

## RULE CHANGE PROPOSAL FORM

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

**New Rule**--Submitted as a Tentative Rule.

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

**Seed count test for soybean (*Glycine max*)**--The following method shall be employed when using a mechanical seed counter to determine the number of seeds contained in a sample.

- a. *Samples*--Samples for testing shall be of at least 500 grams and received in moisture proof containers. Samples shall be retained in moisture proof containers until they are prepared for the seed count test.
- b. *Seed counter calibration*--The seed counter shall be calibrated daily prior to use.
  - (1) Prepare a calibration sample by counting 10 sets of 100 soybean seeds. Visually examine each set to insure that it contains whole seeds. Combine the 10 sets of seeds to make a 1,000 seed calibration sample. The seeds of the calibration sample should be approximately the same size as the seeds in a sample being tested. If the seeds in a sample being tested are noticeably different in size from those in the calibration sample, prepare another calibration sample with seeds of the appropriate size. Periodically re-examine the calibration samples to insure that no seeds have been lost or added.
  - (2) Carefully pour the 1,000 seed calibration sample into the seed counter. Start the counter and run it until all the seeds have been counted. The seeds should not touch as they run through the counter. Record the number of seeds as displayed on the counter read out. The seed count should not vary more than + or - 2 seeds from 1,000. If the count is not within this tolerance, clean the mirrors, adjust the feed rate and/or reading sensitivity. Rerun the calibration sample until it is within the + or - 2 seed tolerance. If the seed counter continues to fail the calibration procedure and the calibration sample has been checked to ensure that it contains 1,000 seeds, do not use the counter until it has been repaired.
- c. *Sample preparation*--A purity test shall be conducted on the sample, according to AOSA Rules, prior to the seed count test. The pure seed from the purity test shall be divided into 2 portions of approximately 250 grams each using a seed divider. Record the exact weight of each portion. Each portion shall be tested separately.
- d. *Conducting the test*--After the seed counter has been calibrated, test both 250 gram subsamples and record the number of seeds in each subsample.
- e. *Calculation of results*--Calculate the number of seeds per pound to the nearest whole number for each subsample using the following formula:

$$\text{Number of seeds per pound} = \frac{453.6 \times \text{No. of seeds}}{\text{weight tested}} \times \% \text{ pure seed}$$

Accepted  
as tentative -

Proposal #1

If the difference between the results of the subsamples is less than 1.2 percent, the final test result is the average seed count of the 2 subsamples. To determine this, calculate the average of the 2 results (number of seeds per pound) and multiply by 1.2 percent. If the difference of the 2 subsamples exceeds 1.2 percent, test an additional 250 gram sample(s) of pure seed and use the average of the 2 test results with a difference of less than 1.2 percent.

- f. *Tolerance for results from different laboratories*--Consider the results of tests from 2 laboratories in tolerance if they differ by less than 2.0 percent.

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

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The AOSA membership approved a motion at the 1995 meeting directing the president to appoint a special committee to address various seed count concerns. This proposed Tentative Rule is the result of two years of referee tests conducted by the AOSA Seed Count Committee.

The proposal is submitted as a Tentative Rule because it is a new type of testing procedure. It was felt that people should have an opportunity to become familiar with the new procedure and suggest possible modifications before it becomes a permanent rule. In addition, some members of the committee felt it should be submitted as a permanent rule, others favored a tentative rule, and a few felt the procedure should not be proposed as a rule. A Tentative Rule proposal appears to be a compromise of these positions.

Eleven laboratories took part in the 1995-96 seed count referee test. Information about this referee test including a summary of the test results was published as a Report of the AOSA Seed Count Committee in both the AOSA Newsletter (September 1996) and the Seed Technologist News (September 1996).

Fifteen laboratories took part in the 1996-97 seed count referee test. A summary of the referee test will be published as a Report of the AOSA Seed Count Committee in the AOSA/SCST Newsletter (February 1998). A summary of the statistical analysis of the results along with recommendations are included as supportive evidence.

**Statistical Analysis**--An Analysis of Variance of the results of the machine count data was conducted by Agricultural Marketing Service statisticians and they drew the following conclusions:

1. There was significant variation in test results among laboratories.
2. There were differences in the degree of variability of test results within laboratories. For instance, there was higher variability within laboratories 2, 3, and 8 and lower variability within laboratories 9, 14, 15, and 17.
3. There was significant variability among sample sizes. In general, as the sample size increases the variation among laboratories decreases. The greatest variation was among the seed counts of the 125 gram samples. There was less variation among the seed counts of the 250 gram samples and even less among results of the 375 gram and 500

gram samples. There was little difference in the variation among the seed count results of the 375 gram and 500 gram samples.

4. There was significant laboratory by sample size interaction, but only for certain laboratories.
5. There was little difference in whether or not the moisture factor was used with regard to variation in test results.

It was stressed that these conclusions applied only to the results of this referee test. However, based on the results of this referee test, several suggestions were made for conducting seed counts with counting machines.

1. Test two samples of 250 grams. If the difference in the test results is less than 1.2 percent, average the results. If the difference exceeds 1.2 percent, test an additional 250 gram sample(s) and take the average of the two test results with a difference of less than 1.2 percent. (The 1.2 percent is based on the 95 percent confidence interval for the test results of the 250 gram samples).
2. Consider the results of tests (average of two 250 gram samples) from two different laboratories in tolerance if they differ by less than 2.0 percent. (The 95 percent confidence level is 1.8 percent but a 2.0 percent difference was thought to be appropriate).

Seed count data from officially drawn soybean samples obtained over a four year period was contributed by a member of the committee. The seed count from each sample was compared to the seed count on the label of the lot from which the sample was drawn. The maximum variation of 1.5 percent allowed by the National Institute of Standards and Technology (NIST) for packages labeled by the counts of 1,334 or over was used to determine if the seed count on the label was in tolerance with seed count from the laboratory test. The results are presented in the following table.

Soybean Seed Count Test Data			
Fiscal Year	No. of Samples Evaluated	No. of Samples out of Tolerance	% of Samples out of Tolerance
1997	793	80	10.09
1996	765	79	10.33
1995	856	118	13.79
1994	674	240	35.61

It should be noted that the percentage of possible seed labeling violations dropped from 35.61 percent in 1994 to 10.09 percent in 1997. The 10 percent possible violations in 1996 and 1997 are based on a tolerance of 1.5 percent. The proposed rule includes a larger tolerance of 2.0 percent which should result in a lower percentage of violations.

Proposal #1

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

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**DATE OF PROPOSAL**

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September 19, 1997

## Rule Change Proposal

### Present Rule:

2.6 Seed unit. - The seed unit is the structure usually regarded as a seed in planting practices and in commercial channels. The seed unit may consist of one or more of the following structures:

b. Seed units in the grass family (for descriptions and illustrations of grass seed units, see AOSA Newsletter 70(1):49-59, 1996) including the following:

(1) Caryopses and single florets;

2.7 Kind or cultivar considered pure seed.

g. Seed units of the grass family listed in sections 2.6b(1) through (5) provided a caryopsis with some degree of endosperm development can be detected in the unit either by slight pressure or by examination over light. Refer to sections 2.7g(1) and (2) for species in which determination of endosperm development is not necessary. Refer to sections 2.7h and 2.10a(8) when nematode galls, fungus bodies, etc. have replaced the caryopsis in seed units.

2.10 Inert matter. -

a. Seeds and seed like structures from crop plants.

(4) Glumes and empty florets except as stated under pure seed in sections 2.7g and h.

### Proposed Rule:

2.6 Seed unit. - The seed unit is the structure usually regarded as a seed in planting practices and in commercial channels. The seed unit may consist of one or more of the following structures:

b. Seed units in the grass family (for descriptions and illustrations of grass seed units, see AOSA Newsletter 70(1):49-59, 1996) including the following:

(9) For *Lolium multiflorum*, *L. perenne* and *Festuca arundinacea* refer to section 2.10.a.(4).

2.7 Kind or cultivar considered pure seed.

g. Seed units of the grass family listed in sections 2.6b(1) through (5) and (9)

provided a caryopsis with some degree of endosperm development can be detected in the unit either by slight pressure or by examination over light. Refer to sections 2.7g(1) and (2) for species in which determination of endosperm development is not necessary. Refer to sections 2.7h and 2.10a(8) when nematode galls, fungus bodies, etc. have replaced the caryopsis in seed units.

## 2.10 Inert matter. -

### a. Seeds and seed like structures from crop plants.

- (4) For *Lolium multiflorum*, *L. perenne* and *Festuca arundinacea*, empty florets extending to the tip of the fertile floret (excluding the awn) or beyond and glumes shall be removed and classed as inert matter. For all other species of grasses, glumes and empty florets shall be classed as inert matter except as stated under pure seed in sections 2.7g and h.

**Supporting Evidence:** Two recent referee projects (Ogle and Meyer 1994, Meyer 1997) demonstrated the insignificant impact on percent pure seed by the tedious and time consuming practice of removing sterile structures attached to the rachilla that are less than the length of the fertile floret in the above mentioned species.

## References

Lionakis Meyer, D.J. 1997. Comparison of Three Methods of Purity Testing for *Lolium multiflorum*, *L. perenne* and *Festuca arundinacea*. Seed Technology Vol. 19(1)91-98.

Ogle, D and D. Meyer. 1994. Pure Seed Classification for Ryegrass (*Lolium* spp.). AOSA/SCST 1993-94 Referee Report, Region IV, Southwest.

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## Date of Proposal:

August 26, 1997 (revised 12/30/97)

## Rule Change Proposal

### Present Rule:

**2.6 Seed Unit** - The seed unit is the structure usually regarded as a seed in planting practices and in commercial channels. The seed unit may consist of one or more of the following structures:

- c. Dry indehiscent fruits in the following plant families: goosefoot (Chenopodiaceae), sunflower (Asteraceae), geranium (Geraniaceae), buckwheat (Polygonaceae), and valerian (Valerianaceae);

**2.7 Kind or cultivar considered pure seed.** - The pure seed shall include all seeds of each kind and/or cultivar under consideration which are present in excess of 5%... The following shall be included with the pure seed:

- f. Intact fruits, whether or not they contain a seed, of species belonging to the following families: sunflower (Asteraceae), mint (Lamiaceae), buckwheat (Polygonaceae), carrot (Apiaceae), valerian (Valerianaceae), and other families in which the seed unit may be a dry, indehiscent one-seeded fruit. Refer to section 2.10a(9) for the classification of visibly empty fruits and to section 2.10a(11) for classification of the pericarp (fruit wall) in antelope bitterbrush (*Purshia tridentata*).

### Proposed Rule:

**2.6 Seed Unit** - The seed unit is the structure usually regarded as a seed in planting practices and in commercial channels. The seed unit may consist of one or more of the following structures:

- c. Dry indehiscent fruits in the following plant families: Aceraceae, Asteraceae, Betulaceae, Brassicaceae, Casuarinaceae, Chenopodiaceae, Fabaceae, Fagaceae, Geraniaceae, Juglandaceae, Magnoliaceae, Nyssaceae, Oleaceae, Plantanaceae, Polygonaceae, Rosaceae, Simaroubaceae, Ulmaceae and Valerianaceae;

**2.7 Kind or cultivar considered pure seed.** - The pure seed shall include all seeds of each kind and/or cultivar under consideration which are present in excess of 5%... The following shall be included with the pure seed:

- f. Intact fruits, whether or not they contain a seed, of species belonging to families other than Poaceae, in which the seed unit is a dry, indehiscent fruit (refer to section 2.6.c., d., e. and f.). Refer to section 2.10a(9) for the classification of visibly empty fruits and to section 2.10a(11) for classification of the pericarp (fruit wall) in antelope bitterbrush (*Purshia tridentata*).

Accepted  
Proposal #3

### Supporting Evidence:

For the following genera currently listed in the rules, the seed units of trade consist of dry indehiscent fruits containing one or more seeds: *Acer* (Aceraceae); *Betula* (Betulaceae); *Casuarina* (Casuarinaceae); *Quercus* (Fagaceae); *Carya* (Juglandaceae); *Cowania*, *Crataegus*, *Prunus*, *Rosa* and *Sanguisorba* (Rosaceae); *Liriodendron* (Magnoliaceae); *Nyssa* (Nyssaceae); *Fraxinus* (Oleaceae); *Platanus* (Plantanaceae); *Ailanthus* (Simaroubaceae); *Ulmus* (Ulmaceae); and *Crambe* (Brassicaceae). The present wording in section 2.7.f. would include these families, however the present wording in section 2.6.c would exclude these families. Enclosed for your review are illustrations of the seed units included in this proposal.

### References

Hillman, F.H. & H.H. Henry. 1945. The More Important Forage-Plant Seeds and Incidental Seeds Commonly Found With Them. U.S. Department of Agriculture.

Schopmeyer, C.S. 1974. Seeds of Woody Plants in the United States. Agri. Handbook No. 450. USDA Forest Service.

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August 26, 1997 (revised 12/30/97)



Except for *Crambe abyssinica* and *Sanguisorba minor*, figures are from Seeds of Woody Plants in the United States, C.S. Schopmeyer, 1974, Agri. Handbook No. 450, USDA, Forest Service.

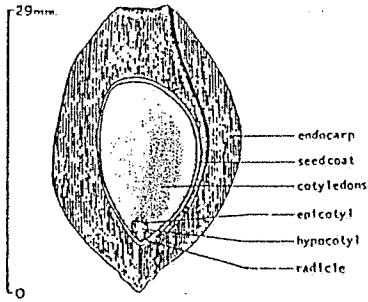


FIGURE 2.—*Prunus persica*, peach: longitudinal section through a stone showing the embryo and no endosperm, 2 X. Seven species of *Prunus* are known to have seeds with no endosperm and twenty species are known to be endospermous.

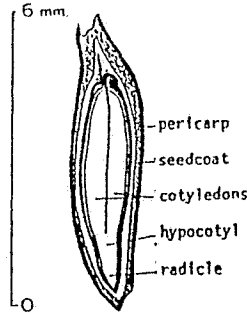


FIGURE 2.—*Cowania mexicana* var. *stanburiana*, cliff-rose: longitudinal section through an achene, 10 X.

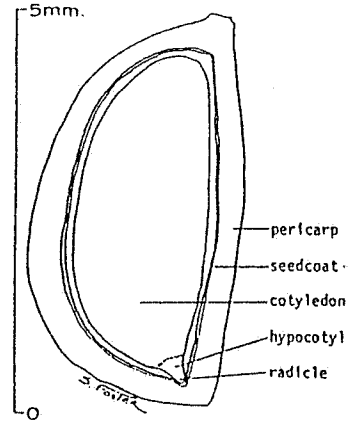


FIGURE 3.—*Rosa setigera*, prairie rose: longitudinal section through an achene, 10 X.

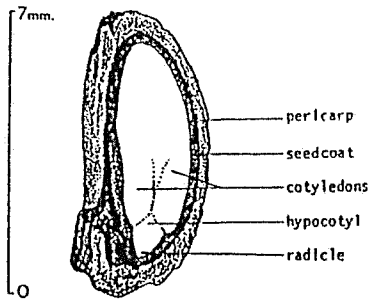
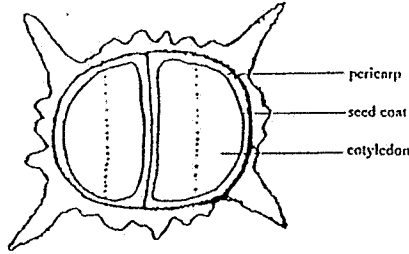


FIGURE 2.—*Crataegus* sp.: longitudinal section through a nutlet, 8 X.



*Sanguisorba minor*, little burnet: cross-section through hypanthium and achenes. Modified from Hillman and Henry (1945).

Rosaceae

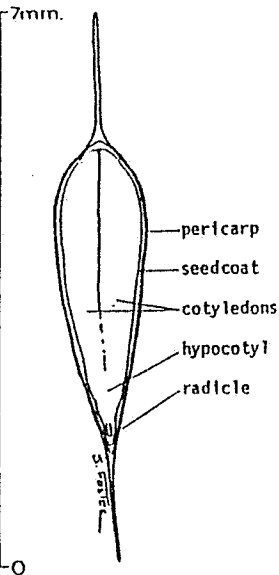
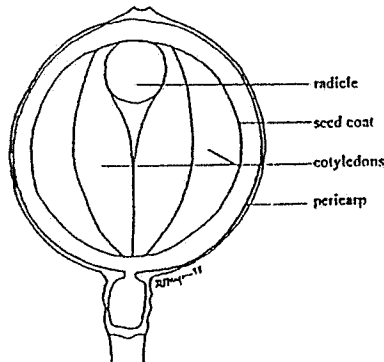


FIGURE 2.—*Ulmus alata*, winged elm: longitudinal section through the embryo of a samara, 16 X.

Ulmaceae



*Crambe abyssinica*, crambe: longitudinal section through pod and seed.

Brassicaceae

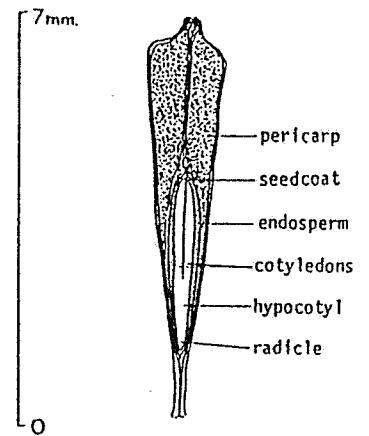


FIGURE 3.—*Platanus occidentalis*, American sycamore: longitudinal section through an achene, 12 X.

Plantanaceae

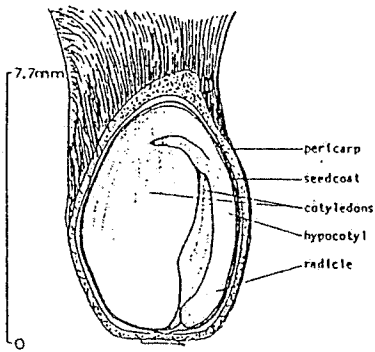


FIGURE 2.—*Acer circinatum*, vine maple: longitudinal section of a seed showing bent embryo, 7 X. On drying, the seed shrinks leaving space between the seedcoat and the pericarp.

Aceraceae

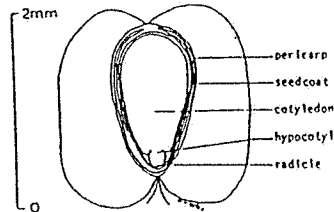


FIGURE 3.—*Betula nigra*, river birch: longitudinal section through a nut (seed).

Betulaceae

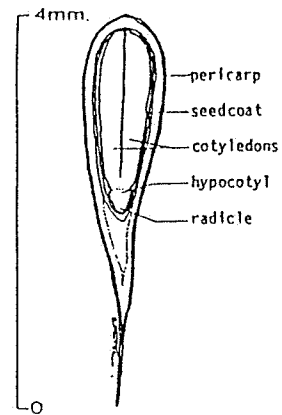


FIGURE 2.—*Casuarina cunninghamiana*, river-oak casuarina: longitudinal section through a samara, 20 X.

Casuarinaceae

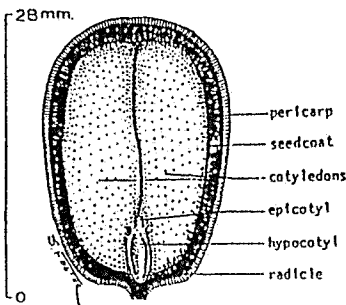


FIGURE 2.—*Quercus rubra*, northern red oak: longitudinal section through an acorn, 2 X.

Fagaceae

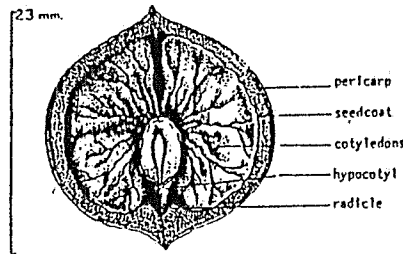


FIGURE 2.—*Carya ovalis*, shagbark hickory: longitudinal section through the embryo of a nut with husk removed, 2 X.

Juglandaceae

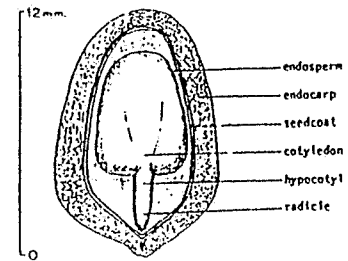


FIGURE 3.—*Nyssa sylvatica* var. *sylvatica*, black tupelo: longitudinal section through a stone, 4 X.

Nyssaceae

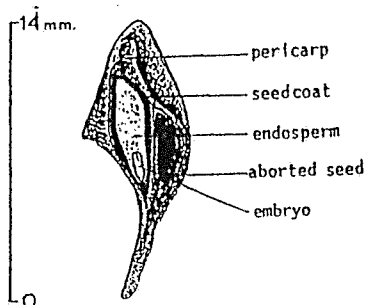


FIGURE 2.—*Liriodendron tulipifera*, yellow-poplar: longitudinal section through an embryo of a samara, 4 X.

Magnoliaceae

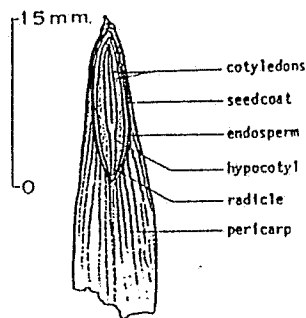


FIGURE 3.—*Fraxinus pennsylvanica*, green ash: longitudinal section through the embryo of a samara, 2 X.

Oleaceae

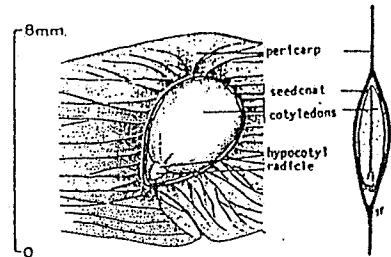


FIGURE 2.—*Ailanthus altissima*, ailanthus: longitudinal sections through a samara, 6 X.

Simaroubaceae

## Rule Change Proposal

### Present Rule:

New Rule

### Proposed Rule:

2.7 Kind or cultivar considered pure seed.

k. Refer to section 2.10.a.(6) for classification of tree and shrub seed and fruit wings.

### Supporting Evidence:

Presently there is no mention of tree/shrub seed/fruit wings in the pure seed definitions. The only reference to these structures and their classification in a purity test occurs under section 2.10 - Inert Matter.

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### Date of Proposal:

August 26, 1997

**Rule Change Proposal: Handbook 25**

**Current Rule**

See main body of Handbook 25 'NOX' column.

**Proposed Rule**

Remove the 'NOX' column from the main body of Handbook 25.

**Supporting Evidence**

The entries in the 'NOX' column have not been updated by the association since the handbook was originally distributed. Numerous changes in noxious weeds in the United States and Canada have occurred since that time. It was the original intention of the Handbook 25 committee for individuals to update their own copies of the handbook annually by obtaining the current noxious weed lists from USDA and the Canadian Food Inspection Agency. This continues to be the recommended procedure for obtaining the most current information. However, the two Handbook 25 referees demonstrated that individuals are not following this recommendation, rather they are relying on the entries found in the 'NOX' column, several of which are outdated. In addition, numerous entries in the NOX column are misleading. As the Handbook 25 referees demonstrate, participants relied upon the NOX column for determining the noxiousness of contaminating species. Many of the responses were in error because some participants were under the false impression that a 'Y' in the NOX column means a species is noxious in all governmental jurisdictions. This, of course, was not the intention of the authors of the handbook, however it has proven to be a major flaw.

**References**

D.J. Meyer. 1995. Uniform Classification of Weed and Crop Seeds Handbook #25 Referee. AOSA Referee Committee Report.

D.J. Meyer. 1996. Handbook #25 Referee No. 2. AOSA Purity Subcommittee Referee Report.

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**Date of Proposal:** August 26, 1997 (revised 12/30/97 per Rules Committee recommendation)

**Rule Change Proposal: Handbook 25****Current Rule**

See main body of Handbook 25, 'spp. class' column.

**Proposed Rule**

Remove the symbol 'W' from the 'spp. class' column of Handbook for species which have other symbols listed. The 'W' symbol would remain in the 'spp. class' column exclusively for those species which are only considered weeds.

**Supporting Evidence**

In recent years, two referees were conducted to test the ability of analysts to properly utilize Handbook 25 for classifying contaminating species found in purity tests. In both referees participants demonstrated a sense of confusion when attempting to determine the 'spp. class' of the pure seed component when 'W' appeared in the 'spp. class' column. In the first referee examples involving a pure seed component for which the 'spp. class' had one of the symbols 'A', 'F', 'H', 'S', 'T' or 'V' in combination with the symbol 'W', many participants utilized the multiple species classification. This led participants to erroneously classify contaminating species as other crop whenever a conflict in classification occurred (Caution #5, pg. v, misapplied). As a result of the first referee several modifications in the introduction section to the handbook were adopted. One modification included an explanation of when to disregard the 'W' classification for the pure seed component. A second referee was conducted, unfortunately some participants still appeared to be confused about the 'spp. class' and when to disregard the 'W' classification. The purity committee therefore recommends the removal of the symbol 'W' from the 'spp. class' column for species which have other symbols listed. The 'W' symbol would remain in the 'spp. class' column exclusively for those species which are only considered weeds.

## References

D.J. Meyer. 1995. Uniform Classification of Weed and Crop Seeds Handbook #25 Referee.  
AOSA Referee Committee Report.

D.J. Meyer. 1996. Handbook #25 Referee No. 2. AOSA Purity Subcommittee Referee Report.

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**Date of Proposal:** August 26, 1997 (revised 12/30/97 per Rules Committee recommendation)

Accepted

Proposal #8

**Rule Change Proposal: Handbook 25****Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>E</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Achillea millefolium --yarrow, common	(Asteraceae)	F, W	W	C	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>E</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Achillea millefolium --yarrow, common	(Asteraceae)	F, W	W	C	W	C	W	W	W

**Supporting Evidence**

*Achillea millefolium* is a circumboreal wildflower species found in many habitats. Therefore when found as a contaminant in seed lots used for revegetation purposes it should be considered other crop. Note: Nomenclature update in GRIN database indicates *Achillea lanulosa* Nutt. is a synonym for *A. millefolium* L.

**References**

- Hickman, J.C. (ed.). 1993. The Jepson Manual, Higher Plants of California. Univ. of CA Press.
- S & S Seeds. 1992. Seed Selection Guide: Seeds for Reclamation and Landscape.
- Stubbendieck, J., et al. 1992. North American Range Plants. Univ. of Nebraska Press.
- USDA Forest Service. 1937. Range Plant Handbook. U.S. Government Printing Office, Washington, D.C.
- Wildseed Farms. 1993. Wildflower Reference Guide and Seed Catalog. Wildseed, Inc., Eagle Lake, TX.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97 per Rules Committee recommendation)

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Allium schoenoprasum --chives	(Liliaceae)	H,V,W	C	C	C	C	W	C	C

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Allium schoenoprasum --chives	(Liliaceae)	H,V,W	W	C	C	W	W	W	C

**Supporting Evidence**

By comparison, other cultivated species of *Allium* are not considered “C” under “A”, “R” or “T”. For uniformity of application the Purity Subcommittee recommends the above stated species be considered a “W” under similar circumstances.

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Allium ampeloprasum --garlic, elephant	(Liliaceae)	H,V,W	W	W	C	W	W	W	C
Allium cepa --onion	(Liliaceae)	V,W	W	C	C	W	W	W	C
Allium fistulosum --onion, Welsh	(Liliaceae)	V,W	W	W	W	W	W	W	C
Allium porrum --leek	(Liliaceae)	H,V,W	W	W	C	W	W	W	C
Allium sativum --garlic	(Liliaceae)	H,V,W	W	W	C	W	W	W	C
Allium tuberosum --garlic, Oriental --chives, Chinese	(Liliaceae)	H,V,W	W	W	C	W	W	W	C

*Accepted*

Proposal #9

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**Date of Proposal:** October 1, 1997



**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Allium cernuum --onion, nodding	(Liliaceae)	V, W	W	W	W	W	W	W	C

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Allium cernuum --onion, nodding	(Liliaceae)	F, V, W	W	C	W	W	W	W	C

**Supporting Evidence**

This species is also used commercially as a flower. Therefore the Purity Subcommittee recommends that "F" be added to the spp. classification and further the contaminating classification for this species become "C" under the "F" category.

**References**

Davies, D. 1992. Alliums the Ornamental Onions. Timber Press, Inc., Portland, Oregon.

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**Date of Proposal:** October 1, 1997

Accepted

Proposal #11

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific / Common Name</u>	<u>Family</u>	<u>Class</u>	<u>Classification</u>						
			<u>Spp.</u>		<u>contaminating</u>				
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Apium graveolens var. dulce --celery	(Apiaceae)	V,W	C	W	C	W	W	W	C

**Proposed Rule**

<u>Scientific / Common Name</u>	<u>Family</u>	<u>Class</u>	<u>Classification</u>						
			<u>Spp.</u>		<u>contaminating</u>				
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Apium graveolens var. dulce --celery	(Apiaceae)	V, H, W	C	W	C	W	W	W	C

**Supporting Evidence**

Whole or ground 'seeds' of this species are used as a spice. This would allow for classification of species contaminating seed lots of celery, the spice, to be classified according to the herb column in Handbook 25.

Reference

Rosengarten, F. 1969. The Book of Spices. Livingston Publishing Co., Wynnewood, Pennsylvania.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97)

Accepted

Proposal #12

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Aster glaucodes --aster, blueleaf	(Asteraceae)	W	W	W	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Aster glaucodes --aster, blueleaf	(Asteraceae)	F,W	W	C	W	C	W	W	W

**Supporting Evidence**

*Aster glaucodes* is a native wildflower species of western North America (UT, WY, CO, ID, AZ). Therefore it is the recommendation of the Purity Subcommittee that this species be considered a 'F' for 'spp. class' and further that it be considered other crop when found as a contaminant in flower or revegetation seed lots.

References

- Cronquist, A., et al. 1994. Intermountain Flora, Vascular Plants of the Intermountain West, U.S.A. The New York Botanical Garden.
- Granite Seed. Wildflowers and Forbs Catalog. Lehi, Utah.
- Horton, H. 1989. Interagency Forage and Conservation Planting Guide for Utah. Extension Circular EC 433. Agricultural Experiment Station and Cooperative Extension Service Utah State University.

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**Date of Proposal:** October 10, 1997 (revised 12/30/97 per Rules Committee recommendation)

Accepted

Proposal #13

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u>	<u>Classification</u>						
			<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Baileya multiradiata --marigold, desert --marigold, wooly	(Asteraceae)	F, W	W	C	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u>	<u>Classification</u>						
			<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Baileya multiradiata --marigold, desert --marigold, wooly	(Asteraceae)	F, W	W	C	W	C	W	W	W

**Supporting Evidence**

*Baileya multiradiata* is a native wildflower species in the southwestern United States and northern Mexico. Therefore when found as a contaminant in seed used for revegetation purposes it should be considered other crop.

References

Cronquist, A., et al. 1994. Intermountain Flora: Vascular Plants of the Intermountain West, U.S.A. The New York Botanical Garden.

Everett, T.H. 1981. The New York Botanical Garden Illustrated Encyclopedia of Horticulture. Vol. 1. Garland Publishing, Inc.

Stubbendieck, J., et al. 1992. North American Range Plants. Univ. of Nebraska Press.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97)

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Balsamorhiza sagittata --balsamroot, arrowleaved	(Asteraceae)	W	W	W	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Balsamorhiza sagittata --balsamroot, arrowleaved	(Asteraceae)	F,W	W	C	W	C	W	W	W

**Supporting Evidence**

*Balsamorhiza sagittata* is a native wildflower species of western North America. Therefore it is the recommendation of the Purity Subcommittee that this species be considered a 'F' for 'spp. class' and further that it be considered other crop when found as a contaminant in flower or revegetation seed lots.

**References**

Belcher, E. 1985. Handbook on Seeds of Browse-Shrubs and Forbs. Technical Publication R8-TP8. Association of Official Seed Analysts and USDA Forest Service, Southern Region.

Stubbendieck, J., et al. 1992. North American Range Plants. Univ. of Nebraska Press.

USDA Forest Service. 1937. Range Plant Handbook. United States Government Printing Office, Washington, D.C.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97 per Rules Committee recommendation)

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Bromus hordeaceus --chess, soft --brome, blando	(Poaceae)	W	W	W	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Bromus hordeaceus --chess, soft --brome, blando	(Poaceae)	R, W	W	W	W	C	W	W	W

**Supporting Evidence**

This species is considered an important forage species in annual ranges of California. The Purity Subcommittee recommends that "R" be added to the spp. classification and further that the contaminating classification for this species become "C" under the "R" category. As an important component in California rangelands *B. hordeaceus* is often found as a contaminant in other range species.

References

- Alderson, J. and W.C. Sharp. 1995. Grass Varieties in the United States. Lewis Publishers.
- Stechman, J.V. 1971. Common Western Range Plants. Vocational Education Productions, California State Polytechnic College.

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**Date of Proposal:** October 1, 1997

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific / Common Name</u>	<u>Family</u>
Bromus catharticus --rescue --brome, prairie	(Poaceae)

**Proposed Rule**

<u>Scientific / Common Name</u>	<u>Family</u>
Bromus catharticus --rescuegrass --brome, prairie	(Poaceae)

**Supporting Evidence**

The intent of this proposal is to recognize the common name rescuegrass, rather than the name rescue, which now appears in the classification section of AOSA Handbook 25. (Interestingly, it appears as rescuegrass in the index.) Rescuegrass is the common name given for this species in the AOSA Rules and in the Federal Seed Act Regulations. It is also the common name included in GRIN, citing Agriculture Handbook No. 505 as the source.

References

Assoc. of Official Seed Analysts. 1993. Rules for Testing Seeds. 1996 Revision. J. of Seed Tech. 16(3):1-113.

Terrell, E.E., S.R. Hill, J.H. Wiersema and W.E. Rice. 1986. A Checklist of Names for 3,000 Vascular Plants of Economic Importance. USDA, ARS, Agriculture Handbook No. 505. p.31.

USDA, AMS, L & S. 1995. Federal Seed Act Regulations, Part 201.

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**Date of Proposal:** October 10, 1997

Accepted  
Proposal #17

**Rule Change Proposal**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u> <u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Carthamus tinctorius --safflower	(Asteraceae)	A, W	C	W	C	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u> <u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Carthamus tinctorius --safflower	(Asteraceae)	A, F, W	C	C	C	W	W	W	W

**Supporting Evidence**

In addition to agricultural use, this species is grown as an ornamental for use as a fresh or dried cut flower. The Purity Subcommittee therefore recommends the addition of "F" to the spp. classification and further recommends that the contaminating classification for this species become "C" under the "F" category.

**References**

Brenzel, K. (ed.). 1995. Sunset Western Garden Book. Sunset Publishing Corporation.

Huxley, A. (ed.) 1992. The New Royal Horticultural Society Dictionary of Gardening. Macmillian Press Limited.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97)



**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific / Common Name</u>	<u>Family</u>	<u>Class</u>	<u>Classification</u>						
			<u>Spp.</u>		<u>contaminating</u>				
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Cichorium intybus --chicory	(Asteraceae)	V, W	W	W	W	W	W	W	W C

**Proposed Rule**

<u>Scientific / Common Name</u>	<u>Family</u>	<u>Class</u>	<u>Classification</u>						
			<u>Spp.</u>		<u>contaminating</u>				
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Cichorium intybus --chicory	(Asteraceae)	V, F, W	W	W	W	W	W	W	W C

**Supporting Evidence**

This species is also grown as an ornamental. This would allow for classification of species contaminating seed lots of ornamental chicory (i.e. wildflower chicory) to be classified according to the flower column in Handbook 25.

References

- Bailey, L.H. 1925. The Standard Cyclopedia of Horticulture. Vol. 1. The Macmillan Co., New York.
- Brickell, C. and J.D. Zuk. 1997. The American Horticultural Society A-Z Encyclopedia of Garden Plants. DK Publishing, Inc.
- S & S Seeds. 1992. Seed Selection Guide: Seeds for Reclamation and Landscape.
- Tutin, T.G., et al. 1976. Flora Europaea. Vol. 4. Cambridge University Press.
- Wildseed Farms. 1993. Wildflower Reference Guide and Seed Catalog. Wildseed Inc., Eagle Lake, TX.

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**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Cuminum cyminum --cumin	(Apiaceae)	H,A	W	W	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Cuminum cyminum --cumin	(Apiaceae)	H	W	W	C	W	W	W	W

**Supporting Evidence**

Whole or ground “seeds” of this species are used as a spice. General use of this species does not fit under the definition of “agricultural”.

Additionally, by comparison, other cultivated members of the Apiaceae are considered “C” under “H”. For uniformity of application the Purity Subcommittee recommends the above stated species be considered a “C” under similar circumstances.

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Anethum graveolens --dill	(Apiaceae)	H,W	W	W	C	W	W	W	C
Anthriscus cerefolium --chervil	(Apiaceae)	W,H	W	W	C	W	W	W	W
Apium graveolens var. dulce --celery	(Apiaceae)	V,W	C	W	C	W	W	W	C

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u> <u>contaminating</u>							
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>	
Carum carvi --caraway, wild --caraway	(Apiaceae)	H,W	W	W	C	W	W	W	W	
Coriandrum sativum --coriander	(Apiaceae)	H,W	W	W	C	W	W	W	W	
Foeniculum vulgare --fennel --fennel, Florence --sweetanise	(Apiaceae)	H,W	W	C	C	W	W	W	W	
Pastinaca sativa --parsnip	(Apiaceae)	V,W	W	C	C	W	W	W	C	
Pimpinella anisum --anise	(Apiaceae)	H,W	W	C	C	W	W	W	W	
Petroselinum crispum --parsley	(Apiaceae)	V,W	W	W	C	W	W	W	C	

References

Bremness, L. 1994. The Eyewitness Handbook of Herbs. Dorling Kindersley.

Rosengarten, F. 1969. The Book of Spices. Livingston Publishing Co., Wynnewood, Pennsylvania.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97 per Rules Committee recommendation)

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Echinacea angustifolia --coneflower, purple-headed	(Asteraceae)	F, W	W	C	W	C	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Echinacea angustifolia --coneflower, purple-headed	(Asteraceae)	F, H, W	W	C	W	C	W	W	W

**Supporting Evidence**

This species is also used as a medicinal herb. This would allow for classification of species contaminating seed lots of the herb purple-headed coneflower to be classified according to the herb column in Handbook 25. Note: *Echinacea pallida* var. *angustifolia* is a synonym of *Echinacea angustifolia*. This correction appears in the changes to AOSA Handbook 25 Scientific Names (Appendix B).

References

Bremness, L. 1994. The Eyewitness Handbook of Herbs. Dorling Kindersley.  
 Dobelis, I.N. (ed.). 1986. Magic and Medicine of Plants. The Reader's Digest Association, Inc.  
 Owensby, C.E. 1989. Kansas Prairie Wildflowers. Iowa State University Press.  
 Runkel, S.T. and D.M. Roosa. 1989. Wildflowers of the Tallgrass Prairie: The Upper Midwest. Iowa State University Press.  
 Tyler, V.E. 1993. The Honest Herbal. Pharmaceutical Products, Inc.

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**Date of Proposal:** October 10, 1997 (revised 12/30/97 per Rules Committee recommendation)

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Echinacea purpurea --coneflower, purple	(Asteraceae)	F, W	W	C	W	C	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Echinacea purpurea --coneflower, purple	(Asteraceae)	F, H	W	C	W	C	W	W	W

**Supporting Evidence**

This species is also used as a medicinal herb. This would allow for classification of species contaminating seed lots of the herb purple coneflower to be classified according to the herb column in Handbook 25.

References

Bremness, L. 1994. Eyewitness Handbook of Herbs. Dorling Kindersley.

Runkel, S.T. and D.M. Roosa. 1989. Wildflowers of the Tallgrass Prairie: The Upper Midwest. Iowa State University Press.

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**Date of Proposal:** October 10, 1997 (revised 12/30/97 per Rules Committee recommendation)

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			A	F	H	R	S	T	Y
Elymus elymoides --bottlebrush --squirreltail grass	(Poaceae)	R, W	W	W	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			A	F	H	R	S	T	Y
Elymus elymoides --bottlebrush-squirreltail --squirreltail	(Poaceae)	R, W	W	W	W	C	W	W	W

**Supporting Evidence**

This species is used commercially for revegetative purposes and should therefore be considered a "C" under "R". The common name should also reflect that in common usage and accepted in the main body of the AOSA Rules.

Note: *Sitanion hystrix* (Nutt.) J.G. Smith is a synonym of *Elymus elymoides* (Raf.) Swezey.

**References**

Alderson, J. and W.C. Sharp. 1995. Grass Varieties in the United States. Lewis Publishers.

Association of Official Seed Analysts. 1993. Rules for Testing Seeds. JOST Vol 16(3).

Hitchcock, A.S. 1951. Manual of the Grasses of the United States. United States Department of Agriculture, Washington, D.C.

Stubbendieck, J., et al. 1992. North American Range Plants. Univ. of Nebraska Press.

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**Date of Proposal:** October 1, 1997

Rule Change Proposal: Handbook 25

Present Rule

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>Y</u>
Eschscholzia caespitosa --poppy, dwarf California	(Papaveraceae)	F, W	W	C	W	W	W	W	W
Eschscholzia californica subsp. californica --poppy, California	(Papaveraceae)	F, W	W	C	W	W	W	W	W
Eschscholzia californica subsp. mexicana --poppy, Mexican gold	(Papaveraceae)	F, W	W	C	W	W	W	W	W

Proposed Rule

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>Y</u>
Eschscholzia caespitosa --poppy, dwarf California	(Papaveraceae)	F, W	W	C	W	C	W	W	W
Eschscholzia californica subsp. californica --poppy, California	(Papaveraceae)	F, W	W	C	W	C	W	W	W
Eschscholzia californica subsp. mexicana --poppy, Mexican gold	(Papaveraceae)	F, W	W	C	W	C	W	W	W

Supporting Evidence

The above listed species of *Eschscholzia* are native wildflowers in the western United States. They are often found as contaminants in revegetation species and are considered desirable additions to revegetation mixtures. Therefore when found in as contaminants in seed used for revegetation purposes they should be considered other crop.



References

Barbour, M. G. And J. Major. 1988. Terrestrial Vegetation of California. California Native Plant Society Special Publication Number 9.

S & S Seeds. 1992. Seed Selection Guide: Seeds for Reclamation and Landscape.

Williamson, J. F. (ed). 1979. Sunset New Western Garden Book. Lane Publishing Co.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97)

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Helianthus annuus --sunflower, wild --sunflower, common	(Asteraceae)	A, W	C	W	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Helianthus annuus --sunflower, wild --sunflower, common	(Asteraceae)	A, F, W	C	C	W	W	W	W	W

**Supporting Evidence**

In addition to agricultural use, this species is also grown as an ornamental for use as a fresh or dried cut flower. The Purity Subcommittee therefore recommends the addition of "F" to the spp. classification and further the contaminating classification for this species become "C" under the "F" category.

References

Brenzel, K. (ed.). 1995. Sunset Western Garden Book. Sunset Publishing Corporation.

Everett, T.H. 1981. The New York Botanical Garden Illustrated Encyclopedia of Horticulture. Vol. 5. Garland Publishing, Inc.

Huxley, A. (ed.). 1992. The New Royal Horticultural Society Dictionary of Gardening. Vol. 2. The Stockton Press.

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**Date of Proposal:** October 1, 1997

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>
Lathyrus hirsutus --rough-pea --Austrian winter-pea	(Fabaceae)

**Proposed Rule**

Lathyrus hirsutus --rough-pea	(Fabaceae)
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**Supporting Evidence**

Austrian winter-pea is a variety of *Pisum sativum* var. *arvense* (formerly *P. arvense*). The name does not apply to *Lathyrus hirsutus*. As a varietal name, Austrian winter-pea should not therefore be added to the kind names listed under *Pisum sativum*.

References

Musil, A.F. 1963. Identification of Crop and Weed Seeds, Agriculture Handbook No. 219. Agricultural Marketing Service, USDA, Washington, D.C.

Southern Seedsmen's Association. 1995. Directory and Buyers Guide.

Vinall, H. N. and W. J. Davis. 1926. Winter Field Peas: Their Value as a Winter Cover and Green-Manure Crop. Department Circular No. 374, USDA, Washington, D.C.

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**Date of Proposal:** October 1, 1997

Accepted

Proposal #26

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u>	<u>Classification</u>						
			<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Lavendula angustifolia --lavender	(Lamiaceae)	H, W	W	W	C	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u>	<u>Classification</u>						
			<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Lavendula angustifolia --lavender	(Lamiaceae)	H, F, W	W	C	C	W	W	W	W

**Supporting Evidence**

This species is also grown as an ornamental for use as a fresh or dried cut flower. The Purity Subcommittee therefore recommends the addition of "F" to the spp. classification and further recommends that the contaminating classification for this species become "C" under the "F" category.

**References**

- Brenzel, K. (ed.). 1995. Sunset Western Garden Book. Sunset Publishing Corporation.
- Everett, T.H. 1981. The New York Botanical Garden Illustrated Encyclopedia of Horticulture. Vol. 6. Garland Publishing, Inc.

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**Date of Proposal:** October 1, 1997

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Linum lewisii --flax, Lewis --flax, prairie	(Linaceae)	F, W	W	C	W	W	W	W	W

Native  
wildflower

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Classification</u>							
		<u>Spp.</u>	<u>contaminating</u>						
		<u>Class</u>	<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Linum lewisii --flax, Lewis --flax, prairie	(Linaceae)	F, W	W	C	W	C	W	W	W

**Supporting Evidence**

*Linum lewisii* is a native wildflower species in North America (Alaska to northern Mexico to Texas). Therefore when found as a contaminant in seed used for revegetation purposes it should be considered other crop.

References

- Belcher, E. 1995. Handbook on Seeds of Browse-Shrubs and Forbs. Technical Publication R8-TP8. Association of Official Seed Analysts and USDA Forest Service, Southern Region.
- USDA Forest Service. 1937. Range Plant Handbook. United States Government Printing Office, Washington, D.C.
- S & S Seeds. 1992. Seed Selection Guide: Seeds For Reclamation and Landscape.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97)

Accepted ↓

Proposal #28

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			A	F	H	R	S	T	V
Lotus scoparius --deerweed	(Fabaceae)	F, W	W	C	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			A	F	H	R	S	T	V
Lotus scoparius --deerweed	(Fabaceae)	R, W	W	W	W	C	W	W	W

**Supporting Evidence**

This is a mat forming to shrubby native species of California, Arizona and Mexico, which is sold commercially for revegetative purposes. It is therefore the recommendation of the Purity Subcommittee that the spp. classification be changed to "R". Further, the Purity Subcommittee recommends the contaminating classification for this species become "C" under the "R" category and "W" under the "F" category.

References

Hickman, J.C. (ed.). 1993. The Jepson Manual, Higher Plants of California. University of California Press.  
 Howell, J.T. 1970. Marin Flora, Manual of the Flowering Plants and Ferns of Marin County, California. University of California Press.  
 Sampson, A.W. and B.S. Jespersen. 1981. California Range Brushlands and Browse Plants. Univ. of CA Regents.  
 S&S Seeds. 1992. Seed Selection Guide: Seeds for Reclamation and Landscape.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97 per Rules Committee recommendation)

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Osmorhiza occidentalis --aniseroot, sweet	(Apiaceae)	F, W	W	C	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Osmorhiza occidentalis --aniseroot, sweet	(Apiaceae)	F, W	W	C	W	C	W	W	W

**Supporting Evidence**

*Osmorhiza occidentalis* is a native wildflower species of western North America. Therefore when found as a contaminant in seed used for revegetation purposes it should be considered other crop.  
 Reference

Hickman, J.C. (ed.) 1993. The Jepson Manual, Higher Plants of California. Univ. of CA Press.

USDA Forest Service. 1937. Range Plant Handbook. United States Government Printing Office, Washington, D.C.

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**Date of Proposal:** October 1, 1997 (revised 12/30/97)

Passed

Proposal #30

**Rule Change Proposal: Handbook 25**

**Present Rule**

none

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp. Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			A	F	H	R	S	T	V
Paspalum nicorae --brunswickgrass	(Poaceae)	R	W	W	W	C	W	W	W

**Supporting Evidence**

Brunswickgrass has been developed by the Plant Materials Center in Americus, Georgia for use as a cover crop and for pastures. It is considered a contaminating weed in other crops.

Appropriate changes will be made to the appendices of the handbook to accommodate this addition.

**References**

Alderson, J. 1995. Grass Varieties in the United States. Lewis Publishers.

Hitchcock, A.S. 1951. Manual of the Grasses of the United States. United States Department of Agriculture. Washington, D.C.

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**Date of Proposal:** October 10, 1997



Passed

**Rule Change Proposal: Handbook 25**

**Present Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Penstemon cyananthus --penstemon, Wasatch	(Scrophulariaceae)	F, W	W	C	W	W	W	W	W

**Proposed Rule**

<u>Scientific /Common Name</u>	<u>Family</u>	<u>Spp.</u> <u>Class</u>	<u>Classification</u>						
			<u>contaminating</u>						
			<u>A</u>	<u>F</u>	<u>H</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>V</u>
Penstemon cyananthus --penstemon, Wasatch	(Scrophulariaceae)	F, W	W	C	W	C	W	W	W

**Supporting Evidence**

*Penstemon cyananthus* is a native wildflower species in North America (MT, UT, WY, ID, CO). Therefore when found as a contaminant in seed used for revegetation purposes it should be considered other crop.

References

Brickell, C. and J.D. Zuk. 1997. The American Horticultural Society A-Z Encyclopedia of Garden Plants. DK Publishing, Inc.

Granite Seed. Wildflowers and Forbs Catalog. Lehi, Utah.

Horton, H. 1989. Interagency Forage and Conservation Planting Guide for Utah. Extension Circular EC 433. Agricultural Experiment Station and Cooperative Extension Service Utah State University.

Plummer, A.P., D.R. Christensen and S.B. Monsen. 1968. Restoring Big-Game Range in Utah. Publication No. 68-3, Utah Division of Fish and Game.

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**Date of Proposal:** October 10, 1997 (revised 12/30/97 per Rules Committee recommendation)