

National Native Plant Materials Development Program: Current and Future Strategies



Ecological Society of America
August 2, 2009

Peggy Olwell
Bureau of Land Management
Plant Conservation Program Lead



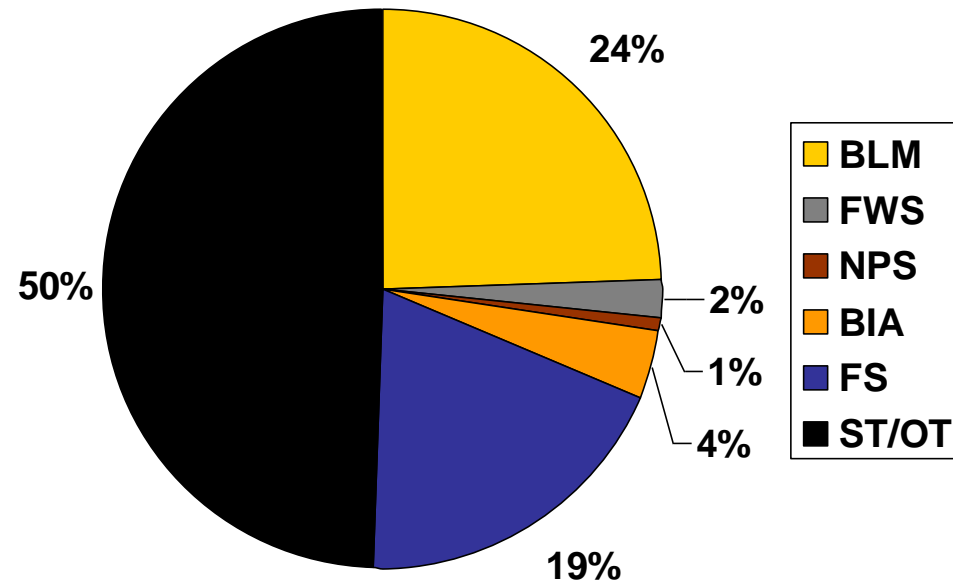
National Native Plant Materials Development Program

- **History of the Program**
- **Need for the Program**
- **Native Plant Materials Development Process**
- **Funding**
- **Leveraging Investment**
- **Accomplishments**
- **Future Direction**

National Native Plant Materials Development Program



2006 Burned Acres



House of Representatives' FY2001 Conference Report

- Directs "...the agencies to develop a long-term program to manage and supply **native plant materials** for various Federal land management restoration and rehabilitation needs.
- Recommends "... the interagency Plant Conservation Alliance lead this effort."

Effects of Climate Change:

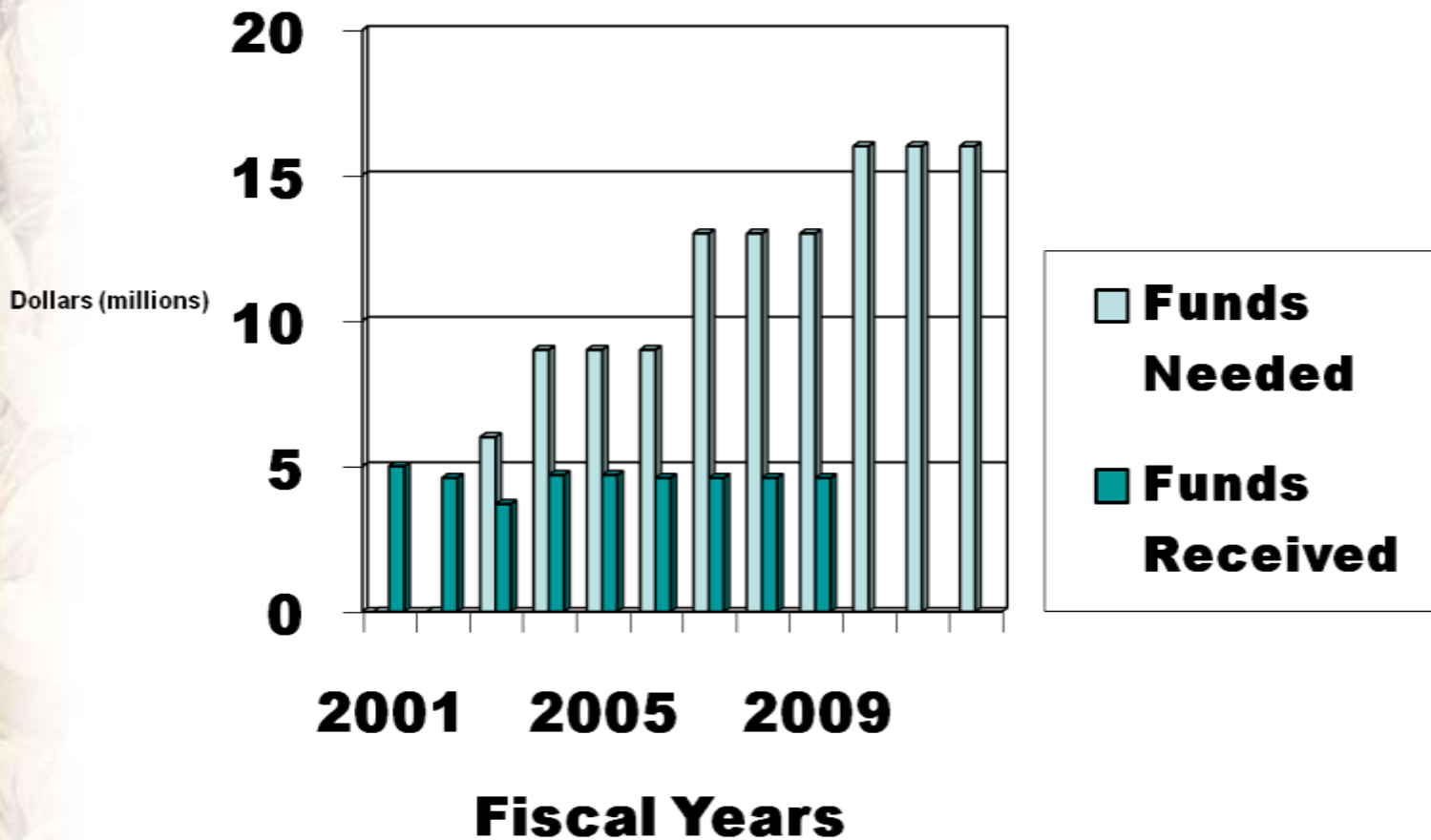
- Drought
- Fire
- Invasive Species
- Phenology
- Species Redistribution



- According to the models, flowering of Sonoran Desert shrubs might have advanced by 20–41 days from 1894 to 2004 (Bowers 2007).
- Change in flowering effects migratory hummingbirds and population dynamics of shrubs.
- In the Southwest, the most widespread example of species redistribution is the movement of woody plants like creosote bushes and mesquite trees into native grasslands.

Ten-Year Budget Strategy

Needs vs. Funds Received





National Native Plant Materials Development Program *Leveraged Funds (2001-2007)*

Great Basin NPSIP (20+ partners)	\$3.0m
Royal Botanic Gardens Kew	\$2.3m
Chicago Botanic Garden	\$2.1m
Native Seed Network	\$1.7m
Center for Plant Conservation	\$1.5m
Pacific Northwest (OR/WA)	\$1.5m
Uncompahgre Plateau Project	\$1.4m
PCA/NFWF Grant Program	\$1.3m
Lady Bird Johnson Wildflower Center	\$0.8m
<hr/>	
	\$15 million



Eco-regional Native Plant Programs

Established

- Great Basin Native Plant Selection & Increase Project
- OR/WA Native Plant Program
- California Native Plant Program

Initiated

- Colorado Plateau Program
- Mojave Desert Restoration Initiative

Planned

- Sonoran & Chihuahuan Deserts
- Wyoming and Permian Basin



SEEDS



OF SUCCESS



1. Native Seed Collection



2. Evaluation & Development



3. Field Establishment



4. Seed Production
by Private Growers



5. Seed Storage



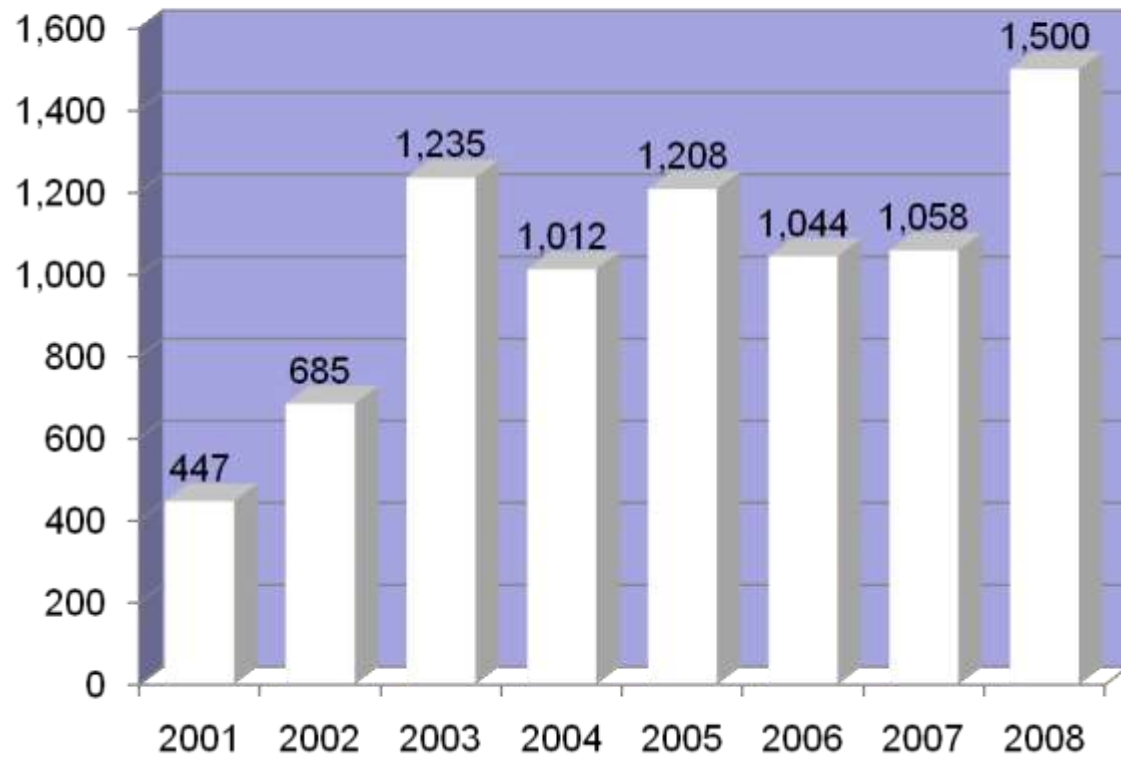
6. Restore Native
Plant Communities

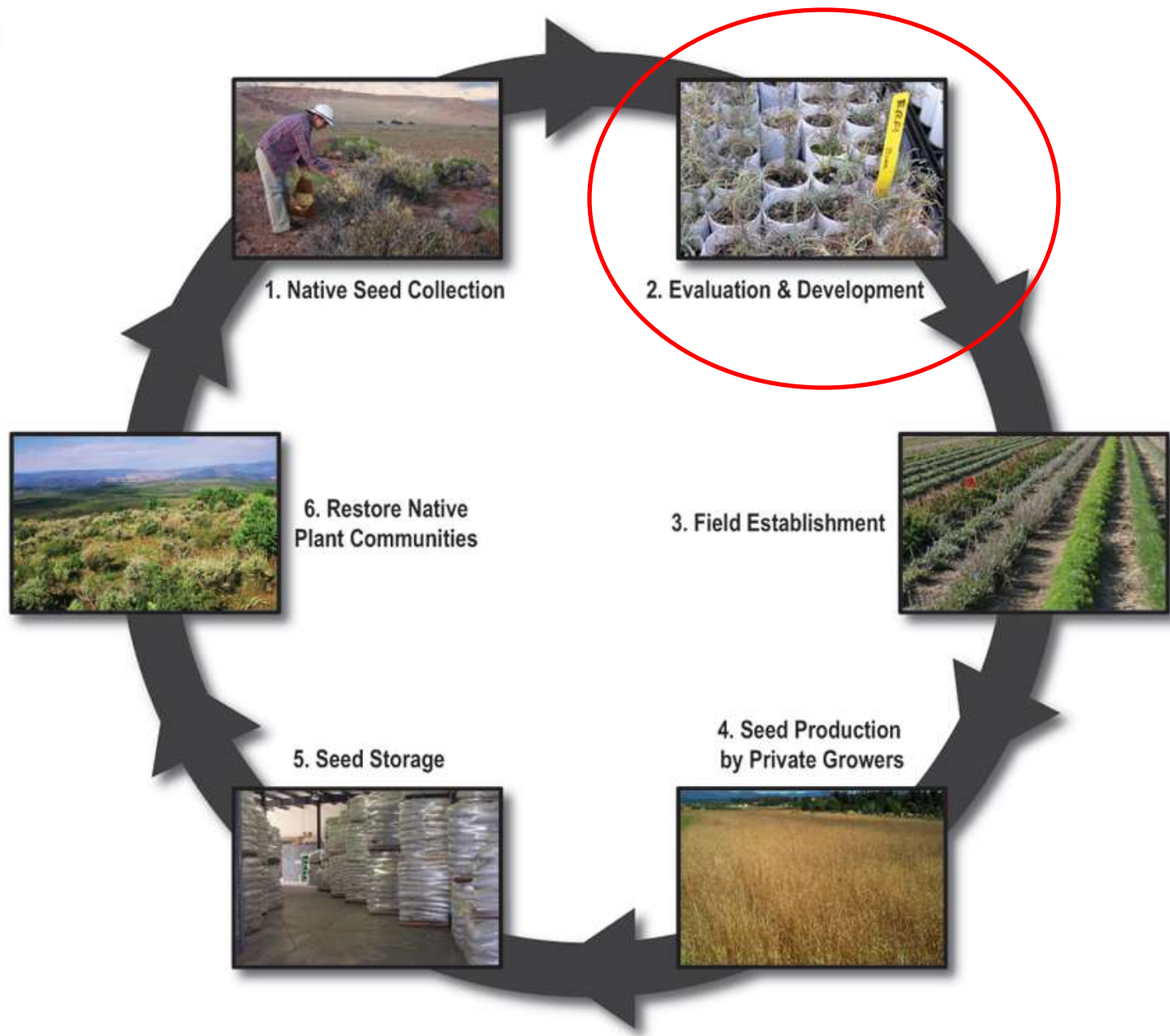




8,000+ Collections
65 Collecting Teams
>300 people work on SOS every year

Seeds of Success Collections





Evaluation and Development



Common Garden Studies

Partners:

- Research
- Seed regulatory agencies
- Tribes



Developing Seed and Seeding Technology



1. Native Seed Collection



2. Evaluation & Development



3. Field Establishment



4. Seed Production
by Private Growers



5. Seed Storage



6. Restore Native
Plant Communities





Native Plant Materials Development

Field Establishment

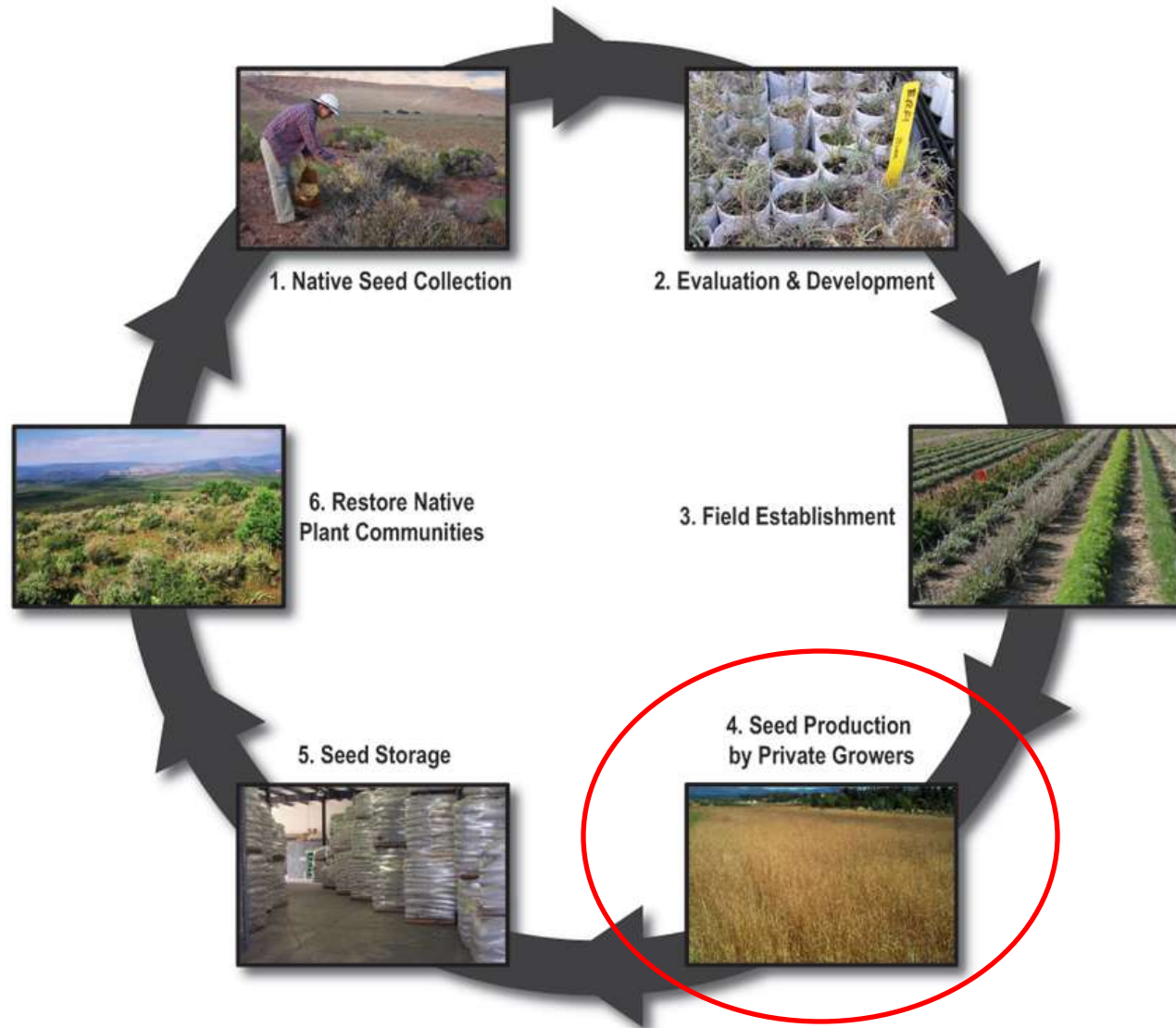
Conducted:

738 Agricultural Practices Studies

295 Seeding Strategy Studies

474 Operational Seedings

579 Harvesting, Cleaning
& Seed Storage Studies



Provided foundation seed for 193 species to growers

Made 122 native species commercially available

National Native Plant Materials Development Program

Connecting Seed Growers with the Land

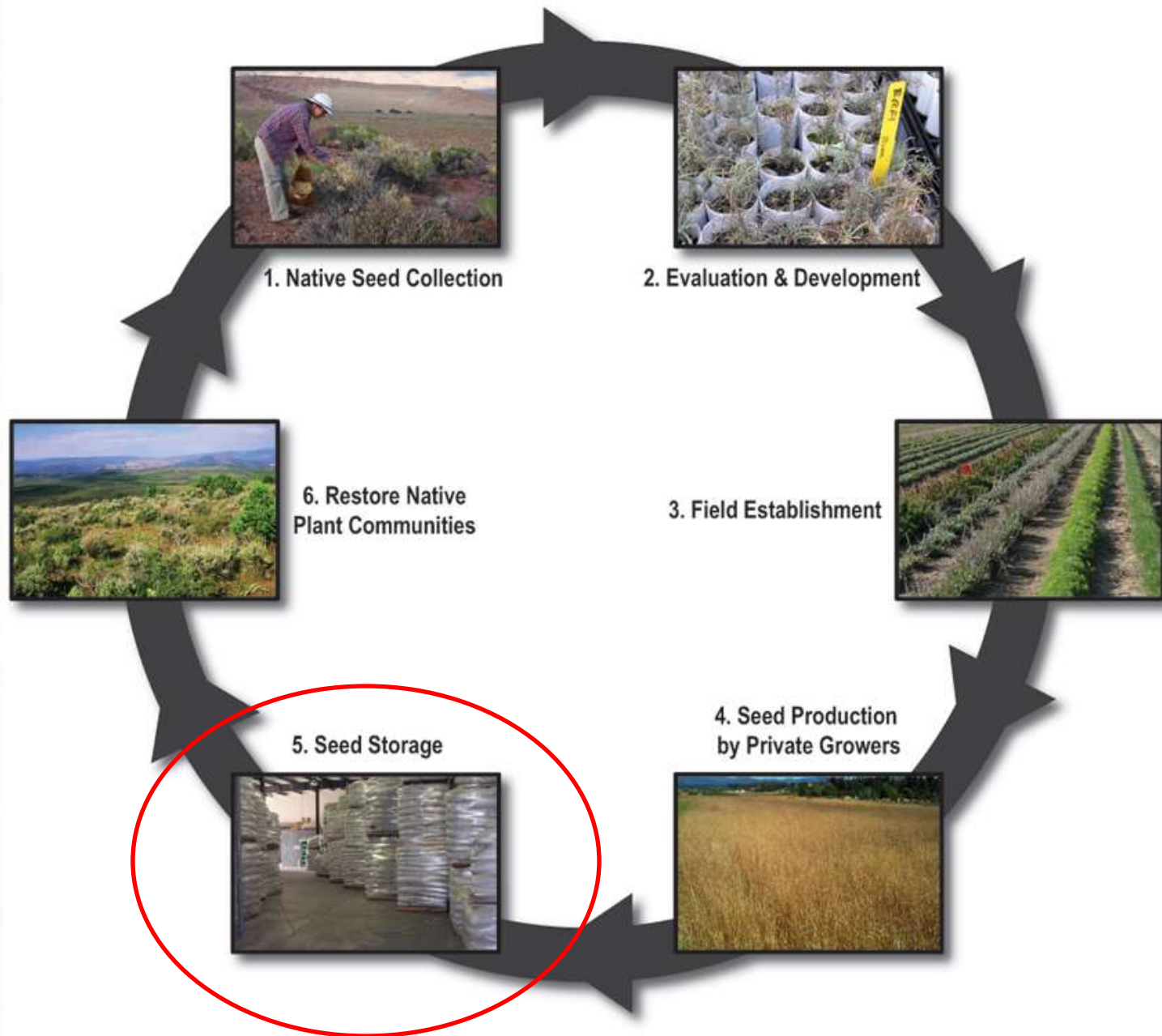
NATIVE SEED



N E T W O R K

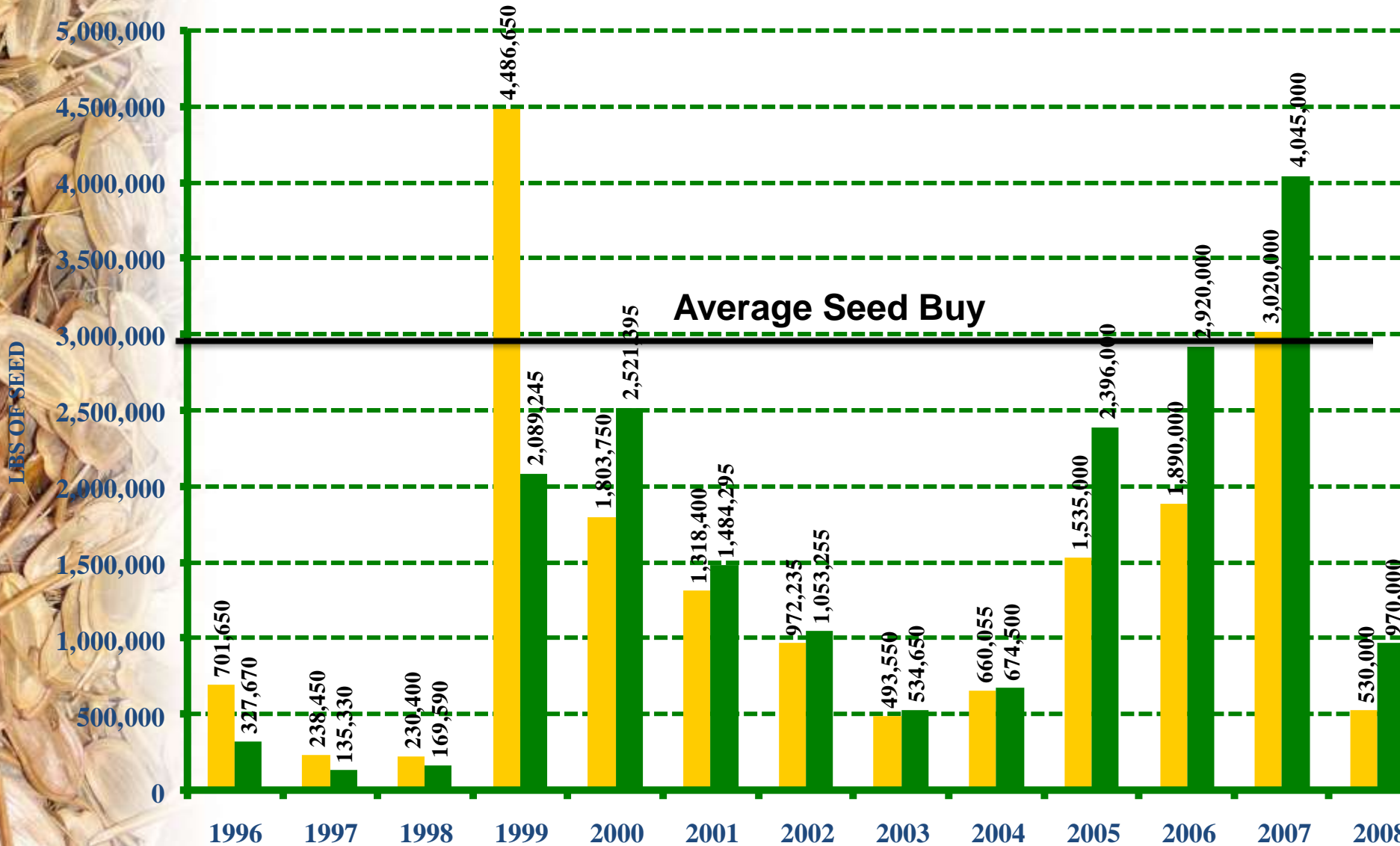
www.nativeseednetwork.org

Supported by: BLM, FWS, NRCS, FS



BLM CONSOLIDATED SEED BUYS QUANTITY

- Non-Native Seed
- Native Seed





Future Seed Storage Capacity

National Seed Warehouse Boise, ID

3.5 million pounds storage

100,000 pounds cold storage

UT Div. of Wildlife Res. Ephraim, UT

700,000 pounds storage

100,000 pounds cold storage

New Seed Warehouse Ely, Nevada

800,000 pounds storage

100,000 pounds cold storage



1. Native Seed Collection



2. Evaluation & Development



3. Field Establishment



4. Seed Production
by Private Growers



5. Seed Storage



6. Restore Native
Plant Communities



National Native Plant Materials Development Program

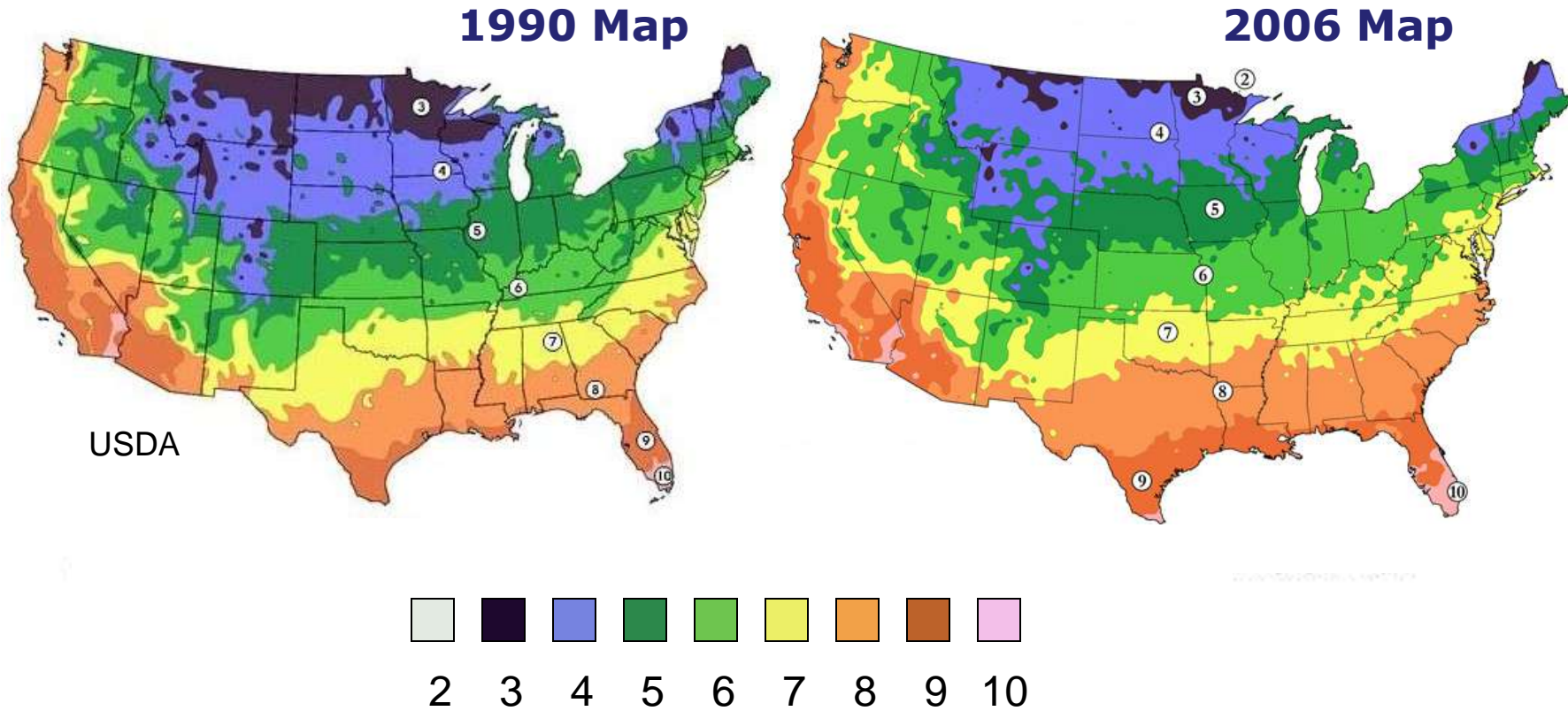
Field Trials

Studying Post-fire Vegetation Change and Ecological
Restoration of Semi-arid Grasslands



Desert Botanic Garden SOS Collector at
Agua Fria National Monument

Changes in USDA Hardiness Zones



2006 National Arbor Day Foundation



Strategy for Native Seed Increase

- Increase seed storage capacity to 5M lbs.
- Establish eco-regional native plant materials development programs
- Expand seed collection and curation to 15,000 accessions
- Develop seed transfer zones for 250 species
- Provide programmatic leadership & infrastructure



National Native Plant Materials Development Program

How can this program work to ensure that we have the genetically appropriate native plant materials to restore native plant communities in the future?



National Native Plant Materials Development Program

Contacts for more information

- Peggy Olwell

peggy_olwell@blm.gov

202-452-7764

- Mary Byrne
Seeds of Success

mary_byrne@blm.gov

202-452-7767