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UPOV

TC/XIII/6

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# INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

# **TECHNICAL COMMITTEE**

Thirteenth Session Geneva, March 26 to 28, 1979

DATA RECORDING AND INTERPRETATION

Comments transmitted by ASSINSEL

In a letter dated March 16, 1979, addressed to the Vice Secretary-General of UPOV, the Secretary-General of ASSINSEL transmitted comments on the Data Recording and Interpretation, as presented in document C/XII/9. The comments are attached to this document.

[Annex follows]

#### ANNEX

International Association of Plant Breeders for the Protection of Plant Varieties.

# ASSINSEL

Internationaler Verband der Pflanzenzüchter für den Schutz von Pflanzenzüchtungen.

Association Internationale des Sélectionneurs pour la Protection des Obtentions Végétales

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A/15/79

Amsterdam, 16th March 1979

Dr. H. Mast Vice Secretary-General of UPOV 34 Chemin des Colombettes 1211 G E N E V A 20 Switzerland

Dear Sir,

Data Recording and Interpretation; UPOV Document of December 8, 1978

We appreciate having the opportunity to comment on this important paper. Due to the fact that our Bureau did not meet until very recently we were not in a position to observe the deadline for comments of 1st March; we nevertheless hope that this reaction reaches your organisation in time for the next meeting of the competent committee.

We are submitting the following comments to you:

#### INTRODUCTION

Harmonisation of data recording and interpretation is, as we understand this, a prerequisite for the mutual recognition of testing results obtained in UPOV Member States.

The effort to achieve this harmonisation however, only makes sense if testing methods applied in UPOV Member States are identical.

ASSINSEL members participating in the symposia at Scharnhorst and Klarskovgaard have got the impression that testing methods in UPOV Member States are not yet identical.

For instance, when testing grasses, some States use separate plants, some others separate plants and drilled rows and still some other States drilled rows only for assessing stability.

Agreement on the best and least expensive methods is necessary.

### I. TESTING OF DISTINCTNESS

## A. General

It is felt in our organisation that the reference collections in the examining States should be identical, i.e. in so far as these States are situated in broad regions with similar climatical conditions.

Besides, it is felt that the seed required to keep the reference collection up to date should originate from the breeders of the varieties forming the reference collection.

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As international cooperation in the field of official variety testing is progressing the necessity of maintaining reference collections in all or a great number of UPOV States will decrease.

It is assumed that as a rule the reference collections will be maintained in the Member State(s) in which the species concerned will be tested and that Member States not testing the species concerned will not maintain reference collections for breeders' rights purposes.

It would be indicated, however, to have reference collections for each species in at least two Member States in order to minimize the effects of adverse weather conditions and to be able to check a variety against the reference collection in another Member State.

We would appreciate if you could embody these three suggestions in the text of your document.

#### B./C. True qualitative and quantitative characteristics

With regard to the use to be made of characteristics and their nature, agreement was reached in our organisation on the following principles:

- A characteristic may be used only for the purpose of establishing distinctness;
- this characteristic may be qualitative or quantitative;
- it may be morphological, chemical or physiological;
- it must be capable of measurement;
- there need be no restriction on the methods or combinations used for this purpose as long as it is scientifically valid (i.e. repeatable), clear and consistent to 99 % reliability, with the understanding that any possible placigiarism to which an indiscriminate interpretation of this might lead, is of course not acceptable.

The application of these principles could be somewhat different according to the species concerned.

Maize breeders for instance have pointed out that the colour of the cob or the silks should not by themselves be considered as true qualitative characteristics. Similar comments have been made by vegetable breeders.

It was felt that working groups should be set up for the different groups of species, first on a national and later on an international level.

We would appreciate if you would adapt your document to the above suggestions.

That for differences a 1 % significance as described in par. 4 under C. is required is acceptable to our organisation.

It is assumed that with the exception of the cases referred to in Section E. this applies to any and all characteristics and if this is so it might be desirable to indicate this in the text.

#### D. Characteristics observed visually

Par. 6 It is suggested to cover cases in which it is doubtful whether a variety is distinct to add the following sentence to par. 6:

"In critical cases in the second or subsequent year of testing further replication of plots may be necessary".

Par. 8 Our organisation feels that the statement in this paragraph is too absolute, particularly since the reference to "reliable classifications" to be made by "trained observers" contains two rather subjective criteria.

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It is suggested to change the first two words of par. 8 from "Instead of" into "In addition to", so that the sentence would read:

"In addition to counting the exact number of hairs or measuring the thickness of the wax layer, the varieties are classified on the basis of eye observations".

par. 10 It was suggested that in so far latitude and environment would not prevent this the same example varieties should be used and to include this principle in your document.

### II. TESTING OF HOMOGENEITY

#### A. General

It would be useful if it would be possible to include a definition of "off-types" in these rules.

### B. Vegetatively propagated varieties and truly self-pollinated varieties

Par. 19 The question has been put in our organisation whether vegetatively propagated varieties and truly self-pollinated varieties should be treated identically.

The possibilities to keep a vegetatively propagated clone homogeneous are more favourable than to keep a self-pollinated species homogeneous.

It was noted that nothing has been said under this heading about synthetic varieties of self-pollinated species.

Statistical experts in our organisation have pointed out that the table given is based on a reliability of 95%.

It is preferred to replace this table by a table based on a reliability of 99 % as follows:

Maximum acceptable number of Off-Types in samples of various sizes on the basis of a 1 % tolerance and a reliability level of 99 % ( >):

	N	Maximum Number	N	Maximum Number	
		COME CARRE COME COME COME CARRE CARRE CARRE CARRE CARRE		the other time. I have also such that the time time.	
2 -	15	1	416 - 479	10	
16 -	44	2	480 - 543	11	
45 -	83	3	544 - 611	12	
84 -	129	4	612 - 677	13	
130 -	180	5	678 - 748	14	
181 -	234	6	749 - 819	15	
235 -	292	7	820 - 891	16	
293 -	353	8	892 - 961	17	
354 -	415	<b>9</b>	962 -1036	18	
•				*	

#### C. Mainly self-pollinated varieties

Par. 20 It is suggested to insert after the second sentence the following:

"However, for lines of cross-pollinated varieties maintained by artificial selfpollination and used in hybrids this percentage must not be fixed at such a level

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that an unnecessary barrier would be formed".

This suggestion is made, as it is not possible to fix a percentage for natural hybrids which vary according to their method of production.

D. Cross-pollinated varieties including synthetic varieties

Par. 22 The following comment was made by one of our Member-Organisations:

"In our opinion only comparable varieties should be used in judging the homogeneity of new varieties. It is not easy to define what are comparable varieties. However, part of the problem can be taken away by using the variation coefficient ( ) instead of standard deviation (6) or variance (6). Thus, a clearly new type of variety is not to be compared with dissimilar existing varieties".

Par. 25 The proposal has been made to change the third sentence as follows:

"If the described characteristic does not show a normal distribution nor a clear cut segregation, its variance shall be deemed to be irrelevant to the determination of homogeneity as long as comparable varieties do not exist.

If similar varieties are already accepted, these should serve as comparable varieties, with which new varieties are to be compared".

#### MISCELLANEOUS

a) New techniques implying a lower degree of homogeneity than at present in protected varieties but an improved cultivation value may in future create a homogeneity problem.

Further discussions on this development between breeders and testers seem to be indicated.

b) Homogeneity tests should be made on the basis of seed sent in by the breeder for the first and second testing year.

We would appreciate if you would favourably consider these observations.

Yours faithfully,

Hans H. Leenders Secretary-General

[End of Annex and of document]