

LCB File No. T029-03

**PROPOSED TEMPORARY REGULATION OF THE
STATE DEPARTMENT OF AGRICULTURE**

NOTICE OF WORKSHOP

A workshop will be held on proposed of amendments NAC 587 pertaining to the fee schedule for seed testing and seed certification and other minor changes in the seed certification procedures.

DATE: Friday, May 16, 2003

TIME: 9:00 a.m.

Place: Nevada Department of Agriculture
350 Capitol Hill Avenue
Reno, Nevada 89502

For clarification on the proposed amendments contact Robert Gronowski at (775) 688-1182, ext. 239.

Addresses at which the text of the proposed regulations may be inspected and copied:

The Nevada State Library in Carson City, and all county libraries. The Department of Agriculture offices in Reno, Sparks, Elko or Winnemucca during the hours of 8:00 a.m. to 5:00 p.m., Monday to Friday.

**PROPOSED TEMPORARY REGULATION OF THE
STATE DEPARTMENT OF AGRICULTURE**

NOTICE OF INTENT TO ADOPT REGULATIONS

Proposed temporary amendment of NAC 587 pertaining to fee schedule for seed testing and seed certification and other minor changes in the seed certification procedures.

Authority: NRS 587.

Need for and purpose of the proposed regulation or amendment

The fee schedules have not been changed for several years and the proposed increases more accurately reflect the actual cost to the department for these services. Some procedural changes are proposed within the seed certification standards to bring them up to date with changes in the national standards for seed certification and with standards of neighboring states.

Economic effect of the proposed regulation on the businesses which it is to regulate

a. Adverse effects:

There will be an increase in the cost to individuals and companies participating in the seed certification program.

b. Beneficial effects:

The additional fees for seed certification will allow for the certification program to meet the increasing demand for this service. Certification of seed varieties provides additional value to the grower for seed produced.

c. Immediate and long term effects:

The immediate and long term effects of these proposed changes are similar.

Economic effect of these proposed amendments on the public.

a. Adverse effects:

There are no adverse effects on the public.

b. Beneficial effects:

Local economies could benefit from the increased value of commodities produced.

c. Immediate and long term economic effects:

The immediate and long term effects should be about the same.

Economic cost to the agency for enforcement of the proposed amendments

The proposed increase in fees should nearly equal any additional costs to the agency.

Description of any regulations of other state, local or federal governmental agencies which the proposed amendments overlap or duplicate

There are no other governmental agencies involved in these programs.

Fees

Existing fees will be increased to reflect current costs to maintain the seed certification program.

The date, time, place, and manner in which interested parties may present their views at public hearing on the proposed amendments:

DATE: Friday, May 16, 2003
TIME: 9:30 AM
PLACE: Nevada Department of Agriculture
350 Capitol Hill Avenue
Reno, Nevada 89502

Manner: Written comments and testimony may be submitted prior to the hearing date and will be included with any testimony presented at the hearing. All variable and written testimony will be in the record of the hearing.

Addresses at which the text of the proposed regulations may be inspected and copied:

The State Library, 100 Stewart Street, Carson City, Nevada, and all Nevada county libraries. Copies may also be at the Department of Agriculture office in Reno, Sparks, Elko, Las Vegas or Winnemucca during the hours of 8:00 a.m. until 5:00 p.m. Monday through Friday. This notice and text of the proposed regulation are also available in the Legislative Counsel Bureau pursuant to NRS 233B.0653 and on the internet at <http://www.agri.state.nv.us>. Copies of this notice and the proposed regulation will also be mailed to members of the public upon request. A reasonable fee may be charged for copies if it is deemed necessary.

This notice of hearing has been posted at the following locations:

Nevada Department of Agriculture 350 Capitol Hill Avenue Reno, NV 89502	Nevada Department of Agriculture 2150 Frazer Street Sparks, NV 89431
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Nevada Department of Agriculture	Nevada Department of Agriculture
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1550 South Wells Avenue
Reno, NV 89502

1200 E. Winnemucca Blvd.
Winnemucca, NV 89445

Nevada Department of Agriculture
Eyer H. Boies Building
1351 Elm Street
Elko, NV 89801

Nevada Department of Agriculture
2300 McLeod
Las Vegas, NV 89104

NOTE: We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the meeting. If special arrangements for the meeting are necessary, please call Robert Gronowski at the Nevada Department of Agriculture, 775-688-1180, as soon as possible.

NRS233B.064 Permanent regulations not to be adopted or revised by the Legislative Counsel; agency's reasons for adoption.

Upon adoption of any regulation, the agency, if requested to do so by an interested person before adoption, or within 30 days thereafter, shall issue a concise statement of the principal reasons for and against adoption, and incorporated therein its reasons for overruling the consideration urged against its adoption.

**PROPOSED TEMPORARY REGULATION OF THE
STATE DEPARTMENT OF AGRICULTURE**

STANDARDS FOR CERTIFICATION OF SEEDS GENERALLY

NAC 587.222 Definitions. As used in NAC 587.222 to 587.810, inclusive, unless the context otherwise requires, the words and terms defined in NAC 587.224 to 587.236, inclusive, have the meanings ascribed to them in those sections.

NAC 587.224 “Breeder seed” defined. “Breeder seed” means seed which is:

1. Directly controlled by the plant breeder or person who originated or sponsored the seed; and
2. The source for the production of seed of the other classes of certified seed.

NAC 587.226 “Certified seed” defined. “Certified seed” means the progeny of breeder, foundation or registered seed, except as otherwise provided in NAC 587.240, which has been handled to maintain satisfactory genetic purity and identity and has been approved by the department.

NAC 587.2265 “Conditioning” defined. “Conditioning” means the mechanical handling of seed from harvest until marketing.

NAC 587.228 “Foundation seed” defined. “Foundation seed” means seed which is:

1. The progeny of breeder or foundation seed produced under control of the person who originated or sponsored the seed; and
2. A class of certified seed that is produced under procedures established by the department for the purpose of maintaining genetic purity and identity.

NAC 587.230 “Interagency certification” defined. “Interagency certification” means the participation of two or more member agencies of the Association of Official Seed Certifying Agencies in performing the services required to certify the same lot of seed.

NAC 587.231 “None” or “zero” defined. “None” or “zero” means none found during the normal inspection or testing procedure.

NAC 587.232 “Off-type” defined. “Off-type” means any seed or plant that is not a part of the variety because it deviates in one or more characteristics from the variety as described. The term includes:

1. A seed or plant of another variety;
2. A seed or plant not a variety;
3. A seed or plant resulting from cross-pollination by another kind or variety;
4. A seed or plant resulting from uncontrolled self-pollination during production of hybrid seed;

or

5. Segregates from any of the seeds or plants listed above.

NAC 587.2335 “Plant breeder” defined. “Plant breeder” means a person actively engaged in the breeding and maintenance of varieties of plants.

NAC 587.234 “Registered seed” defined. “Registered seed” means the progeny of breeder or foundation seed which has been handled to maintain satisfactory genetic purity and identity and has been approved by the department.

NAC 587.235 “Variant” defined. “Variant” means a seed or plant, other than an off-type, that is:

1. Distinct within the variety and occurs naturally in the variety;
2. Stable and predictable with a degree of reliability comparable to other varieties of the same kind within recognized tolerances if the variety is reproduced or reconstituted; and
3. A part of the variety as originally released.

NAC 587.236 “Variety” defined. “Variety” means a subdivision of a kind which is distinct, uniform and stable. As used in this section:

1. “Distinct” means that the variety can be differentiated by one or more identifiable morphological, physiological or other characteristics from all other known varieties.
2. “Uniform” means that variations in essential and distinctive characteristics may be described.
3. “Stable” means that the variety remains unchanged to a reasonable degree of reliability in its essential and distinctive characteristics and its uniformity if reproduced or reconstituted as required by the different categories of varieties.

NAC 587.237 Adoption of standards by reference. (NRS 587.077, 587.083) In addition to the general standards for the production of certified seed in this state set forth in NAC 587.222 to 587.274, inclusive, the director hereby adopts by reference the requirements and procedures for the certification of seed set forth in the *Certification Handbook of the Association of Official Seed Certifying Agencies* as it existed on October 1, 1999, and any subsequent edition issued by the Association of Official Seed Certifying Agencies. Each new edition shall be deemed approved by the director unless the edition is disapproved by the director within 60 days after the date of publication. The director will review each edition issued after the edition in existence on October 1, 1999, to ensure its suitability for Nevada. The most current edition that has been approved by the director will be available from the department at 350 Capitol Hill Avenue, Reno, Nevada 89502, for the price of \$40 per copy.

NAC 587.2375 Noxious weed seeds. (NRS 587.077, 587.083) For the purposes of NAC 587.222 to 587.339, inclusive, the following plant seeds and any propagating parts thereof are noxious weed seeds:

Camelthorn (*Alhagi maurorum*)
Fieldcress, Austrian (*Rorippa austriaca*)
Goatgrass, barb (*Aegilops triuncialis*)
Goatgrass, jointed (*Aegilops cylindrica*)
Halogeton (*Halogeton glomeratus*)
Horsenettle, Carolina (*Solanum carolinense*)
Klamath weed (*Hypericum perforatum*)
Knapweed, Russian (*Acroptilon repens*)
Medusahead (*Taeniatherum caput-medusae*) subsp. *caput-medusae*
Peaweed, Austrian (*Sphaerophysa salsula*)
Quackgrass (*Elytrigia repens*)
Skeletonweed, rush (*Chondrilla juncea*)
Sorghum species, perennials, including Johnson grass (*Sorghum halepense*), *Sorghum almum*
and perennial sweet sudangrass
Sowthistle, perennial (*Sonchus arvensis*)
Spurge, leafy (*Euphorbia esula*)
Starthistle, Iberian (*Centaurea iberica*)
Starthistle, purple (*Centaurea calcitrapa*)
Starthistle, yellow (*Centaurea solstitialis*)
Thistle, Canada (*Cirsium arvense*)
Toadflax, Dalmatian (*Linaria dalmatica*)

Whitetop or Hoarycross (*Cardaria chalepensis*, *C. draba*, *C. pubescens*)

NAC 587.238 Eligibility of varieties for certification.

1. A variety is eligible for certification by the department only if it has been approved as meriting certification by at least one certifying agency or by an appropriate national variety review board.
2. Before a variety will be considered for certification, the originator, developer, owner or agent must request certification and provide the following information:
 - (a) The name of the variety, which must be the established name if the variety has been previously marketed.
 - (b) A statement of the variety's origin and the breeding procedure used in its development.
 - (c) A detailed description of the morphological, physiological and other important characteristics of plants and seed, including variants, that distinguish it from other varieties.
 - (d) Evidence of performance, including comparative yield data, insect and disease resistance and other factors supporting the identity of the variety.
 - (e) A statement on the plans and procedures for the maintenance of classes of stock seed, including the number of generations through which the variety may be multiplied.
 - (f) A statement delineating the geographic area of adaptation of the variety.
 - (g) A description of the manner in which the variety is constituted if the particular cycle of reproduction or multiplication is specified.
 - (h) Any additional restriction on the variety specified by the breeder with respect to geographic area of seed production, age of stand and other factors affecting genetic purity.
 - (i) A sample of seed representative of the variety as marketed. The size of the sample is that required for a submitted sample in the current issue of the Rules for Testing Seeds published by the Association of Official Seed Analysts and available at cost from the department.

NAC 587.239 Classes of certified seed. The following classes of certified seed are recognized in the certification of seed: breeder, foundation, registered and certified. These classes of seed must meet the standards of the department for the respective crops.

NAC 587.240 Limitation on generations; exceptions. The number of generations through which a variety may be multiplied must be limited to that specified by the originating breeder or owner of a variety, but may not exceed two generations beyond foundation seed, with the following exceptions:

1. Recertification of the certified class may be permitted for older varieties of crops if foundation seed is not being maintained.
2. The production of an additional generation of the certified class may only be permitted on a 1-year basis when an emergency is declared by the certifying agency, stating that the supply of foundation and registered seed is not adequate to plant the needed certified acreage of the variety. The permission of the originating or sponsoring breeder or owner of the variety, if existent, must be obtained. The additional generation of certified seed to meet the emergency need is ineligible for recertification.

NAC 587.242 Evidence required of class and source of seed. The department must be supplied with satisfactory evidence of the class and source of seed used to plant each crop being considered for certification. A certification tag from each lot of seed planted must accompany the application for certification. If no tags are available, a sales record or other documentation must be provided that identifies the source of seed.

NAC 587.243 Requirements for land. The following requirements for land must be met in addition to those specified in the standards for individual crops:

1. The unit of certification must be a clearly defined area of land which may be divided subject to regulations for specific crops.

2. A field history must be provided to the department which states the crops planted in previous years as required by the standards for each crop.

3. The department may approve a modification of land history if a cultural practice is proven successful. As used in this subsection, "cultural practice" includes mechanical means for preparation of a seed bed, such as deep plowing, and chemical means, such as the use of fumigants or other materials. The materials and method that are used must be reported to the department. The method used must be approved by the department and adequate to maintain varietal purity. To aid in distinguishing between volunteers and the crop seeded, the seed must be planted in distinct rows but the spacing of the rows may vary.

4. The time interval for land history must not be less than the requirement stated in the Federal Seed Act, 7 C.F.R. §§ 201 et seq., for the specified crop and appropriate certified generation. A copy of the Federal Seed Act may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at a cost of \$18.

5. The department may approve reseeding of a field but will not allow reseeding after a field has produced a seed crop.

6. Manure or other contaminating amendments must not be applied the year before seeding or during the established productive life of the stand.

NAC 587.244 Field inspection; grounds for rejection of seed crop. One or more field inspections will be made each time a seed crop of any certified class is to be harvested and when genetic purity and identity, or any other factor affecting seed certification, can best be determined. The department may reject a seed crop if any condition, such as excessive weediness, poor stand or disease, prevents adequate inspection of a field.

NAC 587.247 Inspections and testing after harvest; use of lot numbers or certified field numbers.

1. Harvested lots of seed from inspected fields may be inspected at any time by the department. Evidence that any lot of seed has not been protected from contamination which affects genetic purity, or is not properly identified, is cause for rejection of certification.

2. Lot numbers or certified field numbers must be:

(a) Placed on each container or bag of seed; and

(b) Visible during the process of conditioning.

3. A representative sample of each lot of seed must be taken before final certification to determine whether the seed meets the standards for purity, germination or other specific requirement for certification. All samples must be taken and tested in accordance with the current edition of the Rules for Testing Seeds published by the Association of Official Seed Analysts and available at cost from the department.

4. All seed or plant samples taken for determination of certification eligibility must be tested by the department or in a laboratory approved by the department.

NAC 587.248 Blending of seed lots. Seed lots of the same variety and seed variety and seed class may be blended and the seed class retained. If lots of different classes are blended, the lowest class must be applied to the resultant blend. Such blending must be authorized by the department.

NAC 587.250 Labeling and sealing: Requirements. (NRS 587.077, 587.083)

1. Except as otherwise provided in this subsection, seed of all certified classes, when offered for sale in bags or other containers, must have an official certification label, properly affixed to each container, clearly identifying the certifying agency, kind, variety, lot number and class of seed. In the case of seed sold in bulk, the invoice must include the same information as required for the label on seed sold in containers. Official certification labels on seed mixtures and seed in containers of quantities of 5 pounds or less are not required to bear the name of the kind and variety of each component if the name of the kind and variety is indicated elsewhere on the container.

2. The official certification label may be printed directly on the container if accounting for the use of such containers is maintained by the department.

3. Requirements for labeling for certification and sealing depend upon the crop and methods of handling, but in all cases labels must be attached to containers in a manner that prevents removal and reattachment.

NAC 587.251 Labeling: Compliance with national and state law. (NRS 587.077, 587.083)

The seller is responsible for compliance with the requirements for labeling seed regarding the analysis of the seed pursuant to the law of the country, state or province into which the seed is shipped or sold.

NAC 587.252 Methods and standards of interagency certification. (NRS 587.077, 587.083)

1. The methods and standards employed in each step of interagency certification are those used when certification is completed by a single agency with the exception that seed for which final certification is completed in Nevada must meet the minimum requirements for the crop and variety as specified by the Association of Official Seed Certifying Agencies.

2. To be recognized for interagency certification, seed must be received in containers carrying official certification labels or evidence of its eligibility from another certifying agency, including the following information:

- (a) Variety and kind;
- (b) Amount of seed in pounds or bushels;
- (c) Class of certified seed; and
- (d) Inspection or lot number traceable to the previous certifying agency's records.

3. In addition to complying with NAC 587.250, each label used in interagency certification must be serially numbered, or carry the certification identity number and clearly identify the certifying agencies involved and the variety, kind and class of seed except vegetable seed in containers of quantities of 5 pounds or less and lawn and turf seed mixtures. Labels for such vegetable seed and lawn and turf seed mixtures are not required to include the name of the kind and variety if the name of the kind and variety and the certifying agencies involved are clearly indicated elsewhere on the containers.

4. If a container of certified seed is opened and relabeled, all procedures must be conducted with the approval of the certifying agencies involved.

NAC 587.254 Certification: Application; annual registration of perennial crops; fees. (NRS 587.077, 587.083)

1. Application for certification must be made on ~~an~~ forms obtained from *or approved by* the department. *The source identified class requires that both a pre-collection site application and a site collection application be submitted.*

2. To maintain certification, a perennial crop must be registered each year, including the seedling year, whether or not a seed crop is harvested during that year.

3. Applications must be accompanied by the applicable acreage *and site application* fees set forth in subsection 4 and, except as otherwise provided in subsection 4, are due on the following dates:

- (a) Alfalfa, grass, clover and rapeseed, *woody plants and forbs, other miscellaneous crops*, April 1, or, if the crop is planted after April 1, within 30 days after planting.
- (b) Small grain and beans, May 1, or, if the crop is planted after May 1, within 30 days after planting.
- (c) Seed fields or orchards of the selected, tested or source identified class, ~~within~~ *at least* 30 days before planting.
- (d) Natural stands of the selected, tested or source identified class, ~~within~~ *at least* 15 days before the first harvest.

(e) Late applications will be accepted at the discretion of the department.

4. The department shall charge the following fees:

- (a) For field crops:

Application	Acreage Per Acre	Production Clean Seed
Alfalfa	[\$2.50] \$4.00	\$.15/cwt
Beans	[3.50] 5.00	.15/cwt
Clover	[2.50] 4.00	.15/cwt
Grass	[2.50] 4.00	.15/cwt
Rapeseed	[2.50] 4.00	.15/cwt
Small grains	[2.50] 4.00	.10/cwt
<i>Woody plants & forbs</i>	4.00	.15/cwt
<i>Other miscellaneous crops</i>	4.00	.15/cwt

(b) For pre-variety germplasm of the:

(1) Tested Class:

(I) Seed fields or orchards, ~~[\$2]~~ \$4 per acre plus \$.10 per tag if tags are requested; and

(II) Natural stands, ~~[\$30]~~ \$50 per site *application* plus \$.10 per tag if tags are requested;

(2) Selected Class:

(I) Seed fields or orchards, ~~[\$2]~~ \$4 per acre plus \$.10 per tag if tags are requested; and

(II) Natural stands, ~~[\$30]~~ \$50 per site *application* plus \$.10 per tag if tags are requested;

and

(3) Source Identified Class, \$10 per pre-collection site *application*, ~~[\$30]~~ \$50 per site *application* plus \$.10 per ~~[tag]~~ pound of clean seed if tags are requested.

The department shall charge an acreage fee of at least ~~[\$10]~~ \$25 per field.

5. The department may charge an additional fee of \$50 per field if a reinspection is necessary to determine certification eligibility.

~~[5.]~~ 6. The department will bill production fees after the seed is cleaned and only if the lot meets certification standards. *For seed conditioned out-of-state:*

(a) No production fees will be charged for seed conditioned and tagged out-of-state through interagency certification.

(b) Production fees will be charged for seed conditioned out-of-state for which tags are requested from the department.

~~[6.]~~ 7. The department will collect acreage fees on all perennial crops in the year of seeding and in each calendar year thereafter.

~~[7.]~~ 8. The department shall refund the acreage fee ~~[-]~~

~~[(a) For all crops,]~~ if the application is withdrawn in writing before a field inspection.

~~[(b) For a perennial crop for any year, except the seedling year, if the department is notified that the crop is not intended to produce seed. The department must be notified in writing before the field is inspected.]~~

~~[8.]~~ 9. As used in this section, “pre-variety germplasm” has the meaning ascribed to it in NAC 587.3396.

NAC 587.256 Conditioners: Responsibilities; duration of approval. (NRS 587.077, 587.083)

1. Conditioners requiring certification services must apply to the department.

2. To condition seed eligible for certification, a conditioner must meet the following requirements:

(a) Facilities must be available to perform the conditioning without introducing admixtures;

(b) Identity of the seed must be maintained at all times;

(c) Records of all operations relating to certification must be complete and adequate to account for all incoming seed and final disposition of seed;

(d) Conditioners must permit inspection by the department of all records of the kind of seed certified, including both certified and noncertified seed; and

(e) Conditioners must designate a person who will be responsible to the department for performing such duties as are required.

3. Approval of conditioners is on an annual basis.

STANDARDS FOR CERTIFICATION OF ALFALFA SEED

NAC 587.258 Applicability. The general standards for certification of seed as adopted by the department and NAC 587.260 to 587.274, inclusive, govern the standards for the certification of alfalfa seed.

NAC 587.260 Alfalfa regions in Nevada; limitations on age of stand and classes of seed.

1. The northern alfalfa region in Nevada consists of the area north of the 40th parallel.
2. The central alfalfa region in Nevada consists of the area south of the 40th parallel.
3. Limitations on the age of stand and classes of seed through which a variety may be multiplied for both inside and outside of the region of adaptation may be specified by the originator or owner of the seed. Production of certified seed outside of the region of adaptation must not exceed 6 years unless otherwise specified by the originator or owner.

NAC 587.262 Requirements for land. (NRS 587.077, 587.083)

1. Land intended for the production of foundation, registered or certified classes of seed must not have been planted with any variety of alfalfa and must be free from volunteer alfalfa plants for 4, 3 and 1 year, respectively, preceding the establishment of the stand.
2. The application must indicate the crops grown for the previous 4, 3 and 1 year on the land intended for the production of the foundation, registered or certified classes of seed, respectively.
3. At least 2 years must elapse between the destruction of varieties of dissimilar adaptation and establishment of a new stand for the production of seed for certification.
4. During the year immediately preceding the seeding of any class of seed, the land must be free from volunteer plants. Manure or other amendments to the soil that are contaminating must not be applied during the year immediately preceding the seeding of the land or during the established and productive life of the stand.

NAC 587.263 Requirements for isolation.

1. Except as otherwise provided in subsections 2 and 3, the minimum distance a field of alfalfa must be from a different variety or a field of the same variety of alfalfa that does not meet the requirements for varietal purity for certification is:

Class produced	Field of less than 5 acres	Field of 5 acres or more
Foundation	900 feet	600 feet
Registered	450 feet	300 feet
Certified	165 feet	165 feet

2. Requirements for isolation for the certified class are based on the size of the field and the percentage of the field within 165 feet from another variety of alfalfa. If 10 percent or less of the certified field is within 165 feet, no isolation is required, but a definite separation must be maintained. If more than 10 percent of the field is within 165 feet, that part of the field must not be harvested as certified seed. The zone of isolation is calculated by multiplying the length of the common border with other varieties of alfalfa by the average width of the certified alfalfa field falling within the requirement of a distance of 165 feet isolation.

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

4. If a portion of a field meets the requirements for isolation, a clear line of demarcation must be established between the certified and noncertified portions of the field.

NAC 587.267 Fields of alfalfa: Inspections; control of contamination.

1. The department will make the following inspections of a field of alfalfa:
 - (a) A seedling inspection will be made in the year the crop is planted; and
 - (b) A seed crop inspection will be made when the crop is in bloom.
2. The department may reject or reclassify a seed field if volunteer plants are found.
3. All fields entered for certification must show evidence of control of:
 - (a) Contaminating crops and varieties; and
 - (b) Objectionable and noxious weeds.

NAC 587.269 Fields of alfalfa: Maximum tolerances. (NRS 587.077, 587.083) A field of alfalfa must meet the following tolerances to be eligible for certification:

Factor	Maximum permitted in each class		
	Foundation	Registered	Certified
Other varieties, including off-type plants	0.1%	0.25%	1.0%
Red Clover	none	0.10%	0.5%
Sweetclover (plants per acre).....	none	5	5

NAC 587.274 Minimum standards for classes of alfalfa seed. (NRS 587.077, 587.083)

1. Each lot of seed entered for certification must be sampled and meet the minimum standards for the class of seed produced. Samples will be drawn by a representative of the department pursuant to NAC 587.180 and 587.190, and must meet the following standards:

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	99.5%	99.5%	99.50%
Other crop (maximum).....	0.1%	0.1%	0.25%
Sweetclover (maximum)	none	45/lb	90/lb
Weed seed (maximum).....	0.1%	0.2%	0.25%
Noxious weed seed (maximum).....	none	none	none
Objectionable weed seed (maximum)	none	none	none
Inert matter (maximum)	0.5%	0.5%	0.50%
Germination and hard seed (minimum).....	80.0%	85.0%	85.00%

2. For the purposes of this section, “objectionable weed seed” includes field bindweed (*Convolvulus arvensis*), dodder (*Cuscuta* spp.) and dogbane (*Apocynum cannabinum*).

**STANDARDS FOR CERTIFICATION OF BARLEY,
OAT, RYE, TRITICALE AND WHEAT SEED**

NAC 587.282 Applicability. The general standards for certification of seed of the department and NAC 587.283 to 587.288, inclusive, govern the certification of barley, oat, rye, triticale and wheat seed.

NAC 587.283 Requirements for land.

1. A small grain crop that is grown for certification must not be planted on land on which the last crop grown was of the same kind, unless the last crop grown was of the same variety and met all certification requirements for the same or higher class.
2. The application for certification must indicate the crops grown the previous year on the land.

NAC 587.284 Requirements for isolation. (NRS 587.077, 587.083)

1. A field of wheat, oats, barley or triticale must be separated by a strip of ground adequate to prevent mechanical mixtures.
2. A field producing any class of rye must be isolated by at least 660 feet from a field of any other variety or a field of the same variety that does not meet the requirements for varietal purity of the class of crop that is inspected which is of the same chromosomal number.
3. If a portion of a field meets the requirements for isolation, a clear line of demarcation must be established between the certified and noncertified portions of the field.

NAC 587.285 Inspection of seed crops; control of contamination.

1. The department will make an inspection of a seed crop of small grain after seed heads are produced.
2. A field of small grain entered for certification must show evidence of control of:
 - (a) Contaminating crops and varieties; and
 - (b) Objectionable and noxious weeds.

NAC 587.286 Fields of small grain: Maximum tolerances. (NRS 587.077, 587.083)

1. Except as otherwise provided in subsections 2 and 3, a field of small grain must meet the following tolerances to be eligible for certification:

Factor	Maximum permitted in each class (Ratio of plants)		
	Foundation	Registered	Certified
Other varieties	none	1:5,000	1:2,000
Other small grain	none	1:10,000	1:3,000
Wild oats.....	none	1:10,000	1:3,000
Smut.....	1:10,000	1:10,000	1:1,000

2. Rye is not allowed in barley, oats, triticale or wheat.
3. Triticale is not allowed in barley, oats, rye or wheat.

NAC 587.288 Minimum standards for classes of small grain. (NRS 587.077, 587.083)

1. The following standards are established for foundation, registered and certified classes of small grain:

Factor	Foundation	Registered	Certified
Pure seed (minimum).....	98.00%	98.00%	98.00%
Other crop (maximum)	none	0.03%	0.05%
Other small grain (maximum).....	none	2/lb	4/lb
Weed seed (maximum)	0.01%	0.01%	0.03%
Noxious weed seed (maximum).....	none	none	none
Objectionable weed seed (maximum).....	none	none	none
Inert matter (maximum).....	2.00%	2.00%	2.00%
Ergot (maximum).....	0.05%	0.05%	0.05%
Germination (minimum)	85.00%	85.00%	85.00%

2. Rye is not allowed in barley, oats, triticale or wheat.
3. Triticale is not allowed in barley, oats, rye or wheat.
4. As used in this section:
 - (a) "Objectionable weed seed" includes wild oats (*Avena fatua*).
 - (b) "Other crop" does not include other small grain.

STANDARDS FOR CERTIFICATION OF BEAN SEED

NAC 587.291 Applicability. The general standards for certification of seed as adopted by the department and NAC 587.291 to 587.296, inclusive, govern the standards for certification of bean seed.

NAC 587.2925 Requirements for land. (NRS 587.077, 587.083)

1. A field of beans planted for the production of foundation, registered or certified classes of seed must not have been planted to or grown a crop of beans for 1 year unless the previous crop was:
 - (a) Eligible for certification;
 - (b) The same variety; and
 - (c) The same or higher class.
2. A field of beans:
 - (a) On which bacterial blight has been found is eligible to grow certified beans if it has been planted to a crop other than beans for 2 years.
 - (b) Must be separated from other beans that are planted by at least 10 feet.

NAC 587.294 Fields of beans: Inspections; maximum tolerances. (NRS 587.077, 587.083)

1. The department shall conduct at least two field inspections of a field of beans during the growing season. At least one of these field inspections must be conducted during the windrow stage.
2. A field of beans must meet the following tolerances to be eligible for certification:

Factor	Maximum permitted in each class		
	Foundation	Registered	Certified
Other crops	none	0.05%	0.1%
Other varieties	none	0.05%	0.1%
Anthracnose, bacterial bean blight, wilt and brown spot	none	none	none
Bean common mosaic virus	none	0.50%	1.0%
Inseparable noxious weeds.....	none	none	none

3. As used in this section, "other crops" includes inseparable other crops and distinct off-types.

NAC 587.296 Minimum standards for classes of bean seed. (NRS 587.077, 587.083)

1. The department shall examine a sample of the cleaned seed lot for:

Factor	Permitted in each class		
	Foundation	Registered	Certified
Pure seed (minimum)	99.00%	99.00%	99.00%
Other crop (maximum).....	none	00.01%	0.00125%
Weed seed (maximum)	none	none	0.10%
Noxious weed seed (maximum).....	none	none	none
Objectionable weeds	none	none	none
Inert matter (maximum)	1.00%	1.00%	1.00%
Germination (minimum)	85.00%	85.00%	85.00%

2. The following are the maximum percentage of defects that are allowed for all classes of bean seed:

- (a) Splits and cracks, 1 percent;
- (b) Badly discolored, 1 percent; and
- (c) Total defects plus inert matter, 2 percent.

3. Seed must:

- (a) Be well screened and graded;
- (b) Have a bright color; and
- (c) Have a good appearance.

4. As used in this section, "objectionable weeds" includes Poverty Weed (*Iva axillaris*), Fanweed (*Thlaspi arvense*), *Rumex* spp., Wild Oats (*Avena fatua*) and Nightshade Berries.

STANDARDS FOR CERTIFICATION OF CLOVER

NAC 587.297 Applicability. The general standards for seed certification of the department and NAC 587.299 to 587.309, inclusive, govern the certification of alsike, arrowleaf, crimson, red, strawberry, sweet and white clovers.

NAC 587.299 Requirements for land. (NRS 587.077, 587.083)

1. A crop of the same kind must not have been grown or planted on the land for 5 years before stand establishment for the production of foundation seed, 3 years for registered seed and 2 years for certified seed.

2. The application must indicate the crops grown for the previous 5, 3 or 2 years on land intended for the production of foundation, registered or certified classes of seed, respectively.

3. Except as otherwise provided in this subsection, during the year before seeding, the land must be free from volunteer plants of that crop. Reseeding varieties of crimson clover may be allowed to volunteer back year after year on the same ground. If a new reseeding variety of crimson clover is planted on ground where another variety once grew, the provisions of subsection 1 apply.

NAC 587.301 Requirements for isolation. (NRS 587.077, 587.083)

1. Except as otherwise provided in subsection 2, the minimum distance in feet from a different variety of the same kind or a field of the same variety that does not meet the varietal purity requirements for certification is as follows:

Class	Fields of less than 5 acres	Fields of more than 5 acres
Foundation	900	600
Registered	450	300
Certified	165	165

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

3. The distance of isolation between a field of diploids and a field of tetraploids must be at least 15 feet.

4. If a portion of the field meets requirements for isolation, a clear line of demarcation must be established between the certified and noncertified portions of the field.

NAC 587.302 Fields of clover: Inspections; control of contamination. (NRS 587.077, 587.083)

1. The department shall make the following inspections of a field of clover:

- (a) A seedling inspection will be made in the year the crop is planted; and

- (b) A seed crop inspection will be made when the crop is in bloom.
- 2. The department may reject or reclassify a seed field if volunteer plants are found except a seed field of crimson clover unless a new variety of crimson clover is planted in ground where another variety of crimson clover once grew.
- 3. A field of clover entered for certification must show evidence of control of:
 - (a) Contaminating crops and varieties; and
 - (b) Objectionable and noxious weeds.

NAC 587.304 Fields of clover: Maximum tolerances. (NRS 587.077, 587.083)

- 1. A field of clover must meet the following tolerances to be eligible for certification:

Factor	Maximum permitted in each class (ratio of plants)		
	Foundation	Registered	Certified
Other varieties	none	1:500	1:200

- 2. As used in this section, “other varieties” includes off-type plants.

NAC 587.305 Limitations on age of stand. (NRS 587.077, 587.083)

- 1. A stand of red clover is not eligible to produce any class of certified seed after two seed crops which are produced either in the same or consecutive years.
- 2. For white and alsike clover:
 - (a) A foundation or registered field may produce only two successive seed crops following seeding except that each may be reclassified to the next lower class after being harvested for seed for 2 years. A stand will not be eligible to produce any class of seed after four consecutive seed crops immediately following the year of establishment.
 - (b) A certified field on which a stand of perennial plants is maintained must not produce more than 4 consecutive seed crops immediately following the establishment of the certified field.

NAC 587.309 Minimum standards for classes of clover. (NRS 587.077, 587.083)

- 1. The following seed standards are established for foundation, registered and certified classes of clover:

	Arrowleaf and Crimson	Red	Strawberry	Sweet	White and Alsike
FOUNDATION					
Pure seed (minimum)	98.00%	99.00%	99.00%	99.50%	99.00%
Other crop (maximum)	0.10%	0.10%	0.10%	0.10%	0.10%
Sweetclover (maximum)	none	none	none	----	none
Weed seed (maximum)	0.20%	0.15%	0.20%	0.10%	0.10%
Inert matter (maximum)	2.00%	1.00%	1.00%	1.00%	1.00%
Noxious weed seed (maximum)	none	none	none	none	none
Objectionable weed seed (maximum)	none	none	none	none	none
Germination (minimum)	85.00%	85.00%	85.00%	85.00%	85.00%
	Arrowleaf and Crimson	Red	Strawberry	Sweet	White and Alsike
REGISTERED					
Pure seed (minimum)	98.00%	99.00%	99.00%	99.50%	99.00%
Other crop (maximum)	0.25%	0.25%	0.25%	0.10%	0.25%
Sweetclover (maximum)	90/lb	45/lb	45/lb	----	90/lb
Weed seed (maximum)	0.25%	0.15%	0.02%	0.02%	0.25%
Inert matter (maximum)	2.00%	1.00%	1.00%	1.00%	1.00%
Noxious weed seed (maximum)	none	none	none	none	none

	Arrowleaf and Crimson	Red	Strawberry	Sweet	White and Alsike
REGISTERED					
Objectionable weed seed (maximum)	none	none	none	none	none
Germination (minimum)	85.00%	85.00%	85.00%	85.00%	85.00%
	Arrowleaf and Crimson	Red	Strawberry	Sweet	White and Alsike
CERTIFIED					
Pure seed (minimum)	98.00%	99.00%	99.00%	99.50%	99.00%
Other crop (maximum)	0.04%	0.25%	0.25%	0.25%	0.25%
Sweetclover (maximum)	180/lb	90/lb	90/lb	----	180/lb
Weed seed (maximum)	0.50%	0.25%	0.20%	0.25%	0.50%
Inert matter (maximum)	2.00%	1.00%	1.00%	1.00%	1.00%
Noxious weed seed (maximum)	none	none	none	none	none
Objectionable weed seed (maximum)	none	none	none	none	none
Germination (minimum)	85.00%	85.00%	85.00%	85.00%	85.00%

2. As used in this section:

(a) "Germination" includes hard seed.

(b) "Objectionable weed seed" includes:

(1) The following and is permitted in seed with a maximum content as listed below:

	Foundation	Registered	Certified
<i>Convolvulus arvensis</i>	none	none	none
<i>Cuscuta</i> spp.	none	none	none
<i>Plantago</i> spp.....	none	45/lb	90/lb
<i>Rumex</i> spp.....	none	45/lb	90/lb

(2) For the foundation class of red clover, *Brassica* spp.

STANDARDS FOR CERTIFICATION OF GRASS SEED

NAC 587.320 Applicability of various standards.

1. The general standards of the department for certification of seed, together with the standards of NAC 587.320 to 587.329, inclusive, govern the standards for the certification of grass seed.

2. All classes of certified seed may be produced from planting stock which was vegetatively propagated according to the procedure specified by the originator, but in such cases the standards for the vegetative propagation of grasses apply.

NAC 587.321 Requirements for land.

1. Foundation seed must be produced on land on which the same species was not seeded or grown during the previous 5 crop years.

2. Registered seed must be produced on land on which the same species was not seeded or grown during the previous 2 crop years.

3. Certified seed must not be produced on land on which the same species was seeded or grown during the previous year unless the last crop grown is of the same variety and meets all requirements for certification of the same or higher class.

4. The application must indicate the crops grown for the previous 5, 2 or 1 years on the land intended for the production of foundation, registered or certified classes of seed, respectively.

NAC 587.323 Requirements for isolation. (NRS 587.077, 587.083)

1. Except as otherwise provided in subsection 2, the following requirements for isolation must be met if at least two different strains of the same species of grass are in bloom at the same time:

Type of Reproduction	Border to be Removed	Minimum Isolation		
		Foundation	Registered	Certified
Cross-pollinated	0 feet	900 feet	300 feet	165 feet
	9 feet	600 feet	225 feet	100 feet
	15 feet	450 feet	150 feet	75 feet
Strains at least 80 percent apomictic and highly self-fertile species	0 feet	60 feet	30 feet	15 feet
	9 feet	30 feet	15 feet	15 feet

2. If different classes of the same variety, which must also meet certification requirements, are being grown on the same or adjacent fields, the requirement for isolation may be reduced to 25 percent of that shown in the table in subsection 1. The minimum isolation for all seed classes of tetraploids is at least 15 feet from diploids of the same species.

3. Border removal is allowed only in fields of at least 5 acres. A border must not be removed until pollination of the crop to be certified is completed. The distance is the minimum isolation required for each class of seed after border removal.

4. For the purposes of this section, varieties within species with both cross-pollinated and apomictic type of reproduction are considered highly apomictic for minimum isolation unless otherwise specified for that variety.

NAC 587.325 Fields of grass seed: Inspections; control of contamination.

1. The department will make the following inspections of a field of grass seed:

- (a) A seedling inspection will be made in the year the crop is planted; and
- (b) A field inspection will be made after heading and before harvesting.

2. The department may reject or reclassify a field of grass seed if volunteer plants or noxious weeds are found in or around the borders of a field.

NAC 587.327 Fields of grass seed: Maximum tolerances. (NRS 587.077, 587.083)

1. A field of grass seed must meet the following tolerances to be eligible for certification:

Factor	Maximum permitted in each class		
	Foundation	Registered	Certified
Other varieties	none	0.5%	2.0%

2. As used in this section, “other varieties” includes off-type plants and plants that can be differentiated by the varietal description from the variety being inspected.

NAC 587.329 Minimum standards for classes of grass seed. (NRS 587.077, 587.083)

1. The following standards for grass seed apply to the foundation and registered classes:

Species	Type of Reproduction ¹	Percent Pure Seed (Minimum)	Percent Other Crop (Maximum)	Percent Weed Seed (Maximum) ²	Percent Inert Matter (Maximum)	Percent Germination (Minimum)
Bluegrass, Kentucky <i>Poa pratensis</i>	C,A	95%	0.1%	0.3%	5%	75%
Bromegrass, Meadow <i>Bromus biebersteinii</i>	C	95%	0.1%	0.1%	5%	85%
Bromegrass, Smooth <i>Bromus inermis</i> subsp. <i>inermis</i>	C	95%	0.1%	0.1%	5%	85%
Fescue, Chewings <i>Festuca rubra</i> subsp. <i>commutata</i>	C	98%	0.1%	0.1%	2%	85%
Fescue, Hard <i>Festuca longifolia</i>	C	95%	0.1%	0.1%	5%	85%
Fescue, Meadow <i>Festuca pratensis</i>	C	95%	0.1%	0.1%	5%	85%
Fescue, Red <i>Festuca rubra</i> subsp. <i>rubra</i>	C	98%	0.1%	0.1%	2%	85%
Fescue, Sheep <i>Festuca ovina</i>	C	98%	0.1%	0.1%	2%	85%
Fescue, Tall <i>Festuca arundinacea</i>	C	98%	0.1%	0.3%	2%	85%
Indian Ricegrass <i>Oryzopsis hymenoides</i>	C	95%	0.5%	0.3%	5%	80%
Orchardgrass <i>Dactylis glomerata</i>	C	90%	0.1%	0.3%	5%	85%
Ryegrass <i>Lolium</i> spp.	C	96%	0.2%	0.2%	4%	85%
Timothy <i>Phleum pratense</i>	C	97%	0.1%	0.1%	3%	80%
Wheatgrass, Crested <i>Agropyron cristatum</i> , <i>A. desertorum</i>	C	95%	0.1%	0.1%	5%	80%
Wheatgrass, Intermediate <i>Elytrigia intermedia</i> subsp. <i>intermedia</i>	C	95%	0.1%	0.1%	5%	80%
Wheatgrass, Pubescent <i>Agropyron trichophorum</i>	C	95%	0.1%	0.1%	5%	80%
Wheatgrass, Siberian <i>Agroyron fragile</i> subsp. <i>sibericum</i>	C	95%	0.1%	0.1%	5%	80%
Wheatgrass, Streambank <i>Elymus lanceolatus</i> subsp. <i>lanceolatus</i>	C	90%	0.1%	0.1%	10%	80%
Wheatgrass, Tall <i>Elytrigia elongata</i>	C	95%	0.1%	0.1%	5%	85%
Wildrye, Basin <i>Leymus cinereus</i>	C	90%	0.1%	0.1%	5%	80%

Species	Type of Reproduction ¹	Percent Pure Seed (Minimum)	Percent Other Crop (Maximum)	Percent Weed Seed (Maximum) ²	Percent Inert Matter (Maximum)	Percent Germination (Minimum)
Wildrye, Canada <i>Elymus canadensis</i>	S	85%	0.1%	0.1%	15%	70%
Wildrye, Russian <i>Psathyrostachys juncea</i>	C	90%	0.1%	0.1%	5%	80%

2. The following standards for grass seed apply to the certified class:

Species	Type of Reproduction ¹	Percent Pure Seed (Minimum)	Percent Other Crop (Maximum)	Percent Weed Seed (Maximum) ²	Percent Inert Matter (Maximum)	Percent Germination (Minimum)
Bluegrass, Kentucky <i>Poa pratensis</i> ³	C,A	95%	0.25%	0.30%	5%	75%
Bromegrass, Meadow <i>Bromus biebersteinii</i>	C	95%	0.5%	0.30%	5%	85%
Bromegrass, Smooth <i>Bromus inermis</i>	C	95%	0.5%	0.30%	5%	85%
Fescue, chewings <i>Festuca rubra</i> subsp. <i>ummutata</i>	C	97%	0.5%	0.30%	3%	85%
Fescue, Hard <i>Festuca longifolia</i>	C	97%	0.5%	0.30%	3%	85%
Fescue, Meadow <i>Festuca pratensis</i>	C	97%	0.5%	0.30%	3%	85%
Fescue, Red <i>Festuca rubra</i> subsp. <i>rubra</i>	C	97%	0.5%	0.30%	3%	85%
Fescue, Sheep <i>Festuca ovina</i>	C	98%	0.5%	0.30%	2%	85%
Fescue, Tall <i>Festuca arundinacea</i>	C	98%	0.5%	0.30%	2%	85%
Indian Ricegrass <i>Oryzopsis hymenoides</i>	C	90%	1.0%	0.50%	10%	80%
Orchardgrass <i>Dactylis glomerata</i>	C	90%	0.5%	0.50%	10%	85%
Ryegrass <i>Lolium</i> spp.	C	97%	0.5%	0.50%	3%	85%
Timothy <i>Phleum pratense</i>	C	97%	0.5%	0.30%	3%	80%
Wheatgrass, Crested <i>Agropyron cristatum</i> , <i>A. desertorum</i>	C	95%	0.5%	0.30%	5%	80%
Wheatgrass, Intermediate <i>Elytrigia intermedia</i> subsp. <i>intermedia</i>	C	95%	0.5%	0.30%	5%	80%
Wheatgrass, Siberian <i>fragile</i> subsp. <i>sibericum</i>	C	95%	0.5%	0.30%	5%	80%
Wheatgrass, Streambank <i>Elymus lanceolatus</i> subsp. <i>lanceolatus</i>	C	90%	0.5%	0.30%	10%	80%

Species	Type of Reproduction ¹	Percent Pure Seed (Minimum)	Percent Other Crop (Maximum)	Percent Weed Seed (Maximum) ²	Percent Inert Matter (Maximum)	Percent Germination (Minimum)
Wheatgrass, Tall <i>Elytrigia elongata</i>	C	95%	0.5%	0.30%	5%	85%
Wildrye, Basin <i>Leymus cinereus</i>	C	90%	0.5%	0.30%	10%	80%
Wildrye, Canada <i>Elymus canadensis</i>	S	85%	0.5%	0.30%	15%	70%
Wildrye, Russian <i>Psathyrostachys juncea</i>	C	90%	0.5%	0.30%	10%	80%

¹ Type of reproduction: C = Cross pollinated, S = Self-pollinated, A = Apomictic

² Noxious weed seed listed in NAC 587.2375 has a zero tolerance in grass crops along with the following: dodder (*Cuscuta* spp.), wild garlic (*Allium vineale*) and field bindweed (*Convolvulus arvensis*). The following weed seeds are permitted with a maximum tolerance of 27 seeds per pound: docks (*Rumex* spp.) and fanweed (*Thlaspi arvense*).

³ The variety Merion may contain a minimum of 92 percent pure seed, a maximum of 8 percent inert matter and a maximum of 3 percent other Kentucky bluegrass varieties. Kentucky bluegrass varieties other than Merion may contain a maximum of 2 percent other bluegrass varieties. Canada bluegrass may contain a maximum of 3 percent Kentucky bluegrass.

STANDARDS FOR CERTIFICATION OF RAPESEED

NAC 587.331 Applicability. The general standards for certification of seed as adopted by the department and NAC 587.331 to 587.339, inclusive, govern the standards for certification of rapeseed.

NAC 587.333 Requirements for land.

1. A field of rapeseed planted for the production of:
 - (a) Foundation seed must not have been planted to or grown a crop of rapeseed during the previous 5 years.
 - (b) Registered seed must not have been planted to or grown a crop of rapeseed during the previous 4 years.
 - (c) Certified seed must not have been planted to or grown a crop of rapeseed during the previous 3 years.
2. The application for certification must indicate the crops grown for the previous 5, 4 or 3 years on the land intended for the production of foundation, registered or certified classes of seed, respectively.

NAC 587.335 Requirements for isolation.

1. Except as otherwise provided in subsections 2 and 3, the minimum distance that a field of rapeseed must be from a different variety or field of the same variety of rapeseed which does not meet the varietal purity requirements for certification is as follows:

Class produced	Fields of cross-pollinated varieties	Fields of self-pollinated varieties
Foundation	1,320 feet	660 feet
Registered	1,320 feet	660 feet
Certified	660 feet	330 feet

2. A distance of 3 miles for the production of foundation or registered seed and 2 miles for the production of certified seed is required if isolating fields of different oil or glucosinolate content.

3. The distance of isolation between classes of the same variety may be reduced to 15 feet.
4. If a portion of a field meets the requirement for isolation, a clear demarcation must be established between the certified and noncertified portions of the field.

NAC 587.337 Field inspections; control of contamination.

1. The department will make a field inspection of rapeseed when the crop is in the early flowering stage.
2. The department may reject or reclassify a seed field if volunteer plants or noxious weeds are found in or around the borders of a field of rapeseed.

NAC 587.3375 Fields of rapeseed: Maximum tolerances.

1. A field of rapeseed must meet the following tolerances to be eligible for certification:

Factor	Maximum permitted in each class		
	Foundation	Registered	Certified
Other varieties	none	none	0.1%

2. As used in this section, “other varieties” includes off-type plants and plants that can be differentiated from the variety being inspected.

NAC 587.339 Minimum standards for classes of rapeseed. (NRS 587.077, 587.083)

1. A field of rapeseed must meet the following standards for purity and germination of seed.

Factor	Foundation	Registered	Certified
Pure seed (minimum)	99.00%	99.00%	99.00%
Other crop (maximum).....	0.01%	0.01%	0.25%
Weed seed (maximum)	0.01%	0.01%	0.25%
Noxious weed seed (maximum).....	none	none	none
Objectionable weed seed (maximum number of seed)	1	1	2
Inert matter (maximum)	1.00%	1.00%	1.00%
Germination (minimum)	85.00%	85.00%	85.00%

As used in this subsection, “objectionable weed seed” includes the maximum number of seed permitted of *Brassica* spp., *Sinapis arvensis* or *Raphanus raphanistrum*, singly or collectively, in the amount of seed examined for noxious weed seed.

2. Erucic acid and glucosinolate content must be within the tolerances described by the plant breeder for each variety.
3. All seed lots must be assayed and shown to be 99.99 percent free from *Phoma lingam*.

STANDARDS FOR CERTIFICATION OF PRE-VARIETY GERMPLASM

NAC 587.3396 “Pre-variety germplasm” defined. (NRS 587.077, 587.083) As used in NAC 587.3396 to 587.33995, inclusive, unless the context otherwise requires, “pre-variety germplasm” means the seed, seedling or other propagating material of, without limitation, a species, selection, clone or intraspecific hybrid of a plant that has not been recognized as a variety.

NAC 587.33965 Applicability. (NRS 587.077, 587.083) The general standards of certification of seed as adopted by the director and the provisions of NAC 587.3396 to 587.33995, inclusive, govern the certification of pre-variety germplasm.

NAC 587.3397 Germplasm classes: Tested; selected; source identified (NRS 587.077, 587.083)

1. Propagating materials from a class of pre-variety germplasm that is designated as tested must be the progeny of plants whose parentage has been tested and has proven genetic superiority or possesses distinctive traits for which the heritability is stable, but for which a variety has not been recognized. Pre-variety germplasm of the tested class must be produced in a manner that ensures genetic purity and identity from:

- (a) Rigidly controlled and isolated natural stands or individual plants; or
- (b) Seed fields or orchards.

2. Propagating materials from a class of pre-variety germplasm that is designated as selected must be the progeny of phenotypically selected plants of untested parentage that indicate, but do not prove, genetic superiority or distinctive traits. Pre-variety germplasm of the selected class must be produced in a manner that ensures genetic purity and identity from:

- (a) Rigidly controlled and isolated natural stands or seed production areas; or
- (b) Seed fields or orchards.

3. Propagating materials from a class of pre-variety germplasm that is designated as source identified must have had no selection or testing of their parent population. Pre-variety germplasm of the source identified class must be produced in a manner that ensures genetic purity and identity from:

- (a) Rigidly controlled and isolated natural stands or seed production areas; or
- (b) Seed fields or orchards.

NAC 587.33975 Designation of seed generations. (NRS 587.077, 587.083)

1. The department shall designate each successive generation of production of pre-variety germplasm, including the sexual and asexual means of reproduction and establishment, by a consecutive number beginning with zero. One asexual generation is equal to one sexual generation.

2. The system for naming generations of varieties of breeder seed, foundation seed, registered seed and certified seed does not apply to pre-variety germplasm.

NAC 587.3398 Limitation of generations. (NRS 587.077, 587.083)

1. The department may specify a limitation on generations of pre-variety germplasm grown in seed fields or orchards on a case-by-case basis.

2. The department shall not limit the number of generations of pre-variety germplasm collected from natural stands. The department shall designate each such generation zero.

NAC 587.33985 Determination and indication on tag of geographic origin and location. (NRS 587.077, 587.083)

1. The exact geographic location of the parent population and the history of the stand must be determined by the collector for natural stands of pre-variety germplasm of the tested class. The collector shall ensure that the tag indicates the location, as described by section, township and range or a comparable description of land, and the elevation, within 500 feet, of the stand.

2. The location of a natural stand from which pre-variety germplasm of the selected or source identified class is collected must be determined by the collector in a manner that ensures that the department can locate the natural stand for inspection. The collector shall ensure that the tag indicates the location of the stand, including, without limitation, the state, county, geographic area of production and elevation, within 500 feet.

3. The specific geographic origin of the parent material must be determined by the collector for pre-variety germplasm produced in a field or orchard. The collector may indicate the specific geographic origin of the parent material on the tag. The collector shall ensure that the tag indicates

the location of the field or orchard, including, without limitation, the state, county and geographic area of production.

NAC 587.3399 Requirements of isolation. (NRS 587.077, 587.083) The department shall establish a zone of isolation for each species of pre-variety germplasm of the tested or selected class. The zone must be free from off-type plants and other cross-pollinating species. The department shall not establish a zone of isolation for any pre-variety germplasm of the source identified class.

NAC 587.33995 Inspections; form required for source identified class. (NRS 587.077, 587.083)

1. The department shall conduct at least one field inspection of pre-variety germplasm of the tested class that is collected from a natural stand before pollination. At the time of this inspection, the department shall establish any requirements for the roguing of undesirable plants or compliance with the zone of isolation established pursuant to NAC 587.3399.

2. The department shall conduct at least one field inspection of pre-variety germplasm of the tested or selected class immediately before the pre-variety germplasm reaches maturity or at the time of harvest of the pre-variety germplasm.

3. The department shall conduct at least one inspection of pre-variety germplasm of the source identified class that is collected from a natural stand to verify the location of the site of collection, the identification of the pre-variety germplasm and the amount of pre-variety germplasm collected. The collector of pre-variety germplasm of the source identified class that is collected from a natural stand shall complete a form entitled a “certified seed site identification log,” which is available from the department, for each site at the time of harvest. The collector shall submit the completed form to the department within 30 days after the harvest.

**PROPOSED TEMPORARY REGULATION OF THE
STATE DEPARTMENT OF AGRICULTURE**

**SMALL BUSINESS IMPACT STATEMENT
PURSUANT TO 233B “Nevada Administrative Procedures Act”**

The purpose of this Small Business Impact Form is to provide a frame work pursuant to NRS 233B.0608 to determine where a small business impact statement is required for submittal of a proposed regulation before the Nevada Department of Agriculture. If questions one (1) and two (2) are answered No, then a small business impact statement is not required. If question one (1) or two (2) is answered with a YES, then a small business impact statement is required prior to conducting a public workshops by the Department. (This form must be submitted with the proposed regulation when submitted for drafting by LCB and adoption by the Nevada State Board of Agriculture.)

Proposed regulation: Temporary amendments of NAC 587 pertaining to the seed testing and seed certification and other minor changes in the seed certification procedures.

Part 1

1. Does this proposed regulation impose a direct and significant economic burden upon a small business? No
2. Does this proposed regulation restrict the formation, operation or expansion of a small business? No

Note: Small Business is defined as a “business conducted for profit which employs fewer than 150 full-time or part-time employees” (NRS 233B.0382).

3. If **YES** to either of questions 1 & 2, the following action must be taken:
 - a. Was a small business impact statement prepared and was it available at the public workshop ?
 - b. Attach the small business impact statement (part 2) as part of this form upon submission for drafting by LCB and adoption by the Nevada Board of Agriculture.

Part 2

1. Describe the manner in which comments were solicited from affected small businesses, a summary of the response from small businesses and an explanation of the manner in which other interested persons may obtain a copy of the summary.

2. The estimated economic effect of the proposed regulation on small business:
 - a. Both adverse and beneficial effects
 - b. Both direct and indirect effects

3. The description of the methods that the agency considered to reduce the impact of the proposed regulation on small businesses.
 - a. Simplification of the proposed regulation.
 - b. Establishment of different standards of compliance for a small business.
 - c. Modification of fees or other monetary interests that a small business is authorized to pay at a lower fee.

4. The estimated cost to the agency for enforcement of the proposed regulation.

5. If this regulation provides for a new fee or increases an existing fee, the total annual amount the agency expects to collect and the manner in which the money will be used.

6. If the proposed regulation includes provisions which duplicate or are more stringent than federal, state or local standards relating to the same activity, provide an explanation of why the proposed regulation is duplicative or more stringent and why it is necessary.