

OPINIONS ON PURITY ANALYSIS SUGGESTIONS BY AOSA-SCST MEMBERS

Compiled by

The AOSA Rules Committee

Three suggestions for changes in purity analysis procedures were published in the September, 1971, AOSA News Letter. At that time Dr. Everson requested responses from all AOSA and SCST members. Again at the 1972 AOSA-SCST meeting at Salt Lake City, these suggestions were discussed at the Rules Committee open meeting.

Some of these suggestions have been around some time now. Hopefully an intelligent decision regarding each of them can ultimately be made by accelerating discussion and by unbiased thinking. The following compilation was designed to stimulate thinking and to help move us toward a decision.

The comments expressed under "advantages" and "disadvantages" do not necessarily reflect the opinions of Rules Committee members. The comments are a summary of all the responses received by Dr. Everson and recorded responses from the floor at the AOSA-SCST meeting at Salt Lake City. In retrospect you may have thought of other valid advantages or disadvantages that are not recorded here. If so, space is supplied in the Opinion Poll to list them.

The purpose of the opinion poll is not to make a final decision but to determine the general direction of thinking among the AOSA and SCST members and to gather more ideas. We need more information about the impact that these suggested changes will have on the Seed Trade and on ISTA Rules.

Please send your responses to:

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Please take the time to give a thoughtful response to the Poll. You may be doing yourself a big favor.

Suggestion 1:

The purity analysis information on the purity analysis report or certificate should be listed under three parts: pure seed, inert, and "other species." "Other species" would include what we now consider two parts (i.e., weed seeds and other crop seeds).

Advantages

1. This suggested change will reduce confusion in marketing seed among countries now caused by the classification of some species as crop seeds in one country but as weed seed in another. Some crop seed are as objectionable as weed seed.
2. This will simplify the purity analyst's work because there will be no need to classify "other species" as weed or crop seed.

Disadvantages

1. Seed laws, certification standards, and seed testing rules within all countries, provinces, and states will have to be amended.
2. Farmers and seedsmen are used to the listing of weeds and other crop seed. They will have to be re-educated.
3. Even if imperfect, the classification of seeds as to weed or crop is generally useful information.
4. Certain seeds are still particularly undesirable. This suggestion does not make allowances for them.
5. A distinction between crop and weed seed would still have to be maintained to determine if a high content of a certain species makes it part of a mixture or would render the lot illegal for sale.
6. The suggestion would not simplify the analyst's job to any great extent. The most difficult job, with respect to "other species," is to identify them, not to classify them.

Suggestion 2:

Weed and crop seed should be classified on the same basis. Crop seeds are now classified by the half seed rule and weed seed by potential viability.

Advantages

Disadvantages

- General -

1. It will simplify the basis of classification for purity analysts.
2. It will simplify the training of purity analysts.
3. Test results would be more uniform.

1. Seed testing rules pertaining to seed classification will have to be re-written.
2. The proper classification of some unusual structures (such as empty beet balls) would still be ambiguous.

- If both by the half seed rule -

1. In many cases the half seed rule is easier to apply.
2. Only one criteria for classifying seeds.
3. Most consistant.

1. Some seed lots with viable noxious weed seed present will be considered free of noxious weed seed.
2. Some seed lots not containing viable noxious weed seed will be rejected.
3. Difficult to determine half seed.
4. System is arbitrary.

- If both by potential viability -

1. Classification actually based on the seed's ability to produce a plant.
2. The seed must have an intact embryo.
3. More meaningful to consumer.

1. Often difficult or impossible to determine if seed is potentially viable.
2. Many different reasons for seed being "potentially viable."

Suggestion 3:

All immature or empty fruits, florets or seeds should be classified into pure seed or inert material on the same basis regardless of whether they are agricultural crop, flowers or vegetable seeds.

Advantages

Disadvantages

- General -

- 1. More consistent.
- 2. It will simplify classification of seed of all species for the purity analysis.
- 3. It will simplify the training of analysts.
- 4. More uniformity.

- 1. Seed of all species are not the same and therefore must be classified for different reasons. A single classification criteria would likely have a poor "fit" for many species.

- Empty fruits, florets and seeds as inert -

- 1. More realistic units without embryos present are really not seeds in an applied sense.
- 2. Higher germination results.
- 3. Could lead to the uniform blowing methods for other kinds of seed-- notably compositae.

- 1. The task of the purity analyst will be more difficult because it is hard to determine whether certain kinds of fruits have seed present. The detection of seeds in the achenes of Helianthus and Cichoruim is difficult.
- 2. How do you determine whether a seed or seeds are present in a "beet seed ball?"
- 3. Before making germination tests on vegetable and flower seeds, we will first have to make blowings and pure seed separations.
- 4. We will be making germination tests on the purity board instead of in the germinator.
- 5. Lower purity results.

- Empty fruits, florets and seed as pure seed -
(Direct Method)

- 1. The determination of a seed's ability to germinate is not made on the purity board.
- 2. Much the easiest procedure for the purity analyst.
- 3. Would lead to reporting "live seeds per oz. or lb."
- 4. The matter of classifying immature caryopsis in florets would be eliminated.

- 1. Lower germination results.
- 2. Possibly more work for the germination analyst.
- 3. Could result in a lot of junk on the market. We worked too hard to get the grasses cleaned up to abandon the present classification as inert. We should strive for higher pure-live seed standards.

OPINION POLL

Suggestion 1: List "other species" rather than "weed" or "crop" seed.

_____ List weed and crop seed separately.

_____ Combine into "other species."

Advantages or disadvantages not listed or any explanation.

Suggestion 2: Classifying crop and weed seed on same basis.

_____ No change--crop by half seed rule and weed seed by potential viability.

_____ Both crop and weed seed by half seed rule.

_____ Both crop and weed seed by potential viability.

Advantages and disadvantages not listed or any explanation.

Suggestion 3: Empty fruits, florets and seeds as inert or pure seed.

_____ No change--classify as now listed in AOSA Rules.

_____ Classify as inert.

_____ Classify as pure seed.

Advantages and disadvantages not listed or any explanation.