

Minutes of the 2011 Meeting
Grass and Legume Advisory Committee
Certification, Foundation Seed and Plant Materials Board

Wednesday, December 7, 2011 LaSells Stewart Center Corvallis, Oregon

Members present: Collin Crocker, Travis Feigner, Jodi Keeling for Adriel Garay, Brian Parker, Randy Black for Ron Pence, Ken Strahan, Dan Nelson, Colin Scott, Les Gilmore, Mary Beth Menard, Dan Curry, Mark Mellbye, Tom Silberstein, Reed Barker, Dennis Lundeen, Kevin Loe, Roger Ruckert, Brad Jeffreys, Randy Knight

Guests present: Dan Hemshorn (Pickseed-Seed Research); Dan Walters (DLF-International Seeds); Oscar Gutbrod (OSCS) Jodi Keeling (Seed Laboratory, OSU); Farhad Shafabakhsh (OSCS); Don Floyd (Pickseed); Rachel Hankins (OSCS); Terry Burr (OSCS); Iraj Motazedian (OSCS); Barry Schrupf (OSCS); Sandy Smith (OSCS); John Zielinski (OSCS); Jeff McMorrان (OSCS)

Call to Order and Introductions: Chairman Ruckert called the meeting to order at 11:30 AM. Those in attendance introduced themselves and stated their respective affiliations.

Approval of the Minutes: A **Motion passed** to accept the 2010 Annual Meeting minutes as published.

Item 1: New certification crop standards for Utah Sweetvetch.

Barry Schrupf presented certification standards for Utah Sweetvetch. A new crop for certification and Barry thought the first Oregon planting was in 2009. Barry has only seen Spring planted varieties to date. This crop is a perennial and pollinated by insects. It was asked if this crop needed to be isolated from other legumes and Barry said no, only from itself. Barry only knew of one named variety. A **motion passed** to accept the standards as presented.

Item 2: Tag signature capabilities on certification tags.

Farhad Shafa explained the recent effort by OSCS to block counterfeiters from making imitation tags. A watermark was added to certification tags about a year ago but additional features will help reduce counterfeiting. OSCS will be introducing the addition of a digital signature, making each tag unique. If a tag is believed to be suspect for some reason they can go on-line with OSCS to determine if the tag is a counterfeit. Information to direct the end user for counterfeit determination will be on the back of the tag.

Item 3: Revisions of Kentucky bluegrass, Bluegrass, and Big bluegrass crop standards and General isolation standards in the OSCS Handbook.

Barry Schrupf explained that **Kentucky bluegrass** varieties in certification were reviewed and the apomictic level for many was less than 95%. The proposed format for explaining the standards is an effort to describe the isolation requirements in respect to the different levels of apomixis. The proposed format for the Kentucky bluegrass standards is shown in the handout. Les Gilmore from CHS in Madras has reviewed the revised format and has no objections to the language. It was noted by the group that using a minimum isolation of 15 feet, the isolation zone would rarely exceed 10%. A **motion passed** to accept the presented format for Kentucky bluegrass standards. **Bluegrass** standards were revised to only address cross-pollinated Poa species. A **motion passed** to accept the presented format for Bluegrass standards. Stand-alone **Big bluegrass** standards were presented. Big bluegrass is apomictic thus the standards read the same as those for Kentucky bluegrass. This committee had previously requested that standards be separated by crop and it is believed this makes the standards easier to read. A **motion passed** to accept the stand-alone standards for Big bluegrass. A reorganized format of the **General standards** was presented. This is an attempt to make these isolation standards easier to understand and apply. A **motion passed** to accept the reorganized format in the General standards.

Item 4: Revision of perennial ryegrass crop standards where they refer to isolation of Oregon Annual with Linn Perennial.

Rachel Hankins explained the reasoning behind the proposed revision. She suggested removing the reference to isolation between Linn Perennial and Oregon Annual in footnote #1 of the Perennial

Minutes of the 2011 Meeting
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Ryegrass standards. Rachel said Oregon Annual was never a certified variety and that common belief is there is no true Oregon Annual left, either in production or in the wild. She noted that history says Linn was developed without isolation from Oregon annual, resulting in the sentence in the footnote. A **motion passed** to strike the following sentence from footnote #1: "**Linn does not have to be isolated from Oregon Annual Ryegrass**".

Item 5: Discussion of the use of growth regulators on seed stock production fields.

Terry Burr referred to a meeting that was held on October 27, 2011 to discuss this topic. Terry reviewed a letter that summarized the October 27 meeting and made it available for the committee and guests to read. At the October meeting Dr. Tom Chastain from OSU gave a presentation on the effects of growth regulators on plants. Doug King from Pickseed thought that seed stock production would benefit from growth regulators and the expected higher yields. The impact of growth regulators on the ability to distinguish off-types was discussed at the same meeting. It was pointed out the restriction of not using growth regulators on seed stock was put in place ten years ago and considerable experience has been gained since then on this topic. The group at the October meeting came to the consensus that any future use of growth regulators on seed stock production would be determined between the grower and plant breeder/variety owner. It was noted that there are many variables associated with the application of growth regulators that may result in a different plant response. A crop that is not lodged would likely benefit the certification evaluation of the crop plants and the noxious weeds may be more visible. A **motion passed** to make the following changes to the OSCS handbook: "**Remove all references to the use of growth regulators on all grass species (no restrictions on their use for certified seed in Oregon). Growth regulator use on legumes will still be restricted. This change is to take effect in 2012 assuming approval by the Seed Certification Board.**"

Item 6: Discussion on a change to the required ploidy level for certified ryegrasses.

Dennis Lundeen referred to a meeting that was held on October 27, 2011 to discuss the ploidy level for certified ryegrasses. Many at the meeting felt that a certification minimum ploidy level of 98% for ryegrasses was too difficult. Dennis made a letter summarizing the discussion at that meeting available to this committee and guests to read. At the October meeting the use of the flow cytometry method for determining the ploidy level of a plant was explained by Sabry Elias from the OSU Seed Lab. There were some concerns expressed by the group during the October meeting that included: the need for built-in tolerances to allow for normal variation in seed testing; the possibility of shifts in a given variety from tetraploid to diploid; industry frustrations with the quality of seedstock from other countries; the quality reputation of Oregon certified seed vs staying internationally competitive; taking into account the regulatory requirements within the Federal Seed Act. The consensus reached by the group at the October meeting was: any change in ploidy level for certification would apply to perennial, intermediate and annual ryegrass varieties; the minimum requirement for all certified tetraploid ryegrass varieties would be 95% measured using the flow cytometry testing method; any requirement for a ploidy level of something less than 95% may be determined by the plant breeder/variety owner with supportive documentation but production fields of tetraploid varieties with an established ploidy level less than 95% would not be eligible for reduced isolation against diploid varieties. Don Floyd asked if going below 95% would result in the variety being classified as a mixture by the Federal Regulatory Agency. The group responded stating that a mixture is defined as having more than one kind or variety exceeding 5% and thus a lot with less than 95% tetraploid may be considered a mixture by USDA. Dennis said the complaints from industry primarily involved ploidy tests that came back just under 98%, say 96% or 97% and were not eligible for certification. Dennis suggested this committee also decide what level of ploidy is acceptable for Registered and Foundation classes. They are currently at 99% and 100% respectively. Historically there has not been a problem meeting the minimum ploidy for Registered or Foundation. Oscar Gutbrod said Spring grow outs of tetraploid varieties was a good method used in the past to determine purity. It was noted that most OECD varieties do not come to OSCS with variety descriptions. Different pre-control samples of the same variety but different seed lot have been tested for ploidy and found to vary by 20%. Reed Barker thought given the nature of the flow cytometry test that 95% would be an acceptable minimum for the level of tetraploid in a sample. Comment was also made that the level of

Minutes of the 2011 Meeting
Grass and Legume Advisory Committee
Certification, Foundation Seed and Plant Materials Board

Wednesday, December 7, 2011 LaSells Stewart Center Corvallis, Oregon

ploidy can genetically shift some from one generation to another in tetraploid varieties. A **motion passed** to accept a 95% ploidy level for the purposes of certification on tetraploid ryegrasses in the certified generation. The accepted level of ploidy for registered and foundation generations would remain the same, 99% and 100% respectively.

Item 7: Revision of all ryegrass field history standards to address festulolium and revision of festulolium standards to include intermediate ryegrass in the field history.

Jeff McMorran explained the need to revise the field history standards of festulolium to address intermediate ryegrass. A **motion passed** to put intermediate ryegrass with annual ryegrass, requiring five years out before planting festulolium to produce certified class seed. Jeff then proposed similar changes in each of the ryegrass field history standards to include comments regarding festulolium in the crop history. A **motion passed** to group festulolium with annual ryegrass in each of the ryegrass field history standards. When the field history includes festulolium, the field history requirement would be the same as those required when annual ryegrass is in the field history.

Item 8: Revision of all ryegrass crop standards to clarify ploidy testing requirements.

Jeff McMorran identified this item as more of a house keeping change for the purpose of clarity. Jeff presented a change in the definition of "Ploidy Test" on page 12 of the OSCS Handbook but no consensus was attained and that definition did not change. However a **motion passed** to add a line to the bottom of the "Seed Standards" tables found in each of the ryegrass standards indicating the ploidy test minimum allowed in each seed class along with an explanation of the ploidy test in a footnote below the "Seed Standards" table.

Item 9: Revise brome standards to include *bromus riparius*.

Randy Knight presented revised brome standards. Current brome standards do not include *bromus riparius* apparently due to an oversight. OSCS now has a variety of *bromus riparius* in the program and standards are needed to make crop and seed evaluations. A **motion passed** to adopt the proposed revised standards as presented.

Item 10: Proposal to change purity standards for Yukon bermudagrass.

Mary Beth Menard and Dan Hemshorn presented a proposal to change the minimum purity and germination for Yukon bermudagrass certified in Oregon to 96% and 80% respectively. This request is because Yukon bermudagrass grown for seed in Oregon in indeterminate resulting in excess inert in the clean seed. Attempts to clean out the excess inert have resulted in excessive loss of good seed. The group asked if this would likely be the case with any bermudagrass grown for seed in Oregon and the consensus was that it would be. The current standards used in Oregon were taken from CA Crop Improvement Association. Arizona and Oklahoma have similar standards. The committee supported changing the standards for the species, not just Yukon. A **motion passed** to change the purity to 96%, germination to 80% and inert to 4% for the species of bermudagrass in the current Oregon standards.

Item 11: OECD Annual Ryegrass Early Tagging Program.

Jeff McMoran reviewed the OSCS Early Tagging Program for OECD annual ryegrass production that has been used the last two growing seasons. The program was initiated to accommodate earlier shipping of annual ryegrass destined for overseas. The program requires an extra inspection in the field to collect leaf samples to be tested for ploidy level. The leaf ploidy level is intended to increase the confidence that later seed ploidy test results would be favorable for OECD certification. There were three companies that participated in the program in 2010 and one in 2011. Using this program allowed shipping to occur as much as 12 days earlier. The committee was in support of continuing the Early Tagging Program another year to further assess the value and confidence in the protocol.

Minutes of the 2011 Meeting
Grass and Legume Advisory Committee
Certification, Foundation Seed and Plant Materials Board

Wednesday, December 7, 2011 LaSells Stewart Center Corvallis, Oregon

Item 12: *Vulpia myuros* / Annual Fescue / Fine Fescue isolation.

John Zielinski brought forward the question of isolation needs between fine fescue and annual fescue (rattail fescue). John said there is an increasing presence of annual fescue contamination in fields adjacent to certified fields of fine fescue. John called isolation one time on a certified field of sheep fescue that bordered a grass field with excessive annual fescue. Reed Barker indicated he thought crossing was possible due to the same chromosome levels in most fine fescues and annual fescue. Annual fescue is known to have a 42 chromosome number. Oscar commented that he had seen evidence of hybridization between the perennial fine fescues and annual fescue. Reed suggested identifying the most recent information on nomenclature for fine fescue to be confident in our conclusions and application. John said he had used variety descriptions to help identify the chromosome levels. The consensus of the group was to delay a decision until plant breeders could provide more input.

Item 13: Dennis Lundeen informed the group of additional certification requirements initiated by BASF in relation to Clearfield wheat traits. Customers are now asking OSCS to certify based on the presence of certain traits in a given variety. AOSCA has agreed to accommodate the additional requirements in order to meet certification. The specified traits or requirements must be clearly defined in the variety description. These requirements brought forward in variety descriptions will be voluntary and outside the crop standards that are listed for general certification of a given crop. These kinds of voluntary items will be distributed via the AOSCA office to all states so procedural activities will be the same in all AOSCA state agencies.

Other business:

Item 14: Dan Nelson wanted to point out that current minimum purity standard for certified perennial ryegrass is 97% but that industry standards for marketing require 98%. Dan was asking if the minimum purity standard for perennial ryegrass certification should be raised to 98%. It was pointed out that currently there are nine perennial ryegrass varieties listed in the OSCS Handbook that require 99% purity to be eligible for certification. It was also noted that minimum purity standards for most Kentucky bluegrasses was 95%. This would be a low value in the market. Dan plans to bring this topic forward at the annual OSTA meeting and see if a letter could be developed and sent to the Ryegrass Commission.

Item 15: Reed Barker provided a handout with two suggested definitions to be entered into the OSCS Handbook on page 12 after item 5 "Ploidy Test". The **first definition** is for "**Molecular Tests: These are the tests of either nucleic acid or proteins in plant cells. The tests are related to specific genes controlling plant characteristics that are used for Certification purposes. These marker tests may be used for trait presence verification or as genetic identity tests.**" The second to add is "**Allelic Discrimination Test: In ryegrasses, an allelic discrimination (A/D) test may be used in lieu of an AOSA Grow-out test to separate annual and perennial ryegrass types for certified samples.**" The Allelic Discrimination Test definition was edited to remove the word "Oregon" in the definition and change the letter "c" in certification to lower case. A **motion passed** to accept both definitions and to add them on the current page 12 after "Ploidy Test".

Item 16: Reports

- OSU College of Agriculture / Crop and Soil Science Department Report

Dan Curry provided the committee a report prepared by Dr. Russ Karow, Department Head, concerning departmental and extension activities, comments on state and federal budgets, grant funding and faculty positions.

- Oregon Seed Services Report

Dan Curry provided a report explaining Seed Services activities for distribution to the committee. Dan said fifteen Oregon warehouses have signed up to participate in the ISTA/ISF Seed Lot Size Experiment.

Minutes of the 2011 Meeting
Grass and Legume Advisory Committee
Certification, Foundation Seed and Plant Materials Board

Wednesday, December 7, 2011 LaSells Stewart Center Corvallis, Oregon

- OSU Seed Laboratory Report

Jodi Keeling from the Seed Lab said due to the late harvest dates this year there were a lot of rushes submitted with the samples. New staff have been hired to replace those that retired. Most samples were planted for germination the day the sample arrived or the next business day. About 85% to 95% of the annual ryegrass germination tests were ended after seven days when maximum germination was reached. The lab has recently hired Carrie Lewis as the new purity supervisor.

- Oregon Department of Agriculture Report

Randy Black provided one handout explaining "Key Provisions" of the new Slow Pay / No Pay rule to the group. This new law is proceeding through the process and public hearings will be held. Randy reminded this group that the rule only applies to grass seed.

Item 17: Elect 2012 vice-chairman from Oregon Seed Growers League representatives.

Bruce McKee was unanimously elected incoming vice-chairman of the committee.

Item 18: Identify the representative attending the Certification Board meeting in February.

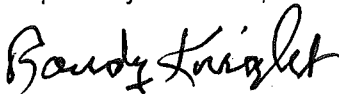
Dan Hemshorn will represent this committee at the annual Board meeting.

Item 19: Select date and time for next annual meeting of this committee.

By consensus, the next annual meeting of the committee will be scheduled in Corvallis for the Wednesday following the Oregon Seed Growers League annual meeting.

The meeting adjourned at 3:30 PM.

Respectfully submitted,



Randy Knight, Secretary
December 20, 2011

Enclosures

List of Committee members, page 6

Motions for consideration by the Certification Board, page 7

cc: Sonny Ramaswamy, Dean, College of Agricultural Sciences, OSU
Jan Auyong, Assistant Director, Agricultural Experiment Station, OSU
William S. Braunworth, Program Leader, Extension Agriculture, OSU
Karl Dettwyler, President, Oregon Seed Growers League
John Thyssen, President, Oregon Seed Trade Association

Minutes of the 2011 Meeting
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 Certification, Foundation Seed and Plant Materials Board

Wednesday, December 7, 2011 LaSells Stewart Center Corvallis, Oregon

Committee Members

Name	Affiliation	Term*
Roger Ruckert <i>Chair</i>	Oregon Seed Growers League	2011
Brad Jeffreys <i>Vice-chair</i>	Oregon Seed Trade Association	2012
Kevin Loe	Oregon Seed Growers League	2012
Travis Feigner	Oregon Seed Growers League	2013
Collin Crocker	Oregon Seed Growers League	2013
Brian Parker	Oregon Seed Growers League	2012
Bruce McKee	Oregon Seed Growers League	2012
Ken Strahan	Oregon Seed Trade Association	2011
Dan Nelson	Oregon Seed Trade Association	2011
Les Gilmore	Oregon Seed Trade Association	2013
Mick McGregor	Oregon Seed Trade Association	2012
Mary Beth Menard	Oregon Seed Trade Association	2012
Colin Scott	Turfgrass Breeders Association	2011
OPEN	OSU Extension Specialist Seed Production	Permanent
Tom Silberstein	OSU Extension Agent Marion County	Permanent
Mark Mellbye	OSU Extension Agent Linn County	Permanent
Reed Barker	OSU Grass Genomics	Permanent
Russ Karow	OSU, Crop and Soil Science Department Head	Ex-officio
Dan Curry	OSU, Crop and Soil Science Seed Services Director	Ex-officio
Dennis Lundeen	OSU Extension Specialist Seed Certification, Manager	Ex-officio
Adriel Garay	OSU Seed Laboratory Manager	Ex-officio
Ron Pence	Oregon Department of Agriculture; Commodity Inspection Division Assistant Administrator	Ex-officio
Randy Knight <i>Committee Secretary</i>	OSU Extension Specialist Seed Certification	Ex-officio

* Term expires at the end of the annual Certification Board Meeting in February of the following year.

Minutes of the 2011 Meeting
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Wednesday, December 7, 2011 LaSells Stewart Center Corvallis, Oregon

Motions recommended for approval by the Certification Board at its next annual meeting
February 14, 2012

1. Accept new Utah Sweetvetch crop standards as presented.
2. Accept amended **crop standards for Kentucky bluegrass**. Accept amended **crop standards for Bluegrass**. Accept stand-alone **standards for Big bluegrass** Accept the reorganized language and format of the **isolation section of the General standards** of the OSCS Handbook.
3. Accept the amended **perennial ryegrass crop standards** regarding isolation and the reference to Oregon Annual as presented.
4. Accept the removal of all references in the **OSCS Handbook** regarding the use of growth regulators on grass species.
5. Accept amended **crop standards for ryegrasses** to identify 95% as the minimum acceptable ploidy level.
6. Accept amended **crop history in all ryegrass crop standards** to recognize festulolium. Accept amended **crop history in festulolium crop standards** to recognize intermediate ryegrass.
7. Accept the addition of another line in the seed standards table for each of the ryegrass standards to state the minimum ploidy test results acceptable for certification. In addition, a footnote would be added to all ryegrass crop standards to clarify the ploidy test requirement.
8. Accept amended crop standards for Brome as presented.
9. Accept amended crop standards for Bermudagrass as presented.
10. Add two definitions on page 12 of the OSCS Handbook under "D. Seed Tests and Analytical terms", after "Ploidy Test" as items six and seven. The first **definition is for "Molecular Tests"** and the **second is for the "Allelic Discrimination Test"**.