

Page 41 Cynodon dactylon var. aridus. In the additional direction column 25-35°C should be changed to 20-35°C.

Page 51 Vigna angularis. The final count days state 7. This should be changed to 10.

Page 57 Thymus vulgaris. The 14°C temperature should be changed to 15°C.

Appendix 3 flatpea - Lathyrus sylvestris is not listed.

Ellen Chirco has suggested that the scientific and common names of some of the flower seeds need investigating. Such as: Geranium spp. vs Pelargonium spp. and the same common names being used for several species.

Light Specifications

Many species listed in the Rules have "light" specified as part of the germination environment. For those species where light is not specified, are we to assume that they are insensitive to light and will germinate equally well in darkness as in light? If so, this information should be stated in section 4.9e of the Rules. If there are some species that are dark dependent for germination, this information should be stated in the additional directions for those species.

Revision of the Rules

The following recommendations were made to the Editor for making changes to the printed Rules in years not associated with complete reprinting.

1. The volume, number and year of the Rules should remain the same until there is a complete reprinting of the entire Rules. However, the front page (i) should indicate the year of the latest revision just under the permanent volume, number and year.
2. With each revision, page iii should be revised to indicate the most recent changes in Rule Committee chairship, Editors, effective date of latest revisions, and page numbers associated with revision year.
3. Each page containing a revision is reissued with a revision date printed just below the page number.

Proposed Rule Change for Dodder

This item was submitted to late last year for publication so it is being introduced now.

Kind of Seed (Common and scientific name):

Dodder, Cuscuta spp.

Present Rule (if this is a new rule, state "new rule"):

2.10b(6) Dodder seeds devoid of embryos and seeds which are ashy gray to creamy white in color are inert matter. Questionable seeds should be sectioned to determine if an embryo is present. Questionable seeds include those which have normal color, but are slightly swollen, dimpled or have minute holes.

Proposed rule

2.10b(6) Dodder: seeds devoid of embryos. Seeds which are ashy gray to creamy white are inert matter. Other seeds should be sectioned to determine if an embryo is present. If embryonic tissue is present classify as outlined in 2.10b(1).

Supporting evidence or reasons for the proposed change.

The categorical heading 2.10b states "Seeds and seed like structures from weed plants, which by visual examination (including the use of light or dissection), can be definitely demonstrated as falling within the following categories:"

Since experience has shown that many inert Cuscuta are neither slightly swollen nor dimpled, and without minute holes, the only way to definitely demonstrate the presence or absence of embryo is to section them.

Not all analysts consider the same seeds to be "questionable;" This can be a gray area of interpretation, therefore this revision would promote more accuracy and uniformity in testing.

Submitted by

Ralph Hofmann

Proposed rule change for Johnsongrass

This item was submitted by Dwight Lambert and relates to research by Dr. Tao.

Kind of seed (Common and scientific name):

Johnsongrass (Sorghum halepense)

Present rule: Table 3, page 49.

<u>Kind of seed</u>	<u>Substrata</u>	<u>Temperature</u>	<u>First count</u>	<u>Final count</u>	<u>Specific requirements</u>
Johnsongrass	P	20-35	7	35	light

Proposed rule: Table 3, page 49.

<u>Kind of seed</u>	<u>Substrata</u>	<u>Temperature</u>	<u>First count</u>	<u>Final count</u>	<u>Specific requirements</u>
Johnsongrass	P	20-35	7	10	light; see section 4.8k

Section 4.8

k. Johnsongrass (Sorghum halepense) - Acid scarification:

Add 20 ml of concentrated sulfuric acid (95-98 percent) to 2 grams of seeds in a glass beaker. Keep at room temperature for 30 minutes and stir at 5 minute intervals with a glass rod. Then rinse the seeds for 30 minutes with cold running water. Blot with a paper towel and air dry for 3 hours.(seeds sticking together should be separated before

planting). CAUTION: sulfuric acid can cause skin burns. Use protective clothing and gloves; handle with care.

Supporting evidence or reasons for the proposed change.

Eight different dormant and nondormant seed lots were tested for germination by the Seed Standardization Branch, AMS, USDA, Beltsville, MD. Test results from the eight lots using the proposed method had a mean germination of 73 percent compared to a mean of 46 percent obtained by using the currently prescribed germination method. Test results from a dormant and a nondormant lot from nine different laboratories indicated the 10 day germination test of acid scarified seed produced a higher germination percentage and more uniform results than the current method. See AOSA Newsletter 1982, 56(2):20-25.

Tentative rules for testing coated seed.

This is a discussion topic brought to the Rule Committee's attention by M. S. Dhaliwal of Ottawa, Ontario. He states that the Sec. 2.13a, Page 27b, AOSA Rules is incomplete.

The original definition recommended by the Coated Seed Committee appears on P.30 of the AOSA Newsletter in Vol. 54 # 1 dated Feb. 1980. You will notice that only seed treated with pesticides alone is excluded from the definition. It is further clarified following Sec. 2.13a (2) that both the uniformly and non-uniformly coated seed may contain other ingredients such as fertilizers, rhizobia and pesticides.

The second sentence of the definition on P. 27b of the current AOSA Rules states that "seeds coated with ingredients such asrhizobia, dye and pesticides are excluded". This is a misleading statement. It implies that coated seed containing these ingredients are not included in the Rules.

This second sentence should read: "Seeds treated only with ingredients such as, but not limited to, rhizobia, dye or pesticides are excluded"; and the following should be reinserted following Sec. 2.13a (2): "Both uniformly (1) and non-uniformly (2) coated seed may contain other ingredients such as, but not limited to, fertilizers, rhizobia, dye and pesticides".

Reporting dormant seed, Section 4.2e.

This is a discussion topic brought to the attention of the Rules Committee Chairman by John A. Scott of the Federal Seed Laboratory at Beltsville, Maryland. Portions of his letter are presented here.

Section 4.2e states that "Viability of ungerminated seeds may be determined by any appropriate method, or combination of methods, etc". It is further stated that "The percentage dormant seed, if present, shall be reported..." for certain species. One statement permits; the other requires.

If we are required to report dormant seeds for these and other species, should we be required to break the dormancy and report only those dormant seeds remaining? Or should we report the total amount of dormant seeds without attempting to break the dormancy? If the dormancy were broken we would be giving a false impression of the normal germination capability at time of planting. Also, if a procedure is known which will give complete germination (i.e. acid scarification), would it meet the requirements of Section 4.2e for determining viability?

Would the seed still have to be labeled for dormant seeds? Would the viability thus obtained be considered equivalent to germination plus dormant seeds? Could it be reported as germination if the procedure is also reported, as provided in paragraph 3 of the introduction to the AOSA rules.

Proposed rule change for Tall wheatgrass.

Kind of seed (Common and Scientific name):

Tall wheatgrass, (Agropyron elongatum)

Present rule:

The AOSA Rules require that the fertile and sterile florets of a multiple unit be separated by hand. Refer to Rules Section 2.6(1) and 2.7(g).

Proposed rule:

Add Tall wheatgrass (A. elongatum) to section 2.7g (3) and add the following factors to the table in Section 2.12.

<u>% Single Florets of each species</u>	<u>Factor</u>
50 or below	--
50.01-55.00	--
55.01-60.00	--
60.01-65.00	--
65.01-70.00	--
70.01-75.00	--
75.01-80.00	50
80.01-85.00	55
85.01-90.00	65
90.01-100.00	70

Supporting evidence or reasons for the proposed change

The Range Analysis Sub-committee has conducted research since 1979 to evaluate the factors developed by Paul Hall. These studies indicated that factors developed by Hall were accurate at the higher single unit levels, but that factors of lower single unit levels were inaccurate. Therefore, new factors were developed for the 75.01-80.00 and the 80.01-85.00 levels. There are insufficient numbers of samples of Tall wheatgrass in seed channels of lower than 75.00% single units to warrant development of factors for those levels. Enclosed are sub-committee reports indicating data used to develop factors. The factors suggested in this proposal are obtained from pooling the 1980 and 1981 factors which were based on actual sample data.

See: P. J. Hall 1961, Proc. Assoc. Offic. Seed Anal . 59:91-94.

Proposed rule change for Western wheatgrass

Kind of seed (Common and scientific name):

Western wheatgrass (Agropyron smithii)

Present rule

The AOSA Rules require that the fertile and sterile florets of multiple unit be separated by hand. Refer to Rules Section 2.6 (1) and 2.7 (g).

Proposed rule

Add Western wheatgrass (A. smithii) to section 2.7g (3) and add the following factors to the table in section 2.12.

<u>% Single Florets of each species</u>	<u>Factor</u>
50 or below	--
50.01-55.00	--
55.01-60.00	--
60.01-65.00	--
65.01-70.00	60
70.01-75.00	66
75.01-80.00	67
80.01-85.00	68
85.01-90.00	70
90.01-100.00	74

Supporting evidence or reasons for the proposed change

The Range Analysis Sub-committee has conducted research to evaluate the factors developed by Paul Hall. Tests were conducted among laboratories in 1980, 1981 and 1982. Six laboratories participated in these studies and evaluated 38 samples, in 1980. In 1981, three samples were selected and tested by nine laboratories and in 1982 three laboratories tested 17 samples. Percent pure seed of multiple units in comparison to percent single units was evaluated each year. Results of these tests suggest that the factors developed by Paul Hall were relatively accurate; however, in his publication he suggested that these factors should be evaluated among laboratories before adopting as Rules. Therefore, based on these among laboratory tests we suggest some minor changes in the factors and would recommend that factors not be used for samples having a single unit percentage less than 65.01. The reason for not recommending factors for samples with single unit percentages less than 65.01 is that we were unable to find samples in seed channels with single unit percentages in these ranges.

See: P.J. Hall and G.P. Roehrkas, 1970, Proc. Assoc. Offic. Seed Anal. 60:95-98.