



# Plant Materials Program

## Invasive Plant Species Activities

### About the Program

The mission of the Natural Resources Conservation Service (NRCS), Plant Materials Program is to develop and transfer effective state-of-the-art Plant Sciences Technology to meet customer and resource needs. NRCS Plant Materials activities are consistent with the objectives of the U.S. Department of Agriculture and NRCS Strategic Plans, namely to provide timely and effective vegetative solutions for resource needs, including invasive species concerns.

A Plant Materials Program Web Site is maintained to transfer technology developed by the Program to NRCS field offices, land managers, and other cooperators. It features studies on invasive plant species as well as other Plant Information. Plant Materials is on the web at: <http://Plant-Materials.nrcs.usda.gov>

### Invasive Plant Species Work

The Plant Materials Program is involved in many activities dealing with invasive and noxious plant species across the United States. There are currently 54 direct and 146 indirect studies at Plant Materials Centers nationwide. Direct studies are related to controlling or suppressing invasive plant species. Indirect studies involve finding suitable replacements for invasive species or improving native species cover to help prevent infestation of invasive species.

### Highlights of Invasive Species Studies at Plant Materials Centers

*Pullman Plant Materials Center, Pullman, WA*

Yellow starthistle is one of the most noxious and tenacious weeds on over 9.25 million acres of rangeland in the western United States. Researchers are examining the effects of native stands of bluebunch wheatgrass on invading yellow starthistle, along with determining the best management practices to enhance bluebunch wheatgrass stands to suppress yellow starthistle.

*Upper Colorado Environmental Plant Center, Meeker, CO*

*Aberdeen Plant Materials Center, Aberdeen, ID*

*Los Lunas Plant Materials Center, Los Lunas, NM*

Cheatgrass, an annual grass found in all 50 states, decreases winter wheat yields and alters the ecology of western rangelands. Plant Materials Centers are evaluating native plant species adapted to compete with cheatgrass-infested areas on range and critical area plantings. They are also evaluating the tolerance of desirable native plant species to herbicides used to control cheatgrass.



A field invaded by yellow starthistle

*Plant Materials Centers in Aberdeen, ID, Corvallis, OR,  
Big Flats, NY, Beltsville, MD, Pullman, WA and Los Lunas, NM*

Plant Materials Centers are evaluating control methods for invasive species in riparian and wetland systems and the ability of native species to compete with invasives, as well as developing methods for the production and establishment of native species to help prevent the infestation of invasives. In New York, Oregon, New Mexico, and Idaho, native species are under evaluation and development to compete with some of the worst of the invaders, including purple loosestrife, Japanese knotweed, invasive thistle species, and reed canarygrass. In Washington, control methods are being developed for Russian olive on the Yakima River and native plant replacements are being evaluated. In Maryland, propagation, production, and establishments methods are being developed for native aquatic species to help prevent hydrilla invasion and improve aquatic habitat in the Chesapeake Bay.



Purple loosestrife invades wetlands throughout the U.S.

*Bridger Plant Materials Center, Bridger, MT  
Brooksville Plant Materials Center, Brooksville, FL  
Los Lunas Plant Materials Center, Los Lunas, NM*

Highly disturbed critical areas, such as those which often occur on minelands, saline sites, and highly acidic sites, are very susceptible to invasion by noxious weeds. Plant Materials Centers are evaluating native plants which are specially adapted to these difficult sites to help prevent infestation by noxious weeds such as knapweed, Canada thistle, and cogongrass.



Cogongrass is a major problem in the southeast U.S.

*Plant Materials Centers across the country*

Eleven Plant Materials Centers are working closely with over 25 units of the National Park Service to develop propagation, production, and establishment techniques for native plants to protect disturbed areas from invasion of noxious weeds on public lands.

Nearly all 26 Plant Materials Centers are developing native plants for a variety of conservation uses to replace introduced and invasive plant species. For example, Booneville (AR) Plant Materials Center is evaluating methods to establish native grasses in existing stands of tall fescue to improve pastures quality. Elsberry (MO) Plant Materials Center is developing native shrub alternatives to Amur honeysuckle and autumn olive for wildlife, buffer, and shelterbelt plantings. Kika de la Garza (TX) Plant Materials Center is evaluating native grasses to replace buffelgrass on rangeland and wildlife areas. Hoolehua (HI) Plant Materials Center is evaluating windbreak and dryland forest tree and shrub species to replace or help prevent invasion of black wattle and fire tree.



A healthy diversity of native plants will discourage the reinvasion of weeds.

More information on noxious and invasive plants can be found on the NRCS PLANTS web site at: <http://plants.usda.gov> and click on the link for “**Invasive & Noxious**”

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