

Minutes, 2012 Meeting

Cereals Advisory Committee
Certification, Foundation Seed and Plant Materials Board

Monday, November 26, 2012; Board Room, Columbia Gorge Discovery Center
The Dalles, Oregon

Present: Lee von Borstel, Chair; Joe McDonald, Vice-chair; JW Cope; Kurt Farris; Bob Zielinski; Curt Howell; Mathias Kolding; Mike Flowers; Sandy Macnab; Greg Vollmer; Karen Olstad and Jerry L. Robinson, Washington State Crop Improvement Association; Rachel Hankins; Farhad Shafa; Jodi Keeling; Dan Curry; Adriel Garay; Brad Whiting, Mater International; Dennis Lundeen; John Zielinski; Barry Schrupf.

Item 1. Call to order and introductions.

Lee von Borstell called the meeting of the Cereals Advisory Committee (CAC) to order at 9:03 AM. Those in attendance introduced themselves and their respective affiliations. There were two distant meeting locations (speaker phone and video conferencing sites) requested for this meeting.

Item 2. Appreciation and recognitions.

Dan Curry expressed appreciation to all the individuals who volunteer their time to the work of the Cereals Advisory Committee. Their thoughtful consideration of issues and participation in the decision-making processes that ultimately improve the seed certification service are of great value to certification, seed services, Oregon State University, the seed industry, and the users of Oregon certified seed. A certificate of appreciation was presented for Larry Venell.

Item 3. Changes/additions to the agenda.

Lee asked for changes or additions to the agenda; none were requested at this time. The agenda was approved as published: M/S (McDonald/von Borstel).

Item 4. Minutes of the 2011 CAC meeting.

M/S (R. Zielinski/Howell) to approve the minutes of the 2011 meeting – approved.

Item 5. Certification Board actions regarding CAC 2011 recommendations (Ref. page 8, Appendix A):

The Certification Board met on February 14, 2012 to consider recommendations from the certification advisory committees, and passed the following from the Cereals Advisory Committee:

- ✓ Seed Certification shall adopt an “Additional Certification Requirement” program based on the AOSCA model currently being developed, and move Small Grains Standard Special Requirement K into that program.
- ✓ Add new footnote 1 to Small Grains Certification Standards, Field Standards, Seedling and Seed Crop Inspection, Other varieties total to read “Phenotypic variants may be specified in a variety description by the variety originator/maintainer, and would not be counted as part of the tolerance for other varieties” (Existing footnotes 1 & 2 pertaining to Other Small Grains would become footnotes 2 & 3).
- ✓ Addition to footnote 1 in Small Grains Certification Standards, Seed Standards, Off-type and/or other cereal, etc., to read “Seed variants may be specified in a variety description by the variety originator/maintainer and would not be counted as part of the tolerance for off-type. If a seed count is required, then the fee will be charged to the client submitting the sample.”
- ✓ Small Grain Certification Standards, Special Requirements paragraph H shall read: No re-inspection is allowed if Jointed goatgrass, and/or its hybrids, or Rush skeletonweed is found in the seedling, seed crop, or seed test inspection.
- ✓ Add Dogfennel to Small Grains Certification Standards, Seed Standards, footnote 1, not to be allowed in any class of certified seed.

Item 6. Additional Certification Requirements (ACR), by variety (refer to pages 2-13, Appendix A).

Dennis Lundeen reviewed the history of new varieties being entered into seed certification and for which additional requirements were indicated by the breeder for inclusion in the certification process; Clearfield wheat varieties were the example. This agency included these requirements in the Small Grains Seed Certification Standards. In the past year, the Association of Official Seed Certifying Agencies (AOSCA) adopted a protocol for ACR's; AOSCA documents were presented (Ref. pages 9-13, Appendix A) and discussed. Concern was voiced that breeders would decline to participate in a national review of ACR's for their varieties. Clarification was offered that the AOSCA ACR protocol was not so much a review as it was a communications device. Further discussion was tabled and Dan and Dennis will seek further input and discussion of this topic.

Item 7. Approved Seed Warehouse sign.

John Zielinski displayed the "approved warehouse" sign; it measures 18" x 24" and will be appropriate for display at seed warehouses that are approved by OSCS to handle Oregon certified seed.

Item 8. Seed source and seed transfer documentation (refer to page 14, Appendix A).

Regarding Small Grains Certification Standards, Applications, proposed change, highlighted in yellow, as follows: (1) "All certification tags, (2) one certification tag for each lot and a copy of the sales invoice....".

Regarding Small Grains Certification Standards, Special Requirements, G (refer to page 14, Appendix A), current wording was proposed to be replaced with:

G. Transfer of seed may be documented using one of several shipping certificates available at the OSCS website:

(1) **Field Transfer Certificate**, to move in-the-dirt seed from farm storage to an out-of-state warehouse.

(2) **Transfer of Presampled Seed Certificate**, to move seed (usually for planting), prior to availability of an OSU Seed Lab test number.

(3) **Transfer of Seed Pending Final Certification**, to move seed following availability of the test number and prior to completion of testing.

(4) **Certificate of Final Certification**, to move seed following completion of testing and setting eligibility for tagging. Seed is not officially and finally certified until it has been tagged, or documented by a Certificate of Final Certification.

Both items were recommended to the Board for approval: M/S (Howell/Farris)

Comments: Transfer of Presampled Seed Certificate has enabled the warehouse to provide documentation with the shipment; 400+ were issued this first year; the initial Presample Certificate can be replaced with a Certificate of Final Certification without a second poundage deduction. Request was made for the same capability for replacing Transfers of Seed Pending with Certificates of Final Certification. [Note: On November 28, 2012 the capability for replacing Transfers of Seed Pending with Certificates of Final Certification, with poundage being deducted only once, was added to the eCertification options on the OSCS website (see "Finalize Pre-sampled or Pending Bulk Shipping Certificates" under "Seed Lot Information").]

Item 9. Seed standards: footnote 5, Immature seeds of prohibited weeds (refer to page 15, Appendix A).

Current wording of footnote 5 prohibits immature seeds of weed species listed in OSCS Handbook section V, but does not prohibit immature seeds of the additional prohibited weeds listed in footnote 5; motion made to apply the prohibition of immature seeds to the additional prohibited weeds listed in footnote 5: M/S (R. Zielinski/Macnab), "Immature and/or mature seeds of the weeds referenced or listed in this footnote, are prohibited in certified seed". Motion passed.

Item 10. Seed standards: 500 gram purity working weight (refer to pages 16-18, Appendix A).

To improve detection of contaminating seeds through testing: M/S (R. Zielinski/McDonald), Eliminate 75 and 100 gram working weights and require that all factors be tested using a 500 gram working weight, excepting those factors being tested using 2 pounds for Foundation class. Motion passed.

Adriel Garay observed that if limiting lot size was not an option, then increasing the testing weights is a reasonable alternative, and further, that commercial lots would continue to be tested using the 75 and 100 gram working weights as specified for crop types. Adriel noted that larger working weights for testing turf grasses has shown improved detection of contaminants. The Seed Lab will study efficiencies and inefficiencies of the 500 gram working weight in relation to costs. This change in protocol may allow adaption of controlled-pressure blowing for cereal seed testing, if funding can be found to purchase the equipment (see Item 17 in these minutes).

Item 11. Seed standards: Variants, No Vetch, Off-type in Foundation seed (refer to page 19, Appendix A).

This change proposal combined several items: (a) apply footnote 2 regarding variants to the Pure seed factor; (b) in footnote 3, remove Vetch from "other cereal" and create footnote 4 to place Vetch in "Other Crops"; (c) add "Off-type" to factors tested using 2 pounds in Foundation class seed. M/S (R. Zielinski/Macnab) – passed.

Item 12. Seed standards: combining Items 9, 10, & 11 (refer to page 20, Appendix A).

All changes adopted under previous items 9, 10 and 11 were combined to show how they would appear in the Small Grains seed standards.

Item 13. Special Requirements, Triticale isolation (refer to page 21, Appendix A).

Isolation distances were adopted in the early 1990's. Changes in the nature of the crop and comparisons of Oregon standards with those of neighboring states led to proposed changes to Oregon standards, to read:

Special Requirements, D. Isolation (Triticale) — Foundation class must be isolated 90 feet from other varieties of triticale, Registered and Certified, 10 feet. Fields of the same variety but different generations must be isolated by a mechanical break. Triticale must be isolated 10 feet from all other small grains. M/S (Flowers/R. Zielinski) – passed.

Item 14. Seed variants and variety descriptions (refer to pages 22 & 23, Appendix A).

For many years, the Washington State Crop Improvement Association has maintained a list of seed variants derived from variety descriptions. Problems and concerns have arisen over apparent use of amendments to the initial specifications, when those amendments have actually been used to establish tolerance for physical contaminations. Discussion both in Washington and Oregon supports this contention, but is non-conclusive regarding how to avoid this trend. The source of the problem is ever shifting and/or being ignored or denied. There is some indication that breeders will be less inclined to alter initial descriptions of seed variants. Seed variants cannot be distinguished from off-types and contaminants using normal seed testing procedures for purity; also, having numerous formats for quantifying seed variants makes it difficult for seed testing analysts to utilize a table of accumulated data from the plant breeders.

Item 15. Elections (refer to page 24, Appendix A).

M/S (Howell/McDonald) Nominate Robert Zielinski for vice-chair in 2013 – Passed unanimously.

M/S (R. Zielinski/Howell) Nominate Lee von Borstel as CAC representative to the Board (three year term) – Passed unanimously.

M/S (Howell/R. Zielinski) Nominate Kurt Farris as CAC representative to the Cereals Variety Advisory Committee - Passed unanimously.

Item 16. Date and place for 2012 meeting (refer to page 25, Appendix A)..

Tuesday, November 26 (Thanksgiving week), 2013 in the Board Room at the Columbia Gorge Discovery Center, The Dalles. A summary of recommendation to the Board is given on pages 30 & 31, Appendix B.

Item 17. Demonstration of controlled-pressure blower for seed cleaning and testing.

Bradford Whiting, Mater International, and Adriel Garay, OSU Seed Lab provided a demonstration of the use of controlled-pressure blowing for separating inert materials, Jointed goatgrass and Barley from Wheat. The equipment utilizes a vertical cylinder, an input chute for delivering seed into the cylinder, and collection chutes at the top and bottom of the cylinder for diverting separated materials from the cylinder. A steady stream of air is introduced through the bottom of the cylinder, materials (seed and contaminants) introduced into the column of air are separated, with heavier materials dropping through the air column, and lighter materials being carried by the air to the top of the cylinder. Brad described the air column in the cylinder as an air tunnel, and indicated that the challenge in designing such a machine is to achieve uniform air pressure through an entire cross section of the cylinder with no swirling effects. As with any mechanical seed cleaning equipment, the controlled-pressure blower showed ability to separate materials, a continuous selection of air pressure allowing the operator to make adjustments based on the need for greater or lesser pressures, and the problem of overlapping particle densities making it very difficult, or perhaps impossible to achieve 100% separation of seed from contaminants. Still the machine showed potential for gaining efficiencies in testing procedures for larger working weights.

Item 18. Reports (refer to pages 25 - 29, Appendix A).

Reports were given for OSU Department of Crop and Soil Science (Dan Curry), OSU Cereal Variety Release Committee (Mike Flowers: two new wheat releases this past year: Kaseburg and Ladd wheat; two planned for 2013: Bobtail (P94) and Rosalyn (1071) wheat), OSU Seed Lab (Adriel Garay), Oregon Seed Certification Service (Dennis Lundeen and John Zielinski). and Washington State Crop Improvement Association (Jerry L. Robinson). Jerry announced the hire last spring of a new Foundation Seed Services Manager, Mark Saam.

Item 19. Other Business.

No additional items were introduced.

Adjournment: Lee von Borstel adjourned the meeting at 1:30 PM.

Respectively submitted:

Barry Schrupf, Secretary
Cereals Advisory Committee
and
John Zielinski
Small Grains Certification Coordinator

Enclosures

Appendix A, Meeting Packet, pages 6 - 29
Appendix B, Recommendations to the Board, pages 30 - 31

cc:

Cereals Advisory Committee
Certification and Foundation Seed and Plant Materials Board
Scott Reed, Vice Provost for University Outreach and Engagement
Dan Arp, Dean, OSU College of Agricultural Sciences
Stella Coakley, Associate Dean, OSU College of Agricultural Sciences
Bill Braunworth, Leader-Extension Ag Program, OSU College of Agricultural Sciences
Russ Karow, Head, Department of Crop and Soil Science, OSU
Robert Zemetra, Leader, Wheat Breeding Project, Department of Crop and Soil Science

Pat Hayes, Leader, Barley Breeding Project, Department of Crop and Soil Science, OSU
Dan Curry, Director of Seed Services, Department of Crop and Soil Science, OSU
Jill Habrich, Oregon Feed & Grain Association
Blake Rowe, Oregon Wheat Growers League and Oregon Wheat Commission
Sally Christensen, Oregon Wheat Growers League
Tana Simpson, Oregon Grains Commission
U.S. Wheat Associates West Coast Office
Randy Black, Oregon Department of Agriculture
Victor Shaul, Manager, Seed Inspection Program, Washington Department of Agriculture
Doug Boze, Idaho Crop Improvement Association (ICIA)
Scott Blake, North Area Manager, ICIA
Sam Jennings, Southwest Area Manager, ICIA
Ken Morris, Southcentral Area Manager, ICIA
Gary R. Smith, Southeastern Area Manager, ICIA
Kathy Stewart-Williams, University of Idaho Foundation Seed Program
Jerry Robinson, Manager, Washington State Crop Improvement Association (WSCIA)
Karen Olstad, Program Manager, Certification Services, WSCIA
Mark Saam, Program Manager, Foundation Seed Services, WSCIA
Bob Stewart, California Crop Improvement Association
Extension Crops Agents

Appendix A, Meeting Packet

CEREALS ADVISORY COMMITTEE
to the
CERTIFICATION and FOUNDATION SEED and PLANT
MATERIALS BOARD

Monday, November 26, 2012; 9:00 AM - Noon
Board Room, The Discovery Center
The Dalles, Oregon

Lee von Borstel, Chair
Joe McDonald, Vice-chair
TBD, Representative to the Board
Bob Zielinski
Kurt Farris
Curt Howell
JW Cope
Larry Venell
Bob Zemetra
Mike Flowers
Sandy Macnab

(ex-officio)
Adriel Garay
Dan Curry
Dennis Lundeen
Randy Black
Russ Karow

CEREALS ADVISORY COMMITTEE

Schedule and Agenda

Monday, November 26, 2012; 9:00 AM – Noon
Board Rm., The Discovery Center, The Dalles, Oregon

Call to Order, welcome and introductions (*Lee von Borstel, Chair*)

Item 2 Appreciation (*Dan Curry*)

Item 3 Changes/additions to the agenda (*Lee; ref. page 7*)

Old Business

Item 4 Approval of the Minutes (*Lee; refer to e-mailed minutes*)

Item 5 2012 Certification Board actions concerning Cereals (*Lee; pg. 8*)

New Business

Item 6 Additional Certification Requirements (ACR), by variety – (*Dennis, pgs. 9-13*)

Item 7 Approved Warehouse sign (*John*)

Item 8 Seed source and seed transfer documentation (*Barry, pg. 14 & Handbook, pg. 42*)

Item 9 Seed Standards, footnote 5, Dogfennel, Immature seeds (*Barry, pg. 15*)

Item 10 Seed Standards, 500 g. Purity working weight (*Lee and Barry; pgs. 16, 17, & 18*)

Item 11 Seed Standards, Variants, No Vetch, FDN off-type, recleaned (*Barry, pg. 19*)

Item 12 Seed Standards, combining Items 9, 10, and 11 (*Barry, pg. 20*)

Item 13 Special Requirements, Triticale isolation requirements (*Barry, pg. 21*)

Item 14 Seed variants and variety descriptions (*Jerry Robinson. pgs. 22 & 23*)

Item 15 Elections (*Lee; ref. page 24*):
CAC Vice-chair for 2013 (grower or producer)
CAC Representative to the Board

Item 16 Date and place for next year's meeting. (*Lee and Barry; ref. pg. 25*)

Item 17 Demonstration of precision blowing for seed testing (*Adriel Garay & Bradford Whiting*)

Item 18 Reports

Oregon Department of Agriculture (*Randy Black*)

OSU Department of Crop and Soil Science (*Dan Curry; ref. pages 26 & 27*)

OSU Cereal Variety Advisory Committee (*Mike Flowers*)

OSU Seed Lab (*Adriel Garay*)

OSU Seed Certification (*Dennis Lundeen; ref OSCS Activity Summary, and John Zielinski; ref. pages 28 & 29*)

Washington State Crop Improvement Association, Washington Foundation Seed Project (*Jerry Robinson, WSCIA*).

Item 19 Other Business (*Lee*)

Reference Bylaws (*back cover*)

Adjourn (*Lee*)

Seed Certification, Foundation Seed and Plant Materials Board meeting: Tuesday, February 12, 2013, LaSells-Stewart Center, OSU; lunch at noon, meeting begins at 1pm. (please let us know if you plan to attend so that the lunch can be planned accordingly).

Cereals Advisory Committee

Motions recommended to the Certification Board

Tuesday, February 14, 2012

Motion 1. Seed Certification shall adopt an “Additional Certification Requirement” program based on the AOSCA model currently being developed, and move Small Grains Standard Special Requirement K into that program

Motion 2. Add new footnote 1 to Small Grains Certification Standards, Field Standards, Seedling and Seed Crop Inspection, Other varieties total to read “Phenotypic variants may be specified in a variety description by the variety originator/maintainer, and would not be counted as part of the tolerance for other varieties.” (Existing footnotes 1 & 2 pertaining to Other Small Grains would become footnotes 2 & 3.).

Addition to footnote 1 in Small Grains Certification Standards, Seed Standards, Off-type and/or other cereal, etc., to read “Seed variants may be specified in a variety description by the variety originator/maintainer and would not be counted as part of the tolerance for off-type. If a seed count is required, then the fee will be charged to the client submitting the sample.”

Motion 3. Small Grain Certification Standards, Special Requirements paragraph H shall read: No re-inspection is allowed if Jointed goatgrass, and/or its hybrids, or Rush skeletonweed is found in the seedling, seed crop, or seed test inspection.

Motion 4. Add Dog fennel to Small Grains Certification Standards, Seed Standards, footnote 1, not to be allowed in any class of certified seed.

AOSCA Additional Certification Requirement Procedures
Adopted by the AOSCA Certification Requirements & Standards Council
June 25, 2012

1. Submission

An Additional Certification Requirement (ACR) request form may be submitted by the developer/owner/maintainer of the variety to:

- a. the AOSCA office, at any time
- b. a National Variety Review Board (NVRB) as part of an application or amendment to a variety description.
- c. an AOSCA member agency, who will in turn forward it to the AOSCA office.

2. Upon receipt of an ACR request form:

- a. The AOSCA office will initiate a review of the ACR request form by VRB chairs and vice chairs for that crop or, in the event that there is no VRB for the crop, by two AOSCA member agencies that have certification experience with that crop kind. Reviewers will communicate with the variety maintainer for clarity and revision as necessary.
- b. Review of the ACR request form shall be based on:
 - i. The ACR has been submitted by a valid entity.
 - ii. An ACR must meet or exceed existing AOSCA requirements and standards and federal seed regulations.
 - iii. An ACR must be related to preserving or verifying distinguishing traits or characteristics, and may include field requirements and/or the application of test results to attain specified levels of genetic or mechanical quality attributes.
 - iv. The provisions of an ACR must be feasible to administer in a practical manner.
 - v. Sufficient detail must be provided to allow consistent application of the ACR.
 - vi. An ACR should be based on scientifically valid tests, and test results should serve the intended purpose. However, the scientific validity of the ACR, and the ability of the test to serve the intended purpose shall remain the responsibility of the variety maintainer.

3. Upon favorable review:

- a. The ACR will be distributed to AOSCA member agencies by the most appropriate means.
- b. Member agencies who certify that crop shall assess the ACR for their program's ability to administer it.
 - i. If the agency can and will administer the ACR, no further action is necessary.
 - ii. If the agency cannot or will not administer the ACR, they shall contact the AOSCA office, who shall in turn contact the entity requesting the ACR.
- c. Member agencies that certify the variety in question will utilize the ACR in determining certification eligibility.
- d. Each AOSCA member agency may set fees for administration of an ACR.

Additional Certification Requirement Request Conditions
Adopted by the AOSCA Certification Requirements & Standards Council
June 25, 2012

1. Additional Certification Requirements (ACR) are tests, requirements, and/or standards requested by the variety developer/owner/maintainer, hereafter called the variety maintainer, that are in addition to AOSCA and member agency requirements and standards for certified seed.
2. The ACR is to be used in conjunction with current seed certification field and seed requirements and standards in the determination of certification eligibility.
3. Additional Certification Requirements may be field based, such as increased isolation or field history, plant based, such as collection and testing of plant material, or seed based, such as a test for the presence or expression of a trait.
4. If testing is required, such as a trait test, the variety maintainer will prescribe the test protocol to be used, the entities that are approved to conduct the test, and the qualifying test result.
5. A variety may have more than one ACR.
6. AOSCA and member agencies make no determination as to the efficacy of the tests, procedures, or test results associated with this Additional Certification Requirement.
7. AOSCA member agencies will only administer an ACR that meets or exceeds current certification requirements and standards, and that is applied as an addition to requirements and standards of AOSCA, AOSCA member agencies, and the federal seed regulations.
8. The ability of the ACR to serve the intended purpose is the sole responsibility of the variety maintainer requesting the application of the ACR to the variety.
9. AOSCA member agencies providing certification of a variety with an ACR agree to use the ACR in certification eligibility determination for seed of that variety, and will retain records of test results or inspection documents related to the ACR.
10. AOSCA member agencies may independently establish fees associated with their administration of an ACR.
11. A member agency that is unable or unwilling to administer an ACR will notify both AOSCA and the entity requesting certification, and will not be able to certify the variety.
12. Advance communications are encouraged between developers of ACR's and AOSCA and its member agencies. As special traits are in development for inclusion in new varieties, trait developers and variety originators are encouraged to initiate communications with AOSCA for the purposes of informing AOSCA of future developments and to learn of AOSCA programs and procedures that can facilitate the inclusion of new developments in the seed certification process.

Additional Certification Requirement Request Form

1. The variety maintainer must communicate the ACR to all involved with the regulation and production of the variety.
2. Completion of this request form will result in the distribution of this ACR to AOSCA member agencies as an amendment to the variety description on previously released varieties or included with the variety description for a new variety.

Please Complete the Following:

_____ New Variety

_____ Amendment to an Existing Variety

Crop Kind _____

Variety Name _____

Variety Maintainer _____

Variety Maintainer Address, and Contact Person, With Contact Information:

Provide a description of the Additional Certification Requirement below or as attached pages. Please include the following in the description:

1. Indicate if the ACR is a field, plant, or seed requirement.
 - a. Field _____
 - b. Plant _____
 - c. Seed _____

2. Describe the ACR in detail. If the ACR is a field test or requires field samples to be collected, describe the required field inspection or field sampling protocols to be used. An example of a field ACR related to isolation would be to state that isolation must be 900 ft. from seed fields of other varieties or commercial production of the same crop kind. An example of a plant or seed ACR would be a 96-cell PCR assay test to verify the presence of an herbicide tolerance trait.

3. Indicate when conformance to the ACR is to be evaluated. An example of the timing of a field ACR assessment would be after full bloom. An example of a plant ACR would be upper trifoliolate leaf samples collected at a specified growth stage. An example of a seed ACR would be that the test must be conducted on conditioned seed. Provide other details as appropriate, such as the test may only be conducted once, or if results from a second test are admissible.

4. If the ACR is a test, indicate the entities currently approved to conduct the test, including contact information. The list may be updated as needed.

5. If the ACR is a test, indicate the minimum, maximum or acceptable range for the test results. Please provide sufficient background information to allow for result assessment, understanding that the people assessing the results may not be at the same knowledge level.

6. If the ACR involves a seed test, indicate who may collect the sample and the sampling methodology to be followed, for instance, according to the AOSA Rules for Testing Seed”, sampling procedures as outlined in the AOSCA Seed Certification Handbook, or others.

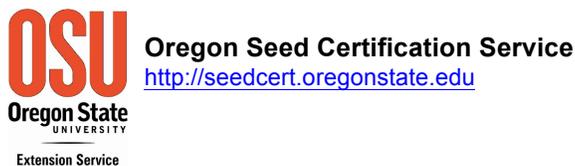
7. Provide any additional information that will assist in the administration of this ACR.

The undersigned applicant declares all the above to be true:

Signature of Variety Maintainer Representative

Date

Item 8 Seed Source and Seed Transfer Documentation



CERTIFICATION STANDARDS
SMALL GRAINS
Revised: February 14, 2012

Application and Field Inspections. Application for seedling inspection must be submitted within 60 days of fall planting (or earlier, if row closure is expected to occur rapidly), or within 15 days of spring planting. Application for crop inspection must be submitted by April 15 for small grains planted on or before January 31; for plantings after January 31, the deadline is June 1, or within 15 days of planting, whichever occurs last. Crop inspection will be completed after plant and head maturity show specific variety distinguishing characteristics. Stock seed documentation shall be either: (1) all **certification** tags, (2) one **certification** tag for each lot and a copy of the sales invoice [showing the receiver, variety and crop, poundage, lot number(s), generation, and date of sale], (3) bulk shipping certificate if seed was self produced, or purchased at the first point of sale, (4) copy of original bulk shipping certificate, plus subsequent sales invoice, if purchased at a subsequent point of sale, (5) an OSCS "Replacement/Partial Bag Tag" and a sales invoice for Foundation seed shipped in a bulk bag and divided for further distribution, or (6) a transfer certificate for seed pending final certification. Volunteer fields are not eligible for seed certification.

Special Requirements:

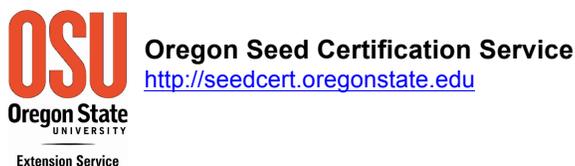
G. Transfer of seed pending final certification is possible under certain conditions. Information about these procedures is available from the Seed Certification Office.

Proposed:

G. Transfer of seed may be documented using one of several shipping certificates available at the OSCS website:

- (1) **Field Transfer Certificate**, to move in-the-dirt seed from farm storage to an out-of-state warehouse.
- (2) **Transfer of Presampled Seed Certificate**, to move seed (usually for planting), prior to availability of an OSU Seed Lab test number.
- (3) **Transfer of Seed Pending Final Certification**, to move seed following availability of the test number and prior to completion of testing.
- (4) **Certificate of Final Certification**, to move seed following completion of testing and setting eligibility for tagging. Seed is not officially and finally certified until it has been tagged, or documented by a Certificate of Final Certification.

Item 9: Seed Standards re. footnote 5 _ Dogfennel, Immature Seeds



CERTIFICATION STANDARDS
SMALL GRAINS
 Revised: February 14, 2012

Seed Standards: (Minimum Sample Size -- 2 Pounds, **As of July 1, 1993, treated cereal seed will not be accepted by the OSU Seed Laboratory for purity testing.**) *No Retests Permitted.*

Factor	Foundation ¹ (White tag)	Registered (Purple tag)	Certified (Blue tag)
Pure seed, minimum	98.00%	98.00%	98.00%
Off-type and/or other cereal, maximum (determined on 500 grams) ^{2,3}	None	2/lb.	4/lb.
Other crops excluding other cereals, maximum	None	0.03%	0.05%
Inert matter, maximum	2.00%	2.00%	2.00%
Ergot ⁴ , maximum	0.05%	0.05%	0.05%
Smut balls ⁴ , maximum	None	None	None
Weed seed ^{4,5,6} , maximum	0.01%	0.01%	0.03%
Wild oats, maximum	None	None	None (1/lb. in Oats)
Germination, minimum	85%	85%	85%

¹ Foundation seed will be tested and labeled to indicate seeds per pound. A 2 lb. sample shall be inspected for noxious weeds and other cereals in Foundation class cereals.

² Seed variants may be specified in a variety description by the variety originator/maintainer, and would not be counted as part of the tolerance for off-type. If a seed count is required, then the fee will be charged to the client submitting the sample.

³ No Vetch nor Cereal rye allowed in "other cereals", except Cereal rye in the Certified class of Triticale not to exceed 1/lb.

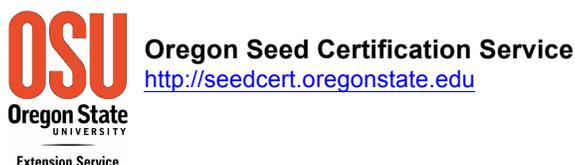
⁴ A 500 gram sample will be used for Ergot, Smutball, noxious weed and Vetch exams, *except that a 2 lb. sample shall be inspected for noxious weeds and other cereals in Foundation class cereals*

⁵ None of the prohibited weeds listed in section V in the OSCS Handbook, nor any Bedstraw, Buckhorn plantain, Docks, Dog fennel, Sheep sorrel, or St. Johnswort, allowed in any class of Certified seed. Immature and/or mature seeds of the weeds listed in section V in the OSCS Handbook, are prohibited in certified seed.

⁵None of the prohibited weeds listed in section V in the OSCS Handbook, nor any Bedstraw, Buckhorn plantain, Docks, Dogfennel, Sheep sorrel, or St. Johnswort, allowed in any class of Certified seed; immature and/or mature seeds of the weeds **referenced or listed in this footnote**, are prohibited in certified seed.

⁶ Seed that contains a contaminant with "0" or "None" tolerance must be re-cleaned before being re-sampled. (Except as noted in Special Requirements H.)

Item 10: Seed Standards re. 500 gram Purity Working Weight



CERTIFICATION STANDARDS
SMALL GRAINS
 Revised: February 14, 2012

Seed Standards: (Minimum Submitted Sample Size -- 2 Pounds, **As of July 1, 1993, treated cereal seed will not be accepted by the OSU Seed Laboratory for purity testing.) No Retests Permitted.**

Factor	Foundation ^{7,8} (White tag)	Registered ¹ (Purple tag)	Certified ¹ (Blue tag)
Pure seed, minimum	98.00%	98.00%	98.00%
Off-type and/or other cereal, maximum (determined on 500 grams) ^{9,10}	None	2/lb.	4/lb.
Other crops excluding other cereals, maximum	None	0.03%	0.05%
Inert matter, maximum	2.00%	2.00%	2.00%
Ergot, maximum	0.05%	0.05%	0.05%
Smut balls ⁴ , maximum	None	None	None
Weed seed ^{4,11,12} , maximum	0.01%	0.01%	0.03%
Wild oats, maximum	None	None	None (1/lb. in Oats)
Germination, minimum	85%	85%	85%

⁷ A 500 gram sample working weight will be used for all exams (Purity, Ergot, Smutball, noxious weed and Vetch exams), except that a 2 lb. sample working weight shall be inspected for noxious weeds and other cereals in Foundation class cereals. Seed lots moved to Oregon for final certification must be tested for the factors listed in these standards using at least these working weights.

⁸ Foundation seed will be tested and labeled to indicate seeds per pound. A 2 lb. sample shall be inspected for noxious weeds and other cereals in Foundation class cereals.

⁹ Seed variants may be specified in a variety description by the variety originator/maintainer, and would not be counted as part of the tolerance for off-type. If a seed count is required, then the fee will be charged to the client submitting the sample.

¹⁰ No Vetch nor Cereal rye allowed in "other cereals", except Cereal rye in the Certified class of Triticale not to exceed 1/lb.

¹¹ None of the prohibited weeds listed in section V in the OSCS Handbook, nor any Bedstraw, Buckhorn plantain, Docks, Dog fennel, Sheep sorrel, or St. Johnswort, allowed in any class of Certified seed. Immature and/or mature seeds of the weeds listed in section V in the OSCS Handbook, are prohibited in certified seed.

¹² Seed that contains a contaminant with "0" or "None" tolerance must be recleaned before being re-sampled. (Except as noted in Special Requirements H.)

Certified Wheat Seed Lot Sizes, 2000 – 2012, 1067 samples

	Number of samples	% of samples	Accumulative % of samples
<100,000 lbs.	314	29	29
100,000 - <200,000	198	19	48
200,000 - <300,000	106	10	58
300,000 - <400,000	81	8	66
400,000 - <500,000	59	6	71
500,000 - <600,000	57	5	76
600,000 - <700,000	31	3	79
700,000 - <800,000	32	3	82
800,000 - <900,000	23	2	84
900,000 - <1,000,000	22	2	87
1,000,000 - <1,100,000	18	2	88
1,100,000 - <1,200,000	17	2	90
1,200,000 - <1,300,000	9	<1	91
1,300,000 - <1,400,000	10	<1	92
1,400,000 - <1,500,000	4	<1	92
1,500,000 - <1,600,000	15	1	93
1,600,000 - <1,700,000	11	1	94
1,700,000 - <1,800,000	1	<1	94
1,800,000 - <1,900,000	5	<1	95
1,900,000 - <2,000,000	5	<1	95
2,000,000 - <3,000,000	30	3	98
3,000,000 - <4,000,000	16	2	100
4,000,000 - <5,000,000	2	<1	100
>5,000,000	1	<1	100

Limitations on bin storage result in larger lot sizes and a diminished ability to gain information about seed lots through seed testing; contaminants that are present at low rates of occurrence are difficult to consistently detect. Non-uniform lots can also contribute to the difficulty of detecting contaminants.

To improve detection, lot sizes could be reduced and/or working weights for testing could be increased. Since many factors are already being tested with 500 grams, this proposal would eliminate the 75 and 100 gram working weights, and base everything on 500 grams (exceptions in the Foundation class).

Weights for Working Samples – Small Grains

Certified & Registered	75 gms	100 gms	500 gms	2 lbs
Working weights				
Off-type & Other cereal				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Other Crops				
Cereal rye, Oat	X			
Barley, Triticale, Wheat		X		
Inert Matter				
Cereal rye, Oat	X			
Barley, Triticale, Wheat		X		
Ergot				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Smutball				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Vetch				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Weed Seed				
Cereal rye, Oat	X			
Barley, Triticale, Wheat		X		
Wild oats				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Noxious Weed				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	

Weights for Working Samples – Small Grains

Foundation	75 gms	100 gms	500 gms	2 lbs
Working weights				
Off-type & Other cereal				
Cereal rye, Oat				X
Barley, Triticale, Wheat				X
Other Crops				
Cereal rye, Oat	X			
Barley, Triticale, Wheat		X		
Inert Matter				
Cereal rye, Oat	X			
Barley, Triticale, Wheat		X		
Ergot				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Smutball				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Vetch				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Weed Seed				
Cereal rye, Oat	X			
Barley, Triticale, Wheat		X		
Wild oats				
Cereal rye, Oat			X	
Barley, Triticale, Wheat			X	
Noxious Weed				
Cereal rye, Oat				X
Barley, Triticale, Wheat				X

Item 11: Seed Standards re. Seed variants, No Vetch, FDN off-type, recleaned



Oregon Seed Certification Service

<http://seedcert.oregonstate.edu>

CERTIFICATION STANDARDS
SMALL GRAINS
 Revised: February 14, 2012

Seed Standards: (Minimum Sample Size -- 2 Pounds, **As of July 1, 1993, treated cereal seed will not be accepted by the OSU Seed Laboratory for purity testing.**) **No Retests Permitted.**

Factor	Foundation ¹³ (White tag)	Registered (Purple tag)	Certified (Blue tag)
Pure seed ¹⁴ , minimum	98.00%	98.00%	98.00%
Off-type and/or other cereal ¹⁵ , maximum (determined on 500 grams)	None	2/lb.	4/lb.
Other crops ¹⁶ excluding other cereals, maximum	None	0.03%	0.05%
Inert matter, maximum	2.00%	2.00%	2.00%
Ergot ¹⁷ , maximum	0.05%	0.05%	0.05%
Smut balls ^{5,7} , maximum	None	None	None
Weed seed ^{5,18,19} , maximum	0.01%	0.01%	0.03%
Wild oats ⁷ , maximum	None	None	None (1/lb. in Oats)
Germination, minimum	85%	85%	85%

¹³ Foundation seed will be tested and labeled to indicate seeds per pound. A 2 lb. sample shall be inspected for noxious weeds and other cereals in Foundation class cereals.

¹⁴ Seed variants may be specified in a variety description by the variety originator/maintainer, and would not be counted as part of the tolerance for off-type. If a seed count is required, then the fee will be charged to the client submitting the sample.

¹⁵ No ~~Vetch~~ nor Cereal rye allowed in "other cereal", except ~~Cereal rye~~ in the Certified class of Triticale and then not to exceed 1/lb.

¹⁶ No Vetch allowed in "Other crops".

¹⁷ A 500 gram sample will be used for Ergot, Smutball, noxious weed and Vetch exams, except that a 2 lb. sample shall be inspected for off-type, other cereals and noxious weeds in Foundation class cereals.

¹⁸ None of the prohibited weeds listed in section V in the OSCS Handbook, nor any Bedstraw, Buckhorn plantain, Docks, Dog fennel, Sheep sorrel, or St. Johnswort, allowed in any class of Certified seed. Immature and/or mature seeds of the weeds listed in section V in the OSCS Handbook, are prohibited in certified seed.

¹⁹ Seed that contains a contaminant with "0" or "None" tolerance must be recleaned before being re-sampled. (Except as noted in Special Requirements H.)

Item 12: Seed Standards combining Items 9, 10, & 11



CERTIFICATION STANDARDS
SMALL GRAINS
 Revised: February 14, 2012

Seed Standards: (Minimum Submitted Sample Size -- 2 Pounds, **As of July 1, 1993, treated cereal seed will not be accepted by the OSU Seed Laboratory for purity testing.**) **No Retests Permitted.**

Factor	Foundation ^{20,21} (White tag)	Registered ¹ (Purple tag)	Certified ¹ (Blue tag)
Pure seed ²² , minimum	98.00%	98.00%	98.00%
Off-type and/or other cereal ²³ , maximum	None	2/lb.	4/lb.
Other crops ²⁴ excluding other cereals, maximum	None	0.03%	0.05%
Inert matter, maximum	2.00%	2.00%	2.00%
Ergot, maximum	0.05%	0.05%	0.05%
Smut balls ²⁵ , maximum	None	None	None
Weed seed ^{6, 26} , maximum	0.01%	0.01%	0.03%
Wild oats ⁶ , maximum	None	None	None (1/lb. in Oats)
Germination, minimum	85%	85%	85%

²⁰ A 500 gram working weight will be used for all exams (Purity, Noxious weeds, Ergot, Smutball, and Vetch), except that a 2 lb. working weight shall be inspected for off-type, other cereals and noxious weeds in Foundation class cereals. Seed lots moved to Oregon for final certification must be tested for the factors listed in these standards using at least these working weights.

²¹ Foundation seed will be tested and labeled to indicate seeds per pound.

²² Seed variants may be specified in a variety description by the variety originator/maintainer, and would not be counted as part of the tolerance for off-type. If a seed count is required, then the fee will be charged to the client submitting the sample.

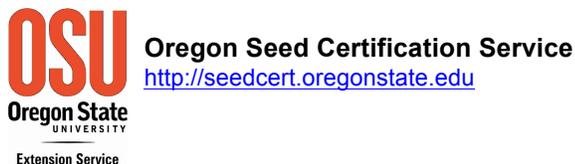
²³ No Cereal rye allowed in "other cereal", except in the Certified class of Triticale and then not to exceed 1/lb.

²⁴ No Vetch allowed in "Other crops".

²⁵ Seed that contains a contaminant with "0" or "None" tolerance must be re-cleaned before being re-sampled. (Except as noted in Special Requirements H.)

²⁶ None of the prohibited weeds listed in section V in the OSCS Handbook, nor any Bedstraw, Buckhorn plantain, Docks, Dogfennel, Sheep sorrel, or St. Johnswort, allowed in any class of Certified seed; immature and/or mature seeds of the weeds referenced or listed in this footnote, are prohibited in certified seed.

Item 13: Triticale isolation



CERTIFICATION STANDARDS
SMALL GRAINS
 Revised: February 14, 2012

Special Requirements:

D. Isolation (Triticale) — Triticale must be isolated from other Triticale varieties 900 feet for production of the Foundation generation, and 300 feet for Registered and Certified generations. Fields of the same variety but of a different generation must be isolated by a distance of 25 percent of that listed between varieties. Isolation from Wheat and Rye must be 90 feet for Foundation and Registered generations, and a mechanical break for Certified production. Triticale must be isolated with a mechanical break from small grains other than Wheat and Rye.

Discussion: Current Triticale isolation standards were adopted in 1994 based on recommendations from Robert Metzger, ARS plant geneticist who worked intensively with Triticale. Mat Kolding, long time Triticale breeder, provides the following information (10/31/12): “Some ten years ago or longer the triticale floral structure was more open to pollen floating around, it also was more prone to require pollen from different floral sources, and there was some requirement to cross pollinate as do many of the ryes. Today, however triticale are highly self fertile, the glumes are more closed, and distances and isolation requirements have changed to be more like other cereals.” George Fohner, formerly with Resource Seeds, believes it would be reasonable to be standardized with the surrounding states (personal communication 11/20/12). Curt Braunwart, Progene Plant Research indicates they would suggest 90 feet for Foundation and Registered, and a mechanical break for all other isolation requirements (strictly enforced if the neighboring field has Cereal rye), (personal communication 11/20/12).

Washington: FDN & Reg classes 300 ft from other triticale, rye and wheat; 3 ft between classes.

Comparison Standards in neighboring states at Certified Class

Distance in feet from:	Other Triticale	Wheat	Rye	Other small grain
Oregon	300	mechanical break	mechanical break	mechanical break
Washington	10	10	10	mechanical break
Idaho	mechanical break	mechanical break	mechanical break	mechanical break
California	10	10	10	10
Montana	10	10	10	10
Canadian Seed Growers Ass’n	10	10	10	10

Attempting to combine the above comments and standards:

Special Requirements, **D. Isolation (Triticale)** — Foundation class must be isolated 90 feet from other varieties of triticale, Registered and Certified, 10 feet. Fields of the same variety but different generations must be isolated by a mechanical break. Triticale must be isolated 10 feet from all other small grains.

(Revised August 21, 2012)

The following list of varieties have approved variants in the seed as noted. These variants are allowed in certified seed in excess of the off-type limitation for each seed class.

VARIETIES THAT HAVE VARIANTS

97S0621-05 HR spring wheat	up to .1%	only if white wheat
Agripro Paladin winter wheat	up to 65/lb	only if white wheat
AP Badger winter wheat	up to 0.5%	only if red wheat
AP Legacy winter wheat	up to 0.7%	only if red wheat
AP 503 CL2 HR winter wheat	up to 0.73%	only if white wheat
B04-1418 HR spring wheat	up to .3%	only is white wheat
BG 006 Spring waxy barley	up to 8/10,000 seed each	non waxy endosperm
BG 006 Spring waxy barley	up to 4/10,000 seed each	only if hullless
BG 012 Spring hullless waxy barley	up to 8/10,000 seed each	only if covered
BG 012 Spring hullless waxy barley	up to 8/10,000 seed each	non waxy endosperm
BG 46e Spring hullless waxy barley	up to 18/10,000 seed each	only if covered
BR 7030W HWSpring wheat	up to 30/lb	only if red wheat
Bauermeister winter wheat	up to 35/lb	only if white wheat
Babe spring wheat	up to 0.05%/lb	only if red wheat
Blanca Grande spring wheat	up to 20/lb	only if red wheat
Boundary winter wheat	up to 11/lb, 12/lb (R, C)	only if white wheat
Brundage 96 winter wheat	up to 5/lb, 6/lb, 7/lb (F, R, C)	only if red wheat
Buchanan winter wheat	up to 8/lb	only if white wheat
Buck Pronto spring wheat	up to 20/lb	only if white wheat
Bullseye HR spring wheat	up to .3%	only if white wheat
Cabernet (95WV10616) spring wheat	up to 65/lb	only if white wheat
Cara winter club wheat	up to 5/lb	only if red wheat
CEB 0520 HRwinter wheat	up to 5/lb	only if white wheat
Eddy (BZ9W96-788-e) winter wheat	up to 45/lb	only if white wheat
Eltan winter wheat	up to 15/lb	only if red wheat
Estica winter wheat	up to 10/lb	only if white wheat
Express spring wheat	up to 18/lb	only if white wheat
Expresso spring wheat	up to 18/lb	only if white wheat
FX001C winter wheat	up to 12/lb	only if white wheat
Farnum winter wheat	up to 0.15 %	only if white wheat
Finley winter wheat	up to 11/lb	only if white wheat
Glee HR spring wheat	up to 15/lb	only if white wheat
Goetze winter wheat	up to 10/lb	only if red wheat
Hank spring wheat	up to 18/lb	only if white wheat
Hatton winter wheat	up to 7/lb	only if white wheat
Hill 81 winter wheat	up to 20/lb	only if red wheat
Hollis spring wheat	up to 20/lb	only if white wheat
Idaho 587 winter wheat	up to 3/lb	only if red wheat
Ilias HR winter wheat	up to 15/lb	only if white wheat
Jedd spring wheat	up to 1.0%	only if white wheat
Jefferson spring wheat	up to 4/lb	only if white wheat
Kronos spring wheat	up to 15/lb	only if red wheat
Kelse HR spring wheat	up to 0.10%	only if white wheat
Kelse HR spring wheat	up to 2%.....NON DETERMINED**	- seed of various color ranges
Keldin HR winter wheat	up to 30/10,000 seed	only if white wheat
LCS Artdeco winter wheat	up to 18/lb	only if red wheat
LCS Azimut HR winter wheat	up to 25/lb	only if white wheat
Lambert winter wheat	up to 8/lb, 9/lb, 10/lb (F, R, C)	only if red wheat
Legion winter wheat	up to 0.7%	only if red wheat
Macon spring wheat	up to 3/lb	only if red wheat
Madsen winter wheat	up to 20/lb	only if red wheat
Malbec(RSI 50603) HR spring wheat	up to 0.75%	only if white wheat
Masami winter wheat	up to 1/lb	only if red wheat
MDM winter wheat	up to 1/lb	only if red wheat
Mohler winter wheat	up to 18/lb	only if red wheat
Moreland winter wheat	up to 8/lb	only if white wheat
Nick spring wheat	up to 18/lb	only if red wheat

Variant List Continued

Norwest 553	up to 35/lb	only if white wheat
ORCF-101 winter wheat	up to 5/lb	only if red wheat
ORCF-102 winter wheat	up to 5/lb	only if red wheat
ORCF-103 winter wheat	up to 8/lb	only if red wheat
Otis spring wheat.....	up to 10/lb	only if red wheat
Palomino HW spring wheat	up to 35/lb	only if red wheat
Rely winter wheat.....	all found	only if red wheat
Residence winter wheat.....	up to 5/lb	only if white wheat
Rimrock (ACS 52025) winter wheat.....	up to 18/10,000	only if white wheat
Rod winter wheat	up to 20/lb	only if red wheat
Salute winter wheat	up to 0.5% /lb (approx 56/lb)	only if red wheat
Scarlet spring wheat	up to 6/lb	only if white wheat
Sinope HR winter wheat	up to 15/lb	only if white wheat
Skiles winter wheat	up to 8/lb	only if red wheat
Snowcrest HW spring wheat.....	up to .5%	only if red wheat
Solano spring wheat	up to 18/10,000 seeds	only if white wheat
Specter winter pea	up to 5/lb	only if Austrian winter type
Symphony winter wheat.....	all found	only if white wheat
SY Capstone spring wheat	up to .1%	only if red wheat
SY Ovation winter wheat	up to 0.5%	only if red wheat
Tammy spring wheat	up to 12/lb	only if white wheat
Tara 2002 spring wheat (formerly Tara).....	up to 1%	only if white wheat
Tubbs winter wheat	up to 5/lb	only if red wheat
Tubbs 06 winter wheat	up to 5/lb	only if red wheat
Waikea spring wheat	up to 18/lb	only if red wheat
Wawawai spring wheat	up to 1/lb, 5/lb, 10/lb (F, R, C)	only if red wheat
WB 456 winter wheat	up to 70/10,000 seeds	only if red wheat
WB 523 winter wheat.....	up to 18/10,000 seeds	only if red wheat
WB 528 (BZ 6W98-528) winter wheat.....	up to 18/10,000 seeds	only if red wheat WB
WB 1020M winter wheat.....	up to 18/10,000 seeds	only if red wheat
WB1035CL+ SW spring wheat	up to 0.4%	only if red wheat
WB 1066CL winter wheat.....	up to 18/10,000 seeds	only if red wheat
WB 1070CL winter wheat.....	up to 18/10,000 seeds	only if red wheat
WB 1081CL+ S White winter wheat.....	up to 18/10,000 seeds	only if red wheat
WB9229 HR spring wheat	up to .2%	only if white wheat
WB-Arrowhead HR Winter wheat.....	up to 0.18% (18/10,000 seeds)	only if white wheat
WBCaliente	up to 0.2%	only if white wheat
WB-Cristallo HW spring wheat	up to .2%	only if red wheat
WB Fuzion (BZ 901-717) winter wheat	up to 18/10,000 seeds	only if white wheat
WB-Hartline HW Spring wheat.....	up to 0.18% (18/10,000 seed)	only if red wheat
WB-Idamax HW Spring wheat.....	up to 0.18% (18/10,000 seed)	only if red wheat
WB-Junction SW Winter wheat.....	up 25/10,000 seed	only if red wheat
WB-Paloma HW spring wheat.....	up to .2%	only if red wheat
WB-Perla HW spring wheat.....	up to .2%	only if red wheat
WB-Rockland HR Spring wheat.....	up to 0.2%	only if white wheat
WB-Tucson HR Winter wheat.....	up to 18/10,000 seed	only if white wheat
Weatherford winter wheat.....	up to 10/lb	only if red wheat
WestBred 470 winter whea	up to 18/10,000 seeds	only if red wheat
WestBred 926 spring wheat	up to 18/10,000 seeds	only if white wheat
WestBred 936 spring wheat	up to 18/10,000 seeds	only if white wheat
Whetstone HR winter wheat	up to 0.5%	only if white wheat
Whit spring wheat	up to 0.5%	only if red wheat
Winsome spring wheat	up to 5/lb	only if red wheat
Xerpha Winter wheat	up to 10/lb	only if red wheat
Yecora Rojo spring wheat.....	up to 4/lb	only if white wheat
Zak spring wheat	up to 5/lb	only if red wheat

File:SeedVariantListing

** Seed containing a number of variable color seed but still contain all the variety characteristics

Seed variants listed as a % will need to be based on seed counts of actual seed lots being tested

Cereal Advisory Committee Membership, Annual Meeting 2012

<u>Name</u>	<u>Annual Meetings</u>	<u>Address</u>	<u>Affiliation</u>
JW Cope (530) 667-2275 jcope.winema@cot.net	12, 13, 14 Chair, 2006 Chair, 2011	Winema Elevators, Inc. P.O. Box 516 Merrill, OR 97633	Producer (OGC)
position open	12, 13, 14		Grower (OWGL)
Joe McDonald (541) 278-5072 jmcdonald@pggcountry.com	12, 13, 14 Chair, 2007 Vice Chair, 2012	Pendleton Grain Growers P.O. Box 1248 Pendleton, OR 97801	Dealer (OFGA)
Lee von Borstel (541) 442-5555 seedplant@mcpcoop.com	'11, '12, '13 Chair, 2005, 2012	Mid Columbia Producers PO Box 344 Moro, OR 97039-0344	Grower (OWGL)
Kurt Farris (541) 546-5222 kurt@rbseed.com	'11, '12, '13 Chair, 2009	Round Butte Seed Growers, Inc. PO Box 117 Culver, OR 97734	Dealer (OFGA)
Bob Zielinski (503) 393-4926 svfspnw@aol.com	'10, '11, '12	Scenic Valley Farms/Eastern Z Farms 12423 River Rd NE Gervais, OR 97026	Grower (OWGL)
Curt Howell (541) 898-7333 6936@eoni.com	'10, '11, '12 Chair, 2008	Oregon Trail Seeds, Inc. P.O. Box 7 North Powder, OR 97867	Dealer (OFGA)
Sandy Macnab (541) 565-3230 sandy.macnab@oregonstate.edu	Permanent	Sherman County Extension PO Box 385 Moro, OR 97039	County Extension Agent OSU
Mike Flowers (541) 737-9940 mike.flowers@oregonstate.edu	Permanent	Crop Science Bldg. 225 Corvallis, OR 97331	OSU Extension Cereal Specialist
Bob Zemetra (541) 737-4278 robert.zemetra@oregonstate.edu	Permanent	Crop Science Bldg. 231 Corvallis, OR 97331	Cereal Breeder OSU
Randy Black (503) 986-4620 rblack@oda.state.or.us	(ex-officio)	Oregon Dept. of Agriculture 635 Capitol St. N.E. Salem, OR 97310-0110	Commodity Inspection Division, ODA
Russ Karow (541) 737-5857 russell.s.karow@oregonstate.edu	(ex-officio)	Crop Science Bldg. 131 Corvallis, OR 97331	Head, OSU Dept. Crop & Soil Science
Dan Curry (541) 737-5094 daniel.curry@oregonstate.edu	(ex-officio)	Crop Science Bldg. 351B Corvallis, OR 97331	Director, Seed Services Oregon State University
Adriel Garay (541) 737-4464 adriel.garay@orst.edu	(ex-officio)	Seed Lab 102A Corvallis, OR 97331	Seed Laboratory Manager, OSU
Dennis Lundeen (541) 737-4513 dennis.lundeen@oscs.orst.edu	(ex-officio)	Crop Science Bldg. 031 Corvallis, OR 97331	Seed Certification Manager, OSU

Affiliations: OFGA - Oregon Feed & Grain Association, Jill Habrich, Executive Director; OWGL - Oregon Wheat Growers League, Blake Rowe, Chief Executive Officer; OGC - Oregon Grains Commission, Blake Rowe, Chief Executive Officer; ODA - Oregon Department of Agriculture; OSU – Oregon State University.

←October 2013							November 2013 Calendar							December 2013→						
Sun		Mon		Tue		Wed		Thu		Fri		Sat								
										1		2								
3		4		5		6		7		8		9								
10		11		12		13		14 Grains Conference (Spokane)		15 Grains Conference (Spokane)		16 Grains Conference (Spokane)								
17 WSCIA Breeders Meeting (Walla Walla)		18 WSCIA (Walla Walla)		19 WSCIA (Walla Walla)		20		21		22		23								
24		25 CAC?		26 CAC?		27		28 Thanksgiving Day		29		30								

CSS Update **November 14, 2012**

The following are highlights of activities over the past months in Crop and Soil Science (CSS) and the College of Agricultural Sciences (CAS) as they affect clientele groups affiliated with CSS.

1. **College of Ag Sciences** - Dr. Dan Arp, College of Ag Dean, has begun to focus time and energy on the 2013 Oregon legislative session. Securing at least a similar level of funding as is available in the current biennium, or slightly more, is the College's goal. Given the state of the Oregon economy there is little hope for significant across-the-board increases in general funding but several new initiatives with clientele partners are under consideration. A fermentation science center (breads, cheese, beer and wine) is among these and seems to have some traction. Andrew Ross (cereal quality and products), Pat Hayes (barley breeding) and Shaun Townsend (hops breeding) are likely participants in such a center.
2. **OSU Extension** – Given current knowledge of 2012-13 funding, Mike Borman/Bill Braunworth/Russ Karow (the interim College of Ag Extension leadership team) are working on both short-term and long-term staffing plans for agricultural extension. If state funding for 2013-15 is stable to slightly increased (cost of living adjustment), the Ag extension budget would have a just over \$300K in recurring funding to use to fill critical, vacant positions. Critical positions are those where we are still interested in doing work in an area and have no backup support to have that work area covered. Backup at this point includes people in part-time, post-retirement positions, in grant funded positions that can provide some general support, or people elsewhere in the state or region who can serve as a resource. The South Valley field crops position is one that is being filled using these projected funds. A livestock position in Malheur County and horticulture position on the coast are next highest priorities. Both of these positions are those where a current faculty member has left or is leaving and there is critical program need.
3. **State Budgets** – Departments and branch experiment stations are now operating under a @19% budget reduction in the current biennium – an additional 5% cut from what was originally planned. While the College had been operating under a 14% budget reduction, once the impact of university mandated but underfunded salary increases and benefit cost increases was fully understood, additional budget reductions were needed to balance the 2011-13 budget. The College needs to find an additional \$3.5M in budget savings by the end of the biennium. Tough decisions on how to achieve an additional 5% in budget savings will need to be made in units where state funds are a significant portion of operational funds. Reserve funds will be used by many units to cover activities in 2012-13 but in most cases will be exhausted by the end of that fiscal year. In fall administrator's meeting, College unit leaders have been told to begin planning 2013-14 budgets at an existing funding level. Significant increases in the PERS system are likely to absorb any flexibility in funding that the College has at this time. A legislatively funded cost of living increase in 2013-15 could off-set this PERS increase.
4. **University Teaching Budgets** – Student enrollments are high (@26,000) and out-of-state and international student enrollments increasing. Given these factors and the fact that tuition is now a majority part of teaching budgets versus state funds, the teaching “side of the OSU house” is in reasonable financial condition. Additional teaching FTE needs to be found to cover increased class loads and needs. Some extension faculty have had portions of their positions bought out to do classroom teaching. College of Ag research and extension faculty will need to figure out how to meet position needs with one foot more consistently on campus or perhaps through teaching classes electronically from wherever they may be. Campus-based extension specialists are all picking up some level of teaching responsibility.
5. **Federal budgets** – Federal FY 12 ended on September 30. Budgets were much the same as in FFY11 minus an @2% across the board budget reduction with some exceptions – USDA-ARS took a bigger hit. No formal budget has been proposed for FFY13. The continuing resolution in place for the first six months of FFY13 leaves many programs in limbo as far as how to proceed in terms of budget planning in the coming fiscal year. If changes are not made to the “fiscal cliff” legislation that is on the books, budget impacts will be disastrous. Federal funds are a small but significant part of the College budget and also one of the major sources of grant funds for faculty (NIFA, ARS pass through funds, Specialty Crops Research, SARE)
6. **Grant Funding** – Grants are the other means through which faculty will obtain funds for program operation and in the case of most recent hires, a portion of the person's salary. OSU grant funding totaled \$207M in 2011-12 – a third

straight year of funding above \$200M. The College of Agricultural Sciences grant total in 2011-12 was \$54M, over one-fourth of OSU's total. While at significant levels, grant funding has declined just slightly over the past two years for both OSU and CAS. Reductions in grant funding may be due to reduce levels of federal grant dollars and/or saturation of existing faculty in terms of the number of grants they can handle as part of their workload. Once newly hired faculty come to stride in their positions, grant funding may again increase. While grants can provide valuable operational support, they also dictate the direction of research or extension activity that the faculty member must do. This can sometimes reduce the potential for faculty to take on new or emergency need activities for which they do not have operational support.

7. **OSU Foundation** - OSU is setting records for funds contributed to the OSU Foundation to establish endowments and other funding mechanisms that are outside state and federal pools. Endowments will provide some level of on-going stability to those programs that have them. A number of grower/commodity groups are exploring the creation of endowments. The Oregon Potato Commission approved use of their 2011-12 fund balance (@\$68K) to provide seed money for a Potato Research endowment and has already obtained industry commitments of over \$100K. The Oregon Wheat Commission is exploring endowment options. More information about endowments can be provided to anyone interested.
8. **Positions**
 - a. Dr. Sagar Sathuvalli has been hired as the new potato breeder at Hermiston and will begin work on December 1. He brings strong traditional plant breeding expertise as well as extensive molecular breeding knowledge to the position.
 - b. Dr. Stuart Reitz, former Research Entomologist with the USDA-ARS in Tallahassee, FL began work as a cropping systems agronomist in Malheur County on August 27th. Dr. Reitz brings an exceptional background in integrated insect pest management to the position.
 - c. The special tax district for support of Malheur County Extension and research activities was passed. A second Malheur County position has been advertised with a closing date of Nov 28. This person will focus on crops other than onion and potato and as well as some water quality issues. This position will be a fixed-term position given the tax district funding base.
 - d. A two-person field cropping systems staffing plan has been developed for the Willamette Valley. There had previously been three people. Nicole Anderson has moved into a tenure track position and will serve Washington, Yamhill and Polk counties. Dr. Paul Marquardt has been hired to serve Linn, Benton, and Polk. Some cross-over work into Lane county may be done from Linn. The two positions will share Polk county responsibilities. Paul will begin work on March 1. Given staffing reductions (retirements of Mark Mellbye and Glenn Fisher and part-time appointment of Bill Young), Pauls' position will become more like that of an extension specialist. He will have a greater research component than is typical of many county-based faculty positions but not an entirely new thing. This research emphasis is possible given Paul's proximity to campus and Hyslop Farm. Don Horneck holds a similar position in Hermiston where he is physically located on an experiment station. Stuart Reitz has a similar position in which he has a partial experiment station appointment and will do work at the Malheur Experiment Station. Such position types are only possible where there is close proximity to the resources needed to readily do research.
 - e. The Clackamas County Extension Service District (20%) and College of Ag Extension (5%) are paying for 25% of a traditional field crops extension position to service Clackamas and Marion County. Traditional field crop extension work in Marion County will be limited. The other 75% of this position, which is held by Tom Silberstein, is funded through a College of Ag cooperative agreement with the Marion County Soil and Water Conservation District to provide educational and applied research services to the SWCD. Work for the SWCD is dominantly conservation orientated.

For more information about happenings in the College of Agricultural Sciences you are invited to subscribe to the College's news magazine "Oregon's Agricultural Progress" (<http://oregonprogress.oregonstate.edu/index.php>) and to the College's monthly newsletter "The Source" (<http://agsci.oregonstate.edu/news/newsletters>). The latter also provides links to the newsletters of a number of departments in the College including CSS.
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Oregon Seed Certification Service

2012 Small Grain Season Summary

83 Seedling Inspections

78 Passed

3 Withdrawn

Reasons: Requested by grower

2 Rejected

Reasons: Excessive Volunteers

353 Crop Inspections

314 Passed

13 Passed on Condition

Reasons: Variety ownership declaration not provided.

Lack of Variety description.

Change in contractor.

Seed Source Documentation

14 Fields were withdrawn

Reasons: Requested by grower

12 Fields were rejected

Reasons: Lack of sign-up for re-inspection.

Cereal rye.

Jointed goatgrass.

Wild oats, Quackgrass, Canada Thistle

Fields with specified contaminants:

*Prohibited weeds

94	Cheatgrass	26	Kochia	15	Brome
85	Prickly lettuce	25	Annual ryegrass	11	Mustard
67	Field bindweed*	23	Barnyard grass	9	Tarweed
41	Canada thistle*	22	Russian thistle	8	Bedstraw
28	Quackgrass*	21	Dogfennel	8	Vetch
28	Lambs-quarter	20	Wild oat	6	Wild Radish
26	Sowthistle	20	Wild carrot	4	Jointed goatgrass

Ergot: Fourteen fields had Ergot found during the Crop Inspection.

Loose Smut: Four fields were found with loose smut

Summary of Small Grain Inspections 1995 - 2012

Year	Total Acres signed up for Crop Inspection	Total Number of Fields Signed up for Seedling Inspection	Total Number of Fields Signed up for Crop Inspection
1995	11,814	*	*
1996	10,304	*	*
1997	10,159	*	*
1998	8,803	*	*
1999	9,138	*	*
2000	8,524	*	*
2001	8,165	12	158
2002	12,589	24	228
2003	14,209	45	268
2004	15,106	60	264
2005	14,705	62	237
2006	13,742	66	232
2007	14,521	43	226
2008	17,914	47	309
2009	21,341	61	317
2010	21,115	62	362
2011	23,690	76	358
2012	19,853	83	353
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			

* Information not available

Appendix B
Recommendations to the Board
for consideration on Feb. 12, 2013
from Cereals Advisory Committee, Nov. 26, 2012

Proposed – replace current text in Special Requirements, section D – Triticale isolation (page 43, OSCS Handbook) with the following:

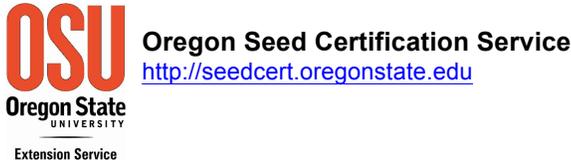
D.Isolation (Triticale) — Foundation class must be isolated 90 feet from other varieties of triticale, Registered and Certified, 10 feet. Fields of the same variety but different generations must be isolated by a mechanical break. Triticale must be isolated 10 feet from all other small grains. M/S (Flowers/R. Zielinski) – passed.

Proposed - replace current text in Special Requirements, section G (page 43, OSCS Handbook) with the following:

- G. Transfer of seed may be documented using one of several shipping certificates available at the OSCS website:
- (1) **Field Transfer Certificate**, to move in-the-dirt seed from farm storage to an out-of-state warehouse.
 - (2) **Transfer of Presampled Seed Certificate**, to move seed (usually for planting), prior to availability of an OSU Seed Lab test number.
 - (3) **Transfer of Seed Pending Final Certification**, to move seed following availability of the test number and prior to completion of testing.
 - (4) **Certificate of Final Certification**, to move seed following completion of testing and setting eligibility for tagging. Seed is not officially and finally certified until it has been tagged, or documented by a Certificate of Final Certification.

continued,

Appendix B, continued



CERTIFICATION STANDARDS
SMALL GRAINS
 Revised: February 14, 2012

Seed Standards: (Minimum Submitted Sample Size -- 2 Pounds, As of July 1, 1993, treated cereal seed will not be accepted by the OSU Seed Laboratory for purity testing.) *No Retests Permitted.*

Factor	Foundation ^{27, 28} (White tag)	Registered ¹ (Purple tag)	Certified ¹ (Blue tag)
Pure seed ²⁹ , minimum	98.00%	98.00%	98.00%
Off-type and/or other cereal ³⁰ , maximum	None	2/lb.	4/lb.
Other crops ³¹ excluding other cereals, maximum	None	0.03%	0.05%
Inert matter, maximum	2.00%	2.00%	2.00%
Ergot, maximum	0.05%	0.05%	0.05%
Smut balls ³² , maximum	None	None	None
Weed seed ^{6, 33} , maximum	0.01%	0.01%	0.03%
Wild oats ⁶ , maximum	None	None	None (1/lb. in Oats)
Germination, minimum	85%	85%	85%

Purpose of proposed changes (highlighted in yellow) -

(a) Clarify that seed sent to the Seed Lab is the "Submitted Sample".

(b) Re. footnote 1,

- Clarify that seed used for testing is the "working weight".
- Improve detection of contaminating seeds by increasing the working weight from 75 and 100 grams to 500 grams, and
- Clarify that testing of all factors listed in the table is based on 500 grams (Fdn class exceptions)
- Add the word "off-type" for clarification.
- Clarify testing requirements for seed moving into Oregon from other states.

(c) Apply footnote 3 to the Pure seed factor, rather than the Off-type factor.

(d) Re. footnotes 4 and 5,

- remove Vetch from the Other Cereal factor, and
- place Vetch in Other Crop.

(e) Re. footnote 7, prohibits immature seeds of the additional weeds listed in the footnote.

²⁷ A 500 gram sample working weight will be used for all exams (e.g., Purity, Noxious weeds, Vetch, Ergot, and Smutballs), except that a 2 lb. sample working weight shall be inspected for off-type, other cereals and noxious weeds in Foundation class cereals. Seed lots moved to Oregon for final certification must be tested for the factors listed in these standards using at least these working weights.

²⁸ Foundation seed will be tested and labeled to indicate seeds per pound.

²⁹ Seed variants may be specified in a variety description by the variety originator/maintainer, and would not be counted as part of the tolerance for off-type. If a seed count is required, then the fee will be charged to the client submitting the sample.

³⁰ No Vetch nor Cereal rye allowed in "other cereal", except Cereal rye in the Certified class of Triticale and then not to exceed 1/lb.

³¹ No Vetch allowed in "Other crops".

³² Seed that contains a contaminant with "0" or "None" tolerance must be re-cleaned before being re-sampled. (Except as noted in Special Requirements H.)

³³ None of the prohibited weeds listed in section V in the OSCS Handbook, nor any Bedstraw, Buckhorn plantain, Docks, Dogfennel, Sheep sorrel, or St. Johnswort, allowed in any class of Certified seed; immature and/or mature seeds of the weeds listed in section V in the OSCS Handbook referenced or listed in this footnote, are prohibited in certified seed.