

# Industrial Hemp Standards

(February 2019)

The General Seed Certification Standards, as adopted by the Montana Seed Growers Association, are basic and together with the following specific standards constitute standards for certification of industrial hemp (*Cannabis sativa*) seed.

## I. General Requirements

- A. All production of industrial hemp crops is subject to license application approval that may be required by regulatory authorities. Only growers who possess a current license with the Montana Department of Agriculture are eligible to produce certified seed. Only varieties of industrial hemp approved by regulatory authorities for seed production and which meet Federal Seed Act eligibility requirements are eligible for certification. Growers may be required by regulatory agencies to obtain a tetrahydrocannabinol (THC) test results according to applicable regulations. Growers might be required to submit test results to the seed certifying agency before labels are issued. Upon meeting final certification requirements, eligible seed will be labeled in the licensee’s name only.

## II. Land Requirements

- A. Crops should not be planted on land where volunteer growth from a previous crop may cause contamination.
- B. Fields for Foundation and Registered Classes of industrial hemp seed must not be planted on land which in the previous (5) years grew a crop of industrial hemp.
- C. Crops for Certified seed must not be grown on land which in the preceding (3) years produced a crop of industrial hemp.
- D. Weeds
1. Fields may be refused certification due to excessive weeds
  2. The presence of Broomrape (*Orobanche* spp.) in an industrial help field may be a cause for rejection for Certification.

## III. Isolation

Certified fields must maintain the following minimum isolation distances form fields of any other variety of fields of the same variety not meeting genetic purity requirements for certification.

Inspected Crop	Other Crops	Isolation Distance Required (feet)
<b>Dioecious Type</b> Registered and Foundation	-Different varieties of Industrial Hemp	16,150
	-Non-certified crop of same kind	
	-Lower certified class seed crop of same variety	6,460
	-Same class of certified seed of same variety	3
<b>Dioecious Type</b> Certified	-Different varieties of Industrial Hemp	3,230
	-Non-certified seed of same variety	
	-Lower certified class of seed crop of same variety	646
	-Same class of certified seed of same variety	3
<b>Monoecious Type And Hybrids</b> Registered and Foundation	-Dioecious variety of Industrial Hemp	16,150
	-Non-certified crop of same kind	
	-Different variety of industrial Hemp (Monoecious or Female Hybrid)	6,460
	-Lower certified class seed crop of same variety	3,230
	-Same class of certified seed of same variety	3
<b>Monoecious Type And Hybrids</b> Certified	-Dioecious variety of Industrial hemp	3,230
	-Non-certified crop of same kind	
	-Different varieties of the same type of Industrial Hemp (Monoecious or Female Hybrid)	646
	-Lower certified class seed crop of same variety	
	-Same class of certified seed of same variety	3

#### IV. Impurity Standards

- A. Impurities should be removed prior to crop inspection.
- B. Any combination of impurities may be reason for declining certified status.
- C. An Industrial Hemp crop for certified status, unless otherwise specified by the Breeder, must not exceed the limits, as outlined in the following table, of harmful contaminants (species that can cross pollinate with the inspected crop), plants of other varieties or distinct types foreign to the variety being inspected, weeds or other crops with seeds that are difficult to separate from Industrial Hemp seed (e.g. Hemp Nettle).
- D. The following table indicates the maximum number of impurities permitted by AOSCA in approximately 10,000 plants of the inspected crop. The inspector makes at least 6 counts (10,000 plants each) or the equivalent to determine the number of impurities. The resulting average of these counts must not exceed the maximum impurity standards.

#### V. Maximum Impurity Standards

Inspected Crop	Maximum Impurity Standards per 10,000 plants in Registered and Certified Industrial Hemp Seed Crops		
	Maximum Number of "Too Male" Monoecious Plants	Maximum Number of Dioecious Male Plants Shedding Pollen	Maximum Number of Other Impurities
<u>Dioecious type</u> - Foundation	--	--	3
<u>Dioecious type</u> - Registered and Certified	--	--	10
<b>Monoecious type</b> - Foundation	500	1	3
<b>Monoecious type</b> - Registered	1000	2	10
<b>Monoecious type</b> - Certified	--	100	10

#### VI. Field inspection

- A. All fields inspected of industrial hemp will be inspected at least twice prior to swathing or harvesting, except in the case of Foundation and Registered monoecious type and unisexual female hybrids, in which (3) inspections are required.
- B. Roguing to remove un-desirable plants must be done before field inspection. Rogued plants must be removed from the field to be harvested.
- C. Growers may swath an X pattern in field to help facilitate field inspections. Acreage fees will be subject to row spacing at planting. Wider rows allow for an easier inspection process. Please contact the MSGA office for specific pricing on acres, and on production fees.
- D. A field that is cut, swathed, or harvested before inspection will not be eligible for certification.
- E. Fields must be inspected at a stage growth when varietal purity is best determined. Crops not inspected at the proper stage for best determining varietal purity may be cause for declining certified status.
  - 1. First inspection must be made before female (pistillate) flowers of the inspected crop are receptive and after the formation of male (staminate) flowers, preferably before pollen is shed.
  - 2. Second inspection must be made during the receptive stage of the female plants in the inspected field, normally within 3 weeks of first inspection.
  - 3. If a third inspection is necessary, it must be made with off type female flowers can be identified.
  - 4. Isolation areas will be inspected for volunteer Industrial Hemp plants and harmful contaminants on each inspection.

## VII. Preparation of Seed for Final Certification

### A. Cleaning

1. Clean all seed at an approved plant authorized by the MSGA. A list of authorized cleaning plants is available through the MSGA office or website [www.mtseedgrowers.org](http://www.mtseedgrowers.org).
2. Seed delivered to the cleaning plant by grower must be identified by variety and certification number. A copy of the grower's Application for Certification or field inspection form will suffice.

### B. Seed sample for Grade Determination

1. Submit a cleaned 1 1/2 pound sample labeled with grower name, cleaning plant name, certification number, and lot number to the Montana Seed Growers Association office for "Certified Grade Determination".
2. Use official MSGA seed sample bags obtained by calling the MSGA office.
3. If multiple lots from the same fields are harvested and cleaned separately, a sample of purity and germination must be submitted for each clean lot.

C. Tag orders should be noted on the "Conditioner's Report". Tags will be issued upon receipt of production fees or at the discretion of MSGA.

D. Tags will only be issued to individuals who have a Montana Department of Agriculture Hemp license, and tags will only be issued in licensee's name.

E. All seed fields might require testing for THC by the Montana Department of Agriculture before final certification is issued.

## VIII. Seed Standards

Factor	Foundation%	Standards for Each Class	
		Registered%	Certified%
Pure seed (min.)	98.00	98.00	98.00
Inert matter (max.) <sup>(1)</sup>	2.00	2.00	2.00
Weed seed (max.)	0.10	0.10	0.10
Total other crop seeds (max.)	0.01	0.03	0.08
Other varieties (max.)	0.005	0.01	0.05
Other kinds (max.) <sup>(2)</sup>	0.01	0.03	0.07
Germination (min.)	80.00	80.00	80.00
THC	<0.3	<0.3	<0.3

<sup>(1)</sup> Inert matter shall not include more than 0.5% of material other than seed fragments of the variety under consideration.

<sup>(2)</sup> Other kinds shall not exceed 2 per pound for Foundation, 6 for Registered, 10 for Certified