

Defining Native and Cultivated Varieties: The Wildland Source Track



Nevada Native Seed Forum
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Seed Certification and Applied Designations

Certified Seed:

- Applies Seed Designations (PVG* vs. Certified)
- Meets certain genetic/physical criteria
- Transparent & Traceable

What are Seed Designations?

- Defines parameters of seed relating to **genetic diversity and preservation** and/or **genetic superiority and uniformity.**
- Tracked by an organization called AOSCA and their respective Seed Certifying Agencies (i.e. NV Department of Agriculture)

“Natural Track”

“Manipulated Track”

◇ AOSCA = Association of Official Seed Certifying Agencies:

◇ Establishes credible standards for the production of high-quality seed.

◇ Two Tracks: **Natural** & Manipulated

◇ **AOSCA's Natural Track:**

◇ “The germplasm development process of defining one or a combination of unrestricted genetic accessions representative of a native or naturalized population of a plant species.”

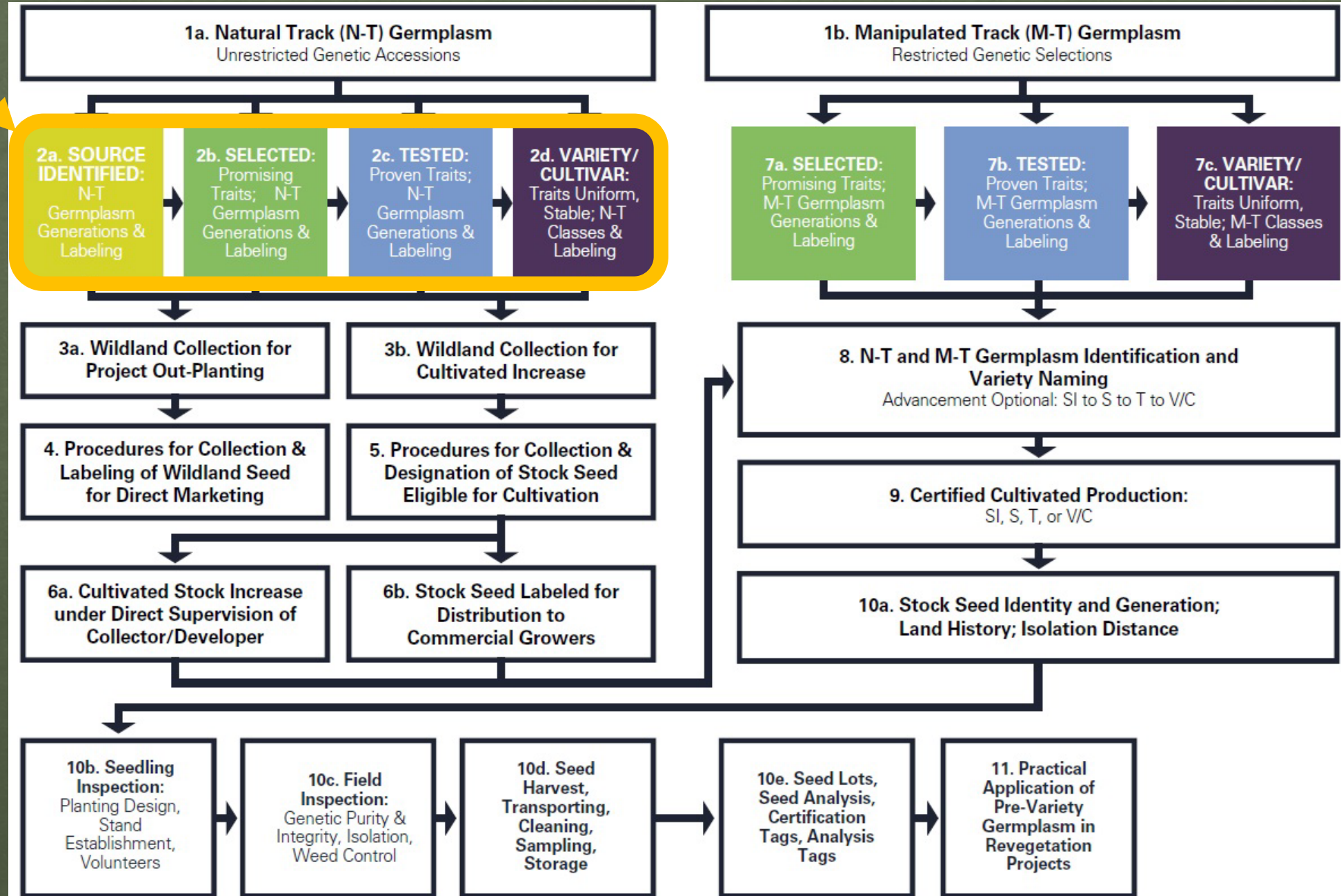
◇ Inadvertent selection, hybridization, or contamination with other accessions or selections must be avoided during wildland harvest and/or cultivated field increase.

HOW AOSCA TRACKS WILDLAND SOURCED SEED

**& Other Plant
Propagating Materials**



Wildland Track Class Definitions - Natural Track



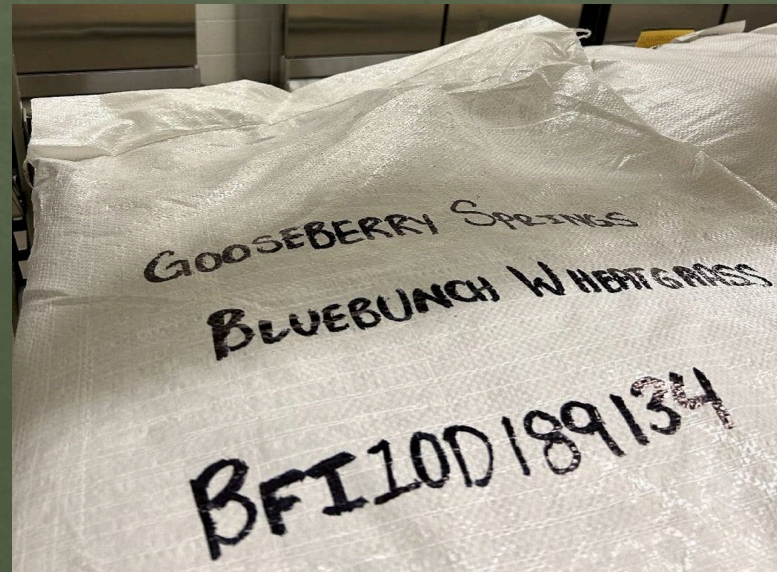
SOURCE IDENTIFIED: N-T Germplasm Generations & Labeling




→ GOOSEBERRY SPRINGS

14.5 lbs.

SEEDS OF SUCCESS FIELD DATA FORM			
Seed Collection Ref. Number:	NV030-1377 *	Office Code:	NV030
Site(s) Collected (MM/DD/YY):	7/5/16	Collector Name(s):	Abby Carroll, Lindsay M. NDF
		Collection Number:	1377
Date Range (> two dates):		Alt. Collection Number:	
COLLECTION DATA			
Family:	Poaceae	No. of Plants Sampled (min. 50):	3,000
Genus:	Pseudoroegneria	No. of Plants Found (approx.):	75,000
Species:	spicata	Area Sampled (acres):	5
Subspecies/Variety:		Seeds Collected From:	<input checked="" type="checkbox"/> Plants <input type="checkbox"/> Ground <input type="checkbox"/> Both <input type="checkbox"/> Unknown



SOURCE IDENTIFIED SEED	
Species Name	Pseudoroegneria spicata
Common Name	Bluebunch Wheatgrass
Germplasm ID, Generation	Gooseberry Springs, G1 of 4
Lot number	BFI10D189134
Site State, County, Elev. - G0	NV, Washoe, 4940'
Site State, County, Elev. - G	1 WA, Grant, 1250'
Natural?	Yes
G0 Indigenous?	Yes
	Number: 1,283,370
 Seed Program Dept. of Agriculture Yakima, Washington 98902 AGR 651-4658Z	
MEMBER OF ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES	

Interested in producing SI seed?

- ◆ The BLM Great Basin Ecoregional Plant Materials program works with growers through stand alone production contracts to increase wildland collected source identified seed.
- ◆ Contact Ian Steinheimer, contracting specialist for BLM National Operations Center, for more information – Email: isteinheimer@blm.gov, Phone: (303) 236-6609

Stephen Kielius will also talk more about NDA's Foundation Seed & Contract Grow-Out Programs later on today.



SELECTED CLASS: Promising Traits; N-T Germplasm; Generations & Labeling



TESTED CLASS: Proven Traits; N-T Germplasm Generations & Labeling



Panicledleaf Tick-Trefoil
(*Desmodium paniculatum*)
Grant Germplasm

49 collections of tick-trefoil (various species) were assembled from 8 states and 16 Major Land Resource Areas. Seed from each collection were planted in the greenhouse for preliminary observation of growth characteristics in 1989. In 1990 plants from 40 of the collections were placed in propagation beds for a 2-year evaluation of survival, vigor, seed weight, plant height and width, bloom period, disease resistance, foliage production, and flower abundance.

Five accessions, including Grant Germplasm, were selected for further evaluation based on early- and late-season ranking summaries.

Advanced evaluations were completed in 1992 on the five remaining accessions. The Grant Germplasm collection and two others accessions were selected for increase due to their superior survival, emergence, vigor, and foliage production.

Hoary Tansyaster
(*Machaeranthera canescens*)
Amethyst Germplasm

A total of 9 accessions were collected at elevations ranging from 4,300 to 7,500 ft in eastern Idaho and northern Utah. A common garden study was conducted at the Aberdeen Plant Materials Center Home Farm 2 miles north of Aberdeen, ID from 2009-2011. Plots were evaluated for percent stand, average plant height and plant vigor. Most accessions performed similarly for stand, vigor, and plant height. Accession 9076670 was chosen for release as a Selected Class Germplasm for having superior establishment and stands in 2009 and 2010 with the greatest vigor rating in 2010.

Who releases pre-varietal germplasm (PVG)?

- ◆ Natural Resource Conservation Service (NRCS) Plant Material Centers (PMC)
 - ◆ PMCs have experience in grow-out and testing of material
 - ◆ Provide plant guides and other publications on how to grow and harvest
- ◆ Universities
- ◆ Other agricultural researchers

If you have questions about accessing PVG seed (SI, selected, tested) reach out to PMCs or your local Seed Certifying Agency (Nevada Department of Agriculture!)

Basin Wildrye (*Leymus Cinereus*), Variety: Magnar

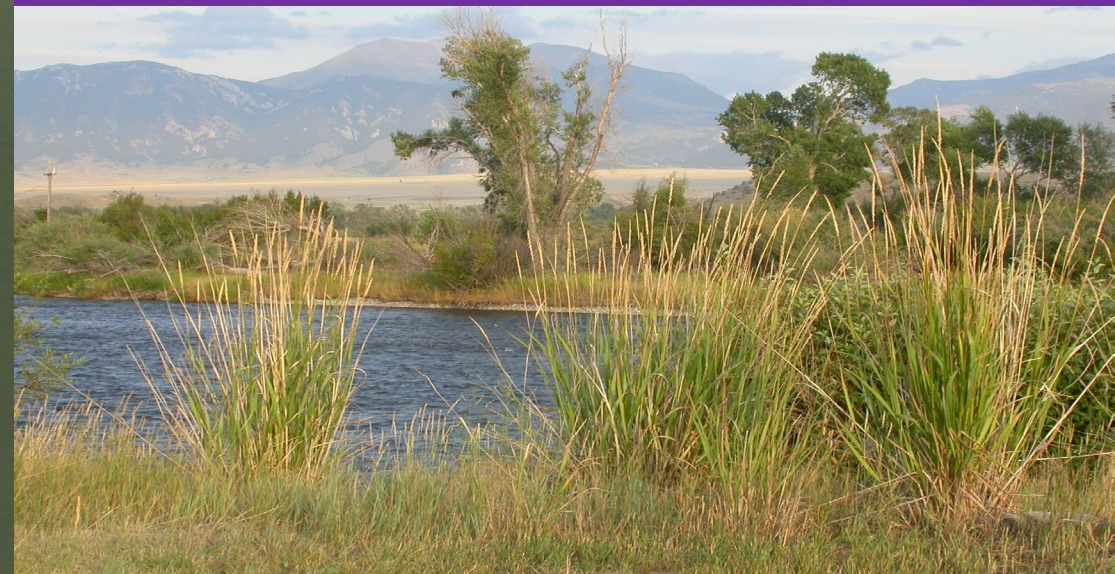
‘Magnar’ was originally collected by the Pullman, Washington, Plant Materials Center (PMC). It was developed by the Aberdeen, Idaho, PMC and released in 1979. It is a selection of vigorous plant types over several generations. It is adapted to the Northwest and Intermountain Regions of the Western United States where precipitation averages 8 inches or above.

It has survived in plantings with 7 inches annual rainfall. It prefers deep clayey to loamy to sandy soils and can be found in weakly saline conditions. It is noted for blue foliage, fair seedling vigor and establishment, high forage production, good winter cover, fair winter forage, and ability to survive and thrive under very dry conditions. ‘Magnar’ is a 56-chromosome cultivar.

Certified seed is available, and breeder seed is maintained by the Aberdeen PMC.

<https://plants.usda.gov/home/plantProfile?symbol=LECI4>

**VARIETY/
CULTIVAR:
Traits Uniform &
Stable;
N-T Classes
Labeling**



Thank You!

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