



Alaska Seed Growers, Inc.

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SEED CERTIFICATION STANDARDS

FOR ALASKA

by

Alaska Seed Growers, Inc.

Revised
1985

STEPS OF CERTIFICATION

1. Join Alaska Seed Growers, Inc., request a copy of the Seed Certification Standards, and participate in the organizational meetings for maximum information.
2. Read the General Seed Certification Standards (they apply to all crops).
3. Read the Specific Standards for the crop to be produced.
4. Select a variety that has been approved for certification in Alaska.
5. Purchase Foundation seed for the production of either Registered or Certified seed or purchase Registered seed for the production of Certified seed.
6. Select clean ground which meets the certification standards in terms of cropping history, weed problems, and isolation from other fields.
7. Thoroughly clean all equipment to avoid contamination of either the seed stocks or the field.
8. Plant the seed in a timely manner using sound fertilizer and weed control practices.
9. Apply for field inspection before June 15.
10. Walk the fields at least once before inspection time and rogue out off-types, other crops, etc.
11. Try to be present when fields are inspected (it's a good opportunity to gather information).
12. Clean all seed harvesting and storage equipment (don't contaminate a good crop after it has been produced).
13. Check moisture levels in harvested seed. If the seed must be dried to prevent spoilage, dry at a low heat. High temperature drying may kill the seed.
14. Obtain a preliminary germination test to see if the seed will meet certification standards.
15. Clean the seed in a good seed cleaning plant.
16. Request an official sample to be collected for certification.
17. Properly label all containers of seed.
18. Keep good records of all seed transactions.

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GENERAL SEED CERTIFICATION STANDARDS

I. THE CERTIFYING ORGANIZATION

Alaska Seed Growers, Inc. (ASG) is the official seed certification agency in Alaska, as authorized by memorandum of agreement with the Alaska Division of Agriculture. The standards as stated in this manual represent the minimum standards which must be met by all seedstocks, with the exception of potatoes, to qualify for certification in Alaska. These standards meet or exceed all standards adopted by the Association of Official Seed Certifying Agencies (AOSCA). In the event that some certification criterion is not addressed in these standards, the standards adopted by AOSCA will serve as the minimum standards for that criterion in Alaska.

These Alaskan certified seed standards are subject to annual review by ASG. The board of directors of ASG has the authority to interpret and change, as necessary, with due notice, any provision of these certification standards.

II. PURPOSE OF CERTIFICATION

Certification is a process which identifies certain seed, plants, or their propagating parts as having been handled in such a manner as to meet high standards of: varietal purity, viability, and freedom from weeds, diseases, and physical damage.

The purposes of certification are:

- A. To encourage the production of ample supplies of high quality seed of superior varieties grown and distributed under the most careful conditions so as to assure genetic identity and purity;
- B. To make known to the public the sources of such seed supplies;
- C. To encourage the general use of high quality, certified seed;
- D. To carry on educational work for improving agronomic practices and furthering agricultural interests in the state.

* Certification standards for potatoes have been written separately and may be obtained from Alaska Seed Growers, Inc., P.O. Box 895, Palmer, Alaska.

III. APPLICATION OF GENERAL STANDARDS

These general standards are applicable to all crops except potatoes, and together with the Specific Standards for individual crops, shall constitute the minimum standards for seed certification in Alaska. The word "seed" or "seeds" as used in these standards shall be understood to include all propagating materials. This seed certification program shall cover planting stocks of varieties (hereinafter to be considered synonymous with cultivar) produced, processed, sampled, and labeled in accordance with the seed certification standards of Alaska.

IV. ELIGIBILITY REQUIREMENTS FOR CERTIFICATION OF CROP VARIETIES

Only those varieties that are accepted by ASG in accordance with the criteria established by AOSCA shall be eligible for certification in Alaska. Certification by ASG does not imply recommendation. A variety will normally be considered eligible for certification if it has received favorable action by a National Variety Review Board, the Plant Variety Protection Office, or an Official Seed Certifying Agency. For those crops where National Certified Review Boards exist, it is recommended that varieties be submitted for review to determine their merit for certification. For varieties not covered by one of the above categories or if questions regarding eligibility arise, the board of directors of ASG is the final authority. Contact Alaska Seed Growers, Inc. for assistance.

V. CERTIFIED SEED CLASSES

Four classes of seed shall be recognized in Alaskan seed certification: breeder, foundation, registered, and certified. These classes of seed shall meet the requirements included in the standards adopted by AOSCA for the respective crops. These classes are defined as follows:

1. Breeder Seed

Breeder Seed is seed or vegetative propagating material directly controlled by the originating, or in certain cases the sponsoring plant breeder, institution, or firm which supplies the source for the initial and recurring increase of foundation seed.

* In some cases certification may be as to kind, on an interim basis; for example, where varieties have not yet been developed.

2. Foundation Seed (white tag)

Foundation Seed is the progeny of Breeder or Foundation Seed Stocks so handled as to most nearly maintain specific genetic identity and purity; production must be carefully supervised and approved by ASG in cooperation with the Alaska Agricultural Experiment Station or the Alaska Plant Materials Center.

3. Registered Seed (purple tag)

Registered Seed shall be the progeny of foundation seed that is so handled as to maintain satisfactory genetic identity and purity and that has been approved and certified by ASG. This class of seed should be of a quality suitable for the production of certified seed.

4. Certified Seed (blue tag)

Certified Seed shall be the progeny of foundation seed or registered seed that is so handled as to maintain satisfactory genetic identity and that has been approved and certified by ASG. For exceptions to this, see Section VI.

VI. LIMITATION OF GENERATIONS

The number of years and/or generations through which a variety may be multiplied shall be limited to that number specified by the originating breeder or owner of the variety, and shall not exceed two generations beyond the Foundation class with the following exception:

The production of an additional generation of the Certified class may be permitted on a one-year basis when ASG declares an emergency, prior to the planting season, stating that the Foundation and Registered seed supplies are not adequate to plant the needed certified acreage of the variety. The permission of the originating or sponsoring plant breeder, institution, firm, or owner of the variety, if existent, must be obtained. The additional generation of Certified seed produced to meet the emergency need is ineligible for recertification.

VII. SUBSTANDARD STOCK SEED

Seed that fails to meet certification requirements of genetic purity is not eligible for tagging. At the discretion of the certifying agency, seed that fails to meet requirements of factors other than genetic purity may be designated substandard and tagged. The reasons for substandard

classification must be shown on the tag. Seed that could be recleaned to meet minimum seed standards cannot be tagged in this manner.

VIII. UNIT OF CERTIFICATION

A unit of certification (field) consists of a clearly defined contiguous planting, all of the same variety and of the same certification class. Two plantings separated by a fence, a permanent road, or otherwise separated by a distance of 33 feet or more are considered separate units of certification. Each unit of certification requires a separate application for certification.

IX. LAND REQUIREMENTS

The seed must be planted on clean land. All classes of certified seed must be produced on land meeting the requirements for previous crop and isolation outlined in the specific certification standards for each crop.

The land must not have been previously planted to or have grown another variety, class of seed, or crop that might volunteer and affect genetic purity. Adding manure or other contaminating amendments may constitute a basis for not meeting land requirements. The land for the production of legumes must have been free of volunteer plants of the crop kind during the year immediately prior to establishment.

Isolation -- All fields used for the production of certified seed must have at least the minimum specified isolation distances (see Specific Crop Standards) from fields of any other variety of the same specie or closely related specie unless of the same variety, generation, and certified. Fields of the same variety but of a different generation must be isolated by a minimum distance of 25 percent of that listed between varieties. This standard is to apply to all crops unless otherwise noted in the specific crop standards. Adequate distance between seed crops must be maintained to prevent mechanical mixture.

X. APPLICATIONS FOR FIELD INSPECTION AND CERTIFICATION

- A. Applications for field inspection are available at offices of the Cooperative Extension Service, or may be requested from Alaska Seed Growers, Inc., P.O. Box 895, Palmer, Alaska 99645.
- B. The term "grower (applicant)" used in this publication, refers to the individual or concern whose name appears on the application blank. This

identification must be retained throughout the certification process.

- C. The grower's (applicant's) signature on an application for seed certification is, in effect, a guarantee of the accuracy of all the information submitted on the form. In signing the Application for Seed Certification form, the grower (applicant) accepts responsibility for:
- 1) Seeing that all equipment involved with planting, harvesting or other seed handling is adequately cleaned to maintain genetic purity of the seed.
 - 2) Making certain that the seed verified as the eligible seed source on the application was the seed planted on the field described on the application.
 - 3) Maintaining the genetic purity and identity of the seed from harvest to the time it leaves the applicant's possession.
- D. ASG requires a complete verification of the source, class and quantity (pounds or bushels) of Foundation or Registered seed planted in establishing a field for the production of certified seed.
- 1) Source and class of seed may be verified by submitting, with the application form, a Foundation or Registered tag removed from the containers of seed that was planted.
 - 2) A grower planting Registered seed that he produced need not submit tags or other evidence with his application.
 - 3) When a lot of seed is downgraded from the Registered class to the Certified class for reasons other than genetic factors, the seed may retain the Registered classification when used as planting stock by the original applicant.
- E. Applications are due at the ASG office by June 15 each year (all crops). Late applications may be accepted at the discretion of ASG; however, a penalty of \$50.00 will be charged per applicant. No applications will be accepted after the 1st of July.

An application which lacks necessary information, adequate fees, or documentary evidence of eligibility of the seed planted will be returned to the applicant whose responsibility it is to see that it is returned within the specified time.

An applicant wishing to cancel applications for certification must inform the ASG office in sufficient time to notify the field inspector before he makes the inspection. In such cases, all but \$10.00 of the fee will be refunded. After the inspector has made a trip to the farm, no fees can be refunded.

XI. CERTIFICATION FEES AND CHARGES

A. Certification Fees

A certification fee will be charged consisting of \$35.00 per seed lot up to one acre regardless of crop. An acreage fee of \$1.00 per acre will be charged for each additional acre or part thereof of the same lot (not to exceed a maximum of \$200.00 per lot). In cases where special inspection services are required, additional charges may be made to cover the cost of such inspections.

B. Cost of tags and seals (plus postage if mailed):

Certification tags \$.10 each
Minimum charge on tag orders . . . \$5.00

XII. FIELD INSPECTION

1. Field Management Prior to Field Inspection

- a) The field shall be in such condition that genetic purity is maintained. Any condition that shall not permit adequate inspection to determine genetic purity shall be cause for rejection.
- b) Roguing of objectionable weeds, other crops, and off-type plants difficult to separate in cleaning should be done before inspection. Off-type plants should be carried out of the field to prevent contamination.
- c) The certification inspector may refuse to approve a field for certification due to unsatisfactory appearance due to weeds, insufficient growth, inadequate stand, disease, insect damage, and/or any condition that prevents thorough inspection or that may reflect unfavorably upon the certification program.
- d) The certification unit is the entire field. When a field is planted to one class of certified seed and a portion of that field is to be certified, that portion must be properly marked and must be

isolated by a minimum distance of 25 percent of that specified between varieties of that crop (see Specific Standards). This boundary is to be approved by the inspector as to its adequacy and may be subject to reinspection.

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

2. Inspection

An inspector will make one or more field inspections per field depending upon when the genetic purity and identity can best be determined. The inspector will attempt to contact the applicant a few days in advance of the inspection so the applicant can be present for consultation during the inspection if possible.

3. Reinspection

A single field inspection is usually adequate for Registered and Certified classes of grains and grasses. If a field is rejected and both the inspector and the applicant agree that corrective measures (such as additional roguing or proper marking of field boundaries) are feasible which would allow certification, the applicant may request a reinspection. The inspector will set a date for reinspection allowing a reasonable time for the applicant to perform the corrective measures. A reinspection fee of \$50.00 per application will be charged.

XIII. WEEDS

Every field for which certification is requested must demonstrate good management and show evidence that reasonable precaution has been taken to control contaminating crops and varieties and objectionable weeds. The Alaska Administrative Code, Chapter 34, Article 1, "Seed Regulations," identifies the weeds listed below as noxious and either prohibits or restricts the presence of the seeds of these weeds in seed lots sold or transported in Alaska. The presence of seed of any of these prohibited or restricted noxious weeds in a cleaned seed sample will disqualify that lot for certification. The presence of any noxious weed that produces seeds which are considered inseparable from the crop (see Specific Standards for individual crops) will result in the field being rejected for certification at the time of field

inspection. If other noxious weeds are present and no apparent attempt has been made to control them, the field may be rejected for certification during the field inspection.

Prohibited Noxious Weeds

Bindweed, field (*Convolvulus arvensis*)
Fieldcress, Austrian (*Rorippa austriaca*)
Galinsoga (*Galinsoga parviflora*)
Hempnettle (*Galeopsis tetrahit*)
Horsenettle (*Solanum carolinense*)
Knapweed, Russian (*Centaurea repens*)
Lettuce, blue-flowering (*Lactuca pulchella*)
Quackgrass (*Agropyron repens*)
Sowthistle, perennial (*Sonchus arvensis*)
Spurge, leafy (*Euphorbia esula*)
Thistle, Canada (*Cirsium arvense*)
Whitetops and its varieties (*Cardaria draba*,
 C. pubescens, *Lepidium latifolium*)

Restricted Noxious Weeds

Annual bluegrass (*Poa annua*)
Blue burr (*Lappula echinata*)
Mustard (*Brassica kaber, juncea*)
Oats, wild (*Avena fatua*)
Plantain, buckhorn (*Plantago lanceolata*)
Radish (*Raphanus raphanistrum*)
Toadflax, yellow (*Linaria vulgaris*)
Vetch, tufted (*Vicia cracca*)
Wild Buckwheat (*Polygonum convolvulus*)

XIV. SEED SAMPLING

It is recommended that the applicant collect an unofficial sample and check the germination of a seed lot before cleaning it. Final certification will be based on an official seed sample which will be collected on request, with due notice, by a trained agent representing the Alaska Division of Agriculture. Official samples may be collected with an automatic seed sampler, bag probe, or other approved methods. An entire seed lot must be cleaned and accessible at the time of official sampling. The number of certification tags issued and the information to be printed on the analysis tags will be determined from this official sampling. The seed sample shall be analyzed by the Alaska State Seed Lab. If requested by the applicant, the official sample will be divided and a subsample sent by the Division of Agriculture to any other approved AOSA seed lab. Any additional expenses incurred will be the responsibility of the applicant. In the event that tests have been conducted at two or more seed labs, the grower must specify in advance which lab's results will be

used on the analysis tags. Seed lots that are removed from the state before the certification process is completed are not eligible for certification in Alaska.

XV. MERCHANDISING CERTIFIED SEED

A. Bags

- 1) Each bag must be stenciled or permanently marked with an identifying lot number at the time of bagging. The lot number should use the following format: the last two digits of the growing year, followed by three letters identifying the grower, followed by two or three digits indicating which it is of that grower's sequence of lots that year. For example, 84JBS04 would be the 4th lot of Joe Bob Smith's in the growing year of 1984. Lot numbers usually reflect the sequence that the seed is cleaned and bagged.
- 2) All bagged seed must be sold in new bags. Reuse of bags is not permitted.
- 3) Foundation and registered seed must be sold in bags (Bulk handling is prohibited).

B. Tags

- 1) All classes of certified seed must have an official tag or label properly affixed (attached in a manner that prevents removal and reattachment without tampering being obvious) to each container. The name of the seed class shall be printed across the top of each label:

FOUNDATION SEED on white tag
REGISTERED SEED on purple tag
CERTIFIED SEED on blue tag

- 2) The certification tag attached to the bag serves to identify the variety, kind, and lot number of the seed contained therein. Certification tags must be obtained from ASG.
- 3) Certification tags must be attached to seed containers under the supervision of an authorized agent of the Alaska Division of Agriculture or by an authorized grower.
- 4) Unused tags must be returned to ASG. Unattached certification tags must not be handed from one applicant to another.

- 5) The seller of the seed is responsible in all cases for labeling the seed with a proper analysis tag. The seller must furnish his own analysis tags.
- 6) Alaska seed regulations prohibit the sale of seed showing a germination test date more than eighteen months old. Such seed must be retested and the new germination information must be placed on the bags.

C. Bulk sale of certified seed.

- 1) A Bulk Sale Certificate must be completed for each sale.
- 2) Bulk sale of any new crop variety (first year after release) is not permitted--such seed must be properly bagged and tagged.
- 3) The grower (applicant) may sell Certified seed in the bulk. Certified class seed is not eligible for recertification.

XVI. CARRY-OVER SEED

Seed carried over in bulk or in unlabeled bags must be declared and on file in the ASG office not later than July 1 of each year. Failure to report will disqualify the seed for certification.

XVII. BLENDING SEED LOTS

Seed lots of the same variety and class may be blended and the seed class retained. If lots of different classes are blended, the lowest class shall be applied to the resultant blend. Such blending shall only be done as authorized by ASG.

XVIII. INTERAGENCY CERTIFICATION

ASG will not certify any seed that is grown out of the state of Alaska, or any seed that is shipped out of the state before the certification process is completed. ASG will cooperate according to AOSCA guidelines with any other agency wishing to certify their varieties when grown in Alaska.

XIX. RECORD KEEPING

All growers and processors of certified classes of seed must meet the following requirements established by the Federal Seed Act:

1. Records must be maintained on all lots of seed which are or may be submitted for certification. These records must be complete and adequate and kept in such a manner that the identity of the seed is maintained, and so the seed can be traced back to its origin. Records must also indicate the final disposition of the seed. (See also Alaska Seed Regulations, revised Jan. 1984, section 34.090, "Records")
2. Records pertaining to all classes of certified seed shall be made available upon request to the seed certifying agency for inspection.
3. The identity of all certified seed or seed to be certified must be maintained at all times.
4. The seed cleaning plant and all related facilities will be maintained and operated so as to prevent mixtures and other contamination.

XX. DEFINITIONS

Definitions pertaining to individual crops are included in the Specific Standards for that crop (definitions not included may be found in the AOSCA Handbook).

- A. Field - an area of land set off from other areas by a change in tillage, a change of crop, or any barrier such as a fence, road, or berm row that completely separates the area from other fields. A unit of certification (properly isolated) is a field. (See section VIII "Unit of Certification")
- B. Off-types - plants or seed which do not conform to the description of the characteristics of the variety as supplied by the breeder or sponsoring institution or organization.
- C. Other variety - plants or seed of the same kind that can be differentiated from the variety that is being inspected, but does not include variations which are environmental or characteristic of the variety as defined by the breeder.
- D. Protected variety - one for which a breeder or sponsoring organization has filed application for protection with the U.S. Plant Variety Protection Office.
- E. Variants - seeds or plants which are distinct within a variety but occur naturally in the variety. Variants are not to be considered off-types.
- F. Variety - (cultivar) denotes an assemblage of cultivated individuals which are distinguished by any characteristics (morphological, physiological, cytological, chemical, or

others) significant for the purposes of agriculture, forestry or horticulture and which, when reproduced (sexually or asexually) or reconstituted, retain their distinguishing features.

ALFALFA CERTIFICATION STANDARDS

I. APPLICATION OF GENETIC STANDARDS

The General Certification Standards, pages 1 through 12, are basic and together with the following Specific Standards constitute the criteria for certification of alfalfa.

II. APPROVED VARIETY

Denali alfalfa (*Medicago media*)

III. LAND REQUIREMENTS

- A. A crop of the same kind must not have been grown or planted on the land for 4, 3, and 1 year prior to stand establishment for producing the Foundation, Registered and Certified classes, respectively.
- B. During the year immediately prior to the seeding of any class of seed, the land shall be free from volunteer plants. No manure or other contaminating amendments shall be applied the year previous to seeding or during the established and productive life of the stand.

IV. FIELD STANDARDS

A. General

1. Isolation

- a. Minimum distances from a different variety, or fields of the same variety that do not meet the varietal purity requirements for certification, shall be 600, 300, and 165 feet for fields over 5 acres; and 900, 450, and 165 feet for fields 5 acres or less that produce the Foundation, Registered, and Certified seed classes, respectively.

In those cases where a portion of a field meets isolation requirements, a clear line of demarcation shall be established between the Certified and Non-certified portion of the field.

- b. Isolation distance for certified seed production of varieties adapted to the northern and central regions shall be 500 feet from varieties adapted to the southern region of adaptation.

c. Isolation distance between classes of the same variety may be reduced to 10 feet, regardless of class or size of field.

2. Volunteer plants

Volunteer plants may be cause for rejection or reclassification of a seed field.

B. Specific

	Maximum permitted		
	Foundation	Registered	Certified
Other Varieties (Ratio of plants)	1:1000	1:400	1:100
Sweet Clover (Plants per acre)	None	10	160

V. SEED STANDARDS

Factor	Standards for each class		
	Foundation	Registered	Certified
Pure Seed (minimum)	99.00%	99.00%	99.00%
Inert Matter (maximum).	1.00%	1.00%	1.00%
Weed Seeds (maximum).	0.10%	0.20%	0.50%
* Objectionable or Noxious			
Weed Seeds (maximum).	None	None	None
Total Other Crop Seeds (maximum).	0.20%	0.35%	1.00%
Other Varieties (maximum)	0.10%	0.25%	1.00%
**Other Kinds (maximum)	0.10%	0.10%	0.50%
Germination & Hard Seed (minimum)	80.00%	80.00%	80.00%

* Objectionable and/or Noxious Weed Seeds shall include those species listed as Prohibited or Restricted Noxious Weeds, page 8.

** Sweet clover seed shall not exceed 9 per lb. for Foundation seed; 90 per lb. for Registered seed; and 180 per lb. for Certified seed.

CLOVER CERTIFICATION STANDARDS

I. APPLICATION OF GENETIC CERTIFICATION STANDARDS

The General Certification Standards, pages 1 through 12, are basic and together with the following Specific Standards constitute the criteria for certification of clover.

II. APPROVED VARIETY

Alaskland red clover (*Trifolium pratense* L.)

III. LAND REQUIREMENTS

- A. A crop of the same kind must not have been grown or planted on the land for 5, 3, and 2 years prior to stand establishment for producing the Foundation, Registered and Certified classes respectively.
- B. The land must be free of volunteer plants during the year immediately prior to establishment.
- C. No manure or other contaminating material shall be applied the year previous to seeding or during the establishment and productive life of the stand.

IV. FIELD STANDARDS

a. General

1. Isolation--minimum distances from a different variety or a noncertified crop of the same kind shall be:

Crop	Field of less than 5 acres	Field of more than 5 acres
	<u>Feet</u> *	<u>Feet</u> *
Foundation	900	600
Registered	450	300
Certified	165	165

* The isolation distance between classes of the same variety may be reduced to 10 feet, regardless of class or size of field.

2. Volunteer plants may be cause for rejection or reclassification of a seed field.

3. Length of Stand

A stand of Red Clover will not be eligible to produce any class of certified seed after two seed crops. These seed crops must be produced in two consecutive years.

B. Specific

	Maximum Permitted - Ratio of Plants		
	Foundation	Registered	Certified
Other varieties	1:1000	1:400	1:100

V. SEED STANDARDS

	Per Cent Pure Seed	Per Cent Inert	Per Cent [*] Weed Seed			Per Cent Germination
	F-R-C	F-R-C	Fdn	Reg	Cert	F-R-C
Red clover	99.00%	1.00%	0.15%	0.15%	0.25%	85.00%

* Objectionable weeds such as Plantago spp. and Rumex spp. shall not exceed 9 per pound for the Foundation class, 45 per pound for the Registered class and 90 per pound for the Certified class.

Clover seed shall not contain any seeds of the Prohibited and Restricted noxious weeds (page 8) nor shall it contain any of the following species:

Corn Spurrey (Spergula arvensis)
Dodder (Cuscuta spp.)

	Foundation	Registered	Certified
Total other crop seeds (maximum)	0.20%	0.50%	1.00%
Other varieties (maximum)	0.10%	0.25%	1.00%
*Other kinds (maximum)	0.10%	0.25%	0.50%

* Sweet clover, for other than Sweet Clover lots, shall not exceed 9 per pound for Foundation seed, 90 per pound for Registered seed and 180 per pound for Certified seed.

GRASS SEED CERTIFICATION STANDARDS

I. APPLICATION OF GENERAL CERTIFICATION STANDARDS

The General Certification Standards, pages 1 through 12, are basic and together with the following Specific Standards constitute the criteria for certification of grass seed.

II. APPROVED CULTIVARS

The following grass cultivars have been approved for certification in Alaska as specified:

Type	Cultivar	Limit* Of Seed Years	Certification Class		
			Fdn	Reg	Cert
Bluegrass, Kentucky (<i>Poa pratensis</i> L.)	Nugget	No Limit	X	X	X
Bluegrass, Glaucous (<i>Poa glauca</i> M. Vahl)	Tundra	4	X	X	X
Bromegrass, Smooth (<i>Bromus pumpellianus</i> X <i>inermis</i>)	Polar	3	X	No Reg class	X
Fescue, Red (<i>Festuca rubra</i> L.)	Arctared	3	X	No Reg class	X
Hairgrass, Bering (<i>Deschampsia beringensis</i> Hult.)	Norcoast	4	X	No Reg class	X
Polargrass (<i>Arctagrostis latifolia</i> [R. Br.] Griseb.)	Alyeska	4	X	X	X
Reedgrass, Bluejoint (<i>Calamagrostis canadensis</i> [Michx.] Beauv.)	Sourdough	4	X	X	X

* The production of certified seed (all classes) shall be limited to the number of years specified. This limit does not include the seedling year but does include all subsequent years regardless of whether seed was harvested. Once a field passes the seedling year inspection, it remains eligible for certified seed production (subject to annual inspections) for any or all of the remaining years within this time limit.

III. LAND REQUIREMENTS

- A. The production of foundation seed shall be on land that has not grown or been seeded to the same species during the previous five crop years.
- B. The production of the registered or certified classes shall be on land that has not grown or been seeded to the same species during the previous crop year, except a certified class of the same variety equal or superior to that of the crop seeded.

IV. FIELD STANDARDS

A. General

Isolation

1. A strip at least 5 feet in width and which is mowed, uncropped, or planted to some crop other than the kind in question shall constitute a field boundary.
2. The following isolation requirements shall be met when any other strain or strains of the species is in bloom at the same time except that the minimum isolation for all seed classes of tetraploids shall be 15 feet from diploids of the same species.

	* Border to be Removed - Feet	** Minimum Isolation - Feet		
		Fdn	Reg	Cert
Cross-pollinated	0	900	300	165
	9	600	225	100
	15	450	150	75
Strains at least 80% Apomictic & highly self-fertile species	0	60	30	15
	9	30	15	15

* Border removal applies only to fields of 5 acres or more. Where a border is to be removed such removal shall not occur until pollination of the crop to be certified is completed.

** When different classes of seed of the same variety are being grown on the same or adjacent fields, the isolation requirements may be reduced to 25% of that shown in the above table.

B. Field Inspection

All grass fields must be inspected during the seedling year regardless of whether seed is to be harvested that year. Grass fields which do not pass a seedling year inspection will not be eligible for certification in subsequent years.

C. Specific tolerances for contamination in the field.

	Maximum Permitted (Plants/1000 square feet)		
	Foundation	Registered	Certified
Other varieties (for example other bluegrasses in Nugget)	1	10	20
* Objectionable weeds whose seed are inseparable (maximum)	None	None	None

* Quackgrass in brome grass fields, and annual bluegrass in bluegrass fields.

V. CLEANED SEED STANDARDS

A. General

Factor	Maximum permitted in each class		
	Foundation	Registered	Certified
*Prohibited weeds (maximum) . . .	None	None	None
Total other crop seed (max.) . . .	0.20%	1.00%	2.00%
Other varieties (maximum) . . .	0.10%	1.00%	2.00%
Other kinds (maximum)	0.10%	0.10%	0.25%
(In grass for forage use)			
(maximum)	0.10%	0.10%	0.50%

* Prohibited weeds are those listed as either Prohibited or Restricted Noxious Weeds, page 8.

B. Specific

Cultivar	Percent inert matter (maximum)		Percent weed seed (maximum)		Percent pure seed (minimum)		Percent Germination (minimum)
	Fdn		Fdn		Fdn		Fdn
	Reg	Crt	Reg	Crt	Reg	Crt	Reg & Crt
Nugget Kentucky bluegrass	5.0	5.0	0.1	0.3	95.0	95.0	80.0
Tundra Glaucous bluegrass	5.0	5.0	0.1	0.3	95.0	95.0	80.0
Polar Smooth bromegrass	10.0	10.0	0.15	0.3	90.0	90.0	80.0
Arctared Red fescue	2.0	2.0	0.1	0.3	98.0	98.0	80.0
Norcoast Bering hairgrass	5.0	5.0	1.0	3.0	95.0	95.0	75.0
Alyeska Polargrass	5.0	5.0	0.15	0.3	95.0	95.0	75.0
Sourdough Bluejoint reedgrass	5.0	5.0	0.15	0.3	95.0	95.0	75.0

SMALL GRAIN CERTIFICATION STANDARDS
(BARLEY, OATS, AND WHEAT)

I. APPLICATION OF GENERAL CERTIFICATION STANDARDS

The General Certification Standards, pages 1 through 12, are basic and together with the following Specific Standards constitute the criteria for certification of small grains.

II. LAND REQUIREMENTS

A small grain 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. A crop will not be eligible for certification if planted on land on which the same kind of crop was grown the previous year unless the previous crop was grown from certified seed of the same variety.

III. FIELD STANDARDS

A. General

1. Minimum isolation distance is 10 feet for all classes.
2. The following cultivars have been approved for certification in Alaska:

<u>CROP</u>	<u>VARIETY</u>	<u>CROP</u>	<u>VARIETY</u>
BARLEY	Data1	OATS	Ceal
(Hordeum	Lidal	(Avena	Tor1
vulgare L.)	Otal	sativa L.)	
	Thual		
	Weal	WHEAT	Gasser
		(Triticum	Ing1
		aestivum L.)	Nog1

B. Specific tolerances for contamination in the field

	Fdn	Reg	Cert
Other varieties (maximum)	1:3000	1:2000	1:1000
*Inseparable other crops (maximum) . .	1:10000	1:10000	1:2000
**Objectionable weeds whose seed	None	None	None
are inseparable (maximum)			

*Inseparable other crops include crop plants, the seed of which cannot be thoroughly removed by the usual methods of cleaning. Rye in wheat and barley in oats are well known examples.

**Wild oats in oat and barley fields, and quackgrass in oats.