RULE PROPOSALS - 1995

AOSA Rules Committee
Jim Effenberger, Chair

The following proposals for changes in or additions to the AOSA Rules For Testing Seeds have been reviewed and approved by the Rules Committee. Approval does not mean that the committee or the members endorse these changes or additions to the Rules, only that the proposals meet the requirements which allows them to be addressed at the 1995 AOSA/SCST Annual Meeting.

Sixteen proposals are presented here as required by the AOSA Constitution in order that the membership can review and evaluate them 90 days in advance of the AOSA business meeting. Please read and review all proposals and the supporting evidence carefully.

Comments concerning these proposals can be forwarded to the Rules Committee Chair. Your comments will be presented and discussed at the Open Rules Committee meeting in July. The names and addresses of the authors are noted if you wish to contact them for additional information. Extensive changes to these proposals are NOT possible at the Open Rules Committee meeting.

Only a limited number of copies of these proposals will be available at the Open Rules meeting. We recommend that you bring your copy of this Newsletter with you to the AOSA/SCST Annual Meeting.

Proposal #1

RULE CHANGE PROPOSAL FORM

PRESENT RULE

New Rule.

PROPOSED RULE

Seedling Evaluation Handbook A.O.S.A., Page 97
Part III, Glossary
Retarded root. - a root usually with an intact tip, but much too short and weak to be in balance with the other structures of the seedling.

SUPPORTING EVIDENCE

Adopting the exact wording from "Handbook for Seedling Evaluation", I.S.T.A., Glossary:

- is in keeping with the harmonization between I.S.T.A. and A.O.S.A. rules.
- The Lettuce Seedling Evaluation Working Group needs more definitions to describe a root problem that is being observed in primed and/or pelleted lettuce seeds. In the "Seedling Evaluation Handbook", A.O.S.A, Page 17, 5. Lactuca sativa, under General Description, the root system is defined as "A long primary root". On Page 18 under Abnormal Seedling Descripion, there is no descrtiption of roots that are markedly shortened without obvious root-tip damage.
- Several members of the Lettuce Seedling Evaluation Working Group agree that the retarded root definition would help evaluate the root problems.
  Under the new proposed retarded root description, we could evaluate short roots without using vague terms like, weak root or shortened root.

SUBMITTED BY :

Aleta Meyr
Ransom Seed Laboratory
P. O. Box 300
Carpinteria, CA 93014-0300
805/684-3427 FAX 805/684-4157

DATE OF PROPOSAL: October 15, 1994

Proposal #2

RULE CHANGE PROPOSAL FORM

PRESENT RULE

Seedling Evaluation Handbook A.O.S.A., Page 99
Part III , Glossary
Stubby root. Blunt, broken off or dwarfed.

PROPOSED RULE

Seedling Evaluation Handbook A.O.S.A., Page 99
Part III , Glossary

Stubby root - the kind of root characteristic for seedlings with phytotoxic symptoms; it is usually short and club-shaped, though often with an intact root tip (see stunted root).

Stunted root - root with a missing or defective root tip, irrespective of the length of the root (see stubby root).

SUPPORTING EVIDENCE

Literature cited - Exact wording from "Handbook for Seedling Evaluation", I.S.T.A., Glossary.

Reason: Adopting glossary definition from the "Handbook for Seedling Evaluation", I.S.T.A.:

- is in keeping with the harmonization of A.O.S.A. and I.S.T.A. rules.
- gives a more specific description and reason for defects observed in the root evaluation of seedlings.
- We need more specific definitions to accurately define problems observed in the laboratory.

SUBMITTED BY :

Aleta Meyr
Ransom Seed Laboratory
P. O. Box 300
Carpinteria, CA 93014-0300
805/684-3427 FAX 805/684-4157

DATE OF PROPOSAL: October 15, 1994

Proposal #3 Rules Proposal

Present Rule

Kind of seed	Substrata	Temp °C	First count	Final count	Add. directions
Coronilla varia crownvetch	B,T,S	20	7	14[a]	

Proposal Rule

Kind of seed	Substrata	Temp °C	First count	Final count	Add. directions
Coronilla varia crownvetch	B,T,TB,S	20	7	14[a]	

Supporting Evidence

The change to the present rule involves the addition of TB (top of blotters) as a substrata choice. Two separate crownvetch germination studies were sponsored by the Seed Analyst of the Midwest. The first study included seven laboratories, three seed lots and two germination substrates. The data from study one (Table 1) indicates that the TB and T method were comparable for most responses. The second study included three laboratories, three seed lots and three germination substrates. Significant differences (LSD 0.05) occurred between substrates with the towels (T) providing the highest normal seedling and lowest swollen seed percentages compared to the between blotter (BB) and top of blotter (TB) methods (Table 2). Though, the top of blotter (TB) substrate was not conclusively shown to be the best substrate, it is comparable to the present substrate options for crownvetch.

Table 1. Mean percentages of 14-day germination responses and 5-day extended responses from two germination testing substrates, three crownvetch seed lots and seven laboratories.

	14-day germination responses					5-day extended response			
Substrate	Normal	Hard	Swollen	Abn.	Dead	Normal	Swollen	Abn.	Dead
T	21	52	18	4	5	5	11	1	1
TB	24	52	15	3	6	5	9	1	1
LSD (0.05)	2.8	NS	2.9	0.8	NS	NS	NS	NS	NS

Table 2. Mean percentages of 14-day germination responses and 5-day extended responses from three germination testing substrates, three crownvetch seed lots and three laboratories.

	14-day germination responses					5-day extended response		
Substrate	Normal	Hard	Swollen	Abn.	Dead	Normal	Swollen	Abnormals
T	30	42	15	7	6	4	10	1
TB	26	43	20	5	6	5	14	1
B	25	41	21	5	8	4	14	1
LSD (0.05)	2.0	NS	2.4	1.0	1.3	NS	1.8	0.3

Submitted by: Brenda Rogers / Mary Ann Grover, MCIA,1900 Hendon Ave., St. Paul, MN 55113 Phone: 612-625-7766

Date: October 6, 1994

Proposal #4

PROPOSAL:

Addition of B (between blotters) as substratum for pepper, *Capsicum spp.*, germination in Table 3.

PRESENT RULE:

Kind of Seed	Substrate	Temp. Cent.	First Count Days	Final Count Days
Capsicum spp. Pepper	T, TB, RB, P	20-30	6	14

PROPOSED RULE:

Kind of Seed	Substrate	Temp. Cent.	First Count Days	Final Count Days
Capsicum spp. Pepper	T, B, TB RB, P	20-30	6	14

SUPPORTING EVIDENCE:

The pepper rolled towel (T) versus between blotter (B) referee (shown in tables 1 and 2) supported the use of between blotter as a substrate. The analysis of variance shows no significant difference between substrate, substrate X sample interaction, and substrate X lab interaction. There was a significant difference between samples (sample averages varying from 20 to 95% will cause an expected significant difference); laboratories; sample X laboratory interaction; and sample X laboratory X substrate interaction. The statistical analysis design was based on a 2 X 8 X 7 X 4 factorial with 447 degrees of freedom, Table 3.

It should be noted that only one of the laboratories in this referee had experience interpreting seedlings using the between blotter substrate. A contributing factor to the significant difference when analyzing sample X laboratory X substrate, was the difficulty in interpreting seedlings on an unfamiliar substrate.

The seed lab at Asgrow compared the two substrates (rolled towels and between blotters). It was found that the between blotter substrate gives more consistent results between tests on the same lot. It is important to have consistent results over time in a lot history.

Table 1. Pepper Referee: Rolled Towel vs Between Blotter

Sample#1

	Rolled Towel					Between Blotter					
Lab #	Rep1	Rep2	Rep3	Rep4	Ave	Rep1	Rep2	Rep3	Rep4	Ave	Lab #
3	98	95	98	91	96	96	98	99	95	97	5
1	94	94	92	95	94	96	93	96	97	96	9
7	96	94	93	92	94	94	97	97	91	95	3
8	96	92	93	95	94	94	97	94	94	95	8
5	93	93	95	92	93	97	96	91	93	94	7
9	90	95	96	91	93	92	92	93	95	93	1
6	97	94	85	88	91	88	84	85	92	87	6
	Average				94					94	
	Range				5					10	

Sample#2

	Rolled Towel					Between Blotter					
Lab #	Rep1	Rep2	Rep3	Rep4	Ave	Rep1	Rep2	Rep3	Rep4	Ave	Lab #
8	59	62	57	53	58	60	50	59	58	57	8
7	42	44	39	36	40	45	44	46	40	44	7
3	37	34	35	26	33	12	50	12	31	31	9
9	9	8	5	4	7	34	27	26	14	25	1
1	1	8	5	7	5	13	20	18	14	16	3
5	0	0	0	0	0	7	8	7	6	7	5
6	0	0	0	0	0	0	0	0	0	0	6
	Average				20					26	
	Range				58					57	

Sample#3

	Rolled Towel					Between Blotter					
Lab #	Rep1	Rep2	Rep3	Rep4	Ave	Rep1	Rep2	Rep3	Rep4	Ave	Lab #
8	88	91	89	89	89	94	91	89	88	91	8
7	84	89	86	89	87	86	81	89	85	85	7
9	82	79	82	80	81	79	75	78	80	78	3
1	71	64	73	69	69	75	80	81	75	78	9
3	79	71	70	76	74	58	70	65	58	63	1
6	37	41	36	40	38	40	49	50	47	47	5
5	32	33	33	38	34	15	9	16	12	13	6
	Average				67					65	
	Range				55					78	

Sample#4

	Rolled Towel					Between Blotter					
Lab #	Rep1	Rep2	Rep3	Rep4	Ave	Rep1	Rep2	Rep3	Rep4	Ave	Lab #
7	97	96	97	92	96	96	97	96	94	96	7
8	92	95	94	94	94	98	90	96	96	95	8
9	93	93	93	96	94	90	96	92	100	95	9
5	93	91	95	93	93	87	93	96	94	93	5
3	93	93	89	94	92	90	88	92	85	89	3
1	80	74	83	85	81	84	86	79	85	84	1
6	93	81	77	73	81	72	72	74	65	70	6
	Average				90					89	
	Range				15					26	

Table 1. (continued)

Sample#5

	Rolled Towel					Between Blotter					
Lab #	Rep1	Rep2	Rep3	Rep4	Ave	Rep1	Rep2	Rep3	Rep4	Ave	Lab #
1	96	96	96	90	95	94	97	96	99	97	5
3	93	90	96	96	94	94	97	97	98	97	9
5	96	96	91	92	94	96	93	94	97	95	8
9	93	95	96	92	94	93	94	97	92	94	1
7	94	93	92	94	93	88	96	92	98	94	3
8	93	93	92	93	93	93	95	92	94	94	7
6	84	85	89	85	85	91	91	92	93	91	6
	Average				93					95	
	Range				10					6	

Sample#6

	Rolled Towel					Between Blotter					
Lab #	Rep1	Rep2	Rep3	Rep4	Ave	Rep1	Rep2	Rep3	Rep4	Ave	Lab #
3	91	91	87	99	92	93	91	88	90	91	5
1	89	90	94	92	91	87	94	91	93	91	9
7	90	84	90	94	90	93	85	88	88	89	3
5	88	87	88	85	87	85	83	89	92	87	1
8	85	85	87	88	86	89	84	90	84	87	8
9	88	83	85	88	86	84	90	87	83	86	7
6	80	80	85	84	82	81	77	76	71	76	6
	Average				88					87	
	Range				10					15	

Sample#7

	Rolled Towel					Between Blotter					
Lab #	Rep1	Rep2	Rep3	Rep4	Ave	Rep1	Rep2	Rep3	Rep4	Ave	Lab #
1	88	88	88	85	87	88	90	85	86	87	5
3	83	87	83	96	87	85	87	85	90	87	8
7	85	88	83	88	86	87	85	80	86	85	9
5	84	84	85	88	85	86	85	79	84	84	1
9	87	79	85	80	83	80	92	82	81	84	3
8	81	80	86	82	82	86	81	83	78	82	7
6	73	77	79	77	76	64	58	74	68	66	6
	Average				84					82	
	Range				11					21	

Sample#8

	Rolled Towel					Between Blotter					
Lab #	Rep1	Rep2	Rep3	Rep4	Ave	Rep1	Rep2	Rep3	Rep4	Ave	Lab #
3	83	85	88	90	87	90	85	83	86	86	7
7	84	85	84	82	84	87	83	83	82	84	3
1	83	80	83	84	83	82	86	84	80	83	5
5	79	79	85	87	83	82	83	86	83	83	8
8	84	76	80	80	80	76	81	79	89	81	1
6	77	79	76	81	78	57	60	30	30	44	6
9	76	74	74	78	76	44	48	44	40	44	9
	Average				82					72	
	Range				11					42	

Proposal #5

PROPOSED RULE CHANGE: Section 4.9C delete - "and a temperature of 17° to 18° is more desirable". Restructure the paragraph. Move last sentence to after the second sentence.

PRESENT RULE: *Temperature.*-- Single numerals in the Tables indicate constant temperatures. Two numerals separated by a dash indicate an alternation of temperature, the test to be held at the first temperature for approximately 16 hours and at the second temperature for approximately 8 hours per day. If the tests are not subjected to alternating temperatures over weekends and holidays, they are to be held at the lower temperature during this time. Variation from the temperature specified in the rules should not be more than ± 1°C due to the apparatus. In the case of species of *Trifolium, Medicago* and *Vicia faba,* the temperature should not exceed 20° C and a temperature of 17° to 18° C is more desirable. A sharp alternation of temperature, such as obtained by hand transfer, may be beneficial in breaking dormancy.

PROPOSED RULE: *Temperature.*-- Single numerals in the Tables indicate constant temperatures. Two numerals separated by a dash indicate an alternation of temperature, the test to be held at the first temperature for approximately 16 hours and at the second temperature for approximately 8 hours per day. A sharp alternation of temperature, such as obtained by hand transfer, may be beneficial in breaking dormancy. If the tests are not subjected to alternating temperatures over weekends and holidays, they are to be held at the lower temperature during this time. Variation from the temperature specified in the rules should not be more than ± 1°C due to the apparatus. In the case of species of *Trifolium, Medicago* and *Vicia faba,* the temperature should not exceed 20° C.

SUPPORTING EVIDENCE: This sentence became a part of the rules in 1949 in response to research summarized in a report of the Subcommittee On Dormancy Of Seeds presented at the 1948 annual meeting by C. E. Heit. (P.25, 1948 Proceedings of the AOSA). In his report he questions germinating these seeds at 20°C because it is so close to what he calls a critical temperature (21°-22°) at which germination problems occur. He cites germinators for an

inability to maintain 20° and thus proposes 15°C to 18°C to solve this problem.

Section 4.9C also states...Variation from the temperature specified in the rules should not be more than ± 1°C due to the apparatus.

Most of the species effected by this rule change have 15° under the fresh and dormant seed column of Table 3 of the rules.

ISTA makes no mention of 17° to 18° in their rules. Most of these species are tested at 20°, a few at 15° or 20° and some have prechill under column 6.

The Canadian M & P has 20°C and 18°C for most of these species with an alternate method of 15°C.

The paragraph restructuring is not intended to change anything but to put the last sentence with the other alternating temperature information.

SUBMITTED BY:

Mark P. Hafdahl
Seed Laboratory Director
North Dakota State Seed Department
P. O. Box 5257
State University Station
Fargo, ND 58105
Phone (701) 239-7210
Fax (701) 239-7214

DATE: September 28, 1994

Proposal #6

RULE CHANGE PROPOSAL FORM

PRESENT RULE (If new rule, state "New Rule")

4.1 Source of seeds for germination

a. When both purity and germination tests are required. - Seeds for germination shall be taken from the separation of the kind or cultivar considered pure seed and shall be counted without discrimination as to size or appearance.

PROPOSED RULE (Exactly as it would appear in "Rules")

4.1 Source of seeds for germination

a. When both purity and germination tests are required. -

(1) Seeds for germination may be taken from the separation of the kind or cultivar considered pure seed and shall be counted without discrimination as to size or appearance.

OR

(2) If the pure seed is estimated to be at least 98 percent, the pure seed for the germination test may be taken indiscriminately from a representative portion of the bulk.

SUPPORTING EVIDENCE (Research data, literature citations, published papers, or other appropriate information)

In an effort to reduce turn-a-round time, many laboratories initiate a germination test using seed taken from the bulk sample rather than waiting for the purity test to be completed. However the rules indicate that when both purity and germination tests are required, seeds for germination shall be taken from the separation of the kind or cultivar considered pure seed. The rules currently allow using seed from the bulk sample when only a germination test is required, provided the pure seed is found or estimated to be at least 98%. It seems logical to also provide this option when both purity and germination tests are required.

This change would legitimize existing practice and enable laboratories to provide more prompt results.

SUBMITTED BY (Name, complete address, and phone number)

Malcolm L. Sarna
Maryland Department of Agriculture
Turf and Seed Section
50 Harry S Truman Parkway
Annapolis, Maryland 21401

DATE OF PROPOSAL TELEPHONE: 410-841-5960

October 05, 1994

RULE PROPOSAL

Present Rule

"New Rule"

Proposed Rule

3.6 **Bulk examination.**-The examination is conducted to determine the occurrence of particular components in the sample. The component may be seeds of individual species or particles of certain inert matter (e.g. ergot or soil). The rate of occurrence may be expressed as the number of seeds or particles per unit weight or as percentage by weight.

The working weight of the sample should be made on at least the minimum quantities listed in Table 1 under the heading "Minimum weight for noxious weed seed or bulk examination". The working weight should be determined to at least four significant figures. If the balance used has sufficient precision, the sample may be weighed to more than four significant figures.

The seeds per unit weight shall be based on individual seeds. The number of individual seeds shall be determined in fruits that contain more than one seed.

To calculate percentage by weight, the total weight is determined for all seeds of individual species or all particles of inert components. The component may be weighed as accurately as the precision of available weighing equipment permits. The percentage of each component shall be calculated on the basis of the original weight of the working sample. The percentage may be expressed to the same number of significant figures as the weight (either the component weight or the original weight of the working sample) with the least number of significant figures. When rounding off the final result, round down if the next decimal place is four or less and round up if the next decimal place is five or more.

EXAMPLES

(1) Bulk examination for sclerotia

crop: <u>Brassica oleracea</u>

fifty gram examination, actual working weight 50.33g (four significant figures)

three sclerotia found weighing 0.00838g (three significant figures); <u>weight with least number of significant figures</u>

0.00838g/50.33g X 100 = 0.016650109%, rounded off to 0.0167% (three significant figures)

(2) Bulk examination for soil

crop: Phaseolus vulgaris

five hundred gram examination, actual working weight 500.3g (four significant figures); weight with least number of significant figures

nine pieces of soil found weighing 1.0031g (five significant figures)

1.0031g/500.3g X 100 = 0.2004997%, rounded off to 0.2005% (four significant figures)

Supporting Evidence

Laboratories are often requested to conduct tests on increased sized samples to accurately determine the occurrence of certain specified components. These quality assurance examinations may be done to express rates of occurrence of all other crop and weed seeds in the sample or for only certain kinds. Some countries have phytosanitary standards for components such as ergot or soil with very little tolerance allowed.

This proposal will standardize procedures for laboratories to conduct such tests and report results. The proposal also allows laboratories to weigh components as accurately as their equipment allows, to be able to calculate more precise percentages.

Brief review of math:

Definition - significant figures: digits in a number that are known to be reasonably trustworthy. They would include the last digit (which has some degree of uncertainty) as well as all the previous digits. Zeros are considered significant except when their only function is to locate the decimal point.

Examples:

(1) All non-zero digits are significant; e.g. 363 has three significant figures.

(2) Zeros located between non-zero digits are significant; e.g. 2007 has four significant figures.

(3) When a decimal ends in zeros, these zeros are significant; e.g. 43.270 has five significant figures.

(4) When a number ends in zeros, these zeros are not significant unless they are specified as being significant or indicated as significant by a line drawn under them; e.g. 17000 has two significant figures (1,7), 17$\underline{0}$00 has three significant figures (1,7,0), 1700$\underline{0}$ has five significant figures (1,7,0,0,0,), and 1070 has three significant figures (1,0,7).

(5) In a decimal fraction (when the number is between 0 and 1) the zeros immediately following the decimal point are not significant; e.g. 0.00351 has three significant figures (3,5,1), 3.0051 has five significant figures (3,0,0,5,1), and 0.0030 has two significant figures (3,0).

Definition - accuracy: the number of significant figures of a decimal number.

Example: The numbers 50.3 and 0.00754 are both accurate to three significant figures.

Definition - precision: the number of decimal places of a decimal number.

Example: The number 4.016 is said to be precise to three decimal places.

Literature:

Calter, P. 1979. Schaum's outline of theory and problems of technical mathematics. McGraw-Hill Book Co. New York, NY. 460 pp.

Stein, E. I. 1980. Fundamentals of mathematics. Allyn and Bacon, Inc. Boston. 561 pp.

Submitted By

Rodney W. Young
Uniformity Subcommittee Chair
USDA, APHIS, PPQ
Seed Examination Facility
Bldg. 580, BARC-East
Beltsville, MD 20705

(301) 504-8605

Date of Proposal

October 25, 1994

RULE PROPOSAL

Present Rule

Table 1. Weights for working sample...
The heading over column three reads, "Minimum weight for noxious-weed seed examination"

Proposed Rule

Table 1. Weights for working sample...
Change the heading over column three to read, "Minimum weight for noxious-weed seed or bulk examination"

Supporting Evidence

This change is needed if proposal to add 3.6 is adopted.

Submitted By

Rodney W. Young
Uniformity Subcommittee Chair
USDA, APHIS, PPQ
Seed Examination Facility
Bldg. 580, BARC-East
Beltsville, MD 20705

(301) 504-8605

Date of Proposal

October 25, 1994

Proposal #9

RULE PROPOSAL

Present Rule

2.9 Weed Seed - Seeds, florets, bulblets, tubers, or sporocarps of plants recognized as weeds by laws, official regulations, or by general usage shall be considered weed seeds; refer to section 10. For classification of badly damaged weed seeds and immature seedlike structures refer to section 2.10b. Species requiring special consideration are as follows:

a. Capsules and clusters of seeds of rush (Juncus tenuis), and other species of Juncus having seeds of similar size, are classed as weed seeds. For individual seeds of Juncus, see section 2.10b(9).

b. For species having seeds larger than Juncus, the individual seeds are to be removed from fruiting structures such as pods, heads, etc. Individual seeds are counted and included with the weed seeds and the remaining fruiting structures are included with the inert matter.

c. Wild onion and wild garlic (Allium spp.) bulblets:
   (1) bulblets which have any part of the husk remaining and are not damaged at the basal end are considered weed seeds regardless of size.
   (2) bulblets which are completely devoid of husk, and are not damaged at the basal end, and are retained by a 1/13-inch round-hole sieve are considered weed seeds. For Allium spp., bulblets classed as inert matter, refer to section 2.10b(5).

2.10b(9) Individual seeds of rush (Juncus spp.) shall be left in the inert matter and their presence recorded under weed seeds.

Proposed Rule

2.9 Weed Seed - Seeds, florets, bulblets, tubers, or sporocarps of plants recognized as weeds by laws, official regulations, or by general usage shall be considered weed seeds; refer to section 10. For classification of badly damaged or immature weed seeds or seedlike structures refer to section 2.10b. Special requirements are as follows:

a. Individual seed and seedlike structures are to be removed from fruiting structures (such as capsules, heads, pods, etc.), counted and included with the weed seeds. Fruiting structures are included with the inert matter. For Ambrosia spp. refer to section 2.10b(8).

b. Wild onion and wild garlic (Allium spp.) bulblets:
   (1) bulblets which have any part of the husk remaining and are not damaged at the basal end are considered weed seeds regardless of size.
   (2) bulblets which are completely devoid of husk, and are not damaged at the basal end, and are retained by a 1/13-inch round-hole sieve are considered weed seeds. For Allium spp., bulblets classed as inert matter, refer to section 2.10b(5).

2.10b(9) delete.

Supporting Evidence

The present sections 2.9a and 2.10b(9) conflict with the recently adopted section 2.5b(3). If left unchanged the presence of Juncus tenuis and other species of Juncus having seeds of similar size would require 0.01% to be reported under both inert matter and weed seed. This is clearly an overestimation of contamination. Additionally, the practice of recognizing only a few species of Juncus for preferential treatment is inconsistent with the treatment of the numerous other genera of weeds, with equally small fruits containing minute seeds, which must currently be separated from the fruiting structures and counted individually. For uniform treatment, it is the recommendation of this subcommittee that weed seeds be treated as described in the proposed section 2.9a.

Submitted by

Deborah J. Meyer, Purity Subcommittee Chair

Date

October 11, 1994

Proposal #10

RULE PROPOSAL

Present Rule

2.3 Weight of working samples

b. Kinds of seed not listed in Table 1. - The weight of the purity working sample and its corresponding noxious-weed seed working sample may be determined from Table 1 by a kind of seed that is similar in size and weight, and which would provide approximately 2,500 seeds in the purity working sample.

c. In samples that are believed to be unusually small-seeded or large-seeded for the kind being tested. - The size of the purity working sample may be based on a sample containing approximately 2,500 seeds without regard to the weight specified in Table 1, provided that in no case shall less than two-tenths gram (0.2) be analyzed.

Proposed Rule

2.3 Weight of working samples

b. Kinds of seed not listed in Table 1. - The weight of the purity working sample and its corresponding noxious-weed seed working sample may be determined from Table 1 by a kind of seed that is similar in size and weight, and which would provide approximately the equivalent weight of 2,500 seeds in the purity working sample.

c. In samples that are believed to be unusually small-seeded or large-seeded for the kind being tested. - The size of the purity working sample may be based on a sample containing approximately the equivalent weight of 2,500 seeds without regard to the weight specified in Table 1, provided that in no case shall less than two-tenths gram (0.2) be analyzed.

Supporting Evidence

The working weights listed in Table 1 were based on the approximate weight of 2500 pure seed units. Working sample weights listed in Table 1 were not intended to be adjusted based on the amount of inert matter or other species content. Present language in the rules under sections 2.3b & c could be interpreted in such a way that working sample weights must be increased to compensate for low quality seed lots.

Submitted by

Deborah J. Meyer, Purity Subcommittee Chair

Date: October 11, 1994

Proposal #11

RULE PROPOSAL

Proposed New Rule

---

11. Report of Analysis

Laboratory reports of analysis which indicate laboratory testing was performed in accordance to the AOSA Rules for Testing Seeds are required to include, but not be limited to, the following information:

a) Name and address of issuing laboratory.

b) Signature of laboratory manager or analyst-in-charge.

c) Laboratory test number.

d) Date report of analysis is issued.

e) Applicants information, such as kind of seed, cultivar, lot number, lot size, certification number, treatment, etc., as stated by the applicant.

f) Kind of seed by common name.

g) If submitted sample is treated seed, inoculated seed, film-coated seed, coated or encrusted seed, or pelleted seed this shall be indicated.

h) Weight of purity working sample.

i) Percentage by weight of pure seed, other crop seed, inert matter and weed seed, given to two decimal places.

j) Scientific name, or common name, or both, of all other crop seed or weed seed found in the purity analysis. If none are found, this shall be indicated.

k) Weight of noxious weed seed working sample.

l) Scientific name, or common name, or both, of noxious weed seed found, the number of each type found and rate of occurrence per unit weight. If none are found, this shall be indicated.

m) Percentage of normal seedlings to the nearest whole number.

n) Percentage of hard seed, if applicable, to the nearest whole number.

In the event a purity analysis, noxious weed seed exam, or a germination test is not requested by the applicant, this shall be indicated.

Laboratory reports of analysis must be typewritten or machine printed. No report shall be issued that contains alterations or erasures.

Supporting Evidence

A survey of AOSA and SCST laboratories conducted by the AOSA Quality Assurance Committee indicated a desire for certificate of analysis reporting requirements (see attached survey summary). The above listed categories are currently being reported by a majority of laboratories. The introductory paragraph to the proposed Section 11 would allow laboratories that do not wish to report the above listed categories to do so.

The last paragraph of the proposal is an effort to curb reported instances of alteration or falsification of laboratory analysis reports by individuals not associated with issuing laboratories.

Submitted By

Deborah Meyer
California Department of Food & Agriculture

Jim Lair
Illinois Department of Agriculture

Jim Effenberger
California Department of Food & Agriculture

For the AOSA Quality Assurance Committee

Date

October 20, 1994

Proposal #12

RULE CHANGE PROPOSAL

PRESENT RULE

Uniform Classification of Weed and Crop Seeds, Contribution No. 25

Page iii, Symbols Used in Handbook 25

Weeds (W) - Undesirable species which are excessively competitive, difficult to control or eradicate, poisonous, or simply not wanted.

PROPOSED RULE

Weeds (W) - Undesirable species which are excessively competitive, difficult to control or eradicate, poisonous, or simply not wanted. This symbol is used in the "spp. class" column (see Format for Handbook 25, Parts of Format, #3, page iv) if the species is generally weedy in nature. The weeds category may also be used in response to the "contaminating" species classification under the seven crop types as described under Format for Handbook 25, Parts of Format, #4, page iv.

SUPPORTING EVIDENCE

Additional instructions needed for clarification.

SUBMITTED BY

Arnold Larsen
Colorado Seed Laboratory
Handbook 25 Committee

DATE OF PROPOSAL

October 20, 1994

Proposal #13

RULE CHANGE PROPOSAL

PRESENT RULE

Uniform Classification of Weed and Crop Seeds, Contribution No. 25

Page iii, Symbols Used in Handbook 25

Other Crop (C) - Species that are usually involved in seed commerce but are not intended to be part of the seed lot being tested. Contamination by these seeds is undesirable in the seed lot but not usually harmful.

PROPOSED RULE

Other Crop (C) - Species that are usually involved in seed commerce but are not intended to be part of the seed lot being tested. Contamination by these seeds is undesirable in the seed lot but not usually harmful. This symbol is only used in response to the "contaminating" species classification under the seven crop types as described under Format for Handbook 25, Parts of Format, #4, page iv.

SUPPORTING EVIDENCE

Additional instructions needed for clarification.

SUBMITTED BY

Arnold Larsen
Colorado Seed Laboratory
Handbook 25 Committee

DATE OF PROPOSAL

October 20, 1994

Proposal #14

RULE CHANGE PROPOSAL

PRESENT RULE

Uniform Classification of Weed and Crop Seeds, Contribution No. 25

Page iv, Format For Handbook 25

3. Each species listed in part 1 is classified according to the codes given on the previous page. If this species is the pure seed component of a seed lot it would be considered a flower.

PROPOSED RULE

3. Each species listed in part 1 is classified according to the symbols given on the previous page. In the example above, if this species is the pure seed component of a seed lot it would be considered a flower. If the pure seed species has a multiple classification with one "spp. class" being "W", the "W" classification shall be disregarded when determining the classification of contaminating species.

SUPPORTING EVIDENCE

Additional instructions needed for clarification.

SUBMITTED BY

Arnold Larsen
Colorado Seed Laboratory
Handbook 25 Committee

DATE OF PROPOSAL

October 20, 1994

Proposal #15

RULE CHANGE PROPOSAL

NEW RULE

Uniform Classification of Weed and Crop Seeds, Contribution No. 25

Page v, Caution

6. If the species of the pure seed component is not listed in the classification section of Handbook 25, contaminants found in the sample shall be classified as those of a similar pure seed species that is listed. If the species of the pure seed component is listed as "W" only under the "spp. class" the species shall be classified according to its intended use. Classification of all contaminating species shall be based on the chosen "spp. class."

SUPPORTING EVIDENCE

Additional instructions needed for clarification.

SUBMITTED BY

Arnold Larsen
Colorado Seed Laboratory
Handbook 25 Committee

DATE OF PROPOSAL

October 20, 1994

Proposal #16

RULE CHANGE PROPOSAL

NEW RULE

Uniform Classification of Weed and Crop Seeds, Contribution No. 25

Page vi, Keeping Handbook 25 Updated

11. Responsibility for changes in Handbook 25 (refer to Format for Handbook 25, Parts of Format, page iv):

Part 1, Scientific Names - The taxonomist or nomenclaturist for the USDA National Plant Germplasm Resources Information Network (GRIN) under consultation with counterpart in Agriculture Canada shall be responsible for updating scientific names. These changes shall be considered editorial and do not require submission of a rule change proposal.

Part 1, Common Names - Members of AOSA in consultations with counterparts of SCST shall submit proposed common name additions, deletions, or alterations to the AOSA Rules Committee. The final approval shall be made by vote of the AOSA membership at an annual meeting.

Part 2, Family Names - Updates shall be made by the method described for Part 1, Scientific Names.

Parts 3 and 4, Species Class and Contaminating Classification - Updates shall be made by the method described for Part 1, Common Names.

Part 5, Noxious - The designation of "Yes" or "No" is determined by the noxious weed lists published by various state, provincial and federal government agencies. Changes are effective at the time of their publication by these agencies and shall be considered editorial and do not require submission of a rule change proposal.

SUPPORTING EVIDENCE

Needed for clarification pertaining to updating Handbook 25.

SUBMITTED BY

Arnold Larsen
Colorado Seed Laboratory
Handbook 25 Committee

DATE OF PROPOSAL

October 20, 1994