2021 AOSCA Western Region Meeting
Remote Meeting
April 6, 2021
Minutes

The AOSCA Western Region Meeting was held remotely on a video call due to the on-going situation with COVID-19. The meeting was chaired by AOSCA Board of Director from the western region, Doug Boze (ID). The scribes were the AOSCA staff, Chet Boruff and Peggy Gromoll.

Participants were: Abed Anouti and Kathy Startt (AZ); John Palmer, Timothy Blank, Nicole Hostert, Ashley Koala, Alex Mkandawire, Katy Soden (CA); Rick Novak, Linda Munk, Barry Ogg, and incoming Director Laura Pottorff (CO); Karli Taniguchi (HI); Doug Boze, Mick Goff, David Hoadley, Kathy Stewart-Williams, and Scott Blake (ID); Board President Doug Miller (IL); Steve Schuler, Eric Fabrizius, and Erica Miller (KS); Jim Palmer and Chris Tiedje (MI); Roger Wippler (MN); Heather Unverzagt, Rebecca Papke, and Doug Holen (MT); Russ Wilhelm (NV); Bill Foote and Dustin Auman (NC); Past-President Ken Bertsch and Steve Sebesta (ND); Andrew Altishin, Jodi Keeling, Tami Brown, and Barry Schrumpf (OR); Board Director Eddie Goldschagg (SANSOR); Neal Foster (SD); Michael Bouck, David Brinkerhoff, and Daniel Mills (UT); Tom Hardiman (VA); Lauren Port, Karen Olstad, and Hannah Sweet (WSCIA); Paula Moore and Richard Gilbert (WADA); Mike Moore, Jolene Sweet, and Kyle Webber (WY); CEO Chet Boruff and Administrative Assistant Peggy Gromoll (AOSCA Staff).

Doug Boze called the meeting to order at 10:02AM, Central Time. Because this was a virtual meeting, Boze reminded participants that only Vested Members or their proxies may vote. Any votes needed will be taken by voice. If not unanimous, Boruff will conduct a roll call vote. Boze asked that each attendee introduce themselves and the Agency they represent.

Boze asked if there were any additional agenda items to be added. Bouck (UT) suggested tracking wildland sourced plant propagating materials and Palmer (CA) suggested a new quality-assurance program at CCIA for lettuce seed.

Motion passed to approve the 2021 Western Region Meeting agenda as amended.

Motion passed to approve the 2020 Western Region Meeting minutes as distributed.

Boruff reviewed the AOSCA anti-trust policy.

The AOSCA report was given by Chet Boruff. He gave an update regarding the Western Region Fund, showing a balance of $23,043.10. The fund agreement with the AOSCA office was reaffirmed. Boruff reminded the region that the regional fund was depleted after the 2016 Annual Meeting in Utah to help cover those expenses. Following that, the region voted to increase its annual regional fund assessment from $100 to $300 to restore the fund balance to where it had been. Boze commented that the short term goal of rebuilding

the fund had been accomplished. Since the Western Region did not host the 2020 Annual Meeting as planned, due to the COVID-19 pandemic, no funds had been used for that meeting.

Motion passed to reduce the annual Western regional fund assessment back to $100, beginning with the 2022 Dues and 2021 Assessments.

Boruff reported that the Board of Directors typically meets twice a year, including a mid-winter meeting in March and again at the summer annual meeting. Due to the COVID-19 pandemic, the 2020 mid-winter meeting, scheduled for March 18, 2020, in Puerto Rico, was cancelled and replaced with conference calls. Board meeting minutes can be found in the Members Area of the AOSCA website.

Boruff reminded the participants that at the conclusion of the meeting they will elect a representative to the Board. Doug Boze's term expires this year. In addition, the Region will need to elect a representative to the Council at the conclusion of the meeting. Dan Curry's term expires this year.

Boruff discussed AOSCA's financial reports as of December 31, 2020. AOSCA had strong net earnings in 2020, due to project administration income and lower expenses, due to minimal travel expenses. Equity is invested according to the investment policy.

AOSCA income is generated from internal sources such as dues and assessments, investment earnings, and VRB income. In addition, income is received from external sources such as project management, when possible.

Boruff reviewed assessment acres for the years 2005-2020, noting there are peaks and valleys throughout. The 2013 assessment acres were 3,052,756 at $.07/acre. For 2020, acres were 2,638,212 at $.08/acre. Even though acres have significantly decreased, with the assessment increase to $.08/acre, AOSCA is at about the same income from assessments as the 2013 acres at $.07/acre. This topic was discussed at the recent Board meetings and an assessment increase is not anticipated in the near future.

Boruff reported on the number of VRB applications for the years 2012-2020. These vary from year to year and for the different boards but notably for 2020, the number of Grass VRB applications was considerably lower. However, the number of grass applications for the recent review period increased back to a number similar to most past years. The Hemp VRB held two sessions to meet the demand from applicants. Boruff expressed thanks to all the VRB Chairs and Vice-Chairs for their work and commitment to the Boards.

On-site U.S. Agency evaluations have been postponed due to travel restrictions.

The Board of Directors has decided to hold the 2021 Annual Meeting remotely again this year, due to on-going concerns with COVID and travel restrictions. Boruff requested that members keep this year's Annual Meeting dates free, June 22 and 23. Commodity and General Committee Chairs will be contacted to see if a meeting is needed prior to the annual meeting.

Boruff reported that the AOSCA office will not be managing the IRM project in 2021. One of its member agencies will be taking over the day-to-day management, with very few changes anticipated in how the project will be conducted compared to past years.

Boruff reminded the group that the following proposed standards changes for CMS Hybrid Wheat, Commingled Hybrid Wheat, White Clover, PVG Eligibility, and PVG Application Update would be discussed later in the meeting.

The election of the Board of Directors representative and Council Vice-Chair, and discussion about 2022 meeting date and location will be held near the end of the meeting.

Boruff ended his remarks by announcing that he and Peggy Gromoll have decided to retire from AOSCA, effective December 31, 2021. The Board will begin searching for their replacements and the timing works well, in light of the member survey taken last year and the work of the long-range planning committee that will be discussed by Bill Foote, following this report.

Long-range planning committee report was given by Bill Foote, chairman of the ad-hoc committee.

Regional representatives were given a chance to update the region. Boze expressed thanks to the long-range planning committee and Mike Moore, scribe, for the extensive work done on this report.

Presentation and discussion of proposed standards changes followed.

CMS Hybrid Wheat – presented by Steve Sebesta. These standards were originally created in 1968 and needed updating.

During this discussion, Schuler commented he would like to see ‘glume color’ in Section I, B, 3, a, be revised to ‘varietal purity’.

Motion passed to move proposed standard change, with above revision, forward to the Annual Meeting. It was also recommended to include this revision in the Commingled Hybrid Wheat proposal.

Commingled Hybrid Wheat – presented by Steve Sebesta and additional comments provided by Mike Moore.

Motion passed to move proposed standard forward, including Moore’s comments, to the Annual Meeting. It was suggested to include Moore’s changes in the CMS Hybrid Wheat standards.

White Clover – presented by Tami Brown.

Motion passed to move proposed standard change forward to the Annual Meeting.

PVG Eligibility – presented by Michael Bouck.

Motion passed to move proposed standard change forward to the Annual Meeting.

PVG Application Update – presented by Michael Bouck.

Motion passed to move proposed standard change forward to the Annual Meeting.

Western Region agenda items were discussed.

Discuss how to express components on hemp seed lab reports. This topic originated from the Oregon seed lab. Question has been raised by their lab on how to report inert material, including dirt, stem, and soil. Altishin asked how other labs were listing inert material and discussion followed.

Agencies should report summary pages to AOSCA for new varieties recommended at the Agency level – Schuler

Discuss concept of an AOSCA PVG Advisory Board and tracking wildland sourced plant propagating materials – Bouck

USDA issue with pre-printed bags and what information should be included – Hardiman

California Crop Improvement Assn. LacTracker QA program for lettuce seed – Palmer

Boruff reminded the attendees of an upcoming Hemp Seminar to be conducted by Clemson/South Carolina and all were invited to participate either in person or via Zoom. Contact Sarah Wilbanks for further information.

Elections for regional representation to AOSCA Board of Directors and Certification Requirements and Standards Council.

- Nomination made for Michael Bouck (UT) to represent the Western region on the AOSCA board of directors for a 2-year term. Motion passed to cease nominations and cast a unanimous ballot.
- Nomination made for Dan Curry to represent the Western region on the AOSCA Certification Requirements and Standards Council. Motion passed to cease nominations and cast a unanimous ballot.

Discussion of 2022 meeting date and location.

With no further business presented for consideration, motion passed to adjourn the meeting. Meeting adjourned at 1:02PM, Central.

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Association of Official Seed Certifying Agencies

Proposed Changes to Standards/Guidelines

Date Submitted _____

Change to AOSCA: Standards x Guidelines _____

Crop Kind: Wheat AOSCA Commodity Committee Small Grains

Proposal Sponsor Committee (Armstrong, Knox, Port, Schuler, Sebesta - chair)

Proposal Origination: AOSCA x Region _____ Agency _____ Other _____

Location in the AOSCA Standards/Guidelines (give specific citation):

Crop Certification Standards – replace old CYTOPLASMIC MALE STERILE HYBRID WHEAT CERTIFICATION STANDARDS (pages 118-119).

Text of the original and amended portion of the Standards/Guidelines:

Attached

Brief summary about the background, purpose, and intent of this change:

Original AOSCA standards for hybrid wheat production date back more than fifty years. Standards for isolation and the frequency of allowable shedders in cms lines, whether in AxB or hybrid production fields, are grossly inadequate. Production of hybrids in strips is under consideration by at least one major seed company.

The purpose of the change is to modernize AOSCA hybrid wheat certification standards and be in position to provide certification services that support industry.

Narrative addressing seed industry impact/support/concern/other:

Commercial hybrid wheat production in the U.S. dates back to the late 1970's. According to AOSCA records, certification standards were adopted in 1968. Most of the production at that time utilized cytoplasmic male sterile lines for seed parents and standards were written to accommodate the conventional production using alternating strips of sterile and pollinator. With the introduction of chemical hybridizing agents (gametocides) the basic standards were modified to allow for that type of production system under separate standards. Most companies ceased efforts in hybrid wheat research and production by the early 1990's and there was no further need for review or update obsolete standards.

In the early 2000's, AgriPro made public their plans to re-enter the hybrid wheat market and by the end of the decade it became more clear how they were planning to produce seed. In 2012, AOSCA initiated development of new standards to accommodate hybrid wheat production by commingling the seed parent and pollen parent. Other companies followed.

In 2020, it became known that some companies were investigating the use of strips again, followed by inquiries about the disparity between the commingled parent standards and the original cms standards. Since this production method is potentially viable again it is necessary to update the standards.

Industry would support the update to help facilitate certified seed production of hybrid wheat in strips.

Summary of discussion(s) held by AOSCA and Seed Certifying Agencies:

An ad hoc committee was formed in early January in response to industry need.

The committee initiated the revision utilizing the recently adopted commingled rules and standards as the baseline model. Those standards have been well-vetted during years of development and provide a modern perspective of current industry status. The committee believes those standards are a good model to follow for several reasons.
1). Regardless of what method is utilized for hybrid wheat seed production, certain elements will not change and should carry forward. Specific references follow.
2). The Genetic Standards identified in Section I are not new. Definitions for class of the hybrid seed and inbred lines are identical. Standards for field inspection are the same.
3). Land requirements in Section II are identical.
4). Field Standards in Section III are identical (after removing rye).
5). Minor changes were necessary in section IV, but the seed standards are essentially the same as the original standards. Hybridity testing is not necessary so the requirement for testing was eliminated.

Timeline and plan for the proposal:

Distribute to SCA's for review prior to spring 2021 regional meetings.
Discuss at regional meetings
Adopt final version at 2021 annual meeting

Final disposition:

CYTOPLASMIC MALE STERILE HYBRID WHEAT ~~and HYBRID RYE CO-MINGLED PARENT LINES – 75% to 95% HYBRID~~
CERTIFICATION STANDARDS
(including changes effective ~~June 2017, June 2018, and~~ June ~~2020~~2021)

I. APPLICATION OF GENETIC CERTIFICATION STANDARDS

A. The general requirements for seed certification found in Section I through IV of the Genetic and Crop Standards apply to (are basic) all crops, and together with the following specific standards, constitute the certified Cytoplasmic Male Sterile Hybrid Wheat ~~and Hybrid Rye – Co-Mingled Parent Lines – 75% to 95% Hybrid~~ standards.

B. The Genetic Standards are modified as follows:

1. Section I. Eligibility Requirements for Varieties.
Standards applicable to specific crop varieties shall apply to the production of pollinator lines.

2. Section II. Designation of Classes of Seed.

a. A commercial hybrid is one to be planted for any use except seed production.

b. Only the ~~class~~ Certified class is recognized in the production of commercial hybrid seed. Only the Foundation class is recognized in production of parental types.

c. A commercial hybrid to be certified must be produced from certified Foundation class seed stocks that have been field inspected. These seed stocks shall consist of ~~male steriles,~~ inbred lines, and/or hybrids.

d. Definition of parental types
i) Seed Parent (A-line): Cytoplasmic male sterile line (CMS), which when pollinated by a Restorer, produces hybrid seed.
ii) Maintainer (B-line): A line with normal fertile cytoplasm used as a pollinator to increase Seed Parent (A-line) seed while maintaining the male sterility of the CMS Seed Parent.
iii) Restorer (R-line): Any male fertile line possessing nuclear restoration genes used as a pollinating male parent in the production of commercial hybrid seed.

3. Section ~~III~~VI. Production of Seed – Seed production fields or parts of fields shall be inspected as follows:

a. A X B production: Seed parents shall be inspected at least once during anthesis ~~three (3) times.~~
~~i) The first inspection shall occur after heading but before anthesis begins~~ to check for off-type plants, shedders and proper isolation. Additional inspections may be required at the discretion of the certifying agency to determine shedder frequency or ~~glume color.~~varietal purity.
~~ii) Two inspections should occur during anthesis to check for shedders in the Seed Parent (A-line), the presence of which shall immediately be communicated with the seed producer to allow for roguing.~~

b. Male lines (Maintainers and Restorers) shall receive at least one inspection for purity after the crop is fully headed.

c. Commercial hybrid production fields (A x R) shall be inspected at least once.

II. LAND REQUIREMENTS

A. Pollinator lines planted for the production of Foundation class seed shall be planted on land on which another kind was grown for the two year's previous crops.

B. Maintenance of sterile lines for the production of Foundation class seed shall be planted on land on which another kind was grown for the two year's previous crops.

C. Certified class commercial hybrid fields shall be planted on fields on which the previous crop was another kind.

III. FIELD STANDARDS.

A. General

1. Isolation

a. (AXB): Fields or parts of fields acceptable for production of seed parents to be used for the production of seed of a hybrid must be so located that the seed parent is not less than 2,640 feet ~~for wheat and 3,280 feet for rye~~ from fields of other kinds or varieties which would provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification.
Seed Parent and Maintainer lines shall be separated from each other by an unplanted strip of ground adequate to prevent mechanical mixture.

b. Maintainer (B-Line) and Restorer (R-Line) increases. Fields or parts of fields acceptable for production of pollinator lines must be so located that the line is not less than 30 feet ~~for wheat and 660 feet for rye~~ from fields of other kinds or varieties which could provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification.

c. Commercial Hybrids (AXR): Fields or parts of fields acceptable for production of a hybrid must be so located that the seed parent is not less than 330 feet ~~for wheat and 1,640 feet for rye~~ from fields

of other kinds or varieties which would provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification. Seed Parent and Restorer lines shall be separated from each other by an unplanted strip of ground adequate to prevent mechanical mixture.

B. Specific

1. Pollen Shedders in Sterile Seed Parent

Crop	Maximum heads shedding pollen permitted at any field inspection
Foundation Seed Parent	1:3,000

2. The seed parent, the pollinator, and the commercial hybrid shall meet the following:

	Maximum Permitted - Ratio of Heads	
Factor	Foundation Class A, B, R - Lines	Commercial Hybrid
Other varieties	1:3,000	1:3,000
Inseparable other crops	1:30,000	1:5,000

IV. SEED STANDARDS

	A, B, R - Lines	Commercial Hybrid
Factor	Foundation	Certified
Pure seed (minimum)	96.00%	96.00%
~~Hybridity (minimum)*~~	~~N/A~~	~~75%~~
Inert matter (maximum)*~~*~~	4.00%	4.00%
Total other crop seeds (maximum)**~~*~~	0.06%	0.25%
Other varieties (maximum)	0.05%	0.20%
Other kinds (maximum)	0.01%	0.05%
Germination (minimum)	85.00%~~/80.00% wheat/rye~~	85.00%~~/80.00%~~
Diseases***~~*~~	-- --	--

~~* Hybridity will be determined by a method acceptable to the seed certifying agency. The results must be submitted to the agency with a declaration of the hybridity prior to final certification of each lot of spring cereals and within 160 days post-harvest for winter cereals.~~

~~~~Shall not contain more than 2% inert matter other than broken seed.

**~~*~~For other small grain, the maximum of 1 per pound in Foundation, and 5 per pound in the Certified hybrid must not be exceeded. This does not apply to seeds of winter grains in spring grains and vice versa, except in areas where climate conditions do not take care of the situation.

***~~*~~If chemically controllable seed-borne diseases are noted upon field inspection or laboratory observation, seed treatment is recommended.

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Association of Official Seed Certifying Agencies

Proposed Changes to Standards/Guidelines

Date Submitted March 17, 2021

Change to AOSCA: Standards x Guidelines

Crop Kind: Wheat AOSCA Commodity Committee Small Grains

Proposal Sponsor Committee (Armstrong, Knox, Port, Schuler, Sebesta - chair)

Proposal Origination: AOSCA x Region Agency Other

Location in the AOSCA Standards/Guidelines (give specific citation):

Crop Certification Standards – Update CYTOPLASMIC MALE STERILE HYBRID WHEAT and HYBRID RYE COMMINGLED PARENT LINES 75% TO 95% HYBRID CERTIFICATION STANDARDS (pages 120-121).

Text of the original and amended portion of the Standards/Guidelines:

Attached

Brief summary about the background, purpose, and intent of this change:

There should be one set of requirements and standards for the production of wheat seed parents and maintainers, regardless of which hybrid production method (strips or commingled) is used to produce a hybrid.

The purpose of the change is to make field inspection requirements for Seed Parent production congruent with those in the cytoplasmic male sterile wheat standards drafted and submitted for review spring 2021.

Narrative addressing seed industry impact/support/concern/other:

These changes will have no impact on industry other than reducing the cost of additional field inspections.

These changes will simplify the inspection process and reduce expenses for SCA's since the frequency of inspections has been reduced.

Summary of discussion(s) held by AOSCA and Seed Certifying Agencies:

An ad hoc committee was formed in early January to update the Cytoplasmic Male Sterile Hybrid Wheat standards in response to industry need.

When changes were made to the number of inspections in AxB production, it was also necessary and logical to amend the inspection requirements in the Commingled standards so they were congruent.

Timeline and plan for the proposal:

Distribute to SCA's for review prior to spring 2021 regional meetings.
Discuss at regional meetings
Adopt final version at 2021 annual meeting

Final disposition:

CYTOPLASMIC MALE STERILE HYBRID WHEAT and HYBRID RYE
CO-MINGLED PARENT LINES – 75% to 95% HYBRID
CERTIFICATION STANDARDS

(including changes effective ~~June 2017, June 2018, and~~ June 202~~0~~1)

I. APPLICATION OF GENETIC CERTIFICATION STANDARDS

A. The general requirements for seed certification found in Section I through IV of the Genetic and Crop Standards apply to (are basic) all crops, and together with the following specific standards, constitute the certified Cytoplasmic Male Sterile Hybrid Wheat and Hybrid Rye – Co-Mingled Parent Lines – 75% to 95% Hybrid standards.

B. The Genetic Standards are modified as follows:

1. Section II. Eligibility Requirements for Varieties.
Standards applicable to specific crop varieties shall apply to the production of pollinator lines.

2. Section III. Designation of Classes of Seed.

a. A commercial hybrid is one to be planted for any use except seed production.

b. Only the ~~class~~ Certified class is recognized in the production of commercial hybrid seed. Only the Foundation class is recognized in production of parental types.

c. A commercial hybrid to be certified must be produced from certified Foundation class seed stocks that have been field inspected. These seed stocks shall consist of ~~male steriles,~~ inbred lines, and/or hybrids.

d. Definition of parental types
i) Seed Parent (A-line): Cytoplasmic male sterile line (CMS), which when pollinated by a Restorer, produces hybrid seed.
ii) Maintainer (B-line): A line with normal fertile cytoplasm used as a pollinator to increase Seed Parent (A-line) seed while maintaining the male sterility of the CMS Seed Parent.
iii) Restorer (R-line): Any male fertile line possessing nuclear restoration genes used as a pollinating male parent in the production of commercial hybrid seed.

3. Section ~~III~~VI. Production of Seed – Seed production fields or parts of fields shall be inspected as follows:

a. A X B production: Seed parents shall be inspected at least once during anthesis~~three (3) times.~~
~~i) The first inspection shall occur after heading but before anthesis begins~~ to check for off-type plants, shedders and proper isolation. Additional inspections may be required at the discretion of the certifying agency to determine shedder frequency or glume color.
~~ii) Two inspections should occur during anthesis to check for shedders in the Seed Parent (A-line), the presence of which shall immediately be communicated with the seed producer to allow for roguing.~~

b. Male lines (Maintainers and Restorers) shall receive at least one inspection for purity after the crop is fully headed.

c. Commercial hybrid production fields (AxR) shall be inspected at least once.

II. LAND REQUIREMENTS

A. Pollinator lines planted for the production of Foundation class seed shall be planted on land on which another kind was grown for the two year's previous crops.

B. Maintenance of sterile lines for the production of Foundation class seed shall be planted on land on which another kind was grown for the two year's previous crops.

C. Certified class commercial hybrid fields shall be planted on fields on which the previous crop was another kind.

III. FIELD STANDARDS.

A. General

1. Isolation

a. (AXB): Fields or parts of fields acceptable for production of seed parents to be used for the production of seed of a hybrid must be so located that the seed parent is not less than 2,640 feet for wheat and 3,280 feet for rye from fields of other kinds or varieties which would provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification.
Seed Parent and Maintainer lines shall be separated from each other by an unplanted strip of ground adequate to prevent mechanical mixture.

b. Maintainer (B-Line) and Restorer (R-Line) increases. Fields or parts of fields acceptable for production of pollinator lines must be so located that the line is not less than 30 feet for wheat and 660 feet for rye from fields of other kinds or varieties which could provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification.

c. Commercial Hybrids (AxR): Fields or parts of fields acceptable for production of a hybrid must be so located that the seed parent is not less than 330 feet for wheat and 1,640 feet for rye from fields

of other kinds or varieties which would provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification.

B. Specific

1. Pollen Shedders in Sterile Seed Parent

Crop	Maximum heads shedding pollen permitted at any field inspection
Foundation Seed Parent	1:3000

2. The seed parent, the pollinator, and the commercial hybrid shall meet the following:

	Maximum Permitted - Ratio of Heads	
Factor	Foundation Class A, B, R - Lines	Commercial Hybrid
Other varieties	1:3,000	1:3,000
Inseparable other crops	1:30,000	1:5,000

IV. SEED STANDARDS

	A, B, R - Lines	Commercial Hybrid
Factor	Foundation	Certified
Pure seed (minimum)	96.00%	96.00%
Hybridity (minimum)*	N/A	75%
Inert matter (maximum)**	4.00%	4.00%
Total other crop seeds (maximum)***	0.06%	0.25%
Other varieties (maximum)	0.05%	0.20%
Other kinds (maximum)	0.01%	0.05%
Germination (minimum) wheat/rye	85.00%/80.00%	85.00%/80.00%
Diseases****	-- --	--

* Hybridity will be determined by a method acceptable to the seed certifying agency. The results must be submitted to the agency with a declaration of the hybridity prior to final certification of each lot of spring cereals and within 160 days post-harvest for winter cereals.

**Shall not contain more than 2% inert matter other than broken seed.

***For other small grain, the maximum of 1 per pound in Foundation, and 5 per pound in the Certified hybrid must not be exceeded. This does not apply to seeds of winter grains in spring grains and vice versa, except in areas where climate conditions do not take care of the situation.

****If chemically controllable seed-borne diseases are noted upon field inspection or laboratory observation, seed treatment is recommended.

CYTOPLASMIC MALE STERILE HYBRID WHEAT and HYBRID RYE
COMMINGLED PARENT LINES – 75% to 95% HYBRID
CERTIFICATION STANDARDS

(including changes effective June 2021)

I. APPLICATION OF GENETIC CERTIFICATION STANDARDS

A. The general requirements for seed certification found in Section I through IV of the Genetic and Crop Standards apply (are basic) to all crops, and together with the following specific standards, constitute the certified Cytoplasmic Male Sterile Hybrid Wheat and Hybrid Rye – Commingled Parent Lines – 75% to 95% Hybrid standards.

B. The Genetic Standards are modified as follows:

1. Section II. Eligibility Requirements for Varieties.
   Standards applicable to specific crop varieties shall apply to the production of pollinator lines.
2. Section III. Designation of Classes of Seed.
   a. A commercial hybrid is one to be planted for any use except seed production.
   b. Only the Certified class is recognized in the production of commercial hybrid seed. Only the Foundation class is recognized in production of parental types.
   c. A Certified commercial hybrid must be produced from certified Foundation class seed stocks that have been field inspected. These seed stocks shall consist of inbred lines, and/or hybrids.
   d. Definition of parental types
      i) Seed Parent (A-line): Cytoplasmic male sterile line (CMS), which when pollinated by a Restorer, produces hybrid seed.
      ii) Maintainer (B-line): A line with normal fertile cytoplasm used as a pollinator to increase Seed Parent (A-line) seed while maintaining the male sterility of the CMS Seed Parent.
      iii) Restorer (R-line): Any male fertile line possessing nuclear restoration genes used as a pollinating male parent in the production of commercial hybrid seed.
3. Section VI. Production of Seed – Seed production fields or parts of fields shall be inspected as follows:
   a. A X B production: Seed parents shall be inspected at least once during anthesis to check for off-type plants, shedders and proper isolation. Additional inspections may be required at the discretion of the certifying agency to determine shedder frequency or ~~glume color~~. varietal purity.
   b. Male lines (Maintainers and Restorers) shall receive at least one inspection for purity after the crop is fully headed.
   c. Commercial hybrid production fields (AxR) shall be inspected at least once.

II. LAND REQUIREMENTS

A. Pollinator lines planted for the production of Foundation class seed shall be planted on land on which another kind was grown for the two previous crop years.

B. Maintenance of sterile lines for the production of Foundation class seed shall be planted on land on which another kind was grown for the two previous crop years.

C. Certified class commercial hybrid fields shall be planted on fields on which the previous crop was another kind.

III. FIELD STANDARDS.

A. General

1. Isolation
   a. (AXB): Fields or parts of fields producing seed parents to be used for the production of hybrid wheat or rye must be so located that the seed parent is not less than 2,640 ft. and 3,280 ft. respectively from fields of other kinds or varieties which would provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification. Seed Parent and Maintainer lines shall be separated from each other by an unplanted strip of ground adequate to prevent mechanical mixture.
   b. Maintainer (B-Line) and Restorer (R-Line) increases. Fields or parts of fields producing wheat and rye pollinator lines must be located so that the line is not less than 30 feet and 660 feet respectively from fields of other kinds or varieties which could provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification.
   c. Commercial Hybrids (AxR): Fields or parts of fields producing wheat and rye hybrids must be so located that the seed parent is not less than 330 feet and 1,640 feet respectively from fields of other kinds or varieties which would provide a source of contamination, or from fields of the same variety that do not meet varietal purity requirements for certification.

B. Specific

1. Pollen Shedders in Sterile Seed Parent

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Crop	Maximum ratio of heads shedding pollen permitted at any field inspection
Foundation Seed Parent	1:3000

2. The seed parent, the pollinator, and the commercial hybrid shall meet the following:

	Maximum Permitted - Ratio of Heads	
Factor	Foundation Class A, B, R - Lines	Commercial Hybrid
Other varieties	1:3,000	1:3,000
Inseparable other crops	1:30,000	1:5,000

IV. SEED STANDARDS

	A, B, R - Lines	Commercial Hybrid
Factor	Foundation	Certified
Pure seed (minimum)	96.00%	96.00%
Hybridity (minimum)*	N/A	75%
Inert matter (maximum)**	4.00%	4.00%
Total other crop seeds (maximum)***	0.06%	0.25%
Other varieties (maximum)	0.05%	0.20%
Other kinds (maximum)	0.01%	0.05%
Germination (minimum) wheat/rye	85.00%/80.00%	85.00%/80.00%

* Hybridity will be determined by a method acceptable to the seed certifying agency. The results must be submitted to the agency with a declaration of the hybridity prior to final certification of each lot of spring cereals and within 160 days post-harvest for winter cereals.
**Shall not contain more than 2% inert matter other than broken seed.
***For other small grain, the maximum of 1 per pound in Foundation, and 5 per pound in the Certified hybrid must not be exceeded. This does not apply to seeds of winter grains in spring grains and vice versa, except in areas where climate conditions do not take care of the situation.

Deleted: Diseases****

Deleted: --

Deleted: --

Deleted: --

Deleted: ****If chemically controllable seed-borne diseases are noted upon field inspection or laboratory observation, seed treatment is recommended.¶

Association of Official Seed Certifying Agencies

Proposed Changes to Standards/Guidelines

Date Submitted March 24, 2021

Change to AOSCA: Standards X Guidelines _____

Crop Kind: White Clover AOSCA Commodity Committee Alfalfa/Small Forage Legumes

Proposal Sponsor Oregon, Idaho

Proposal Origination: AOSCA _____ Region _____ Agency X Other _____

Location in the AOSCA Standards/Guidelines (give specific citation):
Clover certification standards, seed standards table (Handbook page 40) White and Alsike.

Text of the original and amended portion of the Standards/Guidelines:
In the current version of the seed standards table, the minimum pure seed for the all class of white and alsike clover is 99.00%, and the inert matter is 1.00%. Weed seed for Registered class is 0.25%.

Proposal: Amend the table to state 98.00% minimum pure seed and 2% inert for all classes. Amend the weed seed standard at the Registered class to allow 0.30%

Brief summary about the background, purpose, and intent of this change:
Oregon is the primary producer of certified white clover seed. Ten of the last eleven years Oregon has produced certified white clover seed. In the same time, Idaho is the other AOSCA agency to report any acres of certified white clover seed. There were four years of production in Idaho that ceased after the 2015 crop. The Oregon white clover standard is 98% pure seed and 2% inert for all classes of certified seed and the tolerance for weed seed at the Registered seed class is 0.30%. During a review of certified seed standards at the local level, this discrepancy was noted. The intent is to align the AOSCA standard with the Oregon standard, which has been acceptable to that industry.

Narrative addressing seed industry impact/support/concern/other:
As the primary producer of this seed, the Oregon clover industry has requested AOSCA to make this change to ensure that the AOSCA standards are in line with the Oregon standards, which has been acceptable for certified seed customers for many years. If the producers are required to change from their current standards, they will suffer increased cleanout losses of genetically pure seed to meet the inert standard, which has not been a concern of the industry purchasing certified white clover seed. The change to the Registered class weed standard is minimal but will be consistent with the Oregon standard.

This standard is coupled together with the alsike clover standard on page 40. Canada is the most recent AOSCA organization to report acres of production, last certifying seed in 2012. The two standards may need to be separated if the alsike clover standards are not to change.

Summary of discussion(s) held by AOSCA and Seed Certifying Agencies:
Oregon and Idaho have briefly discussed the topic and are in agreement that the standard change warrants support. If a state wishes to have a more restrictive standard, they maintain the ability to do so.

Timeline and plan for the proposal: The draft proposal will be reviewed by seed certifying agencies prior to the regional meetings to be held in April 2021, with the goal of Council discussion and action at the 2021 AOSCA annual meeting.

Final disposition:

Association of Official Seed Certifying Agencies

Proposed Changes to Standards/Guidelines

Date Submitted March 29, 2021

Change to AOSCA: Standards Operational Procedures Guidelines _____

Crop Kind: Pre-Variety Germplasm AOSCA Commodity Committee Tree, Shrub, PVG

Proposal Sponsor Utah, Wyoming

Proposal Origination: AOSCA _____ Region _____ Agency X Other _____

Location in the AOSCA Standards/Guidelines (give specific citation):
Operational Procedures, Uniform System for bringing Varieties into certification (2020 Certification Handbook, page 131).

Text of the original and amended portion of the Standards/Guidelines:
No changes to original text. Only the addition of a few paragraphs to address PVG's being brought into certification. See supporting document – AOSCA PVG Eligibility 3-29-21

Brief summary about the background, purpose, and intent of this change:
State and federal agencies have submitted Pre collection applications where they are collecting small amounts of seed for research and seed increase and subsequent seed production and certification. This addresses how to handle such requests.

Narrative addressing seed industry impact/support/concern/other:
State and federal agencies such as USFS and BLM are collecting seed for research and increase that will later be entered into certification programs (likely as PVG's) these agencies typically have better taxonomic background than SCA staff and SCA's feel that there is no need to be second guessing their work. The addition of the proposed paragraphs to the AOSCA operational procedures helps to clarify ways in which these collections can more easily be brought into certification. These changes imply that there will need to be a formation of a PVG Advisory Committee that would be formed within the TSNP committee. It would be comprised of the chair and co-chair and a few others on the TSNP committee and a few outside individuals as recommended by the committee.

Summary of discussion(s) held by AOSCA and Seed Certifying Agencies:
Online meeting with several western agencies held on 3/18/21 to discuss how this should be handled. The original thought was to form a PVG review board but to avoid the additional work and complications of a review board it was suggested that a PVG advisory committee formed as part of the TSNP committee to help individual SCA's in the process of bringing these accessions into certification.

Timeline and plan for the proposal:
Discussion and approval at the 2021 regional meetings.

Final disposition:

Uniform System for Bringing Varieties into Certification in the United States

Determining Eligibility of Varieties for Certification

A. The AOSCA Eligibility Requirements for Varieties, as defined in AOSCA General Requirements for Seed Certification Standards, shall be observed in determining the eligibility of a variety for certification by a vested member agency.

   The right of each vested member agency and/or governmental unit to establish its own eligibility requirements inclusive of items A-I under Eligibility Requirements for Varieties is acknowledged.

B. Processes recognized by AOSCA in which varieties may be entered into seed certification include favorable action by one or more of the following which have considered the required varietal information, as listed above in "II. Eligibility Requirements for Varieties" (items A. through I.)

1. AOSCA Variety Review Board; or
2. Plant Variety Protection office or Breeder Rights statements (with additional items A through I, under Eligibility Requirements for Varieties, as needed); or
3. Any individual AOSCA vested member agency; or
4. Acceptance for certification under the OEDC seed schemes (with additional items A through I, under Eligibility Requirements for Varieties).

   AOSCA recognizes all of these processes for admitting varieties into seed certification.

Uniform System for Bringing Pre-Variety Germplasms into Certification in the United States

Determining Eligibility of Pre-Variety Germplasms (PVG's) for Certification

A. The AOSCA Eligibility Requirements for Germplasms, as defined in AOSCA General Requirements for Seed Certification Standards, shall be observed in determining the eligibility of a germplasm for certification by a vested member agency.

   The right of each vested member agency and/or governmental unit to establish its own eligibility requirements inclusive of the AOSCA Eligibility Guidelines for Pre-Variety Germplasm Types is acknowledged.

B. The process recognized by AOSCA in which germplasms may be entered into seed certification via favorable action by individual vested member agencies which have considered the required germplasm information, as referenced above in "AOSCA Eligibility Guidelines for Pre-Variety Germplasm Types and associated AOSCA documents: Pre-Variety Germplasm Requirements and Standards, Site Logs 1 and 2, and Application for Pre-Variety Germplasm.

   Species accessions (germplasms) may be collected on native or naturalized sites by public agencies, NGO's, and private companies for the purpose of direct revegetation planting or for cultivated seed production as manipulated or natural (non-manipulated) germplasms. Wild collected or field produced Pre-Variety Germplasms are eligible for entry into seed certification. The AOSCA Tree, Shrub, and Native Plant Committee PVG Advisory Committee may be consulted for aid in the process of determining eligibility for Pre-Variety Germplasms applied for certification. Individual AOSCA vested member agencies are responsible for determining the final status of these applications.

Commented [MB1]: 2020 AOSCA Yellow book page 131.

Commented [MB2]: 2020 AOSCA Yellow book Page 6.

Commented [MB3]: Is this correct? It appears that it should be "through H"

Commented [MB4]: I propose that this be added to the existing page to follow "Uniform System for bringing in Varieties…

Commented [MB5]: Page 180 of the 2020 AOSCA yellow book

Commented [m6]: Are you, by having this in the handbook, requesting the formation of this formal committee?

Commented [MB7R6]: Yes, this would include those recommended by the TSNP Committee and will likely be mostly comprised of those on the TSNP committee with a few others as recommended.

Association of Official Seed Certifying Agencies

Proposed Changes to Standards/Guidelines

Date Submitted March 29, 2021

Change to AOSCA: Standards __ Guidelines Guidelines for Various Practices

Crop Kind: Pre-Variety Germplasm AOSCA Commodity Committee Tree, Shrub, PVG

Proposal Sponsor Utah, Wyoming, Nevada

Proposal Origination: AOSCA _____ Region _____ Agency X Other _____

Location in the AOSCA Standards/Guidelines (give specific citation):
Guidelines for Various Practices, Eligibility Guidelines for PVG Types (2020 Certification Handbook, page 182).

Text of the original and amended portion of the Standards/Guidelines:
No changes to original text. This is the addition of another line in the PVG application to include the needed geographical information.

Added text: Source location information. Include State, County, and elevation or other geographic designation for Natural Track G0 or Manipulated-Track G1

Brief summary about the background, purpose, and intent of this change:
Makes the application information more complete by including geographic information required for tagging.

Narrative addressing seed industry impact/support/concern/other:
No impact anticipated.

Summary of discussion(s) held by AOSCA and Seed Certifying Agencies:
Became aware of this needed addition while reviewing PGV eligibility. Reviewed by Utah and Wyoming SCA's.

Timeline and plan for the proposal:
Discussion and approval at the 2021 regional meetings.

Final disposition:

Association of Official Seed Certifying Agencies
Application for Pre-Variety Germplasm*
(See attached INSTRUCTIONS)

Applicant _____

Address _____

Telephone _____ Fax _____ E-mail _____

A. Germplasm Originator _____ Germplasm Developer _____

Germplasm Identification Term _____ Indigeneity _____

Germplasm Type (SI, S, or T) _____ Genetic Track _____

Species: Common Name _____ Latin Name _____

Primary Use _____

B. Origin and Development History

C. (1) Botanical (morphological characters) description

(2) Objective (performance claims) description

D. Evidence (numerical data, graphs, charts, etc.) supporting the morphological characters and performance claims of the germplasm.

E. Area of adaptation

F. Source location information. Include State, County, and elevation or other geographic designation for Natural Track G0 or Manipulated-Track G1

G. Procedure for maintenance of stock seed

H. Generations, age of stand, or geographic limitations

I. Sample of seed (if required by certifying agency)

_____ _____

Signature of Applicant Date

* Form may be modified to meet individual agency needs