

RBHS Garden to Cafeteria Project

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Project Location

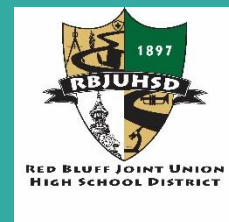
Red Bluff High School
1260 Union Street
Red Bluff, CA 96080
Tehama County

Proposal Category

Education and Outreach
Supporting Farmers and Ranchers
Supporting Urban and Rural Communities

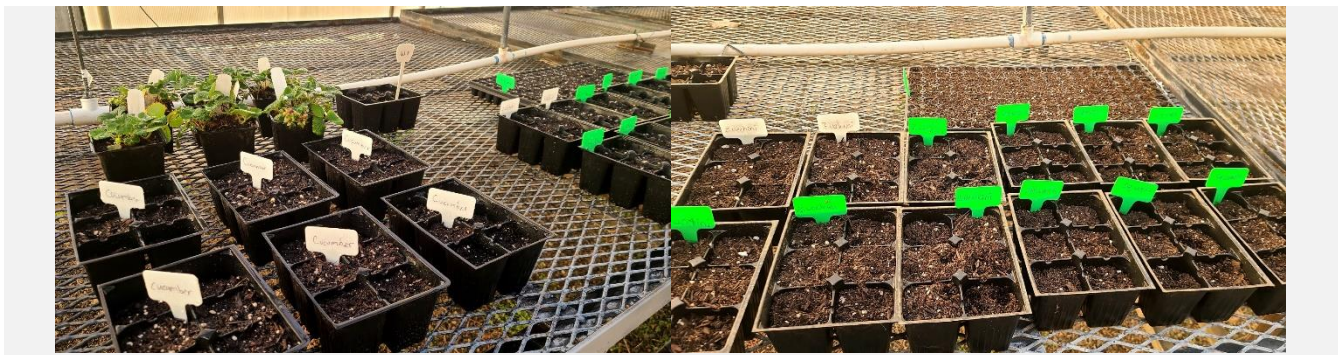
Grant Amount

\$7,000



Objectives

- Will provide opportunities for diverse inter-generational collaboration. “Seniors teaching Seniors” garden mentors and retired professionals
- Leadership Development through the project as measured by the Circle of Courage assessment in the areas of Belonging, Mastery, Independence, and Generosity
- Improvement of students’ attendance, grades and behaviors as measured by the Spartan Merit System
- Student attainment of workplace skills: leadership, working in teams, effective communication, being on time, respect for diversity, problem-solving, work ethic, flexibility, and building relationships.
- To improve food security, nutritional awareness and promote healthy eating habits by encouraging home gardening, providing fresh, organic produce to our school cafeteria, local food banks and offering educational programs on topics such as nutrition and cooking.
- To provide opportunities for positive social interaction and recreation in a nonthreatening atmosphere where individuals will appreciate the diversity of all ages and backgrounds.
- To nurture curiosity and provide hands-on learning opportunities for students.
- To learn effective watering systems and operation of a functional greenhouse.
- To appreciate our environment and learn about horticulture and sustainable environmental practices that will include composting and recycling.
- Students will be able to monitor their goals, accomplishments, and success stories, through their garden portfolios.



Summary

The Red Bluff High School Garden to Cafeteria Project (RBHS-GCP) put an emphasis on teaching students environmentally regenerative approaches to producing crops, focus on soil health, organic and agro ecological practices, integrate pest management and crop diversification.

Initially, our proposal had identified a group of at-risk students to be the tenders of the garden along with our community partners of Tehama Together, UC Davis Cooperative Extension, and CalFresh Healthy Living/UC Cooperative Extension. The identified Principal Investigator was Associate Principal Ryan Vercruysse. His vision was to use the garden project as a restorative justice program and a hands-on community service project while teaching students environmentally regenerative approaches to producing crops while working side-by-side with our community partners. Since being awarded the UC SAREP grant, Mr. Vercruysse left the county for another position. The district's Director of Food Services stepped up and took over the Principal Investigator's position. She was part of the initial planning and wanted to ascertain that the project would be brought to fruition. New student garden stewards were identified as a group from the RBHS Eco Club and another group of students with disabilities.

In addition to losing our initial Principal Investigator, our UC, CalFresh Healthy Living Education Specialist, Joan Samay retired and we were assigned a new garden coordinator from the UC Cooperative Extension, Suzanna Ewert. The changing of staff caused a hiccup in our process, but we were able to change roles and take off this spring.

Students from RBHS Eco Club were the first group to begin learning the Teams With Intergenerational Support (**TWIGS**) Curriculum taught in the RBHS-GCP by staff from the UC Cooperative Extension. **TWIGS** was born out of the continuing commitment of Cooperative Extension to help youth more fully develop their potential through participation in real-life educational experiences. Educational goals are to provide youth with opportunities to learn new skills and knowledge, work together cooperatively, develop decision-making skills, and become productive, responsible citizens of their communities.

The group of students have worked cohesively to seed and transplant tomatoes, cucumber, zucchini, bell peppers, strawberries, and more. They met once a week as part of an after-school program throughout the spring months. Currently, our RISE special needs class is taking care of the garden over the summer months. They have been utilizing the **TWIGS** curriculum and are able to harvest and sample the crops that the ECO club had planted earlier in the spring.

With this grant we were able to start a recycling program and we would like to increase recycling throughout the next school year by involving more students. Our goal is to increase participation in the RBHS-GCP with WORKABILITY I students and potentially offer paid positions to students to help with garden upkeep.

Starting this Garden project during a pandemic proved to be challenging, but we were able to persevere and have a fruitful garden blossoming with food for our Seamless Summer Feeding Option that offers free nutritional meals to all school-age children over the summer months to enjoy. Our goal moving forward is to increase our sustainable gardening practices, in what has been a significant drought year in California, in which we are seeing unprecedented food shortages.

The District is committed to the sustainability of this program. The Director of Nutrition Services is looking into further funding to support the purchase of hydroponic towers to grow our own lettuce while reducing water consumption. Typically, the RBHS Cafeteria uses 70 pounds of lettuce per week in our daily fresh made prepackaged salads. An additional goal is to create a compost area with the use of an Earth Cube to help reduce our carbon footprint and continue teaching students sustainable agriculture practices.

Specific Results

- RBHS paired with CalFresh Healthy Living UC Cooperative Extension that enlisted the help of a retired gardener from the community and a Garden Expert from the UC Cooperative extension to help teach students sustainable gardening. These experts taught the [TWIGS curriculum](#) to students in RBHS Eco Club and students in our RISE special education program. Providing the opportunity to get students outside the classroom, plant seeds, transfer plants, pick their produce, build irrigation systems, and ultimately wash and eat the produce in the cafeteria. RBHS currently is offering free meals to all students through the Seamless Summer Feeding Option. Much of the produce that was planted in the spring is ready to harvest now and we are able to offer that produce to children/teens eating in our cafeteria over the summer months.
- **Belonging:** The RBHS Garden program brought a diverse group of students to work together that may have not known each other well outside of this project. The help from the community and positive response from the District and among their peers gave these students a sense of pride in their work and of each other.
- **Independence:** The RBHS Garden Program success was determined by student accountability. The Garden Mentors from UC Davis was here one day per week. The remaining 4 days of the school week required student accountability to keep the garden blooming. This meant weeding, pest management, fixing watering issues as they arose, and picking produce when it was ready. The students involved from the beginning were able to watch the project flourish and were complemented by the administration and their peers for their hard work. There was a great sense of reward as students saw the produce they planted available in the cafeteria.
- **Mastery:** As this project formed during a pandemic, we saw food shortages across the nation on the news, but also on our tables at home as well. These hardships created an increased interest in RBHS Garden project. Students were genuinely intrigued to listen to the information taught from our UC Cooperative Extension's Garden Expert. For example students saw the downfalls of pests in the garden. Many watched pests eat some of our zucchini plants. Students listened, heard, and tried to create the same organic mixture the Garden Expert taught to students. As well as some students were impressed by how important the nutrients of the soil were and why compost plays a vital role in regrowth. As students rotated through the garden they were able to teach their peers the steps to a successful garden.

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- **Generosity:** This project taught students the power of generosity by seeing the produce they cared for displayed in the Cafeteria meals. The blueberries they harvested were in our yogurt parfaits, cucumbers in our chef salads, and fresh peaches were offered daily. RBHS participates in the *Seamless Summer Feeding Option* which offers free meals to all school age children in our community. It was so rewarding for the students to see their hard work enjoyed by children and teens of all ages in our community.
 - **Improve student attendance and grades:** This was a goal of our initial proposal with the group of at-risk students. We now are planning to extend the RBHS-GCP to our Workability I program. In order to participate and get paid for this program, students have to be accountable with their attendance and grades and are continually monitored. This year students were held accountable to be on time and focused on the garden curriculum each week. Alongside the Workability I positions, we will continue to have the Eco Club work in the garden once per week. The RISE class will continue to work in the garden as well, and the teachers plans to continue with the TWIGS curriculum. We saw that the RBHS-GCP helped RISE students overcome behavioral issues and form a deeper bond with one another to work together as a team.
 - This past year RBJUHS experienced a rapidly changing menu for our students due to food shortages and inflation. However, regardless of the foods the cafeteria could get in stock, nutrition requirements were still being enforced by State and Federal Regulations. Some of RBHS favorite menu items were not available as a result. The garden helped bring some of those menu items back, and then some. For example, our number one breakfast item is our Yogurt Parfaits. We had to take parfaits off the menu due to not being able to get fruit in as well as watching the prices of items such as blueberries skyrocket. The garden was landscaped to include 6 blueberry bushes. The students this past spring were able to pick blueberries from these bushes and add them back into our parfaits. Unfortunately, there wasn't enough to pick to make the same amount we had done in the fall, but it was a reward in itself to bring them back as an option for students. We were also able to offer fresh peaches to our students which is a costly produce we have never been able to afford in the past.
 - **Nurture curiosity and provide hands-on learning opportunities for students.**

The majority of our student participants have never tended to a garden before. They learned many new skills that included plant propagation and harvesting of produce. Their knowledge of gardening grew immensely which, in turn, nurtured their curiosity. The students alongside the Garden Experts designed the planting in the garden and installed drip systems into the beds. While California is experiencing challenging drought conditions it was important to our gardening group to ensure we did not waste water and save energy by operating on a low-pressure system. See attachment A. RBHS had a greenhouse on site prior to being awarded the grant. The greenhouse had not been used for years and had a broken fan belt. Students were taught the importance of the Greenhouse and the significance of having a working fan to help pass the airflow through the Greenhouse as temperatures rose. They learned the importance

of seedlings and plants absorbing the nutrients from the greenhouse through trapping the light and turning it into heat.

- The RBHS-GCP taught the following lessons in its first year:
 - How to weed and control pests in the garden without using harmful chemicals
 - Seed sowing & transplanting
 - Seed anatomy and germination
 - Soil testing for nitrogen, potassium, and phosphate; planning soil amendments based on results
 - Based on what we had to transplant, the students planned out the garden beds of what to plant where, including spacing between certain plants
 - Organic Pest Control and making a spray to rid aphid infestation.
 - Focused on multiple watering and irrigation methods
- Students monitored their goals, accomplishments, and success stories through their garden portfolios

Since we had such a late start with our project because of changing staff, the portfolio proposal was not implemented this year. It is our goal to have students monitor their progress in the garden next year, including the lessons learned and their character development.

Dissemination of Findings

This forming school year we are proposing to make a video of our RBHS-GCP and share with our community through social media and our website. This coming school year, RBHS-GCP students, along with their UC Davis Agriculture Extension and Tehama Together garden mentors will be providing a presentation to our Board of Trustees sharing their experiences and the many lessons they've learned.

Benefits/Impacts on Agriculture and/or Food Systems

The RBHS-GCP taught the skills to students in a drought and food shortage that they are capable of growing a successful garden in their own yards or windowsills and help to reduce their carbon footprint. A big topic discussed was water conservation in a state that is riddled with water restrictions. Many students would like to see more drip systems set up in farming and less sprinkler systems to help prevent excess runoff.

Impact on Target Audience

The number of adults reached is 20-50.

The number of youth reached in 2022 is 100-300. It is the goal that all 1,798 students in the Red Bluff Joint Union High School District will be impacted by the fresh fruits and vegetables that will be produced through the garden project.

Figure A: Ethnic Breakdown of our District:

Name	Total	African American	Am. Indian or Alaska Native	Asian	Filipino	Hispanic or Latino	Pacific Islander	White	Two of More	Not Reported
RBJUHSD	1,798	0.9%	2.8%	0.8%	0.1%	34.1%	02%	57.1%	4%	0.1%

- A. The biggest outreach in business terms was through RBHS Cafeteria in which we were able to feed our community through the fresh produce grown from the garden.

Figure B:

Drip system installed and RISE students harvesting produce in the Spring of 2022





