



# Seed Certification Handbook

Agronomic Seed Certification Standards Supplement

This handbook describes procedures required for participation in the Seed Certification Program. It was developed to supplement the requirements in the *MCIA Agronomic Seed Certification Standards*. Certified seed producers and conditioners are responsible for compliance with all federal and state seed laws and certification requirements. We hope you will find this handbook to be a useful aid in consistently producing a high-quality seed product.

All MCIA standards, handbooks, forms, and other program documents are updated and revised as needed. The current versions of seed certification documents are available on the MCIA website, [www.mncia.org](http://www.mncia.org).

## **CONFIDENTIALITY OF INFORMATION**

*All information regarding seed lots for which certification has been requested is considered confidential by MCIA. Unless approved by the applicant, information will be provided only to the applicant and the seed conditioner they have designated.*

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# Basic Steps for Producing Certified Seed

**Seed Certification is an internationally recognized system to preserve the genetic identity and purity of crop varieties. A brief overview of the basic steps to produce certified seed is listed below. The sections that follow provide additional details to complete the certification process.**

**The basic steps for producing certified seed include:**

1. Apply for membership to MCIA (if not already a member) and make payment of required fees.
2. Plant eligible seed stock in fields meeting the certification land requirements for the crop type being grown.
3. Apply for field inspection, supply proof of seed planted and provide location of the field.
4. MCIA shall inspect the field to determine the field's conformance to standards for varietal identity, purity, isolation, and the presence of weeds and other crop species.
5. Condition seed at an MCIA-approved facility.
6. An MCIA-authorized sampler shall submit a representative sample from the conditioned seed lot to MCIA for testing.
7. Seed is tested for germination, purity, and other specified tests to determine conformance to seed standards. Specific seed standards are established for each crop kind and seed class.
8. Labels (certification tags or *Bulk Seed Sale Certificates*) are issued by MCIA for eligible seed lots.
9. To complete certification, attach a certification tag to each seed container or issue a *Bulk Seed Sale Certificate* to each buyer of bulk certified seed.

**Complying with Federal and State Seed Laws:**

Responsibility for meeting requirements of federal and state seed laws in selling or shipping certified seed rests with the labeler.

***Certification is complete when the seed has met the specific standards established for the crop kind and seed class produced. A certification tag must be attached to each seed container or a Bulk Seed Sale Certificate must be issued for each bulk load.***

# Determining Variety Eligibility for Certification

**In the U.S., crop varieties must comply with Federal Seed Act requirements to be eligible to be sold as certified seed. MCIA and other seed certifying agencies are required to enforce Federal Seed Act requirements when determining whether varieties are eligible to be entered into the seed certification program.**

## Eligibility requirements for certification of varieties.

The certifying agency shall require the originator, developer, or owner of the variety, or agent thereof, to make the following available when eligibility for certification is requested:

- (a) The name of the variety. [*This name must be the established name if the variety has previously been marketed.*]
- (b) A statement concerning the variety's origin and the breeding procedure used in its development.
- (c) A detailed description of the morphological, physiological, and other characteristics of the plants and seed that distinguish it from other varieties.
- (d) Evidence supporting the identity of the variety, such as comparative yield data, insect and disease resistance, or other factors supporting the identity of the variety.
- (e) A statement delineating the geographic area or areas of adaptation of the variety.
- (f) A statement on the plans and procedures for the maintenance of seed classes, including the number of generations through which the variety may be multiplied.
- (g) A description of the manner in which the variety is constituted when a particular cycle of reproduction or multiplication is specified.
- (h) Any additional restrictions on the variety, specified by the breeder, with respect to geographic area of seed production, age of stand or other factors affecting genetic purity.
- (i) A sample of seed representative of the variety as marketed.

Varieties normally enter certification programs after favorable review by:

- Association of Official Seed Certifying Agencies (AOSCA) Crop Variety Review Board
- Plant Variety Protection (PVP) Office (with additional information)
- Organization for Economic Cooperation and Development (OECD)
- An official AOSCA seed certifying agency

## APPLICATION FOR VARIETY ELIGIBILITY

Eligibility of varieties entering certification programs is focused on genetic purity, novelty, and sufficient data to support claims by plants breeders for these new varieties. There are several ways to apply.

1. **AOSCA National Variety Review Board (NVRB) Application:** The aim of review boards is to provide uniformity among certifying agencies as new varieties are developed and grown for certified seed. The process is updated annually to provide an efficient system for gathering information for review by the NVRB members. The applications and supporting information are submitted to the AOSCA office for electronic distribution to each review board member. The boards meet annually to consider the applications that have been submitted for review. The application forms are available at the AOSCA website during the time when applications are being accepted. Current review boards include:

- Alfalfa/Legumes
- Grass
- Small Grains
- Sunflower
- Dry Bean
- Hemp
- Soybean

Upon receiving a positive review, new plant varieties are recommended for inclusion into seed certification programs administered by AOSCA agencies. The plant breeders or owners of these varieties receive a certificate from AOSCA and a final NVRB report is published and made available online.

2. **Plant Variety Protection (PVP) Application:** The application forms are available on the PVP website for applicants interested in PVP. MCIA may ask for additional information to meet the requirements of the Federal Seed Act. Applications are available year-round, and the status of the application is posted on the PVP website. A *Certificate of Protection* is issued once the application has been approved, which is effective for 20 years.
3. **Organization for Economic Co-operation and Development (OECD):** Foreign varieties are approved through the OECD. U.S.-approved varieties and synonyms can be added to the *OECD List of Varieties Eligible for Certification* by submitting a request, which is reviewed by MCIA and forwarded to the USDA Agricultural Marketing Service (AMS). The form is available on the AMS website.
4. **MCIA policy for accepting varieties into certification:** Applicants are first requested to use either PVP application or submission to an AOSCA Variety Review Board as the preferred method to enter the MCIA seed certification program. When a PVP application is used, additional information must be supplied to meet requirements e through i of the Federal Seed Act.

In those instances when it is clear that neither PVP nor a Variety Review Board is an effective method to enter the material into a certification program, including species with no review board, application will be accepted by the AOSCA director in Minnesota. The following information must accompany each application:

- a. A completed application form that provides the same information required by a specific crop AOSCA Variety Review Board. Contact MCIA for this application form.
- b. All information specifically required by the Federal Seed Act must be included in the application information.

All submitted information will be evaluated by the Minnesota AOSCA director in consultation with the appropriate staff of the association. Upon review, the variety will be accepted into certification if, in the judgment of the AOSCA director, all criteria of the Federal Seed Act are met.

The Experimental Line Program provides guidelines for seed increase using published AOSCA or member agency field and seed standards during the final stages of testing an experimental line so that classes of certified seed may be available in the event of the line being released as a variety. The program is to be used for seed production of an experimental line that has not been reviewed or accepted into certification. Seed produced using the Experimental Line Program cannot be sold or represented as a class of certified seed, nor shall it be included in a certified seed mix or blend until the experimental line has been accepted as a variety for certification.

1. **Definitions:**

- a. **Experimental Line:** Germplasm that has not been released and/or recognized as eligible for certification and is being tested with the possibility of release as a variety at some point in the future.
- b. **Classes of Experimental Lines:**
  - i. Exp-F: Eligible for Foundation Seed upon variety acceptance.
  - ii. Exp-R: Eligible for Registered Seed upon variety acceptance.
  - iii. Exp-C: Eligible for Certified Seed upon variety acceptance.

2. **The Experimental Line applicant shall provide documentation that includes the following information prior to field inspection:**

- a. The experimental line owner.
- b. The experimental line identification or the proposed name of the experimental line.
- c. A brief description with sufficient morphological, physiological, and/or other characteristics of the plants and seed to identify the experimental line during field and/or seed inspection.
- d. A statement of the generations through which the experimental line may be multiplied.
- e. The generation of the stock seed used to plant the field must be documented. Acceptable generations are Breeder Seed, Exp-F, or Exp-R.

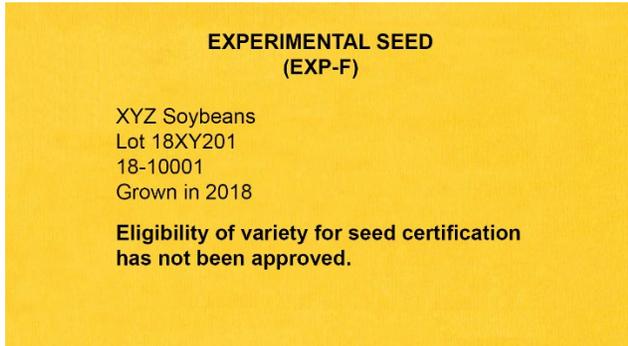
3. **Standards:**

- a. The requirements of sections 2a through 2e should be met.
- b. All land requirements, isolation standards, field standards, and seed standards for the crop and corresponding class of certified seed shall be met.
- c. All inspections required for that crop shall be performed.
- d. The limited generation system should be maintained, with a maximum of three generations, those being the equivalent of Foundation (Exp-F), Registered (Exp-R), and Certified (Exp-C) classes.
- e. Seed meeting documentation, field, and seed standards is eligible for seed stock tags or documents that identify it as eligible under the Experimental Line Program.

***Seed produced using the Experimental Line Program cannot be sold or represented as a class of certified seed, nor shall it be included in a certified seed mix or blend until the experimental line has been accepted as a variety for certification.***

4. **Labels:**

- a. Tags, labels, or official documents such as *Transfer Certificates* provided by an AOSCA member agency for seed produced using the Experimental Line Program will be clearly marked with the word 'Experimental' and will note that certification is pending.
- b. The words 'Foundation,' 'Registered,' or 'Certified' will not appear on tags, labels, or official documents for seed produced using the Experimental Line Program with the exception of wording required in section 4a.
- c. MCIA shall use a gold-colored tag for seed produced under this program.
- d. Below is an example of an experimental tag for soybeans.



5. **Completing certification of seed produced using the Experimental Line Program:**

If the experimental line meets AOSCA variety eligibility requirements and is accepted for certification, experimental line seed stock tags or documents may be replaced by AOSCA tags or documents for the appropriate class of certified seed. Submit a *Sampling Report* to MCIA requesting the appropriate tags, or a tagging report indicating the serial numbers of the tags printed and attached to the bags. Retain the Experimental Seed tags and return them to your field supervisor.

## ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD)

- A. OECD is an international program, with the membership limited to national governments of participating countries. The USDA Agricultural Marketing Service has been assigned the responsibility of implementing the OECD Seed Schemes in the United States, with the cooperation of official state seed certifying agencies. MCIA is the legally designated authority for OECD certification in Minnesota.
- B. The objective of the OECD Seed Schemes is to encourage the exchange of improved varieties among cooperating nations. Certain rules and principles are followed to maintain varietal identity and genetic purity.
- C. The classes of seed recognized under the OECD Seed Schemes are as follows:

US Seed Class	OECD Seed Class	OECD Label Color
Breeder Seed	Pre-Basic	White with Diagonal Violet Strip
Foundation Seed	Basic Seed	White
Certified Seed, which is the first generation increase from Foundation or Registered Seed	First Generation Certified Seed	Blue
---	Second or Successive Generation Certified Seed	Red
---	Not Finally Certified	Gray
---	Mixtures of Herbage	Green

- D. Satisfactory conditions for the production and conditioning of OECD seed must be verified by MCIA. All OECD varieties must have a field inspection. In addition, field requirements as listed in the *Agronomic Seed Certification Standards* will be used to govern field inspections.
- E. Maximum lot size limits:

Small-seeded grasses and legumes	22,000 lb
Cereal grains and sunflowers	55,000 lb
Large-seeded legumes including soybeans	66,000 lb
Corn	88,000 lb

- F. The OECD Seed Schemes authorizes the use of labels and certificates for seed produced and conditioned for international trade. Seed analysis information for OECD certificates will be provided by MCIA.

**Many crop varieties are subject to restrictions pertaining to the production and sale of seed of those varieties. It is the responsibility of the seed producer to determine and abide by all intellectual property and seed production requirements including the payment of fees to variety owners.**

## **PUBLIC VARIETY ASSESSMENTS**

Publicly developed varieties often require seed producers to pay fees to the variety owner that are assessed based on the amount of seed sold. States vary in how they handle variety assessments and fee collection, but often, MCIA will collect the fees from seed producers for public varieties certified in Minnesota on behalf of the variety owner. Certified seed producers of public varieties may be required to sign a grower agreement or license and at the end of each production season, submit a report of seed sold along with fees owed to MCIA. A current list of assessment fees for commonly grown public varieties is available on the MCIA website.

## **PRIVATE VARIETIES**

The production of most privately developed varieties and some public varieties require that the seed producer obtain a license to produce seed from the owner of the variety. Royalties on the sale of seed are usually paid directly to the variety owner as defined within the license agreement. Contact the variety owner to determine seed production requirements before attempting to produce seed of any privately developed variety or public variety subject to licensing.

## **PLANT VARIETY PROTECTION (PVP)**

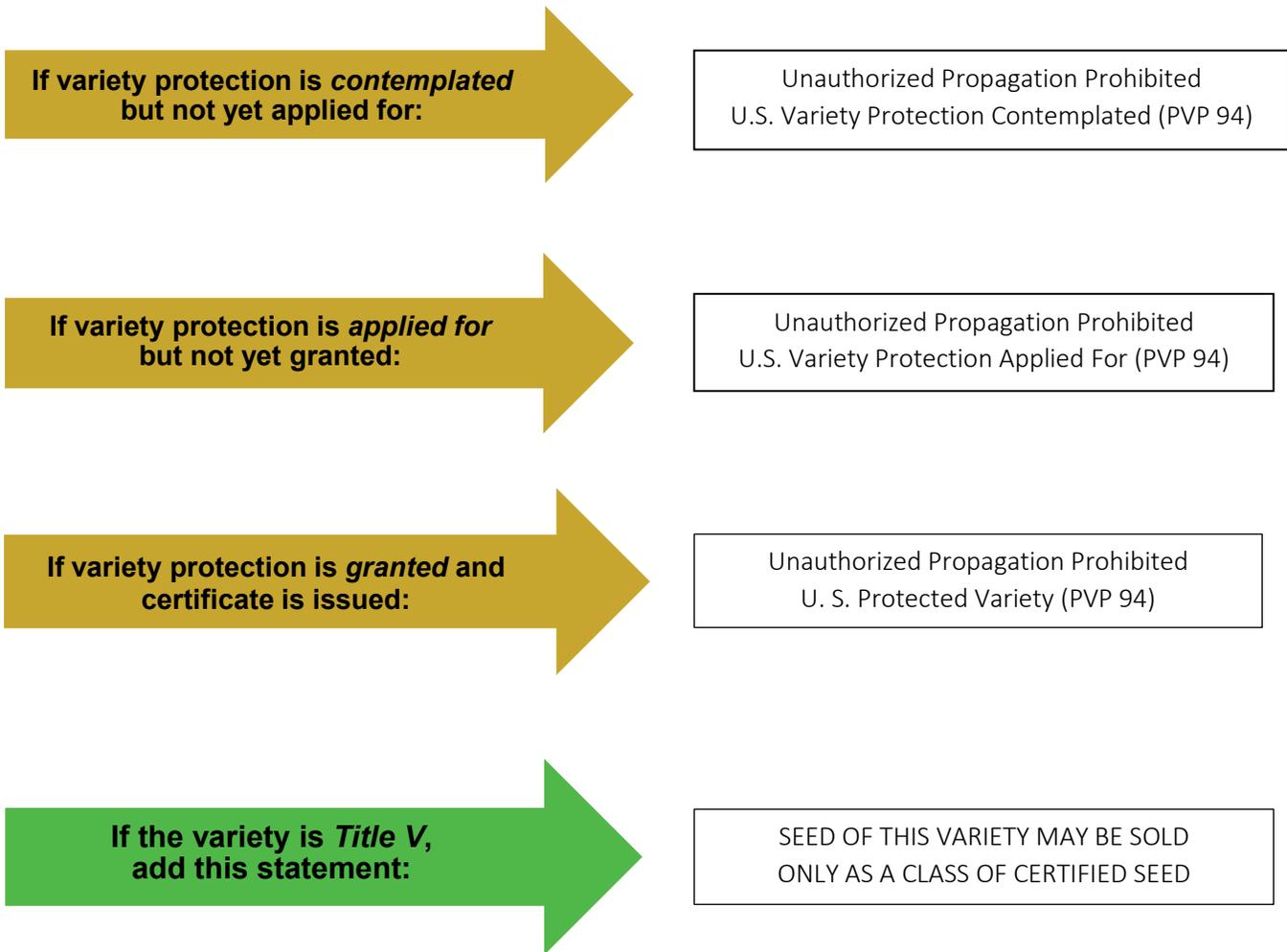
The Plant Variety Protection Act (PVPA) provides legal intellectual property rights protection to breeders of new varieties of plants that are sexually reproduced by seed or tuber-propagated. The USDA Plant Variety Protection Office (PVPO) administers the Plant Variety Protection Act by issuing *Certificates of Protection*.

Seed of protected varieties must be grown according to requirements established by the owner of the variety. Variety owners may elect to require all seed be sold as a class of certified seed (Title V). Sellers are required to inform buyers of PVPA requirements including Title V, if applicable.

Sales of uncertified seed of Title V-protected varieties are prohibited. Illegal transactions involving PVP-protected varieties may violate federal and state seed laws. In addition, the owner of a protected variety may bring civil action against persons infringing on their rights.

The USDA maintains a database of protected varieties online (for link, see Resources section, last page of this handbook.)

**Plant Variety Protection (PVP) statements:** PVP statements are required on labels of protected varieties. Listed below are types of protection and their applicable PVP statements.



# Establishing Seed Production Fields

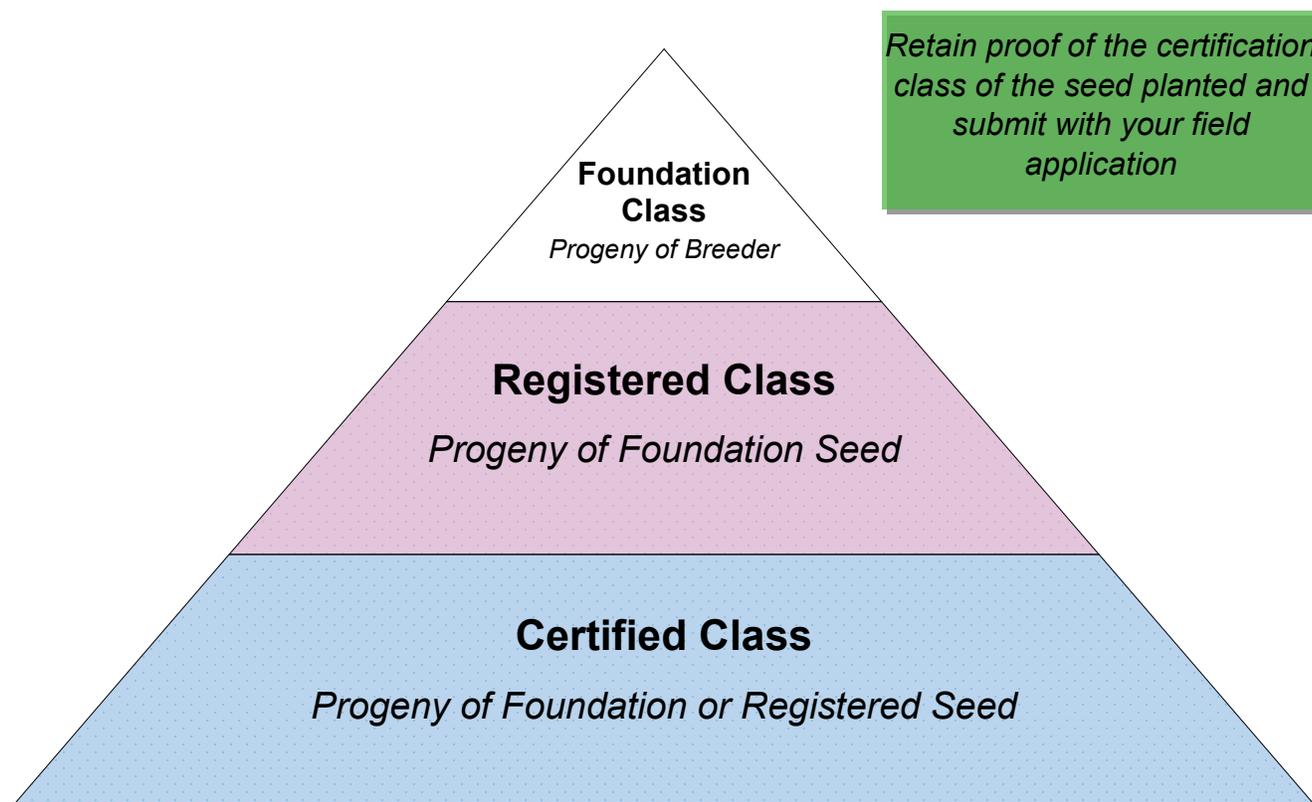
Review MCIA's *Agronomic Seed Certification Standards* to determine the seed requirements and applicable field standards for the crop type you wish to produce. To avoid delays, provide complete and accurate applications for field inspection.

## ELIGIBLE SEED SOURCES

To produce seed of a certified seed class, you must purchase eligible parent seed as described below. **Retain proof of the certification class of the seed you plant** as you will be required to submit a seed certification tag or *Bulk Seed Sale Certificate* with your application for field inspection. Where more than one seed lot is used for the production of a variety, proof of certification must be submitted for each lot.

**Breeder Seed:** When Breeder Seed is used to establish a field, a letter or tag signed by the breeder or variety owner must be provided as proof of seed source and shall identify: applicant, company name, year produced, quantity, variety, class to be produced, and seed lot. Additional authorization must be provided to produce Foundation or Registered seed class.

Seed certification is a limited generation system based on three seed classes:



## NO REGISTERED SEED CLASS

Variety owners determine the certification classes allowed for their varieties. Some variety owners do not allow the Registered class of seed. For those varieties, only Certified class seed produced from Foundation class seed can be sold.

## REGISTERED NS (NON-SALEABLE) SEED CLASS

Variety owners may choose to have a non-saleable Registered Class (Registered NS) in which only the Certified seed class can be sold.

When submitting a field application, apply for the Registered seed class. This will enable you to save Registered NS seed for your own planting needs (the Registered NS class cannot be sold). Producer may downgrade all or a portion of the production to the Certified seed class which can then be sold.

MCIA will issue a Seed Certification Report indicating “No saleable Registered class—For own use only”. Registered tags issued for a Registered NS variety must include the statement “No saleable Registered class—For own use only.”

## LIMITATION OF GENERATIONS FOR CERTIFIED SEED

MCIA will evaluate requests to produce an additional generation of certified seed on a case-by-case basis. Requests must be submitted in writing to MCIA prior to undertaking certified seed production. Requests must include written permission for an additional generation from the owner of the variety and must state the reason for the request. Restrictions regarding which seed lots may be used as seed source or the identity of growers authorized to undertake the production should be clearly described.

The production of an additional generation of certified seed may be allowed when requirements defined in the Federal Seed Act are met:

### Limitations of generations for certified seed.

The number of generations through which a variety may be multiplied shall be limited to that specified by the originating breeder or owner of the variety and shall not exceed two generations beyond the Foundation seed class, with the following exceptions, which may be made with the permission of the originating or sponsoring plant breeder, institution, or his designee:

- (a) Recertification of the Certified class may be permitted when no Foundation seed is being maintained.
- (b) The production of an additional generation of the Certified class may be permitted on a one-year basis\* only when an emergency is declared by any official seed certifying agency stating that the Foundation and Registered seed supplies are not adequate to plant the needed Certified acreage of the variety. The additional generation of Certified seed to meet the emergency need is ineligible for recertification.
- (c) The production of an additional generation of the Certified class may be permitted for one harvest\* only when an emergency is declared by any official seed certifying agency stating that an unanticipated event occurred post-planting and expected production will be insufficient to meet expected demand. The additional generation of Certified seed to meet the emergency need is ineligible for recertification.

*\*Except perennial crop kinds for which permission to plant Certified seed is normally limited to one (1) year but length of stand provisions is the same as under normal certification provisions.*

## CHOOSING THE FIELD

The seed certification standards for most crops include **land requirements**. Seed production of annual crops on land where the same crop was grown the previous year is usually prohibited unless the crop the previous year was planted with a class of certified seed of the same variety. Land requirements for perennial crops often prohibit seed production on land where the same crop was grown in the previous three years. Consult the *MCI/A Agronomic Seed Certification Standards* for the specific land requirements for the crop type that you wish to grow. Adding contaminating amendments such as seed contaminated manure or cover crops of the same or similar species may constitute a basis for not meeting land requirements.

Consider crop **isolation requirements** when choosing the field location. Seed fields of cross-pollinated crop types such as corn, sunflowers, perennial ryegrass, industrial hemp, and others must meet isolation distance requirements from other varieties of the same crop type as defined in the *MCI/A Agronomic Seed Certification Standards*. The standards for some crops allow isolation distances to be modified by utilizing border rows or buffer strips—consult the specific crop standards for details. Self-pollinated crops must be separated from neighboring fields of the same crop type or from crops that are potential seed contaminants. The isolation distance must be sufficient to prevent commingling at harvest.

## PLANTING THE FIELD

1. Clean all planting equipment thoroughly prior to filling the planter. Bulk seed handling equipment should also be cleaned thoroughly to prevent contamination and commingling issues. Perform cleaning activities outside of the field to be planted.
2. Check the label on each bag of seed planted to confirm the seed identity and avoid inadvertent varietal mixtures.
3. Plant the field to meet isolation requirements (as discussed above). Place tall flags to clearly mark field boundaries when certifying only part of a field, between different varieties, or when two classes of the same variety are planted adjacent to one another.

## PLANTING RECORDS

Maintain complete and accurate planting records including:

- Field number
- Field location (map, GPS coordinates, etc.)
- Variety planted
- Class to be produced
- Identity of seed used (seed invoice, lot number, certification tags, *Bulk Seed Sale Certificates*)
- Amount of seed planted
- Planting date
- Previous crop including cover crops

**Seed production fields must be inspected by MCIA prior to harvest to be eligible for seed certification. Seed producers are responsible for submitting applications along with required documentation to MCIA. Seed producers are also responsible for verifying that necessary field inspections have been completed prior to harvesting a seed production field.**

## APPLYING FOR FIELD INSPECTION

An application for field inspection serves as notification, registration, and as an agreement to abide by all rules and regulations governing certification by MCIA.

MCIA will mail a field inspection application packet that includes forms and instructions to previous participants in the field inspection program in late spring of each year. Forms and instructions are also available on the MCIA website.

Submit application for field inspection by the following dates:

- Soybeans: July 15
- Small seeded grasses and legumes: Year of seeding
- All other crops: June 7

Applications for field inspection must be fully completed and include the following:

- Signature of applicant—indicating intention to comply with all seed certification requirements
- Proof of seed source—a certification tag or *Bulk Seed Sale Certificate* from the seed planted
- Maps identifying field locations—include county, township, and section
- Payment of field inspection fees

Retain a copy of your field inspection application and other required application documentation for your records. Incomplete applications may result in field disqualification or delay field inspection until required information has been submitted. Late applications may be accepted if it is possible for MCIA to complete the required inspection. A late fee will be assessed.

## PREPARING FOR FIELD INSPECTION

Prepare seed fields for inspection before the field inspector arrives. Review the field standards for the crop being grown to determine problems that could lead to potential rejection for certification. Roguing of objectionable weeds, other crops, and off-type plants difficult to separate in cleaning should be done before inspection. Failure to rogue will constitute a basis for refusal to approve for certification.

## FIELD INSPECTION

MCIA will inspect each field at the appropriate time to confirm varietal identity and purity as well as determine conformance to other field standards. Inspection times vary according to crop type (e.g., small grains are inspected after they have fully headed, corn during pollination, and soybeans after roughly 80 percent of the leaves have dropped). Some crop types are inspected more than once (e.g., corn, sunflowers, field beans, industrial hemp). A *Field Inspection Report* will be provided to the applicant upon completion of the field inspection.

Instruct your contract growers to notify you prior to harvesting so that you may contact your MCIA field supervisor to schedule an inspection if necessary. Do not assume that your field has been inspected until you have received a *Field Inspection Report* from your inspector.

The certification inspector may refuse to approve a field for certification due to unsatisfactory appearance due to weeds, insufficient growth, inadequate stand, disease, insect damage, and/or any condition that prevents thorough inspection or that may reflect unfavorably upon the certification program.

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.

Evidence of seed-borne disease at the time of field inspection or presence of seed-borne disease in the seed lot may constitute basis for rejection, reclassification, or recommendation for seed treatment.

## BASIS FOR REFUSAL TO INSPECT

MCIA reserves the right to refuse certification and in some instances return fees when:

- A. Applications received too late in the growing season to allow for field inspection.
- B. The grower fails to follow the rules governing certification, including a failure to pay for services previously rendered.
- C. Heavy weed infestation, lodging, etc., or storm, frost, or other conditions beyond the control of the grower do not permit satisfactory inspection.
- D. A field is harvested before inspection.

## FIELD INSPECTION REPORTS

The *Field Inspection Report* status will indicate whether the field has met seed certification requirements. Review the inspection report carefully, including the inspector's comments, to identify corrective actions required. Fields not meeting certification standards will not be passed until corrective actions have been completed. Corrective actions may include a re-inspection to confirm field standards have been met. Retain a copy of the *Field Inspection Report* as part of your certification records. Contact your field supervisor with any questions.

Proper harvesting, transporting, and storing of seed are critical to maintaining seed quality. It is the responsibility of the seed producer to use sound production practices to preserve the varietal identity, purity, and overall quality of the seed.

## HARVESTING THE SEED

Clean all harvest equipment thoroughly prior to beginning harvest. This should include combines, wagons, trucks, conveyors, and other harvesting equipment. Harvesting the crop at the proper moisture is critical to maintaining seed quality. Acceptable moisture levels vary by crop type. Harvesting when moistures are too high can result in storage problems such as heating and mold which will result in loss of germination. Harvesting when too dry can result in mechanical damage to fragile seeds such as soybeans or field beans.

Also monitor combine settings to avoid seed damage, which is especially critical for fragile crop seeds. Harvest in such a way to minimize picking up soil and debris which can be difficult to clean out and may diminish the visual appearance of the seed. Be sure to properly maintain all isolation requirements during harvest.

## TRANSPORTING SEED

Thoroughly clean all equipment used to convey seed, including augers, legs, belt conveyors, trucks, wagons, grain carts, and other transporting equipment. **Avoid using equipment that cannot be thoroughly cleaned prior to use.** Watch for seed hanging up inside augers, truck boxes, in the bottoms of boots, and behind the cups of legs. When handling fragile crop seeds, use conveyors that will not damage the seed. Augers and legs should be run full and slow to avoid seed damage. Avoid long drops or impacts against bin walls that will damage seed.

Monitor seed movement carefully to ensure that seed damage or contamination is not occurring. Observing and testing samples drawn at critical points in the seed handling process can help identify problems and avoid seed damage.

## SEED STORAGE

All bins and other seed storage containers must be cleaned thoroughly prior to use. Bins should be swept, washed, vacuumed and/or cleaned with compressed air to remove all grain and residue from the previous crop stored. If insect infestations are evident, proper actions should be taken to remove insects and larvae to prevent infestation of the seed crop to be stored. Stored grain insects can have severe negative impacts on seed quality.

All bins and other seed storage containers **must be labeled** during use to prevent loss of seed identity and to prevent inadvertent varietal contamination. Clearly assign numbers or identification to all storage bins and maintain detailed storage records including variety, kind, crop year, seed class, and field number. Delivering the wrong variety to the seed conditioning facility is one of the costliest seed production errors that can occur when seed storage containers are mislabeled.

<p style="text-align: center;"><b>Bin Number</b></p> <p><b>Variety/Kind</b></p> <p><b>Crop Year</b></p> <p><b>Class</b></p> <p><b>Field Number(s)</b></p>
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**Bin label example (after harvest and prior to conditioning)**

**Certified seed must be conditioned at an MCIA-Approved Seed Conditioning Facility or by the applicant producer of the seed using their own equipment.**

## APPROVED SEED CONDITIONING FACILITIES

MCIA has established requirements as a basis for approving conditioning facilities to condition seed eligible for seed certification. Approval is granted based on the operation's ability to condition seed that meets certification standards and adheres to MCIA operating requirements. Approved seed conditioning facilities designate personnel to perform official sampling and certification labeling activities required in the seed certification process. MCIA inspects approved facilities on an annual basis to verify on-going conformance to requirements.

To be approved, facilities must meet requirements appropriate for the seed to be processed and the type of processing to be performed. Facilities must:

- Possess and demonstrate the ability to operate the equipment necessary for the product being processed.
- Meet structural requirements necessary to preserve the product identity and quality.
- Utilize record keeping systems that meet certification and regulatory requirements.

A list of Approved Seed Conditioning Facilities is available on the MCIA website and is published annually in the *MCIA Directory*.

## DELIVERING SEED FOR CONDITIONING

Contact an MCIA-approved seed conditioner to make arrangements for conditioning your seed. When delivering seed, provide the conditioner with a copy of your *Field Inspection Report*, which includes information required to complete the *Sampling Report*. The *Field Inspection Report* may inform the seed conditioner of potential quality concerns such as disease, problematic weeds, etc.

## APPLICANT PRODUCERS CONDITIONING THEIR OWN SEED

Applicant producers without an approved conditioning facility may condition their own seed with their own equipment. However, the final sample of conditioned seed to be submitted for certification must be drawn by MCIA personnel. Contact your field supervisor prior to conditioning. Facilities not approved by MCIA cannot condition certified seed for others.

## BLENDING OF SEED LOTS

Blending of lots of the same variety and seed class is generally permissible. If lots of different classes are blended, the lowest class shall be applied to the new blend. Seed lots rejected for certification because of prohibited weed seeds cannot be used in a blend of certified seed. A new lot number must be assigned, and a sample of the blended lot must be submitted to the MCIA Seed Laboratory for testing to complete certification.

## TRANSFER OF SEED PRIOR TO COMPLETING CERTIFICATION

Foundation seed class and certain varieties of seed that are under memorandum of agreement with MCIA must not be transferred without prior approval. A statement of transfer (located at the bottom of the *Sampling Report*) stating the number of bushels or pounds and the class of uncleaned seed sold must be completed when transferring seed within Minnesota from an applicant producer to another MCIA member prior to conditioning ("in the dirt"). Contact the MCIA office if you have questions.

The following rules apply when bagging all classes of certified seed and must be sold using a certification tag as proof of certification. A bag typically weighs 60 lb or less.

## GENERAL REQUIREMENTS:

1. New bags must be used.
2. Bagged lot size limits:

Grasses and Small-seeded legumes	55,000 lb
Sunflowers	44,000 lb
Corn	88,000 lb
Other crops including Small Grains and Soybeans	2,500 bu

3. Draw a representative sample as required for bagged seed lots and submit to MCIA with a completed *Sampling Report*.
4. State seed law prohibits any labeling or other representation conveying the seed to be certified unless it has been determined by a seed certifying agency that the seed conforms to seed certification standards. **The seed must have a certified seed tag attached.**

## REPACKAGING IN BAGS FROM PREVIOUSLY CERTIFIED LOTS

Repackaging may be desired to transfer seed to brand bags or for other reasons. The following applies when repackaging (bag to bag, tote to bag, or bulk to bag) of any seed class.

1. When repackaging is performed by someone other than the original seed producer, it must be done under the direction of MCIA.
2. Repackaged lots must be assigned a new lot number.
3. Draw a representative sample.
4. **Retesting Requirements for a Previously Certified Lot:**

Refer to your current *Inspection Report—Seed Conditioning Facility* to determine retesting requirements for the facility where the repackaging will take place.

- Requirements for retesting vary based on the design of the facility, the types of seed handled, and methods used.
  - Retesting requirements are determined based on the annual inspection of the facility.
- a. The following apply when retesting is *not* required:
    - i. Submit the *Lot Number Change Request Form* to MCIA
    - ii. MCIA will apply the test results from the original certified lot and issue the final *Seed Certification Report*.
  - b. The following apply when retesting *is* required:
    - i. For fragile seed types, such as soybeans, submit a completed *Sampling Report* along with the sample to MCIA for *germination and purity testing*.
    - ii. For non-fragile seed types, such as small grains, submit a completed *Sampling Report* along with the sample to MCIA for *purity testing*. For wheat and oats, the varietal verification test result, such as an electrophoresis or HPLC, from the original lot can be used to complete certification.
5. When all requirements have been met, MCIA will issue a new *Seed Certification Report*.
  6. Each container must be labeled properly with new certification tags containing the new lot number.

Any seed class may be sold in tote containers using a certification tag as proof of certification. A tote typically weighs between 1,000 to 3,000 lb. In cases where tote container(s) are unloaded into the buyer's vehicle, the tag(s) must be provided to the buyer.

## GENERAL REQUIREMENTS:

1. New tote containers are strongly recommended. If reusing tote containers, they must be cleaned thoroughly prior to use.
2. Tote container lot size limits:

Grasses and small-seeded legumes	55,000 lb
Sunflower	44,000 lb
Corn	88,000 lb
Other crops including small grains and soybeans	2,500 bu

3. Draw a representative sample as required for tote seed lots and submit to MCIA with a completed *Sampling Report*.
4. State seed law prohibits any labeling or other representation conveying the seed to be certified unless it has been determined by a seed certifying agency that the seed conforms to seed certification standards. **The seed must have a certified seed tag attached.**

## REPACKAGING IN TOTES FROM PREVIOUSLY CERTIFIED LOTS

Repackaging may be desired to transfer seed to different tote containers or for other reasons. The following applies when repackaging seed in totes (bag to tote, tote to tote, or bulk to tote) for any seed class.

1. When repackaging is performed by someone other than the original seed producer, it must be done under the direction of MCIA.
2. Repackaged lots must be assigned a new lot number.
3. Draw a representative sample.
4. **Retesting Requirements for a Previously Certified Lot:**

Refer to your current *Inspection Report—Seed Conditioning Facility* to determine retesting requirements for the facility where the repackaging will take place.

- Requirements for retesting vary based on the design of the facility, the types of seed handled, and methods used.
  - Retesting requirements are determined based on the annual inspection of the facility.
- a. The following apply when retesting is *not* required:
    - i. Submit the *Lot Number Change Request Form* to MCIA
    - ii. MCIA will apply the test results from the original certified lot and issue the final *Seed Certification Report*.
  - b. The following apply when retesting *is* required:
    - i. For fragile seed types, such as soybeans, submit a completed *Sampling Report* along with the sample to MCIA for *germination and purity testing*.
    - ii. For non-fragile seed types, such as small grains, submit a completed *Sampling Report* along with the sample to MCIA for *purity testing*. For wheat and oats, the varietal verification test result, such as an electrophoresis or HPLC, from the original lot can be used to complete certification.
5. When all requirements have been met, MCIA will issue a new *Seed Certification Report*.
  6. Each container must be labeled properly with new certification tags containing the new lot number.

Any seed class may be sold in bulk using a **Bulk Seed Sale Certificate** as proof of certification. Bulk seed refers to seed when loose either in shipping vehicles or storage, and not to seed in bags or other containers.

## GENERAL REQUIREMENTS:

1. The maximum lot size is the bin capacity. One lot number must be assigned to each bin. The maximum lot size for the bulk foundation seed class shall be 10,000 bushels.
2. Draw a representative sample as required for bulk lots and submit to MCI with a completed *Sampling Report*.
3. State seed law prohibits any labeling or other representation conveying the seed to be certified unless it has been determined by a seed certifying agency that the seed conforms to seed certification standards. **The seed must have a *Bulk Seed Sale Certificate* issued at the time of delivery or seed pickup.**

## MOVEMENT OF CERTIFIED BULK SEED

1. Bulk seed handling facilities (approved seed conditioners and approved bulk handlers) must be approved before certified seed can be handled in bulk and must be inspected annually.
  - a. Refer to the *Approved Seed Conditioner Requirements* or the *Approved Bulk Handler Requirements* for more details about requirements for handling and selling certified seed.
2. Bulk **Certified** seed may be moved a maximum of two physical seed transfers after the lot has been certified.
  - Movement #1: From applicant producer or approved seed conditioning facility completing final certification of the seed lot to an approved bulk seed handling facility or consumer.
  - Movement #2: From approved bulk seed handling facility to consumer.
3. Bulk **Registered** seed may be moved a maximum of two physical seed transfers after the lot has been certified.
  - Movement #1: From the applicant producer completing final certification of the seed lot to an approved seed conditioning facility or consumer.
  - Movement #2: From approved seed conditioning facility to consumer (certified seed producer).
4. Bulk **Foundation** seed must be transferred by the applicant producer or from an approved seed conditioning facility directly to the consumer (certified seed producer). A maximum of one sale is permitted.
5. Bins used for seed storage must be labeled with an identifying mark.
6. All bins containing seed offered for sale must be labeled with variety, kind, class, and lot number.
7. It is the seller's responsibility to:
  - a. Handle seed in a manner to prevent mixtures and contamination.
  - b. Supply seed that is representative of the seed tested and approved for certification.
  - c. Adequately clean all bins, augers, conveyors, and other equipment prior to handling certified seed.
  - d. Determine that the vehicle receiving bulk certified seed is clean. If it is not clean, this condition should be noted on the bill of sale or *Bulk Seed Sale Certificate*.
  - e. Keep a sample of each lot of bulk certified seed sold.
  - f. Each load of bulk certified seed must be accompanied with a completed *Bulk Seed Sale Certificate* to the buyer at the time of delivery or seed pickup.
  - g. In cases where bags or tote container(s) are unloaded into the buyer's vehicle, the tag(s) must be provided to the buyer.
8. It is the buyer's responsibility to maintain purity of the seed after loading into the buyer's vehicle has been completed.

# Seed Sampling Requirements

**A seed sample submitted for testing must be an accurate representation of the entire lot from which it was drawn. Each sample must be drawn carefully and conscientiously to yield reliable information. Samples submitted for seed certification must be drawn in accordance with procedures derived from the Association of American Seed Control Officials' *AASCO Handbook on Seed Sampling*, as described below.**

## AUTHORIZED SAMPLERS

1. Approved seed conditioning facilities shall designate a person(s) responsible for drawing and submitting representative samples.
2. MCIA shall determine eligibility of designated sampler(s) for drawing and submitting official samples for seed certification.
3. Samples of seed conditioned by an applicant producer, using their own equipment, must be drawn by MCIA. Contact your field supervisor, who will sample your seed lot and submit the representative sample.

## GENERAL REQUIREMENTS

1. To secure a representative sample, equal portions shall be drawn from evenly distributed parts of the quantity of seed to be sampled. Access shall be had to all parts of that quantity.
2. As the seed is sampled, each portion shall be examined. If there appears to be a lack of uniformity, the portions shall not be combined but shall be retained separately for laboratory analysis. If the portions appear uniform, they shall be combined to form a composite sample. Thoroughly mix the composite sample.
3. Composite samples shall be obtained to determine the quality of a lot of seed, such as the percentages of pure seed, other crop seed, weed seed, inert matter, germination, and varietal purity.
4. Samples must be labeled at all times and should be stored in an environment similar to that of the lot.
5. A sample of each lot of conditioned seed must be kept on file for at least one year after the lot has been completely sold, as required by the Minnesota Seed Law and Rules.
6. MCIA shall determine the certification status of all lots for which certification has been requested. Any lot of seed submitted that has been tampered with, not protected from contamination which might affect genetic purity, or is not properly identified, shall be cause for possible rejection of certification.

*It is recommended that seed of the same variety harvested from different fields be maintained as separate lots.*

## SAMPLING EQUIPMENT

### Probes (Triers):

1. For sampling free-flowing seed in bags:
  - a. The trier shall be designed so that it will remove an equal volume of seed from each part of the bag through which the trier travels.
  - b. A trier long enough to reach all areas in the bag shall be used.
  - c. The trier opening should be two times the width of the species being sampled.
  - d. Unless the trier has partitions in the seed chamber, it must be inserted into the bags horizontally.
  - e. When more than one trierful of seed is drawn from a bag, different paths shall be followed.
2. For sampling free-flowing seed in bins or tote containers, a trier long enough to reach all areas in the bin shall be used.

### Stream Sampling:

1. The containers used must be of sufficient size to prevent seed from escaping during the sampling process.
2. The device must be capable of passing through the entire stream of seed.
3. The speed and timing of each cut must be uniform to produce uniform sized samples at regular intervals.
4. Ten percent of the seed must pass before and after the first and last samples respectively, as sampling must only take place when a uniform volume of seed is present.
  - a. Automatic mechanical sampling devices may be used to draw representative samples continually or intermittently as a seed lot is conditioned.
  - b. Hand-held sampling container: Any container or other device hand-held by the seed sampler that can be passed through the entire stream of seed to capture all the seed in a cross-section cut may be used.

### Hand Sampling:

Non-free-flowing seeds that are difficult to sample with a trier shall be sampled by thrusting the hand into the seed and removing representative portions.

1. Insert the hand flat with the fingers together. Keep the fingers together as the hand is closed and withdrawn.
2. When more than one handful is drawn from a bag, the handfuls shall be taken from well separated points.

## SAMPLING INSTRUCTIONS

When sampling seed, draw a representative sample from conditioned seed in the following manner:

### Bagged lots and seed in tote containers:

1. Draw the sample from the last piece of conditioning equipment or as bags are filled.

**OR**

If sampling after closing the containers, use a probe (see sampling equipment) to draw the sample from the bags.

2. For lots of six bags or less, each bag shall be sampled or for lots of more than six bags, a minimum of 5 bags plus 10 percent of the total number of bags in the lot must be sampled. No more than 30 bags need to be sampled, regardless of the size of the lot.

### NUMBER OF BAGS WHICH MUST BE SAMPLED

No. of Bags/Lot	Minimum No. Sampled	No. of Bags/Lot	Minimum No. Sampled
1–6	each bag (minimum 5)	125–134	18
7–14	6	135–144	19
15–24	7	145–154	20
25–34	8	155–164	21
35–44	9	165–174	22
45–54	10	175–184	23
55–64	11	185–194	24
65–74	12	195–204	25
75–84	13	205–214	26
85–94	14	215–224	27
95–104	15	225–234	28
105–114	16	235–244	29
115–124	17	245 or more	30

**Bulk Lots:**

1. Bulk lot samples may be drawn from the last piece of conditioning equipment if the seed is going directly to the final storage bin.
2. If seed is to be transferred to a bin outside the seed plant, draw the sample from the stream of seed as it enters the final bin.
3. If sampling after filling the bin, use a probe (see sampling equipment) to draw cores from well-distributed points throughout the bin.
4. To obtain a composite sample, take as many cores or handfuls as if the same quantity of seed were in bags of ordinary size. At least seven probes either by hand or trier shall be made from uniformly distributed parts of the quantity being sampled.

**SAMPLE SIZE REQUIREMENTS**

1. MCIA has standards for seed lot purity that go beyond the testing requirements of the Federal Seed Act and Minnesota Seed Law and Rules. Larger samples than what is defined in the Federal Seed Act may be required. Fill the bags to the level indicated in the chart below.
2. Keep in mind that there can be some dry down and seed loss at the testing labs; enclose enough extra seed to account for small weight losses.
3. For **treated lots** of all crops, **one sample bag (at least 500 gm) of untreated seed** for each lot to be certified should accompany the representative sample of the treated seed. The treated sample will be tested for germination and purity analysis. The untreated sample will be examined for varietal verification.
4. If requesting a moisture test, an additional 500 gm should be submitted in a separate sample bag.

AMOUNT TO SUBMIT		
CROP	ALL CLASSES	MINIMUM WEIGHT
Small grains, Soybeans, Corn, Industrial hemp, and Field beans	One sample bag filled to upper fill line	1000 gm (2¼ lb)
Sunflowers	Two full sample bags or enough to meet minimum weight requirements	1000 gm (2¼ lb)
Alfalfa, Birdsfoot trefoil, Kentucky bluegrass, Ryegrass, Timothy, Reed canarygrass, and seed of similar size	One bag filled to lower fill line	142 gm (5 oz)

# Submitting Samples to MCIA Seed Laboratory

**A representative sample for each seed lot to be certified must be submitted for testing to verify the seed meets certification standards. It is important to test the seed at the highest class eligible (refer to seed class indicated on the *Field Inspection Report*).**

1. Draw a representative sample according to MCIA seed sampling requirements.
2. Place seed in a sample bag (provided by MCIA). Use a ball point pen to label bag with the following required information:
  - Owner's name of seed lot, address, variety, and lot number
  - Indicate if final or preliminary sample and if you need rush service
  - If sample is being retested, indicate and provide the previous sample number, if possible
3. Provide sample tags, *Certificate of Transfer for Seed Pending Certification*, *Report of Tagging OECD Certified Seed*, incoming *Bulk Seed Sale Certificates*, or other supporting documentation.
4. Complete *Sampling Report* for submission with each respective seed sample.
  - Refer to *Instructions—Submitting Samples for Testing*
  - Current *Sampling Report* forms are available upon request or can be found online at [www.mncia.org](http://www.mncia.org)
5. Sign and enclose the *Sampling Report* with your shipment. **Do not** place the report in the sample bag.  
**Send to:**

MCIA Seed Laboratory  
1900 Hendon Ave  
Saint Paul MN 55108
6. Once all required information is received and testing has been completed, MCIA will provide a *Seed Certification Report*.

***Missing or incorrect information may delay testing and/or completion of certification.***

## TESTS REQUIRED FOR SEED CERTIFICATION

The table below describes tests **required** for seed certification for some of the most common crops (additional tests may be requested if desired)

Crop	Seed Quality Test	Seed Health Test	Varietal Verification Test
Barley	Germination; Purity	Loose smut (per field or seed lot)	Rachilla hair check (included with purity)
Corn	Germination; Purity	n/a	Visual exam for off-types on untreated seed (included with purity)
Field beans	Germination; Purity	Bacterial blight and Anthracnose (per field or seed lot)	Visual exam for off-types on untreated seed (included with purity)
Grasses	Germination; Purity	n/a	Fluorescence test for ryegrass (included with germination)
Legumes	Germination; Purity	n/a	n/a
Native Seed *	Germination; Purity	n/a	n/a
Oats	Germination; Purity	n/a	Electrophoresis or HPLC
Rye	Germination; Purity	n/a	n/a
Soybeans	Germination; Purity	n/a	Hilum color check (included with purity)
Sunflowers	Germination; Purity	n/a	Visual exam for off-types on untreated seed (included with purity)
Triticale	Germination; Purity	n/a	n/a
Wheat (spring)	Germination; Purity	n/a	Electrophoresis or HPLC
Wheat (winter)	Germination; Purity	n/a	n/a

\*Testing may be conducted by MCIA or an MCIA-authorized lab.

**For certification to be complete, seed containers (bags or totes) must have a certification tag securely attached. Bulk seed (true bulk) must be delivered with a *Bulk Seed Sale Certificate*.**

## SEED CERTIFICATION TAGS

State and federal seed laws require that certification tags be securely fastened to each container before seed leaves the original owner's possession. **Seed in containers with no certification tags attached is not certified seed.** These tags, supplied by MCIA, identify the certification agency and seed class. Variety name, seed kind, lot number, and identifying number are printed before attaching to containers. Certification tags may include analysis information and must be issued to members of MCIA only. Certification tags shall contain only information approved by MCIA. There are several options for obtaining certification tags.

**Requesting pre-printed certification tags:** Applicant producers and approved seed conditioning facilities may request pre-printed tags to attach to containers as they are filled. When this method is used, the applicant must keep seed under their control until certification standards have been met.

1. Submit a *Sampling Report* with all information except amount of seed and request the number of tags needed. Request "Pre-print tags" in the "Remarks" section of the report.
2. You will receive serially numbered tags registered in your name for which you are accountable. You must report lost, damaged, or unused tags to MCIA. Return damaged or unused tags to your field supervisor.
3. Securely attach the tags to the containers.
4. After seed is bagged and sampled, complete a *Sampling Report*. Note in the "Remarks" section that you have received pre-printed tags and indicate the actual amount of seed and final number of containers in the lot.

**MCIA may print tags once the seed lot meets certification standards:** Applicant producers and approved seed conditioning facilities may request tags on the *Sampling Report* to be received once the seed lot has met certification standards.

1. Submit a *Sampling Report* with the number of tags needed.
2. Once the seed lot meets certification standards, the tags you requested will be printed and shipped.
3. Securely attach the tags to the containers.

**Printing tags:** Approved seed conditioning facilities that have tag printing privileges authorized by MCIA can print certification tags.

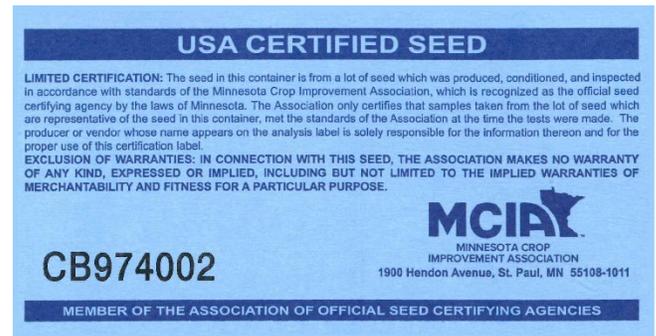
1. Approved seed conditioning facilities with tag printing privileges shall print tags only for seed conditioned in that facility unless special authorization is given by MCIA.
2. Each facility must designate an individual in charge of certification tags and provide his/her name to MCIA. This person will be accountable for printing, attaching tags to containers, and record keeping.
3. Blank certification tags will be issued upon request to seed conditioning facilities approved for tag printing. Facilities are accountable for all tags issued to them and must maintain an accurate account by using the *Record of Tag Use Form*. An inventory of tags will be taken annually by the MCIA field supervisor.
4. If you downgrade any portion of a seed lot, indicate the serial numbers on the appropriate *Record of Tag Use Form*.
5. Tags are serial numbered and consecutive numbers should be assigned to each seed lot.
6. Tag printing must be clear, uniform, and legible.

7. Approved seed conditioning facilities that print tags are accountable for all seed tagged prior to testing.
8. If a seed lot is rejected, certification tags must be removed and returned to the MCIA field supervisor. Damaged tags must also be returned to the MCIA field supervisor.
9. These requirements must be followed to maintain accurate certification records.
10. For traceability, the following format must be printed on the front of each tag: year bagged, AF (Approved Facility), and client number of the facility printing the tag. (e.g., 18-AF-9000)
  - The year changes to that of the calendar year each July 1. (e.g., 17-AF-9000 changes to 18-AF-9000 on July 1, 2018).

***MCIA reserves the right to revoke tag printing privileges in the event of a violation (e.g., shipping seed prior to receiving test results or providing unattached tags to buyer).***



**Front of tag**



**Back of tag**

## BULK SEED SALE CERTIFICATES

A *Bulk Seed Sale Certificate* shall be issued for each load of certified seed sold in true bulk.

- Each approved facility must designate a person(s) in charge of *Bulk Seed Sale Certificates* and provide their name(s) to MCIA. This person(s) will be accountable for completing, distributing certificates to the buyer, and record keeping.
- Facilities are accountable for all certificates issued to them and must maintain an accurate account of their use. An inventory of certificates will be taken annually by the MCIA field supervisor.
- *Bulk Seed Sale Certificates* are serial numbered for traceability and auditing purposes.
- If you choose to downgrade any portion of a seed lot, simply check the desired seed class.
- Approved facilities that complete *Bulk Seed Sale Certificates* are accountable for all seed sold.
- These requirements must be followed to maintain accurate certification records.

***MCIA reserves the right to revoke printing privileges in the event of a violation (e.g., shipping seed prior to receiving test results).***

There are several options for obtaining *Bulk Seed Sale Certificates*.

**Blank Bulk Seed Sale Certificates:** Approved seed conditioning facilities and approved bulk seed handlers may request, with approval from MCIA, blank *Bulk Seed Sale Certificates* to be filled out by designated personnel at the time of seed pickup or delivery.

1. Request blank certificates from the MCIA office by calling or email (*not* by using the *Sampling Report*).
2. MCIA will issue serial numbered *Bulk Seed Sale Certificates* in the facility's name for which the facility's designated personnel are accountable. Refer to *Instructions—Completing Bulk Seed Sale Certificates*.
3. At time of seed pickup or delivery, complete the *Bulk Seed Sale Certificate* accurately. Remember to sign and date.
4. The white copy is to be provided to the buyer while the pink copy is to be retained by the seller. The yellow copy of all *Bulk Seed Sale Certificates* is to be provided to your field supervisor. In the case of a voided certificate, all three copies must be returned to your field supervisor.

**Bulk Seed Sale Certificates printed by MCIA:** Approved seed conditioning facilities and approved bulk seed handlers may request or be required to have MCIA print the required certified lot information on the *Bulk Seed Sale Certificates*. Applicant producers will only receive *Bulk Seed Sale Certificates* printed specific to a certified lot.

1. On the *Sampling Report*, indicate the number of *Bulk Seed Sale Certificates* requested.
2. At time of seed pickup or delivery, complete the *Bulk Seed Sale Certificate* accurately. Remember to sign and date.
3. The white copy is to be provided to the buyer while the pink copy is to be retained by the seller. The yellow copy of all *Bulk Seed Sale Certificates* is to be provided to your field supervisor. In the case of a voided certificate, all three copies must be returned to your field supervisor.



## BULK SEED SALE CERTIFICATE

1900 Hendon Ave, Saint Paul MN 55108 • tel 612-625-7766 • fax 612-625-3748 • mncia@mncia.org • www.mncia.org

A *Bulk Seed Sale Certificate* is provided to buyers of bulk certified or QA seed at the time the seed is picked up or delivered and serves as the required label and proof of certification or quality assurance (QA).

<b>Seller:</b>		<b>Variety:</b>	
<b>Address:</b>		<b>Crop Kind:</b>	
<b>City, State, Zip:</b>		<b>Lot Number:</b>	

<b>Seed Class:</b> <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified <input type="checkbox"/> QA
<b>Origin (state/country in which seed was grown):</b> <input type="checkbox"/> Minnesota <input type="checkbox"/> Other: _____
<b>Final certification completed in the state/country of:</b> <input type="checkbox"/> Minnesota <input type="checkbox"/> Other: _____

<b>Pure Seed:</b>	%	<b>Germination:</b>	%	<b>Additional Information:</b>  Other:
<b>Weed Seed:</b>	%	<b>Hard Seed:</b>	%	
<b>Other Crop:</b>	%	<b>Germination Date:</b>		
<b>Inert Matter:</b>	%	<b>Loose Smut (barley only):</b>	%	
<b>Noxious Weed Seeds:</b> (Kind and no./lb)				

<b>Plant Variety Protection: Unauthorized Propagation Prohibited-- U.S. Protected Variety (Check one)</b>	
<input type="checkbox"/> PVPA 1994: Granted	<input type="checkbox"/> PVPA 1994: Granted—To be sold by variety name only as class of certified seed
<input type="checkbox"/> PVPA 1994: Applied For	<input type="checkbox"/> PVPA 1994: Applied For—To be sold by variety name only as class of certified seed
<input type="checkbox"/> PVPA 1994: Contemplated	<input type="checkbox"/> No Plant Variety Protection

<b>Buyer:</b>		<b>Amount:</b> _____ <input type="checkbox"/> Bu <input type="checkbox"/> Lb
<b>Address:</b>		<b>Check One:</b> <input type="checkbox"/> Final sale <input type="checkbox"/> To be resold
<b>City, State, Zip:</b>		

**Seller's Declaration:** This seed has been produced, conditioned, and handled in conformity with standards and procedures specified by the Minnesota Crop Improvement Association.

**Seller's Signature:** \_\_\_\_\_ **Date of Sale:** \_\_\_\_\_

The seed represented by this certificate is from a lot of seed produced, conditioned and inspected in accordance with standards of the Minnesota Crop Improvement Association, which is recognized as the official seed certifying agency by the Laws of Minnesota. IN CONNECTION WITH THIS SEED, THE ASSOCIATION MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR PURPOSE, OR OTHERWISE. The Association only certifies that samples taken from the lot of seed met its standards at the time the tests were made. The seller, whose name appears above, is solely responsible for the information hereon and for the proper use of this certificate.

White: Buyer's Copy • Yellow: Return to MCIA Field Supervisor • Pink: Seller's Copy SERIAL NUMBER

Bulk Seed Sale Certificate Seed Certification Print Date: 1/3/2019  
Controlled Version: 2/16/18 Page 1 of 1 © 2018 Minnesota Crop Improvement Association

**Issuing Bulk Seed Sales Certificates Online:** Approved seed conditioning facilities and approved bulk seed handlers may generate, with approval from MCIA, *Bulk Seed Sale Certificates* through an online system.

1. Approved seed conditioning facilities with *Bulk Seed Sale Certificates* printing privileges shall print certificates only for seed conditioned in that facility unless special authorization is given by MCIA.
2. Contact your field supervisor to initiate the setup of the online system. A training with designated personnel will be provided in order to generate *Bulk Seed Sale Certificates*.
3. It is the responsibility of the facility's designated personnel to:
  - a. Accurately enter the information needed to complete the *Bulk Seed Sale Certificate*.
  - b. Generate a certificate for each load of seed sold.

If a seed lot has been rejected, there are options and/or conditions under which the seed lot may still be certified.

## SEED LOTS REJECTED FOR PROHIBITED WEED SEEDS

1. Seed lots rejected for prohibited weed seeds can neither be offered for sale in Minnesota nor blended with other lots of seed.
2. Samples of seed lots rejected for prohibited weed seeds cannot be retested for certification.
3. Seed lots rejected for prohibited weeds can be reconditioned. A new lot number for reconditioned seed shall be assigned and a representative sample submitted for all required tests.
4. Certification labels from rejected lots must be returned to your field supervisor.

## SEED LOTS REJECTED FOR REASONS OTHER THAN PROHIBITED WEED SEEDS

1. Resample the seed lot using the required sampling procedures. The designated sampler of the approved seed conditioning facility that conditioned the seed may draw one resample per lot with approval from MCIA.
2. A rejected lot can be reconditioned. Assign a new lot number and submit a representative sample of the reconditioned lot. All tests required for certification (germination, purity, HPLC, etc.) must be conducted. Previous test results cannot be used for final certification purposes on a lot that has been reconditioned.
3. Certification labels from rejected lots must be returned to your field supervisor.

## SUBSTANDARD SEED

Certain qualities of seed may be affected by environmental conditions, such as unfavorable weather. Seed that fails to meet the certification standards for inert matter and/or germination may be certified as 'substandard seed.' Barley containing more than 4 percent loose smut may also be certified as substandard seed. The percentage of loose smut found in the test shall be included on the label.

The following requirements must be met when certifying as substandard:

1. All possible means of upgrading the quality of the seed lot should be used before substandard classification is given.
2. The labeler is responsible for ensuring that seed analysis information printed on labels is accurate and in compliance with seed law labeling requirements.
3. Certification tags or *Bulk Seed Sales Certificates* must indicate that the seed is substandard and the reason for the substandard status.

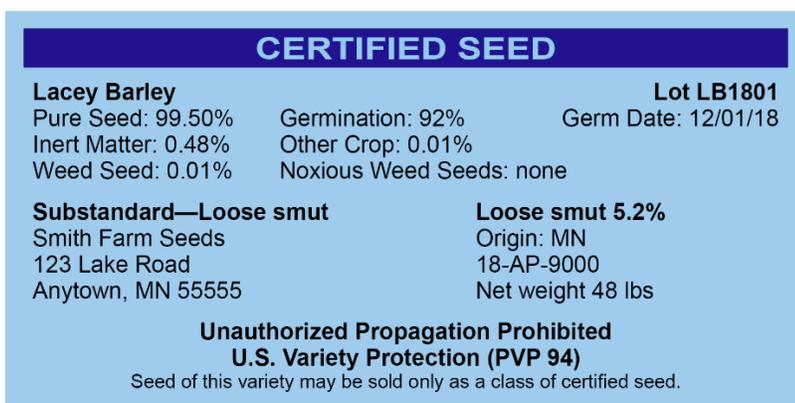
### Procedure for Substandard Lots:

1. The *Substandard Seed* form is available to all seed certification applicants whose seed lots do not meet germination, inert matter, and/or loose smut standards.
2. The form must be completed and returned to MCIA to receive "Passed—Substandard" status on a failed lot before it can be sold. Certification labels must indicate the substandard status.

Two examples of certification tags with substandard seed lot status:



**Substandard Seed—No Analysis**



**Substandard Seed—With Analysis**

### APPROVING LOTS “FOR APPLICANT’S USE ONLY”

Occasionally, when a Foundation or Registered seed lot fails to meet certification standards, an applicant may request that the lot be passed for their own use for seed production. Before MCIA will consider this request, all reasonable measures should be taken to correct problem(s) with the lot. When seed conditioning may correct the problem(s), it is recommended that the applicant recondition and retest the seed prior to requesting "For Applicant's Use Only" status.

To be eligible, seed lots must comply with all requirements of the Minnesota Seed Law and Rules. Lots containing prohibited weed seeds, restricted weed seeds in excess of 25 per pound, or total weed seed in excess of one percent are not eligible.

If approval is granted, MCIA will issue a passed *Seed Certification Report* stating, “For Applicant's Use Only.” Seed labeled “For Applicant's Use Only” may not be offered for sale.

### VARIETAL PURITY CERTIFICATION

Seed can be certified for varietal purity only if the owner of a variety so specifies. For such varieties, only standards that affect genetic purity will be applied. All seed producers of a given variety will be required to certify it for genetic purity or for genetic and mechanical quality standards according to the procedure elected by the variety owner.

Individual lots to be exported from Minnesota can be certified for varietal purity only. The applicant must specify the intended destination and the seed must meet the minimum certified seed standards of the state or country of destination.

Certification tags of seed certified for varietal purity only will state “Certified for Genetic Purity.”

**It is the seed lot owner's responsibility to uphold seed law requirements when carryover seed is sold.**

## PROCEDURE FOR TESTING CARRYOVER SEED

1. Determine whether the date of the germination test on the label meets applicable seed law requirements:
  - a. For in-state commerce, Minnesota Seed Law and Rules requires a germination test within 12 months of sale. Grass seed must be germination tested within 15 months of sale. The first full month after the test was done is counted as the first month.
  - b. Seed that moves interstate must comply with the Federal Seed Act, which requires a germination test within 5 months of the date of interstate shipment. The first full month after the test was done is counted as the first month.
2. If the germination test date on the label requires updating, resample the lot and submit a representative sample for testing.
3. If requesting a new lot number, a revised *Seed Certification Report*, or if updating analysis information on the certification label, MCIA requires necessary testing, including germination of carryover lots, to be completed by the MCIA Seed Laboratory.

## PROCEDURE FOR LABELING CARRYOVER SEED

All containers offered for sale must be labeled with the new germination test date and germination percentage (if changed).

1. When certification labels have the analysis information printed on them:
  - a. If you are an applicant producer or an approved facility that does not have the privilege to print labels:
    - i. Submit representative sample with *Sampling Report* for germination update to MCIA.
    - ii. Indicate the number of certification labels needed.
    - iii. If seed was not produced in your name, submit proof of certification along with the completed *Sampling Report*.
    - iv. New certification labels will be issued.
    - v. Remove labels and return to your field supervisor.
  - b. For approved seed conditioning facilities with tag printing privileges, new certification tags may be generated:
    - i. Record the serial numbers used on the *Record of Tag Use Form*.
    - ii. If seed was not produced in your name, retain proof of certification.
    - iii. Remove old tags from the containers and return to your field supervisor.
2. If certification labels do not have the analysis information printed on them, you must update the analysis label with the current results.
3. Apply stickers with the new germination information to all analysis labels. Stickers must adhere securely and cover only the analysis information to be updated.

**To be eligible for certification, variety blends and mixtures must be approved by MCIA. If you are blending Refuge in a Bag (RIB) corn contact the MCIA office for further instructions.**

According to Minnesota Seed Law and Rules, blends and mixtures are defined as follows:

**Blend:** Seed consisting of more than one variety of a kind, each in excess of five percent of the whole.

**Mixture:** Seed consisting of more than one kind, each in excess of five percent of the whole.

## REQUIREMENTS

1. Only MCIA-approved seed conditioning facilities that can demonstrate the ability to blend/mix seed within specified tolerances will be approved to do blending and mixing. Approvals are designated on the *Inspection Report—Seed Conditioning Facility*.
2. Only Certified class seed of each of the component varieties shall be used in a certified blend/mixture. Proof of certification of seed used must be submitted to MCIA.
3. If seed of individual components of a certified blend are not visibly distinguishable from one another, MCIA may require that its representative be present during the blending process.
4. Permission to use a protected or private variety in a blend must be obtained from the owner or breeder of the variety. Labeling must be in accordance with the owner's requirements. If the blend contains component varieties for which owners specify that the identity may not be divulged, the components of the blend and proportions of each shall be recorded in confidence. If the owner(s) give permission to divulge the variety names, the conditioner has the option of stating the names of the varieties of the components and proportions on the label.
5. A blend may be identified by a brand name. For example: ABC Brand Perennial Ryegrass Blend. With approval of the owners, a blend may also be identified by the names of the components. For example: Evans/Hardin Soybean Blend. The label must specify that the seed lot is a blend or mixture.
6. When a brand name is assigned to a blend/mixture, the identity and percentage of each component of the blend/mixture shall be recorded with MCIA. MCIA will certify blend/mixture brand names *only* if the components, varieties, or percentages *do not* vary between lots or between years. The brand name will not be used for final certification in cases where the variety names and/or percentages within the blend change.

## BLEND/MIXTURE CERTIFICATION PROCEDURES

1. Draw a representative sample of each component prior to blending, according to MCIA sampling procedures.
  - a. If certification has not been completed on a component, submit a sample of that component to the MCIA Seed Laboratory for all required testing. For the blend or mixture to be eligible for certification, each component must meet certification requirements.
  - b. Retain a representative sample of each component.
  - c. If components have been certified, retain a representative sample of each component, and submit proof of certification of the component lot(s) to be used. Retain and make available a completed *Bulk Seed Sale Certificate* or all original certification tags from the state of origin for inspection by MCIA.
2. Submit a completed *Application for Certification of Variety Blends/Mixtures* for each blend/mixture lot to be certified.
3. Provide permission from the owner or breeder to use a protected or private variety in a blend.

4. Draw a representative sample of the final blend according to MCIA sampling procedures.
  - a. Testing requirements for blends/mixtures are determined based on an evaluation of the approved seed conditioning facility and the species to be blended/mixed.
5. If testing is required, submit a sample of the blended lot for purity and/or germination testing.

The following are examples of certification tags for a blend and a mixture.



**Blend of Certified Seed**



**Mixture of Certified Seed**

## Interagency certification allows certification of seed when moved between states.

Interagency certification is used in three ways:

1. Certification has been completed by another state and a seedsman wishes to blend, recondition, repackage, or relabel in Minnesota.
2. Field inspection was completed in another state and certification is to be completed in Minnesota.
3. Field inspection was completed in Minnesota and certification is to be completed in another state.

## CERTIFICATION COMPLETED IN ANOTHER STATE

Proof of certification must be submitted to determine interagency certification eligibility. Submit a certification tag or bulk certificate from original certified seed lot. All seed to be sold in Minnesota requires, but is not limited to, a noxious exam which includes the state of Minnesota.

### Repackaging from previously certified interagency seed lots:

Repackaging may be desired to transfer seed to different containers or for other reasons. The following applies when repackaging certified interagency seed for any seed class.

1. When repackaging is performed by someone other than the original seed producer, it must be done under the direction of MCIA.
2. Repackaged lots must be assigned a new lot number.
3. Draw a representative sample.

4. **Retesting requirements for a previously certified lot:**

Refer to the current *Inspection Report—Seed Conditioning Facility* to determine retesting requirements for the facility where the repackaging will take place.

- MCIA-approved seed conditioning facilities may be allowed to repackage previously certified seed lots without retesting the newly repackaged seed lot. Requirements for retesting are based on the design of the facility, the types of seed handled, and methods used.
- Retesting requirements are determined based on the annual inspection of the facility and this privilege may be revoked in the event of violation.

If the noxious exam performed on the original certified lot did not include Minnesota, you may:

Contact the original seed laboratory to inquire about conducting a new noxious examination or a new sample may be drawn from the current inventory to submit to MCIA for required testing.

- a. The following apply when retesting is *not* required:
    - i. Submit a *Lot Number Change Request Form* and the report of analysis from the original lot to MCIA.
    - ii. If certification requirements have been met, MCIA will apply the test results from the original certified lot and issue the final *Seed Certification Report*.
  - b. The following apply when retesting *is* required:
    - i. Submit a *Sampling Report* and sample to MCIA for *required testing*.
    - ii. For wheat and oats, the varietal verification test result, such as an electrophoresis or HPLC, from the original lot can be used to complete certification.
5. When all requirements have been met, MCIA will issue a new *Seed Certification Report*.
  6. Each container must be labeled properly with new certification tags containing the newly assigned lot number.

### Blending or mixing from previously certified interagency seed lots:

Refer to the procedures within this *Seed Certification Handbook* for Variety Blends and Mixtures. A copy of the analysis test must be provided, including the results of a noxious exam which includes the state of Minnesota.

## FIELD INSPECTION IN ANOTHER STATE, CERTIFICATION COMPLETED IN MINNESOTA

1. Procedures are the same as for seed grown in Minnesota except that the applicant must furnish a completed *Certificate of Transfer for Seed Pending Certification* signed by a representative of the certification agency of the state in which the seed was produced.
2. Seed is conditioned and samples are submitted as usual with the *Sampling Report*. Submit a copy of the *Sampling Report* and the *Certificate of Transfer for Seed Pending Certification* to MCIA.
3. Once tests are completed and certification is granted, MCIA will issue a *Seed Certification Report* noting interagency certified.
4. Certification labels may be issued by MCIA or may be printed by approved seed conditioning facilities with tag printing privileges. Information required on the certification tag and *Bulk Seed Sale Certificate* are shown in the example below.

**“Interagency Certified” is required on the certification label, see the following example:** Use standard US postal service abbreviations for the states in which the seed was produced followed by MN and the words “interagency certified.” If the seed was produced in another country, spell out the name of the country.



## FIELD INSPECTION IN MINNESOTA, CERTIFICATION TO BE COMPLETED IN ANOTHER STATE

When field inspection was completed in Minnesota and certification is to be completed in another state, the applicant for field inspection shall complete the form *Certificate of Transfer for Seed Pending Certification* and submit to MCIA for completion. MCIA shall send the original to the conditioner/purchaser of the seed. Signed copies shall be sent to the producer/seller and to the certification agency in the state where the seed is to be shipped.

## Minnesota Crop Improvement Association (MCIA)

### Home Page

<https://www.mncia.org>

Members are encouraged to use the MCIA website to access information needed for seed certification. The “client resources” page of the site provides standards, forms, instructions, and fee information needed to participate in the program. The site also provides links to many of the references listed below under “additional resources.”

## United States Department of Agriculture (USDA)

### Federal Seed Act

[www.ams.usda.gov/rules-regulations/fsa](http://www.ams.usda.gov/rules-regulations/fsa)

### Plant Variety Protection

[www.ams.usda.gov/rules-regulations/pvpa](http://www.ams.usda.gov/rules-regulations/pvpa)

## Minnesota Department of Agriculture (MDA)

### Seed Division Home Page

<https://www.mda.state.mn.us/plants-insects/buying-and-selling-seed-minnesota>

### Minnesota Seed Law and Rules

<https://www.mda.state.mn.us/sites/default/files/2018-05/Minnesota%20Seed%20Law%20%26%20Rules.pdf>

## Association of Official Seed Certifying Agencies (AOSCA)

### Home Page—National Variety Review Board Information

<http://www.aosca.org>

## Canadian Food Inspection Agency (CFIA)

### Information on Importing Seed into Canada

<http://www.inspection.gc.ca/english/plaveg/seesem/abce.shtml>

## Organization for Economic Co-operation and Development (OECD)

### USDA Page

<https://www.ams.usda.gov/rules-regulations/fsa/oecd-schemes>

### International Site

<http://www.oecd.org/tad/code/oecdseedschemesrulesandregulations.htm>

## AOSA/SCST Seed Sampling

### Home Page

<http://www.analyzeseeds.com/>

## AASCO Seed Sampling

### Home Page

[http://www.seedcontrol.org/seed\\_sampling\\_handbook.html](http://www.seedcontrol.org/seed_sampling_handbook.html)