

Impact

Colorado State University
Extension

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

Citizens multiply learning about native plants to generate statewide results

A philosopher said "Just as ripples spread out when a single pebble is dropped into water, the actions of individuals can have far-reaching effects." Extension's Native Plant Master® program educates volunteers who spread knowledge, leading to program impacts that change lives.

Situation

Shaun Howard is a lead park ranger for Jefferson County's 50,000+ acre open space system. In 1997, she was one of the first to sign up for a new educational offering, the Native Plant Master program. She was aware that Colorado's growing population puts increased demand on limited natural resources, especially water. She saw that urban landscapes are often planted with water-hungry, non-native species. At the same time, she saw non-native weeds invading open spaces and threatening native ecosystems.

Shaun took the full series of three Native Plant Master courses, for a total of 36 hours of field training. Through interactive and hands-on learning in local open space parks, Shaun developed skills in identification of native species that can be purchased at local garden centers and used for water-wise landscaping around her home.

She also learned about noxious weeds that reduce land productivity and values and are harmful to native wildlife and livestock. The online Colorado Plant Database (<http://coloradoplants.jeffco.us>) supported her field learning with research-based information on more than 1,000 Colorado plants. She volunteered to educate others using information she had gained from the program. After completing course and teaching requirements, she became a certified *Native Plant Master*.

Results

Over the years, the knowledge Shaun gained through the Native Plant Master program began to multiply far beyond her initial training. Recently she said, "As a park ranger and environmental educator, I have used information from the Native Plant Master courses I took in 1997 to help literally thousands of people make personal connections to the plants of Colorado through my programs and individual contacts. I've personally seen how these connections increase the value people place on the natural world so they become better stewards of our parks and open spaces. With increasing intensity of use of our public lands, these are just the kind of changes we need to protect these lands for future generations."

Since Shaun participated in the first Native Plant Master training in 1997, the program has continued to grow. Originally founded in Jefferson County, 12 Extension offices around the state now offer Native Plant Master educational experiences, taught by volunteer Native Plant Master trainers, CSU faculty, and Extension agents. Just like Shaun, other participants in the program go on to educate the public. The result is citizens across the state saving water, money and time. In the past six years alone, nearly 90,000 individuals have been educated by program volunteers. Changes implemented by participants have resulted in an economic impact of more than \$1.7 million due to savings from instituting water-wise native landscaping and increased land productivity from weed control.



The Bottom Line

For every dollar Extension spent on program costs, participants reported 10 times more personal savings from their sustainable landscaping and weed control efforts. ¹

Colorado By The Numbers

2010-2015

- Statewide economic impact: \$1,704,557²
- Acreage impacted statewide: 952,605
- Educational contacts: 89,134
- Courses and classes: 407
- Participants: 8,645
- Volunteer hours: 11,363
- Volunteers: 2,567

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/Invasive Weed Education team and has received awards from the Colorado Association for Environmental Education, National Association of Natural Resource Extension Professionals and Western Extension Directors Association, among others.

Thousands of Coloradans are educated each year by Native Plant Master 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 2010 through 2015, participants from across the state reported a combined savings of \$1,704,557 from implementing these projects. These projects were implemented on 952,605 acres of public and private land in Colorado.

Savings from sustainable landscaping result from reduced water use, 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 2015 statewide Native Plant Master 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:

- 98% increased their native and non-native plant identification skills;
- 73% increased awareness of the use of native plants for sustainable landscaping;
- 74% 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 2014 program participants in Jefferson County.

² 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.

Colorado State University Extension, U.S. Department of Agriculture and Colorado counties cooperating. Extension programs are available to all without discrimination. August, 2016.

"As a park ranger and environmental educator, I have used information from the Native Plant Master courses I took in 1997 to help literally thousands of people make personal connections to the plants of Colorado."

"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 County Partners

- Boulder
- Clear Creek/Denver/Gilpin/Jefferson
- Custer
- Delta/Mesa/East Montrose/Ouray
- Douglas
- Eagle
- Larimer
- Logan/Morgan/Phillips/Washington
- Montezuma
- Pueblo
- San Miguel/West Montrose
- Teller

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.

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