Native Seed Issues Workshop
April 3, 2012
Seed Availability and Collection Challenges
Dust Bowl days of the 1950s
Pioneering efforts of the Soil Conservation Service (today Natural Resource Conservation Service) and the Great Basin Experimental Station
Surface Mining and Reclamation Act of 1977
Federal Highway Act of 1987
Reclamation
Seed Industry is Relatively New (cont)

- Conservation Reserve Program of the 1980s and 1990s
- President Clinton edict in 1994 directing federal agencies “when practical, the use of local native plant species will be used for land reclamation”
- Use of native plant materials by U.S. Forest Service and Bureau of Land Management for fire reclamation and cheatgrass control and state DOT’s for roadside reclamation
How Does the Seed Industry Meet the Growing Demand for Native Plant Materials?

- Successful prediction of what the demand will be
- Looking at past history/usage
Why might the seed industry not have the seed that reclamation managers are requesting (Availability)?

- Crop failure (weather, insect predation, disease)
- Unusual increase in demand
- Requests for materials the reclamation industry has not typically needed or wanted in the past
Cost of Native Seed Species

- Hand harvested seed from wild collections is the most expensive seed
- Field produced seed is less expensive
Farm cultivated
Machine harvested
Much research resulting in many improved varieties with broad adaptations

Generally, grass species are the easiest to acquire and accumulate and consequently less expensive than forb and shrub species. The exceptions are species such as needle and thread grass or inland salt which must be hand collected in the wild and can be quite expensive to process.
Although many forbs or wildflowers are also field produced, they are typically more expensive because of difficulties associated with propagation, weed control and harvest. However, most are still hand collected from native stands.
Woody plants (shrubs & trees) are generally the most expensive because they must be hand collected from the wild.
Seed Collection

Individuals must be familiar with pieces and plant communities.

Must be familiar with the phenology of the species you are collecting.

Must be a hard worker with a strong back.
Challenges of Seed Collection

- Must find stands that are large enough to be worth harvesting
- Must obtain permission/permits to collect seed
- Must determine when to harvest the seed
- Must organize crews to harvest
Once collected, seed must be dried

Must be cognizant of weather patterns and events

Transported to processing facilities for cleaning

Once thoroughly cleaned, seed is sent to a certified seed testing laboratory to be tested for purity and germination
Species from similar ecological areas regardless of geographic distance

(allows greater flexibility in providing large quantities of seed at less cost)
Approaches to Specifying Native Seed for Reclamation Projects

- Using species that originate from a narrow geographic proximity (restricts flexibility and less opportunity to provide sizable quantities of seed. More expensive and good planning needed).
The seed industry is relatively new and continues to strive to meet the growing demands of providing seed for large and small reclamation projects.

Many improved varieties of native grasses are available in large quantities for roadside reclamation projects.
Locally collected shrubs are easier to find and may be financially justified when compared to site collected grasses and forbs.

It is imperative to plant seed that is adapted to the area, matching the ecotype that is being planted with ecotype from which the seed comes.
The seed industry is in the business of providing you with products that you request whether improved varieties or localized collections.
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