

# **BLM Southern Nevada District Native Plant Materials Development Activities**

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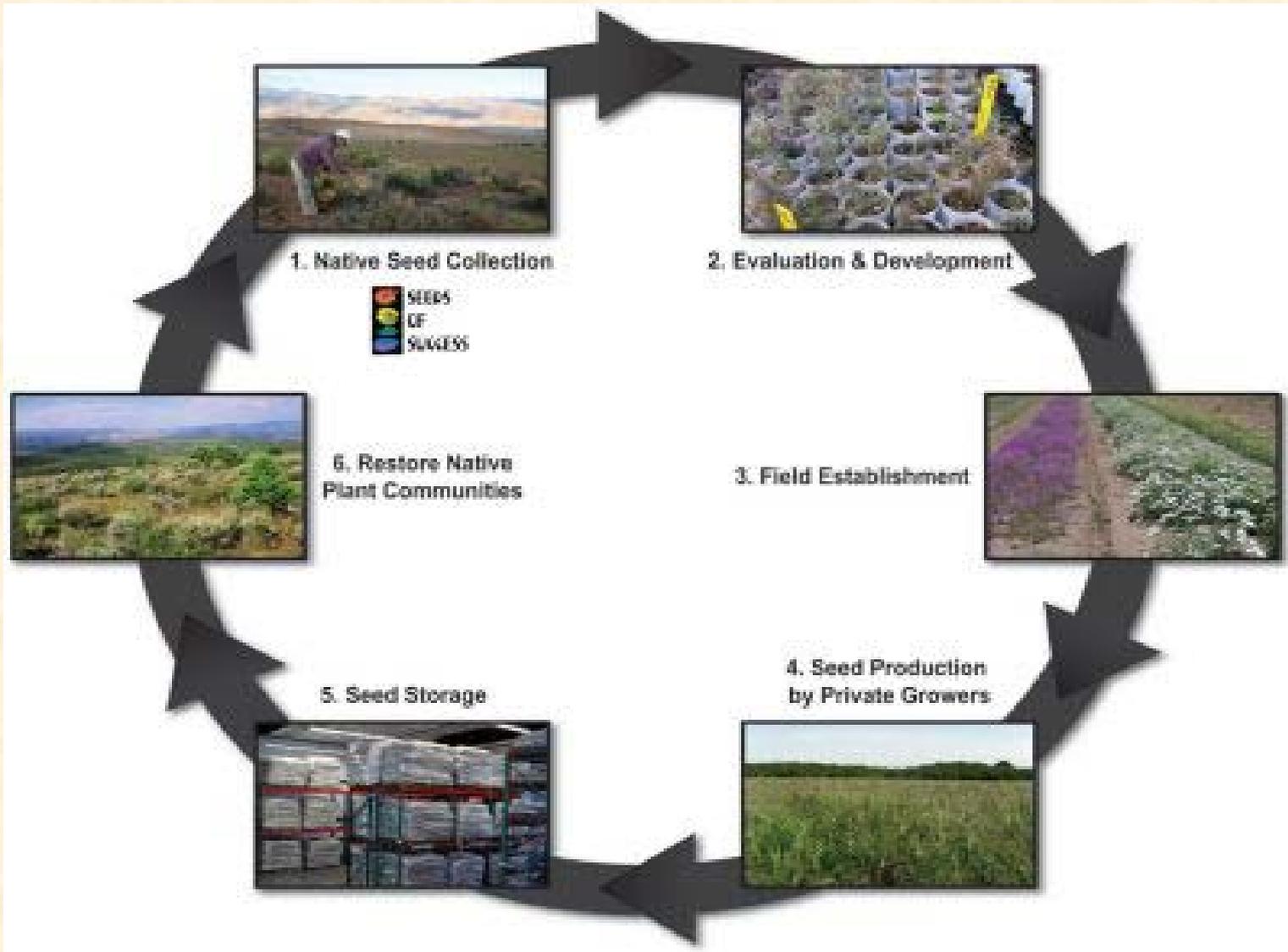
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# Native Plant Materials Development Process



# Native Plant Materials Development

- The BLM is the largest native seed buyer in the Western Hemisphere,
- BLM purchases on average 2.2 million pounds of native seed per year.
- Currently, native seed is not available in the quantity and quality the BLM needs for fire rehabilitation, reclamation and restoration projects.
- Because of the lack of commercially available native seed, BLM must often use nonnative seed; BLM purchased over 6.6 million pounds of nonnative seed between 2004 – 2008.
- The goal of the Program is to develop a market based solution for procuring native plant materials



# Why Do We Need Regionally Appropriate Seed For The Mojave?

- We are already seeing range shifts in Mojave species.
- Arid ecosystems are slow to recover from disturbance.
- The Mojave is under significant use and development pressures.
- There is a tremendous need for desert tortoise habitat restoration and enhancement



# **SNDO Plant Materials Development Projects**

- **Native Grass Project.** The objective is to get regionally appropriate native seed and grass hay for restoration work in springs and wetlands in Southern Nevada.
- **Desert Tortoise Forage Project.** The objective is to get native species beneficial to desert tortoise into commercial production.



# Native Grass Project



Alkali sacaton  
(*Sporobolus airoides*)



Scratchgrass  
(*Muhlenbergia asperifolia*)

# SNDO Native Grass Project

Funding came from BLM WO in 2000.

Goal 1: Develop local varieties of native grasses. This happened in 2005.

Goal 2 : Stimulate development of a local seed industry in Southern Nevada. This is ongoing.

Goal 3 : Commercial production. This started in 2006. First harvest in 2010, continues in 2011.



# The Team

- BLM – Las Vegas Field Office- Gayle Marrs- Smith, Christina Lund, Fred Edwards, many GBI interns
- NRCS – Tucson Plant Materials Center- Ramona Garner, Mary Hershdorfer, Bruce Munda, Manual Rosales, Heather Dial
- NRCS Nevada/High Desert RC&D - Teri Knight
- USFWS – Pahrnagat NWR, Moapa NWR, and Ash Meadows NWR.
- National Park Service – Lake Mead NRA



# Plant Production Partners

- **BLM**
  - Provided funding and initial collections
- **Tucson Plant Materials Center**
  - Developed varieties
  - Provide plugs for establishing fields
  - Provide technical assistance to RC&D
  - Assist with planting and harvest
  - Clean & Store Seed
- **NRCS Nevada/High Desert RC&D**
  - Find and contract with growers
  - Spot check growers production practices



# Results so far...

We received approximately 25 bales of scratchgrass and over 60 bales of alkali sacaton from the experimental plots. These were used for post fire stabilization and post tamarisk removal treatments on the Virgin River. Restoration at Bitter Spring, Moapa and Pahrnagat NWR.

In 2010 our farmer planted 5 acres of alkali sacaton. Our first harvest was about 250 lbs uncleaned seed.

In 2011 our farmer planted five acres of scratchgrass and started harvesting alkali sacaton a couple of months ago.



# Native Grass Project Next Steps

- Shift focus to perennial upland grasses including:
- Big galleta grass (*Pleuraphis rigida*)
- Indian rice grass (*Achnatherum hymenoides*)
- Bush muhley (*Muhlenbergia porteri*)
- Desert needle grass (*Achnatherum speciosum*)



# Desert Tortoise Forage Project

- Goal: Develop regional varieties of selected native annuals or forbs that can provide high quality forage for desert tortoise while supporting a healthy ecosystem.
- Goal: Grow these species in quantities that match Federal agency needs.
- Goal: Bring in additional partners. So far, this is a collaborative effort between BLM Nevada, California, and Arizona.



# The Plan For This Project

- Identify target species.
- Collect the seed needed for research and development.
- Develop and begin to test provisional seed transfer zones.
- Begin to understand genetics of target species and how it relates to diversity and seed transfer zones.



# Parting Thoughts

- Native plant materials development is a long term process. We need to make a long term commitment.
- Developing regional varieties is a collaborative and partner driven process. We need to build and invest in the partnerships to make it work.

