Crested Wheatgrass Diversification: PRACTICAL EXPERIENCES

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BFI Native Seeds
Long-Term Thinking

• What is reasonable timeline for success?
Overview

- Plant Material Development
- Site Preparation
- Planting
- Post Planting Weed Control
- Forb planting
Plant Material Development

- Are appropriate species/genetics available for your site?

- Timeline for development include the following:
  - 1-2 years for grasses
  - 2-3 years for forbs
Developing Appropriate Genetics

Begins with a genetically diverse wild collection
Seed Increasing

Continues with intensive agricultural methods and weed control

Weeding between rows of an established Sandberg’s bluegrass (*Poa secunda*) stand with a chisel plow.

Hand weeding a young Idaho fescue (*Festuca idahoensis*) field
Grass Seed Production

Prairie Junegrass (*Koeleria macrantha*)

Sandberg’s bluegrass (*Poa secunda*)
Forb Seed Production

Arrowleaf balsamroot (*Balsamorhiza sagittata*), Wyeth’s buckwheat (*Eriogonum heracleoides*), Venus Penstemon (*Penstemon venustus*), and Shaggy Fleabane Daisy (*Erigeron pumilis*).
Cultural Management

Oregon Sunshine (Eriophyllum lanatum), Hoary Tansyaster (Machaeranthera canescens), Royal Penstemon (*Penstemon speciosus*)
Harvest Management

Combining a swathed bluebunch (*Psuedoroegneria spicata*) wheatgrass field

Silvery lupine (*Lupinus argenteus*) hand harvest
Seed Cleaning/Storage

Seed cleaning mill

Seed storage warehouse
Planting Process...

- Site Preparation – Approx 15 months
- Staged Planting – Grasses first, then interseed forbs/shrubs

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<th>Timeline</th>
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<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
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X: Indicates actions taken in that season.
Site Preparation

- Control of Pre-existing Vegetation
- Seedbank Depletion
- Residue Management
- Seedbed Preparation
Mowing

Several weeks after mowing
Harrowing

A spring-tine heavy harrow is used
Herbicide Application

- Mid-Spring Heavy Round-Up
- Summer Round-Up/Broadleaf Selective
Ready to Plant...
Seeding

• Seeding occurs in late fall
• Rangeland drills help with accurate seed placement
Spring After Planting

Continue annual broadleaf control through spring and summer
Forb Inter-seeding

Forbs are drilled the fall after grass seeding
Establishment Success

Three years post-planting
Long-Term Success
Summary

- Multiple year, aggressive process
- Plant material development takes 2-3 years
- Site preparation and planting takes 3 years
- Planning and funding are not included!!
- Once established, have patience
Questions
The preceding presentation was delivered at the

2017 National Native Seed Conference
Washington, D.C.  February 13-16, 2017

This and additional presentations available at  http://nativeseed.info