



MINNESOTA CROP
IMPROVEMENT ASSOCIATION

Native Seed Certification Standards

(pre-variety germplasm)

INTRODUCTION

This voluntary certification program is designed to ensure that the proper identity of native plant reproductive material is maintained through all phases of production.

In short, certification helps ensure that any particular set of reproductive material is correctly labeled. Certification does not guarantee the physiological quality of the material. Certification also does not guarantee the performance of any given set of reproductive material. Purchasers must match the appropriate species/seed source/germplasm to the intended planting site. Finally, the certification program itself does not mandate particular seed sources for particular uses - that remains the prerogative of the resource manager.

The various inspections and checks minimize the opportunity for carelessness and deception. However, the production and distribution of certified material depends on the integrity of those participating in the program.

1. RESPONSIBILITIES

It is the responsibility of every member of MCIA to abide by the rules, adhere to the standards, and report irregularities or violations.

1.1. The producer shall:

- 1.1.1. Be a member in good standing of the Minnesota Crop Improvement Association.
- 1.1.2. Meet federal and state requirements relating to sales of seeds/products.
- 1.1.3. Submit information required for participation in the program.
- 1.1.4. Conform to program requirements.
- 1.1.5. Ensure that all required inspections are completed prior to harvest.
- 1.1.6. Use certification markings properly to identify seed that has been determined to have met program requirements.
- 1.1.7. Permit access to production site(s) and records for inspection.

1.2. MCIA shall:

- 1.2.1. Evaluate each application submitted to:
 - Ensure program participation requirements have been met.
 - Ensure all required information has been provided.
 - Identify obviously non-conforming applications prior to inspection.
 - Provide an updated field confirmation list each year prior to harvest.
- 1.2.2. Perform field inspection annually prior to harvest.
- 1.2.3. Report field inspection results.
- 1.2.4. Determine field's conformity to standards.
- 1.2.5. Issue and monitor use of marks of conformity.
- 1.2.6. Perform surveillance audits and inspections.
- 1.2.7. Monitor program to validate the effectiveness of the system in achieving the program objectives.

1.3. The MCIA Board of Directors will act on any case where rules established by MCIA are knowingly or intentionally violated. Action taken by the Board of Directors may result in the suspension of membership in MCIA. Any applicant whose reputation is unsatisfactory will be refused certification and the privileges of MCIA.

2. DEFINITIONS

A. Collection of material - The harvest of seeds, cuttings, and other types of material that will be used to grow new plants.

B. Isolation – In order to ensure the validity of source claim, seed production areas of native plant species must be isolated from plants of the same species from a different or unknown genetic origin. For example, two seed lots to be certified as representing distinct sources, e.g. "Houston County" and "Winona County" must be grown the minimum distance apart as outlined in the isolation standards. However, if both seed lots were to be certified as "Minnesota" genetic origin, they would not have to be

separated because the source claim would allow blending of the two sources. See section 8 for isolation requirements.

- C. Genetic origin** - The definable geographic region from which germplasm was first collected. The source may be relatively broad, resulting from a blend of more than one collection across a region, or it may be narrow, from a single collection location. The precision of the source claimed is the choice of the producer. However, the source must be accurately described, and cannot be any more precise than the actual area of collection. For example, seed collected from several counties across southeastern Minnesota and then bulked into a single seed lot could be identified listing the counties of origin, but could not be identified as Houston County source.
- D. Germination** – Seedlings which meet the requirements for normal seedlings as defined in the *AOSA Rules for Testing Seed*.
- E. Germplasm** - A collection of genetic resources of one or more organisms for the sake of preservation.
- F. Germplasm owner** – The person, institution or designee thereof, responsible for the collection of native material.
- G. Native plant/seed** - A species that occurs naturally with respect to a particular ecosystem, rather than as a result of an accidental or deliberate introduction into that ecosystem by humans.
- H. Native stand** – Plant population on land that has never been cultivated, improved or otherwise severely altered.
- I. Pure Live Seed (PLS)** - As defined in the *AOSA Rules for Testing Seed*, the percentage of pure seed in a lot that are viable. Formula: $\% \text{ pure seed} \times \% \text{ total viable} / 100 = \% \text{ PLS}$ (rounded to the nearest whole number).
- J. Reproductive material** - All forms of reproductive material including seed, seedlings, cuttings, rooted cuttings, transplants or other forms.
- K. Seed conditioning** – The mechanical handling of seed from harvest until marketing.
- L. Total viable** – As defined in the *AOSA Rules for Testing Seed*, “the sum of percentage germination plus dormant plus hard seeds.” Hard seed and dormant seed are to be determined at the conclusion of the germination test.

3. GERMLASM TYPES

Depending on how much intentional selection has been done, three different levels of certification are possible: **Source Identified, Selected, and Tested.**

3.1. Source Identified Material (Yellow Tag)

Source-identified is a type of propagating material collected from natural stands, seed production areas, seed fields, or orchards where no selection or testing of the parent population has been conducted, and can be traced to an identified, documented geographic location.

3.2. Selected Material (Green Tag)

Selected is a type of propagating material that shall be the progeny of phenotypically selected plants of untested parentage that have promise but no proof of genetic superiority or distinctive traits. Production should be conducted in such a way as to ensure genetic purity and identity.

3.3. Tested Material (Blue Tag)

Tested is a type of propagating material that shall be the progeny of plants whose parentage has been tested and has proven genetic superiority or possesses distinctive traits for which the heritability is stable, as defined by the certifying agency, but for which a variety has not been named or released. This seed must be produced so as to assure genetic purity and identity.

4. LIMITATIONS OF GENERATIONS

- 4.1. Unless specified by the germplasm owner, there is no limitation on the number of generations that may be produced.

5. ELIGIBLE SPECIES

- 5.1. MCIA will accept applications for certification of species in compliance with all applicable Federal and State laws.
- 5.2. Species designated as Minnesota or Federal Noxious are not eligible for certification.
- 5.3. Species designated as "Endangered" or "Threatened" are not eligible unless a copy of a permit for collection/production is submitted for that species.

6. ESTABLISHING SOURCE OF SEED FOR ARTIFICIALLY ESTABLISHED SEED PRODUCTION SITES

6.1. For Selected and Tested germplasm seed production fields:

- 6.1.1. A certification tag or an invoice showing the species, germplasm name, seed class, generation, and lot number must be furnished as proof of seed source.
- 6.1.2. For germplasm where a limitation of generations has been designated by the releasing agency/owner, only eligible generations will be allowed for certified seed production.

6.2. For Source-Identified germplasm seed production fields:

- 6.2.1. Only seed collected from a native stand by the applicant or certified seed is eligible to be used to establish a certified seed production field, except as provided for as an Approved Collector/Producer.
- 6.2.2. If seed collected from a native stand is used to establish the seed production field, the applicant must provide a *Declaration of Genetic Origin* form as documentation of the seed collection when the application for field inspection is submitted. Proper documentation includes:
 - Name and address of collector
 - Name of species collected
 - Description of the site
 - Genetic Origin - location of the native stand (including the legal description and landowner's name)
 - Date of collection
 - A copy of the collection permit, authorization of the landowner, etc. are recommended when available
- 6.2.3. If the seed production field is established using seed acquired from another collector or seed producer, the applicant must furnish the following as proof of seed source:
 - Proof of certification from the acquired certified seed; **and**
 - A copy of the *Authorization to Produce Source Identified Certified Seed* provided to the applicant by the applicant/producer of the acquired certified seed.

7. ISOLATION REQUIREMENTS

- 7.1. For production fields of different germplasm of the same species, an isolation of 165 feet will be maintained for sedges and grasses.
- 7.2. For production fields of different germplasm of the same species, an isolation of 1320 feet will be maintained for forbs.
- 7.3. Contaminants consisting of less than 10% of the area of the seed production field will be disregarded.
- 7.4. Self-pollinated species must be separated from plants of the same species of different or unknown germplasm by a distance great enough to allow mechanical separation at harvest.

8. LAND REQUIREMENTS

- 8.1. A field to be eligible for the production of certified seed must not have grown or been seeded to the same species during the previous three years except to seed of the same germplasm that passed field inspection for certification. Fall seeding is permitted in the third year.

9. APPLICATION FOR FIELD INSPECTION

- 9.1. Applicants desiring to have their seed certified must apply to MCIA on the application form supplied by the Association.
- 9.2. The applicant's signature on the application is affirmation that:
 - 9.2.1. The information submitted for verification of seed eligibility is representative of the total amount of seed used.
 - 9.2.2. The seed verified in 1 (above) was planted on the field(s) described on the application.
 - 9.2.3. All equipment involved with planting, harvesting and other handling was, or will be, adequately cleaned to maintain the genetic identity of the seed.
 - 9.2.4. The identity of the seed will be maintained at all times through the use of field, bin and lot numbers or other identification system.
- 9.3. **Application for field inspection is required the year the seeding is established** except for seed produced in an Approved Collector/Producer's facility.
 - 9.3.1. Neither inspection fees nor field inspection will be required in the year of establishment, but will be required each successive year the field is in seed production.
 - 9.3.2. Lapse of inspection will result in permanent disqualification for the field, unless permission is obtained by the applicant prior to the time inspection is required.
 - 9.3.3. Eligibility for certification is maintained as long as the field is continuously in production of certified seed, subject to limitation of length of stand when specified by germplasm originators.
 - 9.3.4. Fields that are not harvested in a given year must be placed on "hold" to maintain eligibility.
 - 9.3.5. Fields on "hold" will be observed by an MCIA inspector during or immediately following the harvest period for the crop and area. Applicants that wish to place their field on "hold" or cancel their field must notify MCIA prior to field inspection.
- 9.4. Seed production fields/plots in an Approved Collector/Producer's facility may be applied for the year certification is desired. Applications must be submitted 6 weeks prior to flowering.
- 9.5. Seed collected from a native stand can be certified by applying for field inspection 6 weeks prior to the date of collection. The applicant must be available to accompany the inspector to the collection site if requested.
- 9.6. Late applications may result in the field inspection not being made. If such inspections can be arranged, a late application fee will be assessed.

10. LATE APPLICATION FOR FIELD INSPECTION OF SOURCE IDENTIFIED MATERIAL

- 10.1. Applications for Field Inspection received after the application deadline will be subject to a review process by MCIA to determine eligibility to produce certified seed. The following process will be used:
 - 10.1.1. Applicant must submit a written request to MCIA stating:
 - Need for a variance from MCIA to enter these species into the MCIA Native Grass and Forbs Pre-Variety Germplasm Certification Program due to not meeting the application deadline.
 - Reason for making the collections and establishing fields (research, certified seed production, etc.).
 - Other information you feel would be important for MCIA to know regarding these collections.
 - 10.1.2. Submit an Application for Field Inspection for each certified seed production field or submit required information for approval as an Approved Collector/Producer.
 - 10.1.3. Submit a completed, signed and notarized MCIA Declaration of Genetic Origin form for each seed source used.

- 10.1.4. MCIA will review submitted documents and inspect seed source collection sites and seed production fields to verify the accuracy of the information provided.
- 10.1.5. A late application fee will be assessed. The late fees will also apply to MCIA Approved Collector/Producer Facilities.

11. FIELD INSPECTION

- 11.1. All inspections will be conducted by MCIA.
- 11.2. Field inspection is a thorough examination of the seed production site to confirm compliance with field requirements. Inspection of seed production sites to ensure that certification requirements are met shall be made prior to seed maturity and/or collection.
- 11.3. It is the applicant's responsibility to ensure that the required inspections are completed prior to harvest.

12. MAINTAINING IDENTITY OF SEED

- 12.1. Each field to be certified must be identified with a number or other designation on the *Application for Field Inspection* and other pertinent documents.
- 12.2. Maps showing field identities and locations must be maintained and furnished to field inspectors.
- 12.3. Field inspected seed must be positively identified at all times. Seed containers must be labeled and bins must be identified.

13. APPROVED COLLECTORS/PRODUCERS OF NATIVE PLANT MATERIALS

Producers of native plant materials may be approved by MCIA to collect and increase seed of native plants. Approval allows materials in seed and plant production areas to be eligible for certification as Source-identified seed when materials have been increased sufficiently to allow commercial seed or plant production. To gain MCIA approval, the producer will be required to pass an annual inspection to verify that required production techniques and recordkeeping are used that will prevent the loss of the genetic identity of all materials being produced. The producer will indicate the area to which materials will be certified at the time of the initial approval inspection. Fees for an annual inspection and seed production site inspection will be charged.

13.1. The following will be required for approval:

- Documentation of seed source for all materials.
- All seed containers or flats, pots, etc. in which plants are being grown must be labeled. Only one lot may be grown in each container "block".
- Use of a numbering system that includes the year of collection for maintaining the identity of seeds and plants throughout the increase process.
- A current map of the seed production site that includes a permanent numbering system for all plots and indicates the species being grown in each plot. An updated map must be supplied each year by the producer at the time of the inspection.
- A list of seed production plots or fields that includes the plot or field number, species, area, year planted and county or counties of origin. An updated list must be supplied annually.
- Seed production plots must be isolated from plants of the same species grown from seed sources of unknown genetic origin or from a genetic origin outside of the region to which certification is being requested. Container grown plants produced for seed production must not be allowed to bloom unless properly isolated.
- Seed production sites must meet the land requirements for certified seed.
- Approval must be maintained continuously. Not maintaining approval will result in the disqualification for certification of materials being produced.

13.2. An approved collector/producer may request certification of any material being produced within the approved facility by submitting an *Application for Field Inspection* to MCIA with required source documentation. Field inspection fees will be charged for fields/plots for which field inspection is requested.

14. SEED CONDITIONING

- 14.1. All certified seed must be conditioned by the applicant-producer of the seed or by an MCIA approved seed conditioning facility. A list of approved seed conditioners is published in the MCIA Directory and is available from the MCIA website (www.mncia.org).

15. SEED CONDITIONING FACILITY

- 15.1. Seed conditioning facilities shall be approved by MCIA to condition certified seed by passing an annual inspection to determine conformance to the *Approved Seed Conditioner Requirements*. An approved seed conditioning facility may process seed of any germplasm type.

16. SEED SAMPLING AND TESTING

- 16.1. Each seed lot to be certified shall be tested to confirm conformance to seed standards.
- 16.2. Tests shall be performed on official samples drawn from conditioned seed lots.
- 16.3. Samples shall be drawn by MCIA personnel, designated approved conditioning facility personnel or by the applicant/producer of the seed utilizing sampling procedures as required by MCIA.
- 16.4. The laboratory tests shall include the determination of seed purity and germination performed in accordance with applicable Association of Official Seed Analysts (AOSA) rules.

17. SEED STANDARDS

- 17.1. MCIA shall evaluate test results to determine whether a seed lot conforms to certification standards. The following standards shall apply:
- 17.1.1. **Source Identified Material** – no minimum standards will be required for germination or purity other than those as required by the *Minnesota Seed Law (Minnesota Statutes, Sections 21.80 – 21.92)*.
- 17.1.2. **Selected Material and Tested Material** – minimum standards for grasses and forbs will be in compliance to those established for similar crops by the Minnesota Crop Improvement Association, AOSCA, and as required by the *Minnesota Seed Law (Minnesota Statutes, Sections 21.80 – 21.92)*.

18. LABELING

- 18.1. All labeling of material must meet the requirements of the Minnesota State Seed Law as outlined in the *Minnesota Seed Law and Rules, Minnesota Statutes Chapter 21, Sections 21.82*.
- 18.2. To complete certification, producers must supply the following information to MCIA on the *Sampling Report – Native Species Pre-Variety Germplasm*:
- Germplasm type
 - Species
 - Germplasm name or genetic origin
 - Field or site number where seed was produced
 - Year of harvest
 - Producer's lot identification
 - Quantity (number of pounds of seed)
 - Number of containers
- 18.3. Certification tags or a certification certificate must accompany certified seed as proof of certification.
- 18.3.1. MCIA will provide certification tags to applicant-producers and approved seed conditioners.
- 18.3.2. Certification tags must be affixed to each seed container.
- 18.3.3. MCIA will print tags containing the MCIA logo and serial number. These tag colors will be used to indicate germplasm type:
- **Source Identified Material** - yellow tag
 - **Selected Material** - green tag
 - **Tested Material** - blue tag
- 18.3.4. Certification tags shall contain the following information:
- Species (Latin and common name)
 - Germplasm name or genetic origin

- Lot number
- Generation - if applicable
- Certification number OR the number of the MCIA approved conditioner that printed the tags written as follows: year of conditioning-AP-member number. (Example: (13-AP-6000))

18.4. For seed sold in bulk or as components of blends or mixtures, MCIA will provide certification certificates to applicant-producers, approved conditioners and approved vendors of certified seed.

18.4.1. When certification tags are not attached, a seller of certified seed must issue a completed certification certificate to each buyer of certified materials at the time of delivery.

18.4.2. The seller must account to MCIA annually for the certification certificates issued to him.

18.5. When seed in packets is to be sold as certified seed, proof of certification must be affixed to each packet.

19. BAGGING REQUIREMENTS

19.1. Good quality new jute, cotton, plastic or paper bags must be used for certified seed that is bagged.

19.2. Bags bearing the word "Certified" or the MCIA emblem shall be used only for seed of one of the certified germplasm types.

19.3. Rebagging by anyone other than the original producer must be performed under MCIA supervision. New certification tags may be issued at the discretion of the certifying agency.

20. TRANSFER OF SEED PRIOR TO COMPLETING CERTIFICATION

20.1. An affidavit of transfer stating the number of pounds and the class of uncleaned seed sold must be sent to the MCIA office at the time of the sale. A form is available for this purpose. Such seed can be transferred only to an Approved Seed Conditioning Facility or to another MCIA member.

21. CERTIFICATION RECORDS

21.1. The applicant must keep accurate records of the amount of seed harvested from each field (not necessarily actual weights, but number of truck loads, bins, bags, etc.) and where the seed is stored or taken for conditioning.

21.2. Seed conditioners must keep the following records for each lot brought into their plants:

- Name and address of owner of seed
- Number or other identification of field(s)
- Amount (weight if possible) of uncleaned seed
- Date received
- Assigned bin number
- Condition of seed (if high moisture, excess weeds, etc.)
- Weight and/or number of bags of cleaned seed
- Date of conditioning
- Record of certification certificate and certification tag use
- If cleaned lots are blended, approximate weight of each component blended

21.3. Records must be kept on file for three years after the lot has been completely sold.

21.4. A sample of each conditioned seed lot must be kept for at least one year after the lot has been completely sold.

21.5. The Minnesota Crop Improvement Association reserves the right to examine all records pertaining to seed lots eligible for certification.

APPENDIX A - CERTIFICATION PROCEDURE

1. Apply for membership to MCIA.
2. If establishing seed production fields, plant eligible seed stock in fields meeting certification land requirements for the germplasm type being grown. (refer to Sections 6-10)
3. Submit *Application for Field Inspection – Native Grasses and Forbs* for each seed production field or native stand from which seed will be collected for certification.
4. MCIA will examine source documentation and inspect the field prior to seed maturity. The applicant must inform MCIA prior to field inspection when no seed will be harvested. A hold fee will be charged (fee does not apply to Approved Collector/Producers).
5. Harvest seed and label each container/bin. Include species, class, germplasm name (if applicable), field, year of harvest, and lot number.
6. Condition seeds yourself or arrange for conditioning at an MCIA approved conditioning facility.
7. Draw a representative sample of the conditioned lot according to MCIA sampling procedures.
8. Submit a completed *MCIA Sampling Report - Native Grasses and Forbs – Pre-Variety Germplasm* and a representative seed sample of at least 25,000 seeds (500 grams maximum) for germination and purity testing to an MCIA-authorized seed testing laboratory. Seed lots must meet requirements as defined by Minnesota Seed Law.
9. For lots meeting certification requirements, MCIA will provide certification labels or certification certificates.
10. Furnish a completed certification certificate to each seed purchaser when the seed is delivered OR affix a certification tag to each container.

APPENDIX B - CERTIFICATION PROCEDURES FOR SEED GROWN AND HARVESTED IN MIXTURES (SOURCE-IDENTIFIED CLASS)

MCIA will certify components of native species seed mixtures that are grown and harvested in mixtures subject to the following procedures:

1. Applicant must complete an Application for Field Inspection for each seed production site prior to field inspection. Fees will be assessed based on an hourly rate as established by MCIA.
2. MCIA will inspect the seed production site to verify that the species applied for occur on that site and will note the stage of development of the species applied for, weed infestations and other field conditions that will affect the seed mixture harvested.
3. All seed lots harvested in mixture must be thoroughly mixed to achieve uniformity. After conditioning, the applicant must submit a representative sample of the mixture to MCIA for seed testing to determine the content and purity of the mixture, and the germination rates of the components as required by the Minnesota Seed Law and Rules. Fees will be assessed for seed testing. Final certification fees will be assessed on each certified component.
4. Alteration of the tested mixture is not allowed prior to sale unless:
 - Components added are certified seed.
 - The mixture is assigned a new lot number following the addition of certified components.
 - A representative sample is submitted by the applicant to allow re-testing of the mixture by MCIA to determine that the mixture meets all certification requirements.
5. A completed Certification Certificate must be furnished to buyers of the seed mixture when the seed is delivered as proof of certification of the components. All certification and Minnesota and Federal Seed Law record keeping and labeling requirements must be met.