Native Plant Materials Development Process



The native plant materials development process is the science-based cycle by which the BLM Plant Conservation & Restoration Program works with a variety of partners, including Federal, Tribal communities, local government, non-profits, and private entities, to increase native seed available for restoration. There are many steps involved in developing a stable crop from wild collected native seeds. Native plant materials, like agronomic crops, take an average of 10-20 years to develop as consistent, reliable commercially available seed, and the time and length of each step varies by species. The goal of the BLM Plant Conservation & Restoration Program is to support each step in the cycle, thereby building a restoration economy in primarily western, rural communities and increasing capacity within Federal agencies and the private sector for ecologically appropriate native seed.

For more information:

Peggy Olwell, Plant Conservation & Restoration Program Lead, Bureau of Land Management, polwell@blm.gov, http://www.blm.gov/NativePlants













Step by Step: Developing High Quality Native Seed for Restoration

Step 1: Native Seed Collection

Wildland native seed collections are the foundation for native plant materials development. Native seed collections made by Seeds of Success capture the genetic diversity within the species. A portion of each collection goes into long-term conservation storage. The remainder is available for research and restoration.

Step 2: Evaluation and Development

Surprisingly little is known about most native plant species. Research is critical to providing basic information on species biology, including germination requirements, pollinators, seed production technology, and seed transfer zones to determine where to use the seed.

Step 3: Field Establishment

This is the initial step in developing a crop of ecoregionally adapted seed from wildcollected seed. Producing stock seed for growers requires increasing the amount of seed under stringent agricultural and environmental conditions to ensure production of high quality, genetically diverse seed.

Step 4: Seed Production

Native seed stock is given to growers for large-scale seed production. The seed is available commercially to both the public and private sectors for repairing damaged ecosystems, such as post fire rehabilitation, reclamation after energy development, or restoration of fish, wildlife and plant habitats.

Step 5: Procurement

The BLM uses both Blanket Purchasing Agreements, and the Native Grass and Forb Seed Increase IDIQ Contracts to acquire seed production services and purchase native seed. The Seed Production IDIQ supports rural communities and the commercial native seed market.

Step 6: Seed Storage

Seed is a valuable resource which requires specialized conditions and facilities to maintain its viability. Adequate storage capacity is necessary for Federal agencies to provide genetically appropriate materials – seeds or transplants – for wildlife habitat restoration following intense wildfire seasons or to conduct proactive restoration.

Step 7: Restore Native Plant Communities

The ultimate goal of the Native Plant Materials Development Program is to restore native plant communities that provide ecosystem services and wildlife habitat. Restoration results benefit from incorporating genetic considerations, including using the research to choose the best seed source and seed mix to maximize plant establishment and sustainability in a changing climate.