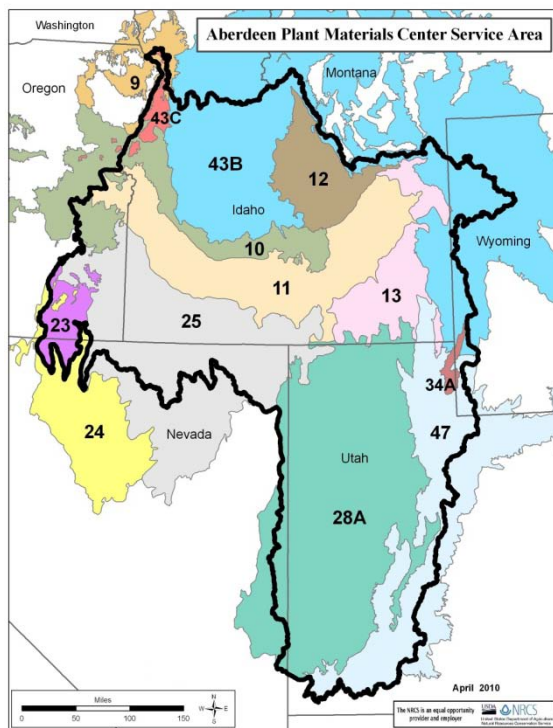




INTERMOUNTAIN PLANT NOTES

A newsletter to inform you about activities at the Aberdeen Plant Materials Center

The Aberdeen Plant Materials Center (PMC) was established in 1939 to develop plant materials and techniques for establishment and management of plants for use in resource conservation activities in the Western United States. Currently, there are 27 Plant Materials Centers nationwide, each serving specific geographic and ecological areas. The Aberdeen PMC service area covers 83 million acres of the Intermountain West encompassing southern Idaho, western Utah and parts of northern Nevada, western Wyoming and eastern Oregon.



PMC service area map with overlay of Major Land Resource Areas (MLRAs).

Plant Evaluations

The PMC is in the early stages of seed production prior to the official release of Douglas' dustymaiden (*Chaenactis douglasii*), hoary tansyaster (*Machaeranthera canescens*) and

whorled buckwheat (*Eriogonum heracleoides*). The initial evaluations for these species were completed in 2010 and promising accessions were identified for further evaluation. In fall 2010, seed increase fields of Douglas' dustymaiden and hoary tansyaster were installed and a seed increase field of buckwheat will be established in the fall of 2011. These native forbs are important for sage-grouse habitat and pollinators and will be welcome additions for conservation seed mixtures.



A cabbage white butterfly gathering nectar from a hoary tansyaster flower.

Aberdeen PMC is cooperating with plant scientists from the USDA ARS Forage and Range Research Laboratory in Logan, Utah to evaluate the release of Searls' prairie clover (*Dalea searlsiae*). Searls' prairie clover is a native non-bloat legume that grows in Utah, Arizona and Nevada. The PMC is currently evaluating direct seeding establishment for seed production and increasing the seed inventory from transplanted stock.

In 2010, the PMC installed a common-garden initial evaluation study of Nevada type *Poa secunda*, a larger statured relative of Sandberg bluegrass with applications for range seedings. Thirty-four Nevada bluegrass accessions were collected in 2008 for initial evaluation and potential pre-variety selected class release. The collections are being evaluated for traits such as establishment, forage production and seed yield.

This summer, PMC agronomist, Derek Tilley, is making collections of multi-lobed groundsel (*Senecio multilobatus*), for a common garden study in cooperation with the Upper Colorado Environmental Plant Center (UCEPC) in Meeker, Colorado. Multi-lobed groundsel is a native short-lived perennial forb in the sunflower family. It is commonly found in sagebrush and pinyon-juniper communities throughout the Intermountain West. Initial evaluations at Aberdeen and Meeker have shown that this species is highly attractive to native insects and has excellent characteristics for seed production.

Cooperative Seed and Plant Production Projects

Yellowstone National Park

2011 is the final year of wetland plant production for Yellowstone National Park. Five species of wetland sedges, rushes and grasses are being produced for a road decommissioning project in Gibbon River Canyon. The PMC is producing approximately 13,000 ten cubic inch containers of water sedge (*Carex aquatilis*), tufted hairgrass (*Deschampsia cespitosa*), beaked sedge (*Carex rostrata*) bluejoint (*Calamagrostis canadensis*), and swordleaf rush (*Juncus ensifolius*) for delivery later this summer.



Water sedge (*Carex aquatilis*) growing in the PMC greenhouse for Yellowstone National Park.

In addition to the Gibbon River restoration project, the PMC is producing seed for the conversion of historical agricultural lands in Yellowstone National Park back to native rangeland. Seed production fields of Sandberg bluegrass (*Poa secunda*), bluebunch wheatgrass (*Pseudoroegneria spicata*) and needle-and-thread (*Hesperostipa comata*) were planted in 2009.

Grand Teton National Park

The PMC is producing seed of native grasses for use in restoration projects in Grand Teton National Park. Species currently under production are mountain brome (*Bromus marginatus*) and Idaho fescue (*Festuca idahoensis*). Under previous agreements the PMC has produced seed of slender wheatgrass, blue wildrye and bluebunch wheatgrass.

Technology Development

Agricultural Land Management Alternative with Numerical Assessment Criteria (ALMANAC) Project

PMCs located in Arizona, New Mexico, Nevada, Washington, Idaho, California, Colorado, and Montana are participating in a cooperative study with USDA ARS scientists in Temple, Texas. The purpose of the ALMANAC study is to develop methods that will allow NRCS to better estimate environmental benefits and effects of NRCS conservation practices. PMC personnel have been gathering plant growth data such as leaf area, light interception and biomass production which is being analyzed by ARS staff for inclusion in the ALMANAC model.

Cottonwood Rooting

How deep should you plant dormant un-rooted cottonwood cuttings in a riparian restoration project? Should the end of the cutting be placed in the permanent water table, or just in the capillary fringe? Does root rot in submerged portions of the plant affect the vigor of the rest of the cutting? These are questions being investigated in a new study installed this spring at the PMC. Cuttings of black cottonwood (*Populus balsamifera* ssp. *trichocarpa*) placed at different planting depths will be evaluated for survival and health after one and two years of establishment and growth.

Pre-germination Trial

The PMC is exploring the potential of using pre-germinated seed for wetland establishment. The seed is pre-germinated in a greenhouse or growth chamber using hot temperatures and aerated water. The seed can then be planted on-site using a hydroseeder or other broadcast seeding method. This summer, the PMC wetland ponds will be planted with pre-germinated seed using various techniques in hopes of finding a more

economically feasible way to establish wetlands without using greenhouse grown transplants.



Nebraska sedge seed germinating in an aerated water treatment. Pre-germinated seed can then be used for greenhouse plant production or direct seeded for wetland creation and restoration projects.

Display Plantings

Pollinator Display

In May, the PMC planted 5 acres of pollinator habitat at the Fish and Game Farm located 5 miles northeast of Aberdeen. The planting contains a mixture of three grasses and seven forbs chosen to provide a variety of flower shapes and colors throughout the growing season. The planting will be used to develop management strategies for use in pollinator and wildlife friendly plantings. It is also a good visual tool for NRCS field office staff and other land managers.

Curlew National Grassland

In the fall of 2010, PMC staff planted a multi-species off-center evaluation on the USDA-FS Curlew National Grassland located 30 miles south of American Falls, Idaho in cooperation with the Caribou/Targhee National Forest. The trial includes over 60 accessions of primarily native grasses, forbs and shrubs adapted for use in MLRA 13 Eastern Idaho Plateaus (13 to 18 inch plus precipitation areas). The PMC will be evaluating the plots for establishment and performance for

several years. For more information or to arrange a site visit, contact the PMC.

Foundation/Early Generation Certified Seed Production

A major responsibility of the PMC is the production of Foundation and early generation Certified Seed of the plant releases made by the Center. The releases currently in production are: 'Recovery' western wheatgrass, Maple Grove Lewis flax, 'Goldar' bluebunch wheatgrass, Anatone bluebunch wheatgrass, Snake River Plains fourwing saltbush and Northern Cold Desert winterfat. Contact the University of Idaho Foundation Seed Program or the Utah Crop Improvement Association to request Foundation or early generation Certified seed.

Have a good potential planting project? Seed may be available for small field plantings or demonstrations. Contact Dan Ogle, Plant Materials Specialist, Idaho State Office.

Training

Three-Day Training

On June 14-16 the PMC held a three-day training course specially designed for new NRCS field office employees. Over thirty students were in attendance to receive training in a wide range of plant materials related topics including conservation planning, cover crops, wetland/riparian projects, planning and installation of windbreaks, seed mixtures/drill calibration and wildlife considerations. There were tours of the PMC farms and a visit to the new off-center planting at the Curlew National Grassland. As a result, attendees should be better equipped to serve land owners and other customers where plant materials can be used to help solve natural resource concerns.

Xerces Society Short Course

One June 23 the PMC hosted a pollinator conservation planning course sponsored by the Xerces Society, a non-profit organization that protects wildlife through the conservation of invertebrates and their habitat. Xerces instructor, Jennifer Hopwood, gave excellent presentations on bee biology and how to create and manage

pollinator habitat. NRCS Idaho State biologist, Karen Fullen spoke on NRCS programs that can be used for pollinator conservation, and a visit was made to the PMC farm to observe some pollinators in action.

Public Information Activities

PM Technical Notes

- TN 2a: Plants for Pollinators in the Intermountain West
- TN2b: Plants for Pollinators in the Inland Northwest
- TN 43: Tree and Shrub Plantings
- TN 51: Threatened, Endangered, Candidate & Proposed Plant Species of Idaho (Plant Guides)
- TN 52: Threatened, Endangered, Candidate & Proposed Plant Species of Utah
- TN 55: Jet Harvester
- TN 56: Cover Crops

Plant Guides

- Fernleaf biscuitroot
- Gray's biscuitroot
- Nineleaf biscuitroot
- Hardstem bulrush
- Water sedge
- Mammoth wildrye
- Strawberry clover
- White clover
- Sweet clover
- Altai wildrye
- Slender wheatgrass (rev.)
- Tufted hairgrass (rev.)
- Bluebunch wheatgrass (rev.)

Propagation Protocols (found at <http://nativeplants.for.uidaho.edu/>)

- Bluejoint
- Water sedge
- Nebraska sedge
- Beaked sedge
- Swordleaf rush
- Tufted hairgrass
- Douglas dustymaiden
- Hoary tansyaster

Presentations

- Native Plant Summit, Boise, Idaho
- CRP Training, Aberdeen, Idaho
- CRP Training, Pullman, W
- USDA FS Region 4 Range Meeting, Idaho Falls, Idaho
- Tri-state – State Conservationist Advisory Meeting, Boise, Idaho
- Society for Range Management, Billings, Montana
- Great Basin Native Plant Selection and Increase Project, Salt Lake City, Utah
- Teton Science School, Native Plant Seminar, Jackson, Wyoming
- Multi-State Plants for Conservation Planning 3- day Course, Aberdeen, Idaho

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