New Mexico StateUniversity Seed Certification

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INTRODUCTION

ORGANIZATION AND PURPOSE OF SEED CERTIFICATION

The New Mexico State University Seed Certification Noxious Weed Free Program (SCNWFP) is an organization of seed producers and others interested in the production and distribution of high quality planting seed. The SCNWFP is the designated official seed-certifying agency of New Mexico in accordance with the New Mexico Seed Law. The affairs of the SCNWFP are governed by the Director. The SCNWFP is responsible for the promulgation of rules, regulations, and standards for all certification of seed and other propagating materials in the state. The SCNWFP is an active member of the Association of Official Seed Certifying Agencies (AOSCA) which establishes minimum standards for certification of all crops. No member agency can certify a crop with lower standards than those set by AOSCA but may require higher standards.

The seed certification program is a recognized, planned method of ensuring that seed is directly related to the authentic breeder seed of a specific variety, and that the true characteristics of the variety are maintained as it is multiplied through successive generations. Seed certification is a pedigree system, which maintains records on the origin of a variety and of successive generations.

All certified seed (pedigreed seed) has been inspected, tested, and found to be in compliance with field and seed standards to ensure that the variety has not been contaminated through cross-pollination or through the mechanical mixing of other varieties, other crops, and weeds. **The word none or zero tolerance should not be construed as expressed or warranty that the field is completely free of a given factor, rather, that none were observed during the inspection.**

The certified tags on the containers are the means by which the identity of each lot of pedigreed seed is maintained as it moves from producer to consumer.

Seed certification is a voluntary seed production program operated on the assumption that "the quality of the seed in the bag is no higher than the honesty and integrity of the individual producing, sampling, bagging, and tagging such seed."

ALLOCATION OF FOUNDATION SEED

- I. The Director of SCNWFP shall serve as the state Allocation member for Foundation seed distribution.
- II. Allocation of Foundation seed to out-of-state growers may be made through the Foundation seed stock organization of the respective state.
- III. The basic guideline for the allocation and distribution of Foundation seed will be as stated in Item 10 "Increase, Maintenance and Distribution of Foundation Seed," Page 7 of "A Statement of Responsibilities and Policies Relating to Seeds and Other Propagation Material of Field Crops" approved by Experiment Station Committee on Organization and Policy (ESCOP) on February 28, 1967. Other factors that will be considered are:
 - A. Supply of seed available and the number and amount of requests.
 - B. Area of adaptation
 - C. Recommended planting rates.
 - D. Recommendation of local associations.
 - E. The Director may allocate Foundation seed to specific growers and/or areas when there is a definite need for greater seed increase of high quality seed.
 - F. Late applications may be refused.
- IV. <u>Classification of Growers</u>:
 - A. <u>NEW GROWER</u>: An active member who has never produced pedigreed seed or who has not completed certification during the past three years and notified the state association as to reasons why.
 - B. <u>ESTABLISHED GROWER</u>: An active member who has complied with certification rules and regulations and has completed certification within the past three years.
- V. <u>QUALIFICATIONS AND ELIGIBILITIES OF GROWERS</u>:
 - A. Applicant must sign a Foundation seed application and agreement to be submitted to the Allocation Director.
 - B. Contracting agencies may submit application for Foundation seed, provided the contractor is a current member of SCNWFP.
 - C. Local Crop Improvements or Pure Seed Associations may submit application for Foundation seed, provided each grower signs an individual application and is an active member of SCNWFP in good standing.
 - D. Factors to be considered:
 - 1. Adherence to the terms of contract on application.
 - 2. Notification of crop loss.
 - 3. History of crop failure.
 - 4. Delinquent accounts.
 - 5. Certified seed increase ratio.
 - 6. Production of quality seed.
 - 7. Compliance to rules of local, county, and state associations where applicable.

RECOMMENDATIONS AND GUIDELINES FOR SEED CERTIFICATION

- I. <u>APPLICATION FOR SEED CERTIFICATION</u>: Discuss the seed certification program with your county agent, where the necessary forms and applications are available. He/She can help you determine whether your farm and facilities will meet the requirements for certification. If additional information is desired, contact SCNWFP, PO Box 30003, MSC 3Ley, Las Cruces, NM, 88003-8003.
- II. <u>LAND REQUIRMENTS</u>: Each crop has specific land requirements as to isolation, crop rotation, etc. Read these standards for the particular crop you wish to certify to determine if the land is eligible. Whether specifically required or not, it is recommended practice to plant a crop for seed on land which was not planted to the same crop during the previous year.
- III. <u>FACILITIES</u>: Certified seed growers should have access to proper facilities and equipment for harvesting, handling, storing, cleaning, growing and processing pedigreed classes of seed. These facilities may be either privately or commercially owned.
- IV. <u>OBTAIN ELIGIBLE PLANTING SEED</u>: Foundation or Registered classes of seed are eligible to produce the certified class of seed. In cases where Foundation and Registered classes are not being maintained, the production of the certified class may be from Certified seed with the approval of SCNWFP and permission of the originator.
- V. <u>APPLICATION FOR FIELD INSPECTION</u>: Application forms are available at your local county agent's office, local association or the state office of SCNWFP. Inspection fees should accompany all application forms.

To establish the source of planting seed, send one Foundation, Registered, or Certified tag from the seed planted, or a sales record or invoice clearly showing the kind, variety, class, and lot number, along with the application and fees. Final dates for filing are listed on the application form.

- VI. <u>MANAGEMENT OF SEED FIELDS</u>: Good cultural practices are essential to good seed production. The use of chemical seed treatments, herbicides and fungicides may be beneficial when properly used. Poor stands, poor vigor, lack of uniformity and excess weeds are conditions that make field inspections inaccurate or bring pedigreed seed into disfavor and can be cause for rejection.
- VII. <u>ROGUEING</u>: Keep the seed fields as clean as possible by rogueing as early in the season and as often as necessary to prevent cross pollination from off-type and undesirable plants and control the spread of diseases and weeds. Delayed rogueing may be cause for contamination of the seed and cause for rejection of

the field.

VIII. <u>HARVESTING</u>: One of the major sources of seed contamination occurs in harvesting the seed crop. Be sure all harvesting machinery and equipment is thoroughly cleaned prior to harvesting crops eligible for certification.

IX. <u>SEED SAMPLING</u>:

- A. Following harvest, representative samples should be taken from the field or gin run seed to determine quality prior to processing. Laboratory analysis of these samples will enable the grower and processor to avoid some of the hazards encountered in processing and merchandising the seed.
- B. If there appears to be a lack of uniformity in a lot of seed, the lot should be divided into two or more sublots and these sub-lots identified, sampled, and tested separately.
- C. The finished processed lot of seed should again be sampled and tested for labeling purposes on the seed as it is offered for sale.
- D. No matter how accurately an analysis is made, it can only show the quality of the sample submitted; therefore, every effort should be made to insure the sample submitted represents the bulk of the seed in the lot.
- E. To secure a representative sample, equal portions should be taken from evenly distributed parts of the quantity of seed to be sampled.
 - 1. A probe long enough to sample all portions should be used for free flowing seed in bags or in bulk.
 - 2. Seed moving by conveyers should be sampled at intervals, at least every fifth bag.
 - 3. Non-free flowing seed, such as certain grass seed or uncleaned seed (which is difficult to sample with a probe) should be sampled by thrusting the hand into the bulk and withdrawing representative portions.
 - 4. Bulk seeds should be sampled with a long probe or thrusting the hand into the bulk, in at least seven random parts of the quantity being sampled.
 - 5. Bag sampling: For lots of one to six bags, sample each bag and take a total of at least five cores or handfuls. For lots of more than six bags, sample five bags plus at least 10% of the number of bags in the lot.
 - 6. Whenever possible, samples for testing uniformity of a seed lot are to be taken in addition to a sample for testing average quality. All certified seed must be processed by one of SCNWFP approved processors.
- X. <u>CLEANING AND PROCESSING</u>: All gins, delinting plants, seed cleaning plants and equipment should be thoroughly cleaned prior to processing pedigreed seed to prevent mechanical mixing. A sample of the finished product should be sent to the New Mexico State Seed Laboratory or other seed labs approved by the Association of Official Seed Analysts, for a complete and final analysis.

- A. Gins from which certified seed is to be saved shall have been free of cotton with differing lint color for one complete ginning season.
- B. Delinting plants, which intend to process certified cotton seed, shall have been free of seed of differing lint color for one complete delinting season.
- XI. <u>STORAGE</u>: Facilities for pedigreed seed must be thoroughly cleaned prior to use. Storage bins should be such that there will be no mechanical mixing of seed. For some crops, there are special precautions necessary to prevent the spread of disease in storage. This is particularly true on root crops and bulbs. There may be times when treatment to control disease, insects, and rodents will be necessary to maintain seed quality while in storage. The identity of carry-over seed must be maintained.
- XII. <u>LABELING</u>: Certified tags will be issued when all field and seed standards have been met. After tags are attached to the containers, certification is complete and the seed is ready for marketing.
- XIII. <u>COUNTY AND LOCAL SEED ASSOCIATIONS</u>: To facilitate the supervision of the seed certification program, some county and local seed organizations have been established to assist local producers in the production, processing and marketing of pedigreed seed. These local organizations also assist in the inspections necessary to conduct a quality control program. Grower cooperation with local and county associations is expected and greatly enhances the necessary communications for a statewide program.
- XIV. <u>EDUCATIONAL RESPONSIBILITIES</u>: It is the responsibility of SCNWFP, directly, and through the cooperation with the New Mexico Cooperative Extension Service and it's agents to perform such educational and training programs as necessary to conduct a successful pedigreed seed program.

RULES AND REGULATIONS

I. <u>MEMBERSHIP</u>:

A. ACTIVE MEMBERSHIP:

- **1.** Active members are entitled to the following:
 - 1. Association newsletters
 - 2. Annual certified Seed Directory
 - 3. Certification handbook
 - 4. Handbook updates
 - 5. Tag processing
 - 6. General record keeping

Membership applications may be obtained by contacting SCNWFP.

- II. <u>INSPECTION FEES</u>:
 - 1. Minimum inspection fee: \$50.00 per application
 - **2.** Variety fee: \$ 0.00 per variety
 - **3.** Field fee: \$ 0.00 for each additional field* of the same variety.
 - **4.** Acreage fee: (based on the following schedule):
 - 1. ALFALFA, CLOVER, OPEN-POLLINATED CORN, COTTON, GRASSES, SAINFOIN, SMALL GRAINS, BROOMCORN, AND SUDANGRASS
 - \$6.00 per acre
 - BEANS, PEAS, COWPEAS, SOYBEANS, FORBS, QUAYULE, OKRA, ONION, PEANUT, AND CHILE PEPPERS
 \$6.00 per acre
 - 3. HYBRIDS (COTTON, SORGHUM, SMALL GRAINS, CORN) \$6.00 per acre.
 - TREES, SHRUBS, NATIVE AND WOODYPLANTS \$(currently under assessment)
 - 5. Sorghum and Millet **\$6.00 per acre**
 - **5.** Individuals producing seed under contract with a contracting agency are not required to be an active member of SCNWFP. If the contracting agency is a member and submits the application for inspection.

* Field definition: the area of a crop that is not separated by another crop or farm boundary.

- III. TAG FEES: \$20.00 per lot minimum
- IV. TAG FEES: \$.60 for all tags
- V. All Field Inspections completed without a tag request will be assessed a \$1.00 per hundred weight on seed processed from the field.

All delinquent fees must be paid to certify seed in New Mexico.

VI. <u>APPLICATION DEADLINES FOR CERTIFICATION</u>:

- 1. SMALL GRAINS (BARLEY, OATS,. WHEAT AND RYE) •• MAY 15
- 2. EARLY ALFALFA, COOL SEASON GRASSES, HYBRID SORGHUM, ONIONS, AND SUDANGRASS • • • • • • • • • • • June 15
- **3.** COTTON, PEANUTS, AND CHILE PEPPERS • • • July 15

VII. <u>LATE FEES</u>:

- **1.** All inspection applications received after the above listed deadlines will be assessed a \$100.00 per application late fee.
- **2.** Mileage and per diem will be assessed if a special trip is required to inspect late applications.

VIII. <u>SEED SAMPLES FOR ANALYSIS</u>:

- 1. A representative sample of each lot of seed shall be sent directly to the New Mexico Department of Agriculture State Seed Laboratory or other Official seed laboratory whose analysis are registered with the Association of Official Seed Analysts (AOSA).
 - 1. Special analysis envelopes are available from the State Seed Laboratory and to obtain them you may call or write:

New Mexico Department of Agriculture State Seed Laboratory Box 30005, Dept. 3190 Las Cruces, NM 88003-0005 (575) 646-3407

- **2.** Rules for testing samples of seed and definitions of analytic terms shall be in accordance with the rules of the Association of Official Seed Analysts.
- **3.** Minimum weights of seed samples for certified classes of seed shall be submitted for final analysis is presented in Appendix I.
- 4. Sample weights for germination only are listed in Appendix I.
- **5.** For information on sample weights for special tests such as cold tests or tetrazolium (TZ) tests, contact the New Mexico State Seed Laboratory.
- **6.** Before forwarding samples for laboratory analysis, the containers of samples shall be completely and properly identified (see Appendix I).
- **7.** Be sure to note when sample is for certification.
- **8.** The results of the analysis shall be the basis for determining if the pedigreed seed standards have been met and for proper labeling of seed.
- **9.** Seed analysis must be made on all seed harvested from acreage inspected and passed for certification to complete final certification.
- **10.** All seed from a grower's own production that is to be used for his own

 $planting\,must\,be\,laboratory\,tested\,and\,all\,current\,fees\,paid\,to\,complete\,the\,certification.$

11. All <u>carry-over</u> seed should be marked as carry-over when submitting samples for analysis.

IX. <u>OFFICIAL LABELS</u>:

- 1. The official certification tag, which is attached to the container, serves as evidence of genetic purity and the identity of the seed contained therein.
 - 1. OFFICIAL LABELS ARE AS FOLLOWS:
 - a. Breeder and Foundation seed white tags
 - b. Registered seed purple tag
 - c. Certified seed blue tag
 - d. Selected green tag
 - e. Source identified yellow tag
 - f. Supplemental orange tag
 - 2. <u>CERTIFICATION TAGS</u>: The SCNWFP employs a dual system for certification tags to facilitate the movement of pedigreed seed in interstate and international trade, as well as handling carry-over seed.
 - a. <u>ONE TAG SYSTEM</u>: Requires only one tag for the certification of genetic purity with the seed analysis printed on the reverse side.
 - b. <u>TWO TAG SYSTEM</u>: Requires a total of two tags.
 - 1. The certification tag certifies the genetic purity and identity with kind, variety, lot number and producer of the seed imprinted on the reverse side. This tag remains on the bag from the processor to consumer.
 - 2. The analysis tag (second tag) is required for the complete and proper labeling of the seed analysis. These analysis tags may be supplied and printed by the grower or processor or they may be obtained from SCNWFP.
 - c. <u>SUPPLEMENTAL ANALYSIS TAGS</u>:
 - 1. In the case of carry-over, Registered or Certified classes of seed where the date of the test has expired, this tag may be used showing the new date and analysis and may be attached to the bag rather than replacing the original certification tag (one tag system). In this event, the expired analysis will be voided or marked out. This should aid in maintaining the identity of carry-over seed.
 - 2. This tag may also be used in conjunction with the two-tag system for labeling either current or carry-over seed.
- **2.** All official certification tags must be obtained from the state office of SCNWFP and must be affixed to the seed containers to complete the certification process.

X. <u>COMPLIANCE WITH STATE AND FEDERALLAWS</u>:

- 1. Responsibility for any obligation arising from the sale or shipment of seed, which has been certified, rests with the grower or subsequent handler making the sale or shipment.
- **2.** The New Mexico seed law requires the following information on the label of pedigreed seed:
 - 1. Name of the kind and variety.
 - 2. Percentage by weight of pure seed.*
 - 3. Lot number or identification.
 - 4. Origin of alfalfa, red clover, range grasses and field corn other than hybrids.
 - 5. Percentage by weight of all weed seeds.*
 - 6. The name and rate of occurrence per pound of restricted noxious weed seeds, if present.*
 - 7. Percentage by weight of other crop seeds.*
 - 8. Percentage by weight of inert matter.*
 - 9. Percentage of germination, exclusive of hard seeds.
 - 10.Percentage" of hard seeds, if present.
 - 11. Test date.
 - 12. Name and address of the person who is labeling seed, selling seed, or offering to expose seed for sale within this state.
 - 13. Official label of the certifying agency.
 - 14. If the seed has been treated, the name of the substance or process used and appropriate warning.
- **3.** Noxious weed seeds in New Mexico: Certified lots of seed are not permitted to contain any of the prohibited or restricted noxious weed seed. (New Mexico Seed Law Regulatory Order NO.1).
- * Not required on vegetable seed labels, but may be given.
 - 1. Prohibited Noxious Weed Seeds:
 - a. Bindweed (Convolvulus arvensis)
 - b. Camelthorn (Alhagi camelorum)
 - c. Halogeton (Halogeton glomeratus)
 - d. Nutgrass (Cyperus esculentus, C. rotundus)
 - e. Povertyweed (Franseria discolor)
 - f. Quackgrass (Agropyron repens)
 - g. Russian knapweed (Centaurea repens)
 - h. Canada thistle (Cirsium arvense)
 - i. Whitetop (Cardaria draba, C. pubescens)

- 2. Restricted Noxious Weed Seeds:
 - a. Dodder (Cuscuta spp.)
 - b. Johnsongrass (Sorghum halepense) and perennial sorghum
 - c. Morning glory (Ipomoea spp.)
 - d. Texas Blueweed (Helianthus ciliaris)
 - e. White Horsenettle (Bullnettle) (Solanumelaeagnifolium)
 - f. Wild Oat (Avena fatua)
 - g. Jointed Goatgrass (Aegilops cylindrica)
- 3. Objectionable Weed Seeds: in addition to noxious weeds, objectionable weeds whose seed are indistinguishable or cannot be separated by cleaning are listed in specific crop standards.
- **4.** TEST DATES TO DETERMINE PERCENTAGE OF GERMINATION:
 - 1. For intrastate sales and shipments of seed, tests shall have been completed within a nine month period as required by New Mexico Seed Law.
 - 2. For interstate sales and shipments of seed, test shall have been completed within a five month period, as required by the Federal Seed Act.
 - 3. For information of federal and state seed laws, contact SCNWFP or the New Mexico Department of Agriculture.

XI. <u>APPLICATION OF ADDITIONAL RULES AND STANDARDS</u>:

In cases where standards, procedures, definitions, etc. are not specified in this handbook, the minimum standards of AOSCA, the New Mexico Seed Law and/or Federal Seed Act will apply.

XII. INTERPRETATION & REVISION OF RULES, REGULATIONS & STANDARDS:

- 1. The SCNWFP Director and the New Mexico Seed Certification Committee shall interpret the rules, regulations and standards to clarify any questionable situation, and, as necessary, to meet any emergency that may arise.
- **2.** The SCNWFP will establish new or revised standards, rules, and regulations as needed for a meaningful, efficient and legal operation of the seed certification program. (New Mexico Seed Law 76-10-17).
- **3.** The standards, rules and regulations established by SCNWFP under X-B are subject to the approval of the New Mexico Seed Certification committee. (New Mexico Seed Law 76-10-17).

GENERAL SEED CERTIFICATION STANDARDS

The general seed certification standards listed herein applies to all crops eligible for certification. Specific standards are presented for individual crops in the appropriate place in this handbook. Standards for crops not listed specifically are the minimum standards for that crop set by AOSCA.

I. <u>THE OFFICIAL SEED CERTIFICATION AGENCY</u>:

- A. In accordance with the New Mexico Seed Law the official seed certifying agency in New Mexico is the New Mexico State University Seed Certification (SCNWFP).
- B. SCNWFP is an incorporated, non-profit organization of seed growers in New Mexico. It is the responsibility of SCNWFP to conduct the seed certification activities for the state.
- C. SCNWFP maintains a close working relationship between the seed growers, the Agricultural Experiment Station, the Cooperative Extension Service and the New Mexico Department of Agriculture.

II. <u>PURPOSE OF SEED CERTIFICATION</u>:

The purpose of seed certification shall be to maintain and make available to the public high quality seeds and propagating materials of superior crop varieties, which are grown and distributed so as to insure genetic identity and purity. The word "seeds", as used in these standards, is defined as including all propagating materials.

III. DEFINITIONS OF TERMS ASSOCIATED WITH SEED CERTIFICATION:

- A. <u>VARIETY</u>: (Cultivar) an assemblage of cultivated individuals which are distinguished by morphological, physiological, cytological, chemical, or other characteristics significant for the purposes of agriculture, forestry, or horticulture, and which when reproduced, either sexually or asexually, or reconstituted, retain their distinguishing features.
- B. <u>CLASSES OF SEED</u>: There are six classes of seed, which are recognized in seed certification.
 - 1. <u>BREEDER</u>: seed, which is directly controlled by the originating or sponsoring plant breeding institution, firm or individual. This seed is the source for the production of the certified classes.
 - 2. <u>FOUNDATION</u>: seed, which is the progeny of Breeder or Foundation seed, handled to maintain specific genetic purity and identity. Production must be acceptable to the certifying agency.
 - 3. <u>REGISTERED</u>: seed, which is the progeny of Breeder, or Foundation seed

handled under procedures acceptable to the certifying agency to maintain satisfactory genetic purity and identity.

- 4. <u>CERTIFIED</u>: seed, which is the progeny of Breeder, Foundation, or Registered seed so handled as to maintain satisfactory genetic purity and identity, acceptable to the certifying agency. (See exception in section VI).
 - a. Certified tree seed is defined as seed from trees, shrubs, and native plants of proven genetic superiority, produced so as to assure genetic identity. Seeds from interspecific hybrids of forest trees may be included.
- 5. <u>SELECTED</u>: a class of tree, shrub, or native plant seed which shall be the progeny of rigidly selected plants or stands of untested parentage that have promise but no proof of genetic superiority, and further, for which geographic source and elevation shall be stated on the certification label.
- 6. <u>SOURCE IDENTIFIED</u>: a class of tree, shrub, or native plant seed defined as seed from:
 - h. Natural stands with known geographic source and elevation, or
 - i. A plantation of known geographic location.
- C. <u>PLANTBREEDER</u>: a person or organization actively engaged in the breeding and maintenance of plant varieties.
- D. <u>OFF-TYPES</u>: plants or seeds, which are not described as a part of the variety by the plant breeder. This may include seeds or plants of, other varieties, seeds or plants not necessarily any variety, seeds or plants resulting from cross-pollination by other varieties, seeds or plants resulting from uncontrolled self-pollination during hybrid seed production, or segregates from any of the above plants.
- E. <u>Inbred Line</u>: a relatively true-breeding strain resulting from at least five successive generations of controlled self-fertilization or of backcrossing to a recurrent parent with selection, or its equivalent, for specific characteristics.
- F. <u>SINGLE CROSS</u>: the first generation hybrid between two inbred lines.
- G. <u>FOUNDATION SINGLE CROSS</u>: a single cross used in the production of a double cross, a three-way, or a topcross.
- H. <u>DOUBLE CROSS</u>: the first generation hybrid between two single crosses.
- I. <u>TOPCROSS</u>: the first generation hybrid of a cross between an inbred line and an open-pollinated variety or the first generation hybrid between a single cross and an open-pollinated variety.
- J. <u>THREE-WAY CROSS</u>: a first generation hybrid between a single cross and an inbred line.
- K. <u>OPEN POLLINATION</u>: pollination that occurs naturally as opposed to controlled pollination, such as detasselling, cytoplasmic male sterility, self-incompatibility, or similar processes.
- L. <u>OBJECTIONABLE WEEDS</u>: weeds which are nuisances and whose seeds are indistinguishable or cannot be separated in a cleaning process.
- M. <u>FIELD</u>: an area of a crop that is not separated by another crop

(including fallow) or a farm boundary.

- N. <u>OPEN-POLLINATED SEED</u>: seed produced as a result of natural pollination as opposed to hybrid seed which results from controlled pollination.
- O. <u>HYBRIDS</u>: the first generation of a cross-produced by controlled crosspollination to assure at least 75% of the progeny are from crosspollination.
- P. <u>LOT NUMBER</u>: the identifying or reference number assigned to a given lot of seed. A lot of seed is a definite quantity of seed identified by a lot number, where every portion or bag is uniform within the permitted tolerances for the factors in labeling. This number should include the year the crop was grown and the producer's initials.

For definitions of terms not included herein, reference will be made to those used in AOSCA Handbook and/or the Federal Seed Act.

IV. ELIGIBILITY REQUIREMENTS FOR CERTIFICATION OF VARIETIES:

- A. Varieties, which meet one or more of the following criteria, shall be eligible for certification.
 - 1. Released by New Mexico Agricultural Experiment Station and/or jointly released with U.S.D.A. and other stations.
 - 2. Accepted by another member agency of the AOSCA.
 - 3. Approved by an appropriate National Variety Review Board.
 - 4. Accepted by the U.S. Plant Variety Protection Office.
 - 5. Accepted by the Board of Directors of the SCNWFP.
- B. The certifying agency shall require the originator, developer, or owner of the variety, or agent thereof, to make the following available to SCNWFP when eligibility for certification is requested:
 - 1. The name of the variety.
 - 2. A statement concerning the variety's origin and the breeding procedure used in its development.
 - 3. A detailed description of the morphological, physiological and other characteristics of the plants and seed that distinguish it from other varieties.
 - 4. Evidence of performance of the variety, such as comparative yield data, insect or disease resistance, or other factors supporting the identity of the variety.
 - 5. A statement delineating the geographic area or areas of adaptation of the variety.
 - 6. A statement on the plans and procedures for the maintenance of seed classes, including the number or generations through which the variety may be multiplied.
 - 7. A description of the manner in which the variety is constituted when a

particular cycle of reproduction or multiplication is specified.

- 8. Any additional restrictions on the variety, specified by the breeder, with respect to geographic area of seed production, age of stand or other factors affecting genetic purity.
- 9. A statement regarding unauthorized propagation if a protected variety (or applied for protection) under the Plant Variety Protection Act and any other restrictions associated with the PVP.
- 10. The directors of the SCNWFP may request the Dean and Director of the College of Agriculture to appoint a committee of qualified individuals to review the application of a variety submitted for certification and make recommendations to the Board.

V. <u>CLASSES OF SEED RECOGNIZED IN SEED CERTIFICATION</u>:

- A. Breeder
- B. Foundation
- C. Registered
- D. Certified
- E. Selected (Trees, Shrubs and Native Plants)
- F. Source-Identified (Trees, Shrubs and Native Plants)
- G. The Director and the SCNWFP Seed certification Committee shall have the authority to determine the merits of any seed stocks from eligibility and/or approval as classes of pedigreed seed.

VI. <u>LIMITED GENERATIONS</u>:

- A. The number of generations through which a variety may be multiplied shall be limited to that specified by the originating breeder or owner of a variety, but shall not exceed two generations beyond Foundation seed, with the following exceptions which may be made with the permission of the originating or sponsoring plant breeder or his designee:
 - 1. Recertification of the Certified class may be permitted when no Foundation seed is being maintained.
 - 2. The production of an additional generation of the Certified class only may be permitted on a one year basis when an emergency is declared by the certifying agency stating that Foundation and Registered seed supplies are not adequate to plant the needed 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 to meet the emergency need is ineligible for recertification.

B. <u>SUB-STANDARD SEED IN EMERGENCIES</u>:

It is recognized that certain lots of seed that may be desirable for the advancement of crop improvement would be lost if regular certification standards are adhered to. Therefore, under such circumstances, seed failing to meet certification standards other than those affecting genetic purity may be certified, provided there is no injury to the reputation of the

pedigreed seed. The certification tag attached to such seed shall clearly show the respects in which the seed does not meet the regular certification standards.

VII. <u>ESTABLISHING THE SOURCE OF ALL CLASSES OF CERTIFIED SEED</u>:

A. The SCNWFP shall be supplied with satisfactory documentary evidence of the class and source of seed used to plant each crop being considered for certification.

VIII. <u>PRODUCTION OF ALL CLASSES OF CERTIFIED SEED</u>:

- A. The certified seed grower is responsible for maintaining the genetic purity and identity through all stages of production including seeding, harvesting, processing and labeling of the seed. It is the growers responsibility to be familiar with and conform to the standards and procedures for producing pedigreed seed.
- B. The unit of certification shall be a clearly defined field or fields.
- C. One or more field inspections shall be made:
 - 1. Previous to the time a seed crop of any class of pedigreed seed is to be harvested.
 - 2. When genetic purity and identity can best be determined.
 - 3. By qualified field inspectors approved by SCNWFP.
 - 4. The field shall be in suitable condition to permit adequate inspection to determine if the genetic purity and identity are within the established tolerances.
- D. Harvested lots of seed from inspected fields shall be subject to inspection by SCNWFP or its authorized agent at any time.
- E. A representative sample shall be drawn from each cleaned lot of seed eligible for certification and submitted to an approved lab for analysis.
- F. Evidence that any field or lot of seed has not been protected from contamination, which might affect genetic purity or is not properly identified, shall be cause for possible rejection of certification.

IX. <u>PROCESSORS AND PROCESSING OF ALL CLASSES OF CERTIFIED SEED</u>:

- A. Processors of all classes of pedigreed seed must meet the following requirements.
 - 1. Facilities shall be available to perform the function requested without introducing admixtures.
 - 2. Identity of the seed must be maintained at all times.
 - 3. Records of all operations shall be complete and adequate to account for all incoming seed and final disposition of seed.
 - 4. Processors shall permit inspection by SCNWFP of the facility and all records pertaining to certified classes of seed.
 - 5. Processors and/or growers shall designate an individual who shall be responsible to SCNWFP for performing such duties as may be required.
 - 6. Seed lots of the same variety and class may be blended and the class

retained. If lots of different classes are blended, the lowest class shall be applied to the resultant blend. Such blending can only be done when authorized by SCNWFP.

- B. Processors who plan to process certified classes of seed shall apply to the SCNWFP for approval on an annual basis.
 - 1. The annual Approved Processor's fee is \$10.00.
- C. Gins, delinting plants, cleaning and storage facilities must be approved prior to storing and processing any class of pedigreed seed and are subject to inspection by a representative of SCNWFP at any time.
 - 1. The annual Approved Ginner's fee is \$10.00.
- D. BULK SEED CERTIFICATION:
 - 1. Bulk sales of certified seed must be reported to SCNWFP by means of a Bulk Transfer certificate.
 - 2. All field and seed standards that apply to bagged seed shall also apply to bulk certified seed.
- E. Inspectors of SCNWFP shall have the authority to reject for certification any lot not properly protected from mixtures or improperly identified.
- X. <u>LABELING OF CERTIFIED SEED</u>:
 - A. All classes of pedigreed seed, when offered for sale, shall have an official certification label affixed to each container clearly identifying the certifying agency, the lot number (reference number), the variety name and the kind and class of seed.
 - B. In cases of seed sold in bulk, the invoice or accompanying documents shall identify the certifying agency, the crop kind, variety, class of seed, lot number (reference number) and analysis.
 - C. The official certification label may be printed directly on the container provided all such containers are accounted for to SCNWFP.
 - D. Labels other than those printed on the containers shall be attached to containers in a manner that prevents removal and re-attachment.

XI. <u>INTERAGENCY CERTIFICATION</u>:

- A. Interagency certification is the participation of two or more official certifying agencies in performing the services required to certify the same lot or lots of seed. The methods and standards employed in each step of the interstate certification process are those used when certification is completed by a single agency, with the following exceptions:
 - 1. The agency issuing the labels shall require the seed to meet standards at least equal to the minimum standard of AOSCA for the seed in question.
 - 2. Seed to be recognized for interagency certification must be received in containers carrying official certification labels or evidence of its eligibility from another official certifying agency, together with the following information:
 - a. Variety and kind.
 - b. Quantity of seed (pounds or bushels).

- 3. Class of seed.
- 4. Inspection or lot number traceable to the previous certifying agency's records.
- B. In addition to compliance with the requirements specified in Section X, each label used in interagency certification shall be serially numbered or carry the lot number (reference number) and clearly identify the certifying agencies involved, the variety, kind and class of seed.
- C. Although detailed arrangements may be made between two agencies for the interagency certification of a specific lot, it is not necessary to obtain prior approval from the other agency.
- D. The agency last having jurisdiction of the seed must keep on file complete information indicating the quantity of seed finally certified, nature of service rendered (recleaning, rebagging, or relabeling) and the certification and lot numbers of the seed involved.

ALFALFA CERTIFICATION STANDARDS

I. <u>APPLICATION OF GENETIC CERTIFICATION STANDARDS</u>:

- A. Limitations on age of stand and pedigree classes of seed through which a given variety may be multiplied for both inside and outside the region of adaptation shall be specified by the originator or his designee. Certified seed production outside the region of adaptation shall not exceed six years if not otherwise specified by the originator or his designee.
 - 1. The northern alfalfa region includes the states and parts of states located between the Canadian boundary and the 40th parallel except in the extreme west, where the southern boundary is the California-Oregon state line.
 - 2. The central alfalfa region includes states and parts of states between the California-Oregon state line and the 40th parallel in California and south of the 40th parallel and the southern boundary of Nevada, Utah, and Colorado, the 36th parallel in Oklahoma and Texas and the southern boundary of Missouri, Kentucky, and Virginia.
 - 3. The southern boundary region includes all states and parts of states below the southern boundary of the central alfalfa region.

II. <u>LAND REQUIREMENTS</u>:

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

III. FIELD INSPECTION:

A field inspection shall be made each year at the time the seed crop is in bloom to best determine varietal purity.

IV. <u>FIELD STANDARDS:</u>

A. A unit of certification shall be clearly defined field or fields.

В.

	Maximum Permitted in Each Class			
Factor	Foundation	Registered	Certified	
Other varieties	1:1,000	1:400	1:100	
Sweet clover plant/A	None	10	160	

C. ISOLATION REQUIRMENTS*

	For Fields of	For Fields of
Class	Less Than 5 Acres	More than 5 Acres
Foundation	300 yards	200 yards
Registered	150 yards	100 yards
Certified	55 yards	55 yards

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

IV. <u>Seed Standards</u>:

Factor	Foundation	Registered	Certified
Pure seeds (minimum)	99.00%	99.00%	99.00%
Inert(maximum)	1.00%	1.00%	1.00%
Weed seed (maximum)	0.10%	0.10%	0.50%
Noxious weed seed	None	None	None
Other varieties	0.10%	0.25%	0.50%
(maximum)			
Other kinds (maximum)*	0.10%	0.10%	0.50%
Total other crops	0.20%	0.35%	1.00%
(maximum)			
Germination&hardseed			80.00%
(minimum)	80.00%	80.00%	

*Sweet clover shall not exceed 9 per pound in Foundation, 50 per pound for Registered, and 100 per pound for Certified.

BEAN, PEA, AND COWPEA CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

Beans, peas and cowpeas shall be planted on land on which the preceding crop was of another kind or the same variety of an equal of higher class.

- II. <u>IRRIGATION REQUIREMENTS</u>: Beans, peas and cowpeas grown under sprinkler irrigation will be ineligible for Certification.
- III. <u>FIELD INSPECTION</u>: Seed fields shall be inspected for off-type and diseased plants at least once prior to harvest.

IV. <u>FIELD STANDARDS</u>:

A. General:

Unit of certification - the unit of certification shall be a field or a portion of a field separated from the remainder by a definite boundary at least 10 feet wide.

B. Specific:

-	Standards for Each Class		
Factor	Foundation	Registered	Certified
Other varieties	1:2,000	1:1,000	1:500
Other crops	None	1:2,000	1:1,000
Mosaic	None	1:200	1:100
Bacterial bean	None	None	1:10,000
blight			
Anthracnose	None	1:10,000	1:5,000
Wilt	None	1:10,000	1:5,000

V. <u>SEED STANDARDS</u>:

	Standards for Each Class			
Factor	Foundation	Registered	Certified	
Pure seed (minimum)	95.00%	98.00%	98.00%	
Inert matter	NS	2.00%	2.00%	
(maximum)				
Weed seeds (maximum	n) NS	None	0.10%	
Other varieties	0.05%	0.05%	0.10%	
(maximum)				
Other kinds	None	0.05%	0.10%	
(maximum)				
Total other crop seeds	0.05%	0.10%	0.20%	
(maximum)				
Germination (minimum)				
Field beans &	NS	85.00%	85.00%	
Mungbeans				
Garden beans	NS	75.00%	75.00%	
Cowpeas & field	NS	80.00%	80.00%	
peas				

NS=No Standards

CLOVER CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

For the production of Foundation seed, the planting will be on land which has not been planted to clover for the past five years; for Registered seed, three years, and for Certified seed, two years.

II. FIELD INSPECTION:

A field inspection will be made each year at the time the seed crop is in full bloom.

III. <u>FIELD STANDARDS</u>:

- A. The unit of certification will be a clearly defined field or fields.
- B. Isolation requirements*

-	For Fields of	For Fields of
Class	Less than 5 Acres	More than 5 Acres
Foundation	900ft.	200 yards
Registered	450ft.	100 yards
Certified	165ft.	55 yards

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

С.

	Maximum Permitted in Each Class			
Factor	Foundation	Registered	Certified	
Other varieties or off				
types	1:1,000	1:400	1:100	

D. <u>LENGTH OF STAND</u>:

1. Foundation and/or Registered seed fields may produce successive seed crops for 2 years following seeding except that each may be reclassified to the next lower class after two years. A certified field may produce successive seed crops for 4 years. A stand will not be eligible to produce any class of certified seed after successive seed crops for 4 years.

IV. <u>SEED STANDARDS</u>:

Factor	Standards for All Seeds
Pure seed (minimum)	99.00%
Inert matter (maximum)	1.00%
Weed seed (maximum)	0.10%
Noxious weed seed	None
Other varieties (maximum)	0.10%
Other kinds (maximum)*	0.10%
Total other crop seeds (maximum)	0.20%
Germination & hard seed (minimum)	85.00%

* 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.

STRAWBERRY CLOVER CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

For the production of Foundation seed, the planting will be on land which has not been planted to strawberry clover for the past five years; for Registered seed, three years; and for certified seed two years.

II. <u>FIELD INSPECTION</u>:

A field inspection will be made each year at the time the seed crop is in full bloom.

III. <u>FIELD STANDARDS</u>:

A. The unit of certification will be clearly a defined field or fields.

	В.	Isolation	requirements*
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Class	For Fields of Less than 5 Acres	For Fields of More than 5 Acres
Foundation	300 yards	200 yards
Registered	150 yards	100 yards
Certified	55 yards	55 yards

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

C.

	Maximum Permitted in Each Class		
Factor	Foundation	Registered	Certified
Other varieties or			
off types	1:1,000	1:4,000	1:100

D. <u>LENGTH OF STAND</u>:

Foundation and/or Registered seed fields may produce successive seed crops for 2 years following seedling except that each may be reclassified to the next lower class after two years. A certified field may produce successive seed crops for 4 years. A stand will not be eligible to produce any class of certified seed after successive seed crops for 4 years.

IV. <u>SEED STANDARDS:</u>

Factor	Standards for AllSeeds
Pure seed (minimum)	99.00%
Inert matter (maximum)	1.00%
Weed seed (maximum)	0.20%
Noxious weed seed	None
Germination & hard seed	85.00%
(minimum)	

OPEN POLLINATED CORN CERTIFICATION STANDARDS

- I. <u>LAND REQUIREMENTS</u>: There are no requirements as to the previous crop.
- II. <u>FIELD INSPECTIONS</u>: A field inspection shall be made at a time when varietal identity can be determined.

III. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. Unit of certification A field, or portion of a field may be certified.
 - 2. Isolation requirements The acreage to be certified must not be less than 440 yards from any other variety of corn, including popcorn and sweet corn. (The only exception is certifiable seed of the same variety.)
- B. Specific:

There shall not be more than 0.5 percent detectable admixture with plants of other varieties.

-

IV. <u>SEED STANDARDS</u>:

	Standards for Each Class		
Factor	Foundation	Registered	Certified
Pure seed (minimum)	98.00%	98.00%	98.00%
Inert matter	2.00%	2.00%	2.00%
(maximum)			
Total Weed seeds	None	None	None
(maximum)			
Other varieties	None	0.50%	0.50%
(maximum)			
Other kinds (maximum)	NS	NS	NS
Totalothercrop	NS	0.50%	0.50%
seeds			
(maximum)			
*Germination	NS	90.00%	90.00%
(minimum)			
Moisture (maximum)	14.00%	14.00%	14.00%

* Minimum germination for sweet corn is 80.00%

NS=No Standards

HYBRID CORN CERTIFICATION STANDARDS

I. <u>AMPLIFICATION OF GENERAL STANDARDS</u>:

- A. The general certification standards are basic.
- B. Definition:
 - 1. Hybrid seed is seed to be planted for any purpose except seed production. See Section III, Paragraph H under General Seed Certification Standards on Page 12 (SCNWFP Handbook).
- C. Classes of seed recognized:
 - 2. Only the class Certified is recognized in hybrid corn.
 - 3. Certified seed must be produced from Foundation seed stocks.

II. <u>LAND REQUIREMENTS</u>:

Land to be used for the production of certified corn seed must be free from volunteer corn plants.

III. <u>FIELD INSPECTIONS</u>:

One or more field inspections will be made by the certifying agency during the pollinating period.

IV <u>FIELD STANDARDS</u>:

- A. Isolation: The field, to be certified, must be 440 yards from any contaminating source of pollen.
- B. Off types and pollen shedding:
 - 1. There shall be no more than 0.1 of one percent (1:1000) definite off-type plants in the pollinator or seed rows.
 - 2. When 5% of the seed parent plants have receptive silks, the unit or field will not be accepted for certification if more than 1.0 percent (1:100) of the seed parent plants have shed pollen on any one inspection or if the total for the inspections in one season exceeds 2.0 percent (2:100).

V. <u>SEED STANDARDS</u>:

Factor	Certified Hybrid Corn
Pure seed (minimum)	98.00%
Inert matter (maximum)	2.00%
Weed seed (maximum)	None
Other varieties (maximum)	0.50%
Other Kinds (maximum)	0.00%
Total other crop seeds	0.50%
(maximum)	
Germination (minimum)	90.00%
Moisture (maximum)	14.00%

COTTON CERTIFICATION STANDARDS

- I.LAND REQUIREMENTS:Land to be used for the production of certified seed must be free from
volunteer cotton plants.
- II. <u>FIELD INSPECTION</u>: At least one official inspection of each field must be made prior to harvest.

III. <u>FIELD INSPECTION</u>:

A. General:

- 1. A field or portion of a field may be certified provided proper precautions are taken to prevent contamination from the portion not certified.
- 2. Off-type plants, other varieties and objectionable weeds (cocklebur and sandbur) should be rogued prior to inspection.
- 3. Isolation
 - a. For upland type cotton, the isolation distance shall be a natural barrier or crop boundary, except minimum isolation shall be 100 feet if contaminating source differs by easily observed morphological characteristics from field being inspected. The isolation from American pima type cotton shall be 440 yards.
- b. For American pima type cotton, the isolation distance shall be 440 yards for Foundation and Registered classes and 220 yards for Certified class from any other types of cotton.
- For varieties differing in lint colors, the isolation distance shall be 1,760 yards from an adequate buffer of cotton of the same color. If inadequate buffer, the isolation is 3 miles.
- B. Diseases:

c.

C.

color

- 1. The presence of bacterial blight (angular leaf spot) is not permitted in strains susceptible to this disease.
- 2. In strains highly tolerant to bacterial blight, a maximum infestation of not more than 5% on the leaves is permissible.

	n Permitted in]	Each Class	
Specific Factor	Foundation	Registered	Certified
Other varieties*	1:10,000	1:5,000	1:1,000
Other varieties differing in lint	None	None	None

* Other varieties shall be considered to include off-type plants and plants that can be differentiated from the variety that is being inspected.

IV. <u>SEED STANDARDS</u>:

	Standards for Each Class		
Factor	Foundation/Registered	Certified	
Pure seed (minimum)	98.00%	98.00%	
Inert matter	2.00%	2.00%	
Weed seed			
(maximum)	None	None	
Other varieties			
(maximum)	0.00%	0.10%	
Other varieties			
DifferinginLint	None	None	
Color			
Other kinds	0.00%	0.02%	
Total other crop			
seeds (maximum)	0.00%	0.30%	
**Germination			
(minimum)	80.00%	80.00%	

*Objectionable weed seed: Cocklebur (Xanthium. spp) and Sanbur a (Cenchrus pauciflorus), Morning Glory (Ipomoea ssp.), Jimson Weed (Datura stramoium). ** Minimum germination for fuzzy cotton is 70.00%

HYBRID COTTON CERTIFICATION STANDARDS

- I. <u>APPLICATION OF GENERAL CERTIFICATION STANDARDS</u>:
 - A. Requirements for certification of hybrid cotton cultivars:
 - 1. The name under which any hybrid cotton shall be certified shall be the same designation given by the originator, originating firm or agency and must represent a specific combination of parental lines.
 - 2. Foundation seed stock (parent lines) shall consist of A, B, and R lines to be used in the production of a commercial hybrid seed.
 - 3. Standards applicable to cotton varieties shall apply to the production of R line pollinators.
 - B. Designation of classes of seed:
 - 1. A commercial hybrid is one to be planted for any use except seed production.
 - 2. Only the class "certified" is recognized in the production of commercial hybrid cotton seed.
 - 3. To be certified, a commercial hybrid must be produced from seed stock approved by the certifying agency.
 - C. Restriction on number of varieties:
 - 1. If the seed of more than one hybrid is produced on the same farm, they must be approved by the certifying agency.
 - 2. There must be no mechanical mixing and undesired cross-pollination must be avoided.
- II. <u>LAND REQUIREMENTS</u>:
 - A. Hybrid cotton shall be planted on land which the previous crop was of another kind or the previous crop was one or both of the parents of the hybrid being produced and of a certified class equal to or higher than that of the crop planted.
 - B. Production of the sterile lines and crossing blocks must be on land free of volunteer contaminating plants.
- III. <u>FIELD INSPECTION</u>: Fields or parts of fields producing seed of commercial hybrids or Foundation seed stock shall be given at least three field inspections.
 - A. Two yield inspections during the bloom period, one in early bloom stage and one in full bloom.
 - B. One pre-harvest inspection as bolls are beginning to mature.
- IV. Field Standards:
 - A. General:
 - 1. Unit of certification: The entire field of any hybrid seed production grown by or belonging to a seed applicant and used for must be eligible and must be inspected.
 - 2. Isolation:
 - a. Seed stock (parent lines) must be so located that seed parent is not less than 440 yards from fields of any variety or fields of the same

variety that do not meet the variety purity requirements for certification. In no case shall the isolation distance be less than that required for commercial hybrid.

- b. Commercial hybrids: For production of certified seed of commercial hybrids, the seed parent shall not be less than 440 yards from fields of other kinds, contamination or from fields of same variety that do not meet variety purity requirements for certification.
- c. Pollen shedding by male sterile parents:

Factor	Foundation	Certified Hybrid
Pollen shedder	1:5,000 (.02%)	1:2,000 (.05%)

B. Specific Requirements: Both the seed parent and pollinator shall be required to meet the following standards:

Factor	Foundation	Certified Hybrid
Other varieties- definite*	1:20,000	1:10,000
Other varieties- doubtful*	1:10,000	1:5,000

*Other varieties include off-type plants and plants that can be differentiated from the variety inspected.

- C. Diseases:
 - 1. The presence of bacterial blight (Angular leaf spot) is not permitted in strains susceptible to this disease.
 - 2. In strains highly tolerant to bacterial blight, a maximum infestation may not exceed 5% lesions on the leaves.
- V. <u>SEED STANĎARDS</u>:

- <u>-</u>	Standards for Each Class		
Factor	Foundation/Registered	Certified	
Pure seed (minimum)	98.00%	98.00%	
Inert matter			
(maximum)	2.00%	2.00%	
Weed seed			
(maximum)*	None	None	
Other varieties			
(maximum)	0.00%	0.10%	
Other kinds			
(maximum)	0.00%	0.02%	
Total other crop			
seeds (maximum)	0.00%	0.30%	
Germination (minimum)	80.00%	80.00%	

*Objectionable weed seed: Cocklebur (Xanthium spp) and Sandbur (Cenchrus pauciflorus), Morning Glory (Ipomoea spp.), Jimson weed (Datura stramonium).

FORBS CERTIFICATION STANDARDS

- I. <u>AMPLIFICATION OF GENERAL STANDARDS</u>: The life of the stand shall not exceed 6 years and 5 harvests, as long as field and seed standards are met.
- II. <u>LAND REQUIREMENTS</u>:
 - A. A field, to be eligible for the production of certified classes of seed, must have not grown or been seeded to the same species during the previous four years for Foundation, three for Registered, or two years for Certified, except for seed of the same variety of equal or higher classification.
 - B. Land, to be used for the production of certified classes of seed, must be free from volunteer plants.
- III. <u>FIELD INSPECTION</u>: Seed field inspection will be made at least once a year at the time the crop is in bloom and prior to harvest.
- IV. <u>FIELD STANDARDS</u>:

	Maximum Permitted in Each Class		
Factor	Foundation	Registered	Certified
Other varieties and off- types	1:1.000	1:500	1:250

IV. <u>ISOLATION</u>:

Class	Foundation	Registered	Certified
Minimum distance	330 yards	330 yards	330 yards
From generation of the same variety	55 yards	55 yards	55 yards

V. <u>SEED STANDARDS</u>:

	Standards for Each Class		
Factor	Foundation	Registered	Certified
Pure seed (minimum)	85.00%	80.00%	80.00%
Inert matter			
(maximum)	15.00%	20.00%	20.00%
Weed seed			
(maximum)	0.10%	0.30%	0.50%
Noxious Weeds	None	None	None
Other varieties			
(maximum)	0.10%	0.25%	0.50%
Other kinds			
(maximum)	0.10%	0.25%	0.50%
Total other crop seed (maximum)	0.20%	0.50%	1.00%

Germination (minimum)	60 00%	60.00%	60.00%
()	00.0076	00.0078	00.0070

GRASS CERTIFICATION STANDARDS

- I. <u>LAND REQUIREMENTS</u>:
 - 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 Registered and 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.
- II. <u>FIELD INSPECTION</u>: A field inspection will be made after heading, but before harvesting, each year that a Foundation, Registered, or Certified seed crop is to be harvested.

III. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. A seed field shall be considered the unit for certification. A strip at least five feet wide which is mowed, uncroped or planted to some crop other than the kind in question, shall constitute a field boundary.
 - 2. A seed field of a species to be eligible for the production of Foundation, Registered, or Certified seed must be isolated from any other varieties of the same species in accordance with the requirements given in the following table:

Type Reproduction*	Border to be Removed**	Minimum Found***	Isolation Regular***	Distance Certified***
	Yards	Yards	Yards	Yards
Cross pollinated	0	300	100	55
	3	200	75	35
	5	150	50	25
Strain at least 80% apomictic	0	20	10	5
& highly self- fertile species	3	10	5	5

* The species are classified in the table on specific seed standards in Section IV. ** Where a border is 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 field, the isolation requirements may be reduced to 25% of that shown in the above table.

C. <u>Specific</u>: Maximum tolerance for other varieties and off-type plants are as follows:

	Maximum Permitted			
Factor	Foundation	Registered	Certified	
Other varieties and off-type plants	1:1,000	1:200	1:100	

V. <u>SEED STANDARDS</u>:

A. Specific seed standards:

Common Name	Type of Repro- duction*	Percent Germ- ination (Min)	Percent Purity (Min)	Percent Inert Material (Max)	Pero Weed (M	cent Seed ax)
1. Non-Chaffy Grasses		Fdn., Reg. & Cert.	Fdn., Reg. & Cert.	Fdn., Reg. & Cert.	Fd. & Reg	Cert
Pubescent wheatgrass	С	80.00%	90.00%	10.00%	0.30%	0.50%
Crested wheatgrass	С	80.00%	90.00%	10.00%	0.30%	0.50%
Tall wheatgrass	С	80.00%	90.00%	10.00%	0.30%	0.50%
Intermediate wheatgrass	С	80.00%	90.00%	10.00%	0.30%	0.50%
Western wheatgrass	C	70.00%	85.00%	15.00%	0.30%	0.50%
Orchardgrass	С	80.00%	85.00%	15.00%	0.30%	0.50%
Tall fescue	С	80.00%	95.00%	5.00%	0.30%	0.50%
Arizona fescue	С	50.00%	90.00%	10.00%	0.30%	0.50%
Indian ricegrass**	C	1.00%	90.00%	10.00%	0.30%	0.50%
Switchgrass	С	60.00%	90.00%	10.00%	0.50%	1.50%
Spike muhly	C & S	50.00%	85.00%	15.00%	0.30%	0.50%
Galleta (caryopsis)	C	60.00%	85.00%	15.00%	0.50%	1.50%
Alkali sacaton	C	65.00%	87.00%	13.00%	0.30%	0.50%

* C = Cross Pollinated Species

S = Highly self-fertile species

A = Apomictic

** The tetazolium test must be used in addition to the normal seed test. The minimum viability acceptable for certification will be 70%. Germination must be shown on the tag.

Common Name	Type of Repro- duction*	Pure Live Seed **	Percent Weed Seed (Max)	
2. Chaffy Grasses		Foundation, Registered, & Certified	Foundation And Registered	Certified
Little bluestem	С	12.00	1.00	1.50
Sand bluestem	С	20.00	1.00	2.50
Yellow bluestem	C & A	20.00	0.30	0.50
Sideoats grama***	C & A	30.00	1.00	2.50
Black grama	С	20.00	0.30	0.50
Blue grama	С	24.00	0.30	0.50
Indiangrass	С	25.00	1.00	2.50
Galleta (florets)	С	25.00	1.00	2.50

B. Specific seed standards, cont.

* C = Cross Pollinated Species

S = Highly self-fertile species

A = Apomictic

**When Pure Live Seed Index is used as a basis for certification, the labels shall bear the percent germination, dormant seeds, and percent purity times percent germination, including dormant seeds, divided by 100.

***In determining germination for sideoats grama, the seed unit shall be defined as a speculate with one or more caryopses.

C. General*: Properly drawn representative seed samples shall meet the following general standards for all species:

	Maximum Permitted in Each Class			
Factor	Foundation	Registered	Certified	
Other varieties	0.10%	1.00%	2.00%	
Other kinds	0.10%	0.10%	0.25%	
Total other crops	0.20%	1.00%	2.00%	
Noxious weeds	None	None	None	

* Any grasses not listed in specific standards must comply with AOSCA standards to be eligible for certification.
GUAYULE CERTIFICATION STANDARDS

- I. <u>APPLICATION AND AMPLIFICATION OF GENERAL CERTIFICATION</u> <u>STANDARDS:</u> The general standards are amplified as follows to apply specifically to guayule.
 - A. Breeder, Foundation and Certified classes of planting seed are recognized for this crop.
- II. <u>LAND REQUIREMENTS</u>: A crop of guayule will not be eligible for certification if planted on land which guayule was previously grown during the last two years. The land must have been fallowed (cultivated) or in another cultivated crop during the intervening years.
- III. INSPECTION OF TRANSPLANTS:
 - A. Greenhouse Inspection: An inspection of the greenhouse must be made within three weeks after planting to certify that the trays are well-marked. The inspection will be made by the state in which the greenhouse is located even if the plants are being produced to be transplanted in another state.
 - B. Planting Site Inspection: The transplants must be inspected at the planting site before any transplants are planted.
- IV. <u>FIELD INSPECTION</u>:
 - A. Fields must be inspected each year after the end of dormancy, but before each harvest.
- VI. <u>FIELD STANDARDS</u>:
 - A. General:

The field shall be considered the unit of certification. A portion of a field may be accepted for certification provided that the rejected portion of the field is not harvested for seed and does not affect the general purity of the part accepted.

- VII. Isolation:
 - 1. To produce Foundation seed, guayule must be grown 300 feet from any other guayule or any other Parthenium species in the wild.
 - 2. Guayule, to produce Certified seed, must be separated from other varieties producing certified seed by a minimum of 10 feet. It must be separated from other non-certified guayule fields by a minimum of 300 feet.

VIII. Specific Requirements:

speeme nequiremente.	Maximum Peri	mitted in Each Class
Factor	Foundation	Certified
Off-type plants*	1:50	From 1:14 to 1:50
Inseperable crops or	1:500	(dependant on
weeds**		cultivar)
Noxious weeds***	Left to judgment of certifying agency	

* Off-type plants are recognized by height and shape of plant, leaf serration and density of flowering heads and by time of flowering. Especially objectionable are mariola-type plants.

** These are crops or weeds having seed similar in size and shape to guayule.

***The presence of noxious weeds such as Johnsongrass, where no effort has been made to prevent seed formation, may be cause for rejection of the field. Excessive numbers of weeds of any kind may also result in rejection.

IV. SEED STANDARDS:

	Maximum Permitted in Each Class	
Seed Percentage Factor	Foundation	Certified
Pure Seed (minimum)	95.00%	95.00%
Inert Matter (maximum)	5.00%	5.00%
Weed Seed (maximum)	0.20%	0.20%
Noxious Weed Seed	None	None
Other Varieties (maximum)	2.00%	4.00%
Other Kinds (maximum)	0.20%	0.35%
Total Other Crop Seeds	2.20%	4.35%
(maximum)		
Germination (minimum)		
(Regular method on seed	75.00%	75.00%
aged one year or more or		
Clorox treatment on other.)		

* On varieties where chaffy seed is a problem a Pure Live Seed (PLS) may be used: purity x germination divided by 100.

Example: (95.00% X 75.00) % divided by 100 = 71.00

MILLET CERTIFICATION STANDARDS Cross-Pollinated

- I. <u>APPLICATION OF GENETIC CERTIFICATION STANDARDS</u>: Hybrid millet will be limited to two generations from Breeder seed; namely Foundation and Certified seed.
- II. <u>LAND REQUIREMENTS</u>:

No cultivated variety of millet shall have been grown on the same land the previous year except a crop of the same variety grown from seed of an equal or higher class.

III. <u>FIELD INSPECTION</u>:

- A. Foundation and Registered seed fields shall be given at least two inspections as follows:
 - 1. The first field inspection shall be made from prebloom to half-bloom stage.
 - 2. The second field inspection shall be made before harvest; but after the seed begins to assume mature color.

IV. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. Unit of certification A portion of a field may be accepted for certification.
 - 2. Isolation Fields, or parts of fields acceptable for the production of Foundation, Registered or Certified seed must have the minimum isolation distance from fields of any other varietal purity requirements for certified seed as given in the following table:

Class	Minimum Isolation Distance
Foundation	440 yards
Registered	440 yards
Certified	220 yards

* Isolation distance between millets of different genus will be six feet for all classes.

Minimum Isolation Distan			stance
Factor	Foundation	Registered	Certified
Other Varieties (definite)*	1:20,000	1:10,000	1:5,000
Other Varieties (doubtful)	1:10,000	1:5,000	1:2,500
Total Noxious Weeds	None	None	None
Other Crops (kinds)**	1:20,000	1:20,000	1:10,000

B. Specific Requirements:

* Other varieties (definite) shall be considered to include off-type plants and plants that can be differentiated from the variety that is being inspected. ** An additional 0.10% (1:1,000) limited to grain type sorghum plants is allowable in the Certified class of pearl millet only.

IX. Seed Standards:

	Stan	dards of Each C	lass
Factor	Foundation	Registered	Certified
Pure Seed	98.00%	98.00%	98.00%
(minimum)			
Inert Matter	2.00%	2.00%	2.00%
Weed Seed	0.05%	0.05%	0.10%
(maximum)			
Noxious Weed	None	None	None
Seed			
Other Varieties	0.005%	0.01%	0.02%
(maximum)			
Other kinds	0.005%	0.01%	0.02%
(maximum)			
Total Other Crop	0.01%	0.02%	0.04%
Seed (maximum)			
Germination	70.00%	70.00%	70.00%
(minimum)			

MILLET CERTIFICATION STANDARDS Self-Pollinated

I. <u>LAND REQUIREMENTS</u>:

A millet crop shall be planted on land on which the last crop grown was of another kind or was planted to a certified crop of the same variety of an equal or higher seed class.

II. <u>FIELD STANDARDS</u>:

A. General:

- 1. Isolation: A field shall be separated by a strip of ground adequate to prevent mechanical mixtures. The strip may be either mowed, uncroped or planted to some crop other than the kind being certified.
- B. Specific:

2. opcomor	Maximum Permitted in Each Class		
Factor	Foundation	Registered	Certified
Other varieties*	1:3,000	1:2,000	1:1,000
Inseparable other			
crops**	1:10,000	1:10,000	1:2,000
Objectionable			
weed whose seed	None	None	None
are inseparable			

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

** Objectionable weeds are designated by the certifying agency.

III. <u>SEED STANDARDS</u>:

<u> </u>	Standards of Each Class		
Factor	Foundation	Registered	Certified
Pure Seed	98.00%	98.00%	98.00%
(minimum)			
Inert Matter	2.00%	2.00%	2.00%
(maximum)			
Weed Seed	0.05%	0.25%	0.25%
(maximum)			
Noxious WeedSeed	None	None	None
Other Varieties	0.05%	0.10%	0.20%
(maximum)			
Other Kinds	0.005%	0.01%	0.02%
(Maximum)			
Total Other Crop	0.055%	0.11%	0.22%
Seed (maximum)			
Germination	70.00%	70.00%	70.00%
(minimum)			

OKRA CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

A crop of okra will not be eligible for certification if planted on land which grew okra as the previous crop unless the preceding crop was the same variety and of equal or higher certification.

II. <u>FIELD INSPECTIONS</u>:

At least one inspection will be made prior to harvest.

III. <u>FIELD STANDARDS</u>:

A. General: Unit of certification – A field shall be the unit certification.

Factor	Foundation	Registered	Certified
Isolation distance	440 yards	440 yards	275 yards

B. Specific Requirements:

	Maximum Permitted in Each Class		
Factor	Foundation	Registered	Certified
Other varieties			
(definite)	None	1:5,000	1:2,500
Other varieties			
(doubtful)	None	1:1,000	1:500
Noxious weeds	None	None	None

IV. <u>SEED STANDARDS</u>:

	Stan	dards for Each	Class
Factor	Foundation	Registered	Certified
Pure Seed	98.00%	98.00%	98.00%
(minimum)			
Inert Matter	2.00%	2.00%	2.00%
(maximum)			
Weed Seed	0.05%	0.05%	0.10%
(maximum)*			
Noxious Weed	None	None	None
Seed			
Other Varieties	None	0.25%	0.50%
(maximum)			
Other Kinds	None	0.01%	0.02%
(maximum)**			
Total Other Crop	None	0.26%	0.52%
Seed (maximum)			
Germination	65.00%	65.00%	65.00%
(minimum)			

* Total weed seeds shall not exceed 5 seeds per pound in foundation and Registered classes and 10 per pound in Certified class.

** Other kinds shall not exceed 2 seeds per pound in Registered class or three seeds per pound in Certified class.

ONION CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

Onions shall not have been grown on the land the preceding year unless such seed was certified and of the same variety and class.

II. <u>FIELD INSPECTION</u>:

- A. Bulb inspection Bulbs must be inspected twice, once at harvest and once not more than 30 days prior to planting. Bulbs must be uniform in color and type and be of sufficient size to represent the type of the variety.
- B. Two field inspections shall be made; one after seed heads are formed, and one at the time of harvest of the bulbs. When seed to seed system is used, bulb inspection is not necessary.

III. <u>FIELD STANDARDS</u>:

A. <u>General</u>:

Unit of certification - The unit of certification shall be a field, and a field cannot be divided for the purpose of certification.

B. Specific:

Varietal differences of growing onion plants are slight; therefore, varietal mixtures must be determined at bulb inspection.

Maximum Other Varieties Permitted for Bulbs		
Foundation	Registered	Certified
1:2,000	1:1,000	1:200

Class	Minimum Isolation Distance	
Foundation	1,760 yards (1.00 mile)	
Registered	880 yards (.50 mile)	
Certified	880 yards (.50 mile)	

IV. Seed Standards:

	Star	idards for Each	Class
Factor	Foundation	Registered	Certified
Pure Seed			
(minimum)	98.00%	98.00%	98.00%
Inert Matter			
(maximum)	2.00%	2.00%	2.00%
Weed Seed			
(maximum)	0.20%	0.20%	0.50%
Noxious Weed			
Seed	None	None	None
Other Varieties			
(maximum)	None	0.20%	0.20%
Other Kinds			
(maximum)	None	None	None
Total Other Crop			
Seed (maximum)	None	0.20%	0.20%
Germination			
(minimum)	85.00%	85.00%	85.00%

PEANUT CERTIFICATION REQUIREMENTS

I. <u>LAND REQUIREMENTS</u>:

A crop of peanuts will not be made eligible for certification if planted on land which grew peanuts the previous year unless the preceding peanut crop was grown from certified seed of the same variety. A field which includes an area where peanuts were threshed or where peanut refuse of another variety or uncertified seed of the same variety was spread during the preceding year shall not be eligible for certification.

II. <u>FIELD INSPECTION</u>:

- A. One field inspection will be made before harvest of the seed crop. A second inspection may be made during harvest.
- B. Seed peanuts for certification will be stored in separate bins or containers and each bin or container will be properly identified.

III. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. Unit of certification the unit of certification shall be a field. A 20 ft. strip of ground, devoid of peanuts, constitutes a field division.
 - 2. Isolation An isolation of 20 ft. from other varieties or from peanuts grown from uncertified seed of the same variety shall be required.
- B. Specific requirements:

Maximum Permitted in Each Class			
Factor	Foundation	Registered	Certified
Other varieties	1:1,000	1:1,000	1:500
Noxious weeds	None	None	None

IV. Seed Standards:

	Star	dards for Each	Class
Factor	Foundation	Registered	Certified
Pure Seed			
(minimum)	NS	94.00%	94.00%
Inert Matter			
(maximum)*	NS	6.00%	6.00%
Weed Seed			
(maximum)	0.01%	0.01%	0.01%
Noxious Weed			
Seed	None	None	None
Other Varieties			
(maximum)	0.10%	0.20%	0.50%
Other Kinds			
(maximum)	0.01%	0.01%	0.02%
Total Other Crop			
Seed (maximum)	0.11	0.21%	0.52%
Germination			
(minimum)	70.00%	70.00%	70.00%

* Spanish type, runner type and Virginia type peanuts allowed additional 3.00% "bald heads."

Revised 4/7/2011 to meet AOSCA standards

PEPPER CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

Land planted to peppers for the production of seed must not have been planted to peppers the previous year unless such crop was of the same variety and equal or higher classification.

II. <u>FIELD INSPECTION</u>:

A field inspection shall be made each year by an authorized inspector of the SCNWFP at a time when the varietal identity can be determined and before the harvest of the crop.

III. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. Unit of certification: a field or a portion of a field may be certified.
 - 2. Isolation requirements: Class

Minimum Isolation Distance

• • • • • • •	
Foundation	1,760 yards (1.00 mile)
Registered	880 yards (.50 mile)
Certified	440 yards (.25 mile)

1. Management: Fields designed for certified seed shall have no fruits removed for marketing purposes.

B. Specific:

Factor	Foundation	Registered	Certified
Diseases:			
Chile Wilt	1:50	1:50	1:20
Curly Top	1:50	1:50	1:20
Bacterial Spot**	None	1:300	1:150
NS other			
varieties*			

* All off-type plants shall be removed.

** Seed must be treated with Clorox or have a negative test for bacterial spot. NS = Not stated

	Standards for Each Class		
Factor	Foundation	Registered	Certified
Pure Seed			
(minimum)	NS*	98.00%	98.00%
Inert Matter			
(maximum)	NS*	2.00%	2.00%
Weed Seed			
(maximum)	None	None	0.02%
Noxious Weed			
Seed	None	None	None
Other Varieties			
(maximum)	None	0.50%	1.00%
Other Kinds			
(maximum)	None	None	0.05%
Total Other Crop			
Seed (maximum)	None	0.50%	1.00%
Germination			
(minimum)	NS*	75.00%	75.00%

IV. <u>SEED STANDARDS</u>: (based on genetic purity only) **

* NS = No Standards

** See rules and Regulations Section VI, B, Page 9 and New Mexico Seed Law Chapter 76, Article 10, Sections 13 & 14, D & E, Pages 5-6.

Revised 4/7/2011 to meet AOSCA standards

IRISH POTATO CERTIFICATION STANDARDS

"Potato Certification" is a voluntary agreement between SCNWFP and the New Mexico potato seed growers. SCNWFP will provide (pending approval) the standards and requirements potato tubers must meet in order to be eligible for certification. These standards and requirements are included in a separate Potato certification Rules and Regulations Handbook. Any growers interested in growing seed potatoes can obtain a copy of the handbook from:

NEW MEXICO STATE UNIVERSITY SEED CERTIFICATION NOXIOUS WEED FREE PROGRAM (SCNWFP) P.O. BOX 30003, MSC 3Ley LAS CRUCES, NM 88003-8003 (575) 646-4125

SWEET POTATO CERTIFICATION STANDARDS

I. <u>APPLICATION AND AMPLIFICATION OF GENERAL CERTIFICATION</u> <u>STANDARDS</u>:

Classes and sources of certified seed: All certified classes shall be produced from either vine cuttings or from sprouts cut from the bed.

II. <u>LAND REQUIREMENTS</u>:

Sweet potato seed will not be eligible for certification if produced:

- A. On land which produced sweet potatoes within the last three years.
- B. On land that has received manure or sweet potato residue within the last three years.
- C. On land that is subject to drainage water from fields that are now growing or have grown sweet potatoes within the last three years.

III. <u>PLANT BED REQUIREMENTS</u>:

- A. The plant bed must be located on well drained soil away from drainage from barnyards, poultry yards and on land which has not produced sweet potatoes within the last three years.
- B. Manure must not be used in plant bed.
- C. Plant beds that have been used previously must be disinfected by methods approved by the SCNWFP.
- D. Seed potatoes shall be treated with an approved seed disinfectant.
- E. At least one inspection shall be made by the SCNWFP when the plants have made a uniform growth and are nearly large enough to transplant.
- F. Before offering plants for sale, the growing area and plants must be inspected by an inspector of the New Mexico State Department of Agriculture as required by law. Applications for this inspection may be obtained by writing the Entomology & Nursery Industries Bureau (NMDA), P.O. Box 3BA, Las Cruces, New Mexico, 88003.

IV. <u>FIELD STANDARDS</u>:

- A. General Requirements:
 - 1. Unit of certification A field or portion of a field may be certified provided the entire field is of the same certified class and the area to be certified is clearly defined.
 - 2. Isolation All fields producing Foundation, Registered or Certified-seed potatoes shall be separated from other sweet potato fields by definite and distinct barriers of 20 feet or more and in such a manner as to prevent mechanical mixture.
 - 3. Field inspection One or more inspections of sweet potatoes while growing in the field shall be made to determine varietal purity, trueness to type and freedom from disease.
 - 4. Potatoes must be harvested before vines are killed by frost.

B. Specific Requirements:

5. opcome nequi	Stan	Standards for Each Class		
Factor	Foundation	Registered	Certified	
1. Plant Beds				
Blackrot	None	None	None	
(maximum)				
Scurf (maximum)	None	None	None	
Wilt (maximum)	None	None	None	
Nematodes				
(maximum)	None	None	None	
Other varieties				
(maximum)	None	None	None	
2. Field				
Wilt	None	None	1:1,000	
Viruses				
(maximum)	None	None	1:1,000	
Other varieties				
(maximum)	None	None	None	

V. <u>SEED STANDARDS</u>:

- A. One storage inspection shall be made after January 1.
 - 1. Seed stock must conform to the minimum standards for U.S. No. 1 grade except that minimum size shall not be less than 3 inches in length and 1 inch in diameter and shall not exceed 10 inches in length and 3 3/4 inches in diameter.
 - 2. The seed must have internal and external color typical of the variety.
- B. <u>Specific Requirements</u>:

	Tolerances and Requirements		
Factor	Foundation	Registered	Certified
Storage rot			
(maximum)	None	None	None
Blackrot			
(maximum)	None	None	1:1,000
Scurf (maximum)	None	None	1:1,000
Wilt (maximum)	None	None	1:1,000
Internal Cork			
(maximum)	None	None	None
Nematode			
(maximum)	None	1:500	1:200
Wireworm	1:100	1:50	1:20
Sweet potato			
weevil (maximum)	None	None	None
Other Varieties			
(maximum)	None	1:300	1:200

* Inspection shall be made after January 1.

- C. Storage:
 - 1. Sweet potatoes grown for certification shall be stored in new or disinfected crates.
 - 2. Sweet potatoes must be stored in an approved storage facility that has been cleaned and disinfected with approved materials.
 - 3. Each unit of sweet potatoes that passed field inspection shall be stored according to production unit and treated separately and distinctly at the time of storage inspection. The grower shall separate each unit by an aisle of two feet or more and each crate shall be marked or labeled to correspond with the field unit that passed inspection.
 - 4. Certified sweet potatoes shall not be stored in the same room with noncertified sweet potatoes.
 - 5. Condition of sweet potatoes must show that they have been properly handled in storage.

SAINFOIN CERTIFICATION STANDARDS

- I. <u>APPLICATION OF GENETIC CERTIFICATION STANDARDS</u>: The genetic certification standards are basic.
- II. <u>LAND REQUIREMENTS</u>:
 - 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 seed classes respectively.
 - B. The land must be free of volunteer plants of sainfoin during the year immediately prior to establishment. No manure or other contaminating material shall be applied the year previous to seeding or during the establishment and productive life of the stand.

III. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. Isolation Minimum distance from a different variety or a non-certified crop of the same kind shall be:

Class	For Fields of Less than 5 Acres	For Fields of More than 5 Acres
Foundation	900 feet	600 feet
Registered	450 feet	300 feet
Certified	330 feet	165 feet

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

- 2. Volunteer plants Volunteer plants may be the cause for rejection of reclassification of a seed field.
- 3. Length of stand Fields of all classes of certified seed may produce five successive seed crops immediately following establishment.
- Β.

	Maximum Permitted in Each Class		
Specific Factor	Foundation	Registered	Certified
Other varieties	1:1,000	1:400	1:100

IV. <u>SEED STANDARDS</u>:

	Star	ndards for Each Class		
Factor	Foundation	Registered	Certified	
Pure Seed				
(minimum)	99.00%	99.00%	99.00%	
Inert Matter				
(maximum)	1.00%	1.00%	2.00%	
Weed Seed				
(maximum)	0.10%	0.10%	0.20%	
Prohibit/Restricted				
Noxious Weed	None	None	None	
Seed				
Other Varieties				
(maximum)	0.10%	0.25%	1.00%	
Other Kinds				
(maximum)	None	None	0.10%	
Total Other Crop				
Seed (maximum)	0.10%	0.25%	1.10%	
Germination				
(minimum)		85.00%	80.00%	

* Restricted weed seed may be permitted in the Certified class only, but shall not exceed 9 per pound.

SMALL GRAIN CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

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

II. <u>FIELD INSPECTION</u>:

Field inspection shall be made after the crop is fully headed when varietal crop mixtures and other factors can be determined.

III. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. Unit of certification The unit of certification shall be a clearly defined field or fields.
 - 2. Isolation
 - a. Wheat, oats, barley, and triticale.

A field shall be separated by a strip of ground adequate to prevent mechanical mixtures. The strip may be either mowed, uncropped or planted to some crop other than the kind being certified.

b. Rye: A field producing any class of certified seed must be isolated by at least 660 feet from rye fields of any other variety or fields of the same variety that do not meet the varietal purity requirements of the class of seed inspected and are of the tetraploid rye shall be at least 15 feet.

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B. Specific:

	Maximum Permitted in Each Class		
Factor	Foundation	Registered	Certified
Other			
Varieties	1:5,000	1:5,000	1:2,000
Inseparable			
other crops	1:10,000	1:10,000	1:2,000
Noxious			
Weeds	None	None	None
Loose smut* -			
oats	1:10,000	1:2,000	1:1,000
Loose smut* -			
triticale, wheat,	1:500	1:200	1:100
rye, & barley			

* If smut tolerances are exceeded, seed must be treated before it can be certified.

IX. <u>SEED STANDARDS</u>:

	Standards for Each Class		
Factor	Foundation	Registered	Certified
Pure Seed			
(minimum)			
wheat, barley,		96.00%	96.00
Tye, & unicale			
Oats		98.00%	98.00%
Inert Matter			
(maximum)			
wheat, barley,		4.00%	4.00%
iye & u iucale			
Oats		2.00%	2.00%
Objectionable			
Weeds	None	None	None
(maximum)**			
Uther Variation			
(maximum)	0.05	0.10%	0.20%
wheat, barley.	0.00	0.1070	0.2070
rye, & triticale			
Oats	0.20%	0.30%	0.50%
Other Kinds	0.01%	0.02%	0.05%
(maximum)**** Total Other	0.0170	0.0270	0.0370
Crop Seed			
(maximum)	0.06%	0.12%	0.25%
wheat, barley,			
rye & triticale			
Oats	0.21%	0.32%	0.55%
Germination			
(minimum)			
wheat, oats,		85.00%	85.00%
barley &			
unicale			
Rye		70.00%	70.00%
Diseases****			

Diseases**** ----- ----- -----* Wheat, Barley, Rye, or Tritcale shall not contain more than 2% inert matter other than broken seed.

** Objectionable weeds are designated as all prohibited and restricted noxious weed seed and goatgrass (Aegilops spp.)

*** For all other small grains, the maximum of one per pound in Foundation, two per pound in Registered, and five per pound in Certified must not be exceeded, but this does not apply to seeds of winter grains in spring grains and vice versa; except in areas where climate conditions do not take care of the situation.

**** If chemically controlled seed-borne diseases are noted upon field inspection or laboratory observation, seed treatment is required.

SORGHUM, BROOMCORN, AND SUDANGRASS CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

Sorghum shall be planted on land on which the previous crop was of another kind, including sudangrass and broomcorn, or was planted with certified seed of the same variety of an equal or higher seed class.

II. <u>FIELD INSPECTION</u>:

- A. Foundation and Registered seed fields shall be given two field inspections as follows:
 - 1. The first field inspection shall be made during bloom, preferably in full bloom.
 - 2. The second field inspection shall be made before harvest, but after the seed begins to assume mature color.
- B. Certified seed fields shall be inspected before harvest but after the seed begins to assume mature color.

III. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. Unit of certification: A portion of a field may be accepted for certification. A border, turnrow, or 3 row wide strip will constitute a boundary.
 - 2. Isolation requirements: Fields or parts of fields acceptable for the production of any class of certified seed must have the minimum isolation distance:
 - a. From fields of other varieties in bloom at the same time.
 - b. From fields of the same variety that do not meet the varietal purity requirements and blooming at the sametime.
 - c. If the contaminating source is genetically different and has the same chromosome number.
 - d. Of 660 yards from grass sorghum or broomcorn with the same chromosome number.
 - 3. The entire field must be rogued of off-type plants, etc. even though a portion of the field is used for an isolation buffer.
 - 4. Johnsongrass must be rogued from the fields and controlled on turnrows and immediate ditch banks to prevent contamination and mechanical mixing.

	Minimum Isolation Distance		
Crop	Foundation	Registered	Certified
Sorghum*	440 yards	440 yards	440 yards
Sudangrass	880 yards	880 yards	660 yards
Broomcorn	880 yards	880 yards	660 yards

*The above distance will hold except that from broomcorn or sudangrass the minimum shall be 660 yards.

B.Specific:

_	Maximum Permitted in Each Class		
Factor	Foundation	Registered	Certified
Other Varieties	1:50,000	1:35,000	1:20,000
(definite)			
Other Varieties	1:20,000	1:10,000	1:1,000
(doubtful)			
Noxious Weeds	None	None	None
Head Smut	1:20,000	1:20,000	1:10,000
Kernel Smut	1:10,000	1:10,000	1:2,500

IV. SEED STANDARDS:

	Maximum Permitted in Each Class		
Factor	Foundation	Registered	Certified
Pure Seed (minimum)	98.00%	98.00%	98.00%
Inert Matter (maximum)	2.00%	2.00%	2.00%
Weed Seed (maximum)	0.10%	0.10%	0.10%
Noxious Weed Seed	None	None	None
Other Varieties (maximum)	0.005%	0.01%	0.05%
Other Kinds (maximum)*	0.01%	0.03%	0.07%
Total Other Crop Seed (maximum)	0.01%	0.03%	0.08%
Germination (minimum)	80.00%	80.00%	80.00%

*Other kinds shall not exceed two per pound for Foundation, six for Registered, or ten for Certified

HYBRID SORGHUM CERTIFICATION STANDARDS

- I. <u>APPLICATION OF GENETIC CERTIFICATION STANDARDS</u>:
 - A. Requirements for certification of hybrid varieties:
 - 1. The name under which any hybrid shall be certified shall be the same as .the designation given by the originator or the originating agency and must represent a specific combination.
 - 2. A commercial hybrid is one to be planted for any use except seed.
 - 3. Foundation seed stocks shall consist of A, B, and R lines and/or hybrids to be used in the production of seed for commercial hybrids.
 - B. Restriction on number of varieties If seed of more than one hybrid of Foundation seed stock is produced, mechanical mixing and crossing must be avoided.
 - C. Classes and sources of certified seed:
 - 1. Only the class "Certified" is recognized in seed of commercial sorghum hybrids.
 - 2. To be certified, the commercial hybrid must be produced from Foundation seed stocks approved by the agricultural experiment station or certifying agency.
- II. <u>LAND REQUIREMENTS</u>:

Hybrid sorghum shall be planted on land on which the previous crop was of another kind or the previous crop was one or both of the parents of the hybrid to be produced and or a certified class equal or superior to that of the crop seeded.

III. <u>FIELD INSPECTION</u>:

Fields or parts of fields producing certified seed of commercial hybrids or Foundation seed stocks shall be given at least three field inspections.

- A. Two field inspections shall be made during bloom one in early bloom and one in full bloom.
- B. One field inspection shall be made before harvest, but after the seed begins to assume mature color.

IV. <u>FIELD STANDARDS</u>:

- A. General:
 - 1. Unit of certification: The entire field of any commercial hybrid grown by or belonging to an applicant and used for seed must be eligible and must be inspected.

- 2. Isolation:
 - a. Seed stocks: Fields or parts of fields acceptable for the production of Foundation seed stocks to be used for the production of seed of commercial hybrids must be so located that the seed parent is not less than 440 yards from fields of any other variety or fields of the same variety that do not meet the varietal purity requirements for certification. In no case shall the isolation distance be less than that required for commercial hybrids.
 - b. Commercial hybrids:

For the production of certified seed of commercial hybrids the seed parent shall not be less than:

- i. 440 yards from any other combined variety of the same genetic height as the hybrid or from some sorghum with a different chromosome number.*
- ii. 660 yards from any forage variety or from varieties with a different genetic constitution for height, but with the same chromosome number.*
- iii. 660 yards from any grass sorghum or broomcorn with the same chromosome number.*
- c. Pollen shedding by seed parent:

	Maximum Permit	Maximum Permitted Per Inspection		
Factor	Foundation	Certified Hybrid		
Pollen Shedder	1:3,000	1:1,500		

- e. For isolation modification by use of additional pollinator rows or by different bloom dates, see AOSCA Standards for guidance.
- B. Specific Requirements:

Both the seed parent and the pollinator shall be required to meet the following standards:

Foundation				
Factor	Blooming	Final	Total Certified	
Other Varieties				
(definite)	1:50,000	1:50,000	1:20,000	
Other Varieties	1:20,000	1:20,000	1:1,000	
Inseparable Prohibited Weeds	None	None	None	
Kernel Smut	1:10,000	1:10,000	1:2,500	
Head Smut	1:20,000	1:20,000	1:10,000	

V. SEED STANDARDS:

	Standards for Each Class	
Factor	Foundation	Certified
Pure seed (minimum)	98.00%	98.00%
Inert Matter		
(maximum)*	2.00%	2.00%
Weed Seed (maximum)	0.10%	0.10%
Noxious Weed Seed		
(maximum)	None	None
Other Varieties		
(maximum)**	0.005%	0.01%
Other Kinds		
(maximum)***	0.01%	0.07%
Total Other CropSeed		
(maximum)	0.01%	0.08%
Germination (minimum)	80.00%	80.00%

VI. A winter grow-out and inspection is required to complete certification. *This includes off-type plants in this classification that may occur within the distance specified.

**Other varieties shall not exceed 2 per lb. for Certified class.

***Other kinds shall not exceed 10 per lb. for Certified class and 2 per lb. (454 grams) for Foundation class.

SOYBEAN CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

Land used to produce certified seed shall not have been planted to the same crop the previous year unless that crop was of the same variety and of equal or higher classification.

II. <u>FIELD INSPECTION:</u>

The seed field shall be inspected for off-types and diseased plants at least once prior to harvest.

III. <u>FIELD STANDARDS</u>:

A. General:

Unit of certification - The unit of certification shall be a field or a portion of a field separated from the remainder by a definite boundary at least 10 feet wide.

B. Specific:

	Maximum Permitted In Each Class		
Factor	Foundation	Registered	Certified
Other Varieties	1:1,000	1:1,000	1:1,000

IV. <u>SEED STANDARDS</u>:

	Standards for Each Class		
Factor	Foundation	Registered	Certified
Pure Seed			
(minimum)	98.00%	98.00%	98.00%
Inert Matter			
(maximum)	2.00%	2.00%	2.00%
Weed Seed			
(maximum)	0.05%	0.05%	0.05%
Noxious Weed			
Seed	None	None	None
Other Varieties			
(maximum)*	0.05%	0.10%	0.20%
Other Kinds			
(maximum)	0.05%	0.10%	0.10%
Total Other			
Crops	0.10%	0.20%	0.30%
(maximum)			
Germination			
(minimum)	80.00%	80.00%	80.00%

* Off-colored beans due to environmental factors shall not be considered as other varieties.

SUNFLOWER CERTIFICATION STANDARDS

- I. <u>APPLICATION OF GENETIC CERTIFICATION STANDARDS</u>:
 - A. The Genetic Certification Standards in Chapter 1 are basic.
 - B. The Genetic Standards are modified as follows:
 - 1. Appendix I. Classes of Seed Recognized (2)
 - a. A commercial hybrid is one planted for any use except seed production.
 - b. Only the class "Certified" is recognized in seed of commercial hybrids.
 - c. The classes "Breeder" and "Foundation" shall be recognized for paternal materials used for the production of commercial hybrids.
 - d. A commercial hybrid to be certified must be produced from Breeder of Foundation seed stocks approved by the certifying agency.
 - 2. Section VI. Production of Seed (C)
 - a. For open-pollinated sunflower varieties, one field inspection shall be made after at least 50 percent of the plants are in bloom but before they are fully matured.
 - b. For hybrid sunflower varieties, two field inspections shall be made, the first during early bloom stage and the second at full bloom.

II. <u>LAND REQUIRMENTS</u>:

- A. General:
 - 1. Isolation: Fields to be used for the production of all classes of certified seed must be isolated at least 2640 feet from other varieties, hybrids, strains, volunteer sunflowers, non-certified crops of the same type. Isolation distance between oil types, non-oil types and wild Helianthus species must be at least 5280 feet.
 - 2. Flowering: In a field producing certified hybrid sunflowers, at least 50 percent of the male parent plants must be flowering and producing pollen when the female parent is in full bloom. Female plants must be flowering and shedding before the male parents are shedding pollen must be removed.
 - 3. Roguing: An increase of parental materials to be used for the production of commercial hybrids and in the male rows of commercial hybrid production fields, all off type plants must be removed before any pollination has taken place.

B. Specific:

	Rati	o of Plants (Maximum)		
Off-types	Open-	Hyb	rids	
All Seed Classes	Pollinated Varieties	Female Parent	Male Parent	
Wild-type				
branching		1:1,000	1:1,000	
Purple plants		1:1,000	1:1,000	
White seeded		1:1,000	1:1,000	
Total (including				
above types)	1:200	1:250	1:250	

IV. <u>PRE-CONTROL TEST STANDARDS</u>:

If field inspection shows one or more of the following, the applicant may request that the seed certification be based on the results of a pre-certification grow-out test approved by the certification agency:

- a. Inadequate isolation
- b. Too few male parents shedding pollen when females parent plants are receptive.
- c. Excess off-types not to include wild-types.

In such cases at least 2,000 plants must be observed and meet the following standards before seed can be certified from fields with problems listed above.

	maximum	Cimitted
Factor	Hybrid	Inbred
Sterile Plants	5.00%	
Sterile or Fertile plants		5.00%
Morphological Variants	0.50%	0.50%
Wild Types	0.20%	0.20%
Total (including above		
types)	5.00%	5.00%

For non-oil types, seed which contains not more than 15% sterile plants may be certified. If it contains 85%-95% hybrid plants, the percentage of hybrid shall be shown on the certification label.

V. <u>SEED STANDARDS</u>:

	Standards for Each Class		
Factor	Foundation	Registered	Certified
Pure Seed			
(minimum)	98.00%	98.00%	98.00%
Inert Matter			
(maximum)	2.00%	2.00%	3.00%
Weed Seed			
(maximum)	None	None	
Objectionable			
or Noxious	None	None	None
Weed Seed			
(maximum)*			
Total Other			
Crop Seeds	0.02%	0.07%	0.20%
(maximum)			
Other Varieties			
(maximum)	0.02%	0.02%	0.10%***
Other Kinds			
(maximum)	None	0.05%**	0.10****
Germination			
(minimum)	85.00%	85.00%	85.00%

*Objectionable or noxious weed seeds shall be designated by the certifying agency.

**Shall not include more than .04% purple or white seeds.

***Shall not exceed one seed per twopounds.

****Shall not exceed one seed per pound.

TREE, SHRUB AND NATIVE PLANT CLASSIFICATION STANDARDS

The purpose of tree, shrub, and native plant seed certification is to make available seed and reproductive material properly identified by species or species and cultivar, and by source and geographic origin and/or major land resource areas (USDA, SCS, designation).

I. <u>APPLICATION OF GENERAL CERTIFICATION STANDARDS AND PROCEDURES</u>:

- A. General standards in maintaining proper identity and seed quality are basic.
- B. The tree, shrub and native plant standards are modified as follows:
 - 1. Eligibility requirements for varieties (Section IV), Page 13.
 - a. Forest trees include species normally used in forestry including specialized products or uses such as Christmas trees, shelter belts, landscaping, etc.
 - b. Indigenous or non-indigenous trees, shrubs or native plant for special land use area, recreational sites, specific land resource areas, etc.
 - 2. Definitions of seed classes (Section III) Page 12.
 - a. Certified
 - b. Selected
 - c. Source-Identified
 - d. For all classes the origin, geographic source and elevation shall be known. Location of the source of Certified and Selected classes shall be designated by land survey unit. Location of Source - Identified shall be defined by means of administrative and geographic boundaries or other boundaries judged appropriate by the SCNWFP.
 - 3. Production of seed (Section VII), Page 15.
 - a. The producer, collector and/or buyer of all classes of tree, shrub and native plant seed shall register with SCNWFP their intent to certify, designating the classes and source of seed.
 - b. Processors shall register their intent to extract, clean, package, store and distribute classes of certified seed.
 - c. Application for certification.
 - i. Additional procedures to those listed below for Certified and Select Classes will be developed as the need arises.
 - ii. For the Source Identified class, the applicant shall submit a written plan to the certifying agency prior to the start of collections containing the following information:
 - a. Locations where collections are planned.
 - b. Planned dates for collections
 - c. Estimated amounts for collections by species and locations.
 - d. Methods used for distinctive marking of collector's labels for field identification.
 - e. Name, address and telephone number of applicant's representatives for each area of collection.
 - f. Any special instructions for reaching collection areas.

- C. Inspections:
 - 1. Field inspection for Certified and Selected classes shall be made by representatives of SCNWFP prior to the collection of seed. Additionally, field standards prescribed below for the Source-Identified class are required.
 - 2. Inspections of stands, designated sites, collection areas, etc. for the Source-Identified class shall be sufficient to determine the geographic source, location and elevation in increments of 500 feet for each species being collected.
 - 3. Processing and warehouse inspections (see section IX) shall be made to assure proper identity and compliance with field standards.
 - 4. All processing records involved in receiving, processing, storage, labeling, and shipping shall be available for inspection by the certifying agency.
 - 5. The certifying agency reserves the right to reject from certification any lot of seed that has not been properly protected from contamination or is not properly identified.
- D. Unit of certification (See section VIII, B). An individual tree or shrub, clone, stand of woody plants or orchards may be certified in producing Certified, Selected, or Source-Identified seed.
- E. Labeling (Section X):
 - The following tag colors shall apply: Certified= Blue; Selected=Green; SourceIdentified=Yellow.
 - 2. Information on certification labels shall contain at least the following information: species, source, elevation, reference number, certification class, germination, and date of test.
 - 3. Optional information may be printed on the label such as purity, inert matter, moisture, company name, etc., as requested by the applicant.
 - 4. The SCNWFP will maintain a supply of "Certificate of Origin" forms, available upon request, for the following uses:
 - a. To furnish both domestic and foreign purchasers with appropriate documents relating to Source-Identity of the seed.
 - b. To improve control of certification through listing of pertinent information.
 - c. To provide a procedure for seedsmen's use in selling a portion of seed from a sealed container of Source-Identified seed without degrading either the portion sold or the remaining portion of the opened container.
- F. Sampling and Testing:

For seed of species not covered by the rules for testing of the Association of Official Seed Analysts, the analysis and testing shall be in accordance with rules of the International Seed Testing Association or appropriate laboratories as determined by the certifying agency.

II. <u>LAND REQUIREMENTS</u>:

Elevation to the nearest 500 feet of the original geographic source from which the seed is collected shall be determined and recorded. If available, site index or site reference may be given.

III. <u>FIELD STANDARDS</u>:

- A. Isolation for Certified or Selected classes shall be adequately maintained and free of off-type plants and other species which might cross-pollinate the plants being considered for certification. The distance and specifications shall be established for each species as they become available.
- B. There shall be no requirements for the Source-Identified class of seed.

IV. <u>SEED STANDARDS</u>:

- A. Specific requirements:
 - Other distinguishable species or cultivar maximum by weight 0.5%.
- B. Additional standards for specific species and/or group of species will be included as they become available.

WOODY PLANT CERTIFICATION STANDARDS

I. <u>LAND REQUIREMENTS</u>:

- A. Land to be used for the production of certified classes of seed must be free from volunteer plants of the same species.
- B. Plants of the same species must not have been present on the land the previous year four years for Foundation seed production, two years for Registered class or one year for the certified class.

II. <u>FIELD INSPECTION:</u>

A field inspection will be made after blooming but before harvesting each year that a Foundation, Registered, or Certified seed crop is to be harvested.

III. <u>FIELD STANDARDS</u>:

A. General:

Isolation: Minimum distance from a different variety or a non-certified population of the same species shall be:

	For Fields of	For Fields of
Class	Less than 2 Acres	More than 2 Acres
Foundation	600 feet	200 feet
Registered	600 feet	200 feet
Certified	300 feet	100 feet

B. Specific:

	Ratio in Field					
Factor	Foundation	Registered	Certified			
Other Varieties	1:1,000	1:1,000	1:100			
Other Kinds	1:2,000	1:1,000	1:500			
Weeds	None	None	None			

IV. <u>SEED STANDARDS</u>:

A. General: Properly drawn representative seed samples shall meet the following general standards for all species:

	Standards for Each Class						
Factor	Foundation	Registered	Certified				
Other Varieties	0.10%	0.10%	0.75%				
Other Kinds	0.10%	0.10%	0.25%				
Total Other	0.20%	0.20%	0.25%				
Crops							
Noxious Weeds	None	None	None				

B. Specific Seed Standards:

	Type of Repro- duction	Germination (Minimum)		Purity (Minimum)		Inert Matter (Maximum)		Weed Seed (Maximum)	
Species		F&R	С	F&R	C	F&R	С	F&R	С
Desert willow Chilopsis linearis	С	60%	50%	80%	60%	20%	40%	.30%	.50%
Fourwing saltbush Atriplex canescens	С	40%*	35%	80%	70%	20%	30%	.50%	1.50%
Mountain mahogany Cercoscarpus montanus	С	60%	50%	80%	70%	20%	30%	.30%	.50%
New Mexico Forestiera Forestiera neomexicana	С	30%	30%	90%	80%	10%	20%	.30%	.50%
Russian olive Elaeagnus angustifolia	С	75%	65%	90%	80%	10%	20%	.30%	.50%
Skunkbush sumac Rhus trilobata	С	65%	50%	80%	70%	20%	30%	.30%	.50%

* The tetrazolium test may be substituted for normal germination test. Minimum tetrazolium test of 50% acceptable.
APPENDIX I

LABELING SEED FOR SEED ANALYSIS

Certified seed samples must be labeled with the following:

1. Name of Producer:			
Address:			
2. Kind of Seed: Va	ariety:		
3. *Lot NoYear Grow	vn:Treated:		
4. () This is a preliminary test before processing.			
5. Kind of Test: () Standard (purity & germ) () Weed Seed			
() Germination Only () Identification		
() Purity Only () Other–Specify		
6. Certification Information: () For certification in New Mexico			
1. () Foundation Class	4. () Certified in Other States		
2. () Registered Class	5. () Non-Certified		
3. () Certified Class	6. () Carry-Over		

* When making reference to a lot number please indicate the growers initials with the number when possible. This is especially important for contracting agencies.

QUANTITY OF SEED NECESSARY FOR TESTING PURPOSES

Crop	Complete	Germ Test
A1C 1C	Analysis	1
Alfalfa	5 0Z.	1 oz.
Barley	2 lb.	3 oz.
Bean, field, & garden	2 lb.	l lb.
Bluestem, Big	5 oz.	l oz.
Bluestem, Little	5 oz.	1 oz.
Bluestem, Sand	5 oz.	1 oz.
Bluestem, Yellow	2 oz.	1 oz.
Broomcorn	1 lb.	2 oz.
Corn	2 lb.	1 lb.
Cotton	2 lb.	8 oz.
Cowpea	2 lb.	7 oz.
Dropseed, Sand	2 oz.	1 oz.
Fescue, Red	2 oz.	1 oz.
Fescue, Tall	5 oz.	1 oz.
Grama, Black	2 oz.	1 oz.
Grama, Blue	2 oz.	1 oz.
Grama, Sideoats	4 oz.	1 oz.
Indiangrass, Yellow	5 oz.	1 oz.
Lovegrass, Sand	2 oz.	1 oz.
Lovegrass, Weeping	2 oz.	1 oz.
Millet, Foxtail	8 oz.	1 oz.
Millet, Pearl	1 lb.	1 oz.
Oats	2 lb.	2 oz.
Okra	2 lb.	3 oz.
Onion	5 oz.	1 oz.
Orchardgrass	2 oz.	1 oz.
Panicgrass, Indian	2 oz.	1 oz.
Peanut	2 lb.	1.25 lb.
Peas, field & garden	2 lb.	1 lb.
Penstemon, Rocky Mt.	2 oz.	1 oz.
Pepper	1 oz.	1 oz.
Ricegrass, Indian	5 oz.	1 oz.
Rye	2 lb.	2 oz.
Ryegrass	8 oz.	1 oz.
Sorghum	2 lb.	2 oz.
Soybean	2 lb.	5 oz.
Sudangrass	1 lb.	2 oz.
Swithgrass	5 oz.	1 oz.
Tree, shrub and native plants	Ask	600 seeds
Triticale	2 lb.	4 oz.
Vetch, Hairy	2 lb.	2 oz.

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Wheat	2 lb.	3 oz.
Wheatgrass, Crested	5 oz.	1 oz.
Wheatgrass, Intermediate	7 oz.	1 oz.
Wheatgrass, Pubescent	7 oz.	1 oz.
Wheatgrass, Slender	5 oz.	1 oz.
Wheatgrass, Tall	7 oz.	1 oz.
Wheatgrass, Western	5 oz.	1 oz.

OTHERS NOT LISTED-INQUIRE

APPENDEX III

NEW MEXICO SEED LAW

Chapter 76, Article 10, Sections 11 through 22, New Mexico Statutes 1978, Annotated.

Section

- 76-10-11 Short title.
- 76-10-12 Definitions.
- 76-10-13 Label requirements.
- 76-10-14 Prohibitions.
- 76-10-15 Records.
- 76-10-16 Exemptions.
- 76-10-17 Seed certification.
- 76-10-18 Duties and authority of board or its agents.
- 76-10-19 Seizure.
- 76-10-20 Injunction.
- 76-10-21 Violations and prosecutions.
- 76-10-22 Appropriation.

76-10-11. Short Title:

This act [76-10-11 to 76-10-22] may be cited as the "New Mexico Seed Law."

76-10-12. Definitions:

As used in the New Mexico Seed Law [76-10-11 to 76-10-22]:

- A. "Person" includes any individual, partnership, corporation, company, society or association.
- B. "Agricultural seeds" includes the seeds of grass, forage, cereal and fiber crops. It shall include any other kinds of seeds commonly recognized within this state as agricultural seeds, lawn seeds and mixtures of such seeds, and may include noxious weed seeds when the board of regents of New Mexico state university determines that such seed is being used as agricultural seed.
- C. "Vegetable seeds" includes the seeds of those crops which are grown in gardens and on truck farms and are generally known and sold under the name of vegetable seeds in this state.
- D. "Weed seeds" includes the seeds, bulblets and sporocarps of all plants generally recognized as weeds within this state.
- E. "Noxious weed seeds" includes prohibited noxious weed seeds and restricted noxious weed seeds;

- F. "Prohibited noxious weed seeds" are seeds of weeds which, when established, are highly destructive and are not controlled in this state by the cultural practices commonly used. Such weeds are to be specified by rules and regulations as provided for in this act.
- G. "Restricted noxious weed seeds" are the seeds of weeds which are very objectionable in fields, lawns and gardens in this state and are very difficult to control by cultural practices commonly used. Such seeds are to be specified by rules and regulations as provided in this act.
- H. "Labeling" includes all labels, and other written, printed or graphic representations, in any form whatsoever, accompanying or pertaining to any seed whether in bulk or in containers, and includes representations on invoices.
- I. "Advertisement" means all representations, other than those on the label, disseminated in any manner or by any means, relating to seed within the scope of this act.
- J. "Record" includes all information relating to the shipment or shipments involved and includes a file sample of each lot of seed.
- K. "Stop sale" means an administrative order provided by law, restraining the sale, use, disposition, and movement of a definite amount of seed.
- L. "Seizure" means a legal process carried out by court order against a definite amount of seed.
- M. "Kind" means one or more related species or subspecies which singly or collectively is known by one common name, for example, corn, oats, alfalfa, and timothy.
- N. "Variety" means a subdivision of a kind characterized by growth, yield, plant, fruit, seed, or other characteristics, by which it can be differentiated from other plants of the same kind.
- O. "Lot" means a definite quantity of seed identified by a lot number or other mark, every portion or bag of which is uniform within recognized tolerances for the factors which appear in the labeling.
- P. "Hybrid" means the first generation seed of a cross produced by controlling the pollination and by combining:
 - 1. Two [2] or more inbred lines;
 - 2. One [1] inbred or a single cross with an open pollinated variety; or
 - 3. Two [2] varieties or species, except open pollinated varieties of corn (*Zea mays*). The second generation and subsequent generations from such crosses shall not be regarded as hybrids. Hybrid designations shall be treated as variety names.

- Q. "Pure seed," "germination," and other seed labeling and testing terms in common usage shall be defined as in the rules for seed testing published by the Association of Official Seed Analysts, effective July 1, 1955, and as subsequently amended.
- R. "Type" means a group of varieties so nearly similar that the individual varieties cannot be clearly differentiated except under special conditions.
- S. "Treated" means that the seed has received an application of a substance, or that the seed has been subjected to a process for which a claim is made.
- T. A "private hearing" may consist of a discussion of facts between the person charged and the enforcement officer.
- U. "Board" means the board of regents of New Mexico State University.

76-10-13. Label Requirements:

Each container of agricultural or vegetable seed which is sold, offered for sale, or exposed for sale, or transported within this state for sowing purposes shall bear thereon or have attached thereto in a conspicuous place a plainly written or printed label or tag in the English language, giving the following information, which statement shall not be modified or denied in the labeling or on another label attached to the container.

- A. For all seeds named and treated as defined in this act [76-10-11 to 76-10-22], for which a separate label may be used:
 - 1. A word or statement indicating that the seed has been treated.
 - 2. The commonly accepted coined, chemical or abbreviated chemical name of the applied substance or description of the process used.
 - 3. If the substance in the amount present with the seed is harmful to human or other vertebrate animals a caution statement such as "Do not use for food or feed or oil purposes." The caution for mercurials and similarly toxic substances shall be a poison statement or symbol.
 - 4. If the seed is treated with an inoculant, the date beyond which the inoculant is not to be considered effective, the date of expiration.
- B. For agricultural seeds, except for grass seed mixtures as provided in subsection C:
 - 1. Commonly accepted name of the kind and the variety, or kind and the phrase "variety not stated" for each agricultural seed component in excess of 5 per cent [5%] of the whole and the percentage by weight of each in order of its

predominance. When more than one [1] component is required to be named, the word "mixture" or the word "mixed" shall be shown conspicuously on the label;

- 2. Lot number or other lot identification;
- 3. Origin, state or foreign country, if known, of alfalfa, red clover, range grass seed, and field corn, except hybrid corn. If the origin is unknown, the fact shall be stated;
- 4. Percentage by weight of all weed seeds;
- 5. The name and rate of occurrence per pound of each kind of restricted noxious weed seed present;
- 6. Percentage by weight of agricultural seeds, which may be designated as "crop seeds," other than those required to be named on the label;
- 7. Percentage by weight of inert matter; and
- 8. For each named agricultural seed:
 - a. Percentage of germination, exclusive of hard seed;
 - b. Percentage of hard seeds, if present; and
 - c. The calendar month and year the test was completed to determine such percentages.

Following subparagraphs (a) and (b) the "total germination" and "hard seed" may be stated as such, if desired; and

- 9. Name and address of the person who labeled said seed, or who sells, offers or exposes said seed for sale within this state.
- C. For seed mixtures for lawn and turf purposes in containers of fifty [50] pounds or less:
 - 1. The word "Mixed" or "Mixture";
 - 2. The headings "Fine Textured Grasses" and "Coarse Kinds" and there under in tabular form in type no larger than the heading:
 - a. Commonly accepted name, in order of its predominance, of the kind, or kind and variety of each agricultural seed present in excess of five percent [5%] of the whole and determined to be a "fine textured grass" or a "coarse kind" in accordance with the rules and regulations under this act;
 - b. Percentage by weight of pure seed of each agricultural seed named;

- c. For each agricultural seed named under subparagraph (a) above, (1) percentage of germination, exclusive of hard seed, (2) percentage of hard seed, if present, (3) calendar month and year the test was completed to determine such percentage;
- 3. The heading "Other Ingredients" and there under in type no larger than the heading:
 - a. Percentage by weight of all weed seeds;
 - b. Percentage by weight of all agricultural seeds other than those stated under paragraph (2) (a);
 - c. Percentage by weight of inert matter;
- 4. Lot number or other lot identification;
- 5. Name and rate of occurrence per pound of each kind of restricted noxious weed seed present;
- 6. Name and address of the person who labeled said seed, or who sells, offers or exposes said seed for sale within this state; and
- 7. Net weight.
- D. For vegetable seeds in containers of one [1] pound or less:
 - 1. Name of kind and variety of seed;
 - 2. For seeds which germinate less than the standard last established by the board under this act:
 - a. Percentage of germination, exclusive of hard seed;
 - b. Percentage of hard seed, if present;
 - c. The calendar month and year the test was completed to determine such percentages; and
 - d. The words "Below Standard" in not less than 8 point type; and
 - 3. Name and address of the person who labeled said seed, or who sells, offers, or exposes said seed for sale within this state.
- E. For vegetable seeds in containers of more than one [1] pound:
 - 1. The name of each kind and variety present in excess of five per cent [5%] and the percentage by weight of each in order of its predominance.
 - 2. Lot number or other lot identification;

- 3. For each named vegetable seed:
 - a. The percentage of germination, exclusive of hard seed;
 - b. The percentage of hard seed, if present;
 - c. The calendar month and year the test was completed to determine such percentages.

Following subparagraphs (a) and (b) the "total germination and hard seed" may be stated as such, if desired;

- 4. Name and address of the person who labeled said seed, or who sells, offers or exposes said seed for sale within this state; and
- 5. The labeling requirements for vegetable seeds in containers of more than one [1] pound shall be deemed to have been met if the seed is weighed from a properly labeled container in the presence of the purchaser.

76-10-14. Prohibitions:

A. It is unlawful for any person to sell, offer for sale, expose for sale or to transport for sale any agricultural or vegetable seed within this state:

- 1. Unless the test to determine the percentage of germination required by section 2 [76-10-12] shall have been completed within a nine month period, exclusive of the calendar month in which the test was completed, immediately prior to sale, exposure for sale, or offering for sale or transportation; provided, the board may set a different period if after hearing it is found advisable to do so;
- 2. Not labeled in accordance with the provisions of this act [76-10-11 to 76-10-22], or having a false or misleading labeling;
- 3. Pertaining to which there has been a false or misleading advertisement;
- 4. Consisting of or containing prohibited noxious weed seeds, subject to recognized tolerances;
- 5. Consisting of or containing restricted noxious weed seeds per pound in excess of the number prescribed by rules and regulations promulgated under this act, or in excess of the number declared on the label attached to the container of the seed or associated with the seed;
- 6. Containing more than two and one-half per cent [21/2%] by weight of all weed seeds; and
- 7. If any labeling, advertising, or other representations subject to this act represents the seed to be certified or registered seed unless:

- a. It has been determined by a seed certifying agency that such seed was produced, processed and packaged, and conforms to standards of purity as to kind or variety, in compliance with rules and regulations of such agency pertaining to such seed; and
- b. The seed bears an official label issued for such seed by a seed certifying agency stating that the seed is certified or registered.
- B. It is unlawful for any person within this state:
 - 1. To detach, alter, deface, or destroy any label provided for in this act or the rules and regulations made and promulgated there under, or to alter or substitute seed in a manner that may defeat the purpose of this act;
 - 2. To disseminate any false or misleading advertisements concerning agricultural or vegetable seeds in any manner or by any means;
 - 3. To hinder or obstruct in any way, any authorized person in the performance of his duties under this act;
 - 4. To fail to comply with a "stop sale" order or to move or otherwise handle or dispose of any lot of seed held under a "stop sale" order, except with express permission of the enforcing officer, and for the purpose specified thereby;
 - 5. To use the word "trace" as substitute for any statement which is required; and
 - 6. To use the word "type" in any labeling in connection with the name of any agricultural seed variety.

76-10-15. Records:

Each person whose name appears on the label as handling agricultural or vegetable seed subject to this act [76-10-11 to 76-10-22] shall keep for a period of two (2) years complete records of each lot of agricultural or vegetable seed handled and keep for one (1) year a file sample of each lot of seed after final disposition of said lot. All such records and samples pertaining to the shipment or shipments involved shall be accessible for inspection by the board or its agents during customary business hours.

76-10-16. Exemptions:

- A. The provisions of sections 3 and 4 [76-10-13, 76-10-14] do not apply:
 - 1. To seed or grain not intended for sowing purposes;

- 2. To seed in storage in, or being transported or consigned to, a cleaning or processing establishment for cleaning or processing; Provided, that the invoice or labeling accompanying any shipment of said seed bears the statement "seed for processing" and Provided that any labeling or other representation which may be made with respect to the uncleaned or unprocessed seed shall be subject to this act; and
- 3. To any carrier in respect to any seed transported or delivered for transportation in the ordinary course of its business as a carrier; Provided, that such carrier is not engaged in producing, processing, or marketing agricultural or vegetable seeds subject to the provisions of this act; and
- 4. To seed or grain sold by the grower on his farm as uncleaned, untested and unprocessed.
- B. No person shall be subject to the penalties of this act for having sold or offered or exposed for sale agricultural or vegetable seed, which were incorrectly labeled or represented as to kind, variety, type or origin which seeds cannot be identified by examination thereof, unless he has failed to obtain an invoice, genuine grower's declaration or other labeling information and to take such other precautions as may be reasonable to insure the identity to be that stated.

76-10-17. Seed Certification:

- A. The certification agency for New Mexico shall be named by a committee consisting of the director or associate director of the agricultural extension service, the director or associate director of the agricultural experiment station, the extension agronomist, the experiment station agronomist, and the director of the New Mexico department of agriculture of the New Mexico State University; Provided that the committee shall have the authority to designate any other competent or qualified individual or individuals to serve as members of the committee. The certifying agency so named shall have the authority to establish standards and rules and regulations for certification; such standards, rules and regulations to be subject to the approval of the above committee. The certifying agency so named shall also have the authority to fix and charge fees for certification services, and may retain fees collected as payment for its services.
- B. Any labeling, advertisement or other representation, either orally or in writing, subject to this act [76-10-11 to 76-10-22] which represents any seed, tubers or plants to be used for seeding purposes as certified, registered or foundation shall be deemed to be false unless such seeds, tubers or plants:
 - 1. If produced in New Mexico, have been produced, processed, and packaged and conform to the standards of purity as to kind or variety, in compliance with the rules and regulations set forth by the New Mexico certifying agency and bear the

official label of this agency, stating that the seed, tubers or plants are certified, registered or foundation; or

- 2. If produced in another state or country, bear the official label of the certifying agency of that state or country stating that the seed, tubers or plants are certified, registered or foundation.
- C. All requirements of this act shall be understood to apply to certified seed in the same force as they apply to other agricultural or vegetable seeds. In addition, compliance with the standards of the certification agency may be considered in determining whether seed bearing a certified, registered or foundation label is falsely labeled.

76-10-18. Duties and Authority of Board or its Agents:

- A. The duty of enforcing this act [76-10-11 to 76-10-22] and carrying out its provision and requirements is vested in the board of regents of New Mexico State University. It is the duty of the board or its authorized agents:
 - 1. To sample, inspect, make analysis of, and test agricultural and vegetable seeds transported, sold, or offered or exposed for sale within the state for sowing purposes, at such time and place and to such extent as may be deemed necessary to determine whether said agricultural or vegetable seeds are in compliance with provisions of this act, and to notify promptly the person who transported, sold, offered or exposed the seed for sale, of any violation;
 - 2. To prescribe and adopt rules and regulations governing the method of sampling, inspecting, analyzing, testing, and examining agricultural and vegetable seed, and the tolerances to be followed in the administration of this act, which shall be in general accord with officially prescribed practice in interstate commerce, and such other rules and regulations as may be necessary to secure the efficient enforcement of this act;
 - 3. To prescribe and, after public hearing following due public notice, establish, add to or subtract there from by regulations a prohibited or restricted noxious weed list; and,
 - 4. To prescribe and, after public hearing following due public notice, to adopt rules and regulations establishing reasonable standards of germination for vegetable seeds.
- B. Further, for the purpose of carrying out the provisions of this act, the board or its authorized agent is authorized:
 - 1. To enter upon any public or private premises during regular business hours in order to have access to seed and the records connected therewith subject to the act and the rules and regulations there under, and any truck or other conveyor

by land, water, or air at any time when the conveyor is accessible, for the same purpose;

- 2. To issue and enforce a written or printed "stop sale" order to the owner or custodian of any lot of agricultural or vegetable seed which the board or its agents finds is in violation of any of the provisions of this act or rules and regulations promulgated there under, which order shall prohibit further sale, processing and movement of such seed, except on approval of enforcing officer, until such officer has evidence that the law has been complied with, and he has issued a release from the "stop sale" order of such seed, Provided that in respect to seed which has been denied sale, processing and movement as provided in this paragraph, the owner or custodian of such seed shall have the right to appeal from said order to a court of competent jurisdiction in the locality in which the seeds are found, praying for a judgment as to the justification of such order and for the discharge of such seed from the order prohibiting the sale, processing and movement in accordance with the findings of the court; and Provided further, that the provisions of this paragraph shall not be construed as limiting the right of the enforcement officer to proceed as authorized by other sections of this act;
- 3. To establish and maintain or make provisions for seed testing facilities, to employ qualified persons, and to incur such expense as may be necessary to comply with these provisions;
- 4. To make or provide for making purity and germination test of seed for farmers and dealers on request; to prescribe rules and regulations governing such testing; and to fix and collect charges for the test made. Fees collected will be deposited in the comptroller's office at New Mexico state university, to be expended in enforcing this act, at the discretion of the board; and
- 5. To cooperate with the United States department of agriculture and other agencies in seed law enforcement.

76-10-19. Seizure:

Any lot of agricultural or vegetable seed not in compliance with the provisions of this act [76-10-11 to 76-10-22] shall be subject to seizure on complaint of the board or its agents to a court of competent jurisdiction in the locality in which the seed is located. In the event the court finds the seed to be in violation of this act and orders the condemnation of said seed, it shall be denatured, processed, destroyed, relabeled, or otherwise disposed of in compliance with the laws of this state; Provided, that in not instance shall the court order such disposition of said seed without first having given the claimant an opportunity to apply to the court for the release of said seed or permission to process or re-label it to bring it into compliance with this act.

76-10-20. Injunction:

When in the performance of his duties the board or its agent applies to any court for a temporary of permanent injunction restraining any person from violating or continuing to violate any of the provisions of this act [76-10-11 to 76-10-22] or any rules and regulations under this act, said injunction is to be issued without bond.

76-10-21. Violations and Prosecutions:

Every violation of the provisions of this act [76-10-11 to 76-10-22], and every violation of any rules and regulations promulgated under this act, after a notice to cease and desist, shall be deemed a misdemeanor punishable by a fine not exceeding one hundred dollars (\$100) for the first offense and not exceeding two hundred fifty dollars (\$250) for each subsequent similar offense. When the board or its agent shall find that any person has violated any of the provisions of this act, they or their duly authorized agent or agents may institute proceedings in a court of competent jurisdiction in the county in which the violation occurred, to have such person convicted therefore. The board or its agents may file with the district attorney in each district, with a view of prosecution, such evidence as may be deemed necessary; Provided, however, that no prosecution under this act shall be instituted without the defendant first having been given an opportunity to appear before the board or its agents to introduce evidence either in person or by agent or attorney at a private hearing. If, after hearing, or without such hearing in case the defendant or his agent or attorney fails or refuses to appear, the board or its agents is of the opinion that the evidence warrants prosecution, he shall proceed as herein provided.

It is the duty of the district attorney in each district to institute proceedings at once against any person charged with a violation of this act, if, in the judgment of such officer the information submitted warrants such action.

After judgment by the court in any case arising under this act, the board or its agent shall publish any information pertinent to the issuance of the judgment by the court in such media as he may designate from time to time.

76-10-22. Appropriation:

The legislature shall appropriate to the New Mexico State University annually the amount necessary, out of the moneys of the state, except moneys reserved for the payment of the public debt, for the purpose of complying with this act [76-10-11 to 76-10-22] and to fulfill and carry out its purposes.