



**PULLMAN
PLANT
MATERIALS
CENTER**

**United States
Department of
Agriculture**

**Natural Resources
Conservation
Service**

**Washington State
University**

**P.O. Box 646211
Pullman, WA 99164**

**(509) 335-7376
FAX (509) 335-2940**

**E-mail:
stannard@wsu.edu**

**Internet:
www.wsu.edu/pmc_nrcs**

*Finding Vegetative
Solutions
to Conservation
Problems*

July 26, 2001

**To: Field Offices
Plant Materials Centers
Plant Materials Specialists**

Subj.: Update of Pullman PMC activities for April 1 – June 30, 2001.

The Pullman PMC quarterly update is intended to provide field staff with a short description of PMC current activities. Please take a few minutes to read it, if you make a hard copy, pass it along to others in your office, and when fully routed, feel free to file it in your recycle bin. If you wish to join our e-mail list, please contact us. Thanks!

PLANT DEVELOPMENT

The Aberdeen and Pullman PMCs cooperatively released **Snake River Plains Germplasm Fourwing Saltbush**. The Aberdeen, Idaho and Pullman, Washington PMCs independently evaluated Fourwing Saltbush that had many accessions in common. Pullman identified 2 accessions with excellent attributes and Aberdeen identified these same 2 along with 2 more accessions. All four originate from the Snake River Plains of southern Idaho. Aberdeen is the maintaining the release and will make seed available for growers.

The Goldendale, Clarkston, St John, and Waterville field offices participated in establishing **Douglas fir** evaluation plantings. The plantings are comparing the Lind Dryland Experiment Station firs against a commercial source of Douglas fir. The Lind firs were planted in 1946 by the Pullman PMC, and they are surviving even though the MAP is only 9.25". Additional plantings were established at the Lind Experiment Station and near Milton-Freewater. We will determine if the Lind trees are more drought tolerant than what is commercially available.

Cuttings of **Harrington origin Redosier Dogwood** were provided to the Goldendale field office for inclusion in a CREP planting. Harrington (,WA) origin was selected by the Pullman PMC for its ability to perform on a tough upland site. It is tolerant of central Washington hot summers and limited moisture conditions that occur periodically in the region.

The Pullman PMC retired 2 grass varieties: '**Primar**' slender wheatgrass and '**Greenar**' intermediate wheatgrass. These grasses were important years ago but their use has waned. 'Primar' was released in 1946 for green manuring; a practice not commonly employed these days. 'Greenar' was released in 1945 for forage. 'Pryor' and 'San Luis' slender wheatgrasses are excellent replacements for 'Primar'. 'Rush', 'Reliant, and 'Oahe' are excellent replacements for 'Greenar'.

Crowder established a reed canarygrass suppression study near Pullman. Reed canarygrass, a serious problem in PNW riparian areas, is fairly easy to kill but it recolonizes very rapidly. Strips of reed canarygrass were sprayed out with glyphosate and several herbaceous species were later transplanted into the dead mat. It is hoped that at least one of the species will establish well and prevent recolonization of reed canarygrass.

TECHNOLOGY TRANSFER

A plant materials demonstration planting was established at the Ephrata field office. The PMC transplanted 11 grasses and legumes in plots next to the office. Several very ornate conservation plants are included in the planting and could be excellent candidates for xeroscape projects.

TECHNOLOGY TRANSFER CONT'D

The St John, Ritzville, Walla Walla, Clarkston, and Davenport field offices assisted the PMC with a long-term CRP monitoring study. Each office selected three fields for monitoring, and the PMC will visit these fields each year and document plant community changes. A steel fence posts was erected in each field to identify the monitoring location and also serve as a camera stand. Each site will be photographed every year. Casual observations made this year indicate that producers were quite successful with native grass mixes. It would appear that growers didn't want to replant super expensive seed.

The Pullman PMC provided WSU agronomy students a 2-hour workshop on estimating forage production. Rising plate meters, "forage sticks", "eyeballing" and clipping were compared. Canopy architecture and its effect on estimating forage production was also compared for 3 grasses.

Crowder and Stannard traveled to Usk to evaluate a riparian planting along the Kalispel River and establish herbicide plots on a remnant stand of prairie cordgrass. The river planting showed that the combination of a high water table and high clay content was very restrictive for most woody species. The herbicide experiment will determine if a spring application of glyphosate will suppress reed canarygrass and not injure intermixed prairie cordgrass. We theorize that the cordgrass will rapidly colonize the sprayed area because the cordgrass should be dormant while the reed canarygrass is actively growing. Plugs of prairie cordgrass were also transplanted into intact stands of reed canarygrass at the PMC to determine its ability to withstand heavy competition.

Dave Skinner provided the Palouse Audubon Society a slide presentation on his Palouse Prairie Restoration efforts. He followed up his presentation with a tour of his plots the following Saturday. Dave recently established Palouse Prairie demonstration plantings in cooperation with the Palouse-Clearwater Environmental Institute of Moscow, Idaho and the City of Pullman, Washington. The PMC is also actively involved with a couple projects sponsored by the Palouse Prairie Foundation.

Theresa Kunch, WSU Soils Graduate Student, utilized GIS technology to create cover crop maps for central Washington. She integrated growth model data from PMC studies with climatic data to generate the maps. Her maps show expected biomass accumulation for average years, below normal and above normal years. She recently defended her thesis and is now a NRCS soil scientist in Mount Vernon, WA.

MISCELLENEOUS

The Tristate Plant Materials Technical and Advisory meetings were held in Spokane. The state conservationists directed the plant materials staff to identify contentious plant species such as Russian olive and generate a document(s) that detail the ecology, biology, control, and utility of these species. This information will be used by the NRCS State Technical Committees to determine if the specie(s) should be removed/added to the list of acceptable plant materials. Gary Kuhn, NRCS agroforester, gave a PowerPoint presentation on the use of hybrid poplars for dairy waste management. Lastly, the state conservationists directed the Plant Materials staff to conduct more peer review of technical papers, share lists of Plant Materials Technical Notes with adjoining states, and review each state's Technical Notes for soundness (and discard antiquated documents).

Reminder---- The Pullman PMC is offering a training course for NRCS employees in FY 2002. The name of the course is entitled: "Vegetation technology for field office planners and technicians". Some topics that will be addressed include: Seedbed preparation and stand counting, plant & weed identification, demonstrate tools for installing riparian plantings, rooting comparisons, and procedures for collecting soil & water samples for nutrient analysis. Be sure to notify your supervisor, and list this course in your training needs. See you in mid-June of 2002.

Mark Stannard
PMC Team Leader