



United States
Department of
Agriculture

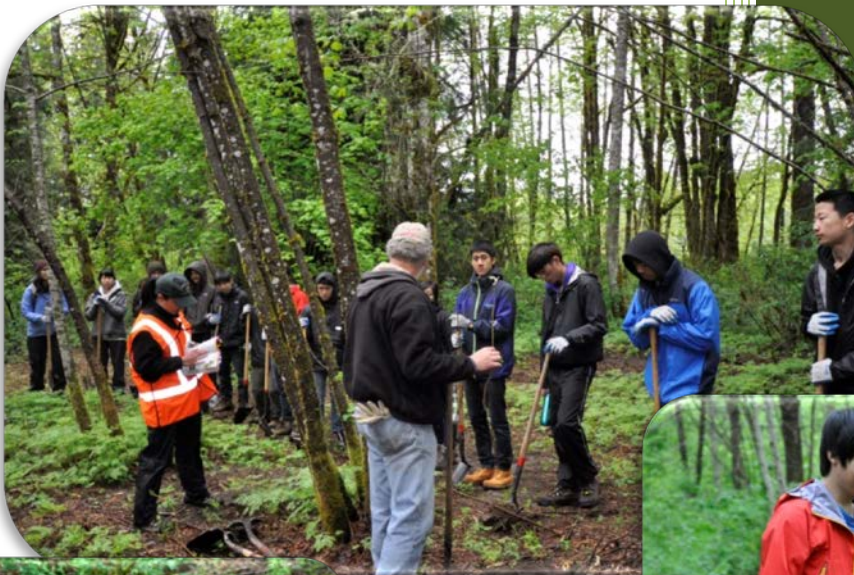
Forest Service

Pacific Northwest
Region



Native Plant Restoration

Program Accomplishments



Project Wild participants
installing understory plants,
Mt. Baker Ranger District,
MBS NF



**Fiscal Year
2014**

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Pacific Northwest Region, US Forest Service Native Plant Restoration Program

2014 Accomplishments



Region 6 is a national leader in the production and use of native plant material for restoration. Strategic investments, as well as focused trainings, regional agreements/contracts, staffing and infrastructure investments at R6 nursery facilities have all contributed to our increased capacity, expertise, and overall success.

Genetically diverse and adapted seed and seedlings produced by our work are utilized in a broad array of integrated restoration projects across the region. Benefitting program areas and associated funding BLIs include NFVW, NFWF, NFTM, WFHF, CMRD, CMLG and others. Funds are used to manage forest programs and accomplish priority work such as:

- locate and map collection sites for key species.
- collect seeds, roots, and cuttings propagules.
- process materials at R6 Bend Seed Extractory.
- produce native seed and planting stock in nursery and agronomic settings.
- collaborate 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.

FY14 Accomplishments include:

Plant Material Development

- R6 Bend Seed Extractory (BSE) processed over 12,000 pounds of wild collected seed for R6 forests and other federal agencies and clients across the western U.S.
- Forests procured ~30,000 pounds of cleaned seed from J. Herbert Stone Nursery and private growers.
- The Clarno Hardwood Production Facility (OCH NF) provided over 50,000 native willow and cottonwood cuttings to eastern Oregon forests and partners for riparian restoration plantings.

Seed Zone Development

- Continued field support for interagency (USFS, ARS, BLM) collaborative seed zone studies for key restoration species.
- Expanded use of provisional seed zones for species lacking empirical genetic guidelines (see http://www.fs.fed.us/wwetac/threat_map/Seed_Zones_Intro.html)

Consultation Services/Training/Tech. Transfer

- Provided workshops and webinars on seed collection, seed inventory management, climate change adaptation, and accomplishment reporting.
- The R6 Restoration Services Team (RST) finalized a \$9 million agreement with WADOT for revegetation design and plant materials on the I-90 Snoqualmie Pass Highway Improvement Project through 2022. The team is available to R6 forests for consultation on all aspects of restoration.

Other: R6 timber sale and stewardship contracts now include provisions for collection of funds for native seed use on all R6 timber sales (a precedent setting action for NFS).

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
1220 SW 3rd Avenue
Portland, OR 97204

Region 6 Bend Seed Extractory Native Plant Restoration Program

2014 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, 2013 through May 31, 2014.

Number of diverse native species and pounds processed:

- 8,708 pounds of nursery harvested and grow-out seeds were received from R6 JH Stone Nursery, for processing/testing at BSE. This resulted in 6,537 pounds of clean seed.
- 8,826 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. This resulted in 5,414 pounds of clean seed.
- 1,307 native species seed collections were received from 14 states, collected by the FS, BLM, NPS, BIA & other government organizations.

Bend Seed Extractory News:

- We have a new Assistant Manager, Sarah Garvin, who started in June of 2014.
- Jason Newman transferred to the extractory from Dorena Genetic Resource Center, in May 2014, to fill our newest PSE appointment.
- Our crew went to Dorena for the month of April to help with scarification and sowing of 40,000+ seedlings.
- Interagency partnerships were created between the seed extractory and Yosemite National Park and the BLM Las Vegas Field Office.
- Seed Extractory tours were given to the local 2nd Grade classrooms at Ponderosa Elementary School in Bend, Oregon.
- BSE participated in the USFS Nursery Managers Meeting in September 2014.



Removing inert material from YUBR on the gravity table. BSE processed more than 1,100 pounds of Yucca spp. during FY14.

FY14 Income/Expenditures:

NFVW \$38,500

Staff:

- 1 PFT employee
- 2 PSE employees
- 6 temporary seasonal employees
- 2 STEP student employees

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, Yosemite National Park, North Carolina State, Boulder County Parks & Open Space, & other government organizations.

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

Extractory Website;

<http://fsweb-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

2014 Program Highlights



New 2014 Emerging Programs in the Nursery:

Native milkweed (*Asclepias spp*) garden

- Registered with Xerces Society as a Monarch Waystation and pollinator garden.
- Provides an important ecosystem service for declining pollinator populations
- Expansion planned for a seed production area with over 25 accessions.



Showy milkweed



(Asclepias speciosa)

Wetland sod (*Carex spp*) production beds:

- Pilot project for restoring and re-vegetating river banks
- Native *Carex* and *Juncus* Spp
- Various production methods under trial for efficacy
- Over 225 sq feet of beds.



Transplanted sedge plugs - expanding



Raised wet bed with irrigation

Year Awarded: 2014

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 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 on public lands.

Managed by
Ochoco and Deschutes
National Forest
3160 NE 3rd Street
Prineville, Oregon 97754



Facility along John Day River, Clarno, Or.

Eastern Oregon Area Genetics Program

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

2014 Program Highlights

In 2014 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 two Seed/Cone collection training offerings (Bend, OR and Leavenworth, WA)
- LaPine Outdoor Adventure Day (2nd/3rd graders)
- Fin, Fire, Fur (3rd graders)
- Advising OSU Cascades Master's Student

ADMIN STUDIES IN SUPPORT OF OPERATIONS

Results in press

Poa Secunda seed zones for land managers Data analysis phase

- Bottlebrush Squirreltail Common Garden Trial (with USFSPNW RS, ARS-Pullman, and ARS-Sydney)

Data collection phase

- 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)



Participants in the R6 "Regional Seed and Cone Training" provided in Leavenworth, WA perform cone crop surveys as part of the field portion of the training.

2014 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, Kas Dumroese)

University of Nevada – Reno (Beth Leger)

Oregon State University (Bill Hartnell) **Pringle Falls Experimental Forest** (Paul Anderson) **Native Plant Nursery Consulting** (Tom Landis)

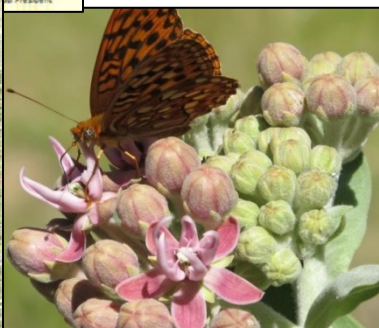
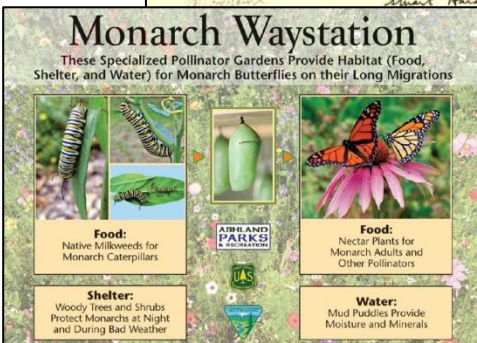
The Xerces Society (Brianna Borders, Candace Fallon)

OSU Cascades (Matt Orr, Kathryn Alexander)

Four new partners added this year!



Served on Steering and Field Trip Committees for successful restoration science meeting.



Recent Publication: Landis TD, Dumroese RK, Horning ME. 2014. Create a pollinator garden at your nursery: an emphasis on monarch butterflies. Fort Collins (CO): USDA Forest Service, Rocky Mountain Research Station. Forest Nursery Notes 34(1&2):4-15.

Contact: Matt Horning, 541-383-5519



Deschutes National Forest
63095 Deschutes Market Rd
Bend, OR 97701

Western & Eastern Washington Area Genetics Program

Colville, Okanogan – Wenatchee and Mt Baker – Snoqualmie NF's 2014 Program Highlights – This is only a sampling of the many projects completed.



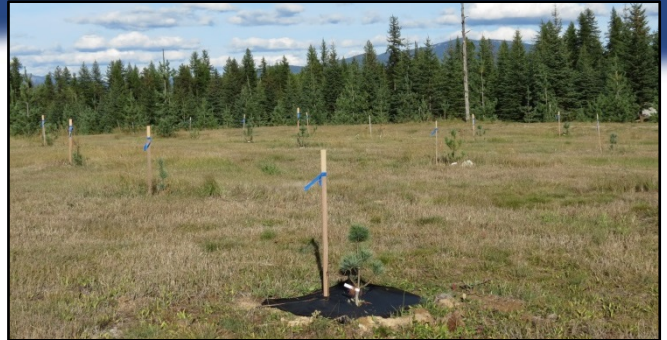
Seed Orchard Roguing Contracts – Contracts were awarded to 3 contractors for thinning & pruning seed orchard trees in: Cedar Creek WL, DF, ES & LP (1,276 orchard locations); Flowery Tail WL, PP & DF (936 orchard locations) & TeePee ES (214 orchard locations). Trees at these orchard locations were reduced to the very best leave trees for each species per planted location.

Western Larch & Ponderosa Pine Cone Collections – 79 bushels of PP cones & 10.5 bushels of WL cones were collected on the Newport, Sullivan Lake & Three Rivers Ranger Districts & sent to the Bend Oregon Extractory.

Seed Orchard Mineral Withdrawal Finalized – The finalized 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 Development & Damage Surveys – Forest Entomologists conducted larval development surveys in the Brown Mt seed orchard DF & WL to monitor numbers & potential damage to the orchard trees. Treatment alternatives were developed to reduce impacts of western spruce budworm to tree crowns and cone crops.

Needle Disease Surveys – A Forest Entomologist & Pathologist surveyed western white pine in the TeePee orchard & DF in the Flowery Trail orchard to identify casual agents to needle damage & recommend treatments to reduce damage to the tree crowns & cone production.



Blister Rust Resistant Western White Pine – Rust resistant western white pine were planted in the TeePee seed orchard. This orchard is almost filled with 1650 planted, rust resistant, western white pine and will begin producing a collectable cone crop in the future.

Blister Rust Resistant Western White Pine Scion Collections – Scions were collected from WWP with blister rust resistance for no spots, needle shed & bark reactions in the Region 1, Grouse Creek WWP seed orchards.

Leavenworth Seed & Cone Collection Workshop – The Okanogan-Wenatchee NF hosted the Region 6 workshop & District personnel worked out the details of the field trip. Personnel from the Colville & Okanogan-Wenatchee NFs were in attendance.

Carlton Fire Damaged Pole Pick Seed Orchard – The Area Geneticist, District Silviculturist, Entomologist & District personnel conducted a field review of fire damage & fence repair & planting needs for PP & DF in the Pole Pick seed orchard on the Methow RD. Short & long term monitoring & action plans were developed to replace the fence & dead & damaged orchard trees.

2014 Partners/Cooperators

USFS Region 1, Genetic Resources (Mary Frances Mahalovich, Marie McLaughlin)

USFS Wenatchee Forest Insect & Disease Service Center (Connie Mehmel, Darci Carlson, Roy Magelssen, Holly Kerns, Bryan Blaedow)

Dorena Genetic Resources Center (Lisa Winn, Angelia Kegley, Sally Long, Lee Riley)

Washington State DNR (Jeff deGraan, Jeff DeBell)



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

Western Washington Area Genetics Program

Olympic, Gifford Pinchot, & Mt. Hood NF's 2014 Program Highlights

PROJECTS

Provisional Seed Zones –“Provisional Seed Zones for Native Plants” was published in the journal *Ecological Applications* and seed zone maps and shapefiles were made available on the WWETAC website through the SeedZone Mapper application

CAPTURE – Area Geneticist participated in a workshop held as part of the Conservation Assessment and Prioritization of Forest Trees at Risk of Extirpation (CAPTURE) project.

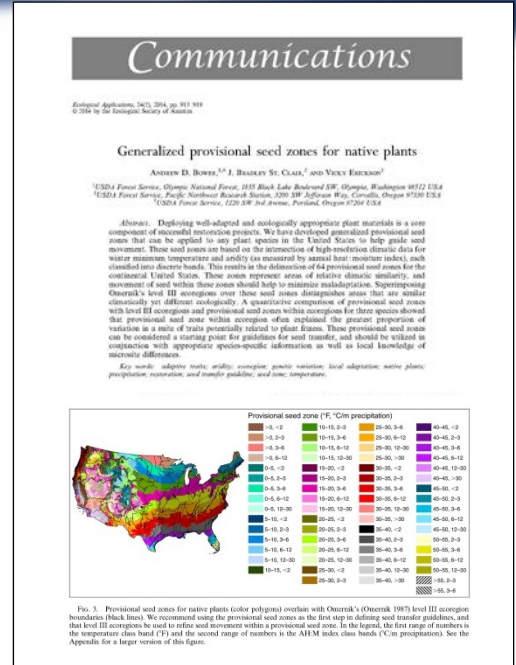
Population Genetics of rare species – working with NFGEL, projects aimed at assessing the population structure of several species are under way for Baker's cypress (lab and data analysis complete), golden chinquapin (lab work under way), and Oregon white oak (field sample collection complete).



Coyote seed orchard bear damaged trees and electrified fence installed to prevent future damage
Photos: A. Bower & R. Watson

Partners/Cooperators

USFS NFGEL Laboratory (Valerie Hipkins)
USFS PNW Research Station (Brad St. Clair, Richard Cronn, Connie Harrington)
WA DNR (Jeff DeBell, Jeff DeGraan)
Quinalt Indian Nation (Jim Hargrove)
WCC (Darryll Bordon)
WSU Extension (Jim Freed)



SEED & SEED ORCHARDS

Coyote WWP seed orchard inventory – the results of extensive bear damage at the Coyote WWP seed orchard were assessed with a full inventory of the orchard and an electrified fence was installed to prevent future damage

Phenology monitoring year 4 – a 4th 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. 23 Time lapse cameras were used to monitor bud flush and pollen shed remotely.

Gene Conservation of High Elevation Conifers – germination tests were done on ~10% of seedlots in storage at DGRC for 4 high elevation species in advance of gene conservation cone collections in SW OR at the southern extent of the ranges for these species. (with E. OR Area Geneticist)

Contact: Andy Bower



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

R6 Whitebark Pine Restoration Program

2014 Program Highlights



Caging cones from a healthy tree in the Seven Devils Mountains, Hells Canyon NRA. Rust and bark beetles are rampant in this area. The red tree in the foreground has recently died from beetle attack.

RESTORATION PROJECTS

Planting - ~600 seedling planted on OKA-WEN NF; ~1000 seedlings planted on FRE-WIN NF; ~400 seedlings plant in rust validation trial and 500 seedling for reforestation on DES NF; ~400 seedlings in the Cascade Creek burn on the GP NF.

Cone Collection – 11 trees collected in 7 Devils Mountains, Hells Canyon National Recreation Area for gene conservation and rust screening; 9 trees collected at Anthony Lakes, W-W NF for rust screening plus 1 bushel of cones for bulk reforestation; 39 trees collected FRE-WIN NF for rust screening and reforestation.

Thinning – a 49 acre treatment on the backside of the Anthony Lakes ski area in eastern OR thinned competing vegetation and cleared fuels from around 100 large, mature individuals. In addition, verbenone



was applied to trees throughout the stand to protect trees from bark beetles. Two interpretive signs were installed at a trailhead adjacent to the project area.

Large WBP on the south flank of Mt. Adams
Photo: J. Nakae

Pacific Coast WBP Working Group

The Pacific Coast WBP Working Group met in April in Portland. Approximately 35 people met for 2 days of presentations and discussions on the current state of WBP, the issues faced by the species and the needs and future plans for restoration as a catalyst for the revision of the R6 WBP Restoration Strategy (Aubry et al. 2008). Some of the topics covered included:

- Climate change and the need for restoration
- NEPA planning and documentation
- TES status and the implications of ESA listing
- Restoration in wilderness
- Fire ecology and wildland fire use/planning
- Rust resistance screening
- Seed germination

Fire – To aid in wildland fire planning/suppression activities in WBP habitat, shapefiles of the distribution of WBP were developed for inclusion in WFDSS, and a presentation about WBP was developed to raise awareness among Resource Advisors of WBP issues during wildfire activity planning and attack.



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

Colville National Forest

2014 Native Plant Material 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 86.5 gallons of uncleaned seed from 27 species (12 shrubs, 1 grass, 11 sedges/rushes and 3 forbs) between 2139 and 5080 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 seeds were stored.

Restoration efforts continue at the Growden Dam removal site, where willow and cottonwood were staked on 4 acres by the Forest Service and students from the Kettle Falls Middle Schools. Six monitoring plots were read. Two-year-old shrubs were planted on an acre disturbed during the replacement of Pierre Creek culvert. About 3,850 shrubs were planted at 26 restoration sites totaling approximately 30 acres across the forest (Figure 1). The Sherman Creek site was seeded with locally collected native species. (Figure 2).

In the Pend Oreille Valley almost 3000 bare root stock or stakes of alder, hawthorn, mixed conifer, red-osier dogwood, willow or black cottonwood were planted at culvert replacements to re-establish fish passage, riparian areas, bermed road entrances, obliterated roads or livestock riparian enclosures, tallying at least 20 acres.

Funds were also used to locate and map 30 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.



Figure 1. Planting native shrubs at a restoration site, June 2014.

Project completion 2014

Expenditures **\$19,000 Total**
 \$15,000 (NFVW)
 \$ 4,000 (NFWF)

Partners/Contractors Coeur d'Alene and J. Herbert Stone Nurseries, Colville Tribe, and Kettle Falls Elementary School.

Contact Kathy Ahlenslager 509-684-7178
 Meghan Lyons 509-738-7753



Figure 2. Native seed mixture spread at the Sherman Creek Restoration site, September 2014.



Colville National Forest
765 S. Main
Colville, WA 99114

Deschutes National Forest

2014 Native Plant Restoration Program Accomplishments

Deschutes National Forest Native Plant Restoration Program continues to focus on developing/planting stock of native grasses, forbs, and shrubs for restoration projects. Funding is also used to test/clean/store seeds, develop contracts, plan revegetation projects, develop/track budgets, develop partnerships, further education about the benefits of using native plants, and training to further our knowledge of native plant restoration.

Seed and Propagule Propagation:

Received 275 lbs. of high elevation native squirreltail (*Elymus elymoides*) seed from a contract with Western Reclamation, Inc. (Bend/Ft. Rock).

Restoration Projects:

- Planted 400 propagules to rehabilitate disturbed areas in Crescent Lake Campground (Crescent).
- Seeded disturbed areas within the Three Trails OHV area (Crescent).
- Decommissioned roads and trails in Odell Watershed (Crescent)
- Planted 1,700 native willows & sedges and 5 lbs. native seed on Soda Creek stream restoration project (Bend/Ft. Rock).
- Seeded 10 lbs. of native seed in Browns Creek Fire (Bend/Ft. Rock).
- Sowed 5 lbs. seed and 3,000 propagules on Lake Creek Fish Passage project (Sisters).
- In partnership with Trout Unlimited, re-vegetated disturbed areas along the Metolius River with 3 lbs. of seed and 300 plants (Sisters).
- Created pollinator gardens at Bear Creek Elementary in partnership with Bend/LaPine School District and Discover Your Forest (Bend/Ft. Rock).

Revegetation Project Planning:

- Developed revegetation plans for Crescent Lake Campground, Metolius River Restoration Projects and began developing revegetation plans for Odell Recreation Residences and Hwy 58 Viewpoint area.



Figure 3. Bend/Ft. Rock Botanists monitor Soda Creek stream restoration project where native seed and propagules were planted.



Figure 1. Christina Veverka uses planting auger for Crescent Lake Campground Revegetation Project where Oregon sunshine and other natives were planted.



Figure 2. Bear Creek Elementary Students create a native plant pollinator garden with help from Charmane Powers, Bend/Ft. Rock.

Year Awarded: 2014

Expenditures: \$49,000 Total Funding

\$ 22,000 NFTM
\$ 19,000 NFWW
\$ 1,000 NFWF
\$ 5,000 WFHF

Partners: Deschutes Basin Native Seedbank, Benson Farms, Clearwater Native Nursery, Dorena Genetic Resource Center; Upper Deschutes Watershed Council, Wolftree, National Forest Foundation, Trout Unlimited, Clarno Hardwood Production Facility, Bend/LaPine Schools, Discover Your Forest.

Contacts: Katie Grenier (kgrenier@fs.fed.us), Charmane Powers (cpowers@fs.fed.us), Christina Veverka (cveverka@fs.fed.us), Maret Pajutee (mpajutee@fs.fed.us), Marlo Fisher (mrfisher@fs.fed.us)



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

Fremont-Winema National Forest

2014 Native Plant Material Accomplishments

A contract was awarded to Benson Farms, and funds obligated for production of:

- 500 lbs. of *Festuca idahoensis*
- 500 lbs. of *Poa secuda*
- 500 lbs. of *Leymus cinereus*
- 200 lbs. of *Pseudoroegneria spicata*
- 25 lbs. of *Eriogonum umbellatum*
- 100 lbs. of *Achillea millefolium*

Partnership and appropriated funds were used to produce and deliver:

- 500 lbs. *Festuca idahoensis*
 - 1000 lbs. *Elymus elymoides*
 - 1200 lbs. *Elymus glaucus*
 - 500 lbs. *Leymus cinereus*
-
- 448 hardwood seedlings of 3 different species (Fall 2013)
 - 891 sedge plugs (Fall 2013)
 - 563 shrub seedlings of 5 different species (Fall 2013)
 - 260 lbs. of native grass seed (Fall 2013)

Most of the native plant material delivered in the fall of 2013 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, golden currant, red-osier dogwood, serviceberry, mountain alder, giant basin wildrye, Idaho fescue, Sandberg bluegrass, bluebunch wheatgrass and sedge seed. CFLR funds were used to locate and collect yarrow, wooley sunflower, goldenrod, and wax currant.

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



Figure 1: Seasonal Rebecca Swanz with part of 2014 chokecherry collection.

20 wild rose and 20 serviceberry seedlings were planted by botany crew on FS land. 10 lbs of tufted hairgrass was spread at the Four-mile creek restoration site.

Expenditures:	\$ 58,572 Total
	\$ 38,000 (NFTM/NFVW)
	\$ 8,000 (NFXF)
	\$ 12,572 (CFLR)



Partners/Contractors/Cooperators:
USFWS, Benson Farms, Karmas Forest Nursery, Clearwater Native Plant Nursery.

Contacts:

Joseph Washington	541-947-6253
Missy Anderson	541-783-4085
Jeannette Wilson	541-576-7593

Gifford Pinchot National Forest

2014 Native Plant Material Accomplishments

Seed Growout Contracts:

- 750 lbs. Mountain Brome sowed and in the process of grow out by Benson Farms

Seed Collection:

- Golden chinquapin (*Chrysolepis chrysophylla*) seed was collected for container grow out in FY15, to be planted out in FY16 as a part of a golden chinquapin restoration project
- ~ 15000 camas seeds (*Camassia quamash* and *C. leichtlinii*) were collected for a Chelatchie Prairie restoration project, to be direct sowed during FY15.

Seed use:

- Approximately 608 lbs of native grass seed was applied over approximately 20 acres of habitat in need of restoration. Re-vegetation projects included :
 - culvert replacements
 - riparian restoration
 - road decommissioning
 - erosion control on slide areas
 - stabilizing timber sale/stewardship sale landings and skid trails

Monitoring:

- Returned to monitor one of five plots that were installed within the Cascade Creek burn during FY13, to test the efficacy of ground surface application of *Festuca idahoensis* seed. Seed was applied at a rate of 40 lbs/acre. The Bunny Hill site was a great success (Figure 1 shows the plot one year after application. In areas outside the plot, *Festuca idahoensis* was entirely absent.

Native Plant and Pollinator Demonstration Garden:

- North Zone. Eighteen different species of pollinators were documented visiting blooming native plants in the garden. Plants were evaluated for pollinator support and seed production for possible inclusion in future restoration seed mixes.



Figure 1: Idaho fescue one year after application at a rate of 40 lbs/acre. This species is absent from adjacent burned areas.



Figure 2: Flower visitors in Native Plant Garden

Year Awarded/Completed: 2014

Expenditures: \$ 36,316.00 Total

\$ 25,965.00 (NFTM03)

\$ 9,351.00 (NFVW03)

Partners/Contractors/Coop:

Benson Farms Inc.

Cowlitz Tribe

Contacts:

HQ: Carol Chandler (360) 891-5106

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

Tom Brumbelow (509) 395-3413

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



Gifford Pinchot National Forest

10600 N.E. 51st Circle

Vancouver, WA 98682

Malheur National Forest

2014 Native Plant Restoration Program Accomplishments

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

- *Riparian Habitat*: over 6,000 hardwood cuttings , 50 lbs. of riparian native grass seed mix, and 2 lbs. of native forb seed were used for stream restoration projects and culvert replacements projects that improved critical fish habitat.
- *Logging and Fuels Reduction*: over 1,900 lbs. of upland native seed mix was applied to disturbed ground as a result of skid trails, landings, and large burned-out slash piles (Figures 1 and 2 show comparison of unseeded areas vs. seeded areas)
- *Forage Improvements*: over 300 lbs. of upland seed mix was used for rangeland habitat improvements associated with livestock allotments and big game winter range.
- *Mining and Special Use Reclamation*: Over 200 lbs. of upland seed mix was provided to re-vegetate disturbed areas for mining claims, utility corridors, and special use projects.

Seed Production and Purchase – 815 lbs. of Great Basin wildrye was procured and delivered from previous contracts.

Seed Collection and Source Mapping – Continued to collect and map source populations for 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. Small quantities of seed was collected from 7 species of native showy forbs.



Fig. 2. Seeded Slash Pile – Remains of burned-out slash pile showing establishment of native grasses in area that was previously bare ground following burning.

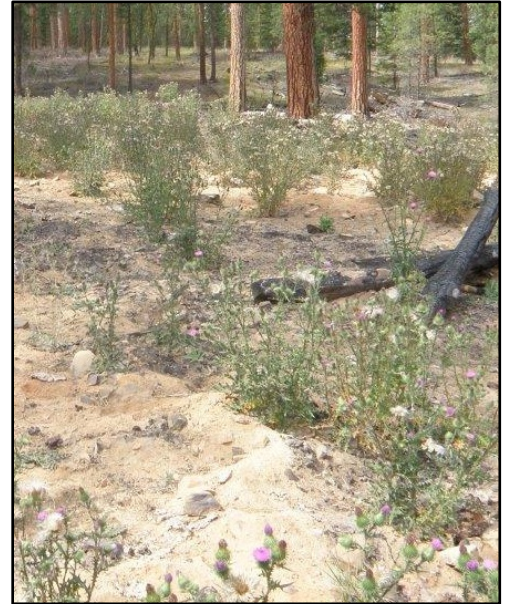


Fig. 1. Unseeded Slash Pile – Remains of burned-out slash pile showing establishment of invasive thistles in area that was not seeded with native plants.

Expenditures:	\$ 35,000	Total
	\$ 20,000	NFTM
	\$ 10,000	NFVW
	\$ 5,000	WFHF

Partners/Contractors: Benson Farms, Western Reclamation, Eastern Oregon Stewardship, 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
Forest Botanist/Ecologist
541-575-3141



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

Mt. Baker-Snoqualmie National Forest

2014 Native Plant Material Accomplishments

Native Plant Revegetation Projects.

- 88 acres of riparian habitat was prepared and planted with genetically appropriate native plants along the Skagit Wild and Scenic River Corridor. This work was partially funded through a CCS project. Partners included Skagit River Cooperative System and Skagit Fisheries Enhancement Group. All prep work was completed by the Whatcom County Correction Crew. 143 students helped complete the plantings: the entire Darrington Middle School, Mt. Vernon School of Immaculate Conception (Figure 1), and Project Wild from Seattle (Figure 2).
- 5 acres of the Baker Lake Spawning Beaches Restoration Project was planted with genetically appropriate native plants.
- 6 acres of the newly rebuilt Suiattle River Road was seeded with locally collected, and bulked blue wild rye (*Elymus glaucus*).
- ~7 acres of riparian restoration projects, including the Suiattle Seed Orchard and Marsh Ponds, were seeded with locally collected, bulked native seed including large-leaved avens (*Geum macrophyllum*) and small flowered woodrush (*Luzula parviflora*).



Figure 1. Mt. Vernon students planting at Sauk Boat Launch, Darrington Ranger District

Native Plant Collection, Grow-out and Bulking.

- 5 pounds of California brome (*Bromus carinatus*) was collected from the Suiattle watershed for bulking at JHS Nursery.
- Sound Native Plants continued to grow littleleaf silverback (*Luina hypoleuca*), woodland strawberry (*Fragaria vesca*), and rose spirea (*Spiraea douglasii*) for fall planting at Gold Creek Pond.
- Fourth Corner Nursery continued to grow piggyback plant (*Tolmiea menziesii*), goats beard (*Aruncus dioicus*), and fringecup (*Tellima grandiflora*).



Figure 2. Three images of Project Wild participants installing understory plants, Mt. Baker Ranger District



Revegetation Monitoring.

- 4 acres of plantings at the Baker Lake Spawning Beaches Restoration Project were monitored for viability. The plantings had greater than 90% survivorship through the winter and summer growing season.
- 25 acres of plantings at the Kaaland Riparian Restoration Project were monitored for viability. The plantings had greater than 70% survivorship. However, heavy browse by elk was observed on ~30% of the trees and shrubs. Co-planting of Sitka spruce (*Picea sitchensis*) and Western red cedar (*Thuja plicata*) seemed to deter herbivory of the cedar.

2014 NPM Program Expenditures

Native Plant Material Management	NFVW = \$18,280
Native Plant Material Increase	NFTM = \$20,000
WSR CCS Revegetation	NFWF & VW = \$22,000
Native Plant Increase	CWK2 = \$18,000

Partners, Cooperators, and Contractors: Coeur d'Alene Nursery, J Herbert Stone Nursery, Bend Seed Extractory, Fourth Corner Nursery, Sound Native Plants, Puget Sound Energy, Skagit River System Cooperative, Seattle City Lights, Skagit Fisheries Enhancement Group, Project Wild, Immaculate Conception, Darrington School District, Whatcom County Corrections Crew, Conservation Northwest

Contacts:

Shauna Hee (North Zone Botanist); 360-854-2635
Carrie Schreiber (South Zone Botanist); 425-888-8753



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

Ochoco National Forest and Crooked River National Grassland

2014 Native Plant Restoration Program Accomplishments

The Ochoco National Forest Native Plant Restoration Program continues to focus on developing/planting stock of native grasses, forbs, and shrubs for restoration projects. Funding is also used to test/clean/store seeds, develop contracts, plan revegetation projects, develop/track budgets, develop partnerships, further education about the benefits of using native plants, and training to further our knowledge of native plant restoration.

Seed and Propagule Production/Purchase:

- Purchased 27 lbs. of squirreltail and 34 lbs. of Basin wild rye from Deschutes Basin Native Plant Seedbank.
- Purchased 165 lbs. of prairie junegrass from Benson Farms from stock that originated on the Crooked River National Grassland.

Seed Collection:

- Collected tufted hairgrass seed for future seed production to incorporate into a riparian seed mix.
- Collected seed from 8 forb and shrub species to propagate for McKay Creek and Trout Creek restoration projects.
- Collected seeds and rhizomes from native milkweed (*Asclepias* sp.) populations that are being propagated at Clarno nursery for monarch butterfly conservation.

Restoration Project Implementation:

- Seeded > 1,000 lbs. of native seed on skid roads, landings, grapple piles, stream restoration projects, dozer lines and burned areas.
- Planted > 2,000 plants of willow (6 different species), black cottonwood, thin leaf alder, rose, current, gooseberry, and dogwood in Upper Beaver, Sugar Creek, Trout Creek and Dick's Creek (250 acres).
- Planted 950 bitterbrush plants on 20 acres on Crooked River National Grassland.

Revegetation Project Planning:

- Developed a revegetation plan for Crazy Creek Stream Restoration and Culvert Replacement Project.
- Pulled & mixed 4,000 lbs. of native grass seed from storage to create an upland native plant seed mix for future revegetation projects.



Figure 1. Lori Williams and Sarah Callaghan seed disturbed area with native grass seeds.



Fig. 2. Assisted PNW Research with planting bluebunch wheatgrass on Crooked River National Grassland as part of a reciprocal transplant study.

Year Awarded: 2014

Expenditures: \$29,933 Total Funding
\$ 10,000 NFWW
\$ 20,000 NFTM

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

Contacts: Krista Farris (kristalfarris@fs.fed.us), Jill Welborn (jillwelborn@fs.fed.us), Katie Grenier (kgrenier@fs.fed.us)



Figure 3. Botanist Krista Lopez collected native milkweed seeds & rhizomes for monarch butterfly conservation. Left: milkweed rhizomes collected for planting at Clarno Nursery; Right: monarch caterpillar on milkweed.



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

Olympic National Forest

2014 Native Plant Material Accomplishments

The Olympic National Forest Native Plant Program continues to focus on developing and providing stocks of native grasses, forbs, and shrubs for habitat restoration and enhancement projects. Specific accomplishments include:

Two new seed collection contracts were awarded to K.H. Hewitt Forest Resources.

Taylor's checkerspot butterfly habitat restoration: seed collection. Foundation seed from *Plectritis congesta*, *Castilleja hispida*, *Eriophyllum lanatum*, *Collinsia parviflora*, and *Lomatium utriculatum* will be collected over the next two years. Ultimately, this seed will be used for seed increase that will supply materials for habitat restoration projects benefiting the endangered Taylor's checkerspot butterfly.

Understory forb seed collection. Foundation seed from *Tolmiea menziesii* and *Aruncus dioicus* will be collected over the next two years. Ultimately, this seed will be used for seed increase that will supply materials for reveg after timber harvest, road decommissioning, etc. in more mesic areas where the grass seed we currently have would not thrive. **Sound Native Plants completed two separate sedge propagation contracts.**

Mint Meadow sedge propagation. A total of 10,000 *Carex obnupta* plugs were delivered and subsequently planted by Sound Native Plants and Forest Service staff at Mint Meadow.

Pine Lake sedge propagation. A total of 7,770 plugs of *Carex lenticularis* and *C. exsiccata* were delivered and subsequently planted by Forest Service staff and the Washington Conservation Corp at Pine Lake. The Backcountry Horsemen assisted with transporting the plugs to the restoration site.



Figure 2. *Carex obnupta* plugs being planted at Mint Meadow.



Figure 1. Taylor's checkerspot habitat, showing *Plectritis congesta*, *Lomatium utriculatum* and *Collinsia parviflora*.

Benson Farms continues to produce native grass seed.

A total of 2556 lbs of *Bromus carinatus* and *Elymus glaucus* were delivered this year, and an additional 2200 lbs will be delivered over the next several years. Large rodent proof bins were purchased to store this seed

Expenditures: \$ 35,000 Total

\$27,000 NFTM and \$8,000 CMRD

Partners/Contractors/Cooperators:

Sound Native Plants, Benson Farms, K.H. Hewitt Forest Resources, Washington Conservation Corp, Backcountry Horsemen

Contacts: Cheryl Bartlett 360-956-2283



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

Rogue River-Siskiyou National Forest

2014 Native Plant Restoration Program Accomplishments

2014 Farm Seed Production:

- J. Herbert Stone FS Nursery (JHSN) 2014 harvested *Festuca californica*, *Festuca roemerii* (2 lots), *Achnatherum lemmonii* (2 lots), *Elymus glaucus*, and *Danthonia californica* (3 lots) grown for our Forest.
- A large shared BLM/FS California Fescue planting was sown at JHSN and is not yet producing seed.

2014 Wild Seed Collections:

- ~2 lbs. *Danthonia californica* and *Festuca californica* on Gold Beach R.D.

New contracts were awarded and funds obligated to:

- Produce seed at JHSN for high elevation gully stabilization efforts on the Siskiyou Crest.

Restoration project implementation:

- Volunteers watering and care of planted whitebark pines.
- Ongoing monitoring of Siskiyou Crest barrens seeding trials and gully rehab.
- Gold Beach R.D. and the Regional Restoration Team out of the Dorena Genetic Resource Center completed planting of roughly 1,500 plants for the Bradford Wall and Redwood Culvert engineering projects.
- Seeding sites after long-term invasive plants eradication efforts on Wild Rivers R.D.
- Seeding areas disturbed during wildland fire suppression efforts on Wild Rivers R.D.

Other Projects:

- Ashland Forest Resiliency Project; seeding and fertilizing landings, and seeding machine pile areas after burning.
- Seeding for wildlife, erosion control, and invasive plant abatement in KV sale areas, across the Forest.
- Viability tests initiated at OSU Seedlab for older seed lots in storage.

Funds were also used to:

- Help manage seed crops at JHSN (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. California wild grape (*Vitis californica*) planted above the Bradford Wall. The hope is this species will drape over the wall and hide it from rafters on the Rogue River in the distance.

Expenditures: \$ 37,000 (NFWW)
 \$ 10,000 (CWKV)
 \$ 3000(?) (Fire P code funding to grow replacement seed for seed used during fire suppression rehab)

Partners/Contractors/Cooperators: Lomakatsi Restoration, Bend Seed Extractory, Dorena Genetic Resource Center, BLM, Federal Highways Administration, Region 6 Restoration Team

Forest Contact:

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



Figure 2: Forbs and grasses 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

2014 Native Plant Material Accomplishments

In 2014 the Native Plant Program provided seed and plant material for restoration projects benefiting threatened Oregon silverspot butterfly, coastal coho salmon, sensitive pink sandverbena, and Coast Range upland meadow.

Seed Produced:

- 85 lbs. blue wildrye (*Elymus glaucus*)
- 24 lbs. Canada goldenrod (*Solidago canadensis*)
- 16 lbs. early blue violet (*Viola adunca*)
- 2 lbs. aster (*Aster chilensis*)
- 1 lb. California oatgrass (*Danthonia californica*)
- 1 lb. pearly everlasting (*Anaphalis margaritacea*)

Plants Produced: 19,400 Total

- early blue violet (*Viola adunca*)
- yarrow (*Achillea millefolium*)
- pearly everlasting (*Anaphalis margaritacea*)
- Canada goldenrod (*Solidago canadensis*)
- coast strawberry (*Fragaria chilensis*)
- aster (*Aster chilensis*)
- Douglas spiraea (*Spiraea douglasii*)
- willow (*Salix lucida* ssp. *lasiandra*)
- big-leaf maple (*Acer macrophyllum*)
- red alder (*Alnus rubra*)
- vine maple (*Acer circinatum*)
- oceanspray (*Holodiscus discolor*)
- black twinberry (*Lonicera involucrata*)
- ninebark (*Physocarpus capitatus*)
- swamp crabapple (*Pyrus fusca*)
- red-flowering currant (*Ribes sanguineum*)
- red elderberry (*Sambucus racemosa*)
- awl-fruit sedge (*Carex stipata*)
- one-sided sedge (*Carex unilateralis*)
- evergreen huckleberry (*Vaccinium ovatum*)

Restoration Projects Supported:

- Oregon silverspot butterfly habitat restoration,
- Five Mile-Bell Creek riparian restoration project,
- Marys Peak summit meadow restoration,
- coastal coho riparian habitat enhancement,
- Pink sandverbena reintroduction.



Figure1. Riparian Restoration. Seeding native species on a recently graded portion of the 80 acre Five Mile-Bell riparian restoration project.

Year :	FY 2014
	\$27,000 (SRS2)
	\$22,500 (NFVW)
	\$13,500 (NFWF)
	\$ 1,200 (Volunteer Contributed)

Expenditures: \$64,200 Total

Partners: USFWS, NRCS Corvallis Plant Materials Center, Oregon Coast Aquarium, Oregon Zoo, Siuslaw Watershed Council, Northwest Oregon Restoration Partnership, Elkton Community Education Center, Salmon-Drift Watershed Council, Institute for Applied Ecology, Willamette Gardens, Yachats Trail Crew.

Contacts: Greg Treber 541-563-8419
Marty Stein 541-563-8417
Marty Bray 541-563-8452



Siuslaw National Forest

3200 SW Jefferson Way
Corvallis, OR 97339



Figure 2. Silverspot butterfly Habitat. Volunteers plant forbs required by the butterfly during its larval and adult stages.

Okanogan-Wenatchee National Forest

2014 Native Plant Restoration Program Accomplishments

Using FY14 Native Plant Program funds in NFWW, 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 FY14 include:

- Reconnaissance, assessment, and mapping sites for native seed collection.
- Collected, increased or purchased 4,741 pounds of seed.
- Awarded contracts for seed increase to meet future restoration seeding needs on four ranger districts.
- Propogated and planted 3,179 containerized native plant seedlings for restoration purposes on sites including federal highway rights-of-way, lake or pond habitat, and subalpine parklands.
- Revegetation projects used over 2,496 lbs. of grass and forb seed (including *Vaccinium deliciosum*, *Juncus parryii*, *Lutkea pectinata*, *Carex sp.*, *Aster sp.*, *Phyllodoce empetriformis*, *Cassiope mertensiana*).
- Maintain controlled environment seed storage capability for three zones on the Forest (North, Central, and South Zones).
- Procured 1050 lbs. of surplus local grass seed (*Poa secunda* and *Pseudoroegneria spicata*) for revegetation projects.



Methow RD Maple Loop Restoration



Salix stooling beds at Coeur d'Alene Nursery



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

Year Awarded: 2014

FY13 Expenditures: \$133,274 (CFLN, CMLG, CMRD, CWFS, CMXF, ERFO, NFWW, WFHF)

Partners/Contractors/Coop: Benson Farms Inc, Chelan County PUD, Derby Canyon Natives, Treasured Landscapes, North Cascade Institute, 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 - Vacant
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

Umatilla National Forest

2014 Native Plant Material Accomplishments

New Contracts Awarded and Funds Obligated:

Funds obligated to

- Bend Seed Extractory for native seed cleaning and storage.
- Benson Farms for 1000 lbs blue bunch wheatgrass and 1000 lbs mountain brome.
- Dorena for 1000 shrubs (cottonwood, willow, bitterbrush, mountain mahogany, thinleaf alder, black hawthorn) for North Fork John Day and Heppner Districts.

Seed produced and purchased in existing increase fields:

- 500 lbs of blue wildrye from L&H Seeds and 1500 lbs of California brome from Benson Farms for North Fork John Day and Pomeroy Districts.
- Parsnipflower buckwheat (remaining seed from unproductive field at Benson Farms) plus 200 lbs of yarrow from Benson Farms for Walla Walla District.

Seed Collections and cuttings:

- collected seed of following: 3.5 lbs Sandberg bluegrass, 4.8 lbs bluebunch wheatgrass, 1.75 lbs junegrass, 6.5 lbs Idaho fescue, and 3.175 lbs showy penstemon seedheads.
- CTUIR personnel harvested cottonwood cuttings at Clarno stool beds (Walla Walla clones) and rooted in pots for planting in Meacham Cr Restoration project.

Planting/Restoration Project Implementation:

- planted 1296 lbs (321 south + 975 north) seed of native grasses and forbs on 315 acres in timber sale areas, decommissioned roads, and other disturbed sites.
- Planted and caged 172 shrubs and hardwoods (bitterbrush, black cottonwood, mountain mahogany) in various locations on South Zone.
- Planted and tubed 180 mountain mahogany and bitterbrush (10 cubic inch plugs) plus 20 total of both species were planted and caged on helicopter landing in Oriental Basin on North Fork John Day District.
- Seeded 7 lbs of native grass seed mix on Ninemile Ridge in North Fork Umatilla Wilderness area after manual removal of common crupina in 2 acre polygon.



Figure 1. Eric Pfeifer, north zone invasive plant program manager, admiring field of yarrow at Benson Farms. Photo by Karen Prudhomme.



Figure 2. USFS North Fork John Day personnel planting cottonwood, dogwood, alder and willow cuttings along the North Fork John Day River. Photo by Ed Farren.

Year Awarded: 2014

Project completion: 2014 and beyond

Expenditures: \$78,000 Total

\$20,000 (SC0614)

\$43,000 (NFVW)

\$ 5,000 (WFHF)

\$ 10,000 (CMLG)

Stewardship: Funding awarded (\$30,000) for numerous timber and fuels reduction projects on South Zone. \$20,000 spent in fiscal 2014 with \$10,000 to spend in fiscal 2015.

Integration: Other BLIs and grants including Title II funds 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; Eric Pfeifer 509-522-6022.

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



Umatilla National Forest

72510 Coyote Road
Pendleton, OR 97801

Umpqua National Forest

2014 Native Plant Material Accomplishments

Seed Collection and Propagation

Second year field production continues for one acre fields of blue wildrye and California fescue at the J. Herbert Stone Nursery. Seeds and fruits were collected for growing out new plugs of Pacific serviceberry, red elderberry, blue elderberry, mountain ash, snowberry, bitter cherry, glyceria, bulrush and Oregon white oak at JHS Nursery. Additional collections of two lupine species and Oregon ash were collected and sent to the Bend Seed Extractory for cleaning.

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

Transplanted cuttings and seeded the following shrubs and forbs for wildlife, recreation, engineering, and mitigation based projects:

Red osier dogwood (cuttings)	175
Willow (cuttings)	175
Carex (transplants)	170
Blue wildrye	220 lbs
California brome	150 lbs
Roemers fescue	200 lbs
California fescue	1 lb
Prairie June grass	100 lbs
Western pearly everlasting	4 lbs
Silver lupine, phacelia, big deer vetch, columbine, heartleaf milkweed, carex, rosa	7 lbs

Seeded the following species at several KV-funded projects:

Blue wildrye	300 lbs
California brome	175 lbs
Roemers fescue	110 lbs
Big deer vetch	3 lbs
Smallhead clover, yarrow, Western pearly everlasting	
Oregon grape, mules ear	2 lbs



Figure 1. Stump Lake immediately after the ponds had been excavated in the summer of 2014. This wetland area is associated with a PacifiCorp operated reservoir and is being enhanced as a condition of the relicensing of the hydroelectric project.



Figure 2. Sedges being planted in the wetland area of Stump Lake in the early fall of 2014.

Expenditures:	\$11,000 (CWKV)
	\$7,000 (CMRD)
	\$23,000 (NFVW)
	\$10,000 (CMLG)
	\$51,000 Total

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

Contact : Richard Helliwell, 541-957-3337



Umpqua National Forest
2900 NW Stewart Parkway
Roseburg, OR 97471-1274

Wallowa-Whitman National Forest

2014 Native Plant Material Accomplishments

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

During 2014 funds were used for collection of approximately 25 pounds native forb seed (8 species) primarily for the improvement of pollinator habitat including *Bombus occidentalis* (western bumblebee) which occurs on the Region – 6 Forester’s sensitive list. Funds were also used to pay for seed cleaning and testing; maintenance of seed storage facilities; and updating the GIS layers for seed collection sites and seeding / restoration projects.

Wallowa-Whitman National Forest
P.O. Box 907
1550 Dewey Avenue
Baker, OR 97814

Restoration project implementation

Provided approximately 2,000 pounds native grass and forb seed for rehabilitation of 110-acres on 21 projects across the forest.

- 75 lbs. - Fire suppression rehabilitation: 5-Mile, Sommers, Pittsburg
- 300 lbs. - Skid trails, decks and landings: B-vine, Sugar, Peep, Cove II WUI, Horsefly & Little Bear
- 25 lbs. - Range Improvement / Ponds
- 225 lbs. - Revegetation after utility/road work
- 200 lbs. - PacifiCorp Wallowa Falls Penstock, Idaho Power Rehab work / noxious weed treatment
- 50 lbs. - Sled Springs OHV trail
- 790 lbs. - Aquatic Restoration: Meadow Cr., Corral Cr., UGR / 51, Chicken Cr., GR MineTailings
- 2.000 lbs. - (native grass and forb seed planted)

In addition, approximately 10,000 deciduous trees and shrubs and 5,000 hardwood cuttings were planted on Aquatic Restoration Projects.



2014

Continuation of the Sled Springs OHV trail implementation and road decommissioning project



Year Awarded: 2014
Project completion: 2014
Expenditures: \$ 45,000

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

Contacts: Jerry Hustafa & Penny Hall

Willamette National Forest

2014 Native Plant Restoration Program Accomplishments

Seed Growout Contracts:

We used the Regional Grass Seed Growout contract to procure the following:

- 5300 # blue wild rye seed
- 1100 # California brome seed

We bought a greater amount of blue wildrye than normal because we needed 1200# for seeding areas used in suppression activities on the Deception fire. A total of 568 acres were seeded across the forest for erosion control, weed competition and forage seeding.

Seed Collection:

Elymus glaucus (11#) and *Festuca californica* (6#) were the focus of collection on the Middle Fork District. Blue wildrye (5#) was also collected on Sweet Home. This grass seed will be used to replenish growout fields for increase contracts.

Sweet Home District botanists also collected species which will be used for enhancement for Native Tribes including *Camas* (1#), *Vaccinium membranaceum* (10#) and *Hierochloa odorata* (1#).

On Detroit District, riparian (*Aruncus*, *Mianthemum*, *Cornus*, *Spiraea*) and upland (*Artctostaphylos*, *Gaultheria*, *Holodiscus* and *Penstemon*) seeds were collected.

Cooperative Projects:

The Eagle's Pride Nursery at McKenzie High School produced 120 various shrubs which were planted out on 29 acres for wildlife forage: blue and red elderberry, cascara, bitter cherry, vine maple and serviceberry.

This is the second year we got a crop from our seed increase plots for **Corvallis Plant Material Center**: Iris tenax (4.5 #), *Lotus unifoliatus* (30g) and *Penstemon cardwellii* (3 #).

A total of **6 Tons of weed free straw** was obtained for Middle Fork and McKenzie Ranger District engineering departments.



Figure 1. *Lotus crassifolius* from Willamette NF in production at Corvallis Plant Material Center

Year Awarded/Completed: 2014

Expenditures:	\$ 94,000 Total
	\$ 29,000 (NFVW)
	\$ 5,000 (NFWF)
	\$ 9,000 (CMLG)
	\$ 7,000 (CMRD)
	\$ 14,000 (NFXN)
	\$ 16,000 (CWKV)
	\$ 14,000 (WFSU)

Partners/Contractors/Coop: Benson Farms Inc., Corvallis NRCS Plant Material Center, McKenzie High School.

Contact: Jenny Lippert 541-225-6440



Figure 2. Willamette NF *Penstemon cardwellii* at PMC in Corvallis.



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

