PULLMAN PLANT MATERIALS CENTER

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Finding Vegetative Solutions to Conservation Problems

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To: Field Offices
Plant Materials Centers
Plant Materials Specialists

Subj.: Update of Pullman PMC activities for Oct. 1 – Dec. 31, 2K.

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, pass it along to others in your office, and when fully routed, feel free to file it in your recycle bin.

PLANT DEVELOPMENT

Seed cleaning efforts were in full swing during this period. Dave Skinner experimented with various techniques to clean seed of a large selection of forbs that are native to the Palouse Prairie. Many seeds have a pappus that must be removed if the seed is to be mechanically planted. Other species are very small seeded and difficult to separate from stem debris. Dave is in the process of documenting which apparatuses are best for each species.

The bankruptcy of a large seed conglomerate has caused renewed interest in several old public varieties. Growers are shying away from the private varieties and are busy acquiring foundation seed of plants such as 'Newport' Kentucky bluegrass and 'Latar' orchardgrass. Expect to see some old grass varieties being promoted in the local farm magazines.

TECHNOLOGY TRANSFER

Wayne Crowder and Dave Skinner presented poster papers at the WACD convention this winter. Skinner's paper provided information on the Palouse Prairie project and displayed photos of some of the more showy species. Crowder's paper presented results of a conservation field trial in Adams County that compares several conifers for windbreaks.

Mark Stannard and Georgie Leinwebber, Soil Con. Colfax F.O., met with Roger Daniels to look at CRP ground that Mr. Daniels intends to interseed this spring with a legume. Mr. Daniels seeded the grasses alone so that he could control broadleaf weeds. Erosion would have been severe this spring had he not included 'Pryor' slender wheatgrass, a large short-lived perennial, in his grass mix. The late seral grasses such as bluebunch wheatgrass and big bluegrass were present but their size was inadequate to protect the soil.

Drs. Bill Pan & Bruce Frazier (WSU Soil Sci.), Theresa Kunch (WSU Soil Grad Student), and Mark Stannard met with Dr. Bob Pappendick (PM<10 Project Dir) to discuss cover cropping research. The group had developed seeding date tables based upon Growing Degree-Day models and had explored using satellite imaging to quantify acreage of fall vegetative cover in the Columbia Basin. Theresa is spearheading the next phase of the project. She will integrate Growing Degree-Day model data with thermal data via GIS technology and develop 'seeding date maps'.

TECHNOLOGY TRANSFER CONT'D

Two seed samples were sent to the PMC from field offices to have the seed tested for purity. The PMC is coordinating the testing and arranged to have the Washington Department of Agriculture conduct the actual analysis. This effort is in response to concern that some seed tags were not accurately depicting what was actually in the bag. So far the tags have been fairly representative of the actual contents. This 'testing system' ensures that the seed mixes are accurate and the proper agency, the WA Dept. of Agr., conducts the quality control.

A grower in southeast Washington provided the PMC with a bluegrass plant for positive identification. The grower suspected that the grass was a native and planned to produce seed. The plant developed a few seed heads while in our care, and we had it checked by several authorities. The consensus was that the plant was Canada bluegrass, a non-native. Dr. Rich Old pointed out that the most prominent 'tell all' feature of Canada bluegrass is green stems after the plant had shed its seed. The stems of other bluegrasses apparently turn yellow after the seed is shed.

Courtney Smith, range con Clarkston, provided the PMC with the first year's data on the CRP shrub study. Preliminary analysis shows that the most important composite factors affecting shrub survival were: shrub species, precipitation zone, vigor of the plants at planting, and the type of competing vegetation. Site preparation technique also effected survival. Site preparation conducted the previous year provided higher survival then techniques that suppressed competing vegetation the year of planting. Courtney will be presenting a paper at the SRM meeting this year.

MISCELLEANEOUS

The PMC was contacted by the National Park Service to provide guidelines on eradicating yellow starthistle from Yosemite National Park. Soil was brought into the Park during a road construction project and seed of yellow starthistle was present in the soil. Weed specialists from UC Davis and the PMC provided several options that were reviewed by the NPS. The option selected by the NPS is very aggressive, integrates several control practices, and emphasizes monitoring the area for several years.

The PMC is evaluating techniques to vegetatively suppress reed canarygrass. Reed canarygrass has been around for a long time and the first reference to it was made in 1749. Hesselgren evaluated over 600 Swedish plants for livestock palatability and reported that reed canarygrass was one of the most preferred plants. His report was a graduate thesis and his advisor was none other then Linnaeus.

Emmy Sunleaf was converted from a temporary Biological Aid to a SCEP appointment. Emmy brings to the NRCS an agriculture background, a strong academic standing, and a great work ethic. Emmy is handling much of the seed cleaning at the PMC this winter.

Corey Pickelsimer, Admin Asst, was accepted into the WSU graduate school program. Corey will continue working at the PMC to help finance his education. WSU has offered him a partial assistantship his first year. WSU and the PMC look upon this as a joint venture, and we plan to continue this effort with other students.

The PMC lost some ground on the north farm this year. The re-alignment of Airport Road required moving the road onto the PMC. The road project impacted a few wetland areas and several acres of the PMC were selected for mitigation. Heavy equipment was brought in to create oxbows, shape streambanks, and obliterate the old farm road. This effort largely erases the stream channel straightening that occurred in 1936. Hundreds of wetland plants were transplanted in the mitigation area and several thousand more are slated for planting this spring.

Mark Stannard
PMC Team Leader