

Purpose

The following requirements and recommendations have been established by the Minnesota Crop Improvement Association as a basis for approving facilities to condition, sample, and label seed eligible for the seed certification and/or the QA program(s). Approval is granted on an annual basis and may be granted for conditioning all crops, for conditioning specific crops, or for specified conditioning and labeling activities. ***Failure to adhere to the requirements may result in revocation of approval and associated privileges to condition and/or label certified seed.***

1. Basic Requirements

- 1.1. Adhere to MCIA requirements and procedures for seed certification (or QA).
- 1.2. Comply with Federal and State Seed Laws.
- 1.3. Respect intellectual property rights and adhere to license, patent and PVP requirements.
- 1.4. Operate in a manner that consistently results in product meeting seed certification standards.
- 1.5. Make facility and records available for inspection upon request by MCIA.
- 1.6. Permit MCIA personnel to draw samples from certified (or QA) seed lots.
- 1.7. Perform required corrective actions as directed through MCIA inspection reports.
- 1.8. Maintain complete, accurate, and current records that account for all incoming seed and the final disposition of seed.
- 1.9. Properly use certification tags, bulk seed sales certificates, and other MCIA markings to identify only qualified seed lots.
- 1.10. Plant manager/owner must annually sign an Approved Seed Conditioners Agreement indicating the intention to comply with all requirements for approval.
- 1.11. Be a member in good standing of the Minnesota Crop Improvement Association including timely payment of required fees.

2. Personnel

- 2.1. Person (or persons) responsible for conditioning certified seed must be experienced or thoroughly trained in the proper operation of the facility's equipment.
- 2.2. It is the responsibility of the Management to ensure that personnel have been properly trained to perform their assigned tasks.
- 2.3. Management shall designate a person (or persons) to perform seed certification functions including:
 - 2.3.1. Drawing and submitting representative samples for certification testing.
 - 2.3.2. Issuing bulk seed sale certificates.
 - 2.3.3. Printing and/or attaching seed certification labels.
- 2.4. Designated personnel must perform their seed certification functions according to MCIA procedures.
- 2.5. MCIA must be notified of changes to plant management and designated personnel prior to new personnel beginning their designated seed certification functions.

3. Required References

Current versions of the following references must be in the plant operator's possession or readily accessed on-line:

- 3.1. State and Federal seed laws.
- 3.2. MCIA Seed Certification Handbook.
- 3.3. MCIA required reference documents and standards as appropriate for products being conditioned:
 - 3.3.1. Agronomic Seed Certification Standards (if conditioning field crops and/or turf seed).
 - 3.3.2. Native Seed Certification Standards (if conditioning native seed).
 - 3.3.3. OECD Standards (if exporting seed under the OECD program).

4. Record Requirements

The following records must be maintained for three years from the last date of sale to be in compliance with the Federal Seed Act, Minnesota State Seed Law, and seed certification standards:

- 4.1. The initial labeler of seed must keep the following information as part of the complete record for each seed lot sold:
 - 4.1.1. Lot number or other lot identification
 - 4.1.2. Copies of invoices showing the sale of each seed lot including:
 - 4.1.2.1. Name of the person the seed is sold to
 - 4.1.2.2. Amount sold
 - 4.1.2.3. Date of sale
 - 4.1.2.4. Name of the kind and variety/brand
 - 4.1.2.5. Lot number
 - 4.1.3. A copy of the label that was attached to or accompanied the seed lot
 - 4.1.4. A copy of the field and final certification documents
 - 4.1.5. A copy of each report concerning the testing of the seed for labeling purposes
 - 4.1.6. Keep for one year after disposition of the lot a file sample representative of the conditioned seed
 - 4.1.7. The complete record for any lot consisting of or containing treated seed shall include records necessary to disclose the name of any substance or substances used in the treatment of such seed including a label or invoice or other document received from any person establishing the name of any substance or substances used in the treatment to be as stated, and a representative sample of the treated seed
- 4.2. Seed Conditioner must keep the following records for each lot brought into the facility:
 - 4.2.1. Name and address of owner of seed
 - 4.2.2. Name of the kind and variety/brand
 - 4.2.3. Number or other identification of field(s) or interagency transfer document
 - 4.2.4. Amount of unconditioned seed
 - 4.2.5. Date received
 - 4.2.6. Assigned bin number prior to conditioning
 - 4.2.7. Condition of seed (if high moisture, excess weeds, etc.)
 - 4.2.8. Lot number assigned to cleaned seed

- 4.2.9. Amount (pounds or bushels) of cleaned seed
- 4.2.10. Number of bags of cleaned seed (if applicable)
- 4.2.11. Date of conditioning
- 4.2.12. Assigned bin number after conditioning
- 4.2.13. Serial numbers of certification or QA tags attached to containers
- 4.2.14. If cleaned lots are blended, weight of each component blended.
- 4.3. In addition to the above required records, the following records must be maintained for certified or QA seed sold in bulk:
 - 4.3.1. Amount of seed conditioned or purchased
 - 4.3.2. Proof of certification for purchased certified seed
 - 4.3.3. Amount of bulk seed sold by kind, variety/brand name and lot number
 - 4.3.4. Accurate records of all bulk sale certificate use
 - 4.3.5. A current inventory of seed available for sale for each kind and variety/brand

5. Seed Conditioning Equipment Requirements

- 5.1. Facilities shall have available and in proper working order:
 - 5.1.1. Seed conditioning equipment appropriate to condition seed that consistently meets seed certification standards.
 - 5.1.2. Weighing, sampling, and testing equipment to meet facility needs. (All weighing and testing equipment must be calibrated and tested on a regular basis.)
 - 5.1.3. Bag-closing equipment (if bagged seed is handled).
 - 5.1.4. Seed mixers (as appropriate for seed mixes or variety blends made at facility).
 - 5.1.5. Compressed air and/or commercial vacuum cleaner to clean facility between lots.
- 5.2. Facilities seeking initial approval to condition unprocessed seed shall be required to have installed and in proper working order the following equipment:
 - 5.2.1. Air screen cleaner with mechanical screen cleaners (see Appendix A for suggested screen sizes)
 - 5.2.2. In addition, facilities conditioning seed of the types listed below shall have the following equipment available:

Seed Type	Required (see Appendix B for suggested indent and disk pocket sizes)	Recommended (optional)
Barley	Cylinder separator, or Disk separator, or Gravity table, or <u>Color/shape sorter</u>	Debearder
Corn	Gravity table, and Graders/sizers	<u>Color/shape sorter</u>
Grass (turf and forage types)	Gravity table, or Cylinder separator, or Disk separator	Debearder
Native Seeds	Cylinder separator, or Disk separator	Debearder, Gravity table
Oats	Cylinder separator, or Disk separator, or Gravity table, or color/shape sorter	Debearder
Soybeans	Gravity table, or Spiral separator, or Belt separator, or <u>Color/shape sorter</u>	
Sunflowers	Cylinder separator, or Disk separator, or Gravity table	Color/shape sorter
Wheat	Cylinder separator, or Disk separator, or Gravity table, or <u>Color/shape sorter</u>	Debearder

6. Seed Conveyance Equipment

- 6.1. All conveyance equipment (including receiving pits, legs, augers, conveyors and seed treaters) must be accessible to allow inspection and cleaning.
- 6.2. Separate conveyance equipment must be available to deliver seed to and to carry seed from each piece of seed conditioning equipment.
- 6.3. The distributor must be accessible and have an inspection door large enough to permit the distributor to be easily cleaned.
- 6.4. Flex spouting is not acceptable unless the interior is smooth and self-cleaning.
- 6.5. Elevator boots should be raised above the floor so they may be opened readily for cleaning.
- 6.6. Spouting should be constructed of heavy-gauge material and angled steeply. No rivets or bolts may protrude into spouts.
- 6.7. Pits shall be smooth.
- 6.8. Conveyance equipment and spouting in facilities handling fragile crop types (e.g. soybeans, field beans) must be configured in a manner that prevents mechanical damage to the seed. Down spouting slowdowns, self-cleaning deadheads and seed ladders in facilities handling soybeans are recommended.

7. Seed Storage Facilities

- 7.1. The warehouse must be structurally sound and easily cleaned.
- 7.2. Bins must be tightly constructed and easily cleaned.
- 7.3. Bin walls and hopper bottoms must be smooth and constructed to prevent seed from hanging up.
- 7.4. Bins used for seed storage shall be labeled with an identifying mark.
- 7.5. The contents of all bins containing seed must be displayed on a bin label or recorded in a readily accessible storage record.
- 7.6. All bins containing bulk seed offered for sale must be labeled in accordance to Seed Laws.

8. General Sanitation and Maintenance

- 8.1. Facility shall be cleaned on a regular basis to prevent contamination and loss of seed purity.
- 8.2. The overall structure of the facility must be sound and sufficient to protect the quality of the seed that is being handled and stored.
- 8.3. Required and recommended maintenance must be completed on a regular basis.

Appendix 1

Suggested screen sizes for air-screen cleaners

Screen size, inches					
Crops	Round hole		Slotted		Triangle
	64ths	Fractions	Inches	Inches	64ths
Barley	18		1/13 x 1/2	5/64 x 3/4	12
	19		1/14 x 1/2	8/64 x 3/4	
	20			9/64 x 3/4	
	24			11/64 x 3/4	
Flax	6	1/12	1/14 x 1/4	1/18 x 3/4	
		1/13	1/13 x 1/2		
		1/14	3/64 x 5/16		
Oats	24		1/13 x 1/2	8/64 x 3/4	11
	18		1/14 x 1/2	9/64 x 3/4	12
			1/16 x 1/2	10/64 x 3/4	
				11/64 x 3/4	
Rye & Wheat		1/20	1/13 x 1/2	5/64 x 3/4	11
	12		1/14 x 1/2	6/64 x 3/4	12
	14		1/16 x 1/2	7/64 x 3/4	
	16			8/64 x 3/4	
				9/64 x 3/4	
Soybeans	15		8/64 x 3/4	12/64 x 3/4	
	18		9/64 x 3/4		
	19		10/64 x 3/4		
	20		11/64 x 3/4		

Appendix 2

Suggested pocket sizes for separators

Crops	Disc separators, pockets			Cylinder separators
	"R"	"V".	Square	Indent number
Barley & Peas	R4-1/2	V4-1/2	MM	13
	R5	V5	B	19
	R6	V6	EE	22
	--	--	K	24
	--	--	L	--
Flax	--	V3-1/2	--	6-1/2
	--	V3-3/4	--	4
	--	V4	--	5
	--	V5	--	--
	--	V6	--	--
	--	V6-1/2	--	--
Oats, Wheat & Rye	R4	Vr	A	8-1/2