

NATIONAL
ACADEMIES

Sciences
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Medicine

Report Briefing:

An Assessment of Native Seed
Needs and the Capacity for their
Supply (*www.nap.edu*)

Oct. 24, 2024

Cal-IPC Annual Meeting

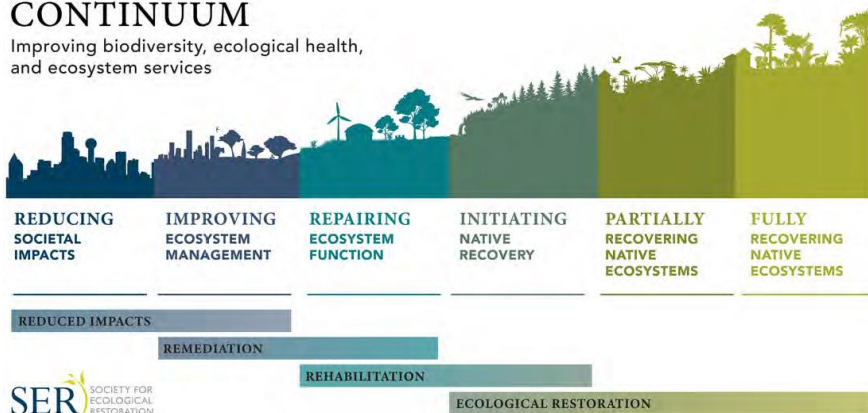
Dr. Susan Harrison, UC Davis, Committee Chair

Restoration: helping natives *instead of invasives* establish on degraded land

THE RESTORATIVE

CONTINUUM

Improving biodiversity, ecological health,
and ecosystem services



INTERNATIONAL PRINCIPLES AND STANDARDS FOR THE PRACTICE OF ECOLOGICAL RESTORATION

SECOND EDITION: November 2019



Specific goals of restoration projects - survey of US state governments -

Wildlife habitat	87%
Pollinator habitat	83%
Stream erosion	80%
Park/natural area	75%
Roadside management	67%
Invasive suppression	59%
Natural disasters	37%

Native species preferred for these purposes 81-90%

Cheatgrass-fire cycle, Great Basin sagebrush steppe



NATIONAL SEED STRATEGY FOR REHABILITATION AND RESTORATION

2015

VISION

The right seed in the right place at the right time.

MISSION

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



Identification of seed needs and availability of genetically appropriate seed ✓

Research to improve seed production and ecosystem restoration

Development of decision support tools for ecological restoration

Communication and outreach

National Academies Study Committee

Statement of task:

- Assess uses of and demand for native plant materials ('seeds')
- Assess the native seed supply chain
- Recommend ways to increase the native seed supply
- Nationwide, with a Western US focus

Interim report Fall 2020, final report Jan. 2023

Sponsored by U.S. Bureau of Land Management

SUSAN HARRISON, *CHAIR*, UNIVERSITY OF CALIFORNIA, DAVIS
DELANE ATCITY, INDIAN NATIONS CONSERVATION ALLIANCE
ROB FIEGENER, INDEPENDENT CONSULTANT
RACHAEL GOODHUE, UNIVERSITY OF CALIFORNIA, DAVIS
KAYRI HAVENS, CHICAGO BOTANIC GARDEN
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ELIZABETH LEGER, UNIVERSITY OF NEVADA, RENO
VIRGINIA LESSER, OREGON STATE UNIVERSITY
JEAN OPSOMER, WESTAT
NANCY SHAW, U.S. FOREST SERVICE (EMERITA)
DOUGLAS E. SOLTIS, FLORIDA MUSEUM OF NATURAL HISTORY
SCOTT SWINTON, MICHIGAN STATE UNIVERSITY
EDWARD TOTH, MID-ATLANTIC REGIONAL SEED BANK
STANFORD A. YOUNG, UTAH STATE UNIVERSITY (EMERITUS)

National Academies Staff:

Robin Schoen, Krisztina Marton, Jenna Briscoe, Sarah Kwon and Samantha Sisanachandeng

Survey and Interview Respondents

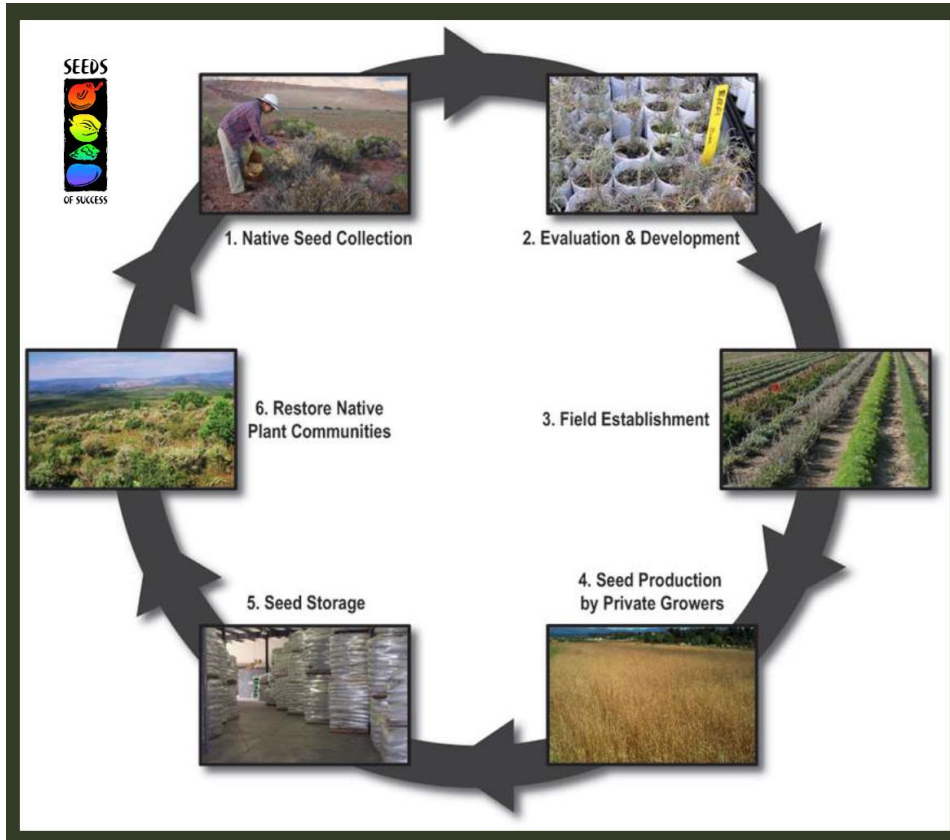
- Native Seed Producers and Suppliers (223)
- State Departments of Natural Resources, Forestry, Fish & Wildlife, Parks, Transportation (97)
- Department of Defense (Armed Services), National Park Service, Bureau of Land Management, US Fish and Wildlife Service, and US Forest Service (23)

Presenters and Advisers

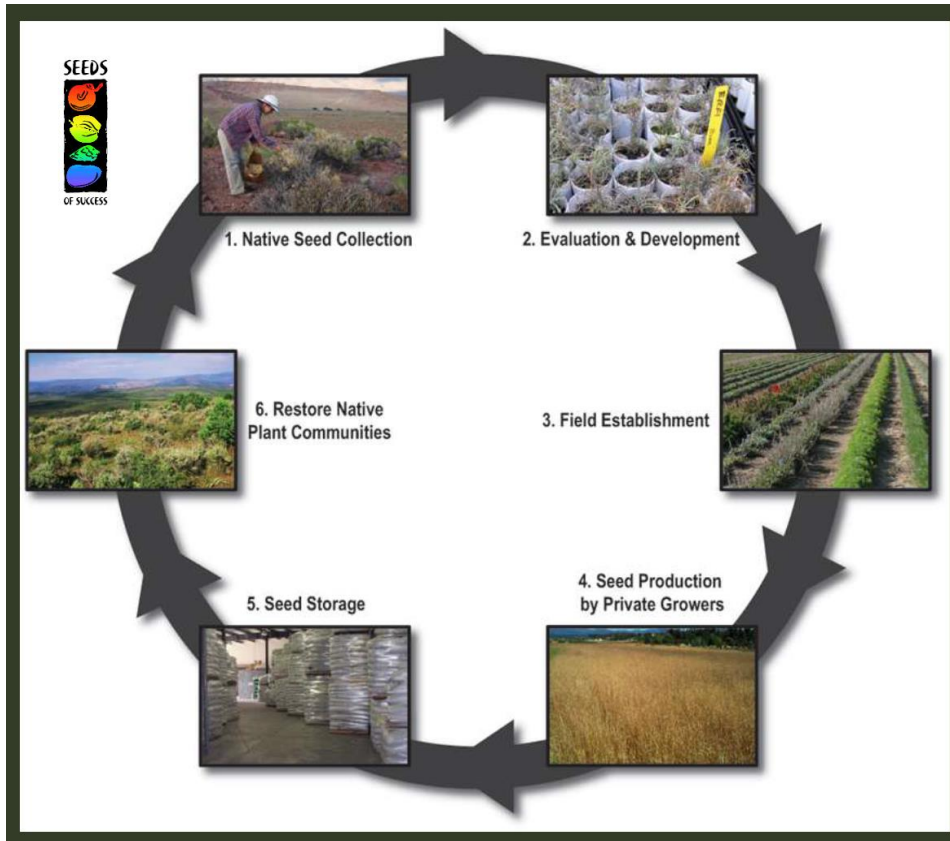
Molly Anthony, Bureau of Land Management (BLM)
Emergency Stabilization and Rehabilitation Program
Kevin Badick, The Nature Conservancy (TNC) Nevada
Jerry Benson, BFI Native Seeds
Anne Bradley, TNC New Mexico
William Carromero, US Forest Service (USFS)
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John Englert, US Department of Agriculture (USDA),
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Andy Ernst, Ernst Conservation Seeds
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Laura Jackson, Tallgrass Prairie Center (TPC),
University of Northern Iowa (UNI)

Holly Jewkes, USFS Deschutes National Forest
Bart Johansen-Harris, Defenders of Wildlife
Olga Kildesheva, TNC, Oregon
Ed Kleiner, Comstock Seed, LLC
John Krouse, Maryland Dept of Transportation
Sarah Kulpa, US Fish and Wildlife Service
Justin Meissen, TPC/UNI
Peggy Olwell, BLM Plant Conservation Program
Josh Osher, Western Watersheds
Kristine Nemec, TPC/UNI
Adrienne Pilmanis, BLM Colorado Plateau
Keith Pawelek, Texas Native Seeds
Gord Pearse, Bruce Seed Farm
Charles Perring, Arizona State University
Jeremy Pinto, USFS / US Tribal Nursery Council
Monica Pokorny, USDA NRCS
Bryan Pratt, USDA Economic Research Service
Patricia "Trish" Roller, BLM Seed Warehouse
Catherine Schoegel, TNC Colorado
Vera Smith, Defenders of Wildlife
Carol Spurrier, USFS Headquarters
Barry Schrumppf, OSU/Oregon Seed Association
Dustin Terrell, Buffalo Brand Seed, LLC
Gil Waibel, Bayer Crop Sciences

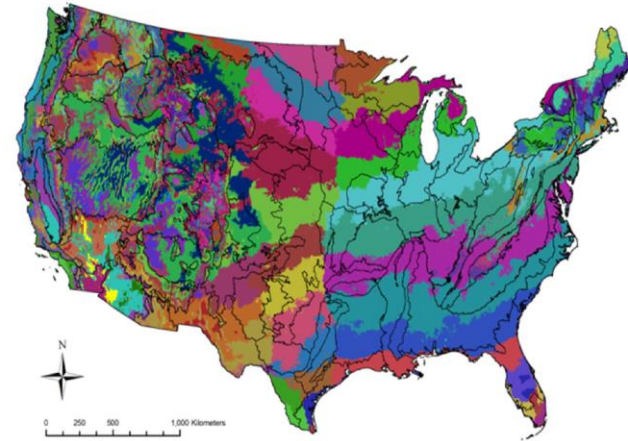
Native seed: a time- and knowledge-demanding product



Native seed: a time- and knowledge-demanding product



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



8-1a Provisional seed transfer zones (colored areas) developed by the USDA Forest Service

“genetically appropriate”

- native to that region
- from the same “seed zone”
- not altered by cultivation

Unmet Demand For Native Seed is Widespread (State user survey)

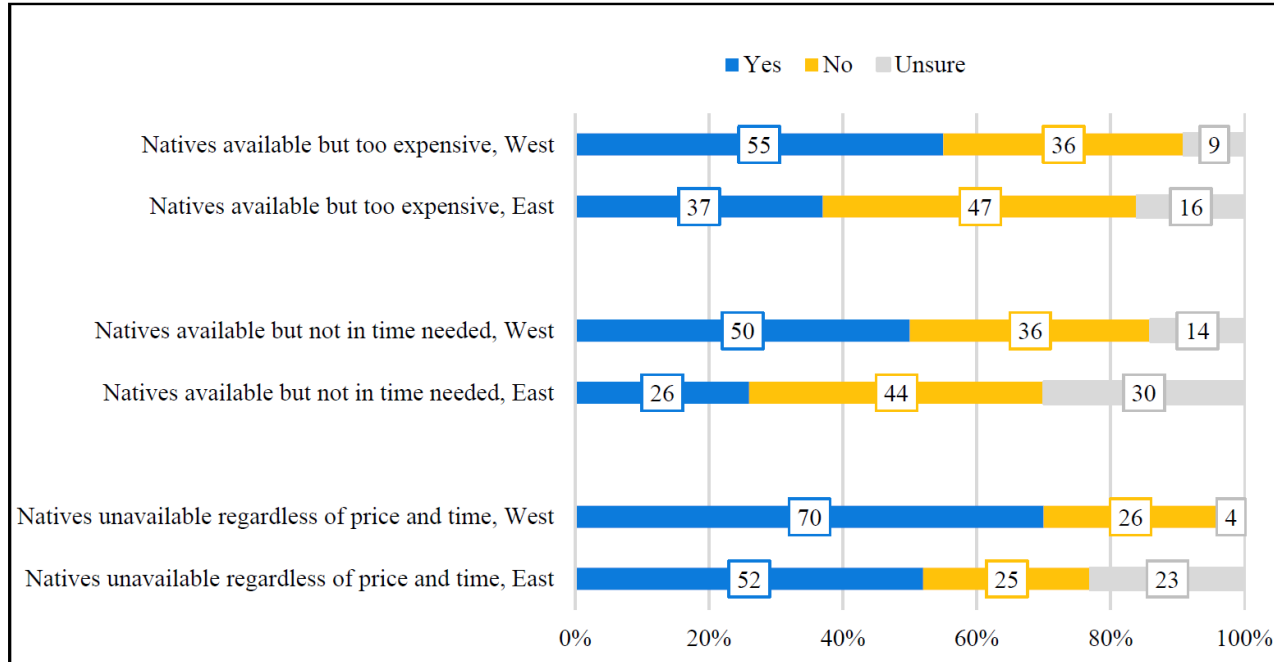


FIGURE 4-12 Typical reasons for substituting with non-natives, by region.

Latent Supply Capacity is Also Widespread (Supplier survey)

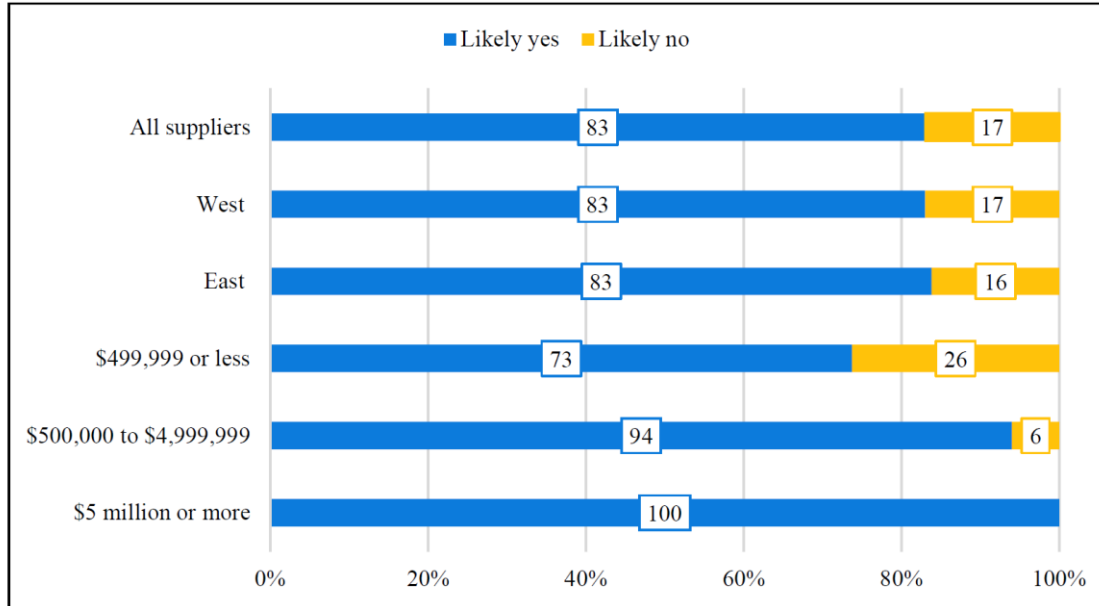


FIGURE 7-19 Suppliers' ability to grow and sell more plants if they were to anticipate higher demand, by region and annual sales.

More Stable Demand & Technical Support would go a long way (Supplier survey)

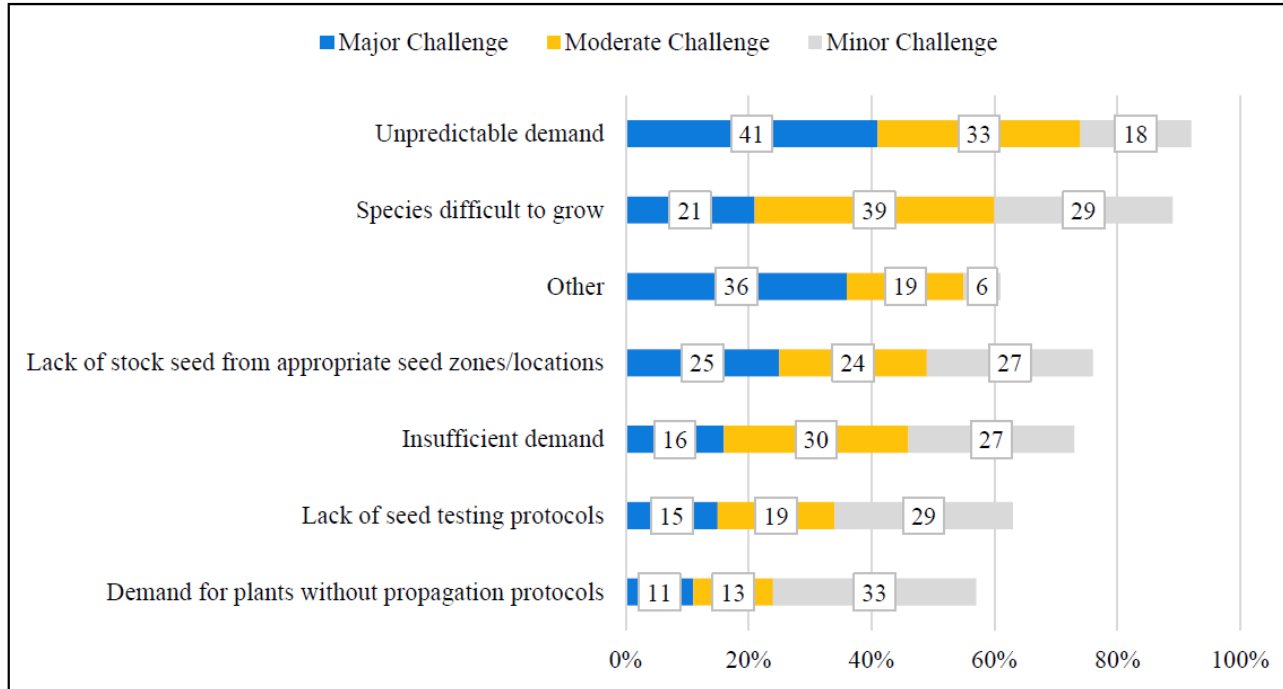
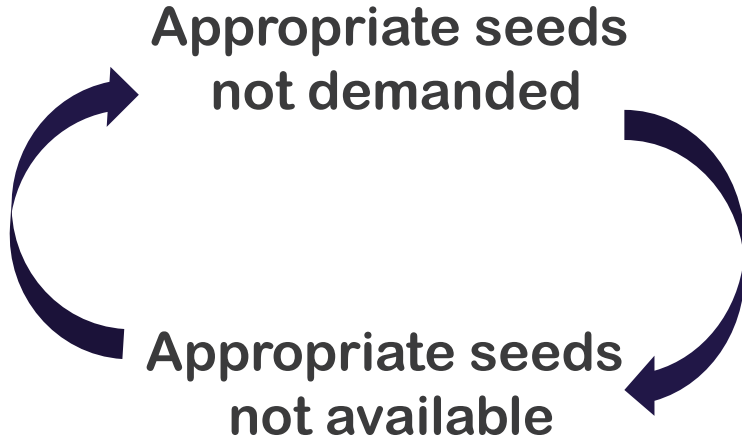


FIGURE 7-16a Challenges faced by suppliers of native seed

In a nutshell...



Summary: Recommendations for the nation's seed supply

- 1: Federal Interagency Leadership
- 2: Regional Partnerships
- 3: Supporting Tribal Efforts
- 4: Public Sector as a Better Customer
- 5: Outreach to Suppliers
- 6: Research & Technical Development
- 7: Infrastructure
- 8: BLM Warehouses
- 9: BLM Lands as Seed Sources
- 10: Elevating Plant Conservation & Restoration in BLM



Presentations on our report:

- Natural Areas Association 4-28-20 (Interim Report)
- Public Webinar 11-13-2020 (Interim Report)
- BLM Director & Staff 1-17-2023
- Congressional Staffers 1-24-2023
- Public Webinar 1-26-2023
- USDA Undersecretary, Farm Production & Conservation 5-25-2023
- Council on Environmental Quality 6-22-2023
- Department of Interior 7-31-23
- Senate Energy and Natural Resources Committee 11-14-2023
- YOU 10-24-2024

Progress:

- National Seed Strategy is one of USDI's

Keystone Initiatives, supported by Bipartisan Infrastructure Law funds

- Internal BLM proposal is being developed to use Inflation Reduction Act funds to create a new national seed warehouse
- National Interagency Seed & Restoration Center proposal under development
- BLM has submitted a legislative proposal for a separate subactivity for the Plant Conservation & Restoration Program for FY25

Biden-Harris Administration Announces \$18 Million from Investing in America Agenda to Enhance Native Seed Supply, Bolster Climate Resilience

 Share 

Investment helps advance Department's new National Seed Strategy Keystone Initiative