

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 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. 91 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 regarding the fitness of the seed.

4. For the purposes of this section, NDCC Chapter 4-09 and NDAC Article 74-03 generally apply to the certification and conditioning of field seeds; NDCC Chapter 4-25 and NDAC Article 74-02 to the regulation of field crops and seeds; NDCC Chapter 4-10 and NDAC Article 74-04 to the certification and inspection of potatoes; NDCC Chapter 4-11 and NDAC Article 74-5 to the regulation of wholesale potato dealers; and NDCC Chapter 4-09.1 and NDAC Article 74-06 to the inspection and grading of crops not in federal grain standards.

4 5. **Seed commissioner.** The commission appoints the seed department manager, who is the state seed commissioner.

~~5.~~ 6. **Inquiries.** Inquiries regarding the seed department may be addressed to the commissioner:

State Seed Commissioner
State Seed Department
State University Station
Fargo, ND 58105

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

General Authority: NDCC 28-32-02.1

Law Implemented: NDCC 28-32-02.1

ARTICLE 74-02

SEED

Chapter	
74-02-01	Seed Representation and Labeling
74-02-02	Seed Sale

**CHAPTER 74-02-01
SEED REPRESENTATION AND LABELING**

Section	
74-02-01-01	Seed Testing Fees - Sample Size [Repealed]
74-02-01-02	Hermetically Sealed Containers
74-02-01-03	Flower Seed Labeling Requirements
74-02-01-04	Sale and Exchange of Seed
74-02-01-05	Labeling of Registered and Certified Seed Brought Into North Dakota [Repealed]
74-02-01-06	Clarification of Pure Live Seed and How it Pertains to Germination
74-02-01-07	Rules for Affidavit of Analysis for Bagged Agricultural Seed

74-02-01-01. Seed testing fees - Sample size. Repealed effective May 1, 2001.

74-02-01-02. Hermetically sealed containers. A container will be considered hermetically sealed if all of the following conditions have been met:

1. The seed was packaged within nine months after harvest.
2. The container used does not allow water vapor penetration through any wall, including the seals, greater than five-hundredths grams of water per twenty-four hours per one hundred square inches [645.16 square centimeters] of surface at one hundred degrees Fahrenheit [37.78 degrees Celsius] with a relative humidity on one side of ninety percent and on the other side of zero percent. Water vapor penetration shall be measured as: gram water / twenty-four hour / one hundred degrees Fahrenheit / ninety percent relative humidity versus zero percent relative humidity.
3. The seed in the container does not exceed the percentage of moisture, on a wet basis, as listed in section 201-36c-c of the rules and regulations of the Federal Seed Act. ~~s listed below:~~

Agriculture Seeds	Percent
Beet, field	7.5
Beet, sugar	7.5
Bluegrass, Kentucky	6.0
Clover, crimson	8.0

Fescue, red	8.0
Ryegrass, perennial	8.0
Ryegrass, annual	8.0
All others	6.0

Vegetable

Seeds _____ Percent

Bean, garden	7.0
Bean, lima	7.0
Beet	7.5
Broccoli	5.0
Brussels sprouts	5.0
Cabbage	5.0
Carrot	7.0
Cauliflower	5.0
Celeriac	7.0
Celery	7.0
Chard, Swiss	7.5
Chinese cabbage	5.0
Chives	6.5
Collards	5.0
Corn, sweet	8.0
Cucumber	6.0
Eggplant	6.0
Kale	5.0
Kohlrabi	5.0
Leek	6.5
Lettuce	5.5
Muskmelon	6.0
Mustard, India	5.0
Onion	6.5
Onion, Welsh	6.5
Parsley	6.5
Parsnip	6.0
Pea	7.0
Pepper	4.5
Pumpkin	6.0
Radish	5.0
Rutabaga	5.0
Spinach	8.0
Squash	6.0
Tomato	5.5
Turnip	5.0
Watermelon	6.5
All others	6.0

4. The container is conspicuously labeled in not less than nine point type to indicate:
 - a. That the container is hermetically sealed,
 - b. That the seed has been preconditioned as to moisture content, and
 - c. The calendar month and year in which the germination test was completed.

5. The percentage of germination of vegetable seed at the time of packaging was equal to or above the standards in section 201.31 of the rules and regulations of the Federal Seed Act which pertains to germination standards for vegetable seeds, which provide:

~~The following germination standards for vegetable seeds in interstate commerce, which shall be construed to include hard seed, are determined and established under section 403 (c) of the Act:~~

	Percent
Artichoke	60
Asparagus	70
Asparagus bean	75
Bean, garden	70
Bean, lima	70
Bean, runner	75
Beet	65
Broadbean	75
Broccoli	75
Brussels sprouts	70
Burdock, great	60
Cabbage	75
Cabbage, tronchuda	75
Cantaloupe (see muskmelon) cardoon	60
Carrot	55
Cauliflower	75
Celeriac	55
Celery	55
Chard, Swiss	65
Chicory	65
Chinese cabbage	75
Chives	50
Citron	65
Collards	80
Corn, sweet	75
Cornsalad	70
Cowpea	75
Cress, garden	75
Cress, upland	60
Cress, water	40
Cucumber	80
Dandelion	60
Eggplant	60
Endive	70
Kale	75
Kale, Chinese	75
Kohlrabi	75
Leek	60
Lettuce	80
Muskmelon	75
Mustard, India	75
Mustard, spinach	75
Okra	50
Onion	70
Onion, Welsh	70
Pakchoi	75
Parsley	60

Parsnip	60
Pea	80
Pepper	55
Pumpkin	75
Radish	75
Rhubarb	60
Rutabaga	75
Salsify	75
Sorrel	65
Soybean	75
Spinach	60
Spinach, New Zealand	40
Squash	75
Tomato	75
Tomato, husk	50
Turnip	80
Watermelon	70

General Authority: NDCC 4-09-03

Law Implemented: NDCC 4-09-10, 4-09-11, 4-09-14

74-02-01-03. Flower seed labeling requirements.

1. Labeling kind and variety or type and performance characteristics of flower seeds. The requirements of subsection 2 of North Dakota Century Code section 4-09-11.1 specifying that flower seeds shall be labeled with the name of the kind and variety or a statement of type and performance characteristics as prescribed in the rules and regulations promulgated under North Dakota Century Code chapter 4-09 shall be met as follows:
 - a. For the seeds of plants grown primarily for their blooms:
 - (1) If the seeds are of a single named variety, the kind and variety shall be stated, for example, "marigold, butterball".
 - (2) If the seeds are of a single type and color for which there is no specific variety name, the type of plant (if significant), and the type and color of bloom shall be indicated, for example, "scabiosa, tall, large, flowered, double, pink".
 - (3) If the seeds consist of an assortment or mixture of colors or varieties of a single kind, the kind name, the type of plant (if significant) and the type or types of bloom shall be indicated. In addition, it shall be clearly indicated that the seed is mixed or assorted. An example of labeling such a mixture or assortment is "marigold, dwarf double French, mixed colors".
 - (4) If the seeds consist of an assortment or mixture of kinds, it shall be clearly indicated that the seed is assorted or mixed and the specific use of the assortment or mixture shall be indicated, for example, "cut flower mixture" or "rock garden

mixture". Such statements as "wild flower mixture", "general purpose mixture", "wonder mixture", or any other statement which fails to indicate the specific use of the seed shall not be considered as meeting the requirements of this paragraph unless the specific use of the mixture is also stated.

- b. For seeds of plants grown for ornamental purposes other than their blooms, the kind and variety shall be stated, or the kind shall be stated together with a descriptive statement concerning the ornamental part of the plant, for example, "ornamental gourds, small fruited, mixed".
2. Kinds of flower seeds subject to germination labeling requirements and germination standards for flower seeds. The kinds of flower seeds listed below are those for which standard testing procedures have been prescribed and which are therefore required to be labeled in accordance with the germination labeling provisions of subsection 2 of North Dakota Century Code section 4-09-11.1. The percentage listed opposite each kind is the germination standard for that kind. For the kinds marked with an asterisk, this percentage is the total of percentage germination and percentage hard seed. For other kinds, it is the percentage germination.

Kind	Percent
African daisy - <i>dimorphotheca aurantiaca</i>	55
Ageratum - <i>ageratum mexicanum</i>	60
Alyssum - <i>alyssum compactum</i> , <i>alyssum maritimum</i> , <i>alyssum procumbens</i> , <i>alyssum saxatile</i>	60
Anemone - <i>anemone coronaria</i> , <i>anemone pulsatilla</i>	55
Angel's trumpet - <i>datura arborea</i>	60
Arabis - <i>arabis alpina</i>	60
Aster, China - <i>callistephus chinensis</i> except pompon, powderpuff, and princess types	55
Aster, China - <i>callistephus chinensis</i> , pompon, powderpuff, and princess types	50
Aubrietia - <i>aubrietia deltoides</i>	45
Balsam - <i>impatiens balsamina</i>	70
Calendula - <i>calendula officinalis</i>	65
California poppy - <i>eschscholtzia californica</i>	60
Calliopsis - <i>coreopsis bicolor</i> , <i>coreopsis drummondii</i> , <i>coreopsis elegans</i>	65
Campanula:	
Canterbury bells - <i>campanula medium</i>	60
Cup and saucer bellflower - <i>campanula medium</i> <i>calycanthema</i>	60
Carpathian bellflower - <i>campanula carpatica</i>	50
Peach bellflower - <i>campanula persicifolia</i>	50
Candytuft, annual - <i>iberis amara</i> , <i>iberis umbellata</i>	65
Candytuft, perennial - <i>ibersis gibraltaria</i> , <i>ibersis sempervirens</i>	55
Castor bean - <i>ricinus communis</i>	60
Cathedral bells - <i>cobaea scandens</i>	65
Celosia - <i>celosia argentea</i>	65
Centaurea: basket flower - <i>centaurea americana</i> ,	

cornflower, <i>centaurea cyanus</i> ,	
Dusty miller - <i>centaurea candidissima</i> , royal	
<i>centaurea - centaurea imperialis</i>	
Sweet sultan - <i>centaurea moschata</i> ,	
velvet <i>centaurea -</i>	
<i>centaurea gymnocarpa</i>	60
Chinese forget-me-not - <i>cynoglossum amabile</i>	55
Chrysanthemum, annual - <i>chrysanthemum carinatum</i> ,	
<i>chrysanthemum coronarium</i> , <i>chrysanthemum segetum</i>	40
Clarkia - <i>clarkia elegans</i>	65
Cleome - <i>cleome gigantea</i>	65
Columbine - <i>aquilegia species</i>	50
Coral bells - <i>heuchera sanguinea</i>	55
Coreopsis, perennial - <i>coreopsis lanceolata</i>	40
Cosmos: sensation, mammoth and crested types -	
<i>cosmos bipinnatus</i> : Klondyke type - <i>cosmos sulphureus</i>	65
Dahlia - <i>dahlis species</i>	55
Delphinium, perennial: belladonna and bellamosum	
types; cardinal larkspur - <i>delphinium cardinale</i> ;	
<i>chinensis</i> types; Pacific giant, gold medal and	
other hybrids of <i>delphinium elatum</i>	55
Dianthus:	
Carnation - <i>dianthus caryophyllus</i>	60
China pinks - <i>dianthus chinensis</i> , <i>heddewigi</i> ,	
<i>heddensis</i>	70
Grass pinks - <i>dianthus plumarius</i>	60
Maiden pinks - <i>dianthus deltoides</i>	60
Sweet william - <i>dianthus barbatus</i>	70
Sweet wivelsfield - <i>dianthus allwoodi</i>	60
Dracaena - <i>dracaena indivisa</i>	55
English daisy - <i>bellis perennis</i>	55
Foxglove - <i>digitalis species</i>	60
Gaillardia, annual - <i>gaillardia pulchella</i> ,	
<i>gaillardia picta</i> ; perennial - <i>gaillardia</i>	
<i>grandiflora</i>	45
Geum - <i>geum species</i>	55
Gilia - <i>gilia species</i>	65
Godetia - <i>godetia amoena</i> , <i>godetia grandiflora</i>	65
Gourds: yellow flowered - <i>cucurbita pepo</i> ; white	
flowered - <i>lagenaria sisceraria</i> ; dishcloth - <i>luffa</i>	
<i>cylindrica</i>	70
Gypsophila: annual baby's breath - <i>gypsophila elegans</i> ;	
perennial baby's breath - <i>gypsophila paniculata</i> ,	
<i>gypsophila pacifica</i> , <i>gypsophila repens</i>	70
Helichrysum - <i>helichrysum monstosum</i>	60
Hollyhock - <i>althea rosea</i>	65
Ipomoea: cypress vine - <i>ipomoea quamoclit</i> ;	
moonflower - <i>ipomoea noctiflora</i> ; morning glories,	
cardinal climber, hearts and honey	
vine - <i>ipomoea species</i>	75
Job's tears - <i>coix lacrymajobi</i>	70
Kochia - <i>kochia childsi</i>	55
Larkspur, annual - <i>delphinium ajacis</i>	60
Lantana - <i>lantana camara</i> , <i>lantana hybrida</i>	35
Linaria - <i>linaria species</i>	65
Lobelia, annual - <i>lobelia erinus</i>	65
Lunaria, annual - <i>lunaria annua</i>	65
Lupine - <i>lupinus species</i>	65
Marigold - <i>tagetes species</i>	65

Marvel of Peru - <i>mirabilis jalapa</i>	60
Mignonette - <i>reseda odorata</i>	55
Myosotis - <i>myosotis alpestris</i> , <i>myosotis oblongata</i> , <i>myosotis palustris</i>	50
Nasturtium - <i>tropaeolum</i> species	60
Nemesia - <i>nemesia</i> species	65
Nemophila - <i>nemophila insignis</i>	70
Nicotiana - <i>nicotiana affinis</i> , <i>nicotiana sanderae</i> , <i>nicotiana sylvestris</i>	65
Nierembergia - <i>nierembergia</i> species	55
Nigella - <i>nigella damascena</i>	55
Pansy - <i>viola tricolor</i>	60
Penstemon - <i>penstemon barbatus</i> , <i>penstemon grandiflorus</i> , <i>penstemon laevigatus</i> , <i>penstemon pupescens</i>	60
Petunia - <i>petunia</i> species	45
Phacelia - <i>phacelia campanularia</i> , <i>phacelia minor</i> , <i>phacelia</i> <i>tanacetifolia</i>	65
Phlox, annual - <i>phlox drummondii</i> all types and varieties	55
Physalis - <i>physalis</i> species	60
Poppy: shirley poppy - <i>papaver rhoeas</i> ; Iceland poppy - <i>papaver nudicaule</i> ; oriental poppy - <i>papaver</i> <i>orientalis</i> ; tulip poppy - <i>papaver glaucum</i>	60
Portulaca - <i>portulaca grandiflora</i>	55
Salpiglossis - <i>salpiglossis gloxinaeflora</i> , <i>salpiglossis sinuata</i>	60
Salvia - scarlet sage - <i>salvia splendens</i> ; mealycup sage (blue bedder) - <i>salvia farinacea</i>	50
Saponaria - <i>saponaria ocymoides</i> , <i>saponaria vaccaria</i>	60
Scabiosa, annual - <i>scabiosa atropurpurea</i>	50
Scabiosa, perennial - <i>scabiosa caucasica</i>	40
Schizanthus - <i>schizanthus</i> species	60
Shasta daisy - <i>chrysanthemum maximum</i> , <i>chrysanthemum leucanthemum</i>	65
Snapdragon - <i>antirrhinum</i> species	55
Solanum - <i>solanum</i> species	60
Stocks: common - <i>mathiola incana</i> ; evening scented - <i>mathiola bicornis</i>	65
Sunflower - <i>helianthus</i> species	65
Sweet pea, annual and perennial other than dwarf bush - <i>lathyrus odoratus</i> , <i>lathyrus latifolius</i>	75
Sweet pea, dwarf bush - <i>lathyrus odoratus</i>	65
Thunbergia - <i>thunbergia alata</i>	60
Torch flower - <i>tithonia speciosa</i>	70
Tritoma - <i>kniphofia</i> species	65
Verbena, annual - <i>verbena hybrida</i>	35
Vinca - <i>vinca rosea</i>	60
Viola - <i>viola cornuta</i>	55
Wallflower - <i>cheiranthus allioni</i>	65
Zinnia (except <i>linearis</i> and creeping) - <i>zinnia</i> <i>augustifolia</i> , <i>zinnia elegans</i> , <i>zinnia grandiflora</i> , <i>zinnia gracillima</i> , <i>zinnia haegeana</i> , <i>zinnia</i> <i>multiflora</i> , <i>zinnia pumila</i>	65
Zinnia, <i>linearis</i> and creeping - <i>zinnia linearis</i> , <i>sanvitalia procumbens</i>	50

A mixture of kinds of flower seeds will be considered to be below standard if the germination of any kind or combination of kinds

constituting twenty-five percent or more of the mixture by number is below standard for the kind or kinds involved.

General Authority: NDCC 4-09-03
Law Implemented: NDCC 4-09-11.1

74-02-01-04. Sale and exchange of seed. The definition of terms used in this section and in North Dakota Century Code section 4-09-15 shall be defined in this section and in North Dakota Century Code section 4-09-01.

The exemption found in subsection 5 of North Dakota Century Code section 4-09-15 does not apply to a farmer who sells only his own seed which has been publicly advertised for sale. For the purposes of this section, "publicly advertised for sale" includes advertising in newspapers, periodicals, pamphlets, or posters, by radio or television, or in any other media. For the purposes of this section and North Dakota Century Code section 4-09-15, "sells only his own seed" includes any disposition of seed or transaction whereby the farmer sells, exchanges, or trades his own seed. The exemption found in subsection 5 of North Dakota Century Code section 4-09-15 also does not apply to any farmer who is engaged in the seed business. For the purposes of this section, "engaged in the seed business" includes the sale of any seed by a person which seed was not grown on that person's own farm, publicly advertising for sale any seed, or making use of any third party as an agent or broker to bring a buyer and seller of seed together for purposes of sale, exchange, or trade.

The exemptions found in 4-09-15 do not apply to seed for which a certificate of plant variety protection has been applied for or issued, except regarding the replanting of seed on a farmers own farm. In the absence of contractual obligations between the variety owner and a first purchaser, a farmer may replant seed varieties protected by plant variety protection for an indeterminate length of time provided the exemptions listed in 4-09-15 are complied with in full.

History: Amended effective May 1, 1988; January 2, 2006.
General Authority: NDCC 4-09-03
Law Implemented: NDCC 4-09-15

74-02-01-05. Labeling of registered and certified seed brought into North Dakota. Repealed effective December 18, 1989.

74-02-01-06. Clarification of pure live seed and how it pertains to germination. "Pure live seed" means the product of the percentage of germination plus hard seed and the percentage of pure seed divided by one hundred.

$$\text{Pure live seed} = \frac{\text{Purity} \times \text{germination}}{100}$$

History: Effective December 18, 1989.
General Authority: NDCC 4-09-03
Law Implemented: NDCC 4-09-17

~~**74-02-01-07. Rules for affidavit of analysis for bagged agricultural seed.** Application must be made to the state seed commissioner, or the commissioner's agent, for approval to use an affidavit of analysis for bagged agricultural seed lots labeled within the state of North Dakota.~~

- ~~1. Applications accepted for consideration:
 - ~~a. Lots greater than one hundred containers distributed from one location.~~
 - ~~b. Lots greater than two hundred fifty containers distributed from multiple locations.~~~~
- ~~2. Applications must include the following:
 - ~~a. Name of applicant or labeler.~~
 - ~~b. Kind or kind and variety of seed applied for.~~
 - ~~c. Lot number of seed.~~
 - ~~d. Amount of seed represented by application.~~
 - ~~e. Number and weight of containers.~~~~
- ~~3. Seed that is transferred to a seller different than the labeler.
 - ~~a. The labeler shall provide a transfer certificate to the buyer, the North Dakota state seed department, and retain a copy stating to whom the seed was sold or transferred, seed lot number, amount of seed transferred, date of transfer, and serial numbers of copies of affidavit provided.~~
 - ~~b. The labeler shall provide a sufficient number of copies of the affidavit of analysis to the buyer or transferee for redistribution to the consumer.~~
 - ~~c. Seed cannot be transferred more than one time.~~~~
- ~~4. Application for use of affidavit of analysis for carryover seed that is currently tagged with individual tags will be considered providing that the seed lot be labeled by a North Dakota company or resident and all other criteria are met. Outdated tags must be removed when affidavit of analysis is approved on carryover lots.~~
- ~~5. Other pertinent information regarding seed lot under consideration.~~
- ~~6. When applicable, appropriate fees will be established by the state seed commission.~~

History: Effective December 1, 1997; January 2, 2006.

General Authority: NDCC 4-09-03, 4-09-08

Law Implemented: NDCC 4-09-08

CHAPTER 74-02-02 SEED SALE

Section

74-02-02-01 Definitions

74-02-02-02 Nonresident Seed Dealer - License Application

74-02-02-03 Identification Cards [Repealed]

74-02-02-04 State Grain Grade Standards [Repealed]

74-02-02-01. Definitions. As used in this chapter, unless the context or subject matter otherwise requires:

1. "Agricultural grain" or "grass seed" includes seeds of grass, forage, cereal, fiber and oil crops, and any other kinds of seeds commonly recognized within this state as agricultural or field seeds and mixtures of such seeds for sowing or planting purposes.
2. "Consumer" means any person who purchases or otherwise obtains seed for sowing but not for resale.
3. "Engaging in the business of selling seed" means the act or acts of selling, offering for sale, transporting for sale, or holding in storage with the intent to sell to a North Dakota consumer for sowing purposes any agricultural grain or grass seed by any nonresident who travels from farm to farm, or offers directly to the consumer through public advertising, internet sales, or any other medium which would constitute public notice.
4. "Feed grain" means the seed of any crop which is being produced to be used for feed or food and not for seeding or planting purposes.
5. "Nonresident person" means any individual, partnership, corporation, company, society, or association who is not located in or does not have a permanent address in North Dakota.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 4-25-01

74-02-02-02. Nonresident seed dealer - License application. The application for license shall be made to the seed commissioner in writing and under oath, and shall set forth:

1. The place or places of business from which the applicant intends to carry on the business for which the license is desired.
2. The full name of the persons constituting the firm if the applicant is a copartnership.
3. The name of the officers of the corporation and where it is incorporated if the applicant is a corporation.
4. A statement showing the applicant's eligibility for a similar license in other states in which the applicant may have operated or is operating

at the time of the application.

5. Other pertinent facts regarding the applicant and the business.

~~When applicable, the fee for the license, twenty-five dollars, shall accompany the application.~~

History: Amended effective December 18, 1989; January 2, 2006.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 4-25-04

74-02-02-03. Identification cards. Repealed effective January 1, 2005.

74-02-02-04. State grain grade standards. Repealed as the result of S.L. 1979, ch. 95, § 6.

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 and Field Peas
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, and 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.
6. "Grower" means any person that is complying with all the certification rules and regulations in the production of field-inspected seed.

§ 7. "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. "Inseparable other crops" means only other crops of similar size which are difficult to remove in the usual methods of cleaning.

9. "Mixture" means seed consisting of more than one kind, each in excess of five percent by weight of the whole.

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

§ 13. "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.

- 9 14. "Variety" means a subdivision of a kind ~~characterized by growth, yield, plant, fruit, seed, or other characteristic by which it can be differentiated from other plants of the same kind~~ and 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 ~~which are describable 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 2, 2006 .

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 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

74-03-01-01. Seed certification in North Dakota. The certification of seed in North Dakota is a function of the state seed department as outlined in North Dakota Century Code sections 4-09-16, 4-09-17, 4-09-18, and 4-09-19. This chapter applies to all crops, other than potato, grown for the production of all classes of North Dakota certified seed. If a North Dakota crop is accepted for field inspection and certification for which there are no North Dakota field or seed standards, the latest standards published by the association of official seed certifying agencies for that crop will apply.

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

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

74-03-01-02. Purpose of seed certification. The purpose of seed certification is to maintain and make available to the public high quality seed of crop varieties so produced, handled, and distributed as to ensure proper identity and genetic purity.

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

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

74-03-01-03. Eligibility requirement for certification of crop varieties. As used in this chapter, "variety" includes hybrids and breeding lines.

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 74-03-01-03.2e-i, which is required.
- c. ~~or a~~ An official seed certifying agency.
- d. The Organization for Economic Cooperation and Development (OECD)

~~For those crops where national certified review boards exist, it is required that varieties be submitted to such boards for review to determine their merit for certification.~~ 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.

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 adaptation 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.

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

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 seed which~~ 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 ~~which is~~ produced under procedures established by the certifying agency for the purpose of maintaining genetic purity and identity.
 - c. Registered seed ~~is shall be~~ the progeny of foundation or other approved seed stocks that ~~is are~~ 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 shall be~~ the progeny of foundation, registered, certified, or other approved seed stocks that ~~is are~~ 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:
 - a. Unlimited recertification of the certified class may be permitted for older crop varieties where n 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

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

3. Seed ~~which~~ 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.

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

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

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

74-03-01-05. Eligibility of growers. Any person shall be eligible to produce registered or certified seed providing such seed is produced, handled, and distributed in accordance with article 74-02, applicable certification rules, and all applicable North Dakota seed laws and rules. The state seed commissioner reserves the right to reject any application for certification or refuse certification on any lot of seed if essential evidence is incomplete, if information given is incorrect, or if circumstances indicate that it would be advisable for the good of the certified seed industry.

History: Amended effective May 1, 1986.

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. Eligible seed stocks ~~shall be those which~~ have met the requirements for foundation, registered or, in special cases, approved lots of the certified class. Eligible seed obtained from another person must ~~have been~~ be accompanied by the official tag or bulk certificate from an approved certifying agency, which will be the documentary ation ~~evidence~~ of acceptance for field inspection.
2. 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.

3. Certified seed growers may not plant seed from their own fields that failed field inspection due to genetic purity factors in previous years.

3 4. 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.

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 be made if the previous crop was the same variety and passed field inspection for certification.
2. A grower may establish field eligibility history for the upcoming year by planting certified seed on the field, requesting field inspection, and having the field declared eligible in the ensuing year for production of seed of the same variety.

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

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 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 ~~genetically modified crops~~ other kinds in proximity to fields being grown for the purpose of seed certification.

History: Amended effective September 1, 2002.

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, 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 soybeans, millet, and buckwheat will be accepted until July fifteenth without late penalty. In case of an emergency or unusual circumstances due to weather ~~and~~ 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. Information required on application. The application shall be completed by the applicant and returned to the seed department. ~~It is important that~~ 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 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 fields prior to inspection is ~~desirable~~ recommended to remove undesirable plants from fields ~~which 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 ~~very~~ essential ~~in~~ to maintaining the purity of varieties and high standards of certified seed.

Whenever practical and advisable, seed fields should be sprayed with pesticides according to the ~~best recommendations~~ manufacturers label for the control of ~~undesirable weeds~~ 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, ~~and~~ 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 opinion of the field inspector that the amount and kind of ~~common~~ weeds present make it difficult to ~~give adequate~~ provide for inspection, or the 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 inspector 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 before the field inspection is made and the application fee minus ~~ten dollars~~ 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 ~~expense~~ has been incurred occurred. Refunds will not be made after fields are inspected or because fields have been rejected.
6. Appeal inspection of rejected fields will be considered, provided application for appeal allows a reasonable amount of time for reinspection prior to harvest. A fee for re-inspection may be assessed.

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

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

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

74-03-01-10. Fees. Charges for fees and services are subject to change. For current fees contact the state seed department.

History: Amended effective May 1, 1986; May 1, 1987; May 1, 1988; December 18, 1989; May 1, 2001; September 1, 2002.

General Authority: NDCC 4-09-03, 4-09-05, 4-09-16, 28-32-01

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

74-03-01-11. Seed sampling 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, and lot number displayed on the bin or storage container.
2. **Preconditioned sample testing.** To speed up tagging and determine ~~suitability~~ 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.

Disease tests required 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, 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 for final certification should 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 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 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.
- b. The lot number shall be designated by the labeler. The lot number ~~used the previous year for the seed~~ 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 from different fields of the same kind and variety, which have 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. Conditioning.

- a. All field-inspected seed which is to be labeled must be conditioned and must meet the minimum seed standards ~~and conditioning requirements~~ for the crop and class.
- b. Field-inspected seed may be conditioned either by the grower or at an approved seed conditioning plant.

7. Conditioning by farmer/grower - Procedure.

- a. Condition the seed. A farmer/grower does not need an approved conditioning plant permit if the farmer/grower conditions his own seed on the farmer's/grower's premises with the farmer's or grower's equipment.
- b. The farmer or grower must complete a samplers report in its entirety, attach the report to a two pound [.907 kilogram] sample ~~which~~ that is representative of the entire seed lot, and deliver to the state seed department in Fargo for analysis.

8. Conditioning at an approved plant.

- a. Growers must complete 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 seed must be sampled at regular intervals by ~~the~~ an authorized sampler. The sample and completed sampler's report must be ~~and~~ submitted to the state seed department ~~with a completed samplers report~~ for analysis.

9. Regulatory sampling. The state seed department may resample any lot of seed ~~either~~ 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 ~~quality~~ seed, the commissioner may accept germination or other test results from another ~~association of official seed analysts~~ 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 ~~from the same lot~~ without additional conditioning, an average shall be taken of all tests ~~made~~ conducted. Results from the most recent germination or disease test, ~~or both tests, on the seed lot~~ 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.

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

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, ~~and~~ 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, ~~and~~ 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 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.
- b. Certified seed may be sold in bulk by an approved retail seed facility or by the applicant producer. 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 may be allowed to handle bulk registered seed on a case-by-case basis as authorized by state seed department personnel.
- d. 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) ~~See that~~ Ensure all bins, augers, conveyors, and other equipment are adequately cleaned before handling certified seed.
 - (4) Determine that the vehicle receiving bulk certified seed ~~is~~ 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) ~~Maintain possession, for a one-year period, of a sample identified by variety, kind, and lot number of each lot of bulk certified seed sold.~~ Provide to the purchaser a bulk certificate for each load of bulk certified seed at the time of delivery.
 - (6) The conditioned lot shall not be moved from the premises of the approved conditioning plant 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. 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~~ Maintain purity of the seed after it has been loaded into the buyer's vehicle.
- f. The bulk certified seed certificate takes the place of the certified seed tag. The complete seed analysis will be printed on the certificate. ~~The buyer must receive a bulk certificate at the time of delivery for each load of bulk certified seed.~~

9. 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 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. For all bulk certified seed:

- (1) A separate storage bin must be available for each lot that will be sold in bulk.

- (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.

- ~~(3)~~(5) All bins must be clearly and prominently marked to show crop, variety, seed class, and lot number.

- ~~(4)~~(6) All bin openings must be closed to prevent contamination, except when seed is being put in or removed from the bin.

- i. The following records must be maintained:

- (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 seed available for sale for each variety.

- (4) It is the seller's responsibility to maintain possession of a two pound sample identified by variety, kind, and lot number of each lot of certified seed, whether bagged or in bulk, sold for a period of two years after the final disposition of the seed lot.

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

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

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

74-03-01-13. Preissued certification tags. Registered or 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.
2. Final samples, along with the grower's declaration, sampler's report, and printed analysis tag must be submitted after each lot is conditioned.
3. The conditioned lot shall not be moved from the premises of the approved conditioning plant 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. If the seed lot is rejected, the approved plant 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 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.

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 ~~fifteenth~~ 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.
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.

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 are responsible for maintaining genetic purity and identity during conditioning and handling. Evidence that any lot of seed has not been protected from contamination ~~which~~ that might affect genetic purity or is not

properly identified shall be cause for possible rejection of certification.

History: Effective May 1, 1986; January 2, 2006.

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 ~~who is~~ found guilty of misusing certification tags, misrepresenting seed, or ~~who~~ violates any of the rules governing the growing, conditioning, and marketing of foundation, registered, or certified seed, or ~~who is~~ guilty of violations of the North Dakota seed laws and rules with respect to any seed which the grower, conditioner, or seedsman 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.

History: Amended effective May 1, 1986; May 1, 1988; September 1, 2002; January 2, 2006.

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

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

74-03-01-16. 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 opinion of the inspector for the state seed

department that the plant is properly managed and equipped, and facilities are such that seed will, with usual care, not become mixed during conditioning. The managers and the designated samplers in these plants 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: length grading machine - either a disc or indent cylinder or combination machine which removes long and short fractions; 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 a yearly 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 or repackaging, treating, or inoculating certified seed.

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

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

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

74-03-01-17. Interagency certification.

1. Upon the request of an officially recognized certification agency of another state, the state seed department will act as agent in making inspections, drawing samples, or labeling of seed to be certified.
2. For certified seed carrying the certification tag or label of an official certifying agency, no official request from a recognized agency of another state is required to recondition, relabel, or rebag certified seed under interagency certification. Application for interagency certification shall be made directly to the state seed department and the following documentary evidence shall be supplied:
 - a. Variety and kind.
 - b. Class of certified seed.
 - c. Number of bags or bulk bushels.
 - d. Weight of each bag.
 - e. Complete original label with purity analysis, germination, and other required tests.
 - f. Name and address of grower or the inspection or lot number traceable to the records of the agency making the field inspections.
3. A lot of seed ~~which has~~ that passed field inspection, or is completely certified by another officially recognized certification agency, may be sold or moved into North Dakota for further conditioning or completion of certification provided:
 - a. Prior arrangements for moving the seed is made with and approved by the cooperating certification agency and the state seed department.
 - b. A grower's transfer certificate is filed by the original applicant for certification of such seed.
4. Interagency certification tags shall show the certification agencies involved, the lot number, variety, kind, and class of seed.
5. Interagency seed lots not meeting North Dakota ~~labeling laws~~ certification standards may require resampling or retesting to ensure compliance with North Dakota ~~labeling laws~~ certification standards.

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

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

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

74-03-01-18. Exclusion of warranty. Field seeds certified in accordance with this chapter have been field inspected and laboratory tested as specified in this chapter. The state seed department and inspection services function and

serve only in an official regulatory manner and do not relieve the grower or owner of the grower's or owner's responsibility. Neither the producer, the seller, the North Dakota seed commission, the seed commissioner, or the commissioner's employees make any warranty of any kind, express or implied, as the quantity or quality of the crop produced from certified seed, including merchantability, fitness for a particular purpose, or absence of disease. The only representation is that the seed was produced, graded, and inspected under the seed certification rules and regulations of the North Dakota state seed department.

History: Effective September 1, 2002.

General Authority: NDCC 4-09-03, 4-09-05, 40-09-16

Law Implemented: NDCC 4-09-16, 4-09-17, 4-09-18, 4-09-20.1

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 for certification. 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.

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

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

74-03-02-02. Field inspection. All field inspection of small grain and flax will be made after the crop is fully headed or in the case of flax in bloom or in the boll stage. A field harvested before inspection ~~is made~~ will not be eligible for certification.

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 inspection, the field must be separated from other fields 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.
- 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.
- 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 10 feet 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 10 foot section of crop with the lower class of seed.
- e-d. 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 ~~not be left in~~ be removed from the field to be harvested.
- b. Patches of inseparable prohibited and/or objectionable weeds 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 ~~shall be considered to~~ include plants that can be differentiated from the variety that is being inspected. ~~However, other varieties , but~~ shall not include ~~variations which are~~ variants which are characteristic of the variety.

** The tolerance for prohibited ~~noxious and/or objectionable~~ weeds in the field will be determined by the inspector ~~on the basis of stages of development of both the crop and the weed.~~

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 ~~shall be considered to~~ include ~~off-type and~~ plants that can be differentiated from the variety that is being inspected. ~~However, other varieties shall not , but~~ shall not include ~~variations which are~~ variants characteristic of the variety.

** The tolerance for prohibited ~~and/or objectionable~~ noxious weeds in the field will be determined by the inspector ~~on the basis of stages of development of both the crop and the weed.~~

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

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, 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 ~~variations which are~~ 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.
- + ~~Prohibited noxious weed seed,~~ I 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 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.

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

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

74-03-02-05. Seed standards (flax).

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	99.0 percent	99.0 percent	98.5 percent
Total weed seeds (maximum)	15 per pound	15 per pound	30 per pound
Other varieties (maximum) *	2 per pound	8 per pound	16 per pound
Other crop seeds (maximum)	2 per pound	5 per pound	10 per pound
Inert matter (maximum) **	1.0 percent	1.0 percent	1.5 percent
Prohibited noxious weed seeds ***	none	none	none
Objectionable weed seeds (maximum) +	1 per 2 pounds	1 per 2 pounds	3 per pound
Germination (minimum)	85.0 percent	85.0 percent	85.0 percent

* Other varieties shall not include ~~variations which are~~ variants characteristic of the variety. For golden or yellow varieties the ~~figures should be multiplied by two~~ standards are 4, 16, and 32 per pound respectively.

** May not exceed two-tenths percent foreign matter.

*** ~~Prohibited noxious weed seeds,~~ including seeds of quackgrass.

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

History: Amended effective May 1, 1986; May 1, 1987; May 1, 1988; September 1, 2002; January 2, 2006.

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 74-03-03
SPECIFIC CROP REQUIREMENTS - ALFALFA**

Section	
74-03-03-01	Land Requirements
74-03-03-02	Field Inspection
74-03-03-03	Field Standards
74-03-03-04	Seed Standard (Alfalfa)

74-03-03-01. Land requirements. A field to be eligible for the production of foundation, registered, or certified seed must not have been in alfalfa production in the previous three years, unless the field was planted to the same class or a higher class of the same variety and passed field inspection for certification in one of the three years.

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

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

74-03-03-02. Field inspection. Field inspection prior to harvest will be required each year a seed crop is removed.

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

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

74-03-03-03. Field standards.

- Age.** Production for seed certification shall be limited to fields not more than six years old, excluding the year seeded.
- Portion.** A portion of a field may be certified if the area to be certified is clearly defined. Portions of the field not meeting requirements for certification must not be allowed to reach the bud stage.
- Isolation.** A field producing foundation, registered, or certified seed must have the minimum isolation distance from fields of any other variety or fields of the same variety that do not meet the varietal purity requirements for certification, as given in the following table:

Class	Fields of Less Than Five Acres	Fields of Five Acres or More
Foundation	1,320 feet	1,320 feet
Registered	660 feet	330 feet
Certified	330 feet	165 feet
Between different classes of the same variety	165 feet	165 feet

4. Specific requirements.

Factor	Maximum Permitted in Each Class		
	Foundation	Registered	Certified
Other varieties *	0.1 percent (1:1,000)	.25 percent (1:400)	1.0 percent (1:100)
Sweetclover	none	5 plants per acre	25 plants per acre

- * Other varieties ~~shall be considered to include off-type plants that can be differentiated from the variety that is being inspected~~ but shall not include variants characteristic of the variety.

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

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

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

74-03-03-04. Seed standard (alfalfa).

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	99.0 percent	99.0 percent	99.0 percent
Total weed seeds (maximum)	0.1 percent	0.2 percent	0.5 percent
Other varieties (maximum) *	0.1 percent	.25 percent	1.00 percent
Other crop seeds (maximum)	0.2 percent	.35 percent	1.00 percent
Sweetclover seed (maximum)	none	18 per pound	45 per pound
Inert matter (maximum)	1.0 percent	1.0 percent	1.0 percent
Prohibited noxious weed seeds **	none	none	none
Objectionable weed seeds ***	none	9 per pound	13 per pound
Germination and hard seeds (minimum)	85.0 percent	85.0 percent	85.0 percent

* Including sweetclover.

** Includes the seeds of quackgrass and dodder species.

*** Objectionable weed seeds shall include the following: wild oats, dragonhead, hedge bindweed (wild morning glory), giant ragweed (kinghead), nightflowering catchfly, hoary alyssum, white cockle, buckhorn plantain, small seeded falseflax, and dragonhead.

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

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.

History: Effective May 1, 1986.

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

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

74-03-07.1-02. Field inspection.

1. All field inspection of buckwheat will be made in the bloom stage.
2. A field harvested before inspection ~~is made~~ will not be eligible for certification.

History: Effective May 1, 1986; January 2, 2006.

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 inspection, the field must be separated from other fields 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.
 - 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.
 - c. 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 is made. Rogued plants must ~~not be left in~~ 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 weeds seeds **	none	none	none

* Other varieties ~~shall be considered to~~ include plants that can be differentiated from the variety ~~that is~~ being inspected. ~~However, other varieties—~~ but shall not include variations ~~which are~~ variants characteristic of the variety.

** The tolerance for prohibited and/or objectionable weeds in the field will be determined by the inspector ~~on the basis of stages of development of both the crop and the weed.~~

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

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 ~~variations which are~~ variants characteristic of the variety.

- ** For all crops foreign matter other than broken seed may not exceed 0.2 percent.
- *** ~~Prohibited noxious weed seed,~~ 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.

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 (Millet)

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.

History: Amended effective May 1, 1986.
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 field shall be separated by a five-foot [1.52-meter] strip of ground to prevent mechanical mixtures. The strip may be either mowed, uncropped, or planted to ~~some~~ a separable crop ~~other than the kind being certified.~~
2. **Specific.**

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
Objectionable <u>Prohibited</u> weeds** whose seed are inseparable (maximum)	None	None	None

* ~~Other varieties shall be considered to include plants that can be differentiated from the variety that is being inspected and~~ but shall not include variations which are variants characteristic of the variety.

** ~~Inseparable other crops shall include crop plants, the seed of which cannot be thoroughly removed by the usual methods of cleaning.~~

** The tolerance for prohibited and/or objectionable weeds in the field will be determined by the inspector.

History: Amended effective May 1, 1986.
General Authority: NDCC 4-09-03, 4-09-05, 4-09-16

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

74-03-08-04. 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)	none .01	none .01	.04 percent
Other varieties (maximum)	none .01	none .01	.02 percent
Other kinds (maximum)	none .01	none .01	.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.

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 74-03-09
SPECIFIC CROP REQUIREMENTS - MUSTARD, CRAMBE, CANOLA, AND
RAPE

Section	
74-03-09-01	Land Requirements
74-03-09-02	Field Inspection
74-03-09-03	Field Standards
74-03-09-04	Seed Standards

74-03-09-01. Land requirements. Foundation seed of mustard, crambe, canola, and rape shall be on land which did not produce mustard, crambe, canola, or rape during the previous five years. Certified seed of mustard, crambe, canola, and rape shall be on land which did not produce mustard, crambe, canola, or rape during the previous three years. Registered and certified seed of crambe must be on land which did not produce crambe during the previous three years.

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

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

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

74-03-09-02. Field inspection. Field inspection shall be made after the crop reaches the bloom stage (at least fifty percent of the plants showing one or more blossoms).

History: Amended effective May 1, 1986.

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

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

74-03-09-03. Field standards.

1. General.

a. Isolation. A field producing any class of certified seed must have the minimum isolation distance from fields of any other variety of the same kind, or from a noncertified crop of the same variety as follows:

- (1) Producing foundation seed - one thousand three hundred twenty feet [402.34 meters]. All foundation fields of mustard, canola, or rape must be isolated by three hundred thirty feet [100.58 meters] from fields of the other kind (rape from mustard or canola; mustard from rape or canola; or canola from rape or mustard).
- (2) Producing registered crambe seed - six hundred sixty feet [201.17 meters].

- (3) Producing certified seed - six hundred sixty feet [201.17 meters].

Required isolation between classes of the same variety - ten feet [3.05 meters].

- b. Unit of certification. The field ~~shall be considered~~ is the unit of certification. A portion of a field may be accepted for certification provided that the rejected portion in no way impairs the genetic purity of the portion accepted.

2. Specific field standards.

Factor	Maximum Permitted in Each Class		
	Foundation	Crambe Only	Certified
Other varieties *	1:2,000	1:2,000	1:500
Inseparable other crops **	1:2,000	1:2,000	1:500

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

~~** Inseparable crops and weed seeds are any other crops and weed seeds of similar size which are difficult to remove in the usual cleaning process.~~

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

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

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

74-03-09-04. Seed standards.

Factor	Foundation	Registered	
		Crambe Only	Certified
Pure seed (minimum)	99.00 percent	99.00 percent	99.00 percent
Inert matter (maximum)	1.00 percent	1.00 percent	1.00 percent
Prohibited noxious weed seeds +	none	none	none
Objectionable weed seeds *	1 per pound	3 per pound	5 per pound
Other weeds	5 per pound	10 per pound	15 per pound
Total other crop seeds (maximum)	0.05 percent	0.10 percent	0.25 percent
Other varieties (maximum)	0.05 percent	0.10 percent	0.25 percent
Other kinds (maximum) **	0.01 percent	0.01 percent	0.01 percent
Germination (minimum)	85.00 percent	85.00 percent	85.00 percent
Sclerotia (maximum) ***	7 per pound	7 per pound	7 per pound

- + Prohibited noxious weed seeds include the seeds of cleavers or bedstraw.
- * Objectionable weed seeds are dodder, wild mustard, wild oats, quackgrass, and hedge bindweed (wild morning glory).
- ** Shall not exceed one per pound for foundation and six per pound for certified.
- ~~*** Seven sclerotium per pound is all that is allowed in North Dakota certified seed of mustard, crambe, rape, and canola to prevent the dissemination to areas not previously infected with sclerotia (sclerotinia sclerotiorum).~~

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

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 74-03-10
SPECIFIC CROP REQUIREMENTS - SAFFLOWER

Section	
74-03-10-01	Land Requirements
74-03-10-02	Field Inspection
74-03-10-03	Field Standards
74-03-10-04	Seed Standards (Safflower)

74-03-10-01. Land requirements. Safflower will not be considered for certification if planted on land where safflower has been grown the past two years. It is recommended that the crop be planted on summer fallow or on land immediately following a separable crop.

History: Amended effective May 1, 1988.

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

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

74-03-10-02. Field inspection. Field inspection shall be made after the crop reaches the bloom stage (at least fifty percent of the plants showing one or more blossoms).

History: Amended effective May 1, 1986.

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

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

74-03-10-03. Field standards.

1. General.

- a. Isolation. Fields of safflower planted to produce the registered or certified class of seed shall be at least one thousand three hundred twenty feet [402.34 meters] from any other variety or noncertified field of safflower. When certified classes of seed of the same variety are planted in close proximity, no isolation requirement applies, except to maintain field borders.
- b. Unit of certification. The field ~~shall be considered~~ is the unit of certification. A portion of a field may be accepted for certification provided that the rejected portion in no way impairs the genetic purity of the portion accepted.
- c. Roguing. Off-type plants or identifiable mixtures shall be removed ~~prior to bloom or~~ from the field before pollination occurs.

2. Specific field standards.

Factor	Maximum Permitted in Each Class		
	Foundation	Registered	Certified
Other varieties *	none 1:5,000	1:2,000	1:1,000
Inseparable other crops **	none 1:30,000	1:10,000	1:3,000
Prohibited noxious weeds ***	none	none	none

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

~~** Inseparable crops may include wheat, barley, or oats and any other crops of similar size which are difficult to remove in the usual cleaning process.~~

~~*** Prohibited noxious weeds for the purpose of field inspection include field bindweed, leafy spurge, yellow starthistle, and Russian knapweed. The tolerance for other noxious and common weeds prohibited and /or objectionable weeds in the field will be determined by the inspector, based on the amount and separability of the seed from the crop being considered and the development of the crop and the weed.~~

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

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

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

74-03-10-04. Seed standards (safflower).

Factor	Foundation	Registered	Certified
Pure seed (minimum)	98.0 percent	98.0 percent	98.0 percent
Inert matter (maximum)	2.0 percent	2.0 percent	2.0 percent
Other crops or varieties (maximum)	1 per 2 pounds	1 per pound	3 per pound
Weed seeds (maximum)	2 per pound	5 per pound	10 per pound
Prohibited noxious weed seed *	none	none	none
Objectionable weed seeds **	none	1 per 2 pounds	2 per pound
Germination (minimum)		80 percent	80 percent
Sclerotia (maximum) **	5 per pound	5 per pound	5 per pound

* 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.

~~** Five sclerotium per pound [454 grams] is all that is allowed in North Dakota certified seed to prevent the dissemination to areas not previously infected with sclerotia (sclerotinia sclerotiorum).~~

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

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 74-03-11
SPECIFIC CROP REQUIREMENTS - SUNFLOWER

Section	
74-03-11-01	Land Requirements
74-03-11-02	Field Inspection
74-03-11-03	Field Standards
74-03-11-04	Seed Standards (Sunflower) [Repealed]
74-03-11-04.1	Precontrol Standards
74-03-11-05	Postcontrol Standards [Repealed]
74-03-11-05.1	Seed Standards (Sunflower)

74-03-11-01. Land requirements. A crop will not be eligible for certification if planted on land where sunflowers were grown during the previous year.

History: Amended effective May 1, 1986.

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

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

74-03-11-02. Field inspection. Open pollinated varieties, hybrids and inbreds.

1. **Open pollinated inspections.**
 - a. The first inspection shall be made prior to the bloom stage.
 - b. The second inspection shall be made after the crop is at least fifty percent in bloom and before it is fully matured.
2. **Hybrid and inbred production.**
 - a. At least three field inspections shall be made, one during the bud to early bloom stage and two during bloom.
 - b. In a field producing hybrid sunflower seed, at least fifty percent of the male parent plants must be in bloom and producing pollen at the time the female parent is in full bloom. The heads of female plants shedding pollen must be removed. ~~They shall be~~ and disposed of in a manner which will prevent their pollen from being disseminated.
 - c. The field shall be considered the unit for certification. Fields shall be separated from other inseparable crops by a distance adequate to prevent mechanical mixture and from other sunflowers by five thousand two hundred eighty feet [1609.34 meters].
 - d. In inbred lines and foundation single crosses only the foundation class shall be recognized. In hybrid varieties only the certified class shall be recognized.

3. **Diseases.** Standards for seed-borne diseases in sunflowers are not specified; however, the inspector may reject fields for disease if the quality of the seed will be affected.

History: Amended effective May 1, 1986; May 1, 1988; January 2, 2006.

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

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

74-03-11-03. Field standards.

Factor	Open Pollinated *	Female Seed Parent		Male Pollinating Parent
	Foundation, Registered, Certified	Foundation	Certified	
Pollen shedding female plants (Maximum)		1:1,000	4:1,000	
Off-types other than pollen shedding female plants (maximum)		1:5,000	1:5,000	1:5,000
Isolation allowances (maximum) per plants in the production field **	1:5,000	1:5,000	1:5,000	1:5,000
Total including above (maximum)	5:1,000	1:1,000	4:1,000	1:2,000
Isolation (minimum) **	5,280 feet	5,280 feet	5,280 feet	5,280 feet
Corn plants bearing seed	none	none	none	none

* To include not more than one plant per 5,000 plants of the following types: wild type branching, purple, white seeded. Other varieties ~~shall be considered to include plants that can be differentiated from the variety that is being inspected. However, other varieties ,but~~ shall not include ~~variations which are~~ variants characteristic of the variety. ~~For example, some pollen plants may be of the branching type.~~

** Must be isolated from other varieties, strains, hybrids, volunteer sunflower, noncertified crops of the same variety, and hybrid and wild Helianthus annuus species.

History: Amended effective May 1, 1986; May 1, 1988; January 2, 2006.

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

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

74-03-11-04. Seed standards (sunflower). Repealed effective May 1, 1988.

74-03-11-04.1. Precontrol standards. If field inspection shows one or more of the following, the applicant may request that seed certification be based on the

results of a precertification grow-out test approved by the North Dakota state seed department.

1. Inadequate isolation.
2. Too few male parent plants shedding pollen when female plants are receptive.
3. Excess off-types not to include wild types.

In such cases at least two thousand plants must be observed and meet the following standards before hybrid and inbred seed can be certified from fields with problems listed above.

Factor	Maximum Permitted	
	Hybrid	Inbred
Sterile plants	5.0%	
Sterile or fertile plants		5.0%
Morphological off-types	0.5%	0.5%
Wild types	0.2%	0.2%
Total (including above types)	5.0%	5.0%

For nonoil types, hybrid seed which contains not more than fifteen percent sterile plants may be certified. If it contains eighty-five percent to ninety-five percent hybrid plants, the percentage of hybrid shall be shown on the certification label.

History: Effective May 1, 1988.

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

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

74-03-11-05. Postcontrol standards. Repealed effective May 1, 1988.

74-03-11-05.1. Seed standards (sunflower).

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	98.0 percent	98.0 percent	98.0 percent
Total weed seeds (maximum)	none	none	3 per pound
Other varieties (maximum) *	1 per pound	1 per pound	5 per pound
Other crop seeds (maximum)	1 per pound	1 per pound	3 per pound
Inert matter (maximum)	2.0 percent	2.0 percent	2.0 percent
Objectionable weed seeds **	none	none	none
Prohibited noxious weed seeds	none	none	none

Germination (minimum)	85.0 percent	85.0 percent	85.0 percent
Sclerotia ***	5 per pound	5 per pound	5 per pound

* To include not more than two purple seeds or two white seeds per pound. Other varieties shall not include ~~variations which are variants~~ characteristic of the variety.

** Objectionable weed seeds shall include the following: buckhorn plantain, dodder, wild oats, nightflowering catchfly, giant foxtail, hoary alyssum, horsenettle, quackgrass, wild vetch species, wild radish, hedge bindweed (wild morning glory), and nightshade.

~~*** Five sclerotium per pound is all that is allowed in North Dakota certified seed to prevent the dissemination to areas not previously infected with sclerotia (sclerotinia sclerotiorum).~~

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

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**

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 (Soybeans, Chickpeas, Lentils, and Field Peas)

74-03-12-01. Land requirements. In soybeans, 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. In 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 the preceding year.

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

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.

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.

- Isolation.** 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 isolation.
- Specific requirements (soybeans, chickpeas, lentils).**

Factor	Foundation	Maximum Tolerance	
		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 shall not include variations which are~~ plants that can be differentiated from the variety being inspected but shall not include variants characteristic of the variety inspected.
- ** ~~Prohibited noxious weeds include only field bindweed, leafy spurge, yellow starthistle, and Russian knapweed.~~ The tolerance for prohibited and/or noxious other noxious and common weeds in the field will be determined by the inspector ~~based on the amount and separability of the seed from the crop being considered and the development of the crop and the weed.~~
- *** 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 variations which are~~ variants characteristic of the variety inspected.
- ** ~~Prohibited noxious weeds include only field bindweed, leafy spurge, and Russian knapweed.~~ The tolerance for ~~other~~ prohibited and/or objectionable noxious and common weeds in the field will be determined by the inspector ~~based on the amount and separability of the seed from the crop being considered and the stage development of the crop and the weed.~~

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

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 and field peas.

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)	none	none <u>1 per 2 pounds</u>	1 per pound
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 ~~variations which are~~ 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.

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 General Field Standards and Land Requirements

74-03-13-02 Field Inspection

74-03-13-03 Specific Field Standards (Dry Field Beans)

74-03-13-04 Seed Standards (Dry Field Beans) - Seed Count Required on Dry Field Beans

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.
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.

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

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

74-03-13-02. Field inspection. Two field inspections shall be made. The first when approximately seventy-five percent of the plants are flowering. The second when approximately seventy-five percent of the pods are showing maturity.

History: Amended effective May 1, 1986.

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 standards (dry field beans).

Factor	Maximum Tolerance		
	Foundation	Registered	Certified
Other varieties or classes	*0.03 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	.01 percent	.01 percent
Anthraxnose	none	none	none
Wilt	none	none	none
Common bean mosaic	none	0.5 percent	1.0 percent

* Other varieties shall not include variations that are variants characteristic of the variety.

** Prohibited noxious weeds include only field bindweed, leafy spurge,

yellow starthistle, and Russian knapweed. The tolerance for ~~other noxious and common weeds~~ prohibited and/or objectionable weeds will be determined by the inspector based on the amount and separability of the seed from the crop being considered and the development of the crop and the weed.

*** 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.

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.

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

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

** ~~Splits and cracks cannot exceed 1.0 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 shall be~~ 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.

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**

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

74-04-01-01. Definitions. As used in this chapter:

1. "Basic seed" means seed potatoes produced by means of meristem, stem cutting, or other techniques for increase by certified growers.
2. "Certification" is strictly limited to the act of endorsing that the potatoes have met the standards or requirements specified in this chapter for seed potatoes. Certification does not mean or constitute any warranty that the potatoes are merchantable, disease free, fit for a particular purpose or anything other than that the potato crop was inspected and that at the time of inspection did meet the standards set forth in this chapter.
3. "Damaged by soil" means that the individual potato has more than fifty percent of its surface affected by light caked soil, or more than fifteen percent of its surface badly caked with soil.
4. "Dry land type", as allowed for long varieties only, means not seriously misshapen.
5. "Except for shape", as allowed for long varieties only, means the potatoes may be seriously misshapen.
6. "Experimental cultivar" means a numbered cultivar or cultivar that has not yet been released from a breeding program or has been produced under experimental conditions.

7. "Field year" means the time which is required for the potato plant to complete the growing cycle from planting in the field until maturity.
8. "Foundation seed" means a primary source of a genetically identified variety from which increases are made.
9. "Grade" refers to the tuber quality, condition, and size factors as specified in this chapter.
10. "Inspection" means visual examination or observation of sample plants or tubers.
11. "Latent diseases" means diseases not detectable by visual inspection.
12. "Lightly caked with soil" means approximately one-eighth of an inch [3.18 millimeters] in depth.
13. "Micropropagation" means the aseptic production of potato plantlets, tubers, or sprouts utilizing meristem culture.
14. "Off type" potato plants in a field that deviate in one or more characteristics from that which is usual in the variety being grown, or different from the cultivar, variety, strain or selection stated on the grower application for certification.
15. "Plant Variety Protection Act" means a federal Act passed in 1970 which gives the owner of a novel variety the exclusive right to produce and market that variety.
16. "Prenuclear seed" means plantlet propagation source resulting from the use of aseptic propagation techniques either in the laboratory or controlled environment.
17. "Seed potatoes" means Irish potato tubers to be used for planting.
18. "Seed warehouse" means a building for seed potato storage that is separate in structure and foundation from a commercial potato storage unit.
19. "Selection" means a subgroup of a variety of potato. Commonly used terms include line selection, clonal selection or strain selection.
- 48 20. "Seriously damaged by soil" means a potato having caked soil on more than one-half of the surface or an equivalent amount of soil in excessively thick chunks on a lesser area.
- 49 21. "Tag" refers to the state seed department's official certification tag used to identify certified seed.
- 20 22. "Tolerance" means a permissible allowance for such factors as disease, grade defects, and varietal mixture.

~~21~~ 23. "Variety" means a plant group within a single botanical taxon of the lowest-known rank which, without regard to whether the conditions for plant variety protection are met, can be defined by the expression of the characteristics resulting from a given genotype or combination of genotypes, distinguished from any other plant grouping by the expression of at least one characteristic, and considered as a unit with regard to the suitability of the plant grouping for being propagated unchanged. A variety may be represented by transplants, plants, tubers, tissue culture, plantlets and other matter.

~~22~~ 24. "Virus tested" means tested for latent viruses by methods established by the state seed department.

~~22~~ 25. "Zero tolerance" means that no amount is permissible. It does not mean that the seed is absolutely free of a disease or disease-causing

agent, grade defect, or varietal mixture, but that none was found during inspection.

History: Amended effective December 1, 1981; December 1, 1987; September 1, 1997; September 1, 2002; January 1, 2005; January 2, 2006.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

74-04-01-02. General requirements and responsibilities.

1. Participation and responsibility.

- a. Participation in this seed potato program is voluntary and may be withdrawn prior to the first inspection.
- b. Responsibilities.
 - (1) The inspections, approvals, certification, and production of these rules and regulations will be done by the state seed department.
 - (2) The farming, sanitation practices, storing, and packing will be the grower's responsibility.

2. General requirements.

- a. Potatoes to be eligible for the program shall have been in a certification program and winter tested for eligibility.
- b. Fields will pass two or more inspections given by visual examination of a representative sample of the plants which method and size of sample will be determined by the state seed department.
- c. Fields passing inspection will be stored in a seed warehouse and sorted to grade at shipping time.
- d. Responsibility for the quality of work done in sorting the potatoes falls upon the grower or a thoroughly qualified agent authorized by the grower.
- e. Requirements for certification are not complete on any lot of eligible potatoes until properly tagged as described in this chapter and an official seed grade inspection certificate has been issued. Official seed grade inspections are compulsory.
- f. The official tags will be issued only on order or authorization from the grower. These tags are to be attached to the container at the time the potatoes are being graded or loaded for shipment so as to

constitute an effective seal. Tags must not be applied to stock other than that indicated on the tags. Bulk shipments, truck or railcar, when thoroughly disinfected, may be considered the container.

9. Resorting or regrading. If a lot of potatoes fails to meet certified seed grade requirement upon inspection, they are to be reconditioned to meet the requirement or the official tags must be removed.
 - h. Reconditioning while in transit. In the case of any circumstance making it essential to recondition seed in transit, permission must be obtained from the state seed department.
 - i. Latent virus testing. Serological testing for latent viruses shall be voluntary and a requirement for only virus-tested seed. Virus-tested seed meeting established tolerances may be indicated on the tag.
 - j. Upon the discretion of the state seed department, potato seed lots originating from out of state may be subjected to a laboratory test, by a seed department approved laboratory, for the detection of seedborne pathogens. Eligibility for recertification of any seed lot so tested must be based on that laboratory test. Additional documentation, including health certificates and or summer/winter field readings, may be required by the seed department prior to acceptance for recertification in this state.
 - k. Failure to comply with any of the requirements of this chapter may be cause for rejection or cancellation of the lot or the certification of any seed as seed potatoes.
3. **Violations.** The state law specifically states the use of the term "certified" or the term "registered" or any term or terms conveying a meaning substantially equivalent to the meaning of any said terms, either orally or in writing, printing, marking, or otherwise in reference to or in connection with or in advertising or characterizing or labeling seed potatoes or the containers thereof is prohibited, unless such potatoes shall have been duly inspected and certified pursuant to the provisions of the law. Any violation of this law and any person on conviction thereof, shall be fined not more than one hundred dollars and cost for first offense and not more than five hundred dollars and costs of prosecution for subsequent offenses.

History: Amended effective December 1, 1981; June 1, 1992; January 2, 2006.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

74-04-01-03. Exclusion of warranty and limitation of remedy. Seed potatoes certified in accordance with this chapter have been field and grade inspected as specified in this chapter. The state seed department and the inspection service function and serve only in an official regulatory manner and do not relieve the grower or owner of the grower's or owner's responsibility.

Neither the producer, the seller, the North Dakota seed commission, the seed

commissioner, or the commissioner's employees make any warranty of any kind, express or implied, as to the quantity or quality of the crop produced from certified seed, including merchantability, fitness for a particular purpose, or absence of disease. The only representation is that the seed potatoes were produced, graded, packed, and inspected under the seed certification rules and regulations of the North Dakota state seed department.

History: Amended effective December 1, 1981.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

74-04-01-04. Application fees and restrictions.

1. Application for field inspection must be received in the state seed department, university station, Fargo, North Dakota, not later than June fifteenth. There is a one dollar per acre [.40 hectare] cash penalty for later applications.
2. At least one-half the fees and all due accounts must accompany the applications.
3. Applications are subject to cancellation in the case of crop failure or other valid reason and the application fee, minus a cancellation fee will be returned if the request reaches the state seed department before the inspector arrives in the general locality of the field. However, in such a case, the crop must be plowed under or destroyed so as not to create a disease hazard.
4. Separate application forms are required for latent virus testing.
5. Loss by drown outs, if over twenty-five percent of the field, will be allowed after the first inspection only. No adjustments will be made thereafter.
6. Fee schedules for field inspection, grade inspection, latent virus testing, cancellation fees, and late penalties are subject to change and available at the state seed department.
7. Prompt payment of all fees will be required at all times.
8. Additional testing such as laboratory tests will be assessed at costs to the grower.

History: Amended effective December 1, 1981; December 1, 1987; June 1, 1992; September 1, 1997; September 1, 2002.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

74-04-01-05. Seed potato farm requirements.

1. All potato fields on the farm or in the farming operation must be eligible and entered for certification. A farming operation means any combination of operators in a farm partnership, and all potato fields in the farming operation whether actually grown by the applicant or under growing agreements, with ~~common~~ separate equipment and storages being the primary consideration to the seed department in determining the eligibility of applicants as seed farms.
2. All equipment and storages in the potato operation must be used only on the acreage [hectarage] entered for certification.
3. Parts of fields will not be accepted or certified without the prior approval of the commissioner.
4. Boundaries of certified seed potato fields must be clearly defined. Adequate separation from uncertified fields must be maintained and are the responsibility of the certified seed potato grower. The definition of adequate separation is at the discretion of the state seed department or its representative. Field separation of a certified field from an uncertified field must be established prior to the second inspection.
5. Seed potatoes will not be planted on ground that was cropped to potatoes the previous year, unless the ground is fumigated.
6. Strips or markers are required between seed lots and varieties.
7. Equipment and storages must be thoroughly cleaned and disinfected at least once annually.
8. All cull piles in the farming operation must be properly destroyed.
9. The adequacy of seed farms in meeting all criteria for eligibility is determined by on-site inspection by and at the discretion of seed department personnel.

History: Amended effective December 1, 1981; June 1, 1992; September 1, 1997; September 1, 2002; January 2, 2006.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

74-04-01-06. Seed eligibility.

1. North Dakota seed stocks.
 - a. Seed lots of North Dakota origin to be eligible will have been grown under the seed certification program in the previous season passing field inspection and the winter test.
 - b. Seed stocks not having a winter test may be accepted on an observational basis but only after they have been laboratory tested and only with prior approval from the state seed department. The

cost of laboratory testing will be borne by the applicant. The same field inspection fee structure will apply to this application.

2. Seed stocks from other sources. Seed lots from sources other than North Dakota will be of the foundation or approved classification and have passed a winter grow-out or laboratory test on a sample of the lot that is equal to or greater than the size of the winter test sample as outlined in this bulletin.
3. Purchase proof must accompany the application to provide sufficient evidence as to origin and quantity of seed. An approved combination of Shipping point certificates, affidavits, North American certified seed potato health certificates or sales receipts will be accepted.
4. Individual seed lots will be maintained separately at all times. If separation is not maintained and co-mingling of lots occurs, each seed lot will automatically advance to the generation and health factors of the oldest and/or lowest seed-health status of the co-mingled parts.
5. Any variety protected by patent or the Plant Variety Protection Act must have authorization from the owner.

History: Amended effective December 1, 1981; June 1, 1992; September 1, 1997; September 1, 2002; January 2, 2006.

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
 - ij. All micropropagation production must be approved by a certification agency.
 - j k. Good records must be maintained on all tests and submitted with the application for field inspection.
 - k 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.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

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

1. Each seed potato field will be visibly 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 may be present.

	First Inspection Tolerances (%)							<u>Certified Class</u> Generation
	<u>Foundation Class</u>							
	0	1	2	3	4	5	Certified -0-6	
Varietal mixture	0.1	0.2	0.3	0.5	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	0.0
Severe mosaics (PVY)	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0-0 -1.0
Leaf roll (PLRV)	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0-0 -1.0
Total serious virus	0.2	0.3	0.4	0.5	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	0.0

	Second and all Subsequent Inspections Tolerances (%)							<u>Certified class</u> Generation
	<u>Foundation Class</u>							
	0	1	2	3	4	5	Certified -0-6	
Varietal mixture	0.1	0.1	0.2	0.3	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	0.0
Severe mosaics (PVY)	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0-0 -1.0

Leaf roll (PLRV)	0.0	0.1	0.2	0.3	0.3	0.3	0.0 -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.

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~~ sample 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 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 is required to repurchase all new seed, clean, and disinfect the operation under the supervision of the state seed department before being eligible to enter any seed for certification.~~
 - d 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.

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

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

74-04-01-09. Winter Post-harvest testing program.

1. All foundation and basic seed potato fields must be randomly sampled and tested if the grower intends to plant the same seed lot or sell to growers who intend to enter the lot for certification the following year. Only seed lots with three-tenths of one percent total serious virus or less during field inspections are eligible for winter testing.
2. The results will be based on visible inspection of the plants for virus or viruslike symptoms from the sample the grower submitted. However, laboratory testing may be used on varieties that have slight or latent symptoms.
3. Other factors such as vigor, other diseases, and any factor that might impair seed quality will be considered in the ~~winter~~ post-harvest testing program.
4. Information concerning sample size and time to submit samples will be available from the state seed department.
5. Lots failing the winter test will be ineligible for planting in the certification program.
6. In the event of frost or other serious malfunctions of the winter grow-out test, eligibility of a seed lot will be based on the current field readings or a laboratory test at the discretion of the state seed department.
7. Seed lots showing excessive amounts of virus in the winter test may be disqualified for tags or final certification. The level at which to disqualify the lot will be established by the seed commissioner.

History: Effective December 1, 1981; amended effective December 1, 1987; June 1, 1992; September 1, 1997; January 2, 2006.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

74-04-01-10. Storage and packaging requirements.

1. A storage to be eligible must have been cleaned and disinfected prior to harvest. Storages not previously used for certified seed must be inspected by the state seed department.
2. Seed potatoes to be eligible for final certification tags must be stored in a warehouse containing only seed potatoes which have been field inspected. Such warehouses may contain field inspected stocks rejected for seed certification for causes other than such diseases as ring rot.
3. Equipment for handling, sorting, or grading can be used only on certified stock, but also must be cleaned and disinfected.

4. Containers.
 - a. Graded stocks must be placed in new sacks or in clean crates or bulk containers which are tagged or marked in an approved manner to indicate the lot contains certified seed potatoes.
 - b. Brands or markings must feature "North Dakota" as the production area.
 - c. No used bags may be brought into the farming operation.
 - d. It is highly recommended that all containers be disinfected for the grower's own protection.
5. Out-of-state storage. Growers, upon special application, may be permitted final certification on eligible stocks in approved nearby storages outside the state.
6. Bin inspection. Certified storages may be checked by an authorized inspector during the storage season.
7. Yield and storage reports. Before tags will be issued for a lot of potatoes, a report will be given to the state seed department stating yield of each field entered for certification and the location of the storages.
8. Transfers of seed potatoes to other parties. A lot of seed potatoes eligible for final certification may be transferred to another party along with tags provided authorization is given by the state seed department and the grower.
9. Each bin containing certified seed potatoes must be plainly labeled for certification with the grower's name and address, hundredweight [45.36 kilograms] or bushels [35.24 liters], variety, and field identification.
10. All basic and foundation seed lots and other seed lots intended for recertification must be stored in identifiable, clearly separated bins. Bins containing two or more seed lots of a variety without a divider or some other method of separation will be downgraded to the appropriate generation or disease tolerance level.

History: Effective December 1, 1981; amended effective December 1, 1987; June 1, 1992; September 1, 1997.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04

74-04-01-11. Official North Dakota seed potato grades. Final grade determination shall be made based on physical defects, size, shape, and cleanliness. Two grades, first or blue tag, and second or yellow tag, are available

for shipment outside the state. A white tag is available but restricted to shipments within the state. The potatoes will be packed in new burlap sacks or clean, disinfected containers identified by official tags attached as to variety, crop year, and grower and accompanied by an official state or federal grade certificate. United States department of agriculture revised standards, effective March 2002, for seed potatoes shall be the official guide for applying and interpreting all definitions and terms used in North Dakota seed potato grades. Grade inspection will be made on a sample basis.

1. First grade blue tag seed potatoes shall consist of unwashed potatoes of one variety which must meet the following requirements:
 - a. Shape. Fairly well-shaped except for long varieties.
 - (1) Dryland type (see definitions section 74-04-01-01).
 - (2) Except for shape (see definitions section 74-04-01-01).
 - b. Free from:
 - (1) Freezing injury.
 - (2) Blackheart.
 - (3) Soft rot and wet breakdown.
 - (4) Late blight tuber rot.
 - (5) Bacterial ring rot.
 - (6) Nematode or tuber moth injury.
 - (7) Fresh cuts or fresh broken-off second growth.
 - c. Free from serious damage caused by:
 - (1) Hollow heart.
 - (2) Vascular ring discoloration.
 - (3) Wireworm.
 - (4) Growth cracks.
 - d. Free from damage by soil and other causes (see definitions section 74-04-01-01 and classification of defects, section 6, tables I and II of section 74-04-01-11).
 - e. Size:

- (1) Minimum size, unless otherwise specified, must be one and one-half inches [38.1 millimeters] in diameter.
 - (2) Maximum size may not exceed twelve ounces [340.2 grams] for round-shaped or intermediate-shaped varieties and fourteen ounces [396.9 grams] for long varieties.
 - (3) For all varieties, size B must be from one and one-half inches [38.1 millimeters] to not more than two and one-quarter inches [57.1 millimeters] in diameter.
- f. Tolerances. In order to allow for variations incident to proper grading and handling in the foregoing grade, the following tolerances, by weight, are provided as specified:

- (1) For defects:
 - (a) Ten percent for potatoes in any lot which are seriously damaged by hollow heart.
 - (b) Ten percent for potatoes in any lot which are damaged by soil. (see definitions section 74-04-01-01).
 - (c) Five percent for potatoes in any lot which are seriously damaged by vascular ring discoloration.
 - (d) Potatoes affected by silver scurf are not grade factors.
 - (e) Not more than ten percent of the potatoes seriously damaged by wireworm.
 - (f) Eleven percent for potatoes which fail to meet the remaining requirements of grade, including therein not more than six percent for external defects and not more than five percent for internal defects; provided that included in these tolerances not more than the following percentages shall be allowed for the defects listed:

	Percent
Bacterial ring rot	0.00
Late blight tuber rot	1.00
Damage by dry-type or moist-type fusarium tuber rot	2.00
Nematode or tuber moth injury	0.00
Frozen, soft rot, or wet breakdown	0.50
Varietal mixture	0.50

- (2) For off-size:
 - (a) Undersize. Five percent for potatoes in any lot which fail to meet the required or specified minimum size.
 - (b) Oversize. Ten percent for potatoes in any lot which fail to meet the required or specified maximum size.
2. Second grade yellow tag potatoes shall consist of unwashed potatoes that meet the requirements for blue tag grade except for defects caused by hollow heart, wireworm, internal discoloration, firmness, sprouts, and sunken, flattened, or depressed areas with or without underlying flesh discolored, and are not seriously damaged by soil and for increase in maximum size, and for increased tolerance for defects listed below:

Tolerances.

- a. For defects:
 - (1) Twenty percent for potatoes seriously damaged by hollow heart.
 - (2) Firmness, sprouts, wireworm, internal discoloration, sunken, flattened, or depressed areas with or without underlying flesh discolored and growth cracks are not grade factors.
 - (3) Twenty percent for potatoes which fail to meet the remaining requirements of the grade; provided, that included in this amount not more than six percent shall be seriously damaged and included therein not more than one-half of one percent shall be allowed for potatoes which are frozen or affected by soft rot or wet breakdown.
 - b. Size. Maximum size, unless otherwise specified may not exceed fourteen ounces [396.90 grams] for round-shaped or intermediate-shaped varieties and sixteen ounces [453.60 grams] for long varieties.
3. White tag. Official white identification tags will be furnished on request for potatoes which passed field inspection requirements and are being transferred for seed purposes, within the state of North Dakota only. Such stock shall meet United States number two grade requirements, except for defects caused by firmness, sunburn, hollow heart, wireworm, and sunken, flattened, or depressed areas with or without underlying flesh discolored. Not more than two percent shall be damaged by dry-type or moist-type fusarium tuber rot. Unless otherwise specified, the maximum size shall be fourteen ounces [396.60 grams] and one and one-half inches [38.1 millimeters] minimum. State seed

department grade inspection on white tag lots is not compulsory, but may be obtained upon request.

4. Application of tolerances. Individual samples may not have more than double the tolerances specified, except that at least one defective and one off-size potato may be permitted in any sample; provided that en route or at destination, one-tenth of the samples may contain three times the tolerance permitted for potatoes which are frozen or affected by soft rot or wet breakdown; and provided, further, that the averages for the entire lot are within the tolerances specified for the grade.
5. Samples for grade and size determination. Individual samples shall consist of at least twenty pounds [9.06 kilograms]. The number of such individual samples drawn for grade and size determination will vary with the size of the lot.
6. Classification of defects.
 - a. Brown discoloration following skinning, dried stems, flattened depressed areas (showing no underlying flesh discoloration), greening, skin checks, and sunburn do not affect seed quality and may not be scored against the grade.
 - b. Table I - External defects.

Defect	DAMAGE	
	When materially detracting from the appearance of the potato	OR When removal causes a loss of more than 5 percent of the total weight of the potato
Air cracks		x
Bruises		x
Cuts and broken-off second growth (healed)	x	x
Elephant hide (scaling)	x	
Enlarged, discolored, or sunken lenticels	x	
Folded ends	x	
Second growth	x	
Shriveling	When more than moderately shriveled, spongy, or flabby.	
Sprouts	When more than 20 percent of the potatoes in any lot have any sprout more than 1 inch [25.4 millimeters] in length.	

Surface cracking	x	x
Flea beetle injury	x	x
Grub damage	x	x
Rodent and/or bird damage	x	x
Wireworm or grass damage	Any hole more than 3/4 inch [19.1 millimeters] long or when the aggregate length of all holes is more than 1 1/4 inches [31.8 millimeters] ¹ .	
Dry-type or moist-type fusarium rot		x
Rhizoctonia	x	
Scab, pitted	x	x
Scab, russet	When affecting more than 1/3 of the surface.	
Scab, all surface	When affecting more than 5 percent of the surface.	
Growth cracks	When seriously detracting from the appearance.	
Pressure bruises and sunken areas with underlying flesh discolored		When removal causes a loss of more than 10 percent of the total weight.

¹ Definitions of damage and serious damage are based on potatoes that are two and one-half inches [63.5 millimeters] in diameter or six ounces [170.10 grams] in weight. Correspondingly lesser or greater areas are permitted on smaller or larger potatoes.

C. Table II - Internal defects.

Defect	DAMAGE	
	When materially detracting from the appearance of the potato	OR When removal causes a loss of more than 5 percent of the total weight of the potato
Ingrown sprouts		x
Internal discoloration occurring interior to the vascular ring (such as, internal brown spot, mahogany browning, and heat necrosis).	When more than the equivalent of three scattered light brown spots 1/8 inch [3.2 millimeters] in diameter ¹ .	

All other internal discoloration, excluding discoloration confined to the vascular ring.

x

SERIOUS DAMAGE

Defect

When seriously detracting from the appearance of the potato

OR

When removal causes a loss of more than 10 percent of the total weight of the potato

Internal discoloration confined to the vascular ring.

x

Hollow heart or hollow heart with discoloration.

When affected area exceeds that of a circle 3/4 inch [19.1 millimeters] in diameter¹.

¹ Definitions of damage and serious damage are based on potatoes that are two and one-half inches [63.5 millimeters] in diameter or six ounces [170.10 grams] in weight. Correspondingly lesser or greater areas are permitted on smaller or larger potatoes.

7. Classification and serologically tested stocks.

- a. Foundation seed classification may be indicated on the tag provided the lot meets foundation standards.
- b. Serologically tested stocks for potato virus x, potato virus s, potato virus y, potato virus a or potato virus m may be so indicated on the tag if within the specified tolerance during the current growing season.

Blue and yellow tag shipments must be inspected and meet respective grade requirements.

History: Effective December 1, 1981; amended effective June 1, 1985; December 1, 1987; June 1, 1992; September 1, 1997; July 16, 2001; September 1, 2002; January 2, 2006.

General Authority: NDCC 4-10-03

Law Implemented: NDCC 4-10-04