

COMMITTEE ACTIVITIES OR REPORTS

RULES

A. Larson, Chairman

PROPOSALS FOR RULES CHANGES

Read the following proposals carefully and bring any errors that you might detect to the attention of the AOSA Rules Committee chairman. The final decision on these proposals will be made at the 1973 AOSA meeting in Ottawa.

1. Section 2.6-b(2) Seed unit of Panicoideae (e.g., Panicum, Setaria).

Present wording:

Spiklets of members of the Panicoideae (e.g., Panicum, Setaria).

Proposed wording:

Fertile spiklets of members of the Panicoideae (e.g., Panicum, Setaria).

Justification:

Without some reference to the condition of the "spiklets" (i.e., whether all spiklets or only fertile spiklets), the present wording is ambiguous.

2. Section 2.6-b-(4) Seed unit of buffalograss (Buchloe dactyloides).

Present wording:

Bur or fertile floret of buffalograss (Buchloe dactyloides).

Proposed wording:

Bur, regardless of whether or not a caryopsis is present, or fertile floret of buffalograss (Buchloe dactyloides).

Justification:

Additional clarification is needed. Burs are very hard and bony, making it difficult and impractical to determine if fertile floret is present.

3. Section 2.6-b-(5) Seed unit of buffelgrass (Pennisetum ciliare).

Present wording:

Fascicle of buffelgrass (Pennisetum ciliare).

Proposed wording:

Fascicle, containing at least one caryopsis, of buffelgrass (Pennisetum ciliare).

Justification:

Additional clarification is needed. It is possible to determine the presence of a caryopsis in buffelgrass without undue difficulty.

4. Section 2.6-g Seed unit of beets (Beta).

Present wording:

"Seed balls" or portions thereof in beets (Beta), and fruits with accessory structures such as occur in New Zealand spinach (Tetragonia expansa).

Proposed wording:

"Seed balls" or portions . . . New Zealand spinach (Tetragonia expansa). See Section 2.7-j.

Justification:

Cross referencing is necessary because monogerm "seed balls" with cap and seed missing can be classified as pure seed under 2.6-g but are obviously inert as indicated under 2.7-j.

5. Section 2.7-i, 2.10-a-(5), and 2.10-c-(1) Addition of "insect larvae."

Proposed wording:

2.7-i Diseased seeds. This does not include nematode galls, insect larvae, smut balls, and other fungus bodies which shall be classified as inert matter. See sections e, 2.10-a-(5), and 2.10-c-(1).

2.10-a-(5) Seed units of grasses in which the caryopses are replaced by nematode galls, insect larvae, or by fungus bodies such as smut balls or ergot sclerotia. See sections 2.7-i and 2.10-c-(1).

2.10-c-(1) Nematode galls and insect larvae, including galls and larvae enveloped by the lemma and palea of grass florets. See sections 2.7-i and 2.10-a-(5).

Justification:

It is generally agreed that seeds containing "insect larvae" should be included with nematode galls, smut balls, and other fungus bodies as inert material.

6. Section 2.12 Special purity procedures.

The first sentence is reworded to eliminate option between "factor" and "hand" method.

Present wording:

Multiple units - The following alternate methods may be used for the kinds indicated when multiple units in a sample are present to the extent of 5 percent or more and are not separated.

Proposed wording:

Multiple units - The following procedure shall be used for the kinds indicated when multiple units in a sample are present to the extent of 5 percent or more. The parts of the multiple units shall not be separated.

Justification:

Occasionally the "hand" and "factor" procedures will produce different results when used on the same seed lot. Second tests can therefore be out of tolerance if the procedures used for the first test is not known. The option of procedure should be eliminated for the sake of uniformity of test results.

7. Section 2.12 Special purity procedures.

Addition: Factors to apply to multiple units of smooth brome grass.

<u>Single florets in sample</u>	<u>Smooth brome grass</u>
<u>Percent</u>	<u>Percent</u>
50 or below	72
50.01 - 55.00	74
55.01 - 60.00	75
60.01 - 65.00	76
65.01 - 70.00	78
70.01 - 75.00	79
75.01 - 80.00	81
80.01 - 85.00	82
85.01 - 90.00	83
90.01 - 95.00	85

Supporting data:

- A. Hall and Roehrkasse. 1970. A comparison of two procedures for purity analysis of smooth brome grass. Proc. Assoc. Offic. Seed Anal. 60(1):90-94.
- B. Kinch, R. C. 1970. Referee Committee Report for 1969-70, Region II. Newsl. Assoc. Offic. Seed Anal. 44(3):45-46.

These two studies were made independently. The referee study was from the results of reports from 21 laboratories. Further explanation about the referee test is in order because no statistical analyses were made on the data at the time they were reported and published in the Newsletter. Subsequent statistical analysis showed no more significance variation between laboratories using the official method than with the factor method. However, lot three with a much higher inert and crop percentage had excessive variation between laboratories using both methods. Even the variation between laboratories on the time required was so large that the difference between 137 and 102 minutes--35--was not significant.

8. Changes in garden bean germination.

A. Section 4.8 Special procedures and alternate methods for germination.

Add the following subsection:

j. Garden beans (Phaseolus vulgaris) - Use of calcium nitrate:

If hypocotyl collar rot is observed on seedlings, the sample involved may be retested using a 0.3 to 0.6 percent calcium nitrate solution to presoak the medium.

B. For Phaseolus vulgaris, garden bean, in Table 3 on Page 52, make the following changes:

Under first count days, change from "5" to "none".

Under specific requirements, add "See section 4.8-j".

Supporting data:

Clark, B. E. and D. B. Kline. 1965. Effects of Water Temperature, Seed Moisture Content, Mechanical Injury, and Calcium Nitrate Solution of the Germination of Snap Bean Seeds in Laboratory

Germination Tests. Proc. Assoc. Offic. Seed Anal. 55:110-120.

The proposal to eliminate the preliminary germination count for garden beans is based on observations of analysts who test garden bean seeds that disturbing the tests to make a preliminary count can result in injury to the developing seedlings and also that is difficult to differentiate between normal and abnormal seedlings prior to the time of the final count.

One should not interpret the elimination of the preliminary count as precluding the possibility of removing decayed seeds from the tests when necessary provided the count of germinated seedlings is not made until they have developed fully at the end of the test period. Whenever it is not required by the presence of decayed seeds it would be desirable not to disturb the test and risk injury to seedlings prior to the final count.

9. *Section 5.2-e Special tolerances*

Adjustment of example:

In the 1970 issue of the AOSA Rules the example under special tolerances was not adjusted to reflect the most recent computation of seeds per gram for the species used. Appropriate editorial changes will be made throughout Table 7 and text in Pages 79 and 80.