

Aberdeen Plant Materials Center



2025 Report of Activities

1691A South 2700 West, Aberdeen, ID 83210, Tel: 208-397-4133, Web site: <https://www.nrcs.usda.gov/plant-materials/idpmc>

The mission of the USDA NRCS Plant Materials Program is to develop and transfer effective state-of-the-art plant science technology to meet customer and resource needs. The Aberdeen Plant Materials Center (IDPMC) was established in 1939 to evaluate and select plant materials and techniques for establishment and management of plants for use in resource conservation activities in the Western United States.

There are 25 PMCs nationwide, each serving a specific geographic and ecological area. IDPMC serves portions of the Intermountain West including southern Idaho, western Utah, northern Nevada, western Wyoming, and eastern Oregon.

Aberdeen's primary areas of focus are improving habitat for at-risk wildlife species such as sage grouse, improving range and pasture productivity, and increasing plant species diversity on Intermountain rangelands. We are also investigating plants and technologies for improving soil health in Intermountain agricultural lands. For more information on any of these, or other, PMC projects, please contact the center with the information at the top of the page.

Address change

Please note we've given up our PO box and are now receiving all mail at our physical address:

1691A South 2700 West, Aberdeen, ID, 83210.



Above: A bee sitting on a Curlycup gumweed (*Grindelia squarrosa*). Many bees and butterflies are attracted to the pollen and nectar.

Curlycup Gumweed Release Development

Forbs that provide nectar and pollen to bees and butterflies in late summer are critical for pollinator conservation, but species choices are limited. In 2016, we started evaluations of curlycup gumweed (*Grindelia squarrosa*) to help meet this need. We are investigating 25 populations in a common garden study and multiple laboratory and greenhouse evaluations. Our studies indicate gumweed populations have high amounts of genetic diversity but little genetic structure on the landscape, i.e. populations don't group according to geographic distance. We are making decisions on release development and will begin seed production for distribution to the commercial seed industry next year.

Breeder and Foundation Seed Production

The Idaho PMC produces the highest quality conservation seed available and is responsible for Breeder and Foundation seed production of 20 plant releases. In 2025, IDPMC seed production fields of 'Ephraim' crested wheatgrass, 'Bannock' thickspike wheatgrass, 'Tegmar' intermediate wheatgrass, 'Magnar' basin wildrye, 'Delar' small burnet, Anatone Germplasm bluebunch wheatgrass, 'Recovery' western wheatgrass, Clearwater Selection Venus penstemon, 'Goldar' bluebunch wheatgrass, 'Paiute' orchardgrass, and 'Regar' meadow brome were harvested. Three new fields are being established this year. 'Maple grove' Flax, 'Regar' meadow brome, and 'Nezpar' Indian ricegrass. Seed growers should contact the University of Idaho Foundation Seed program or the Utah Crop Improvement Association to request Foundation or early generation Certified seed of these or our other plant releases.



Foundation seed produced by the PMC is allocated through the University of Idaho Foundation Seed program or the Utah Crop Improvement Association to seed producers. Shown above, Derek Jolley harvests Paiute Orchardgrass

Cover Crop Seed Yield Trial

This was the first year Idaho PMC participated in a three-year National Cover Crop Seed Yield Trial. A monoculture of pea (Wyoming Winter variety), and bi-cultures of pea (Wyoming winter variety) with triticale (Gainer) and hairy vetch (AU Merit) with triticale (Gainer) were planted. The purpose of the trial is to evaluate cover crop seed production in different areas of the country and test the production and management methods in conditions that are similar to those of commercial seed production.



Derek Jolley, standing in the Aberdeen PMC National Cover Crop Seed Yield Trial bi-culture plot of Vetch and Triticale.

The bi-culture plots were seeded on August 27, 2024, and irrigated until they moved into the vegetative stage before the first frost. The plots were harvested on July 28, 2025. The monoculture of peas was seeded on April 14, 2025, and were harvested on August 11, 2025. Seeds were cleaned and samples were sent in for germination testing, and our activity records were sent in for evaluation and comparison.

Heading into the second year of the seed yield trial, the plots were both seeded as monocultures. The pea (Wyoming Winter variety) and hairy vetch (AU Merit variety) fall seeding was completed on August 25, 2025. The crops were irrigated and reached the vegetative stage before this year's frost.



PMC staff seeding National Cover Crop Seed Yield Trial plots. The monocultures were seeded with a Great Plains drill on 7" rows. August 2025.

Ecological Succession

Habitat restoration should attempt to rebuild a fully functioning ecosystem rather than merely copying the climax state, yet early-seral species have been largely omitted from restoration planning. We designed a field trial to compare standard NRCS seed mixes to those that include a multi-successional seed mix to compare establishment and follow the long-term transition to the desired state. Study sites are located in Aberdeen, Pahsimeroi Valley, and on the Curlew National Grassland. Early data indicate multi-seral mixes provide greater initial establishment, greater diversity, and greater target species cover than standard late seral mixes. Sites will be evaluated in 2026 for establishment status.

Sand dropseed Initial Evaluation Planting

Sand dropseed is a warm-season perennial native grass that grows throughout much of western North America. We commonly see this species growing on roadsides, sand dunes, and other disturbance prone habitats. We are currently evaluating 50 collections with the goal of developing a selected class germplasm release. So far, we have evaluated germination, early root growth, and completed a full genetic characterization. A common garden has been established at the PMC and at an off-center site on BLM managed land. Adult plant characteristics were measured and recorded and are being prepared for analysis.



Brett Muscatello, Idaho Area East Rangeland Mgmt. Specialist, collects height measurements on Sand dropseed at the Aberdeen PMC.

Training

Residue, Tillage, and Erosion Tools

Eastern Idaho NRCS field office employees attended a Basic tillage and erosion tools training on August 12th and 20th at the Idaho PMC. Two field days were held and 14 participants received hands-on, comprehensive training related to erosion. The tour began with demonstrations of various farming equipment and implements followed by residue cover measurements and determining slopes across selected fields. PMC and NRCS area staff provided technical knowledge on several conservation topics.



Dean Smith, Idaho Area East Agronomist, discussing tillage equipment and practices to NRCS staff during the tillage and erosion tools training.

Staff News

The Idaho PMC had some changes in staff this year. Derek Tilley and Mary Wolf both retired and are now pursuing new adventures. Derek worked for 20 years at the PMC and Mary served 20 years for the NRCS, with 6 of those years at the Aberdeen PMC doing what she loved. She returned this summer as an Earth Team Volunteer and was very helpful wrapping up the National Cover Crop Seed Yield Trials.

Neal Callister was hired as the new PMC manager. He has been with Idaho NRCS for 17 years. After graduating from the University of Idaho in Rangeland Ecology and Management, he began as an intern and has served as a Soil conservationist, Area rangeland management specialist, and Area resource conservationist.



Neal Callister, PMC manager, checking a field of cover crops before livestock are turned out to graze.



Mary Wolf, Earth team volunteer, monitoring the National Cover Crop Seed Yield trial bi-culture fields this summer.

Products and Technology Transfer

Training/Presentations

- Basic tillage and erosion tools

Study Reports

- Emergence of a cover crop seed mix planted at three different depths
- Evaluation of cool season cover crop seeding rates for cover and biomass in Southern Idaho

Plant guides

- Bigbract verbena (*Verbena bracteata*)

Training Videos

In 2020, we posted four videos to the Idaho NRCS YouTube Channel, and in 2022, we added a new video on succession management. So far, these videos have garnered over 1,500 views since posting.

- IDPMC Overview
- How to Develop a Seed Mix
- Drill Calibration
- Grass Identification
- Succession Management

Website

<https://www.nrcs.usda.gov/plant-materials/idpmc>

Aberdeen PMC Staff

Manager: Neal Callister

Study leader: Vacant

Biological Science Technician: Derek Jolley

USDA IS AN EQUAL OPPORTUNITY PROVIDER, EMPLOYER AND LENDER

Helping People Help the Land