Sowing Seeds of Evaluation: Measuring UC Master Gardener Program Public Benefit

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Welcome & Desired Outcomes

Participants will have:

- Understanding of the UC Master Gardener Program's statewide outcome evaluation design, year one findings, and lessons learned.
- Understanding of feasibility for an ANR program to collect follow-up survey responses (3 months post event; 30%+ response rate)
- Examples of how behavior change outcomes can be communicated in relation to ANR condition changes
- Lessons learned from data collection and analysis that can be considered for other statewide and academic programs



Timing Was Right for UC MG

- Funders are more demanding of rigorous evaluation information
- Charge from senior leadership
- Improved program consistency statewide
- Developed more comprehensive monitoring system
- Developed consistent messaging and marketing
- Feed in and inform development of new national evaluation effort



Developing the MG Evaluation Plan

- Statewide advisory committee & broader MG community
- 2. Key evaluation question
- 3. Logic model
- 4. Outcomes and indicators
- 5. Data collection plan, training & pilot
- 6. Dissemination plan and impact statements





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Evaluation Question

 How does the public benefit from the MG volunteers' work?

• What is Yours? type into the chat





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Developed Logic Model to Focus Which Outcomes to Measure

Situation Statement: California has major environmental concerns, including water availability and decline in pollinator populations. Additionally, California must improve community wellbeing by addressing issues of food access and our lack of urban greenspaces.

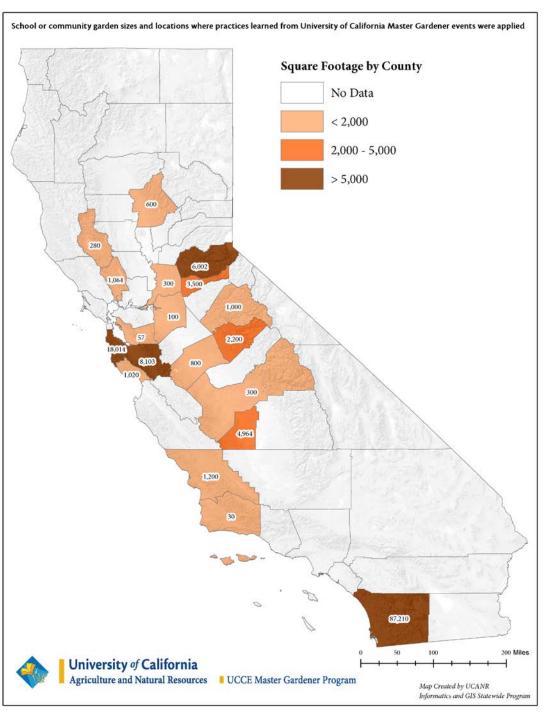
By sharing research-based information on home horticulture, UC Master Gardener volunteers empower the public to be more sustainable in their home landscape, more productive in their food garden, and more engaged in their community well-being. Outputs Intended Outcomes -- Impacts Inputs Activities Participation Short-Term (Learning) Outcomes Medium-Term (Behavior) Outcomes Long-Term (Condition) Impact MG Training Program (continuing Improved science literacy of MG Delivery of quality public educational activities Knowledge and skills gained in education/ advanced training, # of MG volunteers and their clientele sustainable landscape and gardening train the trainer programs, through quality education and volunteers mentoring, Program Meetings, trained outreach conferences) Knowledge/skills about green waste Adoption of recommended green waste reduction practices reduction Reduction of green waste Public Education: any project in which a MG is educating the Use right-plant right-place considerations in Knowledge/skills about right plant right Early detection of invasive pests, public (usually more than at a decision-making place plants, and diseases in time) on home horticulture ecosystems to help reduce the Budget topics, workshops, classes, spread and distribution seminars, demonstrations Adoption of invasive pest management practices Knowledge/skills about integrated pest # of MG Volunteers management and invasive plants/pests/ Californians Reduction of spread and MG Volunteer Advice: help desk/ diseases reached: # of MG Coordinators distribution of endemic pests hotline, answering "helpline" Adoption of integrated pest management practices UCCE emails or phone calls, plant and resources and Knowledge/skills about water use CE Advisors soil clinics, water walks, etc. Improved water quality materials efficiency Adoption of improved landscape water distributed CE Specialists Booth Display: farmer's markets, conservation practices (i.e., Pest county fairs, community events, Improved water conservation Notes) AES Faculty home/garden show, etc. Knowledge/attitude on the importance of planting and maintaining diversity of Home gardens are pollinator-friendly ANR Research Mass Media/Communications for native and nonnative plants that attract Increased acreage of pollinator external audience: flvers. pollinators and are wildlife friendly habitat Facilities and newspaper articles, press equipment releases, social media, blog posts, newsletters, direct mail, etc. Knowledge/skills on food production (e.g., appropriate plant variety selection, soil health, plant nutrition, water, land Grow food more successfully mproving human nutrition Demonstration gardens: MG management) #of Volunteers building and serving as collaborations; expert advisors in community # of individual gardens, including schools, public Knowledge/skills on harvesting and shortlocal, county, landscaping projects; more term storage of produce grown (e.g., Home gardens and state specifically, plant sales, open when to pick) landscapes are built and collaborators, garden days, docent/ guided maintained # people Improved individual emotional tours, developing educational KEY reached and physical health Knowledge and skills gained to create/ signage Sustainable maintain/contribute to home, community and school gardens and/or landscapes Landscaping # individuals Community and school reached; Food gardens are built and Improved community health and mproved quality of life increased Gardening Therapeutic horticulture sustained. wellness and increased sense of Awareness and appreciation of the participation opportunities: MG in jails, Community community (e.g., meet new Overall indicators: spend more natural environment (for adults and of "at risk" hospitals, adult day cares, seniors people and understand new Wellbeing time gardening populations in youth) centers, braille institute, etc. cultures) gardening Specific indicators for Overarching activities therapeutic horticulture Demonstration gardens Skills/attitudes related to therapeutic MG Volunteer are built and sustained. projects: garden program and horticulture (e.g., communication, Training participation sustained teamwork, improved mood) Program

Overarching Outcomes

Community and school gardens are built and sustained

Home gardens and landscapes are built and maintained





School or Community Gardens

where new or improved practices were applied



Sustainable Landscaping Outcomes

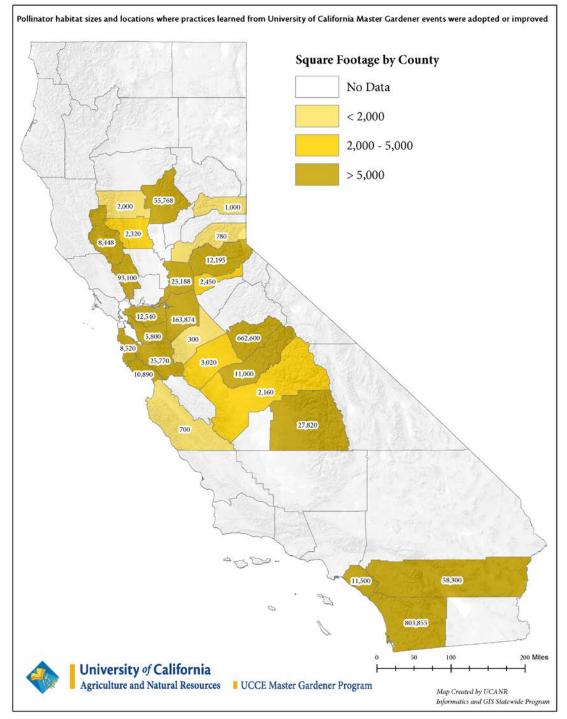




- Create and enhance pollinatorfriendly gardens
- Use recommended green waste reduction practices
- Adopt pest management practices
- Adopt improved landscape water use efficiency practices
- Use right-plant right-place considerations in decision-making



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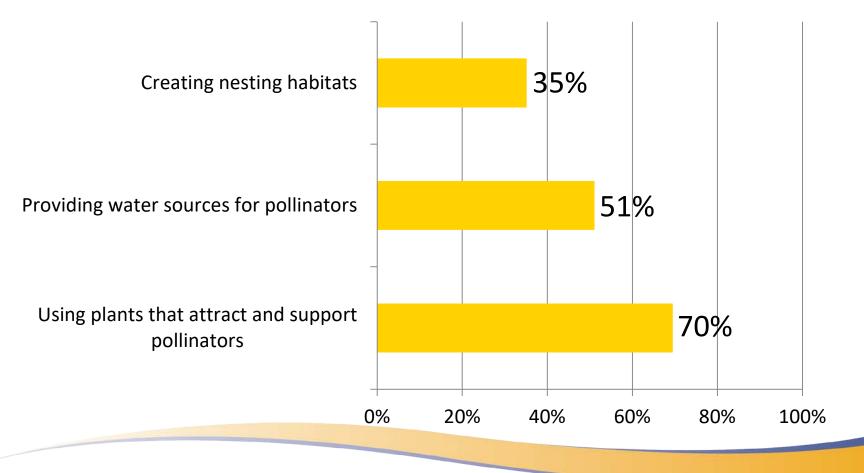
Pollinator Habitat

where new or improved practices were applied



Pollinator-Friendly Gardens (n = 424)

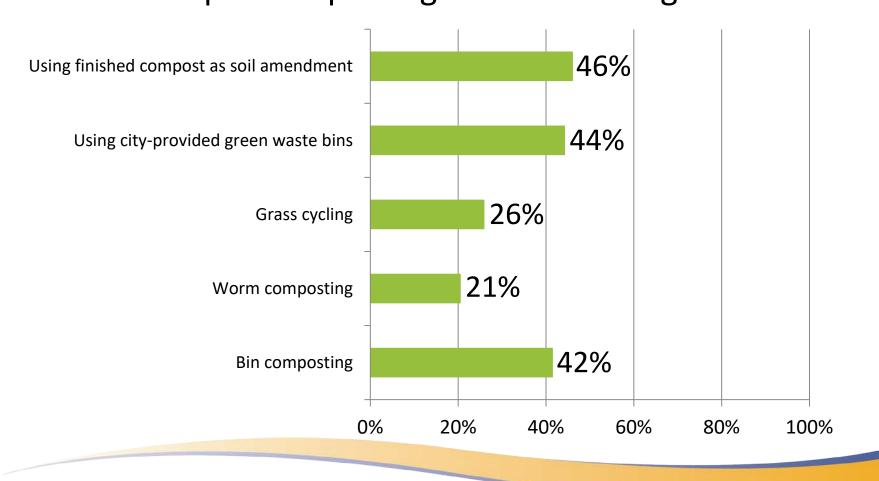
Participants reporting behavior change in...





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Green Waste (n = 391) Participants reporting behavior change in...

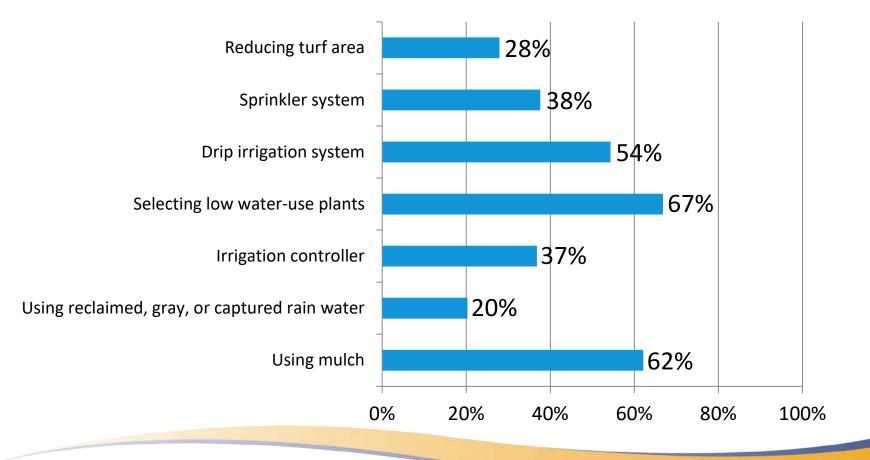




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Water Conservation (n = 587)

Participants reporting behavior change in...

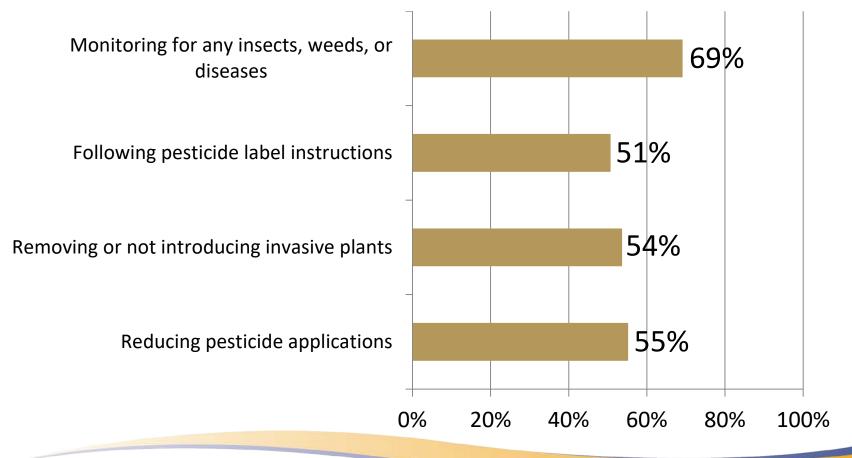




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Pest Management (n = 632)

Participants reporting behavior change in...

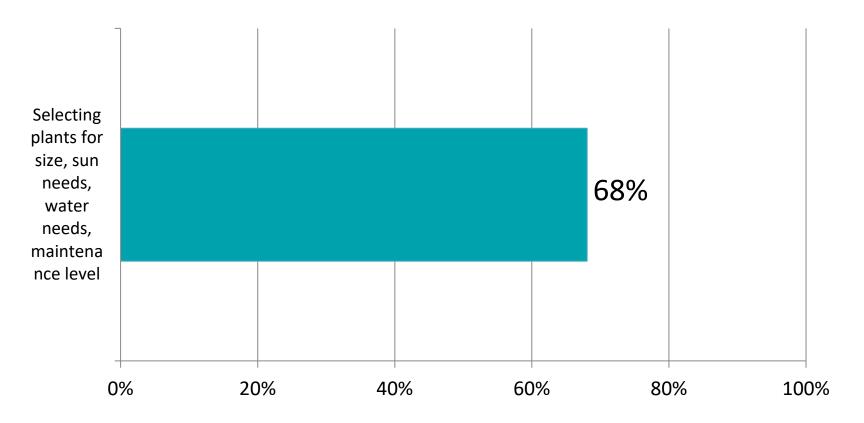




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Right Plant Right Place (n = 719)

Participants reporting behavior change in...





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Food Gardening Outcome

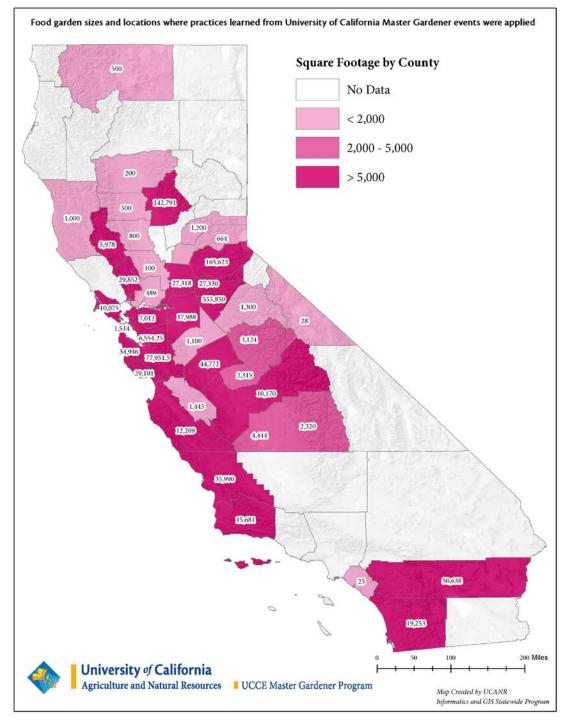
Grow food more successfully







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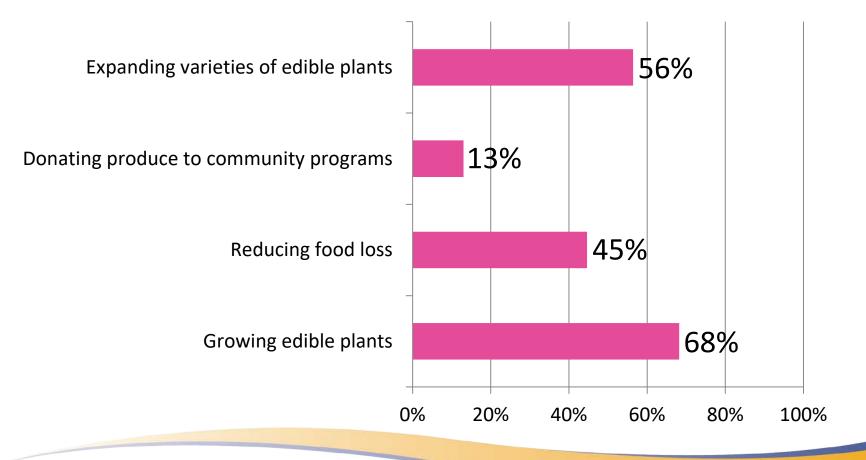
Food Gardens

where new or improved practices were applied



Food Gardening (n = 841)

Participants reporting behavior change in...





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Community Well-Being Outcome

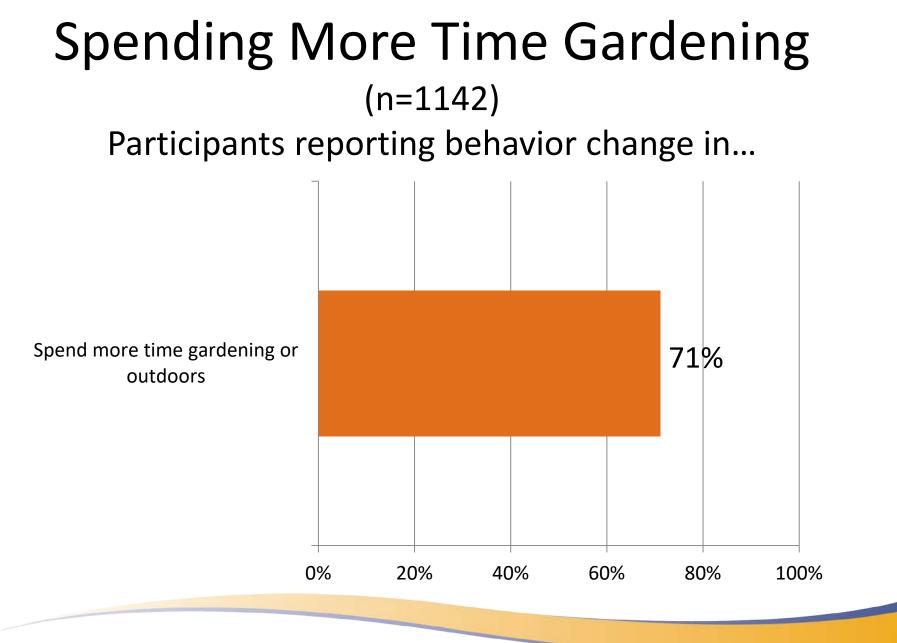
Improve quality of life







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Evaluation Process – Statewide Follow Up Survey



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Roles and Responsibilities

Who	What	When
MG Volunteers	Collect names and emails of public education event participants	At each event
MG Volunteers	Complete and submit excel template	After event
Evaluation Coordinator	Distribute Qualtrics surveys to participants 3 months after event	Ongoing
Evaluation Coordinator	Compile, analyze, and distribute county and statewide data	Monthly/ Quarterly
Statewide Office	Revise annual impact statements and produce annual report	Annually

Year 1 Participation

60%

Counties have begun evaluation process (n=31)

1,505 survey participants

36%

Response rate



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Using the Data to Tell Your Local Story

- Share with partners, donors, County Board of Supervisors
- Share with volunteers
- Create and distribute public value statements
- Repurpose public value statements into social media pieces, blogs, newsletter articles, newspaper articles, etc.



Fresno + Madera Master Gardener Programs



Our public demonstration gardens (*Garden of the Sun* and *Three Sisters Garden*) offered **35** on-site workshops to 700 local residents in attendance

As a result of these workshops:

- 65% of survey respondents started/improved monitoring for insects, weeds, or diseases
- 60% reported selecting lower water-using plants
- 90% reported spending more time gardening or outdoors

Using the Data to Tell Our Public Value

Growing Gardens Improves Community Health and Wellness

<u>Issue</u>

As a society, we are more and more disconnected from nature given our increasingly urban-oriented lifestyles. In 2010, 95% of Californians lived in urban areas, accordingly to the Decennial Census. Research has demonstrated that our health and wellness suffers, including high levels of stress and anxiety, when we do not have the opportunity to interact plants and nature.

What the UC Master Gardener Program has Done?

Through public education, the UC Master Garden program shows people where they can find and enjoy gardens in their communities, and how they can bring plants into their own home environment perhaps with houseplants, container herb garden on a patio, or vertical gardening. In over 50 counties, 6,087 UC Master Gardener volunteers have offered over 446,000 volunteer hours to help the public learn the knowledge and skills to sustainably grow home, community, and school gardens.

Outcomes/Impact

Members of the public working with UC Master Gardener volunteers have helped build and sustain a total 2,867,571 sq. feet (65.8 acres) of garden green space statewide, as reported in an online survey conducted in 2018. A 2016 nationwide study found that living near greenery may help you live longer. It is believed that four factors in these greener areas account for the extended lifespan: less air pollution, more physical activity, more social engagement, and most significantly better mental health as measured by a lower prevalence of depression. In addition, 71% of participants (812) reported spending more time gardening or outdoors. Other behavior research showed that flowers have an immediate impact on happiness, a long-term positive effect on mood, and contribute to more intimate connections between individuals. Through ornamental and edible horticulture learning experiences, the UC Master Gardener program connects the public to gardens, reconnecting them to nature, and increases green space -- contributing to improved community health and well-being.

Lessons Learned

- It can be done!
- Group effort with volunteers, coordinators, academics, etc.
- Input during planning phases, pilot with 5 counties all helped improve the process
- FTE at SWP level
- Show value to participants as soon as possible



Evaluating with Help from Your ANR Community

- Consultation and <u>training/resources</u> from Program Planning & Evaluation
- Connect with evaluators in the ANR network, such as CE Evaluation Specialist
- UC MG sounding board
- Integrate with other statewide programs' evaluation efforts



Questions



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Additional Information about MG Outcomes Evaluation

- Link to interactive maps --<u>http://ucanr.maps.arcgis.com/apps/webappviewer/index</u> <u>.html?id=31c01857eee349eea29bea9a3d5d3bcd</u>
- Annual report with findings coming soon!



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