

PRE-VARIETY GERmplasm CERTIFICATION STANDARDS

(As of February 2017)

The General Certification Standards are basic and together with the following specific standards constitute the standards for certification of pre-variety germplasm.

I. Eligibility Requirements for Germplasm

- A. Eligible species include indigenous or non-indigenous trees, shrubs (including vines), or herbaceous plants (forbs and grasses).
- B. These standards address seed, seedlings, or other propagating materials of species, selections, clones, intraspecific hybrids, etc. (collectively referred to as germplasm types) **which have not been released as a variety**. Germplasm types are recognized as follows:
 - 1. Tested Class¹:
Tested Class propagating materials are seed, seedlings, or other propagating materials that have been tested and proven superior for some tested trait(s), and these superior traits have been proven heritable and stable in their progeny as defined by the certifying agency, but for which a variety has not been named or released. Propagating materials must be produced so as to assure genetic purity and identity from either:
 - a. Rigidly controlled and isolated natural stands or individual plants; or
 - b. Seed fields or orchards.
 - 2. Selected Class¹:
Selected Class propagating materials are seed, seedlings, or other propagating materials that have been tested and/or selected for some desirable trait(s), however, there is no proof these traits are heritable in their progeny. Propagating materials must be produced so as to ensure genetic purity and identity from either:
 - a. Natural stands or seed production areas; or
 - 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 (see *Labeling* - VIB).
 - 3. Source Identified Class¹:
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.
- C. Methods used and monitoring of selection and testing of parent material to qualify for different germplasm types will be determined by the Certification agency for each species or group of species.

II. Designation of Classes of Seed

Classes (Breeder, Foundation, Registered, Certified) designate and define generations of a named and released variety. It is not permissible to use the same terms (Foundation, Registered, Certified) to designate generations of Tested or Selected germplasm types. Suggested terms are Generation 1 as equivalent to Foundation and Generation 3 as equivalent to Certified class.

1. "Class" designation is conventionally accepted nomenclature, but is not equivalent to class as defined in the General Standards Section III.

III. Limitations of Generations

- A. Limitation of generations for Tested and Selected germplasm types may be specified for each species by the certifying agency.
- B. No limitation of generations is defined for Source Identified germplasm type.
- C. Both sexual (seed) and asexual (cuttings, rhizomes, grafting, etc.) means of reproduction and establishment are addressed by the limitation of generations, with one asexual generation being equivalent to one sexual generation.

IV. Unit of Certification

An individual plant, clone, or stand of plants (field or orchard) may be certified in producing Tested, Selected, or Source-Identified seed. Seed production zones and/or breeding zones may be defined as a unit of certification for Selected and Source Identified seed.

V. Production of Seed

- A. For Tested and Selected seed, at least one field inspection must be made prior to pollination. At this time, compliance with regard to roguing and isolation as covered by the applicable agency standards will be checked. An inspection will also be made just prior to seed maturity or during harvest to ensure compliance with standards and estimate potential seed yields.
- B. For Source Identified seed, an inspection made prior to seed maturity or soon after seed collection is required.
- C. For all germplasm types, compliance with regard to correct identification of species, location of natural stand or field or orchard, and seed yield must be verified by whatever means is deemed efficient and enforceable by the certification agency.
- D. Producers of seedling or otherwise propagated nursery or container stock must be supervised sufficiently so that the certification agency knows that the stock was produced from the germplasm type claimed.

VI. Labeling

- A. The following tag or label colors will apply:
Tested Class -- Blue
Selected Class -- Green*
Source Identified Class -- Yellow
- B. Format of face side of label: The respective seed germplasm type (TESTED, SELECTED, OR SOURCE IDENTIFIED) must be printed on the top line across the tag or label. Indicate the generation of the seed in the center of the tag along with such information as species, selection number, lot number, location, elevation, site index, seed zone and/or breeding zone, etc.

*Exception: To satisfy requirements of the OECD Scheme, seed from Selected Class seed orchards may be tagged with a pink tag having UNTESTED SEED ORCHARD, printed on the top line across the tag or label.

VII. Sampling and Testing

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

VIII. Land Requirements

- A. For the Tested germplasm type, the exact geographic source of the parent plants and the stand history

must be known. Location (designated by section or comparable land survey unit) and elevation (nearest 500 ft.) of the site of seed production must be shown on the tag.

- B. For the Selected germplasm type, seed zones and/or breeding zones may be defined to indicate location of naturally produced seed for tag information. Artificially established fields or orchards may be listed either by specific site or by zonal definition.
- C. Location where Source-Identified seed was collected is defined by means of administrative, geographic, attitudinal, or other appropriate boundaries or descriptions judged to be significant by the certifying agency. State, county, and elevation (nearest 500 feet) is the minimum required to be shown on the tag.
- D. In all cases where seed or other propagating materials are produced in fields or orchards, the origin of the parent materials must be known. Exception may be made by the certifying agency regarding plantings outside the natural range of a species. The location printed on the tag must be the location of the field or orchard, not the location of origin of the parent material.

IX. Isolation

For Tested or Selected germplasm types, an adequate isolation zone must be maintained free of off-type plants and other cross pollinating species. The isolation distance will be set for each species by the certifying agency. There are no isolation requirements for Source-Identified seed.

X. Field Standards

- A. For Tested and Selected germplasm types, off-types, off-type plants (and plants of inseparable other species or hybridizing species) are to be defined and appropriate tolerance set by the certifying agency.
- B. Design and methods for establishing seed fields and orchards and the selecting and testing of plant material will be in accordance with the requirements of the certifying agency for each species or group of species.

XI. Seed Standards

Where Pre-Variety Germplasm crops are involved, the use of AOSCA standards for that species will apply. Species for which no standards exist, seed standards will be: No noxious or restricted weeds allowed and no more than 0.25% Downy Brome (*Bromus tectorum*). However, state, and federal laws regarding analysis labeling must be observed.

Variety	Symbol for Type of Reproduction ¹	Pure Seed Minimum		Inert Maximum		Other Grass Species Maximum		Weed Seeds Maximum ^{2,3}		Germination Minimum
		G1-G2 ⁴ %	G3 ⁴ %	G1-G2 %	G3 %	G1-G2 %	G-3 %	G1-G2 %	G-3 %	G1-G2-G3 %
Bluegrass, Canada	a	90.00	90.00	10.00	10.00	0.10	0.50	0.20	0.30	70.00
Bluegrass, Nevada	a	90.00	90.00	10.00	10.00	0.10	0.50	0.20	0.30	70.00
Bluegrass, Sandberg	s	90.00	90.00	10.00	10.00	0.10	0.50	0.20	0.30	70.00
Bromegrass, Mountain ⁵	s	90.00	90.00	10.00	10.00	0.10	0.50	0.20	0.30	80.00

¹ Symbol for type of reproduction: a = Strains at least 80% apomictic; c = All cross-pollinated species; s = Highly self-fertile.

² No restricted weeds allowed, except Buckhorn Plantain and Curly Dock (9/lb maximum each species) and Wild Oats (18/lb maximum each species for **certified class only**).

³ No restricted weed seeds means none found during the normal inspection procedures. None is not a guarantee to mean the lot inspected is free of the factor.

⁴ Seed Class Abbreviation: G1= Generation 1; G2 = Generation 2; G3 = Generation 3.

⁵ No more than 5% headsmut allowed

Variety	Type of Reproduction ¹	Pure Seed Minimum	Inert Maximum	Other Kinds of Crops Maximum		Other Varieties Maximum			Total Other Crop			Weed Seeds Maximum ^{2,3}		Germination Minimum
		G1-G2-G3+ ⁴ %	G1-G2-G3+ %	G1-G2 %	G3+ %	G1 %	G2 %	G3+ %	G1 %	G2 %	G3+ %	G1-G2 %	G-3+ %	G1-G2-G3+ %
Fuzzy Tongue Penstemon	c	85.00	15.00	0.25	0.50	0.25	0.50	0.75	0.40	0.75	1.25	0.50	0.50	70.00 ⁵
Prairie Clover, Purple	c	95.00	5.00	0.10	0.25	0.10	1.00	2.00	0.20	1.10	2.25	0.40	1.00	80.00
Prairie Clover, Slender White	c	95.00	5.00	0.10	0.25	0.10	1.00	2.00	0.20	1.10	2.25	0.40	1.00	80.00
Prairie Coneflower, Upright Yellow	c	90.00	10.00	0.10	0.25	0.10	1.00	2.00	0.20	1.10	2.25	0.40	1.00	80.00

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⁴ Seed Class Abbreviation: G1= Generation 1; G2 = Generation 2; G3 = Generation 3. Some varieties allow for additional generations.

⁵ Germination may be curtailed after a week and cut for dormancy to determine total viability.