



# Native Plant Restoration

## Program Accomplishments



Monitoring native seeding on a decommissioned forest road after one year, Gifford Pinchot National Forest.

**Fiscal Year  
2013**



# Pacific Northwest Region, US Forest Service

## Native Plant Restoration Program



### 2013 Accomplishments

Region 6 continues to make substantial progress in acquiring and using native plant materials to restore biodiversity, resilience, and ecosystem function on National Forest system lands. Genetically diverse and adapted seed and seedlings are being utilized in an increasing array of integrated restoration and revegetation projects across the region. Benefiting fund types include NFWW, NFWF, NFTM, WFHF, CMRD, CMLG and others. The funds are used to manage forest programs and accomplish priority work such as:

- Locating and mapping collection sites for key species.
- Collecting seeds, roots, and cuttings propagules.
- Processing materials at R6 Bend Seed Extractory.
- Producing native seed and planting stock in nursery and agronomic settings.
- Collaborating with other resource specialists to establish seed and planting stock for habitat enhancement, invasive plant control, and restoration of disturbed or degraded sites.

Other program activities include developing seed zones and plant movement guidelines to ensure adaptation to current and future climates, developing plant propagation protocols, and providing training and technical support to help build program capacity, expertise, and success in native plant restoration.

#### **FY13 Accomplishments include:**

##### **Plant Material Development**

- R6 Bend Seed Extractory (BSE) processed nearly 11,000 pounds of wild collected seed and another 5300 pounds of seed grown at J. H. Stone Nursery. This material involved 1451 different seedlots from multiple federal agencies and clients in 14 western states.
- Forests purchased nearly 24,000 pounds of cleaned seed and 12 tons of weed free straw from private growers via the regional IDIQ native seed production contract and other commercial sources.
- The Clarno Hardwood Production Facility (OCH NF) provided over 50,000 native willow and cottonwood cuttings to eastern Oregon forests and partners, and established 3 new grow-out beds to meet expanding demands.

##### **Seed Zone Development**

- Continued field support for an interagency (USFS, ARS, BLM) collaborative seed zone study for bottlebrush squirreltail, a key restoration species on harsh, arid sites.
- Expanded use of provisional seed zones for species lacking empirical genetic guidelines ([http://www.fs.fed.us/wwetac/threat\\_map/SeedZones\\_Intro.html](http://www.fs.fed.us/wwetac/threat_map/SeedZones_Intro.html))

##### **Consultation Services/Training/Tech. Transfer**

The R6 Restoration Services Team (RST) provided:

- Revegetation services (via reimbursable agreements) to the Western Federal Lands Highway Division, ODOT, WSDOT, City of Bend, and USFWS. Work involved revegetation plan development and implementation on numerous projects, including the large I-90 Snoqualmie Pass Highway Improvement Project. The I-90 project agreement commits \$9,000,000 for native plant materials and restoration expertise through 2022.
- The team is available for consultation on all aspects of restoration.

##### **Regional Contact:**

Vicky Erickson, 541.278.3715  
[verickson@fs.fed.us](mailto: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

1220 SW 3<sup>rd</sup> Avenue

Portland, OR 97204

# Region 6 Bend Seed Extractory

## 2013 Accomplishments



The Region 6 Bend Seed Extractory purchased new equipment, upgraded existing equipment and developed & documented new technologies for processing the ever-increasing native species seed needs of the Federal seed program. Reporting numbers reflect extractory accomplishments for the seed year which runs June 1, 2012 through May 31, 2013.

### Number of diverse native species and pounds processed:

- 5,344 pounds of nursery harvested and grow-out seeds were received, processed, & packaged from R6 JH Stone Nursery and R5 Placerville Nursery.
- 10,908 pounds of wild seed collections were received, processed, packaged & placed into storage for future use or shipped to growers or back to the unit for site projects.
- 1,451 native species seed collections were received from 14 western states, collected by the FS, BLM, NPS, BIA & other government organizations.

### Bend Seed Extractory News:

- The SOS partners meeting was held in Chapel Hill, North Carolina in January. Kayla attended and gave a talk on the Seed Extractory focusing on how native plants are processed.
- Nita Rauch, Extractory Manager, retired in June after a 31 year career with the Forest Service.
- BSE was invited to speak at the 34<sup>th</sup> Annual Meeting of the Intermountain Container Seedling Growers Association in Moscow, Idaho in September. The talk focused on integrated pest management at the Seed Extractory.
- North Carolina Forest Service, a division of the North Carolina Department of Agriculture and Consumer Services, became a new client at the extractory.
- The extractory worked with SOS and WRPI to establish protocols for long term storage needs and requirements for the SOS program.



Figure 1 . Seed processing on the office clipper

### **FY13 Income/Expenditures:**

NFVW / \$31,000

### **Staff:**

7 PFTs and temporary employees  
2 STEP students

**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, North Carolina State, Boulder County Parks & Open Space, & other government organizations.

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

### **Extractory Website;**

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



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

# Clarno Hardwood Propagation Center

## 2013 Accomplishments

The Clarno Hardwood Propagation Facility is a FS and BLM collaborative project that supports both regional (R6) and national native plant restoration program goals. Annually, over 50,000 native willow and cottonwood cuttings are harvested to utilize as live stakes, seedling starts and fascines for large scale riparian restorations.

### ***FY13 Highlights:***

- Established 3 new grow-out beds (9875 sq ft) to increase 435 cottonwoods and salix accessions to meet continued supply demands with vigorous material.
- Collaborated with Prineville BLM in planting 4 acres of native cottonwood s to expand and diversify the Sorefoot Crk restoration planting project adjacent to the John Day River.
- In 2013, the facility provided cuttings for the following units: OCH, DES, MAL, UMA, FRE, HOOD and WW National Forests; Prineville, Burns and Vale BLM units, Oregon State Parks, National Park Service (John Day Fossil Beds), CTWS (Confederated Tribes of Warm Springs) conservation areas including Pine Creek, Oxbow and Middle Fork.
- Cuttings provided to the following non-profits through watershed council partnerships: TSID (Three Sisters Irrigation District), CRWC (Crooked River Watershed Council): Nature Conservancy (Juniper Hills), ONDA (Crooked River), and Oregon Trout.
- Native cutting were harvested for 2 federal and 4 private native plant nurseries for seedling production of harvested material.
- Increased selected and favorable cottonwood sources determined from 16 year data from the "Homestead" cottonwood movement and evaluation study.



*photo 1. Planting hardwood sticks, COIC youth crew, Clarno*



*photo 2. Harvested cuttings*



*photo 3. Over 4,000 large poles harvested for deep planting*

*Hardwood beds in nursery, John Day river, Clarno, Or.*

**Year Awarded:** 2013  
**Base Funding:** \$20,000 Total NFN3  
**Contact:** Chris Jensen  
(541-383-4779).



**Managed by Ochoco and Deschutes National Forest**  
3160 NE 3<sup>rd</sup> Street  
Prineville, Oregon 97754



# Dorena Genetic Resource Center

## 2013 Accomplishments

### Restoration Project Implementation

Contributions by Dorena to the Region 6 Restoration Services Team. Provided native plant materials and outplanting teams to complete the following restoration efforts:

- North Umpqua Highway, Umpqua NF: cut and fill slopes, Foster Creek disposal area, State Scenic River Corridor.
- Powers-Agness Highway Project, Rogue River/Siskiyou NF: fill slopes and creek banks; installation of willow wattles for creek bank stabilization.
- Highway 35 Project, Mt Hood NF: roadside stabilization, creek stabilization, manufactured wetlands.

### Administrative Studies

Data collection, analyses, and final report on the effects of polyacrylamide crystals on germination, seedling establishment, and growth of native species when applied to soils of highly disturbed sites.



Installation of seedling plots, PAM Study, Sunriver, OR.

Final measurement of grass plots, PAM study, Anthony Lakes, OR.



Powers-Agness Highway Project outplanting.

Foster Creek disposal area, North Umpqua Highway Project.



### Plant Materials – Other Projects

Provided 83 species of native grasses, sedges, forbs, shrubs, and trees for the following projects:

- Timberline Lodge restoration, Mt Hood NF.
- Pacific Gas and Electric pipeline project, Mt Hood NF.
- Pine Creek Conservation Area, Fossil, OR.
- City of Bend Parks and Recreation, Bend, OR.
- Various projects for Gold Beach RD, Rogue River/Siskiyou NF.

Developed new seed and/or vegetative propagation protocols for 7 native shrub species, including *Lonicera hispidula*, *Vaccinium* spp., *Thermopsis macrophylla*, *Eucephalus ledophyllus*, *Paxistima myrsinites*, and *Gaultheria shallon*.



*Vaccinium membranaceum*

*Gaultheria shallon*



Contact: Lee Riley  
Dorena Genetic Resource Center  
34963 Shoreview Dr  
Cottage Grove, OR 97424

# Eastern Oregon Area Genetics Program

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

## 2013 Program Highlights

In 2013 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

- Developed and provided Seed/Cone collection training to NF personnel (UMA and WAL-WHI NFs).
- Organized and provided a “Climate Change and Restoration” symposium at the National Native Seed Meeting, Santa Fe NM.
- Facilitated OSU Cascades Biology course “Invasive species lab” and weed pull (with M. Fisher, BFR RD) ADMIN STUDIES IN SUPPORT OF OPERATIONS.
- Bottlebrush Squirreltail Common Garden Trial (with USFS PNW RS, ARS-Pullman, and ARS-Sydney).
- Basalt Milkvetch and Western Prairie Clover seeding trials (with ARS-Provo).
- Native grasses emergence and competition trials (with ARS-Sydney).
- Phenology Monitoring on the Pringle Falls Experimental Forest (DES NF).
- Phenology monitoring study at Kelsey Butte Seed Orchard (DES NF).



Area Geneticist cores trees with students from Ponderosa elementary school as part of the Deschutes National Forest “Naturehoods” initiative.



Biology Tech Elena Thomas (CLNP) and Area Geneticist collecting Whitebark pine cones in Crater Lake National Park.



Area Geneticist helps OSU Cascades biology students during their “Invasive species” lab.

Sister’s Ranger District employees harvest Bottlebrush Squirreltail from an administrative study designed to delineate seed zones for this species.



### 2013 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 PNW Research Station** (Brad St. Clair)  
**USFS RM Research Station** (Francis Kilkenny)  
**University of Nevada – Reno** (Beth Leger)  
**Oregon State University** (Tim Van Domelen)  
**Pringle Falls Experimental Forest** (Andy Youngblood)

Contact: Matt Horning, 541-383-5519



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

# Western Washington Area Genetics Program

- Olympic, Gifford Pinchot, & Mt. Hood NF's

## 2013 Program Highlights

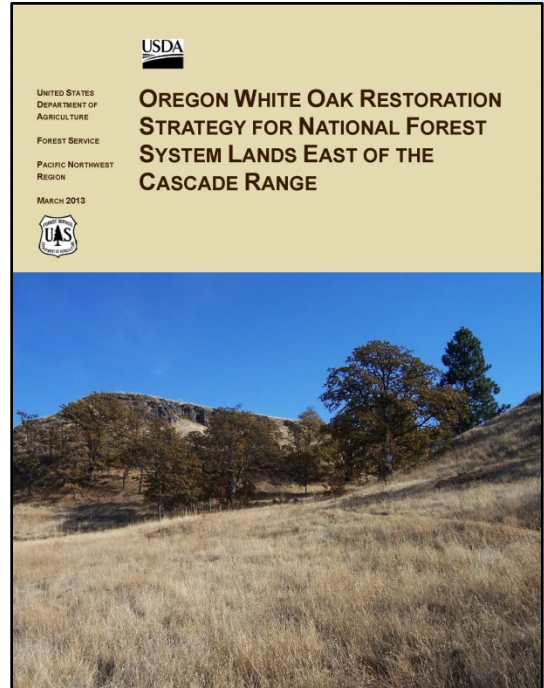
### PROJECTS

**Oregon white oak restoration strategy** – a strategy for conservation and restoration of Oregon white oak on the east side of the Columbia River Gorge National Recreation Area, Mt. Hood, and Gifford Pinchot National Forests was published.

**Baker cypress genetics** – Lab analysis of samples from Baker cypress was completed at NFGEL and results were reported at the 2013 WFGA conference.

**Taylor's checkerspot genetics** – genetic analysis of the Taylor's checkerspot butterfly was completed and a report given to USFWS. Results showed that geographically separated areas are distinct genetically and can be used as management units.

**Pale blue eyed grass genetics** – working with the PNW research Station, the chloroplast genome of *Sisyrinchium sarmentosum* (rare) and *S. idahoense* (common) was sequenced to identify SNP's that could be used to differentiate these species and potential hybrids.



### SEED ORCHARDS

**Mastication treatment at Podunk Seed Orchard (MTH)** – The Podunk noble fir seed orchard had become overgrown with alder and volunteer Douglas-fir. A contract was run through the DES to have a masticator remove and grind up this competing vegetation.

**Phenology monitoring year 3** – a third year of data was collected on phenology of Pacific silver fir and western white pine to build a baseline to monitor impacts of climate warming. Time lapse cameras were tested as a way to monitor bud flush and pollen shed remotely.

**Improvements at Dennie Ahl Seed Orchard** – a work day was held at the Dennie Ahl seed orchard to clean up the buildings and grounds. 3 dumpsters worth of garbage was hauled away.



**Podunk seed orchard** before and after mastication treatment

Photos: C. Jensen & A. Bower

### 2012 Partners/Cooperators

**USFS NFGEL Laboratory** (Valerie Hipkins)  
**USFS PNW Research Station** (Brad St. Clair, Richard Cronn, Connie Harrington)  
**USFS Region 5** (Tom Blush, Arnaldo Ferreira)  
**WDFW** (Ann Potter)  
**USFWS** (Ted Thomas)  
**Quinalt Indian Nation** (Jim Hargrove)  
**WCC** (Darryll Bordon)  
**WSU Extension** (Jim Freed)



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



# Western & Eastern Washington Area Genetics Program

Colville, Okanogan –Wenatchee and Mt Baker – Snoqualmie NF's

## 2013 Program Highlights



### A sampling of the many projects completed:

**Capitol Christmas Tree** – The Colville NF was asked to supply the Capitol Christmas Tree for the Capitol Building in Washington DC for 2013. From a submission of 50 candidate trees, an 88 feet tall Engelmann spruce (see above photo) was the final selection made by the Capitol Grounds Superintendent.

**Seed Orchard Mineral Withdrawal** – A request to extend, for 20 years, withdrawal from mineral mining of all seed orchards on the Colville NF was submitted to the BLM Office in Portland, OR. This will protect the sizable investments made in these orchards from mining disturbance.

**Western Spruce Budworm** – With input from a Forest Entomologist and Silviculturist, treatment alternatives, to reduce impacts of western spruce budworm to tree crowns and cone crops, were developed for Douglas-fir and western larch in the Brown Mt seed orchards on the Colville NF and the Branch Creek seed orchard on the Wenatchee NF.

**Pal Moore Seed Orchard Roguing** – Planted locations in the western larch, Ponderosa pine, Douglas-fir and lodgepole pine seed orchards were reduced to the very best, single tree for each species' planted orchard location.



**Blister Rust Resistant Western White Pine** – Rust resistant western white pine were planted in the TeePee seed orchard (see above photo). This orchard is almost filled with 1600 planted, rust resistant, western white pine and will begin producing a collectable cone crop in the future.

**Western Larch Cone Collection** – Ten bushels of much need, western larch cones were collected in a cooperative effort with the Washington State DNR.

**Flowery Trail Seed Orchard Fence Repair** - The 8 feet tall fence surrounding the Flowery Trail seed orchard was repaired in a cooperative effort with the Washington State DNR.

**McCullough Seed Orchard** – A review of the western white pine seed orchard was conducted with the Washington State DNR and Forest Service Geneticists, Entomologist and Pathologist, to explore cooperation efforts for future cone collections.

### 2013 Partners/Cooperators

**Choose Outdoors - A Nonprofit Organization**  
**USFS Region 1, Genetic Resources** (Kevin Naffin)  
**USFS Wenatchee Forest Insect & Disease Service Center** (Connie Mehmel, Darci Carlson, Bryan Blaedow)  
**Dorena Genetic Resources Center** (Angelia Kegley, Sally Long)  
**Washington State DNR** (Jeff deGraan, Jeff DeBell)



**Contact: Tom DeSpain, 509-684-7225**  
**Colville National Forest**  
765 South Main Street  
Colville, WA 99114

# Colville National Forest

## 2013 Accomplishments

The Colville National Forest Native Plant Restoration Program continues to focus on developing stocks of native grasses, forbs, and shrubs for restoration projects.

**New foundation seed collections** were made across the Forest of 100 gallons of un-cleaned seed from 36 species (16 shrubs , 11 grasses, 6 sedges/rushes and 3 forbs) between 2340 and 6425 feet in elevation. Grass, sedge/rush and forb seeds were planted at Coeur d'Alene Nursery for increasing and use for future projects, and the shrub seed was stored at the nursery.

**Restoration** efforts continued at the Growden Dam removal site, where 200 willows and black cottonwoods were staked on 4 acres by the Forest Service and students from Kettle Falls Schools . Six monitoring plots were read. Ten gallons of locally collected seeds of kinnikinnick, oceanspray, Rocky Mountain maple, and snowberry were spread over an acre at the Pierre Creek culvert replacement site. Coeur d'Alene Nursery is growing 7100 2-year-old shrubs from 14 species for planting in 2014.

For the Middle Branch LeClerc Creek Road Relocation 300 alder and hawthorn were planted on an obliterated road from seed collected in the LeClerc drainage. Creek crossings were planted with 150 willow and red-osier dogwood cuttings. The old roadbed was seeded with a local mix of lupine, yarrow, and birch-leaf spirea. Finally, 200 alder and hawthorn were planted behind a new riparian fence on the West Branch of LeClerc Creek in Ballpark Meadow.

**Funds were also used to** locate and map 41 native plant collection sites across the Forest, pay for seed cleaning, testing and storage; collect hardwood cuttings; provide revegetation consultation; develop/track budgets; and administer agreements.

**Contact:** Kathy Ahlenslager, 509-684-7178.



**Colville National Forest**  
765 S. Main  
Colville, WA 99114



Figure 1. Kettle Falls Middle School student planting willow stake at the former Growden Dam site, May 2013.

**Year Awarded:** 2013

**Project completion:** 2013

**Expenditures: \$33,000 Total:** \$27,000  
NFVW and \$5,000 NFWF

**Partners/Contractors/Coop:** Coeur d'Alene and J. Herbert Stone Nurseries, and Kettle Falls School District.



Figure 2. Restoration efforts near the Pierre Creek culvert replacement site, May 2013.

# Deschutes National Forest

## 2013 Accomplishments

Deschutes National Forest Native Plant Restoration Program continues to focus on developing/planting stock of native grasses, forbs, and shrubs for restoration projects. In addition to the highlights below, funds were used to test/clean/store seeds; develop contracts; plan revegetation projects; and develop/track budgets.

### **Seed and Propagule Propagation:**

- The following species are in seed production through R6 Native Seed Contract: *Penstemon humilus*, *Penstemon euglaucus*, *Eriogonum umbellatum*, *Lupinus lepidus*, *Phacelia hastata*, *Elymus elymoides*.
- 28 lbs. of western needlegrass procured through this contract.

### **Seed Collection:**

- Collected Peck's penstemon seed for Whychus Floodplain project.

**Restoration Projects:** Planted 5,080 native plants and seeded 165 lbs. of native seed for a variety of projects including prescribe burn areas and riparian restoration projects. Projects include:

- 120 volunteers planted 3,753 native trees, shrubs, forbs, and grasses, and seeded 50 lbs. of native seed to restore Metolius River riparian habitats on National Public Lands Day.
- Seeded 40 lbs. of natives seed as part of the Whychus Creek Trail revegetation project.
- Planted 1200 native propagules and seeded 75 lbs. of native seed for Little Deschutes Restoration; monitored revegetation success.
- Planted 96 native plants at Lava Lands Visitor Center.

### **Revegetation Project Planning:**

- Developed revegetation plans for Crescent Lake Campground and Metolius River Restoration Projects.

### **Native Plant Restoration Training:**

- Deschutes & Ochoco Botanists joined Regional Office staff to field tour large native plant restoration sites in Washington. Impressive to see highly degraded sites transformed back to native bunchgrass/forb communities.



Figure 3. Charmane Powers installed native plant identification signs for the Deschutes Headquarters native plant landscaping.



Fig. 4. Deschutes, Ochoco & Regional employees toured native plant restoration sites in Washington.



Figure 1. Children help plant native plants for Lava Lands Adventure Day.



Figure 2. Students planted structures along the Metolius River followed by seeding native plants, Sisters District.

**Year Awarded:** 2013

**Expenditures:** \$49,000 Total Funding

\$ 4,000 NFTM

\$19,000 NFVW

\$21,000 NFWF

\$ 5,000 WFFF

**Partners:** Deschutes Basin Native Seedbank, Benson Farms, Clearwater Native Plant Nursery, FS Coeur d'Alene Nursery, Dorena Genetic Resource Center; Upper Deschutes Watershed Council, Wolfree, Gilchrist School, National Forest Foundation, Trout Unlimited, Friends of the Metolius, Clarno Hardwood Production Facility, Deschutes County.

**Contacts:** Katie Grenier (541-383-5564); Charmane Powers (541-383-4730); Christina Veverka (541-433-3234); Maret Pajutee (541-549-7727), Marlo Fisher (541-383-4743).



**Deschutes National Forest**  
1001 SW Emkay Drive  
Bend, Oregon 97702

# Fremont-Winema National Forest

## 2013 Accomplishments

Contracts were awarded to Benson Farms and Clearwater Native Plant Nursery, and funds obligated for production of:

- 1,000 lbs. of *Festuca idahoensis*
- 1,200 lbs. of *Elymus glaucus*
- 500 lbs. of *Leymus cinereus*
- 6,800 seedlings/plugs of various native species

Partnership and appropriated funds were used to produce and deliver:

- 400 lbs. *Deschampsia cespitosa*
- 74 lbs. *Poa secunda*
- 1,330 hardwood seedlings of 4 different species (Fall 2012)
- 670 sedge plugs (Fall 2012)
- 885 shrub seedlings of 7 different species (Fall 2012)
- 400 lbs. of native grass seed (Fall 2012)

Most of the native plant material delivered in the Fall of 2012 was distributed by the USFWS Ecosystem Restoration Office's partnership program for use in restoration projects on private land.

Appropriated funds were used to collect chokecherry, spirea, bitterbrush and sedge seed and 433 cuttings and root segments from 4 hardwood/shrub species.

Funds were also used to: locate and map new source populations; test, clean, and store native seeds; and develop and administer contracts and agreements.



Figure 1: Newly planted chinkapin seedling provided by Dorena Genetic Resource Center

260 two-year-old chinkapin seedlings provided by the Dorena Genetic Resource Center were planted in a project area. 60 boxwoods and 160 spirea seedlings were also planted by botany crew on FS land.

**Expenditures:**     **\$ 62,605 Total**  
                              \$ 40,000 (NFTM/NFVW)  
                              \$ 22,605 (WFSU)

**Partners/Contractors/Cooperators:**  
USFWS, Benson Farms, Karma's Forest Nursery, Dorena Genetic Resource Center, Clearwater Native Plant Nursery.

**Contacts:** Lucas Phillips     541-947-6251  
                  Missy Anderson    541-783-4085  
                  Jeannette Wilson 541-576-7593



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

# Gifford Pinchot National Forest

## 2013 Accomplishments

**Gifford Pinchot NF Native Plants Program Strategy finalized.**

**Seed Growout Contracts:**

We awarded one contract for seed increase to Benson Farms, for the production of 750 lbs. Mountain Brome.

**Seed use:**

Approximately 610 lbs of native grass seed was applied over approximately 52 acres of habitat in need of restoration. Re-vegetation projects included:

- culvert replacements.
- riparian restoration.
- fish acclimation pond site re-vegetation.
- road decommissioning.
- stabilizing timber sale/stewardship sale landings and skid trails.
- Cascade Creek burned area.

**Monitoring:**

- Five plots ranging from 100 ft. X 300 ft. to 300 ft. X 300 ft. were installed within the Cascade Creek burn, to test the efficacy of ground surface application of *Festuca idahoensis* seed. Seed was applied at a rate of 40 lbs/acre.

Figure 1. A visual display of a 40 lb/acre application rate for Idaho Fescue, Cascade Creek Burn Area



Figure 3. Monitoring native seeding on decommissioned forest road after one year.



Figure 2. Laying out seed application monitoring plots within Cascade Creek burned area.

**Year Awarded/Completed:** 2013

**Expenditures: \$36,000 Total**

\$ 26,000 (NFTM03)

\$ 10,000 (NFVW03)

**Partners/Contractors/Coop:**

Benson Farms Inc.

**Contacts:**

**HQ:** Carol Chandler (360) 891-5106

**S. Zone:** John Scott (509) 395-3413  
or Andrea Ruchty (509) 395-3414

**N. Zone:** Linda Swartz (360) 497-1164



**Gifford Pinchot National Forest**

10600 N.E. 51<sup>st</sup> Circle

Vancouver, WA 98682

# Malheur National Forest

## 2013 Accomplishments

**Revegetation Projects** – Native plant materials were used for restoration, revegetation, and habitat improvement:

- *Riparian Habitat:* over 2,000 hardwood cuttings , 300 lbs. of riparian seed mix, and 10 lbs. of native forb seed were used for stream restoration projects and culvert replacements projects that improved critical fish habitat (figures 1 and 2).
- *Forage Improvements:* over 1,000 lbs. of upland seed mix and 400 bitterbrush seedlings were used for big game and rangeland habitat improvements associated with timber sales, fuels treatments, range allotments, and road decommissioning projects.
- *Mining and Special Use Reclamation:* Over 300 lbs. of upland seed mix was provided to re-vegetate disturbed areas for over 15 mining and special use projects (e.g. utility corridors, telecommunication sites).

**Seed Production** – 1775 lbs. of mountain brome , 95 lbs. of bluebunch wheatgrass, and 323 lbs. of Great Basin wildrye were procured and/or delivered from previous contracts. Additionally, contracts for the production of Great Basin wildrye, bottlebrush squirreltail, prairie junegrass, and bluebunch wheatgrass are currently in progress.

**Seed Collection and Source Mapping** – Began a new effort to collect and map source populations for over 20 showy native forb species. Seed is collected in small quantities (<3 lbs.) to use in small, highly visible, disturbed sites (e.g. campgrounds, culvert replacements on primary roads, etc.) to improve ground cover and promote wildflower viewing areas.



Figure 2. Restoration efforts at a culvert replacement project.



Figure 1. Worker planting willow stakes for a riparian habitat improvement project.

<b>Expenditures:</b>	<b>\$ 35,000</b>	<b>Total</b>
	\$ 20,000	NFTM
	\$ 10,000	NFVW
	\$ 5,000	WFHF

**Partners/Contractors:** Benson Farms, Western Reclamation, Eastern Oregon Stewardship, Siskiyou BioSurvey, Natural Resource Conservation Service, Oregon Youth Conservation Corps, Oregon Department of Transportation, Carter Ranch, Southworth Ranch, Confederated Tribes of Warm Springs, The Nature Conservancy, Deschutes Basin Native Seed Bank.

**Contact:** Joseph Rausch  
541-575-3141



**Malheur National Forest**  
431 Patterson Bridge Road  
P.O. Box 909  
John Day, OR 97845

# Mt. Baker-Snoqualmie National Forest

## 2013 Accomplishments



Figure 1. Seed production beds of fringecup and piggyback covered with rebar fencing and bird netting.

- **Native Plant Restoration at Gold Creek Pond Wildlife Viewing Area Continues to Grow.** In partnership with Conservation Northwest, MBS Botanists helped staff several large work parties to install native willows cuttings, plant several thousand wild strawberries that were grown from stock collected on site, remove invasive species, and mulch our new plantings with weed-free straw.
- **Native Plant Revegetation Plans** were completed in 2013 by the North Zone Botanist for a salmon spawning beach decommissioning project as part of the Baker Hydroelectric Relicensing Project, and the Kaaland land acquisition project.
- **Native Plant Restoration at Harlan Meadow Continues to Grow.** In 2013, Tulalip Indian Tribe reaped the fruit (rooted stock) of our collective labor from 2011 and 2012 that had been propagated by N Cascades National Park and installed a variety of subalpine native species in Harlan meadow.
- **In 2013 MBS Botanists got to spend time in the field** harvesting seeds of Merten's sedge, blue wildrye, goatsbeard, drooping woodreed, and large-leaved avens. These were sent to Bend Seed Extractory for cleaning and provide new foundation seed for grow-out in 2014.

### On-going Seed Increase and Plant Propagation.

We continue to grow-out a variety of native plant materials. In FY13, we used allocated funds to maintain our experimental grow-out effort at Fourth Corner Nursery in Bellingham, to produce seeds of piggyback (*Tolmia menziesii*), fringecup (*Tellima grandiflora*), and goatsbeard (*Aruncus dioicus*). These species have not been used before for large scale seed-increase so we are still getting baseline data on whether it's feasible to produce large quantities of seed from them. Progress has been slow but steady. Plants germinated but no seed was produced in 2012. In 2013, mature plants began to flower and set seed! Deer managed to eat all the seed-heads of the goatsbeard but measures are now in place to prevent this (Figure 1). About 1.25 of fringecup were harvested and 5.5 pounds of piggyback. We're hopeful that there will be a several-fold increase in 2014 but time will tell.

### Year Awarded: 2013

#### Expenditures:

\$10,000 (NFVW)  
\$20,000 (NFTM)  
\$13,425 (SRS2)  
\$43,425 total

**Partners/Contractors/ Cooperators:** Conservation Northwest, Defenders of Wildlife, WA Native Plant Society, Microsoft, EarthCorps, Mobilize Green, J. Herbert Stone Nursery, Couer d'Alene Nursery, Judd Creek Nursery, WA Association of Conservation Districts, Karma's Forest, Fourth Corner Nursery, Mountaineers Naturalists, Central Washington University, Kulshan Kids, North Cascades Wild, N Cascades National Park, Tulalip Indian Tribe, Whatcom County Corrections Crew.

#### CONTACTS:

Laura Potash	Program Mgr & S Zone Botanist
Sarah Callaghan	Invasive Plant Specialist
Shauna Hee	North Zone Botanist



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

# Mt. Hood National Forest

## 2013 Accomplishments

The Mt. Hood National Forest received \$40,085 of funding for the development of native plant material for restoration. Funding was used for seed increase contracts, purchase of excess seed, new seed/cutting collections, nursery grow-out and granary storage of native grass seed.

### Seed Delivered

- 2449 lbs of native seed delivered to the Mt Hood NF.

### Seedling Production

- \$2,400 funding for container seedling production.
- \$3,000 funding for Bend Seed Extractory and storage.
- \$10,450 funding for native shrub grow-out, native plant material for Timberline Lodge, huckleberry for Hood River RD.

\$200 funding for shipping of aspen cuttings to CDL nursery.

Cottonwood cuttings delivered from JHS nursery to Zig Zag RD and MTH Forest headquarters.

### Restoration Project Implementation

- Timothy Lake (PGE) - fall planting of native plants for campground revegetation.
- Highway 26 (ODOT) – sowing request for 3.5M conifer seedlings anticipated to be planted in Fall 2017 for roadside revegetation from reconfiguration of a seven mile road segment west of Government Camp.
- Government Flat Fire (USFS) – \$6,510 fire funded replenishment of 605 lbs of native seed.
- 5 lbs Yarrow, *Achillea millefolium*, 200 lbs California brome, *Bromus carinatus*, 275 lbs Blue wildrye, *Elymus glaucus*, 125 lbs Idaho fescue, *Festuca idahoensis*.



Broadleaf lupine (*Lupinus latifolius*) seed increase plots produced a third year of high yields after native soil inoculation (June 7, 2012). (Workhorse species)

**Year Awarded:** 2013

**Project completion:** 2013

**Expenditures: \$40,085 Total**

\$ 30,085 (NFTM)

\$ 10,000 (NFVW)

**Partners/Contractors/Coop:** Dorena Genetic Resource Center, R6 Restoration Services Team, Benson Farms Inc., Portland General Electric, Oregon Department of Transportation, Federal Highways Administration, Mt. Hood Meadows ski resort, SkiBowl resort, Timberline Lodge (RLK & Co.).



Aspen root sprouting.



**Mt. Hood National Forest**

16400 Champion Way  
Sandy, Oregon 97055

**Contact:** Forest Silviculturist (503) 668-1668



# Ochoco National Forest and Crooked River National Grassland

## 2013 Accomplishments

The Ochoco National Forest Native Plant Restoration Program continues to focus on developing/planting stock of native grasses, forbs, shrubs and trees for restoration projects. In addition to the highlights below, funds were also used to test, clean, and store native seeds; develop contracts; provide revegetation consultation & develop revegetation plans; develop/track budgets.

### Seed and Propagule Production/Purchase:

- Purchased native forb seed from Deschutes Basin Native Plant Seedbank.

### Seed Collection:

- Collected tufted hairgrass seed (*Deschampsia cespitosa*) for future seed production to incorporate into a riparian seed mix for the Ochoco NF.
- Collected seeds from milkweed species (*Asclepias* sp.) for the Xerces Society to enhance butterfly habitat.

### Restoration Project Implementation:

Planted 420 native propagules; seeded 825 lbs. of native seed.

Projects include:

- Seeded 135 acres of prescribed fire burn area
- Seeded 91 acres of timber sale log landings and skid trails.
- Seeding and planting propagules for riparian restoration projects.
- Restoration activities included constructing wattles for streambank restoration using 300 willow (*Salix* spp.) whips.
- 75 lbs. of seed (Idaho fescue, bluebunch wheatgrass, Sandburg's bluegrass, blue wildrye, squirreltail, yarrow and penstemon) was spread across 6.5 acres in the Powell timber sale for erosion control and to prevent weed establishment.
- Paulina District partnered with Trout Unlimited to replace an undersized Culvert and do in-stream restoration work along Crazy Creek. We planted 370 riparian plant species, including cottonwoods, willows, alders, chokecherries, service berry, rose, currants and dogwood.

### Revegetation Project Planning:

- Developed a revegetation plan for the Crazy Creek Stream Restoration and Culvert Replacement Project.



Figure 1. Krista Lopez and Katie Grenier collect tufted hairgrass (*Deschampsia cespitosa*) for future restoration projects.



Figure 2. In two years, 2 lbs. of tufted hairgrass seed can be propagated in a one-acre field to produce 250-450 lbs. of seed.

**Year Awarded:** 2013

**Expenditures: \$29,933 Total Funding**

\$ 10,000 NFWW

\$ 20,000 NFTM

**Partners/Contractors/Coop:** Clearwater Native Plant Nursery, Trout Unlimited, Xerces Society, Crooked River Watershed Council, Benson Farms, Deschutes Basin Native Plant Seedbank, Clarno Hardwood Facility.

**Contacts:** Mark Lesko (541-416-6416); Krista Lopez (541-416-6635); Katie Grenier (541-383-5564).



Figure 3. Botanists, Mark Lesko and Krista Lopez, actively engaged in restoration projects.



**Ochoco National Forest**  
3160 NE 3<sup>rd</sup> Street  
Prineville, Oregon 97754

# Okanogan-Wenatchee National Forest

## 2013 Accomplishments

### Using FY13 Native Plant Program funds in NFWV, CMRD, CMLG and other funding, we accomplished the following:

Managed 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: 1) planning appropriate species collections, 2) surveying and mapping collection sites, 3) collecting native plant materials, 4) process materials at R6 Bend Seed Extractory, 5) increase native seed using R6 Restoration Services Contract, 6) sow native seed or plant native stock in appropriate project sites for restoration, rehabilitation, or revegetation purposes, and 7) monitor project sites for planting/sowing response and performance.

### Accomplishments for FY13 include:

- Reconnaissance, assessment, and mapping sites for native seed collection in 2013 and planting/sowing in future years including 7 acres of alpine and subalpine habitat identified for restoration.
- Collected 138 lbs. of seed and 2,100 plants of 24 native grass, forb, shrub, and tree species for future seed increase and propagation use (including *Acer circinatum*, *Amelanchier alnifolia*, *Aruncus dioicus*, *Athyrium filix-femina*, *Blechnum spicant*, *Calamagrostis ruebescens*, *Festuca idahoensis*, *Festuca occidentalis*, *Fragaria vesca*, *Gaultheria shallon*, *Lonicera involucrata*, *Mahonia nervosa*, *Paxistima myrsinifolia*, *Penstemon fruticosus*, *Poa secunda*, *Polystichum munitum*, *Pseudoroegneria spicata*, *Ribes bracteosum*, *Rosa gymnocarpa*, *Rubus spectabilis*, *Symphoricarpos hesperius*, *Thuja plicata*, *Vahlodea atropurpurea*, *Xerophyllum tenax*).
- Awarded contracts for seed increase of one forb species and three native grass species (*Penstemon fruticosus*, *Calamagrostis ruebescens*, *Poa secunda*, and *Pseudoroegneria spicata*) to meet future restoration seeding needs on four ranger districts. Amount of seed to be produced during the next three years is about 1,500 lbs.
- Purchased and planted 2,823 containerized native plant seedlings for restoration purposes on diverse sites including abandoned mines (Fig. 1), recreational trailheads, flood-damaged roads and campgrounds, federal highway rights-of-way, lake or pond habitat, and subalpine parklands (Fig. 2).
- Implemented revegetation project seeding of native grasses, forbs, and shrubs on 101 acres including campgrounds, skid trails, fire lines, and abandoned mines. Also seeded 2 miles of decommissioned road.
- Revegetation projects used over 2,440 lbs. of grass and forb seed (including *Achillea millefolium*, *Bromus carinatus*, *Elymus glaucus*, *Festuca idahoensis*, *Poa secunda*, and *Pseudoroegneria spicata*).
- Maintain controlled environment seed storage capability for three zones on the Forest (North, Central, and South Zones).
- Procured 100 lbs. of surplus local grass seed (*Festuca idahoensis* and *Pseudoroegneria spicata*) for revegetation projects.
- Procured 23 tons of weed-free mulch to enhance site conditions for revegetation projects.
- Initiated native plant growth and survival monitoring on 5 acres of Azurite Mine rehabilitation project.



Figure 1. Native plant restoration with shrub cuttings at the Azurite Mine site on the Methow Valley RD..

**Year Awarded:** 2013

**FY13 Expenditures:** \$150,648 (CFLN, CMLG, CMRD, CWFS, CWXF, ERBA, NFWV, RICW, RICZ, WFSU)

**Partners/Contractors/Coop:** Benson Farms Inc, Chelan County PUD, Derby Canyon Natives, Methow Natives, Methow Valley Sports Trail Association, Mountain to Sound Greenway, National Park Service, R6 Restoration Services, Tapash CFLRP, WA Dept. of Transportation.

### Contacts:

SO - Rod Clausnitzer, 509.826.3278  
Chelan & Entiat RDs - Brigitte Ranne, 509.682.4941  
Cle Elum RD - Kelly Evans, 509.852.1036  
Methow Valley RD - Kelly Baraibar, 509.996.4019  
Naches RD - Jodi Leingang, 509.653.1450  
Tonasket RD - Larry Loftis, 509.486.5160  
Wenatchee River RD - Lauri Malmquist, 509.548.2575



Figure 2. Methow Valley RD: Planting R6 sensitive species, whitebark pine (*Pinus albicaulis*), on Silverstar Mountain.



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

# Rogue River-Siskiyou National Forest

## 2013 Accomplishments

### 2013 Farm Seed Production:

- J. Herbert Stone FS Nursery (JHSN) 2013 harvested *Festuca californica*, *Festuca roemerii*, *Achnatherum lemmonii*, *Elymus glaucus*, and *Danthonia californica* lots being grown for our Forest.
- Received 2189 lbs. of Cascade *Bromus carinatus* and 600 lbs. of Curry County *Elymus glaucus* grown and harvested in the Willamette Valley the previous summer.

### 2013 Wild Seed Collections:

- *Danthonia californica* on Gold Beach R.D.

### New contracts were awarded and funds obligated to:

- Grow California fescue at JHSN for future BLM and FS wildland restoration projects in the Applegate watershed.

### Restoration project implementation:

- Volunteers watering and care of planted whitebark pines.
- Ashland Forest Resiliency Project; diversity seedings.
- Ongoing monitoring of Siskiyou Crest barrrens seeding trials and gully rehab.
- Native grass seeding and planting of trees and shrubs on the Sucker Creek Restoration project (Figure 1).
- Post-invasive plant treatment seeding on Wild Rivers R.D..
- Planted 300 white oaks along the Chetco River.
- Seeding of 7 road-related projects on Gold Beach R.D..
- With Federal Highways Administration, developed planting prescriptions, collected seed, and assisted with plantings on several of their road projects in Curry and Coos County.

### Other Projects:

- Seeding of Labrador Fire suppression dozer lines.
- Seeding for wildlife, erosion control, and invasive plant abatement in KV sale areas, 100 acres, Gold Beach R.D..

### Funds were also used to:

- Help manage seed crops at J. Herbert Stone Nursery (Figure 2).
- Write seeding/fertilizer/site prep prescriptions and assemble seed for various other wildland restoration projects.
- Pay seed cleaning and storage costs.



Figure 1: Tree planting at Sucker Creek Restoration Project.

**Expenditures:** \$ 37,000 (NFVW)  
\$ 30,000 (CWKV)  
\$ 8,200 (Fire P codes)

**Partners/Contractors/Cooperators:** Pacific Northwest Natives, Benson Farms, Lomakatsi Restoration, Bend Seed Extractory, Dorena Genetic Resource Center, Illinois Valley Soil and Water conservation District, Illinois Valley Watershed Council, Althouse Nursery, BLM, Federal Highways Administration.

### Forest Contact:

Wayne Rolle, Forest Botanist 541-618-2056, wrolle@fs.fed.us.



Figure 2: California fescue growing for seed production at J. Herbert Stone Nursery.



**Rogue River-Siskiyou National Forest**  
Supervisor's Office  
3040 Biddle Road  
Medford, OR 97520

# Siuslaw National Forest

## 2013 Accomplishments

In 2013 the Native Plant Program produced planting stock and seed for the restoration of federally threatened Oregon silverspot butterfly meadow habitat , riparian habitat along a threatened coastal coho stream, and Coast Range peak upland meadow.

### Seed Produced:

125 lbs. dune fescue (*Festuca ammobia*)  
34 lbs. early blue violet (*Viola adunca*)  
134 lbs. sand clover (*Trifolium wormskjoldii*)  
1 lbs. dune goldenrod (*Solidago simplex*)  
30 lbs. Canada goldenrod (*Solidago canadensis*)  
15 lbs. aster (*Aster chilensis*)  
40 lbs. dune tansy (*Tanacetum camphoratum*)

### Cuttings Planted:

1,000 Hooker's willow (*Salix hookeriana*)  
500 Pacific willow (*Salix lasiandra*)  
500 Douglas' spiraea (*Spiraea douglasii*)

### Plants Produced: 20,900 Total

early blue violet (*Viola adunca*)  
yarrow (*Achillea millefolium*)  
pearly everlasting (*Anaphalis margaritacea*)  
Canada goldenrod (*Solidago canadensis*)  
coast strawberry (*Fragaria chilensis*)  
aster (*Aster chilensis*)  
dune tansy (*Tanacetum camphoratum*)  
Cardwell's beardtongue (*Penstemon cardwellii*)  
wooly sunflower (*Eriophyllum lanatum*)  
wallflower (*Erysimum capitatum*)

### Seed Collected:

blue wildrye (*Elymus glaucus*)  
gray beach pea (*Lathyrus littoralis*)

### Restoration Projects Implemented:

Material was used to support Oregon silverspot butterfly habitat restoration, estuary restoration of the former Pixieland Amusement Park, lowland riparian meadow in coastal coho habitat, and restoration of disturbed areas on the summit of Marys Peak in the Coast Range.



Figure 1. Volunteers from the Oregon Zoo plant nectaring forbs used by Threatened Oregon silverspot butterfly.

<b>Year :</b>	2013
<b>Expenditures: \$52,305 Total</b>	\$28,130 (NFWW)
	\$16,260 (SRS2)
	\$ 7,275 (NFWF)

**Partners/Contractors:** USFWS, NRCS Corvallis Plant Materials Center, Oregon Coast Aquarium, Oregon Zoo, Woodland Park Zoo, Siuslaw Soil and Water Conservation District, Elkton Community Education Center, Salmon-Drift Watershed Council, Benson Farms, Western Reclamation, Institute for Applied Ecology, Willamette Gardens, Benson Farms.

**Contacts:** Marty Stein 541-563-8417  
Doug Glavich 541-750-7048  
Marty Bray 541-563-8452



**Siuslaw National Forest**

3200 SW Jefferson Way  
Corvallis, OR 97339



Figure 2. Planting native forbs in the fog on Marys Peak. Photo:Jenny Getty, Institute for Applied Ecology.

# Umatilla National Forest

## 2013 Accomplishments

### New Contracts Awarded and Funds Obligated:

Funds obligated to

- Bend Seed Extractory for native seed cleaning and storage.
- hire Northwest Youth Corps volunteers to construct buck-and-pole fencing to protect aspen stands at Elk Flat.

### Seed Collections and cuttings:

- collected seed of following: 4.5 lbs red osier dogwood, 17 lbs black hawthorn, 3 lbs chokecherry, 7 lbs blue elderberry, 3 lbs California brome and 4 lbs Idaho fescue. (38.5 lbs total collected over 7 acres total)
- 2000 cottonwood cuttings taken from Walla Walla clones at Clarno stool beds, delivered to the CTUIR Tribal Native Plant Nursery, rooted in pots for planting in Meacham Cr Restoration project.
- cuttings from 6 female cottonwood clones at Clarno, sent to Dorena for propagation and outplanting fall 2013.
- collected bluebunch wheatgrass seed for study on efficacy of using species specific seed zones and seed transfer guidelines in post-fire restoration in partnership with Rocky Mountain Research Station.

### Planting/Restoration Project Implementation:

- planted 1484 lbs seed of native grasses and forbs in timber sale areas, decommissioned roads, North Fork Touchet culvert replacement, road 32 reconstruction, and other disturbed sites on all four districts (153 acres).
- Planted 3400 shrubs and hardwoods on task order with Plant Works (willows, red osier dogwood, bitterbrush, quaking aspen, black cottonwood, black hawthorne, serviceberry, mountain mahogany) planted and caged in Clear Creek dredge, Bear Wallow Creek, Fivemile Cr upland, Bridge Creek upland, Ditch Creek, Mallory Creek, and Penland Lake on South Zone (6.6 acres).
- Planted 750 hardwoods (willow and cottonwood) on 35 acres in partnership with CTUIR.
- Seeded 18 acres of noxious weed treatment areas with native grass seed mix on North Zone
- Volunteers maintained/pulled weeds at native plant demonstration garden at Tollgate visitor center.



Figure 1. Jarod Russell and Kip Turner (North Fork John Day District fire personnel) plant native seed on disturbed ground at Twin Ponds recreation site in spring 2013. Photo by Lee Farren



Figure 2. Hydrologist Stacia Peterson raking in native seed at road 32 reconstruction site on Walla Walla District. Photo by Joan Frazee.

**Year Awarded:** 2013

**Project completion:** 2013 and beyond

**Expenditures: \$63,740 Total**

\$43,000 (NFVW)

\$ 5,000 (WFHF)

\$ 10,000 (CMLG)

\$ 5740 (SRS2)

**Integration:** Other BLIs and grants contributed to accomplishments as a result of program integration esp. the Watershed and Aquatic Restoration Program.

**Partners/Contractors:** Benson Farms, Dorena Genetic Resource Center, Plantworks, NRCS Plant Material Center, Clarno, Rocky Mountain Research Station, Coeur d'Alene Nursery, WDFW, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Nez Perce Tribe, Northwest Youth Corps., OSU seed lab

**Contacts** Joan Frazee 541-278-3931; Karen Prudhomme 541-427-5391.

NOTE: Native plant expenditures shown in box above include salary for Karen Prudhomme for management of task orders under regional seed production and restoration services contracts.

### Monitoring

- Cages/plantings from 2012 along the North Fork John Day River— high water events resulted in some washing away with overall low survival.
- Cages/plants from 2012 in Wall, Bruin, Battle Creeks with good survival.
- Established photopoint monitoring at post-fire riparian plantings from '08 and '06 (Sharps Ridge and Bull Springs).



**Umatilla National Forest**

72510 Coyote Road  
Pendleton, OR 97801

# Umpqua National Forest

## 2013 Accomplishments

### Seed Collection and Propagation

Established new one acre fields of blue wildrye and California fescue at the J. Herbert Stone Nursery and purchased 480 lbs. of blue wildrye from previously established fields. Seeds were collected for growing out new plugs of serviceberry, red elderberry and Oregon white oak.

Umpqua Botany personnel continued to partner with the Roseburg Phoenix High School to develop a successful native plant nursery on school grounds.

### Restoration Project Implementation

Planted bareroot and plugs of the following shrubs at numerous wildlife habitat improvement and recreation projects:

- Pacific dogwood 1200 bareroot
- Bunchberry dogwood 400 bareroot
- Deerbrush 250 plugs
- Whitethorn 250 plugs
- Snowbrush ceanothus 250 plugs
- Manzanita 100 plugs
- Oregon white oak 40 plugs
- Willows 25 stakes

Seeded the following species at several, mostly KV-funded projects:

Prairie Junegrass	50 lbs
Blue wildrye	1000 lbs
Mountain brome	100 lbs
Roemer's fescue	1200 lbs
California fescue	50 lbs
Various forbs	5 lbs

<b>Expenditures:</b>	\$80,000 (CWKV)
	\$7,000 (CMRD)
	\$23,000 (NFTM)
	\$10,000 (CMLG)
	<b>\$120,000 Total</b>

**Partners/Contractors/Cooperators:** PacifiCorp, JH Stone Nursery, Roseburg Phoenix School.



### Umpqua National Forest

2900 NW Stewart Parkway  
Roseburg, OR 97471-1274

**Contact :** Richard Helliwell, 541-957-3337



Figure 1. The 2013 weed and seed crew

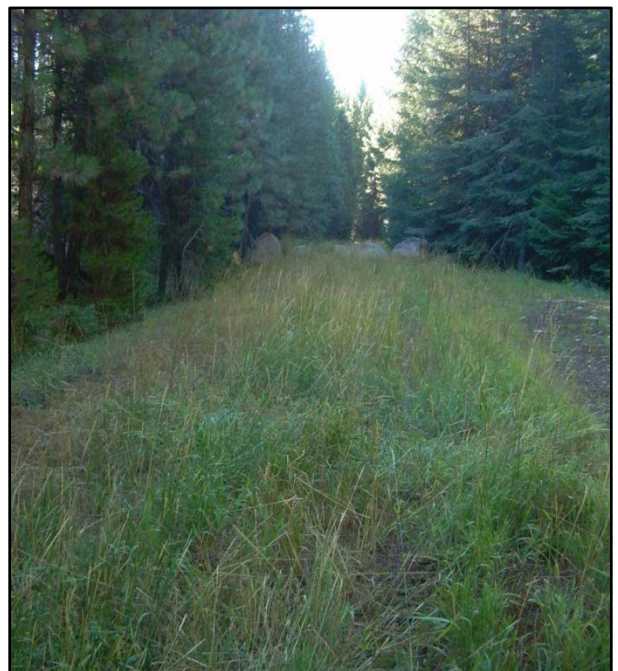


Figure 2. A closed road that has been seeded to native grasses to prevent erosion and noxious weed invasion.

# Wallowa-Whitman National Forest

## 2013 Accomplishments

The Wallowa - Whitman National Forest Native Plant Program focused on habitat restoration with the Aquatics, Timber, Engineering and Range programs, providing native grasses, forbs, and shrubs for restoration projects across the forest.

During 2013 funds were also used for the purchase of 300 pounds native grass seed, to pay for seed cleaning and testing; purchase of moisture meters and dehumidifiers to improve seed moisture control in our seed storage facilities; development of GIS layers for seed collection sites and seedling / restoration projects; and development of a monitoring strategy and report.

Year Awarded:	2013
Project completion:	2013
Expenditures:	\$ 45,000

**Partners/Cooperators/Contractors:** Benson Farms, Inc., The PlantWorks, LLC., Bend Seed Extractory, Clarno Hardwood Production Beds, The Nature Conservancy and Wallowa Resources.

**Contacts:** Robyn Darbyshire, Jerry Hustafa, Joshua White & Penny Hall

### Restoration project implementation

**Provided approximately 3,215 pounds native grass and forb seed for rehabilitation of 215 acres on 25 projects across the forest.**

- 630 lbs. - Fire suppression rehabilitation:  
Cache Creek, Mud Creek, Chicken Hill
- 1,300 lbs. - Skid trails, decks and landings:  
B -Vine, McCoy, Moonshine, Rooster, Sundry, Mile9, Sugar, Peep & Catherine Cr. summit
- 90 lbs. - Range Improvement / Ponds
- 50 lbs. - Restoration work on dispersed campsites
- 300 lbs. - Rehab work / noxious weed treatment
- 85 lbs. - Miscellaneous Engineering projects:  
Bridge, Ford and Culvert replacement work
- 760 lbs. - Aquatic Restoration: Meadow Cr., Sheep Cr., Onion Cr. & Corrigal Springs'

**3,215 lbs.** (native grass and forb seed planted)

**In addition, approximately 16,000 deciduous trees and shrubs and 3,500 hardwood cuttings were planted on Aquatic Restoration Projects.**



Pre - Project 2011



Post-Project 2011



Post - Project 2012

### South Catherine Creek Restoration and Road Obliteration Project

Approximately seven acres of upland habitat was seeded with native grass seed at 20 pounds per acre in 2011 after project implementation. The upland mix included Sandberg's bluegrass, Prairie june grass, Bluebunch wheatgrass, Mt. brome and Blue Wildrye. Twenty acres of riparian habitat was also seeded.

Wallowa-Whitman National Forest

P.O. Box 907

1550 Dewey Avenue

Baker, OR 97814



2013 photo monitoring - seeded in 2011

# Willamette National Forest

## 2013 Accomplishments

### Seed Growout Contracts:

We currently have 3 existing task orders on the Regional Grass Seed Growout contract resulting in procurement of the following:

- 3500 # blue wild rye seed
- 3000 # California brome seed

One of our contractors spent the past two years trying to produce Columbia brome. We have concluded that this species is not appropriate for growout in a commercial setting.

### Seed Collection:

Seed of both native herbs (*Rudbeckia occidentalis*, *Heracleum lanatum*, *Orthocarpus imbricatus*, *Symphotrichum foliaceus* and *Aquilegia formosa*) and grasses (*Elymus glaucus* and *Bromus carinatus*) was collected on 18 acres at Browder Ridge Meadow Enhancement Project. Seed was used to reseed 2 acres that were heavily burned and natives were slow to recover. Middle Fork District did a similar project where they collected seed at 2 meadows in the Calapooya II Meadow Enhancement project for seeding after prescribed burning. *Lathyrus polyphyllus* and *Iris tenax* were also collected on Sweet Home District and sent to Bend Seed Extractory.

### Wildlife Forage Growout:

This is the first year we got a crop from our seed increase plots for Corvallis Plant Material Center: *Iris tenax* (5.3 #), *Lotus unifoliatius* (100g) and *Penstemon cardwellii* (2 #).

### Cooperative Projects:

**Walama Restoration**, grew 7000 plugs for use at Santiam Pass on McKenzie District using seed collected during a challenge cost share in 2011. **Native Grounds Nursery** produced 600 shrubs from seed collected for Sweet Home's Respect the River riparian restoration. And **Doak Creek Nursery** grew 897 natives for Middle Fork's landscaping in front of their office. **Stayton High School** produced 200 plants for the Detroit District planting in a wildlife corridor.



Figure 1. *Iris tenax* from Willamette NF in production at Corvallis Plant Material Center.

**Year Awarded/Completed:** 2013

<b>Expenditures:</b>	<b>\$ 91,000 Total</b>
	\$ 26,000 (NFVW)
	\$ 6,000 (NFWF)
	\$ 3,500 (NFXF)
	\$ 28,000 (CWKV)
	\$ 500 (CMXF)

**Partners/Contractors/Coop:** Benson Farms Inc., Western Reclamation, Native Grounds Nursery, Corvallis NRCS Plant Material Center, Walama Restoration Project, Doak Creek Nursery, Stayton High School.

**Contact:** Jenny Lippert 541-225-6440



Figure 2. Planting natives in the landscaping at the Middle Fork Ranger District.



**Willamette National Forest**  
3106 Pierce Parkway, Suite D  
Springfield, Oregon 97477







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