

COMMITTEE ACTIVITIES OR REPORTS

Rules Committee, L. E. Wiesner  
Proposals for Rules Changes

These proposals will be discussed and voted on at the AOSA meeting at Amherst, Massachusetts. Please study each of these proposals carefully; and if you have questions or comments, send them to the committee chairman.

1. Section 4.8(b) (page 31) Bahiagrass

Proposed: Bahiagrass (Paspalum notatum) - all cultivars except Pensacola: Remove the caryopsis from the enclosing structures (glumes, lemma and palea) with the aid of a sharp scalpel. If the seed is fresh or dormant, scratch the surface of the caryopsis lightly.

Justification: This is a more positive statement than the present rule. The word degluming can be interpreted many different ways. The intent of this rule was to remove the caryopsis and in order to do so, you must also remove the lemma and palea.

2. Section 4.9(g) (page 33) - Existing sections g and h would become sections h and i.

Proposed: Ethephon - a 0.0029% solution of ethephon [(2-chloroethyl) phosphoric acid] is used to moisten the substratum. This solution is prepared by mixing 0.6 ml of a stock solution containing 2 lbs active material per gallon in a propylene glycol base with 5,000 ml of distilled water. A solution which is five times the normal concentration (0.0029) may be used for extremely dormant seeds, provided seeds are transferred to substratum moistened with water after one to three days.

Table 3 (page 35)  
Proposed change underlined

	Substrata	Temp.	first count	final count	<u>additional directions</u>	
					specific requirements	fresh and dormant seed
Arachis hypogaea	B,T.S	20-30,	5	10	Remove shells;	Ethephon
Peanut		25			Photos 19541, 19542	<u>(refer to Sec.4.9g)</u>

Justification: This method would reduce the time required for testing peanuts by eliminating the predrying requirement for dormant seeds. When ethephon was used during germination testing, the percent germination was equal to or greater than the predrying method. Tests comparing the Ethephon method with predrying indicate that predrying could be injuring lower quality seeds. In these tests the average percentage germination for the ethephon treatment was 76.3% and for 14 days of predrying 70.8%

3. Table 5. Tree and Shrub Seeds (pages 69-76).

Proposed change is underlined:

Kind of seed	Substrata	Temp.	Test duration		Additional directions
			Temp.	days	
Picea glauca white spruce	TB	20-30	21		Light; <u>some Canadian seed sources require prechill for 14-21 days at 3 - 5 C.</u>
Pinus strobus eastern white pine	TB, P	20-30	21		Light; <u>more than 8 hr. light</u> may be beneficial to some lots; sensitive to drying; prechill 28-42 days at 3-5 C.
	P	22	28		Light for 16 hr; <u>prechill 28-42 days at 3-5 C.</u>
Pinus sylvestris scotch pine	TB, P	20-30	14		Light; <u>seed from eastern Mediterranean (Turkey, Greece, Bulgaria) provenances may require prechill 21 days at 3-5 C.</u>

Justification: All three proposals deal with prechill requirements or precautions, and no major rule changes. These changes are the result of more widespread testing, by members of the Tree and Shrub Seed subcommittee, of different geographic sources of wild populations of tree species.

4. Section 2.6b(3)

Present: Entire spikelets in Agrostis, Panicum, Setaria, and Sorghum.

Proposed: Entire spikelets in Agrostis, Panicum, and Setaria. Entire spikelets which may have attached rachis segments, pedicels and sterile spikelets in Andropogon, Sorghum, and Sorghastrum.

Justification: To correctly identify structure of seed units in Andropogon, Sorghum, and Sorghastrum

5. Section 2.6b(8)

Proposed: Single units as defined in Section 2.12b.

Justification: The definition of a multiple unit describes a seed unit that is not listed in 2.6b.

6. Section 2.7g

Present: Seed units of the grass family listed in section 2.6b(1) through (5) provided a caryopsis with some degree of endosperm development can be detected in the unit either by slight pressure or by examination over light. Refer to sections 2.7h and 2.10a(8) when nematode galls, fungus bodies etc., have replaced the caryopses in seed units.

Proposed: Add this statement after the first sentence: "Sub-sections 1 and 2 state procedure for purity determination in which the degree of endosperm development is not determined."

Justification: The present statement does not take into consideration that the degree of endosperm development is not determined when using the uniform blowing procedure or when testing buffalograss. This change will also be needed if the proposed change in section 2.7g(1) is approved.

#### 7. Section 2.7g(1)

Present: Intact burs of buffalograss (Buchloe dactyloides) shall be considered pure seed whether or not a caryopsis is present. For burs which are damaged refer to section 2.10a(9).

Proposed: Spikelet, spikelet groups, and multiple florets (double florets) of side-oats grama (Bouteloua curtipendula); multiple florets (double florets) of blue grama (Bouteloua gracilis); spikelet groups and spikelets with attached structures of little bluestem (Andropogon scoparius); and intact burs of buffalograss (Buchloe dactyloides); shall be considered pure seed whether or not a caryopsis is present. Refer to section 2.10a(9) for the classification of burs which are visibly empty.

Justification: Recent research has shown that the "modified" method of testing side-oats grama, blue grama, and little bluestem, results in greater uniformity among tests from various laboratories. Pure live seed content determined by this method is not substantially altered, and analytical time is reduced by more than half.

#### 8. Section 2.12b

Present: Definition: A multiple unit is defined as any seed unit possessing a structure other than the rachilla which extends to or beyond the tip of the fertile floret. Any seed unit in which an attached structure is shorter than the fertile floret, shall be considered a single floret. The awn shall be disregarded when determining length of the fertile floret and attached structure.

Proposed: Definition: A multiple unit is defined as any seed unit (containing at least one fertile floret) possessing a structure other than the rachilla which extends to or beyond the tip of the fertile floret. Any seed unit in which an attached structure does not extend to or beyond the tip of (is shorter than) the fertile floret shall be considered a single floret. The awn shall be disregarded when determining length of the fertile floret and attached structure. Exceptions to this definition are:

1. A fertile floret with attached glume or glumes of any length shall be designated as a multiple unit.
2. A fertile floret with any length of sterile floret attached in a basal position (lower node) shall be designated as a multiple unit.

Justification: This statement should add enough compromise between the old and new definition to make the new definition compatible with the multiple unit factors, especially for the Agropyron and Bromus species. The factors were originally developed with the idea that glumes attached to a fertile floret constituted a multiple unit. For the small seeded Agropyrons they would still be multiple units because the glumes are usually longer than the fertile florets. However, the glumes of the large seeded Agropyrons usually do not extend to the tip of the fertile floret and therefore would be called single florets. This situation is somewhat inconsistent.

Often in the wheatgrasses and bromes there is a situation where a fertile floret is attached to the rachilla of a rather large sterile floret but does not extend "to or beyond" the tip of the fertile floret. These should be called multiple units also. The ambiguity in length expression is eliminated.

9. Section 4.2a

Present: Seed germination - In seed laboratory practice, germination is defined as the emergence and development from the seed embryo of those essential structures which, for the kind of seed in question are indicative of the ability to produce a normal plant under favorable conditions.

Proposed: Add the "Refer to 4.2d and 4.2e" to the end of the present statement.

Justification: There is a need to point out that for many species, especially western rangegrasses and legumes, that seed germination often is not a complete statement of viability. One must also consider hard and dormant seeds.

10. Section 4.2e

Proposed: Add the following to the end of the present statement defining dormant seeds: "The percentage dormant seed is to be reported in addition to the percentage germination."

Justification: There is a need for explicit instructions that dormant seeds are to be reported and how it must be done.

(Editor's Note) - The February issue (Vol. 51. No. 1) on page 22 stated that the above proposed rule changes were enclosed. Due to failure of the Post Office they were not received and subsequently they were mailed by the secretary to meet the deadline. The proposed changes are reproduced here so that they are on record.