

## WOODY SPECIES AND FORBS

### I. The Purpose of Seed and Plant Certification

The purpose of seed and plant certification is to maintain and make available to the public high quality seed and cuttings of tree and shrub varieties and species so produced, handled, and distributed as to insure proper identity and genetic purity.

### II. Eligibility Requirements for Certification of Woody Varieties and Species

- A. Only those varieties and species that are accepted by the Colorado Agricultural Experiment Station and/or the Colorado Seed Growers Association will be eligible for certification. Application forms for acceptance of privately developed varieties are available from Colorado Seed Growers Association.
- B. For the Tested, Selected and Source-Identified classes, the applicant shall submit to the certifying agency, prior to the start of collections, an identification log (provided by CSGA) as follows:
  1. Collector's name, address and telephone number.
  2. Permit number, contract number, private land designation, etc.
  3. Species and common name.
  4. Location (State, County and elevation). It is strongly recommended additional information, such as soil type, aspect and associated species, be given, as this information would be extremely useful to the end user.
  5. Date(s) collected.
  6. Amount collected.
  7. Lot designation (must be indicated on bag or container, also).
  8. Signature of collector that the information is correct.
  9. Signature of seed broker that to his knowledge the information is correct.
  10. Description of plant with picture or drawing, if possible, or a document from an identification authority verifying the identity of the species.
- C. Source-identified seed, or plants, cannot be collected from irrigated areas, unless predetermined to be of proven genetic origin.

### III. Classes of Certification

- A. Six classes of certification shall be recognized: Foundation, Registered, Certified, Tested, Selected and Source-Identified.
  1. Foundation (white tag). Foundation seed or plant material shall be so handled to most nearly maintain specific genetic identity and purity, and which may be produced by an Agricultural Experiment Station, or originator. Foundation stock shall be the source of Registered and/or Certified stock.
  2. Registered (purple tag). Registered seed or plant materials shall be the progeny of Foundation seed or plant material. Registered stock is the parent stock for the production of Certified stock.
  3. Certified (blue tag). Certified seed or plant materials shall be of known genetic identity, obtained from woody species of proven superiority, as defined by the Colorado Seed Growers Association.
  4. Tested (blue tag). Tested propagating materials shall be the progeny of plants whose parentage has been tested and has proven genetic superiority or possesses distinctive traits for which the heritability is stable, as defined by the certifying agency, but for which a variety has not been named or released. This seed must be produced so as to assure genetic purity and identity from either:
    - a. Rigidly controlled and isolated natural stands or individual plants.
    - b. Seed fields or orchards.
  5. Selected (green tag). Selected propagating materials shall be the progeny of phenotypically selected plants of untested parentage that have promise but not proof of genetic superiority or distinctive traits, produced so as to insure genetic purity and identity from either:
    - a. Natural stands or seed production areas.
    - b. Seed fields or orchards. This definition is equivalent to the OECD "Untested Seed Orchard" category and may be labeled as such by special tag if required.
  6. Source-Identified (yellow tag). Source-Identified propagating materials are seed, seedlings or other propagating materials collected from natural stands, seed production areas, seed fields or orchards where no selection or testing of the parent population has been made.

#### **IV. Handling the Crop Prior to Inspection**

Roguing of off-type plants, objectional crop plants, and weeds is required prior to field inspection and will be the responsibility of the grower and/or collectors.

#### **V. Field Inspections**

- A. Field inspection for Foundation, Registered, Certified, Tested, Selected and Source-Identified classes shall be made by representatives of CSGA prior to collection or harvest of seed. Additionally, field standards prescribed below for the Source-Identified class are required.
- B. Inspection of stands, designated sites, collection areas, etc. for Tested, Selected and Source-Identified classes shall be sufficient to determine geographic source, location, and elevation in increments of 500 feet, for each species being collected.
- C. Conditioning and warehouse inspections (see Section VIII) shall be made to assure proper identity and compliance with field standards.
- D. All conditioning records involved in receiving, conditioning, storage, labeling, and shipping shall be available for inspection by the certifying agency.
- E. 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.

#### **VI. Establishing the Source**

- A. Evidence, such as certification tag, sales record, Certified seed site identification log, etc., must be submitted to the certifying agency to establish source of seed or plant materials.
- B. The exact source of the parent plants by legal description and the stand history must be known and will be shown (geographic, elevation, etc.) on the certification tag or label.

#### **VII. Sampling of Seed and Plant Inspection**

- A. A representative sample of each lot of seed as it is offered for sale shall be taken and submitted to an approved Lab to be tested for purity and germination.
- B. Plant materials must be inspected by the Colorado Seed Growers Association prior to offering for sale.

#### **VIII. Conditioning and Warehouse Inspection**

Conditioning of all classes of Certified seed must be done by a Colorado Approved Certified Seed Conditioner. Refer to the Certified Directory or call the CSGA office for a list of approved conditioners. Inspection of seed or plant materials may be made at any time and any lot not properly protected from loss of identity may be rejected.

#### **IX. Field Standards**

- A. General
  1. Minimum isolation distances will be construed to refer to only genetically related species. A minimum isolation radial distance will be required except for elm which will be 1320 feet.
  2. Seed plants must be true to type and must possess desirable qualities of growth, form, and vigor. Off-type plants must be removed.
  3. Fruit collecting and seed cleaning shall be under the supervision of the Colorado Seed Growers Association.
- B. Length of stand requirement
  1. The life of the stand shall be unlimited, as long as 75% of the plants present in the stand are those that were planted originally.
  2. Exceptions may be otherwise specified by the originator of the variety or his designee.
- C. Isolation
  1. Isolation of 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.

2. There shall be no isolation requirements for the Source-Identified class.
3. Minimum distance from a different variety or non-certified same kind shall be:

Class	Minimum of isolation (feet)*	
	Fields less than 2 acres	Fields greater than 2 acres
Foundation & Registered	400	200
Certified & Select	200	100

\* Except Rocky Mountain Penstemon: Minimum isolation all classes is 990 feet.

4. Specific

Factor	Ratio of off-types		
	Foundation	Registered	Certified and Selected
Other varieties and types	1:1000	1:500	1:250
Other kinds (Inseparable other species)	1:2000	1:1000	1:500
Noxious weeds	None	None	None

#### C. Land Requirements

A field to be eligible for the production of Certified classes of seed must not have grown or have been present to the same species or natural wild plants during the previous four (4) years for Foundation, two (2) for Registered or one (1) year for Certified, except for seed of the same variety of equal or higher classification. Land to be used for the production of Certified seed classes must be free from volunteers.

## X. Seed Standards

### A. Specific Seed Standards

Species	Germ. & dormancy (minimum)		Purity (minimum)		Inert matter (maximum)		Weed seed (maximum)	
	F	R&C	F&R	C	F&R	C	F&R	C
<b>Antelope Bitter Brush</b> ( <i>Purshia tridentata</i> )	10	80	95	95	5	5	0.10	0.2
<b>Desertwillow</b> ( <i>Chilopsis linearis</i> )	60	50	80	60	20	40	0.25	0.5
<b>Forestiera, New Mexico</b> ( <i>Forestiera neomexicana</i> )	30	30	90	80	10	20	0.25	0.5
<b>Lewis Flax</b> ( <i>Linum lewisii</i> )	10	70	95	95	5	5	0.10	0.2
<b>Louisiana Sage</b> ( <i>Artemisia ludoviciana</i> )	10	30	80	80	20	20	0.25	0.5
<b>Mountain Big Sagebrush</b> ( <i>Artemisia tridentata</i> )	60	70	50	10	50	90	0.25	0.5
<b>Mountain Mahogany</b> ( <i>Cercocarpus montanus</i> )	60	60	90	90	15	15	0.15	0.3
<b>Penstemon, Palmer</b> ( <i>Penstemon palmerii</i> )	75	75	85	85	15	15	0.25	0.5
<b>Penstemon, RockyMtn*</b> ( <i>Penstemon strictus</i> )	60	60	85	80	15	20	0.10/0.30	0.5
<b>Saltbush, Fourwing</b> ( <i>Atriplex canescens</i> )	40**	35**	80	70	20	30	0.50	1.5
<b>Small Burnet</b> ( <i>Sanquisorba minor</i> )	80	80	95	95	5	5	0.10	0.2
<b>Sumac, Skunkbush</b> ( <i>Rhus trilobata</i> )	65	50	80	70	20	30	0.25	0.5
<b>Winterfat</b> ( <i>Ceratoides lanata</i> )	NS	40	60	60	40	40	0.25	0.5

\* A field must not have been planted to the same species during the previous 4 years for Foundation, 3 years for Registered, or 2 years for Certified, except for seed of the same variety of equal or higher classification.

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

## X. Seed Standards (continued)

### B. General

Properly drawn representative seed samples shall meet the following general standards for all species

Factor	Maximum permitted in each class		
	Foundation (%)	Registered (%)	Certified (%)
Total other crops	0.40	0.75	1.25
Other varieties	0.25	0.50	0.75
Other kinds	0.15	0.25	0.50
Noxious weeds	None	None	None

## XI. Disease and Insect Standards

Seed or plant materials will be inspected and shown to be free from disease and insects.

## XII. Miscellaneous Standards

### A. Seed

#### 1. Specific Requirements

- a. Other distinguishable species or cultivars (maximum by weight) 0.05%
- b. Additional standards for specific species and/or group of species will be included as they become available.