for the DUS testing, the address to which the seeds and propagating material shall be delivered, and the deadline for delivery.

The applicant shall be obliged to deliver the seeds and propagating material for the tests to the contractor in the quantity and within the deadline prescribed by the Office. The procedures in relation to delivery of the seeds and propagating material abroad shall be arranged by the applicant.

Article 5

The seeds and propagating material for DUS testing shall be produced during the previous growing season and shall comply with currently valid regulations concerning its quality and health condition.

The seed for testing varieties shall not be disinfected, except for sugar beet, maize and sunflowers.

Article 6

Variety tests shall be conducted for each individual new variety for at least two years or two growing seasons, at no less than two testing sites.

For the purpose of comparisons, the variety tests shall include standard varieties and similar varieties from the reference collection of varieties (hereinafter referred to as: similar varieties) which the contractor maintains for the purposes of DUS testing.

The Office shall publish the standard varieties in the technical instructions. Similar varieties shall be selected by the contractor on the basis of the data referred to in the application for the protection of a new variety.

Article 7

The variety tests shall identify those properties of the new variety which are important for distinguishing between varieties, regardless of the importance of these properties to the useful value of the variety.

After each annual completed testing the contractor shall fill in a form entitled "Interim Test Report on Distinctness, Uniformity and Stability". This report shall contain the preliminary DUS testing results and any difficulties which might have occurred during the testing.

After the completion of testing the contractor shall fill in a form entitled "Test Report on Distinctness, Uniformity and Stability", with a statement as to whether the new variety is distinct, uniform and stable.

If the contractor concludes that the conditions for the protection of a new variety have been fulfilled concerning distinctness, uniformity and stability, he shall prepare a description of the variety and attach it to the form referred to in the preceding paragraph.

The contractor shall be obliged to regularly send to the Office the completed forms referred to in the second paragraph of this Article.

The forms referred to in the second and third paragraph of this Article are shown in Annexes 1 and 2, which are an integral part of these Rules.

The contractor shall prepare the description of the variety in accordance with the technical instructions for DUS testing of new plant varieties.

2. DUS TESTING METHODS

Article 8

The methods of DUS testing of new plant varieties shall be based on observation, assessment and on measurement of specific properties of the variety.

Due to environmental factors, which can to a greater or lesser extent affect the altered expression of genetically conditioned qualitative and quantitative properties, it is the general practice to determine those properties which are the least affected by these environmental factors.

The list of properties which are to be determined for an individual species or plant grouping shall be specified in the technical instructions issued by the Office.

Regardless the provision of the preceding paragraph, other properties may be determined in the DUS tests upon a written and explained proposal by the applicant. The Office shall decide on the applicant's proposal.

Article 9

The observed and measured properties determined in the DUS testing procedure for a new variety shall be qualitative and quantitative.

Article 10

Qualitative properties shall be those which are determined on the basis of assessment of the situation and the expression of these properties. The expression of these properties shall be inconsistent and interrupted. On the basis of their situation and their expression, these properties shall be determined according to the level of their expression. The number of levels of expression shall not be limited. The level of expression of individual properties shall be determined by comparison with standard and similar varieties.

Quantitative properties shall be those which are measured and express uninterrupted variability from one extreme to the other. The number of levels of expression for quantitative properties shall be specified.

If the measurement of quantitative properties, especially sensory ones such as taste and scent, proves too difficult, these properties may exceptionally be determined as qualitative properties on the basis of assessments.

The levels of expression of qualitative as well as quantitative properties shall be categorised with figures.

Article 11

Each of the properties shall be determined separately. The quantitative properties may be combined or linked (for example, the ratio between length and width). Each such combined property shall be deemed an individual property.

Article 12

Two varieties shall be distinguished if the difference between them is:

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- determined at least at one testing site,
- clear, and
- consistent.

Article 13

In the case of real qualitative properties, the difference between two varieties shall be clear if the property is expressed on two different levels of its expression. For other properties which can be treated as qualitative, any occurring deviation in the difference between the varieties shall be included in the distinctness test, with regard to the year of the testing and the testing site.

Article 14

In the case of measurements of quantitative properties, the difference between the varieties shall be clear if it is determined with an applicable statistical method with a 1% or 5% risk factor.

Article 15

When a quantitative method, which is usually determined on the basis of assessment, is the only property for determining distinctness, it shall, in the event of doubt, also be determined by measurement wherever possible.

Regardless of the preceding paragraph, determination of clear distinctness of a variety shall be done by direct comparison with a similar variety. In such a comparison the difference between the two varieties shall be recorded immediately when the difference is observed, or when it can be measured.

Article 16

The difference shall be consistent if it has the same code in two subsequent or in two out of three growing seasons.

In the case of the first paragraph of the preceding article, this difference shall be manifested in several comparative tests in order to merit a confirmation of consistency. The number of comparisons shall ensure an equal statistical reliability to that which could be achieved by measurement of the property.

Article 17

If the differences between two varieties are observable in several individually assessed properties, a combination of the data for these properties may be used for determining the distinctness. In this case a level of reliability comparable to the levels of reliability from Articles 14, 15 and 16 of these Rules shall be ensured.

Article 18

With regard to the specific properties resulting from the characteristics of its reproduction, the variety should be sufficiently uniform so as to enable the preparation of a reliable description, to determine the distinctness and to ensure stability of the variety.

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Article 19

For varieties which reproduce vegetatively or by self-pollination, the largest permitted number of offtype plants in the sample shall be:

Number of plants	Maximum number of
in a sample	offtype plants
Less than or equal to 5	0
6 – 35	1
36 - 82	2
83 - 137	3

The size of samples shall be different for individual plant species, and specified in the technical instructions for DUS testing issued by the Office for individual plant species or groupings.

Article 20

For mainly self-pollinating plants, the maximum number of offtype plants in the table referred to in the preceding article shall be doubled.

Article 21

For cross-pollinating varieties, deviations shall be allowed within the limits of deviations determined for standard and similar varieties.

In the case of measured properties, it shall be considered that a cross-pollinating variety is not uniform if their variability exceeds the average variability of the same properties in standard and similar varieties by more than 1.6 times.

Assessed properties shall be compared using the same method as the measured properties. Statistically, the number of plants which are seemingly different from other plants of the same variety may not significantly exceed the number of such plants in standard or similar varieties at a risk of 5%.

Article 22

Simple hybrids shall be, in terms of deviation, generally treated as the mainly selfpollinating varieties referred to in Article 20 of these Rules. Other categories of hybrids shall be treated with regard to plant species and breeding methods. The permitted deviation for individual types of hybrids shall be, with regard to plant species and breeding method, published in the technical instructions for DUS testing.

The portion of untypical plants shall also be separately determined for the parental lines.

Article 23

The stability of a variety shall be determined by careful observation of the unchanged property of the variety during subsequent years of testing in relation to the first testing year or with regard to the variety protection sample. The stability of a variety shall be determined with a lower reliability than distinctness and uniformity.

Regardless of the preceding paragraph, stability shall exceptionally be determined by repeated sowing of the next generation of the seeds and propagating material.

Article 24

In its official journal the Office shall publish the technical documentation for DUS testing for each individual plant species, within 30 days at the latest after the first application for protection of a species or variety is filed.

Until the publication of the technical instructions for DUS testing, the generally and internationally recognised technical specifications for DUS testing shall apply.

Article 25

These Rules shall come into force on the day following their publication in the Official Gazette of the Republic of Slovenia.

<u>Annex 1</u>

INTERIM REPORT ON THE TESTING OF DISTINCTNESS, UNIFORMITY AND STABILITY OF A VARIETY

- 1. Reference number of the office submitting the report:
- 2. Person ordering the testing:
- 3. Reference number of person ordering the testing:
- 4. Breeder's designation of the variety:
- 5. Date of application in the country of the person ordering the testing:
- 6. Applicant (name and address):
- 7. Procedural representative or authorised person (name and address):
- 8. Name of the species to which the variety belongs/ scientific name:
- 9. Name of the species to which the variety belongs/common name:
- 10. Denomination of the variety:
- 11. Breeder (name and address):
- 12. Contractor for the testing:
- 13. Testing site and location:
- 14. Testing season:
- 15. Date and location of issuance of the interim report:
- 16. GENERAL DATA
 - (a) Seeds and propagating material of the variety did not arrive
 - (b) Seeds and propagating material does not fulfil the requirements
 - (c) The test failed
 - Observations:
- **17. TESTING RESULTS**
 - (a) No comments
 - (b) Comments:
- 18. Planned date of final report on the tests:
- 19. Note: This intermediate report shall not affect the final report.
- 20. Signature:

Annex 2

REPORT ON THE TESTING OF DISTINCTNESS, UNIFORMITY AND STABILITY OF A VARIETY

- 1. Reference number of the office submitting the report:
- 2. Person ordering the testing:
- 3. Reference number of person ordering the testing:
- 4. Breeder's designation of the variety:
- 5. Date of application in the country of the person ordering the testing:
- 6. Applicant (name and address):
- 7. Procedural representative or authorised person (name and address):
- 8. Name of the species to which the variety belongs/scientific name:
- 9. Name of the species to which the variety belongs/common name:
- 10. Denomination of the variety:
- 11. Breeder (name and address):
- 12. Contractor for the testing:
- 13. Testing site and location:
- 14. Testing season:
- 15. Date and location of issuance of the report:

16. RESULTS OF TESTING OF DISTINCTNESS, UNIFORMITY AND STABILITY, AND CONCLUSIONS

- (a) Distinctness report
 - The variety:
 - is clearly distinct from any other variety
 - it is not clearly distinct from all commonly known varieties
- (b) Uniformity report

The variety:

- is sufficiently uniform
- is not sufficiently uniform
- with regard to the specifics of sexual or vegetative reproduction
- (c) Report on stability,
- (d) The variety:
 - is stable
 - is not stable

in its essential properties

In the case of positive results, the description of the variety shall be attached to the report.

- 17. Comments:
- 18. Signature: