Grass and Legume Advisory Committee

Schedule and Agenda
December 7th, 2022 1:00 PM
Linn County Extension Office, Tangent OR

Members Present: Kevin Osborne, Bruce McKee, Brett Freeborn, Terri Burr, Eric Troyer, Roger Ruckert, Brian Parker, Tim Ford, Nicole Anderson, Ryan Hayes, Dan Curry, Andrew Altishin, David Stimpson, Elizabeth Savory, Craig Agidius (Secretary)

Others Present: Zach Allen, Lorinda Hughes, Rachel Hankins, Meagan Freauff, Jodi Keeling, Alex Albion, Tami Brown, John Zielinski, Jeff McMorran

Call to Order (Kevin Osborne) 1:05 PM

1. Welcome: Introductions.
2. Changes/additions to agenda.

   No additions or amendments were made.
3. Approval of Minutes from the 2021 meeting.

   The link to the 2021 Minutes was sent out via email in addition to a provided copy at the meeting. All approved the minutes as written with no corrections.
4. Certification Board actions concerning Grass and Legume Committee (Tami)

   Tami shared the updates from the Board stating that the motions put forward from the committee were all passed and are listed in the front of the 2022 Seed Certification Handbook.
5. **Item 1** – Update from lab on flow cytometry results (David Stimpson) Appendix 1

   Dave Stimpson presented the results from the referee for the flow cytometry test noting a few issues in the results. He mentioned that it appeared that the packets were mislabeled and the referee was invalid. However, Dave noted that the only result that could have been out of tolerance would be OSU sample 6 which came out to 90 but was expected to be 96. Dave noted that there is always variability in testing but that doesn't take away from the overall value of the test. He proposed that any test where the lab result shows between 95% and 90%, the lab will redo the ploidy test at no charge to validate the results. In addition, OSU Seed Lab will take every 30th sample and split it in half sending one of the samples to Agri Seed Testing and OSU Seed Lab would test the other half. OSU will keep track of these over the course of the year doing up to 20 samples equating to roughly 3% of the annual samples. At the end of the year, an analysis would be done regarding the variability of the samples in a systematic way to report back at next year's meeting. Dave responded that if the results come out below 90 that it is probably something that's really out

there or off in the results. Several in the group agreed that this would be an acceptable plan moving forward and will be interested in seeing the results of this next year.

6. **Item 2** – Update Chicory Standards – sample size to pull (Jodi) Appendix 2

Jodi shared that there was no minimum sample size for Chicory listed in the standards. She stated that OSCS would like to add a half-pound minimum sample size requirement for Chicory to the standards based on the seed size and an AOSA rule. The motion was made to accept the new minimum sample size requirement for Chicory to the OSCS standards. The motion was seconded and passed unanimously.

7. **Item 3** – Update Annual Ryegrass standards to allow for one more non-fluorescing seedling (Jodi) Appendix 3

Jodi shared the way that the standard is currently written states that 0.1% perennial ryegrass is allowed for Foundation generation annual ryegrass. Jodi informed the group that 1 non-fluorescing seedling even if germinated at 100% would be at 0.25% and would never be 0.1% as currently listed. She stated that if we want it to be zero that it should be zero but if the desire was to allow for 1 non-fluorescing seedling than it should be updated accordingly. The motion was made to accept the change from 0.1% to 0.28% non-fluorescing seedlings allowed in annual ryegrass of the Foundation generation. The motion was seconded and passed unanimously.

8. **Item 4 –** Field History: unless same variety and certified (Andy) Appendix 4

Andy presented the OSCS land requirements for grass species listed in our standards including those that deviate for bluegrass. The OSCS land requirement for most grass species states for Registered and Certified classes, these requirements are waived if the previous crop was of the same variety, same or higher class and certified. The bluegrass OSCS land requirements state that land must not have grown or been seeded to another variety of bluegrass for production of certified seed during the previous three years, unless the previous crop was of the same variety and passed certification field requirements. He mentioned that as we get applications and evaluate them that there is a bit of a grey area in the standards. He also shared the Federal Seed Act grass requirement as well as the AOSCA grass land requirement. He continued to share that this isn't an issue when fields are inspected and certified every year or that if a field gets taken out and planted right back to the same variety. It more so pertains to fields that are not to be certified this year or crops that are not inspected for a number of years. Andy asked for input from the group because OSCS either applies a standard that is too strict or not strict enough. Andy responded saying that he is driving at the definition of a "Crop" that OSCS needs to be using. He shared that the Federal Seed Act and AOSCA doesn't define the word Crop. He asked if it is the previous harvested crop or the cultivated field and cultivated plants. A long discussion followed including many examples of how this could be problematic, weighing the different interpretations of the words previous crop. From this discussion, one member stated that they would side on the stricter standard because

the whole point is to protect and ensure the genetics. Andy asked the group if they are implying that the field needs to have a crop inspection the year prior to being re-planted. There was an agreement with most that the whole point of certification is to ensure genetic integrity. In that, they need to take a more stringent view on what that definition would be. A motion was made to make the land requirement standards in the instance were the terms previously used for grasses and legumes "…unless the previous crop was the same variety, class and certified" to be updated to be similar to the Kentucky bluegrass standards. After more discussion, an amended motion was made to the group stating that for Registered and Certified classes these requirements are waved if the previous crop year was of the same variety, same or higher class, and passed certification field requirements for genetic purity. The amended motion was seconded and passed unanimously.

9. **Item 5** – Field boundaries – update definition (Tami) Appendix 5

Tami shared that OSCS has received questions regarding the definition of a field. Some interpret the definition to mean the entire tract of land. Others brought up situations where multiple small fields are clearly isolated within forested areas but are all the same variety, planted at the same time and would like those to be considered as one "field." This results in frustrations as inconsistent policies are being applied. Tami proposed that by adding the word "contiguous", meaning 'next to,' would resolve many of these situations. OSCS also added verbiage that would allow in some circumstances fields that aren't right next to each other to be considered as one field. She gave an example of a 2-acre portion being split from a larger portion by a farm lane to be accepted as one field. She described how a grower would call their inspector regarding the 2 portions of farmland stating that they would like to be considered as one field and that it would be left up to the inspector to make the call on whether it could or couldn't be. After some minimal clarifying discussion, a motion was made to accept changes to the definition of a field in the OSCS standards to read, "The certification unit is the entire contiguous field. Combining two fields separated by a fence, ditch, or farm lane must be approved by the inspector". The motion was seconded and passed unanimously.

10. **Item 6** – Update the definitions for Blend and Mixture (Andy) Appendix 6

Andy shared that he got a phone call from a seed company that was having an issue with other states regarding the OSCS definitions for a blend and a mixture. Andy shared the definition of a mixture under the Federal Seed Act to show how it differs from the OSCS definition of a mixture. There are stop sales occurring in other states due to this difference in definitions. He expressed that he investigated 30 years into the past to try and understand why our definition differs from that of the Federal Seed Act but came up empty handed. Andy also added that he included the Recommended Uniform State Seed Law showing that it mirrors the same thing noting that a mixture is different kinds and that a blend is one kind of different varieties. A member responded by saying that they have had issues with other

states regarding the way they defined a blend and a mixture. Andy expressed that the reality of the OSCS blend program is that there is probably a better term for it. Blend is a good term but not the proper term for OSCS. Andy stated that he is looking for a motion to harmonize with the Federal Seed Act and the other states that have it more clearly defined. One member asked if we need to create a third category for what we are trying to do in Oregon otherwise we won't fit in other state requirements. Andy suggested that a sub-committee look at this topic working with OSA and to report back to the GLAC. Brett Freeborn, Terri Burr, Kevin Osborne, Jerry Cooper, and Andy Altishin all volunteered to be a part of the sub-committee. An amended motion was made to accept the sub-committee in working with the OSA and to report back to the GLAC regarding the harmonization of the definitions for a blend and a mixture.

11. Reports:

    a. College of Agriculture/Crop and Soil Science Department (Tom Chastain) Appendix 7
    Dan C. presented Tom Chastain's report in his absence which involved department personnel changes as well as news regarding faculty and students from CSS attending the joint meetings of the American Society of Agronomy, Crop Science Society of America, and the Soil Science Society of America.
    b. OSU Seed Services (Dan Curry) Appendix 8
    Dan C. then presented The Seed Services report including information on the Gulf annual ryegrass and KY-31 tall fescue project, an update on the PCR test determining perennial ryegrass from annual ryegrass, and a team of researchers that are working to develop a prototype machine that could sort off-type seed from pure grass seed.
    c. Oregon Seed Certification Service (Andy Altishin) Appendix 9
    Andy presented his report. He highlighted the activities of 2022 and noted that he believes that we are mirroring the 2008 economic drop in certified acres showing why acres are going down a bit. He followed up by sharing that he believes we are in a bit of a downward spin for certified acres over the next couple of years but that it should come back as the economy starts to recover. He continued his report by sharing that Jeff McMorran is retiring but will be going to a half-time appointment. With Jeff going to a half-time appointment, Tami Brown will be taking over the potato program. He mentioned Jennifer Vahl who is the sampler for the Linn, Lane, and Benton counties and how she has helped cover the Yamhill and Polk counties as well this year. OSCS is working to fill a full-time position to take over the Yamhill, Polk, and Washington Co which previously was a part-time position for Yamhill and Polk.
    d. Oregon State Seed Laboratory (Dave Stimpson) Appendix 10
    Dave shared that he has had staffing issues like everyone else. He presented his pre-picking program in training students in the industry to become seed analysts which has been a successful way of filling analyst positions. There will be future changes in reclassifying job descriptions for the seed lab to stay competitive and to broaden the hiring pool. He also shared that he is putting together a workshop through Chemeketa Community College to expose students to the seed industry and give them a hands-on training in becoming analysts.
    e. Oregon Department of Agriculture (Elizabeth Savory) Appendix 11
    Elizabeth reviewed the Pesticide Program's request to share the importance of correctly labeling treated seed under the Oregon Law with the correct labels. She also gave an update regarding the harmonization of the sod quality standards between Oregon, Idaho, and Washington and how OSCS will take over issuing sod quality tags. Elizabeth also shared the export stats for 2022.

12. Elect 2023 Vice-chairman from Oregon Seed Association representatives who would then become committee chair and ex-officio member of SCAC in 2024.

    Terri stated that she would be willing to chair next year. It was quickly moved and seconded to accept Terri.

13. Select a representative to report to the 2023 Board Meeting on February 23rd, 2023.

    Terri Burr volunteered to be the representative to the Board.

14. Select date and time of next annual meeting.

    The group unanimously agreed to the day after Seed Growers League at the Linn County Extension Office in 2023.

15. Adjourn.

Respectfully Submitted,

Craig Agidius

Enclosures:

Appendix 1: Flow Cytometry Results
Appendix 2: Chicory Standards
Appendix 3: Annual Ryegrass Standards
Appendix 4: Previous Land History Question
Appendix 5: Field Boundaries Definition Update
Appendix 6: Blend and Mixture Definition Update
Appendix 7: OSU Update
Appendix 8: OSU Seed Services Update
Appendix 9: OSCS Update
Appendix 10: OSU Seed Lab Update
Appendix 11: ODA Update

CC: Staci Simonich, Dean, College of Agricultural Sciences, OSU
Bryan Ostlund, Executive Director, Oregon Seed Growers League
Dustin Withee, President, Oregon Seed Association

Action Items for the Board

2022 Grass and Legume Advisory Committee

1. Update Chicory Standards in the Handbook: Header of the Seed Standards table, adding Minimum Sample Size – ½ Pound.
2. Update Annual Ryegrass Standards to allow for one more non-fluorescing seedling in the Handbook: In the Seed Standards Table, changing 'Perennial Ryegrass, maximum' from 0.10% to 0.28% and 'Total other crop including perennial ryegrass, maximum' from 0.20% to 0.38%.
3. Field History Update in the Handbook to make the land requirement standards in the instance where the terms previously used for Grasses and Legumes "…unless the previous crop was the same variety, class and certified." Field History requirements for most grasses and legumes will now read "…Registered and Certified classes, these requirements are waived if the previous crop was of the same variety, same or higher class and passed certification field requirements for genetic purity."
4. Update definition of Field Boundaries in the Handbook: Section IV. E. Field Management Inspection, 1.e. Field Management Prior to Field Inspection, "The certification unit is the entire field" will change to "The certification unit is the entire contiguous field." Combining two fields separated by a fence, ditch or farm lane must be approved by the inspector.
5. Update the definitions for a Blend and Mixture to harmonize with the Federal Seed Act. A sub-committee was created to look at this topic to work with OSA in order to re-define a Blend and a Mixture in the OSCS Standards.

Ploidy Variability Issues

Issues brought to OSU Seed Lab

Investigation completed wherein no root causes were identified.

Analyst came forward and admitted that they were using an incorrect equation. This indicates a training issue. Corrections were made to ensure that training is happening correctly.

It was decided that a referee was needed to evaluate the amount of variability in testing between labs. Seven or eight labs should be included.

All commercial labs in the US were contacted and only two perform ploidy tests. Several research labs were identified that could perform ploidy tests.

Of the research labs, only the one in EU agreed to perform the tests once the number of samples was determined. That lab does not routinely perform ploidy tests in this manner but it was decided to include them for the analysis. (In the seed industry we view sample numbers differently than research labs. We were interested in testing seven samples of 200 seeds each. They viewed that at 1400 samples and could not dedicate the time or effort into doing that number.)

Samples were packetted blindly and sent to the three labs last June.

Final results were received the last week of October.

Results

Results	% Tetraploid						
	Sample #						
Lab	1	2	3	4	5	6	7
OSU	92	100	57	0	90	88	98
Lab 1 A	93	100	74	0	96	93	98
Lab 1 B	90	100	53	0	96	91	99
Lab 2	0	0	100	100	96	92	100
Expected	91	0	100	52	99	96	93

It appears that the packets were mislabeled.

The test is invalid due to the mislabeled samples. However, there may be some value in looking at the data after correcting based on the results.

This is how I believe it should have been.

Lab	1	2	3	4	5	6	7
OSU	92	0	100	57	98	90	88
Lab 1 A	93	0	100	74	98	96	93
Lab 1 B	90	0	100	53	99	96	91
~~Lab 2~~	~~0~~	~~100~~	~~0~~	~~100~~	~~100~~	~~96~~	~~92~~
Expected	91	0	100	52	99	96	93

Discussion

It appears that Lab 2's data is invalid due to misinterpretation of results.

The other unexpected result is Lab 1A sample 4. This is unexplained but anecdotally I learned that the analyst that performed the Lab 1A tests found that referees were too stressful and resigned immediately after completing the referee. Lab 1B was submitted at a later date after a new analyst was trained.

It appears that the only result that could be out of tolerance (there is no tolerance table for ploidy because there are not enough data to create one) is OSU sample 6.

Conclusions

There is some variability. It is difficult to say how much is expected or allowed.

The variability is NOT so much that the tests have no value. Therefore we should make some rules that can help us operate within the existent variability.

Going Forward

Retest samples that fail but are 90 or higher.

Have Lab 1 and OSU test every 30th sample up to 20 samples per year. (We have averaged 460 samples in the past three years.)

Analyze the data and report at the next meeting.

Oregon Seed Certification Service
http://seedcert.oregonstate.edu

CERTIFICATION STANDARDS
CHICORY
(Cichorium intybus)
Revised February 23, 2023

Certification Standards: The general standards for seed certification found in the Oregon Seed Certification Service Handbook (OSCS) are basic to all crops, and together with the following specific regulations constitute the certified Chicory standards.

Varieties Certified: Varieties and classes eligible for planting may be found in the OSCS Handbook.

Field History: To be eligible to produce Foundation seed, land must not have grown or been seeded to this species during the previous five years. Land must not have grown or been seeded to this species during the previous three years to produce Certified seed unless the previous crop was of the same variety and class, and certified. Chicory must be planted in distinct rows. Exceptions must be approved by the Seed Certification Office prior to planting.

Field Inspections: Includes a seedling and a seed crop inspection. The seedling application must be submitted within 60 days of planting, and a seed crop application must be submitted by April 15 of each year in which seed is produced.

Fields planted to produce classes of Foundation or Certified seed may be harvested over a seven-year period after the original planting date (one year of seeding and six harvest years).

Specific Field Standards:

Class of seed produced	Maximum permitted		Isolation Requirements	
	Other varieties[1]	Sweet Clover	Less than 5 acres	More than 5 acres
Foundation	1:1000	None	1320 ft.	1320 ft.
Registered	1:1000	None	1320 ft.	1320 ft.
Certified	5:1000	10 plants/acre	660 ft.	660 ft.

Seed Standards: (Minimum Sample Size – ½ Pound)

Factor	Foundation (White Tag)	Registered (Purple Tag)	Certified (Blue Tag)
Pure seed, minimum	98.0%	98.0%	95.0%
Other crops, maximum[2]	0.2%	0.2%	0.5%
Inert matter, maximum	2.0%	2.0%	5.0%
Weed seed[3], maximum	0.25%	0.3%	0.5%
Weed seed, Group A[4], singly or combined	25/lb	25/lb	25/lb
Germination	70.0%	70.0%	70.0%

[1] Includes off-type plants.
[2] Including sweet clover.
[3] None of the prohibited weeds listed in Section V, General Standards in the OSCS Handbook, nor any St. Johnswort allowed in any class of seed.
[4] Group A – Buckhorn plantain, Docks, Sheep sorrel and Bedstraw

Oregon Seed Certification Service
http://seedcert.oregonstate.edu

CERTIFICATION STANDARDS
ANNUAL RYEGRASS
(Lolium multiflorum)
Revised February 23, 2023

Certification Standards: The general standards for seed certification found in the Oregon Seed Certification Service (OSCS) Handbook are basic to all crops, and together with the following specific regulations constitute the certified Annual Ryegrass standards.

Varieties Certified: Varieties and classes eligible for planting may be found in the OSCS Handbook. A ploidy test must be conducted on all OECD Annual Ryegrass pre-control samples as a condition of acceptance into the OSCS program, and must meet a minimum 95% ploidy level for both tetraploid and diploid varieties.

Field History: Land must not have grown nor been seeded to these listed species and for the periods of time, as follows:

Previous crop	Time out required, in years		
	Foundation	Registered	Certified
Annual Ryegrass	5	5	5
Perennial Ryegrass	5	5	2
Intermediate Ryegrass	5	5	5
Festulolium 2x/4x	5	5	5
Festulolium 6x	0	0	0
Tall Fescue	0	0	0
Meadow Fescue	0	0	0

For Registered and Certified classes, these requirements are waived if the previous crop was of the same variety, same or higher class and certified. **Modified Land History** provisions apply to this crop (see OSCS General Standards IV, C. Land Requirements #2), which can reduce the period following a previous Annual Ryegrass or Festulolium 2x/4x crop to three years for conventional tillage practices and two years if a continuous no-till MLH option is used. PLEASE NOTE: If the two year out no-till MLH option is used, an Annual Ryegrass crop planted the following two years must also be no-till to qualify for certification. Annual Ryegrass must be planted in distinct rows. Exceptions must be approved by the Seed Certification Office prior to planting.

Field Inspections: Include a seedling and a seed crop inspection. The seedling application must be submitted within 60 days of planting, and a seed crop application must be submitted by April 15 of each year in which seed is produced.

Field Standards:

Class of seed produced	Maximum permitted Other Varieties[1]	Isolation Requirements[2]	
		Less than 5 acres	More than 5 acres
Foundation	None	900 ft.	900 ft.
Registered	0.5%	660 ft.	300 ft.
Certified	1.0%	330 ft.	165 ft.

Seed Standards: (Minimum Sample Size – 1/2 Pound)

Factor	Foundation (White tag)	Registered (Purple tag)	Certified (Blue tag)
Total ryegrass, minimum	99.00%	99.00%	99.00%
Crops other than ryegrass, maximum	0.10%	0.25%	0.50%
Perennial Ryegrass, maximum[3]	~~0.10%~~ 0.28%	1.00%	2.00%
Total other crop including perennial ryegrass, maximum	~~0.20%~~ 0.38%	1.25%	2.50%
Inert matter, maximum	1.00%	1.00%	1.00%
Weed seed[4] maximum	0.15%	0.15%	0.30%
Weed seed, GROUP A[5], singly or combined	None	45/lb.	45/lb.
Germination, minimum	90%	90%	90%
Ploidy test, minimum[6]	100%	99%	95%

[1] Includes off-type plants.
[2] This distance must be maintained from all Ryegrass, Meadow fescue and Festulolium of the same ploidy. Isolation between diploids and tetraploids shall be no less than 15 feet. See Section IV, D in the OSCS Handbook.
[3] See Section IX, D8 in the OSCS Handbook.
[4] None of the prohibited weeds listed in Section V in the OSCS Handbook, nor St. Johnswort is allowed in any class of seed.
[5] GROUP A – Buckhorn Plantain, Docks, Sheep Sorrel, and Bedstraw.
[6] Ploidy Test: A test required to establish the incidence of diploid ryegrass in all tetraploid ryegrass varieties and assists in determining certification eligibility. A ploidy test should be requested at the time of sampling. Only varieties described as tetraploid must be tested, those described as diploid or those of 'unknown' ploidy need not be tested.

Previous Land History Question

OSCS Land Requirements

Most of the grass species

For Registered and Certified classes, these requirements are waived if the previous crop was of the same variety, same or higher class and certified.

For Bluegrass

… unless the previous crop was of the same variety and passed certification field requirements.

Federal Seed Act Grass Requirement

Requirement is waived if the previous crop was of the same variety and of a certified class equal or superior to that of the crop seeded.

AOSCA Grass Land Requirement

1. The production of the registered or certified classes shall be on land that has not grown or been seeded to the same species during the previous crop year, except a certified class of the same variety, equal or superior, to that of the crop seeded.

Crop Definition – Merriam-Webster

a(1)
: a plant or animal or plant or animal product that can be grown and harvested extensively for profit or subsistence
an apple *crop*
a *crop* of wool
(2)
: the total yearly production from a specified area
b
: the product or yield of something formed together
the ice *crop*
c
: a batch or lot of something produced during a particular cycle
the current *crop* of films

Item 5: Definition of a field.

Growers and inspectors are requesting a better definition of "field" in the Handbook. The added text does not change the current rules or practices, but helps growers understand what is expected.

Current Text:

Pg 6. E. Field Management and Inspection 1. Field Management Prior to Field Inspection:

e. The certification unit is the entire field. When a portion of the field is to be certified; this portion must be properly identified by a fence, ditch, other crops, mowed strip or adequate stakes. This boundary is to be approved by the inspector as to its adequacy and may be subject to re-inspection.

Request adding highlighted text:

e. The certification unit is the entire **contiguous** field. **Combining two fields separated by a fence, ditch or farm lane must be approved by the inspector.** When a portion of the field is to be certified; this portion must be properly identified by a fence, ditch, other crops, mowed strip or adequate stakes. This boundary is to be approved by the inspector as to its adequacy and may be subject to re-inspection.

Definitions of Mixtures and Blends

Oregon Seed Certification Service

Mixture – Certified seed lots of different varieties of one or more crop kinds mixed and labeled as "Mixture of Certified Seed" (blue tag).

Blend – Eligible lots of one variety blended to form a larger lot of uniform quality that meets Oregon Seed Certification Service (OSCS) standards.

Oregon Seed Law

Mixture - "Mixed seed" and "mixture" mean any lot of seed that contains in excess of five percent by weight of each of two or more kinds or varieties of agricultural, flower or vegetable seed.

Federal Seed Act

201.2 (p) - **Mixture.** The term "mixture" means seeds consisting of more than one kind or variety, each present in excess of 5 percent by weight of the whole. A mixture of varieties of a single kind may be labeled as a blend.

Recommended Uniform State Seed Law (Association of American Seed Control Officials)

"Mixture", "mix", or "mixed" – means seed consisting of more than one kind, each in excess of five percent by weight of the whole.

"Blend" – means seed consisting of more than one variety of a kind, each in excess of five percent by weight of the whole.

Pennsylvania Seed Law

"Mixture," "mixed" or **"mix."** Seeds consisting of more than one kind when each is present in excess of 5% of the whole.

"Blend." Seed consisting of more than one variety of a kind, each in excess of 5% by weight of the whole.

OSU Update
December 2022

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

Crop and Soil Science

Personnel

Dr. Jemila Chellappa is the new CSS instructor at OSU's EOU program. Dr. Chellappa was most recently a post-doctoral fellow at Clemson University. She is a soil scientist and has an academic home in CSS.

Dr. Udayakumar Sekaran has joined the Malheur Experiment Station as Assistant Professor with research and extension responsibilities in irrigation and soil fertility. His academic home is in CSS.

Assistant Professor (Practice) – Prineville. New position search is underway.

Extension General Ag Educator – Malheur. This search has been restarted.

Assistant Professor (Practice) – Salem. The search has been restarted.

Assistant/Associate/Professor of Wheat Breeding and Genetics – Corvallis. Candidate selection is underway.

Assistant Professor of Precision Agriculture – Corvallis. The search will commence soon.

Assistant Professor and Extension Specialist in Weed Science – Corvallis. The search will commence soon.

Assistant Professor of Soil Pedology – Corvallis. The search committee is working on the position description.

News

Faculty and students from CSS travelled to Baltimore earlier this month for the joint meetings of the American Society of Agronomy, Crop Science Society of America, and the Soil Science Society of America. Three members of our faculty set up a commercial booth where our Ecampus program was featured.

College of Agricultural Sciences

Dr. Carlos Bonilla is the new director of Hermiston Agricultural Research and Extension Center. Dr. Bonilla has been granted tenure and the rank of Professor in CSS. He is a soil scientist.

Seed Services Update

December 7, 2022

A team of Certification specialists and other seed industry professionals increased a small amount of Gulf annual ryegrass to 50 lbs. of breeder seed. The Oregon Ryegrass Commission hired a seed stock grower this fall in Washington to grow two acres of Foundation Gulf. The goal is to have Foundation Gulf available for Oregon growers.

The Tall Fescue Commission hired the same Washington grower to raise two acres of Foundation Kentucky 31 for the next two years. The goal is to have Registered K31 available for Oregon growers.

An ISTA sub-committee is working on developing a PCR test that would distinguish the difference between annual and perennial ryegrass. Multiple primers have been sent to four labs, including the OSU Seed Lab so that one or two best primers will be chosen. Once chosen, a referee will be developed and shared with up to eight international seed labs, to test the efficacy of the primer. It is hoped that a protocol using the new primer will be approved by both AOSA and ISTA to distinguish between annual and perennial ryegrass.

A team of researchers have been assembled to use computer vision, neural networks, and robotics to develop a prototype machine that could be used to sort off-type seed from pure grass seed. The team will be applying for a grant to fund the major portion of the project.

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2022 Year in Review

Total Acres Certified of all Crops – 215,444 (-6%)
Total Acres of Grass Crops Certified – 178,311 (-6.3%)
Tall fescue – 101,580 (-3.1%)
Perennial ryegrass – 34,957 (<1%)
K. Bluegrass – 10,152 (-33%)
Annual ryegrass – 7,858 (-13%)
Chewings fescue – 5,836 (-11%)
Total Acres of Small Grains Certified – 21,269 (-5.8%)
Wheat – 19,745 (-3.4%)
Barley – 558 (46%)
Oat – 325 (-30%)
Triticale – 385 (77%)
Club wheat – 120 (-40%)
Red oat – 136 (20%)
Cereal rye – 0 (-100%)
Total Acres of Legumes Certified – 5,148 (-20%)
Red clover – 3,641 (10%)
Crimson clover – 319 (-69%)
Total Acres of Misc. Other Crops Certified – 10,716 (11%)
Radish – 935 (-34%)
Total Acres of Potatoes Certified – 3,082 (1%)
Total Acres of PVG Certified – 107 (159%)
Total Acres of Corn – 2,825 (13%)
Active Warehouses in 2022 - 168
Active Growers in 2022 - 641

Updates

- Jeff Mc Morran retiring
- Tami Brown shifted responsibilities to take over the potato program
- Jennifer Vahl – Linn, Lane and Benton sampler
- Karen Courtney – Union sampler
- Paula Mills retired in June
- Open Position
    - Yamhill, Polk, Washington Co. sampler

Andrew Altishin
Oregon Seed Certification Service
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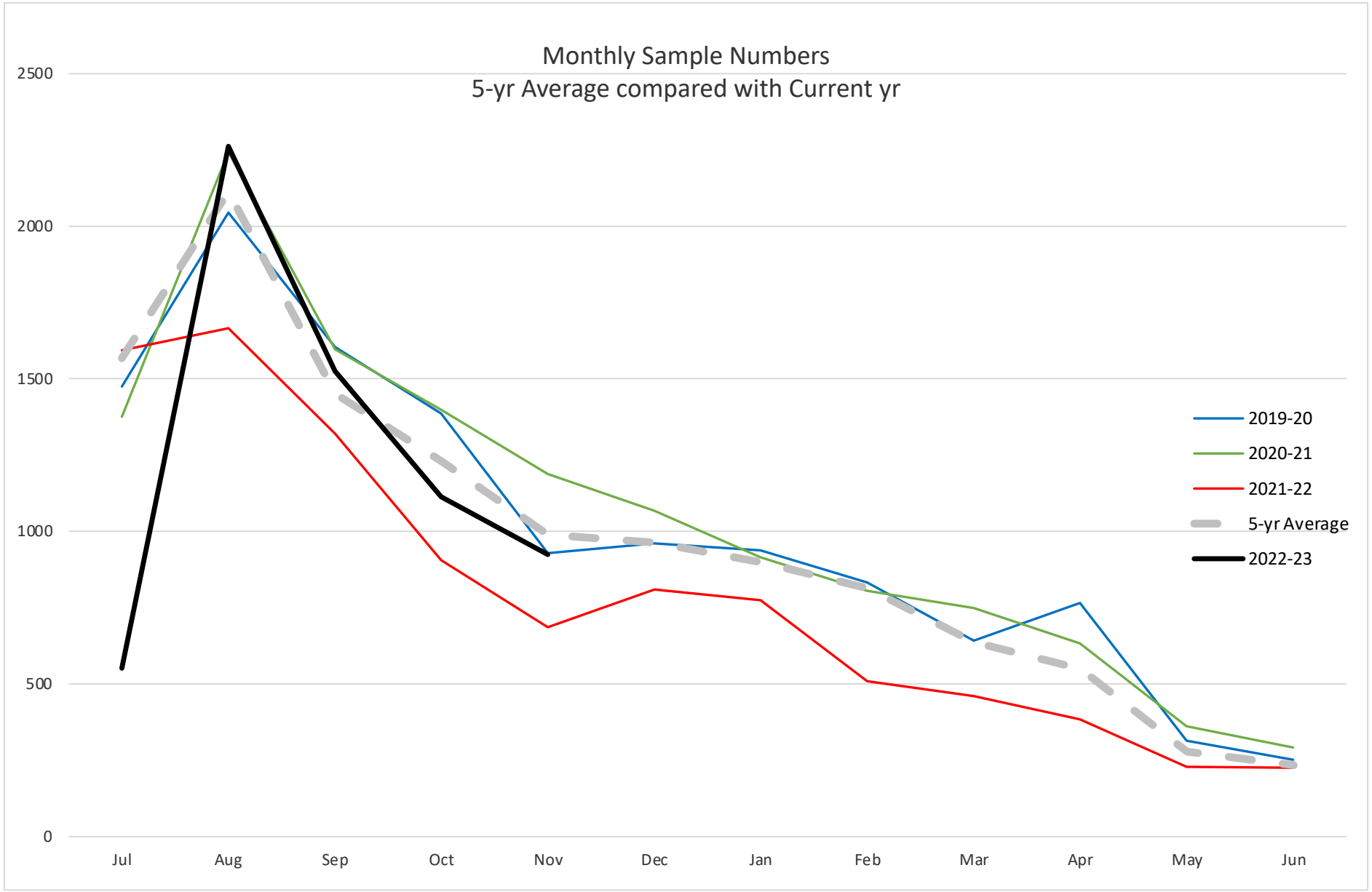
OSCS Staffing

- 3 Administrative staff
- 2 Information Technology Staff
- 6 Seed Certification Specialists
- 6 Part-time/seasonal Seed Certification Specialists
- 8 Seed Certification Samplers
- 1 Manager and Seed Certification Specialist
- Various part-time student employees

Seed Certification Advisory Committees Update

- Short on experienced staff
  - Three pre-pickers that look good enough to hire fulltime
- Turnover
  - Cindy Middlebrooks took another job on campus
  - Office Manager PD being revised to include business, HR, other administrative duties. No technical responsibilities.
  - Reporting Coordinator (compliance, Rules and legal interpretations)
  - Receiving Coordinator (compliance, Rules and legal interpretations)
- Sample numbers (see below)
- Ploidy Referee (see report)
  - Only 3 labs participating
  - Final data received the end of October
- Internship was successfully completed
- Sampling workshop completed in November
- Other workshops in the near future
  - OSU Lab
  - ISTA Sampling
  - Chemeketa (in conjunction with NW Labs)


Monthly Sample Numbers
5-yr Average compared with Current yr
2500
2000
1500
1000
500
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
2019-20
2020-21
2021-22
5-yr Average
2022-23

Grass & Legume Advisory Committee
December 7, 2022

OREGON DEPARTMENT OF AGRICULTURE

Seed Regulatory Program Updates

Labeling Treated Seed

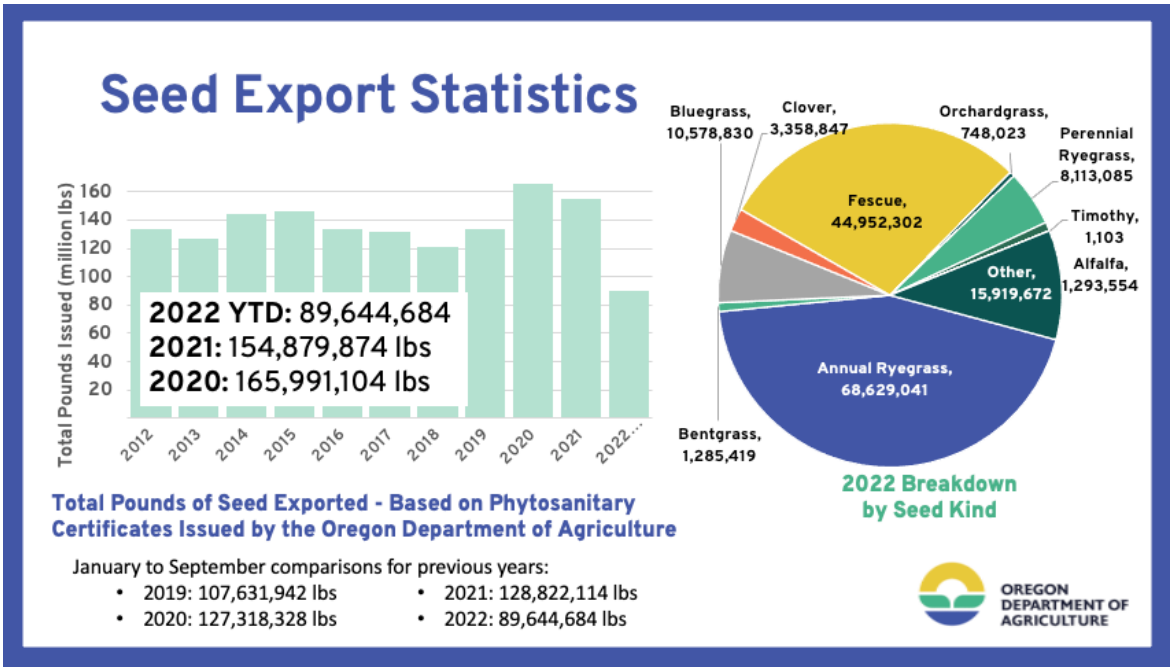
- Please see attached handout
- More information available at https://oda.direct/SeedLabeling

Sod Quality Standard Harmonization – Idaho, Oregon, & Washington

- Held tri-state meeting with stakeholders on October 18, 2022
- Agreed to set of standards (see attached)
- Spring 2023 estimate for when Oregon and Washington rulemaking will be complete; Idaho will adopt in December 2022 (board decision, not rulemaking)
- More information available at https://oda.direct/SodQualityTags

Export Statistics

- Please see attached summary documents.



OREGON DEPARTMENT OF AGRICULTURE

Protect. Promote. Prosper.

Pesticides Program
635 Capitol St NE, Salem, OR 97301-2532
503.986.4635 | Oregon.gov/ODA

Pesticide Advisory
Treated Seed Label Requirements

While pesticides can be valuable tools to protect crops from pests and disease, the Oregon Department of Agriculture reminds seed treatment users that there are specific requirements on pesticide labels which must be transferred to the labels on treated seed. This is in addition to the seed labeling requirements.

Failure to have the correct labeling on your finished product as required by the pesticide label could be in violation of Oregon's Pesticide Control Act ORS 634, and Oregon's Seed Rules (see OAR 603-056-0431(2)(a), which requires that seed be labeled as indicated on the label of the seed treatment pesticide).

The Oregon Department of Agriculture has recently seen a few examples of proposed labels intended for treated lawn mixes which did not include all the information required by the pesticide label and did not include the language required by Oregon's seed rule. Below are two examples of information required by seed treatment pesticides, one for Apron XL treated seed, and one for seed treated with Thiram Granuflo®.

The best way to ensure that your finished product labeling contains all the information required is to read the entire pesticide label of the product you are treating your seed with. In some cases, this includes both the main pesticide container label as well as any 24(c) Special Local Need (SLN) label, if applicable. If you are doing contract work for an outside company that produces the labels, remember to communicate the label requirements (e.g. share a copy of the label) for the pesticide products being utilized so that seed product label developers can ensure the information is on the final treated seed label.

Required Labeling on Seed Treated with Apron XL (directly from the Apron XL label)
The following is found under "**SEED CONTAINER LABEL REQUIREMENTS**," on the Apron XL (EPA Reg. No. 100-799) label.

"User is responsible for ensuring that the seed container meets all requirements under the Federal Seed Act. The Federal Seed Act requires that the containers of seeds treated with Apron XL shall be labeled with the following statements:

- This seed has been treated with mefenoxam fungicide.
- Do not use treated seed for feed, food, or oil purposes.

In addition, include the following statements on the container of seed treated with Apron XL.

- Store away from food and feedstuffs.
- Do not allow children, pets or livestock to have access to treated seeds.
- Treated seed exposed on soil surface may be hazardous to wildlife; cover or collect treated seed that are spilled during loading and in areas such as row ends.
- Wear long-sleeved shirt, long pants, shoes, socks, and chemical-resistant gloves when handling treated seed.
- Dispose of all excess treated seed by burying seed away from bodies of water.
- Do not contaminate bodies of water when disposing of planting equipment wash water.
- Dispose of seed packaging or containers in accordance with local requirements

- Excess treated seed may be used for ethanol production only if: (1) By-products are not used for livestock feed, and (2) No measurable residues of pesticides remain in ethanol by-products that are used for agronomic practice.
- Treated seed must be incorporated into the soil at the recommended depth.
- **Ground Water Advisory:** Mefenoxam is known to leach through soil into ground-water under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow."

Required Labeling on Seed Treated with Thiram Granuflo® (directly from the Thiram Granuflo® label) The following is found under, "**SEED PROTECTANT APPLICATIONS**," on the Thiram Granuflo® (EPA Reg. No. 45728-21) label.

"Seeds that are treated with this product and are then packaged or bagged for future use must contain the following labeling on the outside of the seed package or bag:

Endangered species
This bag contains seed treated with thiram. This product may have effects on federally listed threatened endangered species or their critical habitat in some countries. It is a violation of federal law to kill, harm or harass listed animal species without authorization. To limit the potential for such impacts when using this product, consult and follow the instructions provided in the EPA Endangered Species Bulletin for the County or Parish in which you are applying the seed. To determine whether your County or Parish has a Bulletin consult http://www.epa.gov/espp before each season's use of this product.

This bag contains seeds treated with thiram. When opening this bag or loading/pouring the treated seed, wear long-sleeved shirt, long pants, shoes, socks and chemical resistant gloves.

Treated Seeds - Do Not Use for Food, Feed, or Oil Purposes.

After the seed have been planted, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours. Exception: Once the seeds are planted in soil or other planting media, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no worker contact with the seeds.

Treated seeds are hazardous to fish, birds and mammals. Do not plant treated seeds by broadcasting to the soil surface. Ensure that all seeds are thoroughly covered with soil, especially in turn areas. If seeds are not thoroughly incorporated by the planter during planting, additional incorporation may be required to thoroughly cover exposed seeds. Do not apply directly to water, or areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate or by disposal of wastes.

Plant cotton, wheat, barley, oats and sugar beet seed a minimum of 1 inch deep."

For questions on pesticide product labels contact our Pesticide Program at 503-986-4635, or via email at pesticide-expert@oda.oregon.gov.

More information about seed labeling is available at https://oda.direct/SeedLabeling.

Oregon OSHA Thiram rule: https://osha.oregon.gov/Pages/topics/thiram.aspx.

Sod Quality Rule Comparisons - Current

Kind	Size (g)			Minimum purity (%)			Minimum germination (%)			Maximum other crop*1			Maximum weeds *5			Other Requirements
	OR	WA	ID	OR	WA	ID	OR	WA	ID	OR	WA	ID	OR	WA	ID	
Perennial Ryegrass	50	50	25	98%	98%	98%	90%	90%	90%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	**OR:** Certification fluorescence levels and appropriate calculation will be applied when determining levels of other crop. **WA:** Max fluorescence levels as determined by breeder or variety owner; 85% min germ allowed on ryegrass varieties as designated by breeder/variety owner; Seed program maintains list
Merion Kentucky Bluegrass	25	25	25	95%	97%	96%	80%	80%	80%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	**OR, ID:** 2% allowance for other bluegrass varieties; **OR, WA,** ID: 0.02% for Canada bluegrass.
Other varieties of Kentucky bluegrass	25	25	25	97%	97%	97%	80%	80%	80%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	
Red fescue	30	50	25	98%	98%	98%	90%	90%	90%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	**ID:** Red and Chewings fescue must be free of Canada bluegrass
Chewings fescue	30	50	25	98%	98%	98%	90%	90%	90%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	
Hard fescue	20	NA	NA	98%	NA	NA	85%	NA	NA	0.1%	NA	NA	0.02%	NA	NA	
Sheep fescue	20	NA	NA	98%	NA	NA	85%	NA	NA	0.1%	NA	NA	0.02%	NA	NA	
Blue fescue	20	NA	NA	98%	NA	NA	85%	NA	NA	0.1%	NA	NA	0.02%	NA	NA	
Bentgrass	2.5	NA	NA	98%	NA	NA	85%	NA	NA	0.1%	NA	NA	0.10%	NA	NA	**OR:** 500 seed count for other Agrostis spp.
Tall fescue	50	50	25	98.5%	98%	98.5%	85%	85%	85%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	

Equal Greater Less

5

Sod Quality Rule Comparisons - Proposed

Kind	Size (g)			Minimum purity (%)			Minimum germination (%)			Maximum other crop*1			Maximum weeds *5			Other Requirements
	OR	WA	ID	OR	WA	ID	OR	WA	ID	OR	WA	ID	OR	WA	ID	
Perennial Ryegrass	50	50	50	98%	98%	98%	90%	90%	90%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	**OR:** Certification fluorescence levels and appropriate calculation will be applied when determining levels of other crop. **WA:** Max fluorescence levels as determined by breeder or variety owner; 85% min germ allowed on ryegrass varieties as designated by breeder/variety owner; Seed program maintains list
~~Merion Kentucky Bluegrass~~	~~25~~	~~25~~	~~25~~	~~95%~~	~~97%~~	~~96%~~	~~80%~~	~~80%~~	~~80%~~	~~0.1%~~	~~0.1%~~	~~0.1%~~	~~0.02%~~	~~0.02%~~	~~0.02%~~	**OR, ID:** 2% allowance for other bluegrass varieties; **OR, ID, WA,** ID: 0.02% for Canada bluegrass.
Other varieties of Kentucky bluegrass	25	25	25	97%	97%	97%	80%	80%	80%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	
Red fescue	30	30	30	98%	98%	98%	85%	85%	85%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	**ID:** Red and Chewings fescue must be free of Canada bluegrass
Chewings fescue	30	30	30	98%	98%	98%	85%	85%	85%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	
Hard fescue	20	NA	NA	98%	NA	NA	85%	NA	NA	0.1%	NA	NA	0.02%	NA	NA	
Sheep fescue	20	NA	NA	98%	NA	NA	85%	NA	NA	0.1%	NA	NA	0.02%	NA	NA	
Blue fescue	20	NA	NA	98%	NA	NA	85%	NA	NA	0.1%	NA	NA	0.02%	NA	NA	
Bentgrass	2.5	NA	NA	98%	NA	NA	85%	NA	NA	0.1%	NA	NA	0.10%	NA	NA	**OR:** 500 seed count for other Agrostis spp.
Tall fescue	50	50	50	98%	98%	98%	85%	85%	85%	0.1%	0.1%	0.1%	0.02%	0.02%	0.02%	

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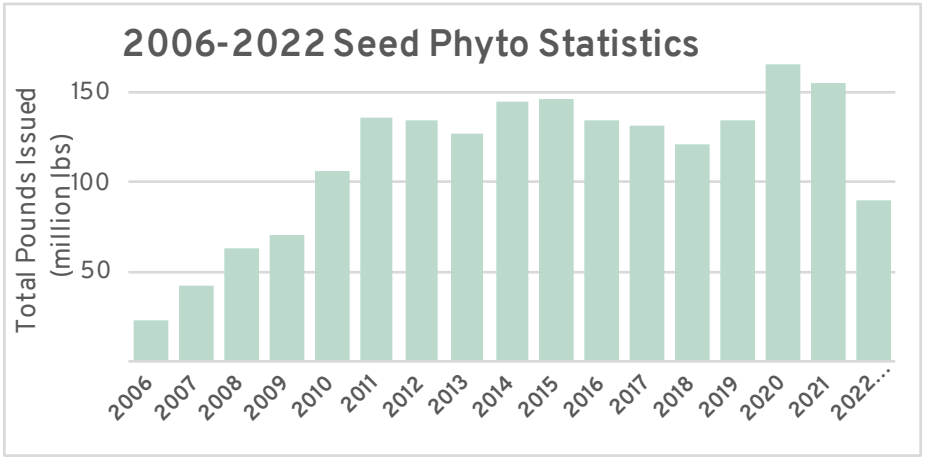
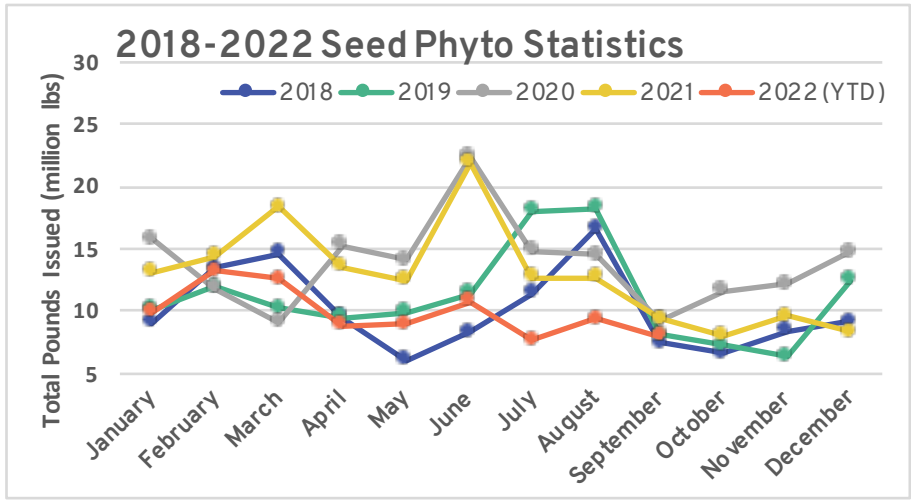
Seed Phytosanitary Certificates Summary Data - By Month and Year (pounds)

	January	February	March	April	May	June	July	August	September	October	November	December	TOTALS
2006	454,664	635,843	1,608,216	1,322,833	1,140,373	2,258,771	1,165,801	1,903,722	2,911,423	2,940,958	3,551,165	3,485,050	23,378,819
2007	5,041,737	3,958,794	3,703,147	2,577,687	1,873,022	2,781,983	2,732,831	4,111,166	2,486,030	2,662,651	3,974,573	6,610,992	42,514,613
2008	8,366,218	5,441,006	5,220,102	4,785,036	6,918,967	5,849,781	5,863,403	3,914,533	4,919,935	3,467,345	2,619,047	5,142,753	62,508,126
2009	6,943,769	9,146,212	4,650,232	3,948,935	3,805,521	7,108,558	5,562,247	6,350,347	3,081,679	4,069,966	6,865,900	9,034,488	70,567,854
2010	9,892,983	12,073,939	7,059,612	8,507,988	9,767,843	8,093,539	7,392,918	10,661,252	10,141,460	6,044,373	7,054,854	8,962,288	105,653,049
2011	12,871,103	17,817,187	15,314,916	10,698,778	6,730,506	10,766,203	9,186,704	12,674,719	8,104,300	9,160,109	9,575,960	12,826,858	135,727,343
2012	12,432,275	19,069,854	12,770,195	11,443,386	12,804,475	8,416,595	7,583,057	11,783,582	8,684,430	5,937,222	9,920,305	13,210,445	134,055,821
2013	11,302,240	14,854,795	7,975,859	8,285,587	10,870,276	8,791,361	12,210,267	11,628,591	8,432,416	9,602,159	8,171,143	15,056,695	127,181,389
2014	14,360,278	17,167,086	15,072,400	10,564,872	10,679,686	13,103,991	12,147,360	15,520,909	7,954,975	7,857,133	8,222,512	11,490,409	144,141,611
2015	11,070,922	9,922,858	14,159,177	15,839,551	15,325,975	8,852,314	19,932,767	11,623,747	9,779,375	10,234,152	9,784,739	9,563,410	146,088,987
2016	10,409,453	11,036,866	9,051,334	10,836,992	12,659,318	15,158,889	14,536,366	12,930,361	7,625,186	7,632,429	7,306,971	14,482,072	133,666,237
2017	14,024,647	11,767,232	12,889,771	6,967,757	9,099,129	12,334,602	11,688,142	19,495,269	10,202,964	5,584,921	7,231,746	10,667,294	131,953,474
2018	9,126,464	13,466,635	14,649,303	9,559,715	6,046,591	8,319,327	11,399,196	16,639,474	7,482,024	6,620,886	8,442,573	9,180,012	120,932,200
2019	10,141,086	11,928,706	10,246,107	9,502,400	9,895,020	11,451,146	18,105,578	18,243,496	8,118,403	7,305,990	6,405,657	12,508,972	133,852,561
2020	15,783,097	11,891,123	9,106,583	15,259,570	14,132,478	22,415,278	14,828,147	14,593,765	9,308,287	11,637,682	12,227,940	14,807,154	165,991,104
2021	13,175,534	14,405,201	18,402,166	13,547,006	12,551,580	21,899,084	12,763,842	12,721,253	9,356,448	8,029,331	9,647,761	8,380,668	154,879,874
2022 (YTD	9,891,500	13,304,113	12,601,320	8,883,034	8,996,541	10,799,432	7,717,855	9,444,982	8,005,907				89,644,684

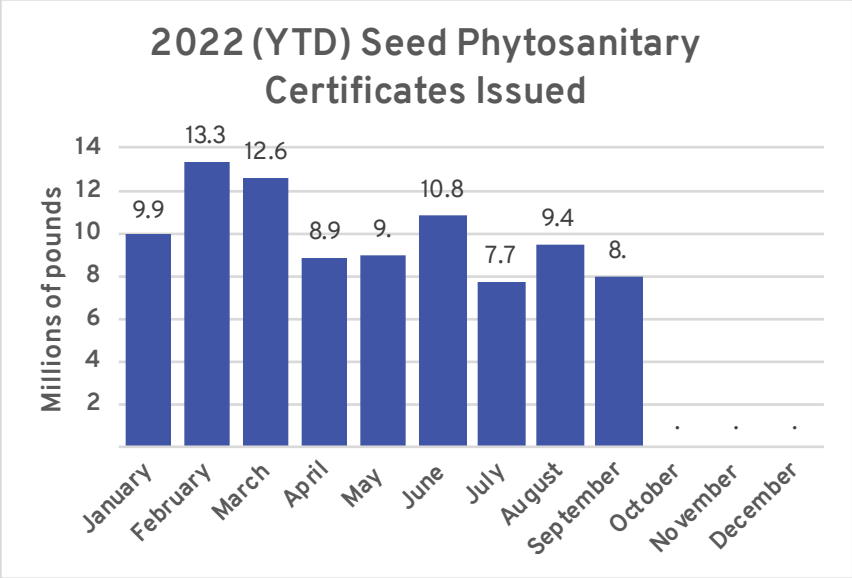
Grey highlights represent bienniums

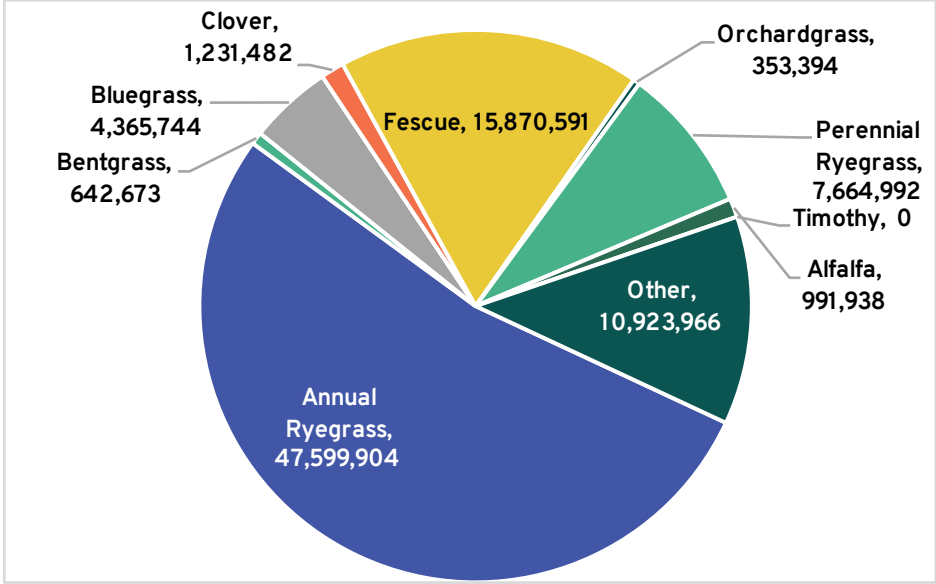




Seed Phytosanitary Certificates Issued 2022 YTD (pounds) - By Seed Kind

Month	Annual Ryegrass	Bentgrass	Bluegrass	Clover	Fescue	Orchardgrass	Perennial Ryegrass	Alfalfa	Timothy	Other	Total Pounds
January	4,502,882	149,869	779,041	259,333	2,484,432	68,509	759,895	220,460		667,079	9,891,500
February	4,355,526	145,076	653,512	279,497	4,079,573	47,192	1,068,777	456,550		2,218,410	13,304,113
March	3,750,831	137,407	1,010,006	123,303	4,815,987	5,006	1,246,612	38,989		1,473,179	12,601,320
April	4,912,657	55,037	919,830	19,207	1,458,993	4,402	417,859			1,095,049	8,883,034
May	5,857,236	40,969	325,329	44,092	1,436,786	83,909	709,236	44,092		454,892	8,996,541
June	7,327,795	36,962	547,437	221,861	531,189	35,728	467,263	140,214		1,490,983	10,799,432
July	5,502,668	17,902	78,039	195,079	451,837	6,001	708,057	4,000		754,272	7,717,855
August	7,225,301	55,773	17,423	71,607	263,909	79,797	1,122,116			609,056	9,444,982
September	4,165,008	3,678	35,127	17,503	347,885	22,850	1,165,177	87633		2,161,046	8,005,907
October											0
November											0
December											0
Totals	47,599,904	642,673	4,365,744	1,231,482	15,870,591	353,394	7,664,992	991,938	0	10,923,966	89,644,684





2022 Export Volume based on Phytosanitary Certificates Issued by the Oregon Department of Agriculture

Appendix 11

Volume (lbs)	Seed Kind									
Country	Annual Ryegrass	Bentgrass	Bluegrass	Clover	Fescue	Orchardgrass	Other	Perennial Ryegrass	Alfalfa	Grand Total
Argentina	9,100	500	87,651	54,721	151,136		26,478	24,000		353,586
Australia	2,841,429	9,553	86,815	110,239	184,787		113,580	62,429		3,408,832
Central & South America	418,025	549	1,200	116,602	8,806	132,502	309,118	383,496	717,102	2,087,400
Chile	613,171	500	4,611	390,071	416,605	44,491	63,240	455,987		1,988,676
China	12,192,626	140,698	2,292,991	164,154	10,070,652	43,451	2,588,559	3,054,717		30,547,848
Colombia	370,218	700		67,107	14,905	36,500	1,158,609	332,585	9,950	1,990,574
Japan	2,077,656	100,879	131,014	110,000	143,761	22,001	321,154	546,746		3,453,211
Korea, Republic of	15,052,102	89,553	349,798	4,413	705,944	58,734	1,473,001	656,653		18,390,198
Mexico	1,263,513	628	5,651	445	158,019	14,850	323,226	230,855		1,997,187
New Zealand	900	3,087	22,500	46,242	185,731	850	47,408	37,715	111,115	455,548
Other	1,490,590	22,741	304,185	6,601	661,658	6	262,357	1,079,333	153,771	3,981,242
Other Asia	2,336,867	475	800		2,000		451,026	108,256		2,899,424
United States							21,555			21,555
Europe	8,933,707	272,810	1,078,528	160,887	3,166,587	9	2,319,812	692,220		16,624,560
Canada							1,444,843			1,444,843
Grand Total	**47,599,904**	**642,673**	**4,365,744**	**1,231,482**	**15,870,591**	**353,394**	**10,923,966**	**7,664,992**	**991,938**	**89,644,684**

Data through September 30, 2022

Seed Phytosanitary Certificates Summary Data - By Destination (pounds)

11/1/22

Country	2019	2020	2021	2022 (YTD)
Argentina	717,758	1,526,066	1,029,894	353,586
Australia	10,062,870	12,078,448	7,408,812	3,408,832
Canada	1,872,566	1,517,976	1,646,065	1,444,843
Central & South America	2,514,732	5,300,787	4,493,738	2,087,400
Chile	2,123,237	3,461,738	5,497,900	1,988,676
China	51,391,801	65,974,655	64,984,816	30,547,848
Colombia	2,646,150	2,401,193	2,971,770	1,990,574
Europe	27,242,414	38,113,256	29,315,312	16,624,560
Japan	4,837,409	3,557,995	3,761,680	3,453,211
Korea, Republic of	18,301,147	19,115,833	20,445,050	18,390,198
Mexico	3,226,766	3,288,367	3,073,263	1,997,187
New Zealand	1,031,469	523,117	792,510	455,548
Other	5,427,417	6,710,669	6,165,859	3,981,242
Other Asia	2,189,985	2,397,980	3,263,445	2,899,424
United States	61,499	23,024	29,762	21,555
Totals	133,647,220	165,991,104	154,879,876	89,644,684

Data reflects total pounds of seed exported based on phytosanitary certificates issued by the department.

2022 data is through September 30, 2022