# **Native Plant Materials Development Process**



Congress directed the Bureau of Land Management to create the Native Plant Materials Development Program in the FY2001 Department of Interior and Related Agencies Appropriations Act "to ensure a stable and economical supply of native plant materials, the agencies need to implement measures that facilitate the development of a long-term program to supply and manage native plant materials for restoration and rehabilitation efforts on public lands." There are many steps involved in the process of developing a reliable, stable crop from wild collected species. Native plant materials, like agronomic crops, take an average of 10-20 years to develop as consistent, reliable commercially available species. Starting with native seed collection, the time and length of each step in the development process varies for each grass, forb and shrub. Adequate and consistent funding is critical to the success of this long-term endeavor. The goal of the Native Plant Materials Development Program is to facilitate this process and to increase capacity within the Federal agencies and the private sector for ecologically appropriate native seed.

Contacts: Peggy Olwell, Plant Conservation Program Lead, Bureau of Land Management, peggy\_olwell@blm.gov, (202) 912-7273





#### **Step 1: Native Seed Collection**

Wildland native seed collections are the foundation of native plant materials development. Seeds of Success, the national native seed collection program for the United States, is collecting seed from native wildland populations across the entire geographic range of the species to capture maximum genetic variation within each species for native plant materials development.

Seeds of Success has made over 10,000 collections of native plants from across the United States.

### **Step 2: Evaluation and Development**

Before native plant materials can be produced on a large scale, basic agronomic and life history issues must be addressed, such as mechanical seed cleaning techniques, germination methodologies, storage protocols, identification of pollinators, determination of seed transfer zones and agricultural techniques for seeding, fertilizing, irrigating, weed control, and harvesting as well as evaluating special equipment needs. The Program is developing ecotypes which are populations or strains within a given species that are adapted to a particular environment.

The Program has conducted over 525 demonstration seedings to display the use of plants for specific areas. We have studied agricultural techniques for over 735 ecotypes, and performed harvesting, cleaning and seed storage studies for over 570 ecotypes.

## **Step 3: Field Establishment**

Once the requirements for production of a native plant species are established, an operational field is planted with the newly developed native plant materials. The seed harvested from the operational field is then transferred to private growers for large scale production.

The Program has developed initial increase of foundation crop to give to private industry growers for over 400 ecotypes and conducted over 470 operational seedings for production of seed for use in small restoration projects.

# **Step 4: Seed Production by Private Growers**

To increase the production of quality native plant materials, private growers are given initial seed stock that has proven reliable from the research and development in the previous steps of the process. The seed produced by private growers is then available for purchase by private and public sectors, including the major federal land managing agencies in the United States for restoration of public lands.

The Program has transferred more than 200 ecotypes to private growers across the U.S.

#### **Step 5: Seed Storage**

Federal land managing agencies in the U.S., such as the Bureau of Land Management, purchase millions of pounds of commercially produced seed from private growers for restoration of disturbed and degraded lands annually. Seed purchased from private growers is stored in large climate controlled warehouse facilities for short-term holding before it is distributed to local restoration projects on federal lands.

The Bureau of Land Management has increased its short term seed storage facilities to a capacity of 2.5 million pounds of seed.

#### **Step 6: Restore Native Plant Communities**

The United States federal government manages over 600 million acres of land, which constitutes about 29 percent of the U.S. land mass. These lands belong to the American people and it is the responsibility of Federal Government Agencies to manage them sustainably. Therefore, the ultimate goal of the Native Plant Materials Development Program is to ensure that high quality native plant materials are available commercially for land managers to use in restoring native plant communities that provide the vital ecological services upon which life depends.

The Program has facilitated the commercial availability of over 120 U.S. ecotypes for restoration projects.