



Hemp Advisory Meeting
Remote via Zoom
November 12, 2020

Members Present: Crystal Rose-Fricker, Matt Cyrus, Seth Crawford, Justin Tombe, Peter DeLong, Sheldon Heffernan, Clint Shock, Jay Noller, Andrew Hulting, Jeremiah Dung, Dan Curry, Andrew Altishin, Elizabeth Savory and Rachel Hankins. Cynthia Middlebrooks was present as a proxy for Dave Stimpson.

Guests Present: Terry Burr, Jodi Keeling, Tami Brown, Mary Beuthin, Jeff McMorran, JP Kalaoi, Austin Fricker, Brooke Getty, Justin Jones, Lisa Chambers, John Zielinski, Chris Hall, James Reynolds and Jeff Steiner.

1. The meeting was called to order by the Chair, Matt Cyrus at 9:10am. Members and guests introduced themselves.
2. The committee reviewed the 2019 meeting minutes. There was a motion to approve, seconded and all were in favor of accepting the minutes as presented.
3. There was a brief review of the actions that were taken by the Certification Board that met in February of 2020. The Hemp Advisory Committee was officially added to the bylaws, and both the Essential Oil Hemp standards and revised Food Fiber Grain Hemp Standards were approved by the board.
4. The following edits were made to the Food Fiber Grain and Essential Oil Standards. All edits were motioned to accept as presented, seconded, and approved unanimously.
 - a. Adjust field history on Food Fiber Grain to match AOSCA minimums
 - b. Correct footnote in the Essential oil standards
 - c. Revise the Minimum sample size on both standards from 1lb to 1000 grams, noting that excess seed will be returned.
5. There was a discussion about the AOSCA feminized seed standards that “Growth facility must only contain certified hemp production.” Currently OSCS Hemp seed standards have no such requirement. Rachel explained the situation was usually just a few plants that were in the same greenhouse for research and development. There was concern from the committee that these plants may not be stable, and could produce pollen, thus affecting the certified production. After a discussion, there was a motion to add the same restriction in all of the Hemp standards (Food Fiber Grain, Essential Oil, Transplant and Clonal standards). The motion was seconded, and all in favor.
6. After a review of the proposed clonal standards, and a rousing discussion on the science behind it, the committee decided to take no action on the standards.



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7. The proposed Transplant standards were reviewed and the 18” requirement for isolation was discussed. It was decided that distance was less of a concern, and a heavier emphasis should be placed upon the facilities protocols to prevent mixing. The motion to accept the standards as presented was seconded and unanimously approved.
8. No new or old business was addressed.
9. Reports: All reports are attached to the end of the minutes.
 - a. Seed Services Report (Dan Curry)
 - b. Oregon Seed Certification Service Report (Andrew Altishin)
 - c. Oregon Seed Laboratory Report (Cynthia Middlebrooks for Dave Stimpson)
 - d. Oregon Department of Agriculture Report (Elizabeth Savory)
 - e. Global Hemp Innovation Center Report (Jay Noller)
10. The secretary will send out a doodle poll the beginning of October to decide the time and place of the next meeting. Also, the secretary would contact the expiring members prior to the next meeting and ask them to submit their intent to continue to serve to the Hemp Stewardship committee and would also solicit any new applications for consideration. A motion was made for Seth Crawford to serve as Chair and Matt Cyrus as Vice Chair in 2021. There was a second, and unanimous vote in favor. Matt thanked everyone for attending and being part of the meeting. Meeting was adjourned at 11:40am.



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9:00 am Call meeting to order - Chair – Matt Cyrus

1. Introductions
2. Review and approval of 2019 meeting minutes
3. Review of actions taken at the 2020 Certification Board meeting
4. Review edits to Essential Oil and Food Fiber Grain Industrial Hemp standards
 - a. Adjust Field history on Food Fiber Grain to match AOSCA minimums
 - b. Correct footnote in the Essential oil standards
5. Discussion: Uncertified plants in a Certified facility
 - a. AOSCA Feminized seed standards state no uncertified production allowed.
6. Review Clonal Standards
7. Review Transplant Standards
 - a. Concern about 18” minimum standard between varieties.
8. New business
9. Reports:
 - a. Seed Services Report (Dan Curry)
 - b. Oregon Seed Certification Service Report (Andrew Altishin)
 - c. Oregon Seed Laboratory Report (Dave Stimpson)
 - d. Oregon Department of Agriculture Report (Elizabeth Savory)
 - e. Global Hemp Innovation Center Report (Jay Noller)
10. Time and Date of next meeting
 - a. Election of Chair/Vice Chair
 - b. Recommendation for re-appointment of members terms expiring



2020 Industrial Hemp Advisory Committee

Oregon Certification, Foundation Seed and Plant Materials Board

Name	Affiliation	Address	Term*
Crystal Rose-Fricker	"Other" Willamette Valley	crystal@pureseed.com	2022
Matt Cyrus <i>Chair</i>	Grower, Central Oregon	matt@aspenlakes.com	2022
Paul Bracher	Grower, Columbia Basin	Paul@bracherfarms.com	2020
Seth Crawford	Breeder, Willamette Valley	seth@jackhempicine.com	2021
Justin Tombe	Breeder, Southern Oregon	justin@phytonyx.com	2022
Peter DeLong	Breeder, Southern Oregon	cannabreeder@gmail.com	2020
Sheldon Heffernan	Grower, North East Oregon	sheffernan@wildblue.net	2021
Clint Shock	Breeder, South East Oregon	clinton.shock@gmail.com	2020
Jay Noller	OSU Hemp Center	jay.noller@oregonstate.edu	Appointment Voting
Andrew Hulting	OSU Extension Service Weed Management Specialist	Department of Crop and Soil Science 337 Crop Science Building Corvallis, OR 97331 Andrew.Hulting@oregonstate.edu	Appointment Voting
Jeremiah Dung	OSU Extension Service Plant Pathologist	Jeremiah.Dung@oregonstate.edu	Appointment Voting
Thomas Chastain	OSU, Crop and Soil Science Department Head	109 Crop Science Bldg., OSU Corvallis, OR 97331 (541) 737-2821	Ex Officio Nonvoting
Dan Curry	OSU, Crop and Soil Science, Seed Services Director	351B Crop Science Bldg., OSU Corvallis, OR 97331 (541) 737-5094 daniel.curry@oregonstate.edu	Ex Officio Nonvoting
Andrew Altishin	OSU Extension Specialist Seed Certification Manager	31 Crop Science Bldg., OSU Corvallis, OR 97331-3003 (541) 737-4513 andrew.altishin@oregonstate.edu	Ex Officio Nonvoting
Dave Stimpson	OSU Seed Laboratory Manager	3291 Campus Way Corvallis, OR 97331 (541) 737-4464 david.stimpson@oregonstate.edu	Ex Officio Nonvoting
Elizabeth Savory	Oregon Department of Agriculture	635 Capitol St. NE Salem, OR 97301-2532 esavory@oda.state.or.us	Ex Officio Nonvoting
Rachel Hankins <i>Committee Secretary</i>	OSU Extension Specialist Seed Certification	31 Crop Science Bldg., OSU Corvallis, OR 97331-3003 (541) 737-4513 Rachel.hankins@oregonstate.edu	Appointment Nonvoting

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



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

CERTIFICATION STANDARDS
ESSENTIAL OIL HEMP
 (*Cannabis sativa* L.)
 Proposed November 12,
 2020

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 Essential Oil Hemp standards.

Varieties Certified: Only varieties approved for production by Federal or local regulatory authorities may be eligible for seed certification.

Field History: To produce Foundation or Registered seed, land must not have been grown or seeded to any *Cannabis sp.* during the previous three years. To produce Certified seed, land must not have grown or been seeded to any *Cannabis sp.* in the previous 2 years. This may be reduced to one year if the same variety and certified. Hemp must be planted in distinct rows. OSCS must approve exceptions prior to planting. To produce Certified Seed in greenhouse production, the greenhouse must be free of all plants a minimum of six weeks prior, unless the previous variety was the same variety and Certified. Sanitation may be considered in lieu of the six weeks, and a plan must be submitted to and approved by OSCS prior to production.

Greenhouse and Field Inspections: Three inspections may be required depending on the variety type and production generation; at least two inspections are required prior to seed harvest. Crop inspection of pollen donor and pollen receptors must be inspected at a stage of growth when varietal purity is best determined. Crops not inspected at the proper stage for best determining variety purity may be cause for declining certified status. The first inspection for pollen donor and pollen receptor types occurs just before or at early flowering, the second must occur at mid-bloom with active pollen shed, normally within 3 weeks after first inspection; the third inspection, if necessary, occurs when off- type female flowers can be identified. Applications shall be made within 7 days of placement of seedlings in the greenhouse or field. For fields directly seeded, applications shall be made within 14 days of planting.

Field Standards:

Class of Seed Produced	Variety Type	Maximum Number of Dioecious Male Plants Shedding Pollen ¹	Off Types ²	Number of Inspections	Isolation Distance Required		
					From different varieties of hemp or contaminating pollen source that has pollen present, or non-certified Hemp	Fields planted with Certified seed of the same variety	From same variety and meets certification standards
Foundation ³	Conventional	1	0	3	21,120 ft	15,840 ft	16 ft
	Clonal	--	0	3			
Registered ³	Conventional	2	10	3	21,120 ft	15,840 ft	3 ft
	Clonal	--	10	2			
Certified ³	Conventional	100	10	2	21,120 ft	15,840 ft	3 ft
	Clonal	--	10	2			
	Hybrid	100	10	2			
	Feminized	0	20	2			

¹ Maximum impurities allowed per 10,000 plants; applied as an average of six counts involving at least 10,000 plants each. Includes off-types or other varieties. For greenhouses maximum impurities allowed per 1,000 plants; applied as an average of six counts involving at least 1,000 plants each. If less than the required number of plants are present, all plants will be observed and used in calculations.

² If Dioecious male plants start flowering before removal from field, all plants around them should be destroyed for a radius of 10 feet for Foundation and 7 feet for Registered seed crops.

³ An OSU Seed Lab Orobancha exam is required if Small Broomrape is found in a certification field inspection. Two samples are to be submitted in separate containers: one for the Orobancha exam, the other for standard purity and viability testing.

Greenhouse Standards: Each greenhouse facility is limited to one pollen source

Class of Seed Produced	Variety Type	Maximum Number of Dioecious Male Plants Shedding Pollen ¹	Off Types	Number of Inspections	Isolation Distance Required*		
					From different varieties of hemp or contaminating pollen source that has pollen present, or non-certified Hemp	Fields planted with Certified seed of the same variety	From same variety and meets certification standards
Foundation ³	Conventional	1	0	3	21,120 ft	15,840 ft	16 ft
	Clonal	--	0	3			
Registered ³	Conventional	2	1	3	21,120 ft	15,840 ft	3 ft
	Clonal	--	1	2			
Certified ³	Conventional	100	2	2	21,120 ft	15,840 ft	3 ft
	Clonal	--	2	2			
	Hybrid	100	2	2			
	Feminized	0	2	2			

*Isolation distances may be waived if pollen exclusion methods are documented and submitted prior to inspection

Seed Standards: (Minimum Sample Size – 1 Pound)

Factor	Foundation	Registered	Certified (Blue tag)
Pure seed, minimum	98.00%	98.00%	98.00%
Other crops, maximum	0.01%	0.03%	0.08%
Inert matter, maximum ⁴	2.00%	2.00%	2.00%
Weed seed ⁵ , maximum	0.10%	0.10%	0.10%
Other varieties (maximum)	0.005%	0.01%	0.05%
Other kinds ⁶ (Maximum)	0.01%	0.03%	0.07%
Germination	85.00%	85.00%	85.00%
Feminized Seed ⁷	--	--	99.9%

Special notes:

- A. Greenhouse production – For certification purposes, a greenhouse will be identified as a single “field.” This should match the warehouse information given to ODA.
- B. Growers will be required by Federal or local regulations to obtain THC test results from a recognized laboratory verifying that the THC content of their Hemp crop complies with applicable regulations. Growers shall be required to submit these results to OSCS to complete seed certification, and the results will be verified with ODA.

⁴ Inert Matter shall not include more than 0.5% of material other than seed fragments of the variety under consideration

⁵ None of the prohibited weeds listed in Section V in the OSCS Handbook, nor any Docks, Sheep Sorrel or St. Johnswort allowed in any class of seed.

⁶ Other kinds shall not exceed 2 per lb. (454 grams) for Foundation; 6 for Registered; 10 for Certified

⁷ Determined by Variety Verification Trial or approved molecular testing.



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 Hemp standards.

Varieties Certified: Only varieties approved for production by Federal or local regulatory authorities may be eligible for seed certification. Varieties may represent the following types¹: Monoecious, with male and female flowers on the same plant; Dioecious, with male and female flowers on separate plants; and (unisexual female) Hybrids, with sterile male and fertile female flowers on the same plant.

Field History: To produce Foundation and Registered seed, land must not have grown or been seeded to any *Cannabis sp.*, Hops or Tobacco during the previous five years, for Certified seed three years, unless the previous crop was of the same variety and certified during the previous three years, for Certified seed two years. For Certified class this may be reduced to one year if the same variety and certified. Hemp must be planted in distinct rows. OSCS must approve exceptions prior to planting.

Field Inspections: Three inspections may be required depending on the variety type and production generation; at least two inspections are required prior to seed harvest. The first inspection occurs before female (pistillate) flowers of the crop are receptive and after the formation of male (staminate) flowers, preferably before pollen is shed; the second inspection occurs during the receptive stage of female plants, normally within 3 weeks after first inspection; the third inspection, if necessary, occurs when off-type female flowers can be identified. The field 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	Variety Type	Maximum Number of "Too Male" Monoecious Plants ²	Maximum Number of Dioecious Male Plants Shedding Pollen ^{2,3}	Maximum Number of Other Impurities ²	Number of Inspections	Isolation Distance Required	
						From Different Varieties or Types	From Lower Certified Class of Same Variety
Foundation ⁴	Monoecious	500	1	3	3	3 miles	2 miles
	Dioecious	--	--	3	3		
Registered ⁴	Monoecious	1000 (10%)	2	10	3	3 miles	1 mile
	Dioecious	--	--	10	2		
Certified ⁴	Monoecious	--	100	10	2	1 mile	--
	Dioecious	--	--	10	2		
	Hybrid	--	100	10	2		

Seed Standards: (Minimum Sample Size – 1 Pound)

Factor	Foundation (White tag)	Registered (Purple tag)	Certified (Blue tag)
Pure seed, minimum	98.00%	98.00%	98.00%
Other crops, maximum	0.01%	0.03%	0.08%
Inert matter, maximum	2.00%	2.00%	2.00%
Weed seed ⁵ , maximum	0.10%	0.10%	0.25%
Germination	85%	85%	85%

Special notes:

- A. Greenhouse production – For certification purposes, a greenhouse will be identified as a single "field."
- B. Growers may be required by Federal or local regulations to obtain THC test results from a recognized laboratory verifying that the THC content of their Hemp crop complies with applicable regulations. Growers may be required to submit these results to OSCS to complete seed certification

¹ Although traditionally a crop with a Dioecious plant type, many Monoecious varieties of hemp have been developed. Hemp is sexually polymorphic and often produces many different ratios of intersexual plant types that can increase rogueing requirements. Variety descriptions normally define these ratios.

² Maximum impurities allowed per 10,000 plants; applied as an average of six counts involving at least 10,000 plants each. Includes off-types or other varieties.

³ If Dioecious male plants start flowering before removal from field, all plants around them should be destroyed for a radius of 10 feet for Foundation and 7 feet for Registered seed crops.

⁴ An OSU Seed Lab Orobanche exam is required if Small Broomrape is found in a certification field inspection. Two samples are to be submitted in separate containers: one for the Orobanche exam, the other for standard purity and viability testing.

⁵ None of the prohibited weeds listed in Section V in the OSCS Handbook, nor any Docks, Sheep Sorrel or St. Johnswort allowed in any class of seed.



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 Clonal Industrial Hemp standards.

Varieties Certified: Only varieties approved for production by Federal or local regulatory authorities may be eligible for seed certification.

Field History: To produce Mother Plants, land must not have been grown or seeded to any *Cannabis sp.* during the previous five years. To produce Certified clones land must not have grown or been seeded to any *Cannabis sp.* in the previous 3 years. Hemp must be planted in distinct rows. OSCS must approve exceptions prior to planting.

Greenhouse and Field Inspections: Facility is to be apparently free of diseases, insects, and other pests. Hemp clones are to be handled in such a manner as to prevent co-mingling of varieties. Facility is to have sufficient physical barriers between growth areas of hemp and other potential contaminating crops prior to flowering and inspection to prevent cross-contamination of type. Applications shall be made at least 20 days prior to the first cutting of the mother plants. Mother plants are to be inspected 7 days before the first cutting of daughters. Daughter plants are inspected within 7 days post cutting.

Greenhouse/Field Standards:

Class of Seed Produced*	Off Types	Number of inspections	Isolation distance between varieties or different generations of the same variety (prior to flowering)
Mother (from Breeder seed/stock)	0	1 7 days prior to first Certified cutting, audited periodically	10 feet or physical barrier
D1 Daughter (cuttings from mother plants)	0	1 7 days after planting	
D2 Daughter (cuttings from D1 plants)	0	1 7 days after planting	
D3 Daughter (cuttings from D2 plants)	0	1 7 days after planting	

- **Mother, D1 and D2 may be cut repeatedly to produce the next class down. D3 may be used for Certified class Seed production, but no further cuttings may be taken.**

Special notes:

- Greenhouse production – For certification purposes, a greenhouse will be identified as a single “field.” This should match the warehouse information given to ODA.
- Growers will be required by Federal or local regulations to obtain THC test results from a recognized laboratory verifying that the THC content of their Industrial Hemp crop complies with applicable regulations. Growers shall be required to submit these results to OSCS to complete seed certification, and the results will be verified with ODA.



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 Transplant Stock Hemp standards.

Varieties Certified: Only varieties approved for production by Federal or local regulatory authorities may be eligible for seed certification.

Field History: To produce certified transplants, land must not have grown or been seeded to any *Cannabis sp.* in the previous 2 years. This may be reduced to one year if the previous crop was certified. Hemp must be planted in distinct rows. OSCS must approve exceptions prior to planting. To produce Certified transplants in greenhouse production, the greenhouse facility must submit a Standard Operating Procedure and document the facility is free of any plant material from a previous crop prior to production. Soil mix must be new, soil-less media, or sanitized soil mixes.

Greenhouse and Field Inspections: All transplant production will be inspected at least twice for varietal labeling, phenotypic purity, isolation, general physical condition, and appearance of plants. Additional inspections may be necessary to ensure certification standards are met. Unlabeled or inadequately labeled transplants will be ineligible for certification. Applications shall be made within 7 days of placement of seedlings in the greenhouse or field. For fields or greenhouses directly seeded, applications shall be made within 14 days of planting.

Field and Greenhouse Standards:

Class of Seed Produced	Unsatisfactory plants*	Off Types	Number of Inspections	Isolation Distance
				From a different variety (prior to flowering)
Foundation	0	20 in 10,000	2	1.5 ft
Registered	0	20 in 10,000	2	1.5 ft
Certified	0	20 in 10,000	2	1.5 ft

*Unsatisfactory plants may include diseased, unsatisfactory appearance, insect infestation, otherwise stressed or any condition which prevents thorough inspection.

Special notes:

- A. Greenhouse production – For certification purposes, a greenhouse will be identified as a single “field.” This should match the warehouse information given to ODA.
- B. Growers will be required by Federal or local regulations to obtain THC test results from a recognized laboratory verifying that the THC content of their Hemp crop complies with applicable regulations. Growers shall be required to submit these results to OSCS to complete seed certification, and the results will be verified with ODA.