

2005 WRCC-21 Progress Report

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INTRODUCTION

This report summarizes the studies and activities conducted by the NRCS Aberdeen Plant Materials Center during calendar year 2005.

ONGOING PROJECTS

1. Native Plant Restoration (NPS Craters of the Moon National Monument)

Seed processing and propagation of 2150 plants from 10 native seed collections. Seed harvested summer, 2004 and 2005. Plant propagation begun late fall 2005.

2. Department of Defense (U.S. Army)

Seed production of 3 test species (western wheatgrass, Siberian wheatgrass, and slender wheatgrass) and eventual release. Fields established spring 2005. 3 year seed increase.

3. Bureau of Reclamation

Ongoing riparian/wetland work.

4. USFS – Ogden

Ongoing riparian/wetland work.

5. Foundation Seed Production (Utah Crop Improvement Association, Idaho Crop Improvement Association, USFS Rocky Mountain Research Station)

Anatone and Goldar bluebunch wheatgrass, Paiute orchardgrass, Bannock thickspike wheatgrass, Regar meadowbrome, Ephraim crested wheatgrass, Maple Grove Lewis flax, Snake River Plains fourwing saltbush, Northern Cold Desert winterfat, Richfield firecracker penstemon, Clearwater Venus penstemon.

6. Study 01-W08 Seagull Bay Wetland Enhancement (Bureau of Reclamation)

Planted willows around Seagull Bay wetland to create structure for wildlife and to improve water quality.

7. Study 16R069H Coffee Point Idaho Inter Center Strain Trial (Bureau of Land

Management)

Identify accessions adapted to the Snake River Plains of Idaho for use in range and critical area seedings.

8. Study 2000-R18 Medicine Lodge Creek Assessment and Revegetation

Evaluate stream assessment procedures and develop revegetation plan(s) to restore stream functions.

9. Study 2000-R19 Sheridan Creek Riparian Demonstration Project

Test bioengineering treatments on an overgrazed stream and restore the natural fish habitat.

10. Study 87-R01 American Falls Reservoir Idaho Shoreline Erosion Control Project (Bureau of Reclamation)

Develop vegetative techniques to control erosion on shorelines of lakes, reservoirs, and ponds.

11. Study 87-R02 Trout Creek Nevada Riparian Evaluation Site

Test woody riparian accessions on streams in the arid and semi-arid west. Test planting techniques for woody riparian plants.

12. Study 87-R03 Native Willow and Other Riparian Shrub Plant Evaluation

Evaluate native willows and other riparian woody/shrub species for use in bioengineering streambank stabilization in the arid and semi-arid west.

13. Study 91-R04 Performance Test Woody Riparian Ecotypes

Performance test native woody riparian plants for release and commercial production.

14. Study 91-W01 Performance Test Herbaceous Wetland Plant Ecotypes

Performance test native herbaceous wetland plants for release and commercial production.

15. Study 92-W08 Fairview Wetland Idaho Constructed Wetland System (Idaho State University)

Determine the effectiveness of various wetland species to remove nutrients from an individual farm's irrigation wastewater. Develop design criteria for sizing system components.

16. Study 94-W02 The Nature Conservancy Idaho Constructed Wetland System (The Nature

Conservancy)

Develop design criteria and planting specifications for Constructed Wetland Systems in the arid and semi-arid west to treat irrigation wastewater.

17. Study 95-W03 Cedar Draw Idaho Constructed Wetland System

Test wetland plants and design criteria for Constructed Wetland Systems in the arid and semi-arid west to treat irrigation wastewater.

18. Study 96-R04 Arimo Ranch Idaho Riparian Grazing and Bioengineering Demonstration

Determine the best grazing techniques for riparian zones and demonstrate the effectiveness of bioengineering techniques to stabilize streambanks on streams in the arid and semi-arid west.

19. Study 96-R13 Trout Creek Nevada Bioengineering Demonstration

Demonstrate the effectiveness of bioengineering techniques in stabilizing streambanks in low precipitation zones of the arid and semi-arid west. Treatments tested include brush mattress, vertical bundles, fascines, and willow structure to stop headcut.

20. Study 97-05 9067480 Fourwing Saltbush Advanced Testing and Seed Increase (USFS Rocky Mountain Research Station)

Advanced testing and seed increase for release as Selected or Tested germplasm.

21. Study 97-06 9067481 Winterfat Advanced Testing and Seed Increase (USFS Rocky Mountain Research Station)

Advanced testing and seed increase for release as Selected or Tested germplasm

22. Study 97-R07 Chalk Creek Utah Bioengineering Demonstration

Demonstrate bioengineering techniques and their effectiveness in reducing streambank erosion in the arid and semi-arid west.

23. Study 98-01 Hybrid Poplar Initial Evaluation

Identify commercial accessions of hybrid poplar used for fuel and fiber adapted to eastern Idaho and northern Utah.

24. Study 98-R09 Targhee Creek Idaho Bioengineering Demonstration

Demonstrate the effectiveness of bioengineering techniques to reduce streambank erosion and reestablish native riparian vegetation in the arid and semi-arid west.

25. Study 98-R10 Carson River Nevada Riparian and Bioengineering Demonstration

Demonstrate the effectiveness of bioengineering in conjunction with traditional engineering practices to stabilize streambanks in the arid and semi-arid west.

26. Study 98-W07 Pocatello, ID Stormwater Constructed Wetland System (City of Pocatello)

Create Constructed Wetland System to treat stormwater from the SE side of Pocatello, ID. This wetland is an attempt to help the city meet the EPA phase II requirements

27. Study ABPMC-S-0201-RA Anatone bluebunch wheatgrass Seed Increase and Evaluation (USFS Rocky Mountain Research Station)

Foundation seed increase and evaluation.

28. Study ABPMC-S-0202-RA Maple Grove flax Seed Increase and Evaluation (USFS Rocky Mountain Research Station)

G1 seed increase and evaluation.

29. Study ABPMC-S-0203-RA Mutton bluegrass (9067402) initial seed increase and evaluation

Seed increase G1 and evaluation.

30. Study ABPMC-T-0104-RI Cub River Streambank Bioengineering Demo

To test streambank bioengineering treatments on a western river that has severe water removals for irrigation diversions. It also tests these treatments on an unstable stream with several major headcuts.

31. Study ABPMC-T-0315-RI Upper Carson River Bioengineering Demo

Develop bioengineering treatments to stabilize severely eroding streams in low precipitation areas.

32. Study IDPMC-P-0404-WO USFSR1 native grass initial evaluation (USFS Region 1)

Initial evaluation of 37 native accessions from 6 species. Seed collections processed winter, 2003 and test plots seeded spring 2004. Evaluations underway. Goal: Selected class release better adapted to Region than currently available materials.

33. Study IDPMC-P-0405-WO USFSR1 native forb initial evaluation (USFS Region 1)

Initial evaluation of 10 native accessions from 3 species. Seed collections processed winter, 2003 and test plots seeded spring 2004. Evaluations underway. Goal: Selected class release better adapted to Region than currently available materials.

34. Study IDPMC-P-0503-RA Caribou-Targhee native grass initial evaluation (Caribou-Targhee National Forest)

Initial evaluation of 20 native accessions from 2 species. Seed collections processed winter, 2004 and test plots seeded spring 2005. Evaluations underway. Goal: Selected class release better adapted to Region than currently available materials.

35. Study IDPMC-P-0504-RA Basin Wildrye advanced evaluation (University of Nevada, Reno)

Evaluate Basin wildrye accessions

36. Study IDPMC-T-0401-RA IFAFS Canyon Creek, ID (BLM, USGS, University Nevada at Reno)

Evaluate techniques for establishment and adaptation of perennial vegetation in Great Basin. Seeding of test plots in Idaho, Nevada, Oregon and Utah (1200 plots in fall 2003, 1200 plots in fall 2004). Assist with evaluation of test plots in Idaho. Seeded 150 acre test site near Reno, NV in fall 2005.

37. Study IDPMC-T-0402-RA IFAFS Cinder Cone, ID (BLM, USGS, University Nevada at Reno)

Evaluate adaptation and techniques for establishment of perennial vegetation in Great Basin. Seeding of test plots in Idaho, Nevada, Oregon and Utah (1200 plots in fall 2003, 1200 plots in fall 2004). Assist with evaluation of test plots in Idaho. Fall 2005, seeded 150 acre test site near Reno.

38. Study IDPMC-T-0403-RI Willow cutting soaking trials

Evaluate efficacy of pre-soaking hardwood cuttings to aid in establishment.

39. Study IDPMC-T-0406-WE Wetland species direct seeding evaluation (National Park Service)

Evaluate techniques to establish wetland plants through direct seeding.

40. Study IDPMC-T-0407-RA Snake River Plains Fourwing Vegetative Propagation Trial: Version 2 (USFS Rocky Mountain Research Station)

Refine techniques from study ABPMC-T-0204-RA for evaluating techniques for vegetative propagation of Snake River Plains fourwing saltbush.

41. Study IDPMC-T-0501-RA Canyon Creek 2004 IFAFS (BLM, USGS, University Nevada at Reno)

Evaluate Techniques for establishment and adaptation of perennial vegetation in Great Basin.

42. Study IDPMC-T-0505-RA Orchard display and adaptation evaluation (USFS Rocky Mountain Research Station)

Establish and evaluate native and introduced grasses, forbs and shrubs.

43. Study IDPMC-T-0506-RA Great Basin forb propagation and initial evaluation (USFS Rocky Mountain Research Station)

Propagation and evaluation of 7 native forb accessions.

44. Study IDPMC-T-0507-RA Journey - Established Grass Tolerance Trial (University of Idaho)

To determine the tolerance of typical western rangeland grasses to a dormant fall application of Journey herbicide

45. Study IDPMC-T-502-RA Cinder Cone 2004 IFAFS (BLM, USGS, University Nevada at Reno)

Evaluate techniques for establishment and adaptation of perennial vegetation in Great Basin.

46. Study IDPMC-T-0507-RI Willow Pre-soak field trial

Compare effectiveness of willow pre-soaking treatments under field conditions. Planted 350 hardwood cuttings of 3 woody riparian species on degraded creek bank at Arbon Valley, ID.

PROPOSED STUDIES

1. Forb Herbicide Tolerance Trial (University of Idaho Extension)
2. Development of ecoregion specific vegetative riparian restoration guidelines following removal of Tamarisk, Russian olive and other invasive species
3. Coffee Point Inter Center Strain Trial
4. Skull Valley Inter Center Strain Trial

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