



U.S. Department of the Interior
Bureau of Land Management

BLM Native Seed Strategy in the Great Basin Desert

Alison Agneray, PhD
April 11, 2023
Nevada Native Seed Forum





Sagebrush now occupies less than 55% of its historical extent



Benefits of restoration using native plants

- Foundations of food webs that sustain life
- Improve air quality, prevent erosion, and mitigate other natural hazards
- Culturally important species
- Put degraded ecosystems on trajectory for recovery



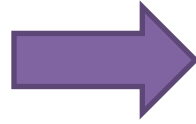
Great Basin plant program timeline

Executive Order 13112 of February 3, 1999

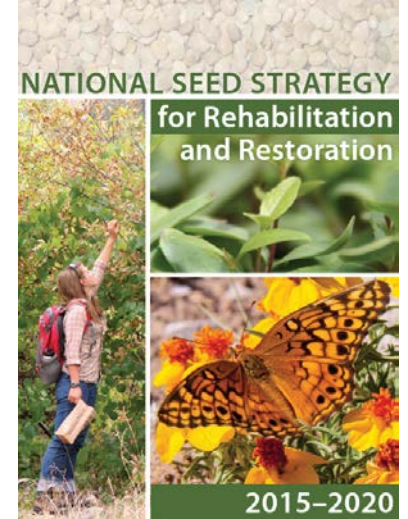
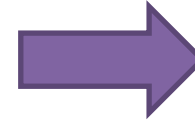
Invasive Species



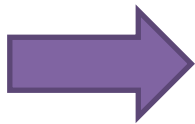
1990s



2000s



2015



NEVADA NATIVE SEED
PARTNERSHIP

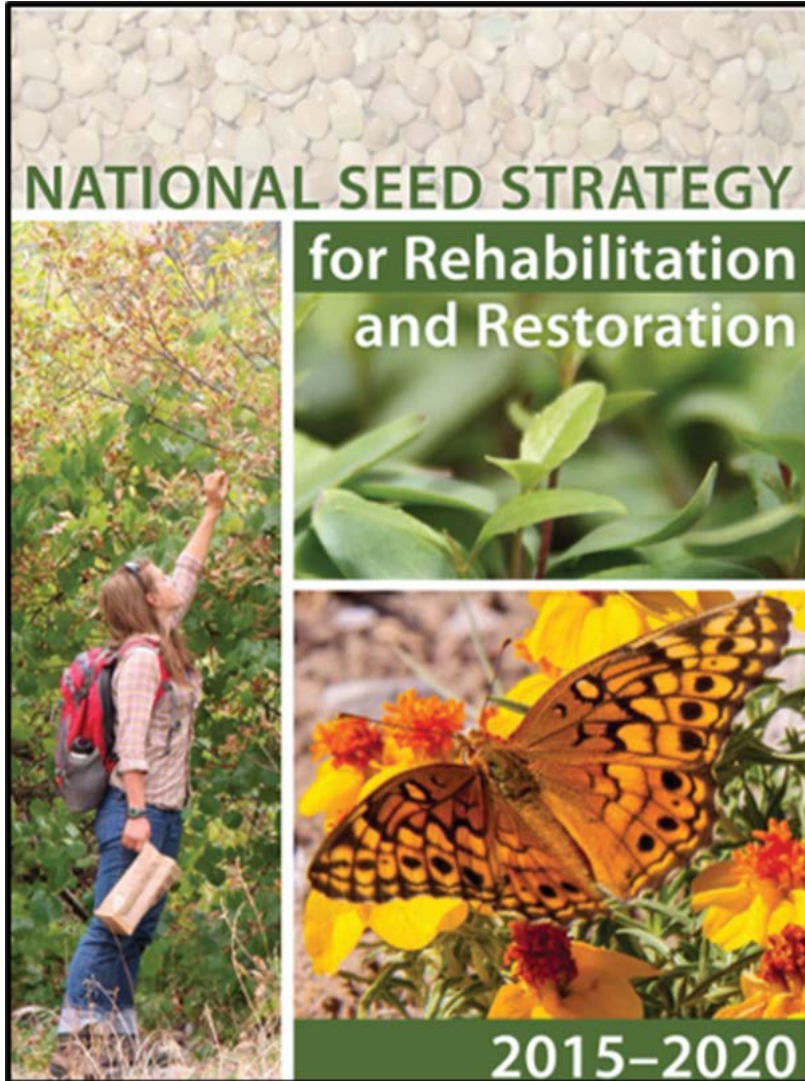



Today



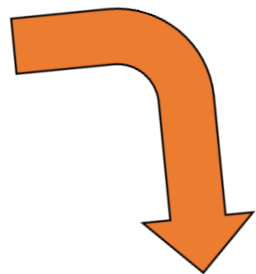
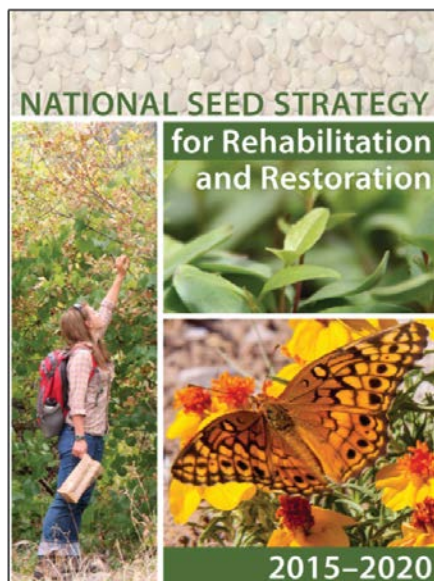
UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030

What is the National Seed Strategy?



- Launched by  in 2015
- Coordinated effort to stabilize, rehabilitate, and restore native ecosystems
- Four goals with specific objectives
 - Seed needs
 - Research
 - Decision making tools
 - Communication





Nevada was a trail-blazer for regional partnerships



NEVADA NATIVE SEED
PARTNERSHIP



Founded 2016



New NASEM Report

NATIONAL
ACADEMIES

Sciences
Engineering
Medicine

An Assessment of Native Seed Needs
and the Capacity for Their Supply

Final Report



Consensus Study Report

Key recommendations relevant to growers:

- Reduce uncertainty, share risk, and increase predictability in purchases
- Provide suppliers with critical tools and info.
- Expand seed storage and cleaning infrastructure in a cooperative, cost-sharing framework

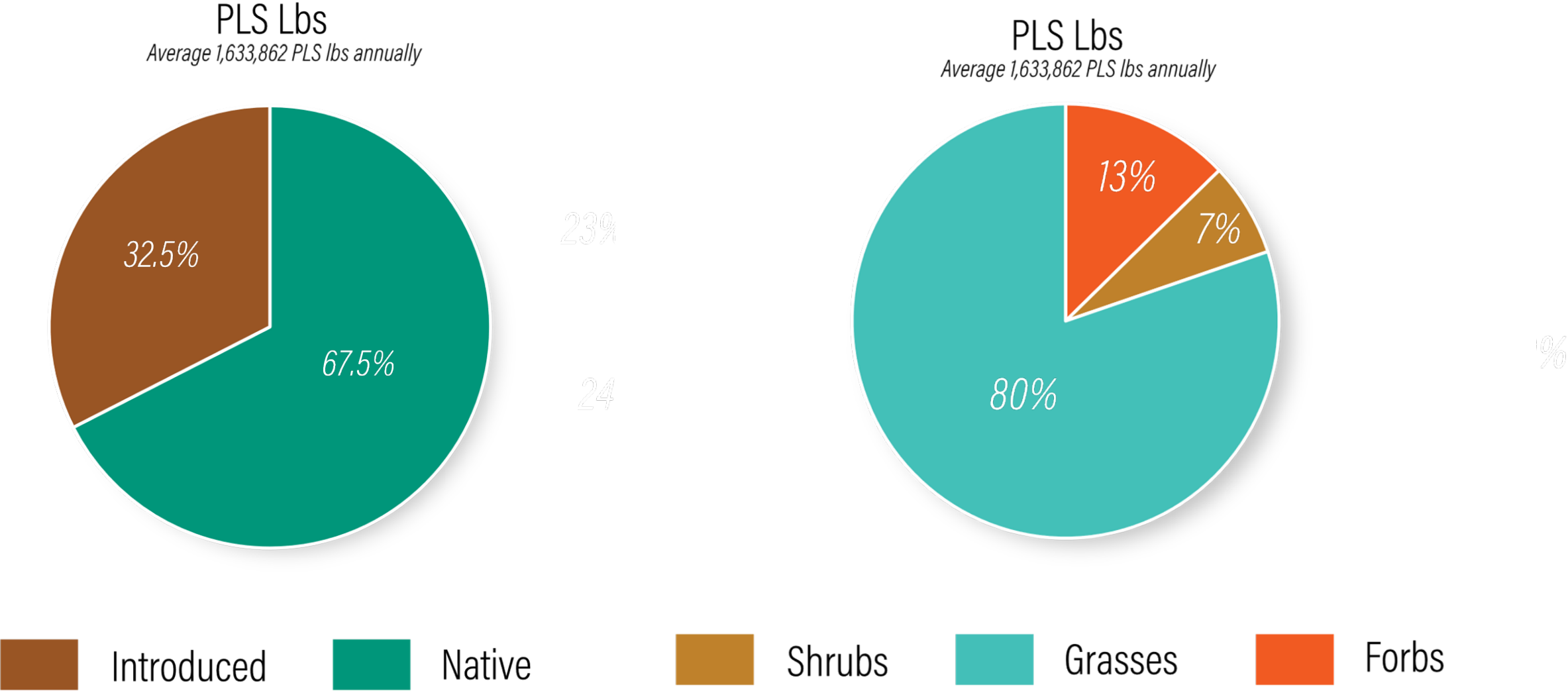




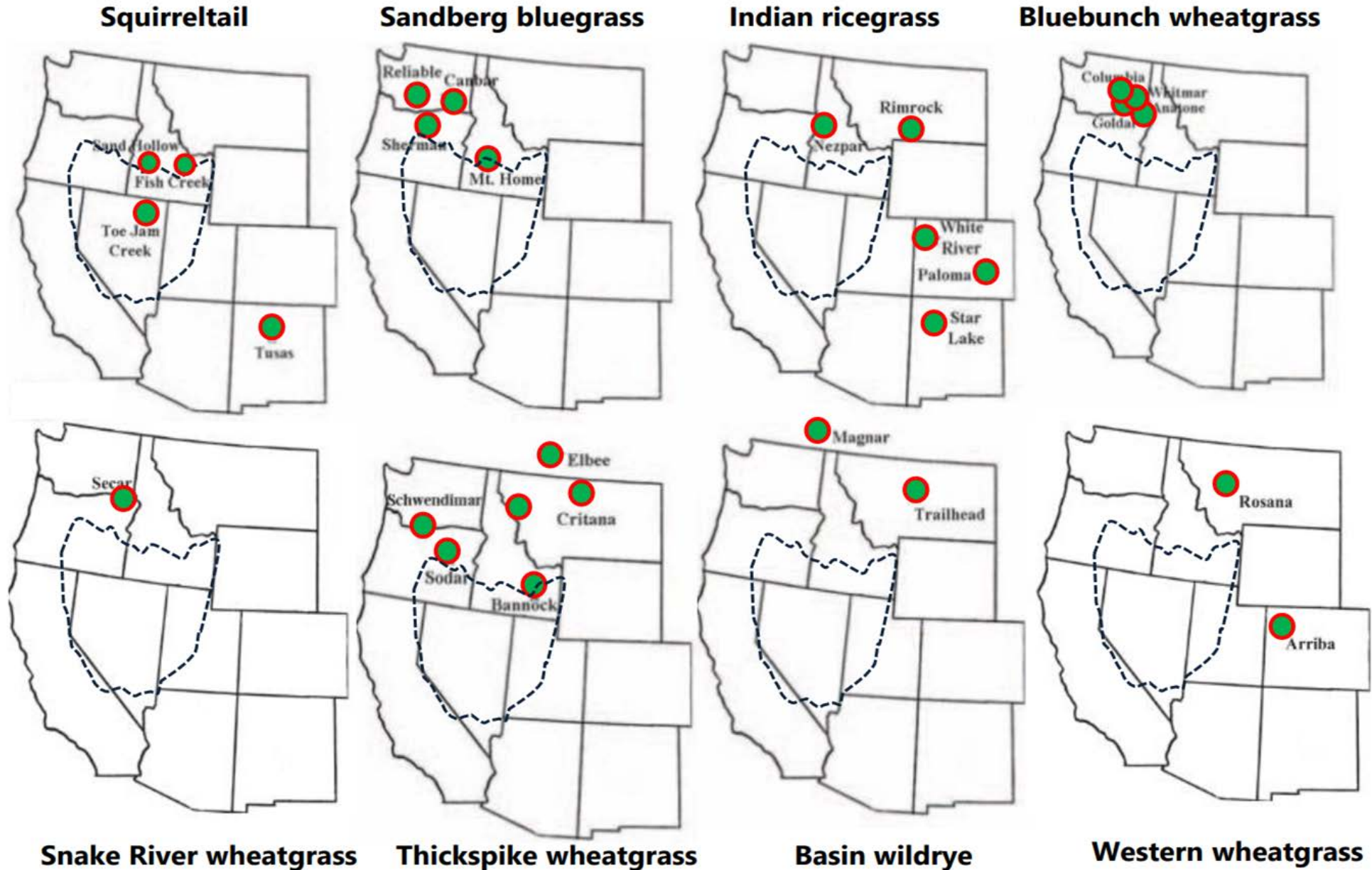
BLM Seed Warehouse Statistics

2015 - 2020 Native vs Introduced Purchases

Purchases by Growth Habit



"Natives don't work"



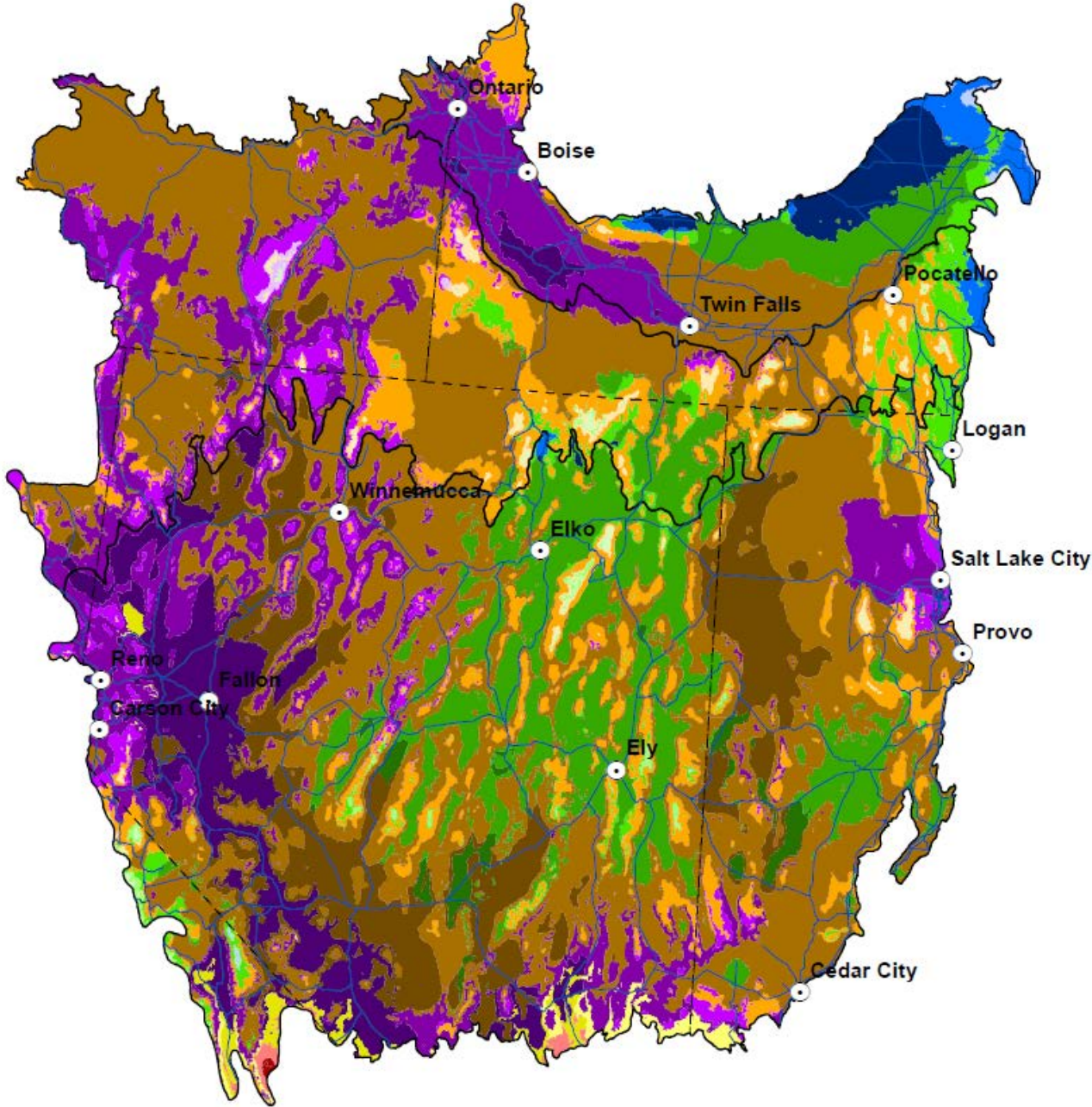
Where seed comes from matters A LOT!

As of 2018 in the Great Basin, there were 327 experiments on >3,200 plant populations

- Traits are correlated to environment of origin
- Local populations outperformed nonlocal 70% of the time
- Baughman et al. 2019, *Ecol. Evol.*



10-day old root length averages



Shifting to seed zone-based sourcing

- Help practitioners select most appropriate sources and lower the risk of maladaptation
- Online maps on WWETAC



Great Basin provisional seed zones
Adapted from Bower et al. 2014, *Ecol. App.*

Steps to plant materials development

Vision:

The right seed in the right place at the right time

Mission:

To ensure the availability of genetically appropriate seed reserves to restore viable and productive plant communities and sustainable ecosystems



Seed collection

SOS Mission:

To collect wildland native seed for research, development, ecosystem restoration and germplasm conservation.

Great Basin's totals:

5,872 collections in available library (>11k historical), total of 553 pounds, 218 unique species

SEEDS

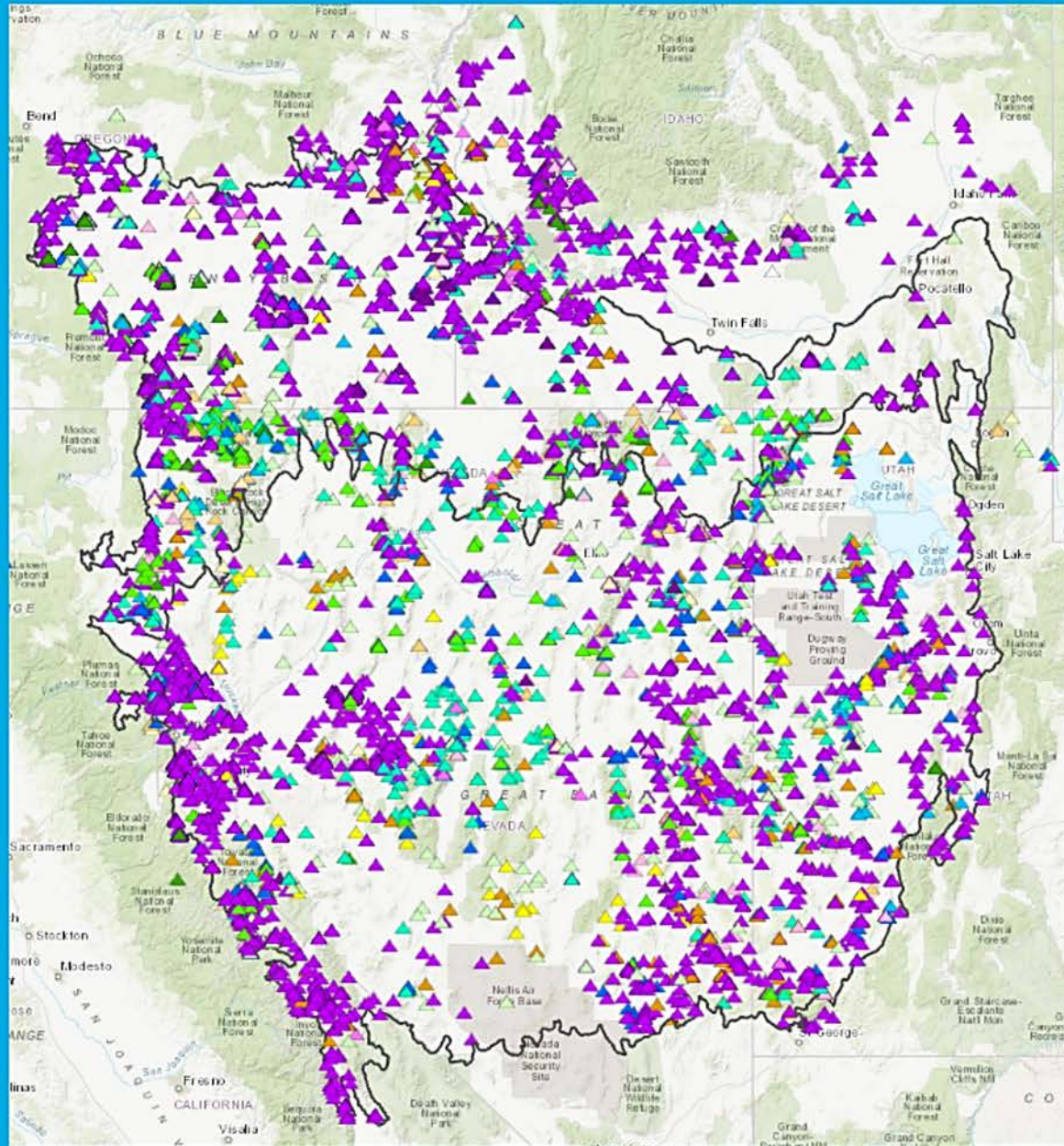


OF SUCCESS





COLLECTED & SCOUTED SITES 2000-2022



- Indian Ricegrass
- Thurber's Needlegrass
- Arrowleaf Balsamroot
- Douglas's Dustymaidens
- Yellow Beeplant
- Tapertip Hawksbeard
- Bottlebrush Squirreletail
- Shaggy Fleabane
- Basin Wildrye
- Hoary Tansyaster
- Silverleaf Phacelia
- Sandberg's Bluegrass
- Bluebunch Wheatgrass
- Globemallow
- Other Species





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Research & Development

- Landscape genetics for >10 species
- Tracking genetics during production
- Building and testing seed zones
- Testing seed mixes based on evolution and adaptive traits
- >200 published manuscripts, www.greatbasinnpp.org/



Agronomic seed production needed to produce large volumes



Increase field using wild-collected seed



Bulk-harvested native seed



Restoration seed storage



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Great Basin PCRP production

- Since 2017, >200 lbs of wild-harvested seed from >100 populations sent to growers.
- ~55,000 lbs of locally adapted, SI plant seed will be available in BLM Seed Warehouse via the IDIQ and purchase



BUREAU OF LAND
MANAGEMENT



INDEFINITE DELIVERY INDEFINITE QUANTITY (IDIQ)
SEED PRODUCTION CONTRACT

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U.S. Department of the Interior
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Contracting for Native Seed Production

Ian Steinheimer, BLM Contracting Officer





Agenda

Contracting Methods used by BLM

New Contract Vehicles

Market Research

Questions



Current Contracting

IDIQ – Indefinite Delivery Indefinite Quantity

An IDIQ is a contract vehicle that establishes pricing and terms and conditions for future orders.

Orders are competed among IDIQ contract holders.

The current IDIQs for seed production expire September 2023.



Contract Structure

Normally BLM provides starter seed to growers in the form of wildland collected seed that has been cleaned and tested. Occasionally BLM requires growers to collect seed for production.

The BLM shares risk with growers through a one-time payment for field establishment.

A price per pound and target quantity is agreed to at award. Payment for seed is made based on amount of seed delivered.



New Contracts

Potential contract vehicles – IDIQ, Blank Purchase Agreement, Standalone Contract

Award of new contracts for seed production follow the acquisition phases of:

**Market Research
Solicitation
Evaluation
Award**

The background of the slide is a scenic landscape. In the foreground, there are various wildflowers, including bright orange ones and some purple ones. The middle ground shows rolling green hills. In the background, there are more hills and mountains under a sky with a warm, orange and yellow glow from the sun, which is visible on the left side of the frame, creating a lens flare effect.

Market Research

A Request for Information (RFI) will be released to engage with growers about best business practices.

Feedback about production requirements, contract structure and terms is needed from growers.

The market research phase is an opportunity for growers to provide BLM with information about how BLM can work best with growers.

The background of the slide is a scenic landscape. In the foreground, there are various wildflowers, including red and purple ones, growing on a hillside. The middle ground shows rolling green hills. In the background, there are more hills and mountains under a sky with a sunset or sunrise, featuring a bright sun with rays on the left side.

Market Research

RFI will be posted to SAM.gov.

SAM.gov registration is completely free.

Please provide contact information to isteinheimer@blm.gov to be notified when RFI is released.



Questions

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