



# Master Gardener Program

WASHINGTON STATE UNIVERSITY  
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## 2015 WSU Extension State Master Gardener Program Report

### **Introduction:**

The Washington State University Extension Master Gardener Program provides public education in gardening and environmental stewardship based on research at WSU and other university systems. Volunteers are trained to be community educators about issues of importance in their local communities that enhance natural resources, sustain communities, and improve the health and wellness of Washington residents. Each year Master Gardener volunteers enhance their horticultural knowledge, learn new skills and stay informed of new research by attending a minimum number of educational classes called Continuing Education.

The WSU Extension Master Gardener Program has a rich history, beginning in the Seattle area in 1973, and spreading from most counties in Washington to the entire United States and abroad.

### **2015 By the Numbers:**

Total certified Master Gardener volunteers: 3,330

Total Master Gardener volunteer hours reported: 223,865

Total Master Gardener Continuing Education hours reported: 46,506

Average volunteer hours per Master Gardener: 61.3

Master Gardener plant diagnostic clinic events: 4,540

Master Gardener classes for the public: 630

Master Gardener hands-on demonstrations for the public: 640

### **Partnerships:**

The WSU Extension Master Gardener Program is supported by WSU through memorandums of agreement with county governments and grants, and by local county Master Gardener Foundations that are composed of Master Gardener Volunteers. Master Gardener Foundations support the WSU Master Gardener Program, in large part, by raising funds that they donate to the program. County foundations provide significant financial support to their local program in a variety of ways that include, but are not limited to, purchasing plant clinic supplies, supporting demonstration garden costs, covering printing costs for banners and other outreach materials, funding community programming supplies, and offering scholarships to new Master Gardener trainees in need. In some instances, Master Gardener Foundations help to fund a paid coordinator position for the Master Gardener program in their county. Foundations also act as invaluable advisory boards to Master Gardener Program Faculty and Staff.



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## **Vegetable Gardening:**

Master Gardener Volunteers taught **6,339 adults and 9,012 youth vegetable gardening.**

MG Volunteers answered **10,048 questions about vegetable gardening.**

Research shows that learning to grow vegetables improves eating habits and health. The more involved people are with growing their own food, the more likely they are to eat it. This correlates to a diet consisting of more fruits and vegetables as evidence shows that gardeners eat more fresh produce than non-gardeners. Diets high in fresh fruits and vegetables are known to prevent obesity, diabetes and other chronic illnesses. Seniors who garden eat more fruits and vegetables, are more physically active, and report a higher quality of life than non-gardeners.

### **For instance:**

In 2010 WSU Master Gardeners in Pierce County started a vegetable gardening program by establishing vegetable gardens with incarcerated women at the WA Corrections Center for Women. The program continues to grow in size and participation. In 2015, 27 women grew 14,500 pounds of fresh produce under the guidance of Master Gardeners. All of the produce was used in the cafeteria. A total of over 56,500 pounds of produce have been used by the cafeteria since the program began, increasing the amount of fresh vegetables the women eat and reducing food costs for the center. This program also teaches the women horticultural skills that can prepare them for jobs in the horticulture industry upon release from prison. In fact, two women who were involved in this project started work in the horticulture industry after their release. Beyond that, recent studies have shown a direct correlation between prison gardening programs and improved self-esteem, decreased effects of mental illness, reduced anxiety, increased patience and a better understanding of delayed gratification (Sandel, 2004).

MG Volunteers taught in **162 community gardens.**

Studies of community garden participants show more benefits to neighborhoods than just better access to fresh food and nutrition. Community gardens foster increased community involvement and pride among residents, increased neighborhood safety, increased activity and sense of well-being, and less isolation among residents. Community gardens also help people save money, preserve green space, and contribute to the urban food-system. Recent research indicates that gardening methods used by community gardeners resemble those methods used in bio-intensive high-production farming, which result in larger yields per square foot of garden space than in conventional farming systems. Additionally, community gardens bridge ethnic, economic, and age differences.

In 2015, under the leadership of Master Gardeners, community and demonstration gardens donated over 53 tons of produce to food banks or other community supported agencies in Washington.

### **For instance:**

Benton Franklin County Master Gardeners helped community residence set-up of 15 community gardens, 12 of which were in low-income neighborhoods or structured to grow food to donate to



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foodbanks. They provided seeds, transplants, containers, potting mix and education to over 200 low-income attendees at a Container Gardening Class helping to ensure success.

Master Gardeners receive as much as they give when helping community members properly plant and maintain their garden beds. They often hear about the positive difference gardening has made in the life of someone they've helped. Master Gardener Bill Keatts, who mentors in a community garden wrote, "I talked today with Jim, one of the gardeners, who told me that for him gardening was therapy. It gets him outside, and he gives away everything he grows... it makes me feel good to see people taking advantage of the opportunity to grow their own food, even if they give it all away. The recipients of the fresh produce have more nutritious food and the gardener gets exercise [through] taking care of their garden beds."

## **Youth Gardening:**

Master Gardener Volunteers taught **22,458 youth**.

School and youth gardens create more positive attitudes among young people regarding fruits and vegetables, which leads to higher consumption of fruits and vegetables by the students and their families. Studies of students involved in school gardens show higher nutrition and environmental awareness, and higher science test scores. Personal development is also seen through increased self-esteem and interpersonal relationships, and better work and team skills than when compared to their non-gardening peers.

## **For instance:**

Benton-Franklin County Master Gardeners work with youth offenders at the Juvenile Justice Center. Working in the garden is a reward for the youth that is earned through good behavior. This allows the youth to get outside and learn about how to garden and harvest vegetables, but they are also treated with respect and learn how to interact with adults who care about their wellbeing. The youth are always eager to help in the garden. The Master Gardeners observe a sense of value and belonging among the youth involved. The produce harvested from the garden goes to a food bank, which teaches the youth about giving back to their community.

## **Water Quality:**

MG Volunteers taught **5,886 adults and youth how to conserve water and protect water quality**.

Washington's rivers, lakes and aquifers provide water for agricultural, residential, and recreational use, and provide wildlife habitat. Safe, reliable sources of water must be maintained to meet the needs of our growing population. Water-conserving garden practices such as mulching, efficient irrigation, and planting drought tolerant plants are the most cost effective and environmentally sound ways to reduce the demand of our limited water supplies. Stormwater runoff has been linked to pollution of drinking water supplies and declining health of wildlife and fish species, and has been identified as the leading cause of pollution in the Puget Sound region. Urban gardening best management practices that protect water quality include reducing the use of pesticides and fertilizers, composting, grass cycling, and



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mulching and using groundcovers to reduce erosion. Rain gardens are also integral to water quality protection because they capture and filter stormwater runoff from roofs and other impervious surfaces which reduces the amount of pollutants that reach our water systems.

## **For Instance:**

Many King County Master Gardeners have opted for advanced training to become Rain Garden Educators. In 2015 they partnered with Seattle Public Utilities to expand outreach efforts through SPU's RainWise program, which offers a rebate to residents who install rain gardens on their property. SPU pays residents \$4.00 for each square foot of runoff they capture on their property from their homes. King County MG Rain Garden Educators also partnered with the Miller-Walker Basin Community Salmon Investigators who study the pre-spawn mortality of salmon in two prominent King County streams. They've partnered with Streamkeeper Academy members and the Adopt-A-Stream Foundation to continue to expand their outreach efforts. Numerous presentations and workshops have been given to garden clubs, churches, municipalities, and ecology groups by these specialized Master Gardeners.

MG Volunteers hosted **4,540 plant diagnostic clinics**

Appropriate control measures for insect and disease pests depend on proper identification of the plant and the plant problem. Master Gardener Volunteers are trained extensively to research and properly identify insects and diseases that impact plant health. As a result, clients of Master Gardener plant clinics are directed to the appropriate control measure for the plant problem, which in many cases are better plant care practices, as opposed to pesticide use. This information, likely, saves the client time and money.

WSU Extension Master Gardeners hosted **4,540 separate plant clinic events** at WSU Extension Offices, farmers' markets, county fairs and other community events, where they

- helped **83,333 homeowners** and
- answered **4,965 questions** about **pesticide use and safety.**

MG Volunteers taught **3,420 residents to use Integrated Pest Management methods.**

Integrated Pest Management (IPM) is a proven system for managing pests (insects, diseases and weeds) in ways that keep pest damage to a tolerable level for plant health and minimize threats to unintended animal and plant species, as well as the environment. Master Gardeners teach cultural, mechanical, biological, and chemical methods of pest management, stressing plant health measures to prevent plant problems and using least toxic methods of pest control when necessary.

## **For instance:**

In Pierce County Master Gardeners have teamed up with the Tacoma-Pierce County Health Department, City of Tacoma and Pierce County Public Works to fulfill NPDES (National Pollutant Discharge Elimination System) permit requirements. A survey of Pierce County Master Gardener Clinic clients showed that 42.9% of clients who used the Master Gardener Diagnostic clinics were referred by friends or family



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members and 100% of the survey participants said they would recommend Master Gardeners to a friend. One person responded with feedback saying, “I like having someone to talk to that doesn’t have a vested interest in selling me something” and another person responded with “Every time I’ve called, they’ve been very truthful with me.” These statements show Master Gardeners are viewed in their communities as unbiased and knowledgeable educators of research-based gardening and conservation information.

## Trees:

### MG Volunteers taught **6,573 residents proper tree planting and maintenance practices**

Research points to many benefits of a healthy urban and community forest, such as moderation of extreme air and soil temperatures, conservation of energy, improved air quality, reduction of stormwater runoff, lower noise levels, and increased wildlife habitat. For instance, a 25-foot tree can reduce heating and cooling of a typical residence by 8-10%. Trees modify the “heat island effect” in urban areas by evaporation through their foliage, which cools their immediate surroundings. Roots and fallen leaves help hold soil together and protect it from erosion. These benefits result in increased energy savings and increased survival and health of other landscape plants. In addition, trees and plants enhance property values and community assets, which results in an increased tax base for municipalities.

### MG Volunteers taught **316 residents fire-resistant landscape practices**

With the onset of reduced snow-packs, low humidity and persistent droughts, Washington State has seen increased wildfires over previous years. 2015 marked Washington’s worst wildfire season in human memory, with more than a million acres burned, costing the state \$164 million. Evidence shows homeowners have the ability to reduce the risk of fire to their homes through incorporating fire-wise landscaping practices.

## **For Instance:**

In Pend Oreille County, Master Gardeners have developed a Fire-wise outreach program that teaches the residents of their heavily forested county landscape plants and techniques that help to reduce the risk of fire to their homes. In addition to educating the public at outreach events through a Fire-wise display, they’ve developed a presentation that is given at community meetings and a presentation for youth ages 5-8, called “Perry Pine.”