

TREFOIL CERTIFICATION STANDARDS

I. APPLICATION AND AMPLIFICATION OF GENERAL CERTIFICATION STANDARDS

The General Seed Certification Standards are basic and together with the following specific standards constitute the standards for certification of trefoil seed.

II. LAND REQUIREMENTS

- A. A crop of the same kind must not have been grown or planted on the land for five (5), three (3), and two (2) years prior to stand establishment for producing Foundation, Registered or Certified seed classes, respectively.
- B. The land must be free of volunteer plants during the year immediately prior to establishment.
- C. Trefoil must be planted in distinct rows. 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. FIELD INSPECTION

- A. A seedling inspection will be made by an inspector during the first season of planting.
- B. Seed fields shall be inspected at least once prior to harvest, preferably at flowering time when varietal purity can best be determined. Harvest operations, including swathing and combining, prior to field inspection or reinspection are cause for rejection of the field.
- C. **Application for certification must be submitted by May 15 of each year in which seed is produced (Late summer or fall plantings are due within 60 days after planting).**

IV. FIELD STANDARDS

- A. General
 - 1. Unit of Certification

A field or a portion of a field may be certified if the area to be certified is clearly defined. Portions of a field not meeting requirements for certification must not be allowed to reach seed stage.

2. Isolation

A field producing Foundation, Registered, or Certified seed must have the minimum isolation distance from fields of any other variety or fields of the same variety that do not meet the varietal or generation requirements for certification, as is given in the following table:

Seed Classes	Fields of less than 5 acres	Fields of more than 5 acres
	(Isolation in feet*)	
Foundation	900 feet	600 feet
Registered	450 feet	300 feet
Certified	330 feet	165 feet

* Where different classes of seed of the same variety are being grown, the isolation requirements may be reduced to 10 feet, regardless of class or field size.

3. Length of Stand

The Certified class of seed production outside the region of adaptation shall not exceed four (4) successive years if not otherwise specified by the originator or his designee. The region of adaptation shall be determined by the breeder. A Certified field on which a stand of perennial plants is maintained may produce a maximum of four successive seed crops following seeding.

4. Volunteer Plants

Volunteer plants may be cause for rejection.

B. Specific Field Requirements

Factor	Maximum Permitted in Each Class (ratio of plants)		
	FDN	REG	CERT
Other varieties*	1:1000	1:400	1:100
Sweetclover plants	None ⁽¹⁾	None ⁽¹⁾	5 per acre

Prohibited Noxious Weeds (Lack of evidence of control will be cause for rejection)

* Other varieties shall be considered to include plants that can be differentiated from the variety being inspected.

⁽¹⁾ None tolerance means none found during the normal inspection procedures. None is not a guarantee to mean the field inspected is free of the factor.

V. SEED STANDARDS

Factor	Standards for Each Class		
	FDN	REG	CERT
Pure Seed, (Min.)	99.00%	99.00%	98.00%
Other Crop, (Max.)	0.20%	0.35%	2.00%
Sweetclover, (Max.)	0/lb.	5/lb.	25/lb.
Inert Matter, (Max.)	1.00%	1.00%	1.00%
Weed seed ⁽¹⁾ , (Max.)	0.10%	0.20%	0.50%
Prohibited Noxious Weeds ⁽²⁾	none ⁽¹⁾	none ⁽¹⁾	none ⁽¹⁾
Restricted Noxious Weeds ⁽³⁾	none ⁽¹⁾	none ⁽¹⁾	18/lb.
Objectionable Weeds ⁽⁴⁾	27/lb.	45/lb.	90/lb.
Total Germination & Hard Seed	80.00%	80.00%	80.00%
Germination (Min.)	45.00%	45.00%	45.00%

- (1) None of the prohibited weeds listed nor any bedstraw, dodder, dogbane, pennycress, wild carrot, or horse nettle, is allowed in any class of seed.
- (2) None tolerance means none found during the normal inspection procedures. None is not a guarantee to mean the field inspected is free of the factor.
- (3) See Restricted Noxious Weed list in the General Standards.
- (4) Includes bracted plantain, buckhorn plantain, docks, wild carrot, and sorrel.

The following weeds have a negative impact on seed production of this crop. Weeds marked with an asterisk can impact certification of this crop. The other weeds listed are difficult to separate, and can result in increased seed loss during cleaning. Control of these weeds is recommended.

Canada thistle*, dodder*, sweetclover*, wild proso millet*

WOODY SPECIES SEED CERTIFICATION STANDARDS

I. APPLICATION AND AMPLIFICATION OF GENERAL CERTIFICATION STANDARDS

A. The General Seed Certification Standards are basic and together with the following specific standards constitute standards for certification of woody plants.

B. The Genetic Standards are modified as follows:

1. LIMITATION OF GENERATIONS

Both sexual (seed) and asexual (cuttings, rhizomes, etc.) means of reproduction and establishment are addressed by these standards, with one asexual generation being equivalent to one sexual generation, (i.e. Breeder, Foundation, Registered, and Certified).

2. LENGTH OF STAND REQUIREMENTS

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. Exceptions may be otherwise specified by the originator of the variety of his designee.

II. LAND REQUIREMENTS

A field, to be eligible for the production of certified classes of seed, must not have grown, been seeded to, or had volunteer plants producing seed of the same species (except for plants or seed of the same variety of equal or higher classification) during the previous four (4) years for Foundation, three (3) for Registered, or two (2) years for Certified.

III. FIELD STANDARDS

A. General

1. Seed field inspection will be made in the year of establishment, and at least once each year that seed is to be harvested. This inspection should be made at the stage of plant development when off-types or other varieties, disease status, weed contamination, etc., can be readily detected.

2. Isolation

- a. For seed production, minimum distance from a different variety, fields of the same variety that do not meet the varietal purity requirements for certification, or wild hybridizing populations are as follows:

Seed Classes	Fields of less than 2 acres	Fields of more than 2 acres
Foundation & Registered	400 feet	200 feet
Certified	200 feet	100 feet

- b. For seed production of different classes of the same variety or for asexual reproduction, only a distinct separation (fenceline, roadway, etc.) is necessary.

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

B. Specific Field Requirements

Factor	Foundation	Ratio in Field	
		Registered	Certified
Other varieties & Off- types*	1/1000	1/500	1/250
Other kinds (inseparable other species)	1/2000	1/1000	1/500
Prohibited Noxious Weeds** (<i>Lack of control will be cause for rejection</i>)			

* Some species may have a phenotypically variable population; this should be accounted for in the breeder's description such that true off-types will not exceed the stated ratio. Exceptions may be otherwise specified by the breeder or his designee.

** Must be under cultural or chemical control such that the mature noxious weed seed will not be harvested with crop seed.

IV. SEED STANDARDS

A. General

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

2. A representative sample of vegetatively propagated materials must be inspected to insure varietal purity. Quality factors may be established by individual certifying agencies.

B. Specific Seed Standards

1. All propagating materials:

Factor	Maximum Permitted in Each Class		
	Foundation	Registered	Certified
Other varieties	0.25%	0.50%	0.75%
Other kinds	0.15%	0.25%	0.50%
Total other Crops	0.40%	0.75%	1.25%
Prohibited Noxious Weeds ⁽²⁾	none ⁽¹⁾	none ⁽¹⁾	none ⁽¹⁾

(1) None tolerance means none found during the normal inspection procedures. None is not a guarantee to mean the lot inspected is free of the factor.

(2) None of the Prohibited Noxious Weeds listed in the General Standards.

2. Standards for species that have released varieties or germplasms:

Name		Pure Seed % (Min.) F,R,C	Inert % (Max.) F,R,C	Weed* Seed % (Max.) C	Viability % (Min.) Germ + Dorm (or) TZ
Common	Scientific				
Four-wing Saltbush	Atriplex canescens	85	15	0.5	30
" "	Atriplex canescens aptera	85	15	0.5	30
Prostrate Kochia	Kochia Prostrata	65	35	0.2	35
Small Burnet	Sanquisorba minor	95	05	0.2	80
Louisiana Sage	Artemesia ludoviciana	80	20	0.5	30
Antelope Bitterbrush	Purshia tridentata	95	05	0.2	75
Mountain Big Sagebrush	Artemesia tridentata	10	90	0.5	50
Winterfat	Ceratoides lanata	60	40	0.5	40
Mountain Mohogany	Cercocarpus montanus	85	15	0.3	60

* Foundation and Registered standards for weed seed are one half the Certified tolerance.