

CHANGES IN THE RULES FOR TESTING SEEDS
ASSOCIATION OF OFFICIAL SEED ANALYSTS

Vera L. Colbry
Outgoing Chairman, Rules Committee

Effective July 1, 1966, the Association of Official Seed Analysts adopted the following changes in the 1965 AOSA Rules for Testing Seeds:

1. Section 2.5a, third paragraph, page 21 shall read "Insofar as laws, and rules and regulations permit, classification as to weed or crop seed shall be according to the 1964 revised edition of the handbook Uniform Classification of Weed and Crop Seeds, except that Poa glaucantha shall be classified under category (1) instead of (3)." As a result of this change, glaucantha bluegrass shall be regarded as a crop seed in all samples when occurring in any amounts.

2. Section 2.11, page 24:

After the first paragraph under a add the following: "When testing samples designated as Kentucky bluegrass, all seeds of Poa pratensis and its varieties, including Merion, which are removed by the uniform blowing method are to remain in the inert matter." This procedure does not apply to samples designated as mixtures of Kentucky bluegrass varieties.

After the third paragraph under c add "d. Uniform Blowing Method for Pensacola bahiagrass (Paspalum notatum var. saurae). The Uniform Blowing Method shall be used for the separation of pure seed and inert matter in seeds of Pensacola bahiagrass. Specific instructions for the application of the Uniform Blowing Procedure to Pensacola bahiagrass and stained samples for blower calibration may be obtained through the Association of Official Seed Analysts." Each calibration sample complete with instructions will cost \$25.00 and may be obtained from the Alabama State Seed Laboratory, Department of Agriculture & Industries, State Office Building, Montgomery, Alabama.

3. Section 4.9c, page 31. Add another sentence at the end of the paragraph to read as follows: "In section 4.10, Table III, where 15-25°C. is prescribed as an alternate temperature, it is to be considered the recommended temperature alternation for that kind of seed."
4. Appendix, Seedlings descriptions, pages 100-101. The following revised write-up of the lettuce seedling descriptions will apply. The re-written portions are underlined.

2. Compositae, Sunflower family.

a. Lactuca sativa, lettuce.

Explanation of terms, and procedures:

"Normal length" is that length attained by a vigorous sample of the same kind and variety when grown under the exact test conditions as the sample in question.

One type of necrosis on lettuce cotyledons appears to be a physiological breakdown of the plant tissues, the cause of which has not been determined. It is manifested by softened, grayish, reddish, or blackish areas on the cotyledons, first appearing on or adjacent to the midrib and lateral veins, and should not be confused with the natural pigmentation of the different lettuce varieties. It is a physiological necrosis and must be distinguished from necrosis or injury due to other causes, such as fungi, bacteria, insect injury, mechanical damage, or pressure of seed coat veins. Seedlings with physiological necrosis on the cotyledons indicate seeds which will decline rapidly in viability. Seedlings with extensive physiological necrosis on the cotyledons are slower in growth and shorter than those without such affected areas.

The following interpretations are to be made only at the end of the test period:

Normal seedling

Root.	Long, vigorous, preferably over half "normal length."
Hypocotyl	Long, vigorous, preferably over half "normal length," with no cracks or lesions extending into the central conducting tissue.
Cotyledons	(a) Two. (b) Free of <u>physiological necrosis</u> . (c) <u>If necrosis or injury other than physiological necrosis is present, classify as normal if the necrosis or injury covers less than half the total cotyledon area.</u>
Epicotyl	Present and entirely free from decay.

Abnormal seedling

- Root (a) None.
(b) Clearly shortened to less than half "normal length," with tips blunt, swollen or discolored.
- Hypocotyl Clearly shortened to less than half "normal length," or severely twisted or grainy or with cracks or lesions extending into the central conducting tissue.
- Cotyledons (a) Only one.
(b) With any degree of physiological necrosis.
(c) If necrosis or injury other than physiological necrosis is present, classify as abnormal if the necrosis or injury covers one-half or more of the total cotyledon area.
(d) Swollen cotyledons (usually grayish or darkened) with extremely short or vestigial hypocotyl and root; seed coat usually adhering to cotyledons.
- Epicotyl Missing, or with any degree of decay.

Note that the reference to figures 27 through 29 in U. S. Department of Agriculture Handbook 30 is omitted because these illustrations of normal and abnormal seedlings no longer apply.

The Federal seed laboratory, Beltsville, Maryland has taken three (3) colored photographs of lettuce cotyledons, illustrating respectively (1) Physiological necrosis, (2) not physiological necrosis, and (3) Pigmentation.

In the December 1966 issue of the News Letter of the Association of Official Seed Analysts, we hope to indicate how copies of these colored photographs may be purchased.