

## ARTICLE 74-01

### GENERAL ADMINISTRATION

Chapter  
74-01-01            Organization of Commission

#### CHAPTER 74-01-01 ORGANIZATION OF COMMISSION

Section  
74-01-01-01            Organization of Seed Commission

##### **74-01-01-01. Organization of seed commission.**

1. History. The state seed department was established by the 1931 legislative assembly. The main office was designated to be at North Dakota state university. Branch offices are maintained in Grafton to more efficiently serve the potato industry with official grade inspection services. The department is governed by the state seed commission.
2. Commission. The state seed commission consists of a representative of the North Dakota crop improvement association, a representative of the North Dakota certified seed potato growers association, a representative of the North Dakota dry edible bean seed growers association, a representative of the North Dakota agricultural association, an elected member of the North Dakota potato council selected by the North Dakota potato council, a representative of the northern plains potato growers association who is a North Dakota resident, a representative of the North Dakota grain dealers association who also operates a state-approved seed conditioning plant, selected by the board of directors of the North Dakota grain dealers association, and the agriculture commissioner or the commissioner's designee, who shall serve as chairman. The ~~dean and~~ director of the experiment station, or the director's designee, of the college of agriculture of the North Dakota state university of agriculture and applied science is a voting member of the commission.
3. Functions. The seed department is designated as the official seed certification agency of the state. The seed department enforces state seed laws, inspects and analyzes seed offered for sale, provides a public laboratory service for examining and analyzing seed and commercially produced crops for planting and consumption purposes, maintains a seed certification system for field seeds and potatoes, inspects and grades potatoes and other produce, regulates wholesale potato dealers, and establishes grade standards and grades commodities not in the federal grain standards. Lists of field-inspected seeds published by the seed department, specifically bulletin nos. ~~94~~ 92 and 95, are produced for the express purpose of informing producers of the availability of

certified seed grown in North Dakota, and are not intended to induce reliance on the part of producers on the department's inspection, certifications, or any other act or undertaking relating to quantity or quality of the seed or crop produced, fitness, presence or absence of disease, or identity of variety or selection.

4. For the purposes of this section, North Dakota Century Code chapter 4-09 and North Dakota Administrative Code article 74-03 generally apply to the certification and conditioning of field seeds; North Dakota Century Code chapter 4-25 and North Dakota Administrative Code article 74-02 to the regulation of field crops and seeds; North Dakota Century Code chapter 4-10 and North Dakota Administrative Code article 74-04 to the certification and inspection of potatoes; North Dakota Century Code chapter 4-11 and North Dakota Administrative Code article 74-05 to the regulation of wholesale potato dealers; and North Dakota Century Code chapter 4-09.1 and North Dakota Administrative Code article 74-06 to the inspection and grading of crops not in federal grain standards.
5. Seed commissioner. The commission appoints the seed department manager, who is the state seed commissioner.
6. Inquiries. Inquiries regarding the seed department may be addressed to the commissioner:

State Seed Commissioner  
State Seed Department  
~~State University Station~~  
1313 18<sup>th</sup> St. N.  
Fargo, ND 58105

**History:** Amended effective December 1, 1981; November 1, 1985; October 1, 1989; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 28-32-02.1

**Law Implemented:** NDCC 28-32-02.1

## ARTICLE 74-03

### SEED CERTIFICATION STANDARDS

Chapter	
74-03-00.1	Definitions
74-03-01	General Seed Certification Requirements
74-03-02	Specific Crop Requirements - Small Grains and Flax
74-03-03	Specific Crop Requirements - Alfalfa
74-03-04	Specific Crop Requirements - Birdsfoot Trefoil [Repealed]
74-03-05	Specific Crop Requirements - Red Clover [Repealed]
74-03-06	Specific Crop Requirements - Sweetclover [Repealed]
74-03-07	Specific Crop Requirements - Grasses
74-03-07.1	Specific Crop Requirements - Buckwheat
74-03-08	Specific Crop Requirements - Millet - Self-Pollinating
74-03-09	Specific Crop Requirements - Mustard, Crambe, and Rape
74-03-10	Specific Crop Requirements - Safflower
74-03-11	Specific Crop Requirements - Sunflower
74-03-12	Specific Crop Requirements – Soybean, <u>Chickpeas</u> and <u>Lentils</u> Field Peas
<u>74-03-12.1</u>	<u>Specific Crop Requirements- Field Peas</u>
74-03-13	Specific Crop Requirements - Dry Field Beans

#### CHAPTER 74-03-00.1 DEFINITIONS

Section	
74-03-00.1-01	Definitions

**74-03-00.1-01. Definitions.** As used in this article, unless the context or subject matter otherwise requires:

1. "Blend" means seed consisting of more than one variety of a kind, each in excess of five percent by weight of the whole.
2. "Brand" means a word, name, or symbol, number, or design used to identify seed of one person to distinguish that seed from seed of another person.
3. "Bulk seed" means seed stored in bins and may mean seed stored in containers larger than one hundred sixty pounds [72.72 kilograms].
4. "Conditioning" includes all activities performed on seed between harvest and marketing. Other terms associated with conditioning could include cleaning, processing, sizing, grading, storing, seed treating, drying, scarifying, and other operations that may change the purity or germination of the seed.

5. "Field inspection" means physical examination or observation of a field by an authorized state seed employee. Inspections, tests, certifications, and other acts are not intended to induce reliance on the seed department's inspections, certifications, or any other action or inaction for any purpose relating to quantity or quality of the seed or crop produced, fitness for purpose, merchantability, absence of disease, or variety or selection identification. Certification means only that the seed crop was randomly inspected and at the time of the inspection the field or seed lot met the rules of the department.
6. "Genetic Purity" is defined as, and limited to, the application of the appropriate standards for certain phenotypic traits relative to the developer's description of the variety/germplasm. In the context of this publication "genetic purity" should not be interpreted to imply verification of the genotype or verification of all described traits.
- 6 7. "Grower" means any person that is complying with all the certification rules and regulations in the production of field-inspected seed.
- 7 8. "Hybrid" definitions include:
- a. "Double cross" means the first generation hybrid between two single crosses.
  - b. "Foundation single cross" means a single cross used in the production of a double cross, a three-way cross, or a top cross.
  - c. "Inbred line" means a relatively true-breeding strain resulting from at least five successive generations of controlled self-fertilization or of backcrossing to a recurrent parent with selection, or its equivalent, for specific characteristics.
  - d. "Open pollination" means pollination that occurs naturally as opposed to controlled pollination, such as by detasseling, cytoplasmic male sterility, self-incompatability, or similar processes.
  - e. "Single cross" means the first generation hybrid between two inbred lines.
  - f. "Three-way cross" means a first generation hybrid between a single cross and an inbred line.
- 8 9. "Inseparable other crops" means only other crops of similar size, shape or density which are difficult to remove in the usual methods of cleaning.
10. "Kind" means a group of varieties so nearly similar that individual varieties cannot be clearly differentiated except under special conditions.
- 9-11. "Mixture" means seed consisting of more than one kind, each in excess of



five percent by weight of the whole.

~~10~~ 12. "None" means none found during the normal inspection process (both field and seed standards). None is not a guarantee to mean the lot inspected or analyzed is free of the factor.

~~11~~ 13. "Other varieties and off-types" means plants or seeds which do not conform to the characteristics of a variety as described by the breeder. They do not include variations which are characteristic of the variety.

~~12~~ 14. ~~"Type" means a group of variety so nearly similar that the individual varieties cannot be clearly differentiated except under special conditions.~~

~~13-15~~. "Variant" means any seed or plant that:

- a. Is distinct but occurs naturally within a variety;
- b. Is stable and predictable with a degree of reliability comparable to other varieties of the same kind, within recognized tolerances, when the variety is reproduced or reconstituted; and
- c. Was originally a part of the variety as released.

A variant is not an off-type.

~~15~~ 16. "Varietal Identity" is defined as, and limited to, the verification of the identity of a variety, cultivar or germplasm entity through; 1) documentation of the pedigree, i.e., tracing the particular cycle of reproduction back to its origins with the developer, and 2) the application of the developer's variety/germplasm description for certain visible, phenotypic traits in field inspections and laboratory analysis.

~~14~~ 17. "Variety" means a subdivision of a kind which is distinct, uniform, and stable; "distinct" in the sense that the variety can be differentiated by one or more identifiable morphological, physiological, or other characteristics from all varieties of public knowledge, "uniform" in the sense that the variations in essential and distinctive characteristics are describable, and "stable" in the sense that the variety will remain unchanged to a reasonable degree of reliability in its essential and distinctive characteristics and its uniformity when reproduced or reconstituted as required by the different categories or varieties.

**History:** Effective May 1, 1986; amended effective September 1, 2002; January 1, 2005; January 2, 2006; July 1, 2007; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**CHAPTER 74-03-01**  
**GENERAL SEED CERTIFICATION REQUIREMENTS**

Section	
74-03-01-01	Seed Certification in North Dakota
74-03-01-02	Purpose of Seed Certification
74-03-01-03	Eligibility Requirement for Certification of Crop Varieties
74-03-01-04	Classes (Generation) and Sources of Certified Seed
74-03-01-05	Eligibility of Growers
74-03-01-06	Seed Eligibility
74-03-01-07	Field Eligibility and Requirements
74-03-01-08	Field Management and Isolation
74-03-01-09	Field Inspection
74-03-01-10	Fees
74-03-01-11	Seed Sampling, <u>Conditioning</u> and Laboratory Inspection
74-03-01-12	Labeling
74-03-01-13	Preissued Certification Tags
74-03-01-14	Carryover Seed
74-03-01-14.1	Applicant's Responsibility
74-03-01-15	Misuse of Certification Privileges
74-03-01-16	Approved Conditioners
74-03-01-17	Interagency Certification
74-03-01-18	Exclusion of Warranty

**74-03-01-03. Eligibility requirement for certification of crop varieties.**

As used in this chapter, "variety" includes hybrids and breeding lines, and selections, clones, or strains of true varieties.

1. Only those varieties that are accepted by the North Dakota state seed department as meriting certification in accordance with the criteria established by the association of official seed certifying agencies shall be eligible for certification. A variety will normally be considered eligible for certification if it has received favorable action by one or more of the following:
  - a. A national variety review board.
  - b. The plant variety protection office, including additional information itemized in subdivisions e through i of subsection 2 of section 74-03-01-03, which is required.
  - c. An official seed certifying agency.
  - d. The organization for economic cooperation and development (OECD).

~~Contact the state seed commissioner for varieties not covered by one of the~~

~~above categories on questions regarding eligibility.~~ In the absence of a national review board, a state or regional variety review committee may determine the eligibility for certification, if operating under similar criteria and approved by the seed commissioner. Contact the state seed commissioner for varieties not covered by one of the above categories on questions regarding eligibility.

2. The following must be made available by the originator, developer, owner, or agent when eligibility for certification is requested by the applicant.
  - 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 of performance 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 adaption of the variety.
  - f. A statement on the plans and procedures for the maintenance of stock 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 that will be planted for certified seed production.
3. This rule does not create a mandatory duty or a cause of action on account of the department's recognizing or refusing to recognize a variety as meriting certification.

**History:** Amended effective May 1, 1986; September 1, 2002; January 2, 2006; July 1, 2007; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-01-04. Classes (generation) and sources of certified seed.**

1. Four classes (generations) of seed shall be recognized in seed certification: breeder, foundation, registered, and certified.
  - a. Breeder seed is directly controlled by the originating plant breeder, sponsoring institution or firm, which supplies the source for the initial and recurring increase of foundation seed.
  - b. Foundation seed is the progeny of breeder or foundation seed produced under control of the originator or sponsoring plant breeding institution, or person, or designee thereof. As applied to certified seed, foundation seed is a class of certified seed produced under procedures established by the certifying agency for the purpose of maintaining genetic purity and identity.
  - c. Registered seed is the progeny of foundation or other approved seed stocks that is so handled as to maintain satisfactory genetic identity and purity and that has been approved and certified by the certifying agency. This class of seed shall be of a quality suitable for the production of certified seed.
  - d. Certified seed is the progeny of foundation, registered, ~~certified,~~ or other approved seed stocks that is so handled as to maintain satisfactory genetic identity and purity and that has been approved by the state seed department.
2. The number of generations through which a variety may be multiplied shall be limited to that specified by the originating breeder or owner of a variety, but shall not exceed two generations beyond foundation seed. The following exceptions to the limitation of generations are permitted allowed with permission from the variety owner and authorization from the state seed department:
  - a. Unlimited recertification of the certified class may be permitted for older crop varieties when foundation seed is not being maintained.
  - b. The production of an additional generation of the certified class may be permitted on a one-year basis when:
    - (1) An emergency is declared prior to the planting season by the certifying agency stating that foundation and registered seed supplies are not adequate to plant the needed certified acreage of the variety; and

~~(2) Permission of the originating breeder or owner of the variety is obtained (if applicable); and~~

~~(32) The additional generation of certified seed produced to meet the emergency seed is declared to be ineligible for recertification.~~

3. Seed that fails to meet the certification standards for reasons other than those affecting genetic purity may be certified in emergency situations and will be labeled with a "substandard grade" tag label.

**History:** Amended effective May 1, 1986; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

#### **74-03-01-06. Seed eligibility.**

1. The seed department shall be supplied with satisfactory evidence of the source and class of seed used to plant each crop considered for certification.
- ~~2.~~ 2. Eligible seed stocks include breeder's, ~~have met the requirements for~~ foundation, registered or, in special cases, approved lots of the certified class. Eligible seed obtained from another person must be accompanied by the official tag or bulk certificate from an approved certifying agency, which will be the documentation of acceptance required for field inspection.
- ~~2~~ 3. Certified seed growers may plant seed from their own fields ~~which passed field inspection in previous years~~ if the field passed inspection and if the class of seed (~~generation~~) is eligible to be certified. ~~Carryover reports must be filed annually on unconditioned seed produced prior to the previous crop year. The grower must provide sufficient evidence to the department to verify eligibility.~~
- ~~3~~ 4. Certified seed growers may ~~not~~ plant seed from their own fields that failed field inspection previously only if, 1) the field did not fail due to genetic purity factors in previous years, and 2) the grower is the applicant for field inspection. If the field fails inspection a second time for any reason, that seed shall no longer be eligible for the production of certified.
5. Contract growers may not replant any of the seed produced unless final certification has been completed.
- 4 6. Growers should check with the state seed department regarding approved lots of the certified class eligible for recertification.



**History:** Amended effective May 1, 1986; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-01-07. Field eligibility and requirements.**

1. A crop will not be eligible for the production of foundation, registered, or certified class seed if planted on land on which the same kind of crop was grown previously for the number of years as stated in the specific crop standards ~~contained in other chapters of this article.~~ Exceptions will may be made if the previous crop was the same variety and ~~passed field inspection~~ was inspected for certification.
2. A grower may establish field eligibility history for the ~~upcoming next~~ production year by planting certified seed on the field in the current year, ~~requesting~~ applying for field inspection, and having the field declared eligible ~~in the ensuing year~~ for production of seed of the same variety the next year.

**History:** Amended effective May 1, 1986; September 1, 2002; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-01-08. Field management and isolation.** The production unit for certification shall be a field. No field or part of a field will be accepted unless field boundaries are clearly defined and properly isolated ~~as provided in~~ according to the specific crop standards ~~contained in other chapters of this article.~~ Isolation distances may be extended at the request of the seed commissioner or the commissioner's agents for reasons including the production of transgenic crops or other kinds in proximity to fields being grown for the purpose of seed certification.

When it is necessary to remove a strip to obtain proper isolation, the part of the strip to be removed must be cut into the field to be inspected.

If two classes of the same variety are planted adjacent to one another in the same field, and field inspection has been applied for both, isolation may be accomplished by placing a flag at each end of the field ten feet [3.05 meters] into the higher class of seed, prior to inspection. The flags must be plainly visible at the time of inspection. The grower may harvest that isolated ten-foot [3.05 meter] section of crop with the lower class of seed.

**History:** Amended effective September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

#### 74-03-01-09. Field inspection.

1. Applications. Applications for field inspection, accompanied by the correct fees, payment of past-due accounts, and proof of seed eligibility, must be received at the state seed department office in Fargo not later than June fifteenth. The penalty fee will apply after that date. Applications for grass seed must be received by May first to avoid late penalty. Applications for ~~soybeans, millet, and buckwheat~~ will be accepted until July fifteenth without late penalty. Applications for soybeans requiring only a single inspection (pre-harvest) will be accepted until August first without late penalty. In case of an emergency or unusual circumstances due to weather or crop conditions, the deadline may be extended at the discretion of the seed commissioner. In such an event, late application penalties may be waived.
2. The application shall be completed by the applicant and returned to the seed department. All questions must be answered completely and correctly. The location of the farm and field, including the legal description, shall be given clearly so that the inspector will be able to find the farm and field readily without waste of time and extra travel. Farm service agency field maps must be provided by the applicant. If the seed is the grower's own seed, sufficient evidence must be provided to the department to verify eligibility. If the seed is purchased, an official certified seed tag or bulk certificates must accompany the application ~~or be made available to the seed department prior to field inspection.~~
3. Roguing and spraying fields. Roguing is essential to maintain the purity of varieties and high standards of certified seed. Roguing fields prior to inspection is recommended to remove undesirable plants from fields that are intended for seed certification. Plants that should be removed include off-type plants, other crop plants, prohibited and restricted noxious weeds, and other impurities which may be growing in the field.

Roguing is usually done by pulling out off-types or other crop plants or weeds and removing them from the field. In the case of small grain, roguing should be done after heading as foreign plants are seen most easily at this time. In hybrid seed production, fertile off-types and undesirable plants should be removed before pollen is shed. Sterile off-types may be removed any time prior to the final inspection. ~~Roguing is essential to maintain the purity of varieties and high standards of certified seed.~~

Whenever practical and advisable, seed fields should be sprayed with pesticides according to the manufacturer's label ~~for the~~ to control of pests. Growers must follow posting requirements as specified by state and federal agencies responsible for the regulation and use of pesticides.

4. Weeds and diseases.

- a. Prohibited noxious weeds under North Dakota seed laws and rules are leafy spurge, field bindweed (creeping jenny), Canada thistle, perennial sow thistle, Russian knapweed, hoary cress (perennial peppergrass), absinth wormwood, hemp having more than three-tenths of one percent tetrahydrocannabinol, musk thistle, spotted knapweed, and yellow starthistle.
  - b. Restricted noxious weeds under North Dakota seed laws and rules are dodder species, hedge bindweed (wild morning glory), wild oats, and quackgrass
  - c. A field may be rejected if it is the field inspector's opinion of ~~the field inspector~~ that the amount and kind of weeds present make it difficult to provide for conduct the inspection, or the field condition is such that the quality of the cleaned seed may be questionable.
  - d. Objectionable weed seeds are restricted noxious weeds under North Dakota seed laws and rules and may include some common weeds which cause a specific problem in the conditioning of some individual crops.
  - e. Diseases not governed by specific crop standards may be cause for rejection if it is the ~~opinion of the~~ field inspector's opinion that the quality of the cleaned seed may be affected or if results of tests made on the seed indicate a disease condition which will affect the crop produced from such seed.
5. Cancellation of field inspection. An application may be canceled by the grower applicant before the field inspection is ~~made and completed.~~ † The application fee minus an administrative fee will be refunded to the applicant. The request for cancellation, however, must reach the state seed department before the inspector arrives in the general locality of the field or before inspection has occurred. Refunds will not be made after the fields are is inspected or because the fields ~~have~~ has been rejected.
  6. Appeal. Re-inspection of rejected fields ~~will~~ may be considered, provided the application for appeal allows a reasonable amount of time for reinspection prior to harvest. A fee for reinspection may be assessed.
  7. The variety name stated on the application will be standard for inspection when entering the field. Absent compelling visual evidence to the contrary, the variety or selection declared by the grower will be presumed correct if the documentation provided is valid ~~and the variety description characteristics are met within each specific crop standard and class.~~
  8. Inspections, tests, certifications, and other acts are not intended to induce reliance on the seed department's inspections, certifications, or any other action or inaction for any purpose relating to quantity or quality of the seed or crop produced, fitness for purpose, merchantability, absence of disease, or variety or selection identification. Certification means only that

the seed was randomly inspected and at the time of the inspection the field or seed lot met the rules of the department.

**History:** Amended effective May 1, 1986; May 1, 1988; December 18, 1989; September 1, 2002; January 2, 2006; July 1, 2007; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

#### **74-03-01-11. Seed sampling, conditioning and laboratory inspection.**

1. **Identification in storage.** Field-inspected seed must be identified at all times. Identification must be traceable to field inspection numbers from the crop year in which the seed was produced. Conditioned seed in storage must be identified by kind, variety, class and lot number displayed on the bin or storage container.
2. **Preconditioned sample testing.** To ~~speed up~~ hasten tagging and determine the quality of seed prior to conditioning, a representative sample of seed from each field which has passed field inspection may be submitted to the state seed department ~~soon after the crop is harvested~~ for the purpose of germination and disease testing. This sample should be cleaned on a small mill or hand sieve to correspond as nearly as possible to the condition of the entire lot after cleaning or conditioning.

Results of germination and disease tests required conducted on preconditioned samples may be used for final certification purposes. A grower may request new tests after conditioning to be used for labeling purposes. Fragile crops such as soybeans, field beans, lentils, chickpeas and field peas must be tested for germination after the final conditioning of the seed lot to assure correctness of label claims. The labeler is responsible in all cases for information provided or stated on seed labels.

#### **3. Sampling procedures.**

- a. All seed lots eligible for final certification ~~should~~ shall be sampled during conditioning by taking representative samples at periodic intervals throughout the process of conditioning the seed lot.
- b. Specific instructions to samplers are found on the reverse side of the samplers report.

#### **4. Maximum lot size and numbering.**

- a. The maximum lot size for bagged seed is ~~two~~ five thousand bushels [704.78 dekaliters] except for small seeded legumes and grasses which is twenty-two thousand five hundred pounds [10000 kilograms].~~For all crops,~~

~~one sample for each lot is required, except small seeded legumes and grasses. For small seeded legumes and grasses, one sample for twenty-two thousand five hundred pounds [10000 kilograms] is required. Bulk certified and registered class seed lots do not have a maximum size limit except bin capacity. Each bin is considered a separate seed lot. Bulk seed requires one sample per lot. For all crops, one sample for each lot is required. The entire lot must be certified at the time final certification is completed.~~

b. The lot number shall be designated by the labeler. The lot number of the seed planted may not be used as the new lot number for the seed being certified during the current crop year.

5. **Commingling (mixing) of inspected seed fields.** Seed of the same kind and variety from different fields of the same kind and variety, which have that passed field inspection, may be commingled if the seed is of the same class, generation, and general quality. If the seed of different classes or generations is commingled, the seed becomes eligible for the lowest class only.

6. **Commingling carry-over certified seed lots.** Carry-over seed from certified lots may be commingled if the seed is of the same variety, class, and general quality. If seed of different classes is commingled, the seed becomes eligible for the lowest class only. A new germination test is required for labeling. Germination tests should be done on each lot prior to commingling to ensure none of the lots have gone out of condition.

#### 6 7. **Conditioning.**

a. All field-inspected seed which is to be labeled must be conditioned and must meet the minimum seed standards for the crop and class.

b. Field-inspected seed may be conditioned either by the grower or ~~at~~ by an approved seed conditioning plant.

#### 7 8. **Conditioning by farmer or seed grower - Procedure.**

a. ~~Condition the seed.~~ A farmer or seed grower does not need an approved conditioning plant facility permit if the ~~farmer or~~ grower conditions the ~~farmer's or grower's~~ own seed on the ~~farmer's or grower's~~ premises with the ~~farmer's or grower's~~ equipment.

b. The ~~farmer or~~ seed grower must complete a sampler's report in its entirety, attach the report to a two pound [.907 kilogram] sample that is representative of the entire seed lot, and deliver to the state seed department in Fargo for analysis.

#### 8. **Conditioning at by an approved plant facility.**



a. To be eligible for final certification, field-inspected seed shall be conditioned by a facility approved by the seed department. Seed conditioned at an unapproved facility will be ineligible for final certification.

a b. If ownership of the seed lot is transferred to a different individual or entity, & the growers must complete and sign a grower's declaration if ownership of the seed lot has been transferred to a different individual or entity. Transfer of ownership of field-inspected seed is limited to an approved conditioner or bulk retailer unless the transfer has been approved by the commissioner or the commissioner's agent.

~~b. The grower's declaration shall be completed and signed when ownership of the seed lot has changed and the seed is delivered for conditioning.~~

c. While conditioning, all the seed lot must be sampled at regular intervals by an authorized sampler. The sample and completed sampler's report must be submitted to the state seed department for analysis.

9. **Regulatory sampling.** The state seed department may resample any lot of seed before final certification or after the seed is labeled.

10. **Laboratory analysis.**

a. All laboratory testing shall be done by qualified personnel of the state seed department. Analysis and tests of seed samples and definition of analysis terms shall be in accordance with the rules of the association of official seed analysts (AOSA). In certain cases when time constraints are critical to the efficient movement of certified seed, the commissioner may accept germination or other test results from another AOSA-approved laboratory, through the certification agency of the state of origin of the seed.

b. If more than one sample of seed from the same lot is tested for purity without additional conditioning, an average shall be taken of all tests conducted. Results from the most recent germination or disease test shall be used as the final result.

c. The test results from official samples drawn by state seed department personnel shall supersede all other test results from submitted samples.

d. Seed from certain classes or kinds, or both, may be subject to variety identification analysis at the discretion of the department, with testing fees payable by the grower or labeler.

**History:** Amended effective May 1, 1986; May 1, 1988; December 18,

1989; August 1, 1991; September 1, 2002; January 2, 2006; July 1, 2007; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

#### **74-03-01-12. Labeling.**

##### **1. Bagged seed.**

a. All bagged seed represented or sold as foundation, registered, or certified must be bagged in new bags and the official certification tag properly affixed on the bag. Certification tags are void if improperly used or not attached to the bag. Containers or tote bags larger than one hundred sixty pounds [72.77 kilograms] may be considered bulk seed.

b. The responsibility for properly labeling foundation, registered, or certified seed rests with the grower or first distributor.

c. The use of two tags, the official certification tag and a separate analysis tag, on foundation, registered, or certified seed is optional. When two tags are used, the certification tag will not carry the seed analysis. An additional seed analysis tag must be used or the analysis printed on the bag.

d. Certified seed will be considered mislabeled unless the seed analysis is on either the certification tag or on an additional tag or printed on the bag.

e. Certification tags are not valid when they are transferred in any manner other than attached to the eligible seed bag.

##### **2. Bulk certification.** All rules and standards for production, conditioning, and testing of certified seed shall apply except that seed does not have to be in bags.

~~a. All field and seed standards applying to bagged seed shall also apply to bulk certified seed. Foundation and registered class seed may be sold in bulk by the applicant producer, or by an approved conditioner only.~~

~~b. Certified seed may be sold in bulk by an approved retail seed facility or by the applicant producer, an approved conditioner or an approved bulk retail facility. A maximum of two physical transfers are permitted after final certification:~~

~~(1) From the applicant labeler to an approved retailer or consumer.~~

~~(2) From an approved retailer to consumer.~~

~~c. The foundation and registered class may be sold in bulk. To be eligible~~

~~for recertification, bulk foundation or registered seed must be sold by the applicant producer or by an approved conditioner directly to the consumer. Approved bulk handlers retail facilities may be allowed to handle bulk registered seed on a case-by-case basis as only when authorized by the state seed department personnel. If authorized by the seed department, the bulk retailer must designate which bins will be used for registered seed.~~

d. A maximum of two physical transfers are permitted after final certification:

(1) From the applicant labeler to an approved retailer or consumer.

(2) From an approved retailer to consumer.

~~d. e.~~ It is the seller's responsibility to:

(1) Handle seed in a manner to prevent mixtures and contamination.

(2) Supply seed that is representative of the seed tested and approved for certification.

(3) Ensure all bins, augers, conveyors, and other equipment are adequately cleaned before handling certified seed.

(4) Determine that the vehicle receiving bulk certified seed has been cleaned prior to receiving the seed. If it is not clean, this is to be noted on the bill of sale or transfer certificate.

(5) Provide to the purchaser a bulk certificate for each load of bulk certified seed at the time of delivery.

(6) Ensure that ~~the~~ conditioned lot shall is not be moved from the premises of the approved conditioning plant facility or labeler's facility until the sample has been tested by the state seed department laboratory and shows that the lot is eligible for certification.

e f. It is the buyer's responsibility to:

(1) Obtain a bulk certificate from the seller

for each load of bulk certified seed at the time of delivery.

- (2) Provide a clean vehicle or container in which to load seed. (3) Maintain purity of the seed after it has been loaded into the buyer's vehicle.
- f g. The bulk certified seed certificate takes the place of the certified seed tag. The complete seed analysis will be printed on the certificate.
- g h. Bulk retail seed facilities must be approved annually before certified seed can be handled in bulk. Such facilities may be part of a seed conditioning plant facility or may be approved only for handling bulk certified seed. Before approval, all procedures for receiving, storing, dispensing, and recordkeeping must be inspected. The applicant must demonstrate acceptable procedures for maintaining purity and identity of bulk certified seed.
- h i. For all bulk certified seed:
- (1) A separate storage bin must be available for each lot that will be sold in bulk. Each bin shall be considered a separate lot of seed and shall be labeled accordingly.
  - (2) All bins, augers, conveyors, and other equipment must be cleaned before storage or handling certified seed.
  - (3) All hopper bins must be equipped with bottom access ports, inside ladders, or some other means approved by the seed department to facilitate access for cleaning.
  - (4) All augers used to convey seed must be reversible.
  - (5) All bins must be clearly and prominently marked to show crop kind, variety, seed class, and lot number.
  - (6) All bin openings must be closed to prevent contamination, except when seed is being put in or removed from the bin, or to allow for aeration.
  - (7) Off-site bins or satellite bin locations shall be managed in the same manner as those at an approved facility. Bins shall be listed on a separate Bin List registered under the name of an approved facility. All satellite locations shall be inspected annually by the seed department.
- i j. The following ~~r~~Records must be maintained: Each person whose

name appears on the label and handles seed shall keep for a period of three years complete records of each lot of seed handled. All records pertaining to the lot involved must be accessible for inspection by the commissioner at any time during customary business hours. Records shall include:

- (1) Amount of seed grown and conditioned or purchased for bulk sale.
  - (2) Amount of bulk certified seed sold by variety and lot number.
  - (3) A current inventory of each variety of seed available for sale ~~for each variety.~~
  - (4) It is the ~~seller's~~ initial labeler's responsibility to maintain possession of a two-pound [.907-kilogram] sample identified by kind, variety, kind class, and lot number of each lot of certified seed sold, whether bagged or in bulk, ~~sold~~ for a period of two years after the final disposition of the seed lot.
3. No person may disclaim responsibility of the vendor of the seed for the data on the label required by law and any such disclaimer of vendor's express or implied warranty is invalid.

**History:** Amended effective May 1, 1986; September 1, 2002; January 2, 2006; July 1, 2007; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-14(4)(e), 4-09-16

**Law Implemented:** NDCC 4-09-14(4)(e), 4-09-16, 4-09-17, 4-09-18

**74-03-01-13. Preissued certification tags.** ~~Registered or e~~ Certified tags may be issued before conditioning if prior approval has been granted by the state seed department. Tags will be preissued only under the following conditions:

1. Tags will be issued only to approved conditioning ~~plants~~ facilities.
2. Final samples, along with the grower's declaration, if required, sampler's report, and printed analysis tag must be submitted immediately after each lot is conditioned.
3. The conditioned lot shall not be moved from the premises of the approved conditioning ~~plant~~ facility or labeler's facility until the sample has been tested by the state seed department laboratory and ~~shows that the lot is eligible for final certification~~ has been completed. If the seed lot is rejected, the approved ~~plant~~ facility or labeler must assume responsibility for removing certification tags and returning them to the state seed department.



4. The use of a certification label preprinted on bags will be permitted if prior approval by the state seed department is granted. Analysis information may also be printed on the bag. The approved conditioning plant facility must submit a preprinted analysis tag from the bags used with the sample for final certification.

**History:** Amended effective May 1, 1986; September 1, 2002; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

#### **74-03-01-14. Carryover seed.**

1. All unconditioned carryover seed eligible for certification must be reported to the state seed department by October first of each year. Growers must report all field-inspected seed that was not submitted for final certification. Failure to report will disqualify the seed for certification.
2. Carryover bagged seed. ~~New certification tags will be furnished for carryover bagged seed.~~ All carryover seed must be retested for germination before new certified tags will be issued. New certification tags will be furnished for carryover bagged seed.
3. Carryover bulk seed. All carryover bulk seed must be retested for germination before new bulk certificates will be issued. Carryover bulk seed cannot be recertified in bags unless new samples are submitted for analysis.

**History:** Amended effective May 1, 1986; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-01-14.1. Applicant's responsibility.** It is the responsibility of the applicant to maintain genetic purity and identity at all stages of certification including seeding, harvesting, and storing. The applicant or grower, ~~and the approved conditioner~~ and bulk retailer are responsible for maintaining genetic purity and identity during conditioning and handling. Evidence that any lot of seed has not been protected from contamination that might affect genetic purity or is not properly identified shall be cause for possible rejection of certification.

**History:** Effective May 1, 1986; amended effective January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-01-15. Misuse of certification privileges.** Any seed grower,

conditioner, or ~~seedsman~~ retailer found guilty of misusing certification tags, misrepresenting seed, or violating any of the rules governing the growing, conditioning, and marketing of foundation, registered, or certified seed, or guilty of violations of the North Dakota seed laws and rules with respect to any seed which the grower, conditioner, or ~~seedsman~~ retailer sells, may at the discretion of the state seed commissioner or the commissioner's agents be denied the right to produce, condition, or market seed under certification. Violators may be subject to fines by administrative action of the state seed department.

**74-03-01-16. Approved conditioners.** Any seed conditioner may be designated as an "approved conditioner" to condition field-inspected seed for final certification if, after inspection, it is the state seed department inspector's opinion of the ~~inspector for the state seed department~~ that the plant facility is properly managed and equipped to maintain genetic purity and varietal identity of each seed lot, ~~and facilities are such that seed will, with usual care, not become mixed during conditioning.~~ The managers and the designated samplers in these ~~plants~~ facilities are under agreement to handle all seed and seed records and to draw representative samples of all seed lots for certification according to the certification rules and regulations.

1. Approved conditioners of small grains are required to have the following operational equipment capable of: (1) length grading ~~machine~~ - either a disc separator or indent cylinder or combination machine which removes long and short fractions; and (2) width grading - either an air screen machine or precision graders with aspiration in line.

2. Permission to operate as an approved conditioner is granted on an ~~yearly~~ annual basis. All approved conditioners must condition and complete final certification on at least one lot of certified seed every two years before renewal of a permit will be granted. A fee will be charged for each reinspection. An approved conditioner is required to have a separate inspection and permit for each fixed facility or mobile conditioning unit.

3. The commissioner may approve specialized equipment and facilities utilized for the purpose of repackaging, treating, or inoculating certified seed.

**History:** Amended effective May 1, 1986; December 18, 1989; September 1, 2002; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**CHAPTER 74-03-02**  
**SPECIFIC CROP REQUIREMENTS - SMALL GRAINS AND FLAX**

Section

74-03-02-01	Land Requirements
74-03-02-02	Field Inspection
74-03-02-03	Field Standards
74-03-02-04	Seed Standards (Wheat - Oats - Barley - Rye - Triticale)
74-03-02-05	Seed Standards (Flax)

**74-03-02-01. Land requirements.** A crop of small grain or flax will not be eligible for certification if planted on land on which the same kind of crop was grown the year previous unless the previous crop was the same variety and ~~passed field inspection~~ was inspected for certification. A crop of winter wheat may be planted on a field that previously produced spring wheat. Foundation or registered class fields of durum will not be eligible for certification if planted on land on which spring wheat was planted either of the two previous years.

**History:** Amended effective May 1, 1986; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-02-03. Field standards.**

1. **Isolation.**

- a. ~~At the time of~~ Prior to inspection, the field must be separated isolated from other fields inseparable crops by a fence row, natural boundaries y, or by a strip at least-five feet [1.52 meters] wide which is either mowed, ~~uncropped,~~ or planted to ~~some other separable crop~~ sprayed or uncropped.
- b. ~~When it is necessary to remove a strip to obtain proper isolation,~~ a the part of the strip to be removed must be cut into the field to be inspected.
- c. ~~If two classes of the same variety are planted adjacent to one another in the same field,~~ isolation may be accomplished by placing a flag at each end of the field ten feet [3.05 meters] into the higher class of seed, prior to inspection. The flags must be plainly visible at the time of inspection. The grower may harvest that isolated ten-foot [3.05-meter] section of crop with the lower class of seed.

d b .All rye fields producing certified seed must be isolated by at least six hundred sixty feet [201.17 meters] from rye fields of any other variety or fields of the same variety that do not meet the varietal purity requirements for certification.

**2. Roguing.**

- a. All roguing to remove undesirable plants must be done before field inspection is made. Rogued plants must be removed from the field to be harvested.
- b. Patches of inseparable prohibited or objectionable weeds, or both, must be either removed by cutting or must be controlled by other means so that no seed is produced or harvested.

**3. Specific field standards (wheat - barley - oats - rye - triticale).**

Factor	Maximum Tolerance		
	Foundation	Registered	Certified
Other varieties *	1:10,000	1:5,000	1:2,000
Inseparable other crops	1:30,000	1:10,000	1:5,000
Prohibited noxious weeds **	none	none	none

\* Other varieties include plants that can be differentiated from the variety being inspected, but shall not include variants which are characteristic of the variety.

\*\* The tolerance for prohibited or objectionable weeds, or both, in the field will be determined by the inspector.

**4. Specific field standards (flax).**

Factor	Maximum Tolerance		
	Foundation	Registered	Certified
Other varieties *	1:10,000	1:5,000	1:2,000
Prohibited noxious weeds **	none	none	none

\* Other varieties include plants that can be differentiated from the variety being inspected, but shall not include variants characteristic of the variety.

- \*\* The tolerance for prohibited or objectionable noxious weeds, or both, in the field will be determined by the inspector.

**History:** Amended effective May 1, 1986; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-02-04. Seed standards (wheat - oats - barley - rye - triticale).**

Seed count required on wheat, oats, barley, and durum.

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum) *	99.0 percent	99.0 percent	99.0 percent
Total weed seeds (maximum)	2 per pound	5 per pound	10 per pound
Other varieties **	1 per 2 pounds	1 per pound	3 per pound
Other crop seeds (maximum)	1 per 2 pounds	1 per pound	3 per pound
Inert matter (maximum) ***	1.0 percent	1.0 percent	1.0 percent
Prohibited noxious weed seeds +	none	none	none
Objectionable weed seeds (maximum) ++	1 per 4 pounds	1 per 2 pounds	1 per pound
Germination +++	85.0 percent	85.0 percent	85.0 percent

\* The standard for durum and rye shall be 98.0 percent minimum.

\*\* Other varieties shall not include variants characteristic of the variety. White wheat must be tested for red wheat contaminants.

\*\*\* For all crops foreign matter other than broken seed shall not exceed 0.2 percent. Durum, triticale, and rye may contain 2.0 percent maximum inert matter.

+ Including the seeds of quackgrass.

++ Objectionable weed seeds shall include the following: dodder, wild oats, hedge bindweed (wild morning glory), giant ragweed (kinghead), falseflax, and dragonhead.

+++ Winter wheat, durum, and rye minimum 80.0 percent.

Note: A barley grower labeler is responsible for having a loose smut test, by an official laboratory, on the harvested seed of each field of barley. If seed from more than one field is blended without having a test for each field, a loose smut test must be made on each seed lot or subplot. The percentage of loose

smut will be printed on the certification certificate or label. The foundation class of barley has a zero tolerance for barley stripe mosaic virus.



**History:** Amended effective May 1, 1986; May 1, 1988; December 18, 1989; August 1, 1991; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**CHAPTER 74-03-07  
SPECIFIC CROP REQUIREMENTS - GRASSES**

Section

- 74-03-07-01 Land Requirements
- 74-03-07-02 Field Inspection
- 74-03-07-03 Field Standards
- 74-03-07-04 Specific Seed Standards (~~Non-Chaffy Seeded Species~~)

**74-03-07-01. Land requirements.** The following field requirements may be modified when the reproduction of a strain or strains, entering into a specific variety, are under the supervision of an experiment station or seed certification agency.

1. A field, to be eligible for the production of foundation seed, must not have grown or been seeded to the same species during the previous five years.

2. A field, to be eligible for the production of registered or certified seed, must not have been in the production of the same species during the previous year unless the crop was of the same variety or strain and ~~passed field inspection~~ was inspected for certification.

**History:** Amended effective May 1, 1986; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-07-02. Field inspection.** Field inspection will be made each year a seed crop is harvested. Two field inspections shall be performed. The first inspection shall be performed in the spring at a time when prohibited weeds can be observed. The second shall be performed, after the crop is fully headed, and before harvest.

**History:** Amended effective April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**4-03-07-03. Field standards.**

1. A portion of the field may be accepted for certification if the boundary is well defined.

2. Fields should be rogued before blooming and before inspection is made to remove other species, off-type plants, and weeds, the seeds of which are difficult to separate in cleaning.

3. A seed field to be eligible for the production of foundation, registered, or certified seed must be isolated from any other strain or strains of the same species in bloom at the same time in accordance with the requirements given in the following table:

Minimum Isolation Distance Required Symbol (Feet)							
Type	Foundation	Registered	Certified	Type	Foundation	Registered	Certified
All cross-pollinated species				C	1,320	660	330
Strains entirely apomictic strains				A	165	165	82.5
Highly self-fertile species				S	165	165	82.5

4. Specific requirements. The maximum field tolerance for other varieties and off-type plants of the same species, when recognized, shall be as follows:

Foundation 0.1 percent  
 Registered 0.5 percent  
 Certified 1.0 percent

**History:** Amended effective May 1, 1986; May 1, 1988; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**Chart excluded**

\* Pure Live Seed Index

<sup>1</sup> Prohibited noxious weed seeds, including seeds of quackgrass, horsenettle, Johnsongrass, wild garlic, and dodder, are not allowed.

<sup>2</sup> Objectionable weed seeds shall include the following: Wild oats, hedge bindweed (wild morning glory), giant ragweed (kinghead), dragonhead, and buckhorn plantain.

hedge bindweed (wild morning glory) ————— dragonhead

wild oats ————— giant ragweed (kinghead) ————— buckhorn plantain

Percent germination or pure live seed includes percent germination plus percent dormant for North Dakota certification purposes on those kinds of grasses for which the association of official seed analysts (AOSA) rules specifically prescribe that dormancy be determined.

**History:** Amended effective December 18, 1989; September 1, 2002; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**CHAPTER 74-03-07.1**  
**SPECIFIC CROP REQUIREMENTS - BUCKWHEAT**

Section	
74-03-07.1-01	Land Requirements
74-03-07.1-02	Field Inspection
74-03-07.1-03	Field Standards
74-03-07.1-04	Seed Standards

**74-03-07.1-01. Land requirements.** A crop of buckwheat will not be eligible for certification if planted on land on which the same kind of crop was grown the year previous unless the previous crop was grown from certified seed of the same variety and ~~passed field inspection~~ was inspected for certification.

**History:** Effective May 1, 1986; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-07.1-03. Field standards.**

**1. Isolation.**

- a. ~~At the time of~~ Prior to inspection, the field must be ~~separated~~ isolated from ~~other fields inseparable crops~~ by a fence row, natural boundaries, or by a strip at least five feet [1.52 meters] wide which is either mowed, ~~uncropped, or planted to some other separable crop~~ sprayed or uncropped.
- b. ~~When it is necessary to remove a strip to obtain proper isolation, a part of the strip to be removed must be cut into the field to be inspected.~~
- e b. All buckwheat fields producing certified seed must be isolated by at least six hundred sixty feet [201.17 meters] from buckwheat fields of any other variety or fields of the same variety that do not meet the varietal purity requirements for certification.

**2. Roguing.**

- a. All roguing must be done before field inspection. Rogued plants must be removed from the field to be harvested.
- b. Patches of prohibited weeds must be either removed by cutting or must be controlled by other means so that no seed is produced.

### 3. Specific field standards.

Factor	Maximum Tolerance		
	Foundation	Registered	Certified
Other varieties *	1:10,000	1:5,000	1:2,000
Inseparable other crops	1:10,000	1:10,000	1:5,000
Prohibited weed seeds **	none	none	none

\* Other varieties include plants that can be differentiated from the variety being inspected, but shall not include variants characteristic of the variety.

\*\* The tolerance for prohibited or objectionable weeds, or both, in the field will be determined by the inspector.

**History:** Effective May 1, 1986; amended effective May 1, 1988; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

#### 74-03-07.1-04. Seed standards.

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	99.0 percent	99.0 percent	99.0 percent
Total weed seeds (maximum)	2 per pound	5 per pound	10 per pound
Other varieties *	1 per 2 pounds	1 per pound	3 per pound
Other crop seeds (maximum)	1 per 2 pounds	1 per pound	3 per pound
Inert matter (maximum) noxious **	1.0 percent	1.0 percent	1.0 percent
Prohibited weed seeds ***	none	none	none
Objectionable weed seeds (maximum) ****	1 per 4 pounds	1 per 2 pounds	2 per pound
Germination	85.0 percent	85.0 percent	85.0 percent

\* Other varieties shall not include variants characteristic of the variety.

\*\* For all crops foreign matter other than broken seed may not exceed 0.2 percent.

\*\*\* Including the seeds of quackgrass.

\*\*\*\* Objectionable weed seeds shall include the following: dodder, wild oats, hedge bindweed (wild morning glory), giant ragweed (kinghead), falseflax, and dragonhead.

**History:** Effective May 1, 1986; amended effective September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18



**CHAPTER 74-03-08  
SPECIFIC CROP REQUIREMENTS - MILLET - SELF-POLLINATING**

Section	
74-03-08-01	Land Requirements
74-03-08-02	Field Inspection
74-03-08-03	Field Standards
74-03-08-04	Seed Standards ( <del>Millet</del> )

**74-03-08-01. Land requirements.** A millet crop shall be planted on land on which the last crop grown was of another kind or was planted with certified seed of the same variety and ~~passed field inspection~~ was inspected for certification.

**History:** Amended effective May 1, 1986; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-08-02. Field inspection.** Fields shall be inspected before harvest or when the seed begins to take on color.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-08-03. Field standards.**

1. ~~General—~~ **Isolation.** A ~~Prior to inspection, a field shall must~~ be separated isolated from inseparable crops by a fence row, natural boundary, or by a strip at least five-foot feet [1.52-meter] wide strip of ground to prevent mechanical mixtures. ~~The strip may be which is~~ either mowed, sprayed or uncropped, ~~or planted to a separable crop.~~

2. **Specific field standards.**

Factor	Foundation	Registered	Certified
Other varieties (maximum) *	1:3,000	1:2,000	1:1,000
Inseparable other crops (maximum)	1:10,000	1:10,000	1:2,000
Prohibited weeds**	None	None	None

\* Other varieties include plants that can be differentiated from the variety being inspected, but shall not include variants characteristic of the variety.

\*\* The tolerance for prohibited or objectionable weeds, or both, in the field will be determined by the inspector.

**History:** Amended effective May 1, 1986; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

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**74-03-08-04. Seed standards (millet).**

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	99.0 percent	99.0 percent	98.0 percent
Total weed seeds (maximum)	.01 percent	.01 percent	.04 percent
Total other crop seeds (maximum)	.01 <u>percent</u>	.01 <u>percent</u>	.04 percent
Other varieties (maximum)	.01 <u>percent</u>	.01 <u>percent</u>	.02 percent
Other kinds (maximum)	.01 <u>percent</u>	.01 <u>percent</u>	.02 percent
Inert matter	1.0 percent	1.0 percent	2.0 percent
Prohibited noxious weed seeds	none	none	none
Objectionable weed seeds *	none	1 per pound	3 per pound
Germination	70.0 percent	70.0 percent	70.0 percent

\* Objectionable weed seeds are dodder, wild oats, quackgrass, hedge bindweed (wild morning glory), nightflowering catchfly, giant foxtail, hoary alyssum, wild radish, wild vetch species, buckhorn plantain, and horsenettle.

**History:** Amended effective May 1, 1986; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**CHAPTER 74-03-12**  
**SPECIFIC CROP REQUIREMENTS - SOYBEANS, CHICKPEAS, LENTILS,**  
**AND FIELD PEAS LENTILS**

Section

74-03-12-01	Land Requirements
74-03-12-02	Field Inspection
74-03-12-03	Field Standards
74-03-12-04	Seed Standards ( <del>Soybeans, Chickpeas, Lentils, and Field Peas</del> )

**74-03-12-01. Land requirements.** In soybeans, chickpeas and lentils, a crop will not be considered for certification if planted on land which produced the same kind of ~~crop~~ the previous year unless the previous crop was the same variety and passed field inspection was inspected for certification. In soybeans ~~peas, lentils, and chickpeas~~, a crop will not be considered eligible for certification if planted on land which produced any class of dry field bean, green bean, ~~soybean, or pulse crop~~ field peas the preceding year. Soybeans may not follow chickpeas. Chickpeas may not follow soybeans.

**History:** Amended effective May 1, 1986; September 1, 2002; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-12-02. Field inspection.** Field inspection shall be made on soybeans prior to harvest when the crop is approaching maturity preferably after the leaves have dropped or at a time when varietal purity can be determined. Field inspection on ~~field peas, chickpeas, or lentils~~ shall be made prior to harvest when the crop is in bloom or at such a time as the varietal purity of the crop can be determined.

**History:** Amended effective May 1, 1986; September 1, 2002; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-12-03. Field standards.**

- 1. Isolation.** Prior to inspection, a field shall must be separated isolated from inseparable crops by a fence row, natural boundary, or by a strip at least five-foot feet [1.52-meter] wide strip of ground to prevent mechanical mixtures. The strip may be which is either mowed, sprayed or uncropped, or planted to a separable crop.

**2. ~~Specific requirements field standards (soybeans, chickpeas, lentils).~~**

Factor	Maximum Tolerance		
	Foundation	Registered	Certified
Other varieties *	0.1 percent	0.2 percent	0.2 percent
Corn and sunflower plants bearing seed	none	none	none
Prohibited noxious weeds **	none	none	none
Objectionable weeds ***	none	none	none

\* Other varieties include plants that can be differentiated from the variety being inspected, but shall not include variants characteristic of the variety.

\*\* The tolerance for prohibited or ~~noxious~~ objectionable weeds, or both, in the field will be determined by the inspector.

\*\*\* Objectionable weeds include nightshade species and cocklebur.

**3. ~~Specific requirements (field peas).~~**

Factor	Maximum Tolerance		
	Foundation	Registered	Certified
Other varieties *	0.01 percent	0.01 percent	0.01 percent
Other crops (inseparable)	none	none	none
Prohibited noxious weeds **	none	none	none

\* ~~Other varieties include plants that can be differentiated from the variety being inspected, but shall not include variants characteristic of the variety inspected.~~

\*\* ~~The tolerance for prohibited or objectionable weeds, or both, in the field will be determined by the inspector.~~

**History:** Amended effective May 1, 1986; August 1, 1991; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-12-04. Seed standards (~~soybeans, chickpeas, lentils, and field peas~~).**

Seed count required on soybeans, chickpeas and lentils.

Factor	Standard for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	98.0 percent	98.0 percent	98.0 percent
Total weed seeds (maximum)	none	1 per pound	2 per pound
Other varieties (maximum) *	0.1 percent	0.2 percent	0.2 percent
Other crop seeds (maximum)			
<u>Soybeans and Chickpeas</u>	none	1 per 2 pounds	1 per pound
<u>Lentils</u>	<u>1 per 2 pounds</u>	<u>1 per pound</u>	<u>3 per pound</u>
Inert matter	2.0 percent	2.0 percent	2.0 percent
Prohibited noxious weed seeds	none	none	none
Objectionable weed seeds **	none	none	none
Germination and hard seeds	85.0 percent	85.0 percent	85.0 percent

\* Other varieties shall not include variants characteristic of the variety.

\*\* Objectionable weed seeds are dodder, hedge bindweed (wild morning glory), wild oats, buckhorn, hoary alyssum, horsenettle, quackgrass, wild vetch species, giant foxtail, wild radish, nightshade species, and cocklebur.

Chickpea and lentil seed labelers shall have an aschochyta test performed on the harvested seed of each field or lot. The test results shall appear on the label for each seed lot.

**History:** Amended effective May 1, 1986; May 1, 1988; December 18, 1989; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**CHAPTER 74-03-12.1**  
**SPECIFIC CROP REQUIREMENTS - FIELD PEAS**

<u>Section</u>	
<u>74-03-12.1-01</u>	<u>Land Requirements</u>
<u>74-03-12.1-02</u>	<u>Field Inspection</u>
<u>74-03-12.1-03</u>	<u>Field Standards</u>
<u>74-03-12.1-04</u>	<u>Seed Standards</u>

**74-03-12.1-01. Land requirements.** A crop of field peas will not be considered for certification if planted on land which produced the same kind the previous year unless the previous crop was the same variety and was inspected for certification. A crop will not be considered eligible for certification if planted on land which produced dry field bean, green bean, soybean, or chickpeas the preceding year.

**History:** April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-12.1-02. Field inspection.** Field inspection shall be made prior to harvest when the crop is in bloom or at such a time as the varietal purity of the crop can be determined.

**History:** April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-12.1-03. Field standards.**

- 1. Isolation.** Prior to inspection, a field must be isolated from inseparable crops by a fence row, natural boundary, or by a strip at least five feet [1.52-meter] wide which is either mowed, sprayed or uncropped.

**3 2. Specific field standards.**

<u>Factor</u>	<u>Maximum Tolerance</u>		
	<u>Foundation</u>	<u>Registered</u>	<u>Certified</u>
<u>Other varieties *</u>	<u>0.01 percent</u>	<u>0.01 percent</u>	<u>0.01 percent</u>
<u>Other crops (inseparable)</u>	<u>none</u>	<u>none</u>	<u>none</u>
<u>Prohibited noxious weeds **</u>	<u>none</u>	<u>none</u>	<u>none</u>

\* Other varieties include plants that can be differentiated from the variety



being inspected, but shall not include variants characteristic of the variety inspected.

\*\* The tolerance for prohibited or objectionable weeds, or both, in the field will be determined by the inspector.

**History:** April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

#### 74-03-12.1-04. Seed standards

Seed count required on field peas.

<u>Factor</u>	<u>Standard for Each Class</u>		
	<u>Foundation</u>	<u>Registered</u>	<u>Certified</u>
<u>Pure seed (minimum)</u>	<u>98.0 percent</u>	<u>98.0 percent</u>	<u>98.0 percent</u>
<u>Total weed seeds (maximum)</u>	<u>none</u>	<u>1 per pound</u>	<u>2 per pound</u>
<u>Other varieties (maximum) *</u>	<u>0.1 percent</u>	<u>0.2 percent</u>	<u>0.2 percent</u>
<u>Other crop seeds (maximum)</u>	<u>none</u>	<u>1 per 2 pounds</u>	<u>1 per pound</u>
<u>Inert matter</u>	<u>2.0 percent</u>	<u>2.0 percent</u>	<u>2.0 percent</u>
<u>Prohibited noxious weed seeds</u>	<u>none</u>	<u>none</u>	<u>none</u>
<u>Objectionable weed seeds **</u>	<u>none</u>	<u>none</u>	<u>none</u>
<u>Germination and hard seeds</u>	<u>85.0 percent</u>	<u>85.0 percent</u>	<u>85.0 percent</u>

\* Other varieties shall not include variants characteristic of the variety.

\*\* Objectionable weed seeds are dodder, hedge bindweed (wild morning glory), wild oats, buckhorn, hoary alyssum, horsenettle, quackgrass, wild vetch species, giant foxtail, wild radish, nightshade species, and cocklebur.

**History:** April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**CHAPTER 74-03-13  
SPECIFIC CROP REQUIREMENTS - DRY FIELD BEANS**

Section	
74-03-13-01	<del>General Field Standards and Land Requirements</del>
74-03-13-02	<del>Field Inspection</del>
74-03-13-03	<del>Specific Field Standards (Dry Field Beans)</del>
74-03-13-04	<del>Seed Standards (Dry Field Beans) - Seed Count Required on Dry Field Beans</del>

**74-03-13-01. ~~General field standards and~~ Land requirements.**

1. A crop will not be eligible for certification if planted on land that was in any class of dry field beans or green beans the preceding two years or soybeans the preceding year. Poor stands, poor vigor, lack of uniformity, excess weeds, or conditions which are apt to make inspection inaccurate or bring certified seed into disfavor shall be cause for rejection.
  
2. ~~The field shall be considered a unit for certification. A strip at least five feet [1.52 meters] wide which is either mowed, uncropped, or planted to some other separable crop shall constitute a field boundary for the purpose of these standards.~~
  
3. ~~Poor stands, poor vigor, lack of uniformity, excess weeds, or conditions which are apt to make inspection inaccurate or bring certified seed into disfavor shall be cause for rejection.~~

**History:** Amended effective May 1, 1986; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-13-03. Specific field Field standards (dry field beans).**

**1. Isolation:** Prior to inspection, a field must be isolated from inseparable crops by a fence row, natural boundary, or by a strip of at least five feet [1.52-meter] wide which is either mowed, sprayed or uncropped.

**2. Specific field standards**

Factor	Maximum Tolerance		
	Foundation	Registered	Certified
Other varieties or classes *	.031 percent	0.05 percent	0.1 percent
Inseparable other crops	none	none	none
Prohibited noxious weeds **	none	none	none
Objectionable weeds ***	none	none	none
Bacterial bean blights +	.01 percent	.051 percent	.01 percent
Anthracnose	none	none	none
Wilt	none	none	none
Common bean mosaic	none	0.5percent	1.0 percent

\* Other varieties shall not include variants characteristic of the variety.

\*\* Prohibited noxious weeds include only field bindweed, leafy spurge, yellow starthistle, and Russian knapweed. The tolerance for prohibited or objectionable weeds, or both, will be determined by the inspector.

\*\*\* Objectionable weeds include nightshade species and cocklebur.

- + 1. The grower shall isolate and not thresh within a one hundred-foot [30.5-meter] radius of all staked (flagged) plants. A grower must leave in place any stakes or flags by plants with blight-infected pods.
- 2. Areas to be isolated must be mapped out on field inspection report.
- 3. In any case, it is important that blighted areas be clearly defined by flags. These blighted areas must be left unthreshed while the rest of the field is threshed. The inspector may recheck the field to ensure that these blighted areas were indeed left. Failure to leave the rejected area will result in total field being rejected.

**History:** Amended effective May 1, 1986; May 1, 1988; December 18, 1989;

August 1, 1991; September 1, 2002; January 1, 2005; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

**74-03-13-04. Seed standards (dry field beans) - Seed count required on dry field beans.**

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Seed count required on dry field beans.

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	98.5 percent	98.5 percent	98.5 percent
Inert matter (maximum)*	1.5 percent	1.5 percent	1.5 percent
Total weed seeds (maximum)	none	none	2 per pound
Other varieties or classes	0.01 percent	0.05 percent	0.1 percent
Other crops (maximum)	none	none	1 per 2 pounds
Prohibited noxious weed seeds	none	none	none
Objectionable weed seeds**	none	none	none
Germination (minimum)	no standard	85.0 percent	85.0 percent
Bacterial blight test***	pass	pass	pass
<u>Anthrachnose***</u>	<u>none</u>	<u>none</u>	<u>none</u>

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\* Foreign matter other than broken seed may not exceed 0.50 percent.

\*\* Objectionable weed seeds include those of buckhorn, dodder, hedge bindweed (wild morning glory), hoary alyssum, horsenettle, quackgrass, wild oats, wild vetch species, giant foxtail, wild radish, nightshade species, and cocklebur.

\*\*\* The grower is responsible for having a bacterial blight test and anthracnose test, performed by a seed department-approved laboratory, on the harvested seed of each field or seed lot of dry field beans. If seed from more than one field is blended or commingled prior to testing, a bacterial blight test and anthracnose test must be performed on each separate seed lot or subplot.

A seed treatment to reduce surface bacterial contamination of the seed coat is recommended.

**History:** Amended effective May 1, 1986; December 18, 1989; August 1, 1991; September 1, 2002; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-09-03, 4-09-05, 4-09-16

**Law Implemented:** NDCC 4-09-16, 4-09-17, 4-09-18

## ARTICLE 74-04

### SEED POTATO CERTIFICATION STANDARDS

Chapter  
74-04-01 Seed Potato Certification Standards

#### CHAPTER 74-04-01 SEED POTATO CERTIFICATION STANDARDS

Section	
74-04-01-01	Definitions
74-04-01-02	General Requirements and Responsibilities
74-04-01-03	Exclusion of Warranty and Limitation of Remedy
74-04-01-04	Application Fees and Restrictions
74-04-01-05	Seed Potato Farm Requirements
74-04-01-06	Seed Eligibility
74-04-01-07	Seed Classification and Limited Generation
74-04-01-08	Field Inspection Standards
74-04-01-09	Winter Testing Program
74-04-01-10	Storage and Packaging Requirements
74-04-01-11	Official North Dakota Seed Potato Grades

#### 74-04-01-08. Field inspection standards.

1. Each seed potato field will be ~~visibly~~ visually inspected based on sample inspection. The method of inspection and sample size will be at the discretion of the state seed department but a minimum of one hundred plants per acre [.40 hectare] will be inspected. For varieties that do not express readily visible symptoms of a disease, laboratory testing may be done for the pathogen.
2. The field tolerance established will be based on visible symptoms in the samples inspected. Diseases which cannot be observed ~~visibly~~ visually may be present.

	First Inspection Tolerances (%)						
	Foundation Class						
	Generation						
	0	1	2	3	4	5	0-6
Varietal mixture	0.1	0.2	0.3	0.5	0.5	0.5	0.5
Spindle tuber viroid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Severe mosaics (PVY)	0.2	0.3	0.4	0.5	0.5	0.5	1.0
Leaf roll (PLRV)	0.2	0.3	0.4	0.5	0.5	0.5	1.0
Total serious virus	0.2	0.3	0.4	0.5	0.5	0.5	1.0
*Bacterial ring rot	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Second and all Subsequent Inspections Tolerances (%)

	Foundation Class Generation						
	0	1	2	3	4	5	0-6
Varietal mixture	0.1	0.1	0.2	0.3	0.3	0.3	0.3
Spindle tuber viroid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Severe mosaics (PVY)	0.0	0.1	0.2	0.3	0.3	0.3	1.0
Leaf roll (PLRV)	0.0	0.1	0.2	0.3	0.3	0.3	1.0
Total serious virus	0.0	0.1	0.2	0.3	0.3	0.3	1.0
*Bacterial ring rot	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Late blight found during field inspection must be confirmed by symptoms or laboratory diagnosis before being reported on the inspection report.

\* The zero tolerance means that no amount is permissible when inspected. It does not mean that the seed is absolutely free of disease or disease-causing agents, but that none was found during inspection.

Varieties that do not express visible disease symptoms. Potato varieties that do not express visible disease symptoms of a specific pathogen may be subjected to a laboratory test to determine the levels of the pathogen in a seed lot. This testing may occur during the growing season or during the winter test, or both, and may affect eligibility of the seed lot.

Ring Rot. Seed fields will be subject to a third (final) field inspection focused primarily on inspection for symptoms related to ring rot. If the field has not received a third inspection, the grower will be required to submit a four hundred tuber sample (minimum) per field for laboratory testing.

Blackleg. Since the blackleg disease may be latent, the inspector will record only the percentage observed during the first and second inspection, and no tolerance will be established. However, any excessive amount can be cause for rejection. Blackleg observations shall be based upon sample plants exhibiting the characteristic black, inky, soft, slimy, decomposed tissue of the stem.

Wilt. Only the percentage noted will be recorded on the first and second inspection, and may include other factors such as maturity, drought, or alkali problems but any excessive amount may be cause for rejection.

There will be zero tolerance for potato wart, corky ring spot, gangrene, golden nematode, root knot nematode, tuber moths, or other such injurious pests that have never been found and confirmed in North Dakota seed potato fields.

Tolerances for potato virus x tested seed. All of the above tolerances will apply, including a requirement that bacterial ring rot must not have been found on the farm during the season. Seed lots with no more than two percent potato virus x



infection may be identified as virus x tested on certification tags.

3. Field conditions.

- a. Insect control must be maintained early and until the vines are killed or matured. Fields suffering excessive insect injury may be disqualified for certification. A grower will notify the inspector of the date of spraying and spray material applied.
- b. Vine killing. If a field has not received final inspection, the grower must obtain approval from the inspector before killing the vines. Furthermore, if the inspector deems it appropriate, a laboratory test may be required and/or strips of unkilld vines must be left in the seed fields to facilitate final inspections. When strips are left for inspection, the first twelve rows (if a six-row planter was used, eight rows if a four-row planter was used) must not be vine-killed. It will be the responsibility of the seed producer to identify where seed planting began. Approximately ten percent of the seed field acreage must be left in strips.
- c. Any condition such as excess weeds, hail injury, foreign plants, chemical damage, soil conditions, or insect damage that interferes with proper inspection may disqualify the seed for certification.
- d. Roguing is permitted and recommended in many cases but must be done before the inspector arrives in the field.
- e. Presence of disease or conditions not mentioned heretofore which may impair seed quality shall constitute cause for rejection or additional testing before final certification. Stocks which show an excessive percentage of total serious virus in official ~~southern~~ post harvest tests shall be considered ineligible for certification tags.

4. Appeal\_ inspection of rejected fields will be considered, provided application is made within three days after rejection, the field is in good condition for inspection, and no additional roguing is done ~~previous~~ prior to reinspection.

5. Bacterial ring rot control.

- a. All seed produced by a farming operation in which bacterial ring rot has been found will be ineligible for recertification the following year.
- b. If the farming operation is found to be infected, all equipment and storages must be cleaned and disinfected.
- c. A farming operation found to be infected on three consecutive years shall be required to purchase all new seed, clean, and disinfect the

operation under the supervision of the state seed department before entering any seed for certification.

6. The variety name stated on the application will be the standard for inspection when entering the field. Absent compelling visual evidence to the contrary, the variety or selection declared by the grower will be presumed correct if the documentation provided is valid, and the variety description characteristics meet the requirements of the chapter.

7. Inspections, tests, certifications and other acts are not intended to induce reliance on the Seed Department's inspections, certifications, or any other action or inaction for any purpose relating to quantity or quality of the seed or crop produced, fitness for purpose, merchantability, absence of disease or variety/selection identification. Certification means only that the potatoes were randomly inspected, and at the time of the inspection the field or seed lot met the rules of the Department.

**History:** Effective December 1, 1981; amended effective June 1, 1992; September 1, 1997; July 16, 2001; September 1, 2002; January 2, 2006; September 1, 2006; April 1, 2010.

**General Authority:** NDCC 4-10-03

**Law Implemented:** NDCC 4-10-04

#### **74-04-01-07. Seed classification and limited generation.**

1. All seed potatoes must be limited to seven years of reproduction in the field. Seed lots may be reproduced beyond this limit with prior approval of the state seed department providing the seed lot has been winter tested and eligible for recertification.
2. Prenuclear seed stocks must originate from tissue-culture derived plantlets, minitubers, microtubers, or pathogen-tested stem cuttings. Experimental breeding selections shall originate from pathogen-tested material. The first year of reproduction of these stocks will be regarded as nuclear seed stock (generation zero). Nuclear seed (first field year) is the progeny of prenuclear seed, generation 1 (second field year) is the progeny of nuclear seed, generation 2 (third field year) is the progeny of generation 1 seed, generation 3 (fourth field year) is the progeny of generation 2 seed, generation 4 (fifth field year) is the progeny of generation 3 seed, generation 5 (sixth field year) is the progeny of generation 4 seed, and certified sixth generation (seventh field year, certified class) is the progeny of generation 5 seed. The certified designation will be granted to lots meeting the minimum standards outlined in section 74-04-01-08 and by approval of the commissioner.
3. Prenuclear seed stocks intended to be grown in the field as nuclear (GO) seed potatoes must be laboratory-tested, be demonstrated to be

free of the following pathogens, and meet the following standards:

- a. *Clavibacter michiganensis* subsp. *sepedonicus* (ring rot).
  - b. *Erwinia carotovora* (blackleg and soft rot).
  - c. Potato virus A.
  - d. Potato virus M.
  - e. Potato virus X.
  - f. Potato virus Y.
  - g. Potato leafroll virus.
  - h. Potato spindle tuber viroid.
  - i. Potato mop top virus
  - j. All micropropagation production must be approved by a certification agency.
  - k. Good records must be maintained on all tests and submitted with the application for field inspection.
  - l. A minimum of one percent of the plantlets must have been tested for the above pathogens using the most reliable testing techniques.
4. Basic seed must originate from sources described above and developed in seed plots and have met specific field inspection and winter test standards established by the state seed department. Seed stocks will be grown a limited number of generations.
- Experimental cultivars under evaluation by the state seed department in cooperation with universities or industry will meet program requirements of and will be maintained under guidelines and standards established by the state seed department. Seed stocks will be grown a limited number of generations.
5. Foundation class seed must be seed meeting standards for recertification.
- a. Foundation seed will be produced on farms found to be free of bacterial ring rot for three years. All seed stocks must be replaced on a farm in which bacterial ring rot has been found.

- b. Excessive blackleg symptoms will be cause for rejection as foundation stock.
6. The certified class must meet the minimum field tolerances described in section 74-04-01-08. The classification serves as a quality standard for commercial planting purposes only and must meet all the requirements and responsibilities of this chapter. The certified class designation may be applied to any generation under the criteria set forth in 74-04-01-07.8.
  7. Generation numbers increase with years of field reproduction from the original seed source. Generation five will be the final generation of seed eligible for recertification. The certified seed class is not eligible for recertification. If seed availability is low for a specific potato variety, seed lots with more advanced generation numbers may be eligible for recertification providing the seed lot has passed a winter test and prior approval of the state seed department has been obtained.
  8. Except for varietal mixtures, seed lots may be downgraded or advanced in generation if they do not meet the disease tolerances for that generation or they may be placed in the certified class and sold by their generation number as certified seed providing they meet the specifications for that class. Disease tolerances for each generation of seed are outlined in the section on field inspection standards.

**History:** Effective December 1, 1981; amended effective December 1, 1987; June 1, 1992; September 1, 1997; July 16, 2001; September 1, 2002; January 1, 2005; January 2, 2006; April 1, 2010.

**General Authority:** NDCC 4-10-03

**Law Implemented:** NDCC 4-10-04