PRE-VARIETY GERMPLASM
CERTIFICATION REGULATIONS IN IDAHO

Application Due Date:
New Seeding – 60 days after planting
Renewals – April 1st
Site Log Applications – 10 Days Prior to Collection
Apply Using Standard ICIA Application and Indicating Crop as PVG

I. Application and Amplification of General Certification Standards.

A. The General Seed Certification Standards as adopted by the University of Idaho Agricultural Experiment Station and enforced by the Idaho Crop Improvement Association, Inc. are basic and together with the following specific standards constitute the standards for certification of Pre-variety Germplasm in Idaho.

II. General Standards and Procedures.

A. Eligibility Requirements for Pre-Variety Germplasm (PVG).

1. Eligible species include indigenous or non-indigenous trees, shrubs (including vines), or herbaceous plants (forbs, legumes and grasses).
2. 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:

    a. Source Identified Class – Source Identified Class propagating materials are propagating materials where original collection site is known, but no selection or testing of the parent population has been made, area of adaptation beyond original collection area is not known, produced so as to ensure genetic purity and identity from either:
        1. rigidly defined natural stands or seed production areas, or
        2. Seed fields or orchards.

    b. Selected Class – Selected Class 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, area of adaptation is partially known, but not fully understood, produced so as to ensure genetic purity and identity from either:
        1. Rigidly defined natural stands or seed production areas, or
        2. 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.

    c. Tested Class – Tested Class propagating materials shall be the progeny of plants whose parentage has been tested at multiple sites for multiple generations 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. Area of adaptation is fairly well determined, but may not be completely understood. This seed must be produced so as to assure genetic purity and identity from either:

        1. rigidly controlled and isolated natural stands or individual plants, or
        2. seed fields or orchards.

3. Designation of classes will be by use of the generation system to signify initial collections or plantings and subsequent collections or plantings. Example: First collection of Source Identified seed is G0. First field

production of any class, Source Identified, Selected or Tested, would be G1. Terms such as Breeder, Foundation, Registered and Certified do not apply to the PVG program or standards.

4. Limitations of Generations.

a. Limitation of generations for all PVG types when grown in seed fields or orchards may be specified for each species by the Certifying agency or the original PVG Release Notice.
b. A limitation of five field increase generations (G5) is defined for all germplasm types collected from natural stands; such seed or other propagating materials is designated Generation 0 (G)).
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.

5. Unit of Certification.

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

6. Production of Seed

a. For Source Identified Class seed collected from natural stands, verification of the collection site is required. Compliance with regard to correct identification of species and location of natural stand must be verified by whatever means is deemed efficient and enforceable by the Idaho Crop Improvement Association, Inc.
b. All germplasm types grown in seed fields or orchards shall follow established certification requirements and standards for similar crops if applicable, or those developed by a certification agency for a specific species.
c. For Tested Class seed collected from natural stands, at least one field inspection shall be made prior to pollination. At this time, compliance with regard to rouging and isolation as covered by the applicable standards will be checked. For Tested Class and Selected Class seed, an inspection will be made just prior to seed maturity or during harvest.
d. Producers of seedling or otherwise propagated nursery or container stock shall be supervised sufficiently so that the certification agency knows that the stock was produced from the germplasm type claimed.

7. Labeling

a. The following tag or label colors will apply to PVG:

    Source Identified Class – Yellow
    Selected Class – Green
    Tested Class – Blue

b. The respective seed germplasm type (Tested, Selected, or Source Identified) must be printed on the top line across the tag or label.
c. The generation of the seed may be indicated 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.

8. 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 the rules of the International Seed Testing Association or appropriate state or federal laboratories as determined by the certifying agency. The use of a three part purity, where there is a determination of pure seed, inert and other seeds, is used to determine eligibility for certification.

9. Land Requirements

a. Location where Source Identified Class or Selected Class seed was collected from natural stands shall be defined by means of administrative, geographic, latitudinal 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.
b. For natural stands of the Tested Class germplasm type, the exact geographic source of the parent plants and stand history must be known. Location (designated by section or comparable land survey unit) and elevation (nearest 500 feet) of the site of seed production must be shown on the tag.
c. For all germplasm types where seed or other propagating materials are produced in artificially established fields or orchards, the specific geographic origin of the parent material must be known and be listed on the tag along with the location of the artificially established field or orchard.
d. G1 through G5 shall be planted on land which no plants of the same genus was grown or planted for the specified number of years according to the chart which is a part of these PVG standards.

10. Field Standards

A. Isolation

1. For rigidly controlled natural stands of Source Identified Class, Selected Class or Tested Class germplasm types, an adequate isolation zone shall be maintained free of off-type plants and other cross pollinating species. The isolation distance shall be set for each species by the certifying agency.
2. There shall be no isolation requirements for Source Identified Class or Selected Class seed collected from natural seed zones and/or breeding zones.
3. Isolation for all germplasm types when grown in seed fields or orchards shall follow isolation requirements for similar crop varieties if applicable, or those developed by a certification agency for a specific species.

B. Specific Field Requirements.

1. For all germplasm types grown in a seed field or orchard, off-type plants (and plants of inseparable other species or hybridizing species) are to be defined and appropriate tolerance set by the certifying agency.
2. Design and methods for establishing seed fields and orchards and the selecting and testing of plant material shall be in accordance with the requirements of the certifying agency for each species or group of species.

11. **Seed Standards**. **

Seed lots are to be tested with a three-part purity (Pure seed, inert, other seeds) and must have been tested for viability (germination or TZ). No noxious weed seeds are allowed.

Not more than 0.25% Downy Brome (cheatgrass) is allowed in any Generation of PVG seed.

Idaho Crop Improvement Association or AOSCA standards apply for species with variety releases with established standards. Where PVG crops are involved the use of AOSCA standards for that species will apply. Species for which no standard exist the seed standard will simply be no noxious weeds allowed and not more than 0.25% Downy Brome (cheatgrass).

RECOMMENDED GUIDELINES FOR
AOSCA PRE-VARIETY GERMPLASM CLASSES (SOURCE IDENTIFIED, SELECTED, TESTED)
Genetic Requirements and Standards for Field Production*

Species[1]			G1					G2					G3					G4					G5[2]			
Repro.	Habit		L[3]	I[4]	F[5]	S[6]		L	I	F	S		L	I	F	S		L	I	F	S		L	I	F	S
X Poll.	Ann.		3	900-600	1000	0.25		3	900-600	1000	0.25		2	450-300	500	0.5		1	330-165	250	0.75		1	330-165	250	0.75
X Poll.	Per.[7]		3	900-600	1000	0.25		3	900-600	1000	0.25		2	450-300	500	0.5		1	330-165	250	0.75		1	330-165	250	0.75
Self Poll.	Ann.		3	0[8]	1000	0.25		3	0	1000	0.25		2	0	500	0.5		1	0	250	0.75		1	0	250	0.75
Self Poll.	Per.[7]		3	0	1000	0.25		3	0	1000	0.25		2	0	500	0.5		1	0	250	0.75		1	0	250	0.75

* Where applicable, a pre-variety germplasm entity may be subject to AOSCA genetic requirements and standards for released varieties of comparable individual species or crop groupings (e.g. Alfalfa, Grass, or Woody Plants and Forbs). Only seed standards[6] are relevant to Generation 0 wildland collections.

1. Species mode of sexual reproduction (cross or self pollinated) and habit (annual or perennial).

2. Exceptions to number of sexual generations allowed may be otherwise specified by the germplasm developer in consultation with the certification agency. There is normally no limit to vegetative generations, but each generation must be consecutively numbered for labeling purposes.

3. Land history: number of crop years that must elapse between removal of a species and replanting a different germplasm entity of the same species on the same land, unless cropping practices serve to diminish more quickly the seed reservoir.

4. Isolation in feet from any contaminating sources of pollen; the first number is for fields under 5 acres, the second number is for fields over 5 acres.

5. Field standards: minimum number of plants or heads in which one plant or head of an off-type or other germplasm entities of the same species is permitted.

6. Seed standards: maximum percentage of seed of off-types or other germplasm entities of the same species.

7. The life of the stand shall not be limited as long as 75% of the plants present in the stand are those that were established originally.

8. Distance adequate to prevent mechanical mixture is necessary.

12. Other – Site log, available on the web site, www.idahocrop.com.

13. Fees – The fee schedule pertains to field increases and seed collected for PVG crops and is part of the fee schedule on the standards portion of the web site, www.idahocrop.com.