AOSA Rule Changes For 1994
AOSA/SCST Annual Meeting Portland, Oregon
Effective October 1, 1994

Rule proposal #1 passed Seed products definitions

2.1 b Definitions

1. Raw seed: Seed that is free of any applied materials.

2. Treated seed: Seed with a minimal covering of various materials whose primary objective is to reduce or control certain disease organisms, insects or other pests attacking the seed or seedlings growing therefrom and contains identifying colorants or dyes.

3. Inoculated seed: Seed which has received a coating of a commercial preparation containing a microbial product e.g. *Rhizobium* sp.

4. Film-coated seed: Film-coated seed retains the shape and the general size of the raw seed with a minimal weight gain. The film coating may contain polymers, pesticides, biologicals, identifying colorants or dyes, and other additives. The coating should result in a more or less continuous covering which eliminates or minimizes product dust-off.

5. Coated or Encrusted seed: Seed that has been covered by a layer(s) of materials that obscure the original shape and size of the seed resulting in a substantial weight increase. The addition of biologicals, pesticides, identifying colorants or dyes and/or other active ingredients including polymers can be included in this process. Refer to sections 2.13 and 4.8 l.

6. Pelleted seed: Seed that has been covered by a layer(s) of materials that obscure the original shape and size of the seed resulting in a substantial weight increase and improved plantability or singulation. The addition of biologicals, pesticides, identifying colorants or dyes and/or other active ingredients including polymers can be included in this process. Refer to sections 2.13 and 4.8 l.

2.13 Pelleted, Coated, or Encrusted seed purity procedures

a. Where reference is made to coated seed the rules also apply to pelleted and encrusted seed. Refer to section 2.1 b.

4.8 Special procedures and alternate methods for germination

l. Coated Seed: Where reference is made to coated seed the rules also apply to pelleted and encrusted seed. Refer to section 2.1 b.

Rule proposal #2 passed Soil as substrata

4.9 Explanation of Table 3, 4, and 5

Tables 3, 4, and 5 contain specific germination requirements for the kinds of seeds listed in column 1. Some explanations of these tables and additional germination requirements and conditions are as follows:

a. *Substrata.* - Symbols for substrata in column 2, Tables 3 and 4 are: B = between blotters; TB = top of blotters; T = paper toweling, used either as folded towel tests or as roll towel tests in horizontal or vertical position; S = sand; TS = top of sand; P = covered petri dishes with (a) two layers of blotters, or (b) three thicknesses of filter paper, or (c) top of sand; C = creped cellulose paper wadding (0.3-inch thick Kimpak or equivalent) covered with a single thickness of blotter through which holes are punched for the seed which are pressed for about one-half their thickness into the paper wadding; RB = blotters with raised covers, prepared by folding up the edges of the blotter to form a good support for the upper fold which serves as a cover, preventing the top from making direct contact with the seeds; TC = on top of creped cellulose paper without a blotter.

Since it is generally difficult to obtain consistent supplies of soil , it is not to be used as primary testing substrate. However, it may be necessary to use it, when seedlings show phytotoxic symptoms or if evaluation of seedlings is in doubt. Soil is commonly used for comparative or investigative purposes. Refer to section 4.5b(1).

Symbols for substrata in column 2, Table 5, are the same as for Tables 3 and 4 except the "P" includes (in addition to the above indicated materials) sponge rok, vermiculite, terrarlite, or a mixture of 50% sand and vermiculite, sand and perlite, etc. If there is question as to whether a paper substratum is toxic to developing seedlings, check tests should be made on Whatman's No. 2 filter paper or its equivalent. Seeds of celery, celeriac, chicory, dandelion, timothy, and bermudagrass are particularly sensitive to toxic substrata. If root injury is evident on substratum moistened with potassium nitrate, retests should be made on substratum moistened with water.

Rule proposal #3 passed Eliminate U.S.D.A. photographs

4.5 Evaluation of seedlings

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4.9 Explanation of Tables 3, 4, and 5

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Page 21, footnote [a]

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4.10, Table 3 Methods of testing for laboratory germination

under Additional Directions

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Rule proposal #7 passed Chemical test for sweetclover

3.4 Chemical test to distinguish sweetclover.— To determine the presence of yellow sweetclover (*Melilotus officinalis*) in samples of white sweetclover (*M. albus*) at least 400 seeds shall be subjected to the chemical test as follows:

a. Preparation of test solution.— Add 3 grams of cupric sulfate ($CuSo_4$) to 30 ml of household ammonia (NH_40H, approx. 4.8%) in a stoppered bottle to form the tetraamminecopper sulfate ($[Cu(NH_3)_4]S0_4$) solution used for this test. After mixing, a light blue precipitate of cupric hydroxide ($Cu(OH)_2$) should form. If no precipitate forms, add additional $CuS0_4$ until a precipitate appears. Since the strength of household ammonia can vary, formation of a precipitate indicates that a complete reaction has taken place between $CuS0_4$ and NH_40H; otherwise fumes from excess ammonium hydroxide may cause eye irritation.

b. Preparation of seeds.— To insure imbibition, scratch, prick, or otherwise scarify the seed coats of the sweetclover seeds being tested. Imbibe seeds in water for 2 to 5 hours in a glass container.

c. Chemical reaction.— When seeds have imbibed, remove excess water and add enough test solution to cover the seeds. Seed coats of white sweetclover will stain olive or yellow-green; seed coats of most yellow sweetclover will stain dark brown to black. Make the separation within 20 minutes, since the seed coats of white sweetclover will eventually turn black also.

d. Calculation of results.— Count the number of seeds which stain dark brown or black and divide by the total number of seeds tested; multiply by the pure seed percentage for *Melilotus* spp.; the result is the percentage of yellow sweetclover in the sample. The percentage of white sweetclover is found by subtracting the percentage of yellow sweetclover from the percentage of *Melilotus* spp. pure seed.This may be an under-estimation of the percentage of yellow sweetclover in the sample, because a small percentage of yellow sweetclover may fail to stain dark brown or black. For this reason, this test is not appropriate for testing yellow sweetclover for the presence of white sweetclover.

Example:

Pure *Melilotus* spp. = 98.76%
Number of seeds tested = 400
Number of seeds staining dark brown or black = 32
% Yellow sweetclover = (32/400) x 98.76% = 7.90%
% White sweetclover = 98.76% - 7.90% = 90.86%