

# Growing School Learning Gardens: A Summary of the 2012 Statewide School Garden Survey

Hawai'i Farm to School and School Garden Hui

## Key Findings

- **168 School Gardens**
- **21,577 Students**
- **830 Teachers**
- **30 Acres of Land**

The Hawai'i Farm to School and School Garden Hui (HFSSGH) is a statewide collaborative of school garden networks and organizations. In 2012, HFSSGH received permission from the Department of Education to conduct a statewide survey of school garden activities across the state of Hawai'i. In this report, we share highlights from this baseline survey. For the first time, we have a broad picture of how schools on each island are working to integrate learning gardens and fresh, locally produced foods into school environments.

School learning gardens are not a new idea for Hawai'i. Up until the late 1960's, school gardens were common outdoor classrooms in Hawai'i's schools, providing food, encouraging physical activity, helping to supply the school cafeteria, and connecting children to the land and the concept of self-reliance. In the past decade, momentum has grown across Hawai'i as teachers, principals, parents, and communities have been rebuilding school gardens and integrating place-based, experiential learning into the curriculum.

## School Garden Networks Offer

- Professional Development
- Dialog among Teacher-Leaders
- Garden Development Consultations and Planning
- Curriculum Resources
- Volunteer Development
- Connections to Island Resources
- Funding Opportunities



## Key Findings

In the summer of 2012, the survey developed by the HFSSGH was sent to all 419 public, charter, and independent K-12 schools in the state.

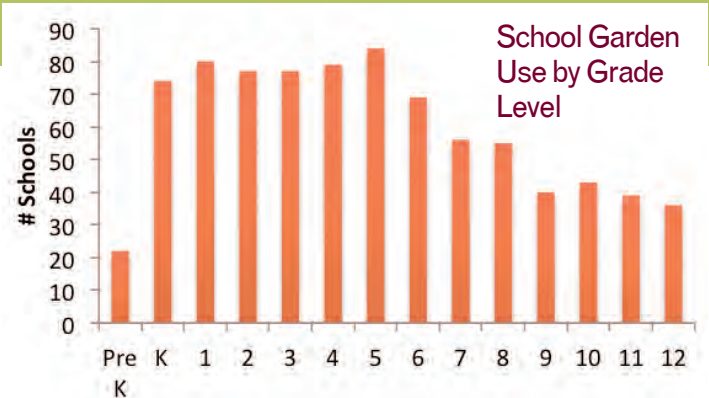
Two hundred forty-three schools responded (62% of all schools surveyed), and of those, 168 (69% of respondents and 43% of all schools surveyed) indicated they had a school garden. These gardens vary in size from small container gardens and raised beds to gardens that encompass several acres of land. During the 2011-2012 school year, school gardens engaged 21,577 students and 830 teachers.

The survey also asked teachers and principals to give feedback on a range of topics, from the use of garden produce and content areas taught in the outdoor classroom to numbers of student, teacher, and community participants.



## School Garden Use

All grade levels K-12 use school gardens, with heavier use in grades K-5, followed by 6-8, and 9-12.

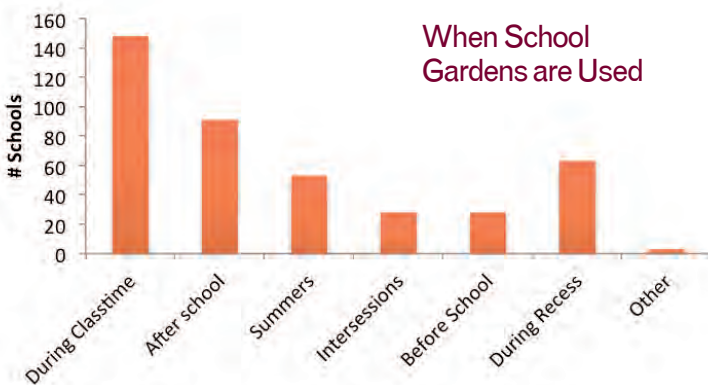


## Use of Harvested Food

Research shows that children will eat what they grow. A vast majority of food grown in school gardens is used for healthy student snacks during the school day, allowing students to appreciate the diversity, freshness, and taste of a variety of locally grown fruits and vegetables. Garden harvests are also sent home to families and used for special events. Eighteen schools responded that they had a student farmers market on campus. Eight schools recorded their yields by weighing their harvests; these schools grew a combined 9,090 pounds of food in the 2011-2012 school year.

## Who Uses School Gardens and When

One hundred forty-eight schools reported that they used the garden for instruction during the school day, followed by 91 schools utilizing the space after school, 63 during recess, and 53 during summers. Twenty-eight schools each used the garden during intersessions and before school. School gardens are used in all grades K-12, with the greatest use in grades K-6.



School Gardens engage the community in new and meaningful ways. Last year, there were over 1,500 regular volunteers collectively working over 1,000 hours per week in school gardens across Hawai'i.

## Content and Curriculum

Gardens offer engaging living laboratories for science, technology, engineering, and math (STEM) subjects. Food, water, energy, and recycling of nutrients converge to illustrate overlapping and complex systems. Most teachers surveyed stated that science was the primary subject taught in school gardens, followed by math, health, language arts, and social studies. Eighty-three percent of teachers report that they create their own curriculum, while 17% use a wide variety of prepared curricula. The top two elements within school gardens were vegetable gardens and use of native plants. Aloha 'āina (love for the land) and Malama 'āina (to care for the land) are guiding Hawaiian principles that underlie school garden curricula throughout the state.





## Using Garden-Based Learning to Improve the Health of Students

While school learning gardens can enhance and deepen core curricula, there are other benefits that align with the goals of the Hawai'i Department of Education (HDOE), particularly with respect to health and wellness. In 2012, the U.S. Centers for Disease Control, the Surgeon General, Kaiser Permanente, and other health care providers declared that children's health was a "national crisis." School gardens and farm to school programs—now in all 50 states—are at the forefront of educational and nutritional intervention in our schools as strategies to prevent obesity and its associated negative health conditions. HDOE recognizes the links between nutrition education, food served in schools, amount of physical activity, and the potential for higher academic achievement.



Currently, schools compile funding for Garden Educator/Coordinator positions from a variety of sources. Of the 59 funded Garden Educator positions, 71% said that a portion of their funding comes from their school's budget, 50% through grants, 20% through fundraising activities, and 17% from private donors, with a small amount coming from parent organizations. However, funding through grants and private donors is difficult to sustain over time, with most schools reporting that continued funding is a challenge.

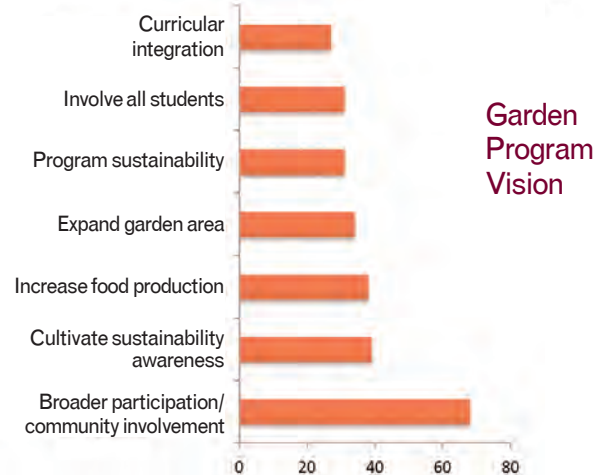
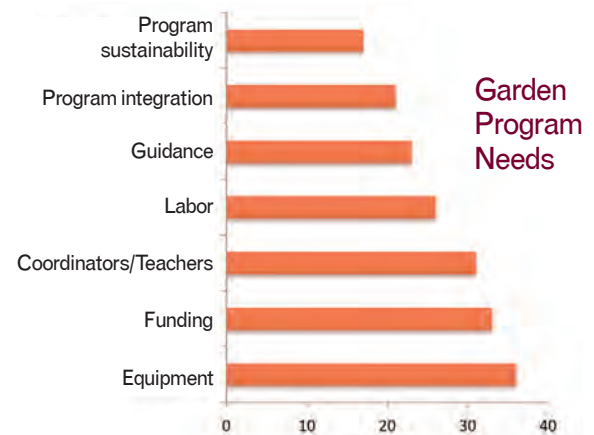


## Garden Educator Leaders

Integrating school garden programs into school curricula requires knowledge of overlapping subject matter and complex systems. From interviews and on-site observations, it appears essential that a trained teacher(s) on campus is the optimal way to achieve successful garden-classroom integration. This is corroborated by a Garden Coordinator/Educator being among the most often-cited needs of schools that responded to the survey. Of the 168 schools that have gardens, 81 have designated School Garden Educators working with faculty and students an average of 20 hours per week.

## Needs and Visions

Participating schools reported many overlapping needs and visions for their school gardens. The charts below reflect the highest needs and commonalities among their visions.





## Summary

In 2012, over 21,000 students, assisted by 830 teachers and 1,500 volunteers, cultivated approximately 30 acres of land; grew and harvested healthy snacks; created farmers markets; integrated science, math, social studies, literature, and arts; and learned social skills and teamwork in school garden outdoor classrooms across the Hawaiian Islands.

Mounting educational research findings confirm the benefits that school gardens and farm to school programs have on our children and school communities: from developing healthier lifestyles and life-long eating habits, to improving academic performance, providing real-life learning about sustainability and ecoliteracy, and creating stronger community connections. Visit [kohalacenter.org/HISGN/research.html](http://kohalacenter.org/HISGN/research.html) for a compendium of school garden research papers and reports.



## Next Steps

Several of our state agencies, including the Department of Health's Healthy Hawai'i Initiative and the Department of Education's School Food Authority, are interested in the development of a Farm to School and School Garden Program. We recommend funding for a one- to two-year position in a State Agency to coordinate inter-agency strategic planning and identify the best pathways to developing and sustaining such a program.

Linking school garden nutrition education programs to school wellness policies will strengthen both programs. Currently, only 16 schools surveyed stated that their school garden was part of their school's wellness policy. We recommend that each school with a garden program create a wellness committee to assure that the school's wellness policy supports garden-based nutritional learning.

We also support a legislative farm to school resolution designating October as Hawai'i Farm to School Month, to coincide with National Farm to School Month.

As we consider and plan for Hawai'i's future, we know our students need to be engaged in meaningful work that will help them develop the deeper learning skills required for the 21st century: critical and whole-systems thinking, problem solving, innovation, and developing social and cooperative relationships. School learning gardens bring life to schools and schools to life, supporting educational experiences that will inspire Hawai'i's students to think about the earth, their relationship to it, and their ability to influence it effectively in entirely new ways.

[www.hawaiischoolgardenhui.org](http://www.hawaiischoolgardenhui.org)

