



Native Plants & Genetics

Program Accomplishments



Harvesting willow and cottonwood stock from the Clarno Hardwood Propagation Center, Ochoco NF.



Columbia River Gorge National Scenic Area engine crew prepare to hand seed a safety zone on the Eagle Creek Fire.
(photo by C. Mead)



REI volunteers planting at Snoqualmie Point Park, Mt. Baker-Snoqualmie NF.



Volunteers planting native species on Blue Lake Trail restoration on Methow Valley RD, Okanogon-Wenatchee NF.

Fiscal Year 2017

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Pacific Northwest Region, US Forest Service



2017 Native Plant Program Accomplishments

Program Overview:

The goal of the PNW Native Plant Program is to ensure the availability and effective use of native seed and plant materials in terrestrial and aquatic restoration. The plant materials (grass, forb, and shrub seed and seedlings) are used in a wide range of vegetation treatments to reduce erosion, accelerate post-fire recovery, control invasive plants, improve wildlife habitat and pollinator health, and enhance aesthetic qualities and recreational experiences on national forests. This work is foundational to achieving agency goals relating to watershed restoration, ecological biodiversity and resiliency, climate change adaptation, and delivery of ecosystem services and benefits to the public.

Several Forest Service nursery facilities help support the Native Plant Program, including the Bend Seed Extractory (Bend, OR), J. Herbert Stone Nursery (Medford, OR), Clarno Propagation Center (Clarno, OR), and Dorena Genetic Resource Center (Cottage Grove, OR). Private sector nurseries and native seed producers in Oregon and Washington are also vital partners in this work. In addition, an ad hoc 'R6 Restoration Services Team' (RST) comprised of regional and forest botanists, geneticists, horticulturists, and other specialists, provide revegetation consultations and trainings for R6 personnel, as well as assistance on complex projects. RST also provides revegetation services to an increasing array of federal, state, and county partners throughout the PNW.

Specific FY17 Accomplishments include:

Plant Material Development

- JH Stone Nursery produced nearly 3600 pounds of cleaned native grass and forb seed for 3 USFS regions and multiple state and federal agencies.
- Bend Seed Extractory (BSE) processed the above nursery grown seed, along with another 1384 pounds of wildland seed collected from throughout the western U.S. BSE also cleaned 4,768 pounds of conifer seed for the FS and state, federal, and tribal partners. Thousands of acres of reforestation and revegetation treatments will be accomplished with these materials.

- Work continued on a major R6 CCS initiative to collect and increase seed supplies for native plants beneficial to pollinator species. 2017 was a milestone year, with seed collections or production now underway for over 90 native species.
- A regional Restoration Services contract was awarded to support interagency restoration and revegetation efforts in the PNW and beyond. The 13 pre-approved contractors will perform a wide array of restoration/revegetation services, including native seed and straw production, seed/cutting collection, cone collection, plant propagation, hydroseeding, outplanting, inventory & monitoring, invasive plant treatment, road decommissioning, and more. All National Forests and Service First partner agencies may issue calls under this BPA contract.

Consultation Services/Training/Tech. Transfer

- In collaboration with the Federal Highway Administration, a group of R6 revegetation specialists completed a major update of the 2009 Federal Highway Roadside Revegetation Manual. The team also assisted in developing a new online application to help restoration practitioners choose appropriate native plant species to support pollinators in revegetation activities

Regional Contact:

Vicky Erickson, 541-278-3715
verickson@fs.fed.us

Program Website:

<http://fsweb.r6.fs.fed.us/natural-resources/native-plants/>



**Pacific Northwest Region
US Forest Service**
Natural Resources Staff
P.O. Box 3623
Portland, OR 97208

Western Washington Area Genetics Program

2017 Program Highlights – Olympic, Gifford Pinchot, & Mt. Hood NF's

SEED & SEED ORCHARDS

Gene Conservation of High Elevation Conifers – It was a poor cone crop year for most species with the exception of Alaska yellow-cedar. Genetic conservation cone collections were made at 2 locations on near the Cascade Crest and additional collections are planned.

Genetic conservation of Torrey pine (*Pinus torreyana*).

Two tree climbers from Region 6 travelled to Santa Rosa Island in Channel Islands National Park, CA to help the PSW Research Station and North Dakota State University collect cones from one of only 2 populations of Torrey Pine for genetic conservation. Seed from this collection will be sent to the NCGP in Ft. Collins, CO. for long-term storage.

Phenology monitoring – in cooperation with the PNW Research Station, a 7th year of data was collected on phenology of Pacific silver fir, western white pine and western hemlock. This data is building a baseline to monitor impacts of climate warming. Time lapse cameras were used to monitor bud flush and pollen shed remotely.

PROJECTS

Population Genetics of golden chinquapin (*Chrysophylla chrysolepis*). Laboratory analysis of samples collected throughout the range of this species has been completed by NFGEL and a contractor was hired to analyze the data and report on the results. This data could help inform the management of populations on the Olympic Peninsula and the Gifford Pinchot NF, where it is a RF Rare Species.

Genetic diversity and population structure of Mulanje cedar (*Widdringtonia whytei*). In January, Area Geneticist Andy Bower travelled to Malawi, Africa as part of an expedition by Botanic Gardens Conservation International (BGCI) to survey and map cut and remaining stands of the critically endangered Mulanje cedar, the national tree of Malawi, and collect samples for genetic analysis that can help inform future deployment of seedling being grown in newly established nurseries. Genetic analysis is being done at NFGEL.



Figure 1. A tree climber collecting cones from Torrey pine on Santa Rosa Island.



Figure 2. The number of mature Mulanje cedar trees (left) is rapidly declining due to illegal logging for lumber (right)

PARTNERS/COOPERATORS

BGCI (Paul Smith, Kirsty Shaw)

USFS NFGEL Laboratory (Valerie Hipkins)

USFS PNW Research Station (Brad St. Clair, Connie Harrington)

North Dakota State University (Jill Hamilton)

USFS PSW Research Station (Jessica Wright)

WA DNR (Jeff DeBell, Jeff DeGraan)

Quinalt Indian Nation (Jim Hargrove)



Contact: Andy Bower
Olympic National Forest
1835 Black Lake Blvd. SW
Olympia, WA 98512

Eastern Oregon Area Genetics Program

Serving the OCH, DES, WIN-FRE, CRNG, MAL, WAL-WHI, UMA, ...and beyond

2017 Program Highlights

In 2017 the Eastern Oregon Area Genetics Program collaborated with, and provided support to a diverse collection of internal and external cooperators. Below is a brief list of highlights. *Not all program activities are listed.*

EDUCATION AND OUTREACH

- International Programs Forest Landscape Restoration Seminar and field trip to Clarno Hardwoods Facility.
- International Programs nursery infrastructure assessment for USAID Green Annamites Program, Danang Vietnam.
- Co-organizer of the USDA FS Eastern Seed Zone Forum (ESZF).
- Invited presentation at OSU and USFS sponsored nurseries and reforestation symposium at the Society of Ecological Restoration 7th World Congress, Foz do Iguassu Brazil.

ON-GOING ADMIN STUDIES IN SUPPORT OF OPERATIONS

Recent Publications:

Espeland EK, Johnson RC, **Horning ME**. Plasticity in native perennial grass populations: implications for restoration. In press Evolutionary Applications.

Data analysis phase

- **Bottlebrush Squirreltail Seed Zone Development** (with USFS PNW RS, ARS-Pullman, and UNR).
- **Basalt Milkvetch and Western Prairie Clover seeding trials** (with ARS-Provo).
- **Prairie Junegrass Seed Zone Development**(with USFS PNW and RMRS RS's).

Data collection phase

- **Population genetic study of MacFarlane's 4 O'Clock** (with USFS WAL-WHI and NFGEL).



Figure 1. USFS Geneticist Matt Horning participates in an integrated forest restoration design workshop at the Song Thanh Nature reserve, Nam Giang Province, Vietnam.



Figure 2. Above left: Wallowa-Whitman NF district botanist Jerry Hustafa collects leaf tissue. Above right: MacFarlane's 4 O'Clock above the Snake River in Hell's Canyon National Recreation Area.

2017 Partners/Cooperators

ARS-Pullman Western Regional Plant Introduction Center (RC Johnson, Mike Cashman)

ARS-Sydney Northern Plains Agricultural Research Laboratory (Erin Espeland)

ARS-Provo Forest and Range Research Laboratory (Doug Johnson, Shaun Bushman)
USFS RM Research Station (Francis Kilkenny, Kas Dumroese)

University of Nevada – Reno (Beth Leger)
Native Plant Nursery Consulting (Tom Landis)

The Xerces Society (Jennifer Hopwood)
OSU Cascades (Matt Orr, Kathryn Alexander, Matt Shinderman)

OSU Corvallis (Anthony Davis)
Federal Highways Administration (Deirdre Remley, Amit Armstrong)
USFS NFGEL (Valerie Hipkins)

Contact: Matt Horning, 541-408-1711



Deschutes National Forest
63095 Deschutes Market Rd.
Bend, OR 97701

Region 6 Bend Seed Extractory



2017 Native Plant Material Accomplishments

The Region 6 Bend Seed Extractory made machine upgrades, purchased new balances, upgraded temporary cold storage for incoming fleshy fruit, and developed new processing methods.

The extractory has now processed more than 3,100 different species from across the country. Reporting numbers reflect extractory accomplishments for the seed year which runs June 1, 2016 through July 31, 2017.

Number of diverse native species and pounds processed:

- 8,697 pounds of nursery harvested material, from the R6 J.H. Stone Nursery, was processed and resulted in 3,562 pounds of clean seed.
- 1,513 separate collections (4,810 pounds) of wild seed were processed, tested, and packaged this season. This resulted in 1,384 pounds of clean seed.
- 7,598 bushels of conifer collections were processed. This resulted in 4,768 pounds of conifer seed from six different species. 891 bushels from the FS; 2,266 bushels from the BLM, 2,799 bushels from ODF; 1,642 bushels from CTWIR.
- 213 individual collections were made across the western US for gene conservation by USFS geneticists. The seed came from nine different species and this resulted in 41.3 pounds of conifer seed.

Bend Seed Extractory News:

- The Seed Extractory was featured in an episode of 'Rock the Park' an educational TV series about our national parks and national forests.
- We partnered with Discover Your Forests
- Seed Extractory tours were given to more than 15 different groups including FS International Programs, SOS Interns, the High Desert Chapter of the Native Plant Society of Oregon, Missouri Botanical Garden Staff, Heart of Oregon Crews, and
- The extractory manager attended the National Native Seed Conference in Washington DC and presented as part of a symposium on the use of seed for increase.



Region 6 Bend Seed Extractory
Deschutes National Forest
63095 Deschutes Market Road
Bend, OR 97701

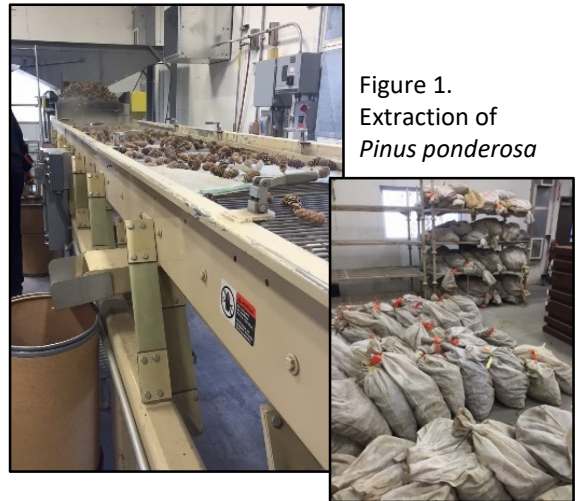


Figure 1.
Extraction of
Pinus ponderosa

FY17 Income/Expenditures:

NFVW \$30,000

Staff: 2 PFT employee
2 PSE employees
8 temporary seasonal
2 Generation Green Interns

Type of Projects: Processing, packaging, imaging, documenting and improving native species field seed collections for storage, seed increase and future use.

Partners/Clients: USFS, BLM, NPS, BIA, ODF&W, ODF, ARS-Plant materials centers, North Carolina State, Boulder County Parks & Open Space, City of Boulder, Utah State University, University of Nevada, and various other government organizations.

Contact: Kayla Herriman, Extractory Manager, 541-383-5481

Extractory Website:

<http://fsweb-ochdes.r6.fs.fed.us/seed-extractory/>

Clarno Hardwood Propagation Center

2017 Program Highlights

Native Milkweed and Pollinator Gardens

- Collected 4.5 lbs (5 bushels) of showy milkweed follicles of *A.speciosa* and *A.fascicularis* to supply seed for milkweed and Monarch restoration projects.
- Collected seasonal Monarch utilization data including adult nectaring and breeding occurrences.
- Partnered with W.S.U, USFWS, 2 public school classrooms and citizen scientists in collecting, captive rearing to adults, and wing tagging 103 monarch caterpillars collected from the milkweeds beds.



Native Hardwood Beds:

- Harvested 22,000 cuttings for 14 federal lands partners.
- Increased 9750 individual new plants from 300 field sourced accessions into new nursery beds.
- Repeated hosting an International Forestry Program field tour representing 12 developing countries.
- Utilized Youth crews (COIC) to assist in planting and maintenance while outreaching natural resource careers.



Managed by Ochoco and Deschutes National Forest



3160 NE 3rd Street
Prineville, OR 97754



Year Awarded: 2017
Base Funding: \$20,000 Total NFN3
Contact: Chris Jensen
(541-383-4779).

The Clarno Hardwood Propagation facility is a collaborative FS and BLM project nursery supporting restoration program goals by producing and increasing needed native plant materials. Annually, large quantities of diverse and source identified native willow and cottonwood cuttings are harvested for restoration projects on public lands.



Facility along John Day River, Clarno, Or.

Deschutes National Forest

2017 Botany & Native Plant Program Accomplishments

TES/Survey and Manage Plants

- Surveyed 1024 acres for Survey and Manage and Sensitive species, including *Castilleja chlorotica*, *Botrychium pumicola*, and *Penstemon peckii*. New sites for *Clavariadelphus ligula*, *C. truncatus*, *Gomphus clavatus*, *Guepinia helvelloides*, *Cortinarius verrucisporus*, *Ramaria amyloidea*, and *Rhizopogon truncatus* were discovered on the Crescent RD.
- Implemented and monitored habitat enhancement projects for *B. pumicola* and *C. chlorotica* on the Bend-Fort Rock RD.
- Conducted census monitoring of *B. pumicola* populations as part of an ongoing status assessment for the species.
- Completed a monitoring plan for Peck's penstemon planted in the WhyChus floodplain restoration area.
- Collected *P. peckii* seeds from long-term burial sites as well as fresh material from known populations for year 25 of the Peck's Penstemon seed viability assessment.



botanical surveys on the Crescent Ranger District.

Pollinators/Native Plant Restoration

- High profile projects included Diamond Peak Viewpoint, the Welcome Center on Century Drive, and the Peterson Room Pollinator Garden
- Over 500 starts were planted and approximately 60 pounds of seed were used on restoration projects across the forest.
- Partners included Youth Conservation Corps, ODOT, Discover Your Forest, Old Smokeys Foundation, Winter Creek Native Plant Nursery, Clearwater Native Plant Nursery, Heart of Oregon Corps, COIC, Western Federal Highways, City of Bend, ODA, Benson Farms, and USFS employees.

Conservation Education

- Made over 450 contacts through a variety of outdoor education projects including: REALMS at Ryan Ranch, La Pine Outdoor Adventure Day, the High Desert Museum, and more.
- Two interpretive panels created for Diamond Peak Viewpoint on Highway 58.



Figure 2. Youth Conservation Corps clearing lodgepole pine from the Botrychium meadow at Newberry Caldera.



Figure 3. A proud YCC crew poses in front of their completed work at the Peterson Room Pollinator Garden.

Total NFWF Funding = \$42,000

Other funding: NFIM, NFTM, NFWW, WFHF, NFRW,

Partners: Bend, Sisters, La Pine, & Gilchrist Schools, Youth Conservation Corps, ODOT, Discover Your Forest, Old Smokeys Foundation, Heart of Oregon Corps, COIC, Western Federal Highways, City of Bend, ODA, and USFS employees.

Contacts: Jenifer Ferriell, jferriell@fs.fed.us, Deschutes SO
Rick Dewey, rdewey@fs.fed.us, Deschutes SO
Marlo Fisher, mrfisher@fs.fed.us, Bend Fort Rock RD
Charmane Powers, cpowers@fs.fed.us, Bend Fort Rock RD
Christina Veverka, cveverka@fs.fed.us, Crescent RD
Beth Johnson, elizabethjohnson@fs.fed.us, Sisters RD



Deschutes National Forest
63095 Deschutes Market Rd.
Bend, OR 97701

Fremont-Winema National Forest

2017 Native Plant Material Accomplishments

- East and west side seasonal crews collected seed of nine native species for revegetation efforts, with an emphasis on species to benefit pollinators. Many of the 2017 collections will augment those of 2016 with an increased capacity for production growout in 2018.
- Collaborated with OSU to re-survey a 2013 planting site of Oregon Semaphore Grass (*Pleuropogon oregonus*), a threatened species. Plants continue to increase in number, and we planted two new plots within the same meadow.
- Evaluated a five-acre site revegetated after treatment for medusahead (*Taeniatherum caput-medusa*).
- Evaluated landings/skid trails that were seeded in 2016 with *Agastache urticifolia*, *Bromus carinatus*, and *Ceanothus velutinus*, of which the first two species were establishing.
- Seeded a culvert replacement project totaling approximately 1 acre, and found successful revegetation of three sites seeded in 2014-15.
- Evaluated 2016 seeding efforts along 2.2 miles of the Ruby Pipeline that remained insufficiently vegetated after initial seeding efforts in 2011/2012.
- Evaluated ecologic conditions with respect to invasive annual grasses in sage grouse habitat of the north Warner Mountains and began investigating the potential for effectively managing ventenata grass (*Ventenata dubia*) and medusahead in this area.
- Deposited late season unobligated funds (NFVW) to JHSN and BSE for nursey costs.



Figure 1. *Pleuropogon oregonus* planting site

Contacts:

Joe Washington, Botany Program Manager, 541-947-6253
 Jeannette Wilson, Eastside Forest Botanist, 541-576-7593
 Erin Rentz, Westside Forest Botanist, 541-885-3444

Seed collections:

<i>Achillea millefolium</i>	1.0 lbs
<i>Agastache urticifolia</i>	0.5 lbs
<i>Eriophyllum lanatum</i>	0.4 lbs
<i>Festuca idahoensis</i>	1.0 lbs
<i>Horkelia fusca</i>	2.0 lbs
<i>Ipomopsis aggregata</i>	0.25 lbs
<i>Monardella odoratissima</i>	0.5 lbs
<i>Penstemon glaucinus</i>	0.5 lbs
<i>Perideridia oregana</i>	0.6 lbs

Growout Production in 2017

JHSN (1st year of growth)	
<i>Eriophyllum lanatum</i>	180 lbs
<i>Deschampsia cespitosa</i>	26 lbs
<i>Festuca idahoensis</i>	0
<i>Poa secunda</i>	120 lbs

Benson Farms

<i>Elymus glaucus</i>	500 lbs
<i>Pseudoroegneria spicata</i>	200 lbs
<i>Deschampsia cespitosa</i>	408 lbs
<i>Elymus elymoides</i>	0
<i>Achillea millefolium</i>	0

Planted for Growout (quantity or acres)

L&H Seeds

<i>Achnatherum hymenoides</i>	200 lbs
<i>Elymus elymoides</i> (lot1)	500 lbs
<i>Elymus elymoides</i> (lot 2)	500 lbs
<i>Agastache urticifolia</i>	1 acre
<i>Solidago simplex</i>	1 acre
<i>Phacelia hastata</i>	1 acre
<i>Ipomopsis aggregata</i>	0.5 acre

JHSN

<i>Agastache urticifolia</i>	0.5 acre
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Total Expenditures: \$ 58,050

NFTM0217	\$ 27,800	Seed growout production
	1,200	nursery costs @ JHSN
NFWF0217	4,723	personnel for seed collection
(CCS)	277	nursery costs
NFVW0217	6,550	seed collection
NFVW0217	14,500	nursery costs @ BSE and JHSN
CMRD0217	3,000	nursery costs @ JHSN

Partners/Contractors/Cooperators:

J. Herbert Stone Nursery, Bend Seed Extractory
 Benson Farms Nursery, L & H Seeds, Clearwater Native Plant Nursery, ODA Rare Plant Program, Klamath Basin Chapter of the Native Plant Society, Lake County Cooperative Weed Management Area.



Fremont-Winema National Forest
 1301 South G Street
 Lakeview, OR 97630

Gifford Pinchot National Forest

2017 Native Plant Material Accomplishments

Grounds and Facilities Work - CVRD

- Renovation of the Cowlitz Valley Seed storage and plant propagation space in an old barn.
- Purchased plant propagation supplies and prepared for in-house, small scale growing of native plant pollinator, forage, and restoration species.
- Started intensive invasive treatment of ½ acre of old mule pen and storage area for future use in plant propagation. Also doing spot treatments of invasive species across a 30 acre area of hayfield, fence-line and wetlands, with future restoration efforts with native species planned.

Plant Propagation - CVRD

- Plant propagation protocols for many of the shrub and forb species collected, were researched and seed from these species are undergoing warm and or cold stratification in preparation for 2018 in-house grow out.

Seed Acquisition

- Received approximately 1,200 pounds of *Elymus glaucus* from contract grow out by BFI Native Seed.

Seed Production Contracts:

- Awarded contract (\$11,880) for grow out of *Festuca idahoensis* seed from 2016 collection at L&H Seeds, with delivery scheduled for Fall 2018.
- As part of a regional Pollinator Challenge Cost Share, native forb seed was collected across both East and West Cascade zones, as well as High and Low elevation. Species collected include: *Alnus viridus*, *Anaphalis margaritacea*, *Delphinium glaucum*, *Eriophyllum lanatum*, *Holodiscus discolor*, *Philadelphus lewisii*, *Physocarpus capitatus*, *Solidago Canadensis*, *Sambucus caerulea*, *Spiraea douglasii*, and *Symphoricarpos albus*.

Seed use:

- Approximately 150 pounds of *Elymus glaucus*, *Bromus carinatus*, and *Deschampsia elongata* were used for skid trail erosion control, road closure, and prairie rehabilitation.



Figure 1. *Eriophyllum lanatum* in bloom along FR 23, August 1, 2016.

Year Awarded/Completed: 2017

Expenditures:

NFTM - \$29,00

NFWW - \$29,000

CWKV - \$ 5,000

Total \$34,000

Partners/Contractors/Coop:

Benson Farms Inc., Bend Seed Extractory,
Willamette National Forest, Mt. Hood National Forest

Contacts:

HQ: Carol Chandler (360) 891-5106

S. Zone: Andrea Montgomery (509) 395-3414

N. Zone: Brad Kriekhaus (360)-497-1164



Gifford Pinchot National Forest

987 McClellan Road

Vancouver, WA 98661-3815

Malheur National Forest

2017 Native Plant Materials Accomplishments

Revegetation Projects – Our restoration program participated in eight large scale revegetation projects that used native grasses, shrubs, trees, and forbs (pollinator-friendly species included in seed mixes):

Riparian Habitat:

- 3,500 Cottonwood poles and 2,000 willow cuttings were harvested from Clarno Stool Beds (fig. 1) and planted along 4 miles of stream (fig. 2).
- 5,000 willows cuttings from private-land partners were used for habitat improvement on national forest land.
- 700 lbs. of riparian native seed spread along 5 miles of stream.

Logging, Engineering and Fuels Reduction:

- Over 1,800 lbs. of upland native seed mix was applied to roughly 90 acres of skid trails, landings, and large burned slash pile scars.

Rainbow Gathering Rehabilitation:

- Mulched and seeded 150 lbs. of native bunch grass, mesic meadow grass, and yarrow seed across 10 acres.

Seed Collection, Mapping, and Production –

- Awarded a seed-increase contract with Benson Farms to propagate locally-collected *Phacelia hastata*, *Agastache urticifolia*, and *Ipomopsis aggregata* for revegetation and pollinator improvement projects.
- Collected 3 lbs. of milkweed seed from our NE Oregon pollinator garden at Clarno Stool Beds, and mapped ten native populations of milkweed for use in future pollinator habitat restoration.
- Continued to map source populations of a diversity of native grasses and forbs (380 acres over 30 sites), and shrub species (including bitterbrush, wild crab apple, and chokecherry for wildlife habitat improvement).
- Cut 4,500 willow stems from a diversity of sites across the forest to be grown at Clarno Stool Beds.
- Continued to partner with Burns High School FFA to produce willow container stock for use in aquatic restoration projects.
- Developed new partnerships with Burns Paiute and Confederated Umatilla Tribes to produce container stock for chokecherry restoration (for tribal cultural-use and wildlife habitat).

Monitoring – Monitored 120 sites that were seeded in 2015 to determine seeding effectiveness. Each site was monitored for composition and cover of seeded native plants and invasive species.

Expenditures: \$ 34,000	Total
\$ 19,000	NFTM
\$ 10,000	WFHF
\$ 5,000	NFVW

Partners/Contractors: Benson Farms, Eastern Oregon Stewardship, North Fork John Day Watershed Council, South Fork John Day Watershed Council, Oregon Department of Transportation, Carter Ranch, Southworth Ranch, Confederated Tribes of Warm Springs, The Nature Conservancy, Deschutes Basin Native Seed Bank, Oregon Natural Desert Association, Burns High School FFA, Darrel Holliday Ranch Inc.



Figure 1. Work day at Clarno Stool Beds harvesting willow and cottonwood stock.



Figure 2. Machine planting cottonwood poles.



Malheur National Forest

P.O. Box 909
431 Patterson Bridge Road
John Day, OR 97845

Contacts:

Joseph Rausch, Forest Botanist, 541-575-3141
Jerry Galland, Revegetation Tech., 541-575-3066

Mt. Baker-Snoqualmie National Forest

2017 Native Plant Material Accomplishments

Revegetation

- Revegetated 5 acres of the Monte Cristo Remediation CERCLA Project on the Darrington Ranger District. Work was completed by a 10-person Student Conservation Association Crew. The crew planted approximately 5,500 genetically appropriate native shrubs during a 10-day backcountry stint.
- Revegetated 13.1 acres of riparian habitat within the Skagit Wild and Scenic River corridor. The National Forest Foundation via a Reforestation Partnership grant through the Washington Office funded the plants. Skagit River System Cooperative and Skagit Fisheries Enhancement Group completed the work. Approximately 7,000 genetically appropriate native trees were planted at three sites.
- Assessed past planting efforts and planned for future revegetation efforts across the 285 acre Skiyou parcel within the Skagit Wild and Scenic River Corridor as part of a restoration assessment. Work was completed by the Skagit River System Cooperative.



Figure 1. REI volunteers preparing to plant at Snoqualmie Point Park.

Native Plant Material

- An integrated restoration project to maintain viewsheds and enhance native pollinator habitat was initiated at Snoqualmie Point Park. Our AmeriCorp intern drafted a restoration plan and worked with Youth Engagement staff to hold three volunteer work events, including the planting of over 200 native shrubs and trees beneficial for pollinators.



Figure 2. REI volunteers planting at Snoqualmie Point Park

- Continued to work with the Tulalip Tribes and Muckleshoot Tribe in developing a native seed mix appropriate for elk forage to use across the Snoqualmie Ranger District.

Native Plant Program Expenditures

Native Plant Program support	NFVW = \$10,000
Native Plant Program support	NFTM = \$19,000
Aquatics Program support	NFVW = \$17,000
Snoqualmie Point Park	NFVW = \$5,000

Partners & Cooperators: Student Conservation Association, National Forest Foundation, Skagit River System Cooperative, Skagit Fisheries Enhancement Group, AmeriCorps, Mt. Adams Institute VetsWork Program, Muckleshoot Tribe, The Tulalip Tribes, Mountains to Sound Greenway Trust, REI and the City of Snoqualmie.

Contacts:

Kevin James (Program Manager); 425-783-6043
Shauna Hee (North Zone Botanist); 360-854-2635



Mt. Baker-Snoqualmie National Forest
2930 Wetmore Ave, Suite 3a
Everett, WA 98201

Mount Hood National Forest

2017 Native Plant Material Accomplishments

- Began work on a 2-acre pollinator garden located in the Podunk seed orchard (Clackamas River RD), partnering with Walama Restoration. Walama crews began the collection of native seed to plant in the garden. Fifty species have been targeted for planting.
- BARK volunteers collected native seed for pollinator species within the Crystal Clear restoration area (Barlow RD): *Achillea millefolium*, *Anaphalis margaritacea*, *Lupinus latifolius*, *Holodiscus discolor*, and *Chrysolepis chrysophylla*. Seed will be used to enhance pollinator habitat.
- Collected native seed (*Lupinus latifolius*, *Eucephalus ledophyllus*, *Solidago elongata*, *Anaphalis margaritacea*, *Holodiscus discolor*, and *Carex* spp.) near timberline on south flank of Mt. Hood for Portland General Electric, RLK & Co. (concessionaire for Timberline Lodge), and Skibowl fall 2017 restoration projects in the Government Camp area (Zigzag RD). Plants grown from the seed will also benefit pollinators.
- Seeded native grass and forbs on 15 acres of dozer line, road shoulders, and in other disturbed areas within the Eagle Creek fire complex. Engine crews helped complete restoration work. Seed will help prevent the invasion of spotted and meadow knapweed infestations from nearby properties.
- Applied native grass seed for restoration project near the Lost Lake Campground following a ground-disturbing recreation project.
- Provided native grass seed to engineering and special-uses staff for use following roads projects and other disturbances.



Figure 1. Pollinator Garden. (photo by C. Atwood)
Walama Restoration crews mowing to prepare ground for the Podunk



Mt. Hood National Forest
16400 Champion Way
Sandy, OR 97055



Figure 2. Columbia River Gorge National Scenic Area engine crew prepare to hand seed a safety zone on the Eagle Creek Fire. (photo by C. Mead)

2017 Expenditures: \$ 109,000

NFTM	29,000	Native Plants Program
NFVW	24,000	Botany Program
SSCC0617	44,000	Contract growout at Benson Farms for 3000 lbs of native seed
SSCC0617	12,000	Stewardship Agreement with Walama Restoration for a 2-acre pollinator garden

Partners/Contractors/Cooperators:

Walama Restoration, Benson Farms, Bend Seed Extractory, J. Herbert Stone Nursery, Benson Farms, Portland General Electric, RLK & Co., Skibowl, and BARK

Contacts:

Chad Atwood, Botany Program Manager, 503-668-1668
Christina Mead, Eastside Zone Botanist, 541-467-5132
Susan Nugent, Hood River RD Botanist, 541-352-1220
David Lebo, Westside Zone Botanist, 503-668-1671

Ochoco National Forest and Crooked River National Grassland

2017 Botany and Native Plant Program Accomplishments

Threatened, Endangered and Sensitive Plants

- Revisited 22 Peck's mariposa lily (*Calochortus longebarbatus* var. *peckii*) populations across the forest for Forest Plan monitoring and current projects to improve habitat mapping and assess population status.
- Revisited and collected voucher for population of *Ophioglossum pusillum*, a R6 sensitive plant newly documented on the Ochoco.
- Revisited and documented new invasive plant populations at Ochoco lomatium (*Lomatium ochocense*) site.
- Revisited 2 *Penstemon peckii* populations in the Westside Stewardship project to improve habitat mapping and assess population status.
- Documented new invasive plant population at the *Achnatherum wallowaense* site revisited for long term monitoring.
- Participated in ISSSSP funded drylands lichen and bryophyte identification workshop to better understand soil crust diversity in grasslands.

Unique Plants and Habitats

- Completed field work for fen inventory covering the Ochoco National Forest.
- Provided botany support to ongoing Groundwater Dependent Ecosystems (GDE) level 1 inventory effort, Multiple Indicator Monitoring (MIM), assessing Proper Functioning Condition (PFC), ecology plot monitoring, and BMPs for water quality management.

Native Plant Materials & Habitat Restoration

- Participated in interdisciplinary team field trips to assess vegetation treatments in riparian habitat conservation areas and proposed stream restoration projects.
- Planted 19,250 shrubs, forbs, and graminoid riparian species along 17 acres of Heflin Creek and 11 acres in the McKay Creek floodplain reconnection project.
- 1,275 lbs of genetically local grass seed mix was seeded on timber sale areas across the forest to revegetate 106 acres.
- Revegetated the East Maury Salvage Project by seeding 150 lbs of locally sourced native perennial bunchgrass.

Conservation Education

- Launched a new volunteer program, Adopt-A-Scabland, in collaboration with Native Plant Society of Oregon. The program included a two-day volunteer training to train citizen scientists to evaluate and monitor the ecological health of Ochoco scablands which are habitat for sensitive plant species such as Henderson's needlegrass (*Achnatherum hendersonii*) and Ochoco lomatium.
- Presented a program focused on native plant gardening and conservation in collaboration with Prineville Garden Club.
- Presented the liken' lichens educational booth at annual event reaching 225 Crook County 2nd graders.
- 2017 solar eclipse natural resource conservation messaging, staffing of forest information booth.

Figure 3. R6 sensitive species *Calochortus longebarbatus* var. *peckii* found in bloom while completing monitoring.



Figure 1. Volunteers with the Adopt-A-Scabland program learned to monitor the ecological health of Ochoco scablands.



Figure 2. Botanists, soil scientist, and geologist collaborate at a level 1 GDE inventory site.

2017 Accomplishments

Total NFWF Funding = \$32,270

Other funding: NFIM, NFTM, NFWW, WFHF, NFWF, NFRG, PGE (Pelton Round Butte Mitigation Funds), One Tree Planted, and Title II funds.

Partners: Prineville Garden Club Dr. Daphne Stone, Crook County, Powell Butte, Barnes Butte & Madras Schools, NPSO High Desert Chapter, Middle Deschutes Watershed Council, OWEB, Central Oregon Intergovernmental Council.

Contacts: Jenifer Ferriel (jiferriel@fs.fed.us); Jill Welborn (jillewelborn@fs.fed.us); Jennifer Carson (jlcarson@fs.fed.us)



Ochoco National Forest
3160 NE 3rd Street
Prineville, OR 97754

Okanogan-Wenatchee National Forest

2017 Native Plant Material Accomplishments

One of the agency's goals is to promote the use of native plant materials for the revegetation, restoration, and rehabilitation of native plant communities to provide for the conservation of ecosystem diversity and maintain healthy ecosystem functions. Land management prescriptions will include the selection and use of native plant species that are genetically appropriate and adapted to on-the-ground ecological conditions.

Native Plant Materials Program activities were funded out of NFWW, NFTM, CMLG, CMRG, CMTL, KV, NFXN, P codes and partner funds, to accomplish the following:

Manage native plant programs with the objective of providing native plant materials, principally, native grass, forb, and shrub seed, cuttings, or plants to restore biodiversity, resilience, and ecosystem function to disturbed or degraded sites on National Forest system lands. Funds were used to manage local programs, including: planning appropriate species collections, surveying and mapping collection sites, collecting native plant materials, sow native seed or plant native stock in appropriate project sites for restoration, rehabilitation, revegetation or pollination purposes, and monitor project sites for planting/sowing response and performance.

Accomplishments for FY17 include:

- Collected 86 pounds of seed, increased 150 pounds of seed and purchased 1,348 pounds of seed.
- Propagated 4,625 plants and planted 24,468 containerized native plant seedlings for restoration purposes on sites including federal highway rights-of-way, fire suppression repair, and pollinator gardens.
- Revegetation projects used numerous grass and forb species (including *Agrostis exerata*, *Alnus rubra*, *Alnus viridis*, *Athyrium filix-femina*, *Blechnum spicant*, *Carex amplifolia*, *Carex athrostachya*, *Carex lenticularis*, *Cornus sericea*, *Geum macrophyllum*, *Juncus effuses*, *Juncus filiformis*, *Polystichum munitum*, *Rudbeckia alpicola*, *Salix scouleriana*, *Scirpus microcarpus*, *Symphoricarpos hesperius*, *Thuja plicata*, *Tsuga heterophylla*, *Vahlodea atropurpurea*)
- Maintain controlled environment seed storage on the Wenatchee River RD, and cold storage on the Cle Elum RD.



Figure 1. Volunteers planting native species on Blue Lake Trail restoration on Methow Valley RD.

FY17 Expenditures: \$74,311 (NFWW, NFTM, CMLG, CMRG, CMTL, KV, NFXN, P codes)

Partners/Contractors/Cooperators: WA Department of Transportation, Mountain to Sound Greenway, North Cascades Institute, National Forest Foundation, Methow Natives, R6 Restoration Services, Conservation Northwest.

Contact:
SO – Lauri Malmquist (Acting), 509-548-2575



Okanogan-Wenatchee National Forest
215 Melody Lane
Wenatchee, WA 98801

Olympic National Forest

2017 Native Plant Material Accomplishments

The Olympic National Forest Native Plant Program is focused on developing and providing locally sourced native grasses, forbs, and shrubs for habitat restoration and enhancement projects. Specific accomplishments include:

Center for Natural Lands Management (CNLM) Production fields of *Castilleja hispida* and *Lomatium utriculatum* were harvested this year; this seed will be sown at specific sites in the Dungeness watershed to enhance habitat for the endangered Taylor's Checkerspot butterfly. These species, along with *Plectritis congesta*, *Collinsia parviflora* and *Eriophyllum lanatum* (seed harvested last year) provide host, larval food, and nectar plants that will contribute to recovery efforts currently underway in Western Washington. Small fields of *Lupinus rivularis* and *Prunella vulgaris* ssp. *lanceolata* were also established this year to determine feasibility of producing seed of these species on a larger scale. Seed grown will be used to improve pollinator habitat on roads to be decommissioned in the Dungeness watershed.



Figure 1. CNLM production fields of *Plectritis congesta*, *Castilleja hispida* and *Clarkia amoena*.

Sound Native Plants (SNP) Planting began at the Dennie Ahl Seed Orchard Pollinator Habitat Enhancement Project in the Skokomish River watershed. Plugs and containerized shrubs were grown through a contract with SNP. Olympic National Forest employees and a crew from the Washington Conservation Corps prepared and planted the site. 2000+ plugs and 75 one gallon pots of the following species were planted this year:

<i>Achillea millefolium</i>	<i>Lupinus albicaulis</i>	<i>Solidago simplex</i>
<i>Dodecatheon hendersonii</i>	<i>Penstemon ovatus</i>	<i>Oemleria cerasiformis</i>
<i>Erigeron philadelphicus</i>	<i>Potentilla glandulosa</i>	<i>Physocarpus capitatus</i>
<i>Eriophyllum lanatum</i>	<i>Ranunculus occidentalis</i>	<i>Rosa gymnocarpa</i>
<i>Fragaria virginiana</i>	<i>Solidago Canadensis</i>	

Additional seed was collected or purchased for direct sowing at the Dennie Ahl project, including *Clarkia amoena*, *Lilium columbianum*, *Collinsia parviflora*, *Plectritis congesta*, *Prunella vulgaris* ssp. *lanceolata*, and *Iris tenax*.

Fourth Corner Nursery Production fields of *Geum macrophyllum* and *Tellima grandiflora* were expanded to cover the three main seed zones on the ONF. This seed will be used primarily to revegetate temporary roads and landings associated with timber sales, and will enhance pollinator habitat at mesic sites, while also providing erosion control and weed exclusion.

J.H. Stone Nursery Seed of *Achillea millefolium* and *Solidago canadensis* was harvested from fields established two years ago; new fields of *Eriophyllum lanatum* were established this year. These three species will be used with native grasses at sunnier sites to enhance pollinator habitat while providing erosion control and weed exclusion on a variety of projects.

Olympic National Park An Agreement was established with the Olympic NP to grow containerized plants at their Sequim, WA nursery for ONF projects.



Figure 2. Washington Conservation Corp crew members plant at the Dennie Ahl Pollinator Habitat Enhancement Project.

Olympic Knotweed Working Group (OKWG) At the suggestion of the Olympic NF Natives staff, two nursery owners – Dylan Levy-Boyd of Forth Corner Nursery and Eric Lee-Mäder of Northwest Meadowsapes – gave presentations to over 100 people at the annual meeting of the OKWG, an Olympic peninsula invasive plant management professional group. Both encouraged the use of locally sourced, genetically appropriate native plant material, and explained how using these materials can accomplish multiple goals, including improving pollinator habitat. Significant progress is being made towards making the use of native plant materials a standard part of holistic Integrated Pest Management (IPM) programs across the Olympic peninsula.

Expenditures: \$48,000 Total
\$24,000 NFTM
\$10,000 WFHF
\$14,000 from R6 CCS funds

Partners/Contractors/Cooperators:

Clallam, Jefferson, and Mason County Noxious Weed Control Boards, Olympic Knotweed Working Group, Olympic National Park, Center for Natural Lands Management, Clarno Hardwood Propagation Center, Forth Corner Nursery, Northwest Meadowsapes, J.H. Stone Nursery, Sound Native Plants, Washington Conservation Corp

Contact: Cheryl Bartlett
Forest Botanist, Invasive Plant Program Coordinator and Native Plant Materials Program Manager, 360-956-2283



Olympic National Forest
1835 Black Lake Blvd. SW
Olympia, WA 98512

Rogue River-Siskiyou National Forest

2017 Native Plant Material Accomplishments

FY 17 was a busy year for the native plant program on the RRSNF. Large and small scale restoration actions were realized. The importance of this program to the agencies restoration mission has never been more apparent.

- Two National Fish & Wildlife (NFWF) grants for monarch butterfly habitat restoration were implemented by the SW Oregon Pollinator Collaborative (SWOPC). Roughly 5,000 plants from 10 species were out-planted on the forest in late winter 2017, including all three species of milkweed that are native in the area. Another 15,000 plants from 20 species are currently being planted on the forest in the fall of 2017 (FY18). Partners have planted an additional 20,000 pollinator forbs (including milkweed) on private and BLM lands for a total of 300 acres of monarch habitat restoration in SW Oregon.
- ~5,000 containerized plants from 10 species were planted on old fire lines, in road repair projects and along riparian restoration sites.
- The forests entire stock of native grass seed was used to revegetate several miles of fire line. ~3,000 pounds of seed was used from 8 native grass species.
- Seed collection was emphasized heavily this year, with contractors and two seasonal employees focused on collecting as much seed as possible to replenish our depleted stocks due to all the fire rehab work.
- Projects were initiated with the newly formed Rogue Native Plant Partnership (RNPP). Funds were leveraged to collect seed, grow out container plants and increase seed through cooperative farms. RNPP is working on coordinating seed exchanges, creating a database of available seed and GIS mapping all collection areas in the Rogue basin.
- A partnership with the Cow Creek Band of the Umpqua Tribe of Indians was initiated to restore huckleberry along the Rogue-Umpqua divide.



Figure 1. Nearly 20,000 native pollinator plant species staged and ready to out plant. Colored flags represent one of five different restoration areas where plants will go.



Figure 2: Clockwise from top left: volunteer collects native hawkweed seed; Lomakatsi employee plants heartleaf milkweed; heartleaf milkweed and other pollinator species thrive in situ.

Accomplishment Metrics

1,735 lbs. (raw yield) of farm seed harvested from 6 species
42,000 containerized plants grown from 31 species
35 lbs. (raw yield) of wild collected native seed from 20 species
250 acres seeded w/~3,000 lbs. of grass seed from 9 species
25 acres planted w/forbs and shrubs from 15 species
Expenditures: \$33,000 (NFWW Base Native Plant Program), \$10,000 (NFWW CCS Funds), \$83,000 (CWKV), \$15,000 (Fire P codes), \$30,000 NFXF (Monarch Grant Funds) **Total = \$171,000**
Partners/Contractors: Cow Creek Tribe; RNPP; SWOPC = USFWS, Lomakatsi Restoration, USDA-NRCS, S. Oregon Monarch Advocates (SOMA), Selberg Institute, BLM and ODOT. Contractors = BFI Native Seeds & Siskiyou Biosurvey
Rogue River-Siskiyou Native Plant Program Contacts:
Clint Emerson, Forest Botanist 541-618-2056
Stu Osbrack, District Botanist, Wild Rivers RD, 541-592-4052
Kailey Clarno, Dist. Bot., Gold Beach/Powers RD 541-247-3656



Rogue River-Siskiyou NF
3040 Biddle Road
Medford, OR 97520

Siuslaw National Forest

2017 Native Plant Material Accomplishments

The Native Plant Program provided seed and plant materials for restoration projects benefiting threatened Oregon Silverspot Butterfly, Coastal Coho salmon, wildlife habitat and native pollinators.

Seed collected for production:
blue wildrye (*Elymus glaucus*)

Plants produced and/or planted: 48,410 total

Big-leaf maple (*Acer macrophyllum*)
Black twinberry (*Lonicera involucrata*)
Camas (*Camassia quamash*)
Cascara (*Frangula purshiana*)
Western red-cedar (*Thuja plicata*)
Cow parsnip (*Heracleum lanatum*)
Coyote bush (*Baccharis pilularia*)
Crabapple (*Malis fusca*)
Currants (*Ribes sanguineum*, *R. bracteosum*)
Douglas aster (*Symphotrichum subspicatum*)
Douglas spiraea (*Spiraea douglasii*)
Douglas-fir (*Pseudotsuga menziesii*)
Early blue violet (*Viola adunca*)
Evergreen huckleberry (*Vaccinium ovatum*)
Fireweed (*Chamaenerion angustifolium*)
Goldenrod (*Solidago Canadensis*)
Grass species (*Bromus sitchensis*, *B. vulgaris*,
Deschampsia cespitosa, *Festuca roemerii*, *Elymus glaucus*, *Alopecurus geniculatus*)
Hazelnut (*Corylus cornuta*)
Indian plum (*Oemleria cerasiformis*)
Oregon iris (*Iris tenax*)
Oregon grape (*Mahonia aquifolium*)
Pacific aster (*Symphotrichum chilense*)
Pacific ninebark (*Physocarpus capitatus*)
Pearly everlasting (*Anaphalis margaritacea*)
Red alder (*Alnus rubra*)
Red elderberry (*Sambucus racemosa*)
Salmonberry (*Rubus spectabilis*)
Sand clover (*Trifolium wormskoldii*)
Sedges (*Carex unilaterialis*, *C. aquatilis*, *C. stipata*,
C. rossii, *C. obnupta*, *C. macrocephala*)
Sitka spruce (*Picea sitchensis*)
Small-fruited bulrush (*Scirpus microcarpos*)
Streambank lupine (*Lupinus rivularis*)
Suksdorf's hawthorne (*Craetagus suksdorfii*)
Sword fern (*Polystichum munitum*)
Thimbleberry (*Rubus parviflora*)
Vine maple (*Acer circinatum*)
Willow species (*Salix lucida*, *S. sitchensis*,
S. hookeriana, *S. scouleriana*)
Yarrow (*Achillea millefolium*)

260 pounds of seed sown/dispersed.

Restoration Projects Supported: Five Mile-Bell Creek riparian restoration project (25 acres planting, seeding, mowing and spray release), Oregon Silverspot Butterfly habitat restoration (3 acres planting), Pink Sand Verbena reintroduction (100 acres seeding), Big Creek restoration project (1 acre planting).



Figure 1. Oregon Silverspot Butterfly meadow restoration planting *Viola adunca* and other pollinator species at Rock Creek south of Yachats.

Year : **FY 2017**
\$130,000 (OWEB grant)
\$19,000 (NFVW)
\$5,000 (NFWF)
\$27,000 (plant materials, FS in-kind match)

Expenditures: \$181,500 Total

Partners: Siuslaw Watershed Council, Tillamook Estuaries Partnership, Elkton Community Education Center, Institute for Applied Ecology, Coffee Creek Correctional Facility, Shutter Creek Correctional Facility, Oregon Watershed Enhancement Board

Contacts: Armand Rebeschke, Restxn Botanist, 541-563-8419
Marty Stein, Forest Botanist, 541-563-8417
Matt Smith, Restoration Botanist, 541-563-8425



Siuslaw National Forest
3200 SW Jefferson Way
Corvallis, OR 97339

Umatilla National Forest

2017 Native Plant Material Accomplishments

The Umatilla National Forest native plant materials program continues to be a leader in the collection, propagation, and planting of genetically appropriate native non-tree species.

Native Seed purchased from existing increase fields:

- Purchased 180 lbs. pounds of native grass seed produced by Benson farms for Walla Walla RD.

Native Seed Pollinator Initiative: This seed will be used for pollinator habitat enhancement and erosion control.

- Collected 2 oz. of clean seed of horse mint (*Agastache urticifolia*). Seed was sent to Bend seed extractory for storage until funds are available for contract growing.
- Collected one pound of cleaned seed of mountain monardella (*Monardella odoratissima*). This seed was sent to Benson farms for seed increase grow out.
- Contracted with Benson farms to grow Wyeth's buckwheat (*Eriogonum heracleoides*) from seed collected in 2016.

Planting/Restoration Project Implementation:

- Planted native grasses and forb seed in timber sale areas, Grizzly Bear fire area, decommissioned roads, fish passage projects, and other disturbed sites. Planted on 11 acres within a 1750 gross acres area.
- Initiated plans for native plant landscaping at the North Fork John Day RD office. Plan to implement in FY18.
- Planted 825 plants of stiff sage (*Artemisia rigida*) in two areas on Heppner District. Plants were grown by the Dorena Tree Improvement Center. This is a pilot project to see if restoration after fires will be feasible.



Figure 1. Heppner RD staff planting stiff sage.

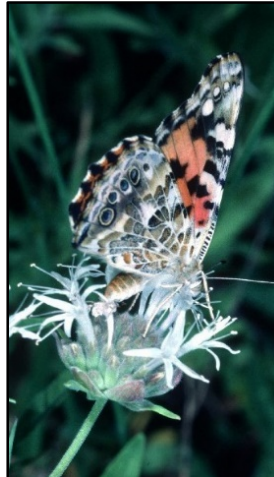


Figure 2. Monarch butterfly on mountain monardella plant (Photo M. Skinner)



Figure 3. Swallowtail butterfly on horsemint (Photo Las Pilatas nursery)

Funding:

Legacy roads and trails (CMLG):	\$ 10,000
Vegetation/Watershed (NFWW):	\$ 21,420
Stewardship contracting (SSCC):	\$ 2,003
Vegetation Management (NFTM):	\$ 10,000
Pollinator CCS Initiative (NFWF):	\$ <u>5,000</u>
Total Budget:	43,423

Partners/Contractors: USFS Bend seed extractory, Benson Farms, Dorena Genetic Tree Improvement Center.

Forest Contact: Paula Brooks, 541-278-3931; pjbrooks@fs.fed.us



Umatilla National Forest
72510 Coyote Road
Pendleton, OR 97801



Wallowa-Whitman National Forest

2017 Native Plant Material Accomplishments

The Wallowa - Whitman National Forest Native Plant Program provides native grasses, forbs, shrubs, trees and mulch to support restoration projects across the forest

- **Collected 4 pounds of seed** from two forb species (*Geranium viscosissimum* and *Sidalcea oregana*); and sent to Bend Seed Extractory for cleaning and testing.
- **Issued task order for propagation** of the following **3** forb species: *Monardella odoratissima*, *Senecio serra* and *Sidalcea oregana*.
- **Purchased 600 pounds of native grass seed** (400 lbs. *Pseudoroegneria spicata* and 200 lbs. *Achnatherum occidentale*) from Benson Farms, Inc.
- The aquatics restoration group collected **36,000** cuttings of willow and cottonwood, and planted them on **6 miles** of stream. In addition, approximately **6,400** deciduous seedlings were planted on **3** Aquatic Restoration Projects (Five Points Creek / Camp One, Limber Jim and North Fork West Chicken Creeks.)



Figure 1. Revegetated burn piles on La Grande Ranger District.

Restoration project implementation

Planted approximately **1,830** pounds native grass and forb seed on a variety of revegetation projects including timber sale areas, road work and fire suppression rehabilitation.

199 lbs. - Fire / BAER Rehabilitation of dozer line and staging areas (8 acres on Indian Lake Fire).

133 lbs. - Skid trails, decks and landings for (10 acres on the Cat Box and Trail Vegetation Management projects).

145 lbs. - Revegetation after soil disturbance from road work and culvert replacement (12 acres on 3 projects: Summit Point Road, Lick Creek Culvert and Beaver Creek Fish Passage project).

1,353 lbs. - Aquatic Restoration (70 acres on 2 projects: Five Points Creek / Camp One, and Limber Jim Restoration Projects).

Expenditures:

CMLG	\$9,500
NFVW	\$1,400
NFWF	<u>\$5,000</u>
	\$ 28,000

Partners / Cooperators / Contractors:

The PlantWorks, LLC., Bend Seed Extractory, City of La Grande, Benson Farms Inc.

Forest Contacts:

Penny Hall – La Grande Ranger District
Jerold Hustafa - Eagle Cap RD, Wallowa Valley RD, Hells Canyon NRA.



Wallowa-Whitman National Forest

P.O. Box 907
1550 Dewey Avenue
Baker, OR 97814

Willamette National Forest

2017 Native Plant Material Accomplishments

Seed Growout:

We used the Regional Grass Seed Increase contract to procure the following for our normal program of work:

- 7564 # Blue wild rye seed
- 2250 # California brome seed

JH Stone produced California fescue for the Middle Fork District off year 2 fields.

We ordered 300 extra pounds of native seed for fire rehab and 10 Tons of weed free straw.

We started new pollinator seed increase fields in 2017: *Agastache urticifolia* (horse mint) and *Eriophyllum lanatum* (Oregon sunshine) with sw Oregon Cascades ecoregion forests (WIL, UMP, ROR) and *Anaphalis margaritacea* (pearly everlasting) and *Solidago canadensis* (goldenrod) with central Cascades ecoregion forests (WIL, MTH, GIP). This work was funded with challenge cost-share funds.

More than 20 acres were seeded across the forest for erosion control, weed competition and forage. Also 300 native plants were used in campground and parking lots on Detroit RD.

Seed Collection:

Sedge and rush seed was collected on Detroit District in anticipation of a riparian restoration project and columbine and camas were collected on Sweet Home District. Blue wildrye was collected (10# each) on Middle Fork and McKenzie Ranger Districts to replenish growout fields.

Cooperative Projects:

This is the final year we will get a crop from our seed increase plots at **Corvallis Plant Material Center**: *Iris tenax*, *Penstemon cardwellii* and *Lotus crassifolius* fields were in production.

A total of **37 Tons of weed free straw** was obtained for Middle Fork engineering department.



Figure 1. Oregon sunshine, one of the pollinator species the Willamette is growing at Benson Farms

Year Awarded/Completed: 2016

Expenditures: \$ 125,000 Total

\$ 29,000	(NFVW)
\$ 10,000	(NFWF)
\$ 9,000	(CMLG)
\$ 7,000	(CMRD)
\$ 60,300	(CWKV)
\$ 3,700	(NFEX)
\$ 6,000	Regional Funds

Partners/Contractors/Coop: Benson Farms Inc., Corvallis NRCS Plant Material Center, JH Stone Nursery.

Contact: Jenny Lippert, 541-225-6440



Willamette National Forest
3106 Pierce Parkway, Suite D
Springfield, OR 97477