

Rule Change Proposal No. 8

PURPOSE: Change the pure seed definition of bermudagrass and giant bermudagrass to better reflect the seed unit used in planting practices and to limit the amount of physical manipulation necessary during a purity test.

Note: if Rule Change Proposal No. 5 is adopted the PSU 12 would become PSU 14 should this proposal also be adopted.

PRESENT RULE

- 2.6 Seed Unit – The seed unit is the structure usually regarded as a seed in planting practices and in commercial channels. The seed unit may consist of one or more of the following structures:
- b. Seed units in the grass family (for descriptions and illustrations of grass seed units, see AOSA Newsletter 70(1):49-59, 1996) including the following:
 - (1) Caryopses and single florets;

PURPOSED RULE

- 2.6 Seed Unit – The seed unit is the structure usually regarded as a seed in planting practices and in commercial channels. The seed unit may consist of one or more of the following structures:
- b. Seed units in the grass family (for descriptions and illustrations of grass seed units, see AOSA Newsletter 70(1):49-59, 1996) including the following:
 - (1) Single floret spikelets in *Agrostis*, *Alopecurus*, and *Zoysia*; and multiple florets or spikelets in *Anthoxanthum*, *Arrhenatherum*, *Avena*, *Axonopus*, *Bouteloua*, *Brachiaria*, *Chloris*, *Cynodon*, *Echinochloa*, *Ehrharta*, *Holcus*, *Hordeum*, *Melinis*, *Oryza*, *Panicum*, *Paspalum*, *Phalaris*, *Poa*, *Setaria*, and *Zea*;

SUPPORTING EVIDENCE

A survey of all AOSA laboratories and SCST members was conducted regarding the seed units of bermudagrass, 45 responses were received. The results are summarized as follows:

1. Does your laboratory test bermudagrass (*Cynodon dactylon*)? 30 – yes 16 – no
2. For bermudagrass purity testing:
 - a. Do you remove the glumes and pedicel attached at the base? 13 – yes 16 – no
 - b. If a sterile floret is attached to the rachilla do you remove it? 12 – yes 18 – no
3. Do you agree with the AOSA and ISTA definition for pure seed for bermudagrass? 6 – yes 22 – no
4. Do you find it difficult to remove the glumes, pedicel and/or sterile floret from the fertile floret of bermudagrass? 29 – yes 2 – no
5. Should the pure seed definition of bermudagrass be changed to include the glumes, pedicel and sterile floret as part of the pure seed definition? 29 – yes 2 – no

It is clear from the survey that more than half the seed analysts testing bermudagrass do not remove the structures attached to the fertile floret and that the overwhelming majority agree the pure seed definition should be changed. Because of the small size of the seed units it is difficult for most seed analysts to remove the attached structures. These structures are much smaller than similar structures in *Lolium* and *Festuca* where removal has been shown to make little difference in purity test results (Meyer 1997, 1999 Seed Technology).

SUBMITTED BY

AOSA Purity Subcommittee
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DATE: October 4, 2001