

Impact

Colorado State University
Extension

Sharing the difference CSU Extension makes in people's lives and their communities.

Learning about native plants supports natural resource conservation

Extension's Native Plant Master® education program leads to adoption of sustainable landscaping and natural resource conservation practices that help Coloradans save water, money and time.

Issue

Colorado's growing population puts increased demand on limited natural resources, especially water. Urban landscapes are often planted with water-hungry, non-native species. At the same time, non-native weeds invade natural landscapes and pose a threat to native ecosystems. Residents and landowners—as well as green industry and land management professionals—seek landscaping and ecosystem restoration solutions that conserve natural resources.

Extension's Response

Colorado State University Extension created the Native Plant Master (NPM) education and volunteer program to raise awareness about native plants, sustainable landscapes and threats to native ecosystems from invasive weeds.

Jefferson County Extension launched the state's first NPM training in 1997. Today, 12 Extension offices around the state offer hands-on educational experiences taught by volunteer NPM trainers, CSU faculty and Extension agents. The centerpiece of the program is the NPM curriculum course. Each course is divided into three sessions which cover:

- Plant identification using a botanical key and field guide;
- Ecological relationships between native plants, alien invasive weeds, wildlife, birds and insects;
- Landscape and other human uses for Colorado native plants.

Native Plant Master instructors teach courses on trails in local open space parks and on other public lands. This means participants see firsthand the plants inhabiting the ecosystems of the area. Field learning is supplemented by CSU Extension's online Colorado Plant Database (<http://coloradoplants.jeffco.us>) which provides research-based information on more than 1,000 Colorado plants.

Participants who complete three courses are awarded a Colorado Flora Certificate. Special classes are also offered that include site visits to unique habitats, such as the alpine life zone as well as indoor classes, including basic botany, landscaping with natives, and invasive weed management. Volunteer certification as a Native Plant Master is optional. To earn certification, volunteers must be accepted through an application process, pass three courses, and make 60 educational contacts using information they learn from the program. From 2009 – 2014, 7,136 individuals were trained in NPM courses and special classes. During that period, 2,844 volunteers reported educating 98,421 citizens using information they learned from the program.



The Bottom Line

In 2014, for every dollar Extension spent on NPM program costs in Jefferson County, participants reported 10 times more personal savings from their sustainable landscaping and weed control efforts.

Extension's Native Plant Master® education program encourages Coloradans to adopt sustainable landscaping practices while enhancing the job performance of many program participants.

Colorado By The Numbers

2009-2014

- Acreage impacted statewide: 1,448,483
- Statewide economic impact: \$1,842,437¹
- Program revenues: \$157,749
- Educational contacts: 98,421
- Courses and classes: 378
- Participants: 7,136
- Volunteer hours: 7,793
- Volunteers: 2,844

Impact

The Native Plant Master education and volunteer program has become a state leader in training people about the relationship between native plants, water conservation, alien invasive weeds and sustainable landscapes. The program is coordinated by the CSU Extension Native Plant Education team, which received the 2014 Award of Excellence from the Western Extension Directors Association (WEDA) and the 2011 Extension Team Distinguished Service Award.

Thousands of Coloradans are annually educated by a few hundred NPM volunteers. The team annually measures this impact through a survey asking program participants to report on sustainable landscaping and invasive weed mitigation projects they complete. From 2009 through 2014, participants from across the state reported a combined savings of \$1,842,437 from implementing these projects. These projects were implemented on 1,448,483 acres of public and private land in Colorado.

Savings from sustainable landscaping result from reduced landscape inputs such as water, pruning and pest control due to planting native species that are naturally adapted to local conditions. Savings from weed control result from improved grazing, crop output, ornamental landscapes, wildlife and tourism. These figures indicate that CSU Extension has found a cost-effective way to increase the sustainability of Colorado's managed and natural landscapes while reducing invasive weeds.

Additional results from the 2014 statewide NPM survey highlight many of the program's benefits to both participants and the people they contact through volunteer and paid work. Survey respondents reported that:

- 95% increased their native and non-native plant identification skills;
- 73% increased awareness of the use of native plants for sustainable landscaping;
- 73% increased their awareness of the impact of alien weeds and the importance of control.

The NPM program helped participants retain their current job or get a new one. This happens across vastly different fields of both paid and volunteer work as shown by these participant quotes:

- *I worked for two golf courses and thanks to this program I was able to change landscaping on the courses into more native areas, reducing labor, and water and chemical use. This helped save the golf course's money and helped me retain my job.*
- *I took two NPM classes prior to applying for a position with the city's ecological restoration crew. I was told that my experience identifying native and invasive plants was a deciding factor in my selection.*
- *I was campaigning for elected office by canvassing the neighborhoods in my district. I used the knowledge I gained from the Native Plant Master courses to speak to voters and constituents about their lawns and sustainable gardens.*

Native Plant Master Mission

To educate the public about native plants in order to foster stewardship, sustainable landscaping and management of weeds that threaten native ecosystems.

¹ Economic impact stems from self-reported savings related to 1) reduced landscape inputs such as watering, pruning, pest control, etc., resulting from planting of natives and 2) improved grazing, crop output, ornamental landscapes, wildlife habitat, tourism resulting from alien weed control.

"It is the best educational experience I have had through my local Extension office. It is outside, hands-on, taught by passionate, intelligent people, and has real world applications."

– Native Plant Master program participant

"I have used my identification skills to educate my crew mates about what plants to collect for restoration projects, what plants to leave alone, and what plants to remove during invasive plant control efforts."

– Native Plant Master program participant

Native Plant Master County & Area Partners

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Logan/Morgan/Phillips/Washington
Montezuma
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