

Increasing Youth Engagement with Flowers

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Flowers and foliage at the Urban Garden Center (UGC) were integrated into 4-H's educational programs. Zinnias and other florals grown at UGC, in Pearl City, Oahu to evaluate crop suitability to high temperatures. Pearl City has a unique microclimate which serves as a good site for heat tolerance field trials. Varieties were obtained from Johnny's Select Seeds, Home Depot and Walmart. Overall, zinnias and the different florals grew very easily in Pearl City.



Photo 1& 2: Cactus (days to harvest (DTH): 37 days)



Photo 3 & 4: Jim Baggetts (DTH: 41 days)



Photo 5: Yarrow (DTH: 41 days)



Photo 6: Senora (DTH: 41 days)



Photo 7: Bonita (DTH: 41 days)



Photo 8: Giant Dahlia (DTH: 41 days)



Photo 9 &10: Matsumoto (DTH: 41 days)



Photo 11: Queen lime (DTH: 41 days) **Photo 12:** Queen red lime (DTH: 41 days)



Photo 13: Calendula (DTH: 47 days)



Photo 14: Benary's (DTH: 41 days)



Photo 15: Candy Cane Zinnia (DTH 47 days) **Photo 16:** Collection of flower tops



Integration of flowers into the curriculum increased overall engagement with 4-H activities and lessons.

For example, students at Pearl City High School (PCHS) were given flowers and foliage and asked to make arrangements during a school field trip to UGC. Students used their creativity and created floral arrangements which showed off their personalities. A few months later, teachers integrated these lessons into their curriculums, and with the help of PCHS students, made locally grown floral arrangements for Administrative Professionals Day.



Photo 17-18: Flowers and foliage grown and harvested at UGC were used in 4-H educational programming. Each student had an opportunity to create their own floral arrangement. UGC volunteers judged each entry and carefully selected awardees.



Photo 19-20: PCHS teachers used locally grown flowers and foliage to duplicate the exercise for Administrative Professional's at the high school.

Flowers add color to the garden landscape. They also attract and support pollinators, and various other beneficial insects. Flowers were also integrated into the 4-H curriculum with the National Guard's Youth Challenge Program. Participants had an opportunity to learn about various types of flowers, pollinators and agricultural pests such as wasps, etc. Engagement with these in field lessons were high, largely due to the integration of flowers into the curriculum. The participants learned how to identify the right flowers to pick and how to harvest them. "It was wonderful to see teens, who had challenging lives, gently handle the flowers. They shared that they wanted to give it to their loved ones, especially their mothers," shared Christine Hanakawa, Oahu 4-H Assistant Extension Agent.





Photo 21-24: Flowers and insects used as part of 4-H curriculum with the National Guard Youth Challenge Program

Program Impact:

The impact of integrating flowers into the 4-H program can be drawn from the testimonials of students and teachers who participated in 4-H activities.

Testimonials from students were:

- “It was fun and I try a lot of stuff like building our own flower vases...”
- “...just planting flowers to brighten up the place.”
- “In the future I definitely want an at-home garden so I can have fresh flowers or fruits to see and eat every morning.”
- “The field trip made me think that agriculture is actually something that gives you a lot of freedom in what you want to do and you can grow and make a variety of things.”
- “Before I went on this field trip, I used to think that it was a pretty boring thing to do and learn about gardening or agriculture but now I know that it is a lot more interesting and fun.”
- “It showed me the beauty of agriculture and why it’s so important to our ecosystem and daily lives.”
- “I used to think that gardening was not for me but now I realize that it’s pretty cool and I would maybe give it a chance as a hobby.”



Photo 25: Students enrolled in National Guard Youth Challenge Program in formation with their freshly cut sunflowers.

Testimonials from teachers were:

- “I could see that the students were engaged and inspired by the activities. They asked great questions and were willing to get dirty.”
- “The students also enjoyed making their own floral arrangements and having it be a friendly competition was a nice touch.”
- “The flower arranging must be continued. An experience most students have not had and seeing the variety of cuttings.”