

SMALL GRAINS STANDARDS
WHEAT - BARLEY - KAMUT - OATS - FLAX - TRITICALE - RYE - SPELT
(As of February 2017)

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 Barley (*Hordeum vulgare*), Buckwheat (*Fagopyrum esculentum*), Oats (*Avena spp.*), Rye (*Secale cereale*), Spelt (*Triticum aestivum subsp. Spelta*), Triticale (*x Triticosecale*) and Wheat (*Triticum aestivum*).

I. Land Requirements

A crop of small grain or flax will not be eligible for certification if planted on land where the same kind of crop was grown the previous year, unless that crop was the same variety and passed field inspection and lab analysis (exceptions may be allowed due to crop loss from hail, fire, or drought). *If the Certified class of a variety is produced in a given year, the succeeding year the same variety could be planted so as to produce either a Registered or Certified class of seed.* (Exception for production of Foundation class seed: the previous crop must have been a different crop kind, followed 2 successive years of summer fallow, or produced a Foundation class of the same variety the previous crop year). One year of summer fallow will not be accepted as a crop year between different varieties of the same crop species (kind).

*Special Case: Unless it is conventional wheat, summer fallow, and then followed by a Clearfield variety. (By action of the Board of Directors 2011).

II. Isolation

A certified field (any class) must be separated from uncertified varieties or certified fields of different varieties by a strip at least 10 feet wide, which is either cultivated, mowed or planted to some other kind of crop. Any fields of rye must be at least 660 feet from other fields of different varieties of rye.

III. Field Standards - General

- A. A portion of a field may be certified. Define the area to be certified (includes registered) and inspected by mowing a swath or staking to separate each portion prior to field inspection and harvest.
- B. Hand rogue crop or variety mixtures and troublesome weeds from foundation and registered fields. Two or more roguing operations after heading and prior to harvest are necessary. Grower should use individual discretion in determining the need for roguing fields planted for the certified class.
- C. If the crop is harvested before field inspection, it automatically becomes ineligible for certification.

IV. Field Standards - Specific

Factors	Ratio of Plants - Maximum Permitted		
	Fdn	Reg	Cert
Other distinguishable varieties ¹	None	1:10,000	1:2,000
Other inseparable small grains	None	1:10,000	1:5,000
Noxious weeds*	None	None	None

¹ Other distinguishable varieties shall be considered to include off-type seeds that can be differentiated from the variety being analyzed, but not include variations characteristic of the variety.

* Except wild oats - see *Field Inspection* below.

V. Field Inspection

- A. Any field found to contain jointed goatgrass at the time of field inspection will be rejected from certification.
- B. Any field, or part of a small grain field **except oats**, containing more than 5 wild oat plants per acre is cause

for rejection. There are no wild oats allowed in tame oats. A second inspection, after roguing, can be requested, and may be subject to additional inspection fees.

VI. Eligibility

Classes of certified seed: (Pedigree classes) - The certification of seed will be limited to a maximum of two (2) generations from Foundation (Registered and Certified), except varieties for which no foundation seed is maintained or is not adequate to meet the demand.

1. Foundation seed is eligible to plant to produce registered seed. All foundation seedstocks are allocated by the MSU Foundation Seedstocks' Committee. Submit seed requests to Foundation Seed Stocks by February 15 for spring grains and July 1 for winter grains. Contact the Foundation Seed Program manager (406) 994-5687, Dept. of Plant Sciences and Plant Pathology, Montana State University, Bozeman or, a request form can be found at: <http://plantsciences.montana.edu/foundationseed/>. Foundation seed will be placed with experienced certified seed growers.
2. Foundation or Registered seed is eligible to plant to produce certified seed.
3. The Certified class is not eligible to plant for recertification.

Exception: A registered class of seed of a given small grain variety may be planted on land which previously produced common seed from a documented certified class of the same variety, provided that:

- a. A copy of the Certified tag, bulk certificate, or lab report is supplied to MSGA
 - b. There is a year of summer fallow between crop years.
 - c. Application for certification is received early enough by MSGA on registered class seed to allow for a seedling inspection. This crop would ultimately receive (2) inspections.
 - d. Foundation seed planted on such a field could only be used to produce a certified seed class.
- (By action of The Board of Directors 2011)

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.
 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 – based on 1000 gram purity, with the exception of interagency seed samples which will be based on 500 gram purity, interagency seed from Canada will still be based on 1,000 gram purity. (By action of the Board of Directors 2016).
 1. Submit a cleaned, 3-5 pound seed sample bearing positive identification 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 for 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.

VIII. Seed Standards

A variety will be rejected for certification if it exceeds the allowed number per pound and/or percentage by weight in any factor.

Factor		Fdn %	Reg %	Cert %
Pure Seed, (Except Oats)	min	96.00	97.00	97.00
Pure Seed, Oats	min	98.00	98.00	98.00
Pure Seed, Flax	min		98.00	97.00
Total Other Crop Seed				
[Example: alfalfa, grass, peas, etc.]	max	2/lb	3/lb	8/lb
Other Distinguished Varieties				
[Example: white winter wheat in red or white spring in red spring]	max	1/lb	1/lb	5/lb
Other Kinds of Grain				
[Example: spring barley in spring oats;]	max	1/lb	2/lb	3/lb
[Winter growth types in spring growth types or vice versa]	max	3/lb	7/lb	10/lb
The percentage of seeds/lb combined cannot total more than total other crop				
Inert/Broken Seed (Except Oats)	max	4.00	3.00	3.00
Inert/Broken Seed (Oats)	max	2.00	2.00	2.00
Weed seeds (common)	max	5/lb ³	5/lb ³	5/lb
Noxious/Restricted weeds including wild oats, Persian Darnel ⁴		None ⁵	None ⁵	None ⁵
Germination, Wheat, Oats, Barley, Rye, Triticale	min	80.00	85.00	90.00
Germination, Flax	min	80.00	80.00	80.00
Barley Stripe Mosaic Virus, Fdn and Reg Class Only	max	Neg ⁶	Neg ⁶	N/A

¹ No winter rye is permitted in winter wheat. Not applicable to seeds of winter grains in spring crops and vice versa.

² Other distinguishable varieties shall be considered to include off-type seeds that can be differentiated from the variety being analyzed, but not include variations characteristic of the variety.

³ Not more than 3 of one kind.

⁴ See general certification standards.

⁵ "None" means none found during the normal inspection procedures. None is not a guarantee to mean the lot inspected is free of the factor.

⁶ The Barley Stripe Mosaic Virus (BSMV) test is required on all Foundation class barley seed. It is not required on the Registered or Certified class for seed grown in Montana from previously tested Foundation or Registered seed. BSMV is required on all classes of seed produced out-of-state which has not been previously tested regardless of class.