United States Department of Agriculture

Natural Resources Conservation Service

Plant Materials Program

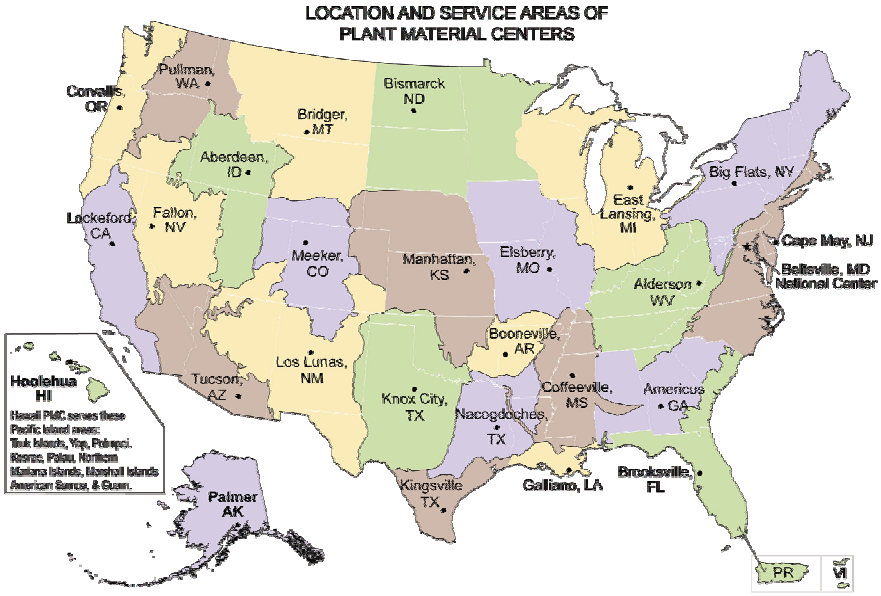
Conservation Plant Solutions

Plants play an important role in the success of conservation. They offer a natural solution for stabilizing soil, improving water quality, and providing food for livestock and wildlife. Plants are also an essential element of many Farm Bill conservation programs funded by the U.S. Department of Agriculture (USDA) and administered by the department's Natural Resources Conservation Service (NRCS).

Difficult environmental conditions—eroding streambanks, land impacted by wildfires, mineland reclamation sites, arid rangelands—require finding the right plants for the job. A highly specialized group of scientists within the USDA NRCS Plant Materials Program studies and selects those plants.

"The Plant Materials Program and its cooperators have contributed the bulk of the material and technology now used in ecosystem restoration and are our foundation for meeting conservation challenges of the future."

From D.T. Booth and T.A. Jones, "Plants for ecological restoration: a foundation and philosophy for the future" in *Native Plants Journal*, Spring 2001



The Plant Materials Program is a nationwide network of 27 Plant Materials Centers and 19 Plant Materials Specialists, based in ecologically distinct service areas. Together, these centers and specialists seek out plants and state-of-the-art technology to restore critical habitats, mitigate environmental concerns, and sustain healthy natural resources.

Plant Materials Centers evaluate plants for specific conservation traits, select top performers, and make these materials available to the public as conservation plant releases. They also develop innovative ways for land managers to use and manage a variety of conservation plants. Specialists relay information about new plant releases and offer on-the-ground assistance with conservation plantings.

'Ruby' redosier dogwood was released to stabilize soil on streambanks. With its attractive flowers and red stems, 'Ruby' is also useful for landscape plantings.

Techniques for reestablishing plant cover after wildfires have been developed by Plant Materials Centers and Plant Materials Specialists.

Technology Developments

The Plant Materials Program is a proven leader in conservation plant selection: over 400 plants from the program are commercially produced with an annual value of more than 90 million dollars, and they are planted on 3.7 million acres (fiscal year 2001). In addition, NRCS incorporates our technology developments and plant selections into conservation practices related to:

Grazing Issues ➢
We develop establishment methods for rotational grazing systems, like this eastern gamagrass paddock.

≺ Riparian Conservation
We select plants and provide training for improving riparian and streambank zones.

Erosion control ➢
We evaluate plants for their erosion control ability before testing them on problem sites.

≺ Wildlife Habitat
We select native grasses like big bluestem and basin wildrye for traits that enhance habitat for birds and other wildlife.

Conservation Needs

Many people associate the work of the Plant Materials Program with more traditional conservation needs related to agriculture. However, Plant Materials Centers also address emerging issues such as:

Native alternatives to ➢ non-native invasive species
In the western U.S., we are studying the ability of native plants to prevent reinvasion of Russian olive once it has been controlled.

≺ Use of conservation plants for biofuels
We are cooperating with the Department of Energy to study switchgrass and eastern gamagrass for alternative sources of fuel.

Establishment and ➢ management of plants important to Native American cultures
We are developing production methods for plants like sweetgrass, to be used on tribal lands.

≺ Drought Work
We are testing drought tolerance of plants and methods for revegetating arid lands.

We can only realize the goals of achieving a sustainable natural resource base and a high quality environment with sound plant science. Through the past 60 years and today, the work of Plant Materials Centers and Plant Materials Specialists has been vital to these efforts, and the strength of the NRCS Plant Materials Program lies in its continued commitment to the conservation of America's resources.

For more information, visit **http://Plant-Materials.nrcs.usda.gov** and **http://www.nrcs.usda.gov**

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