

Oak Ridge Public Library Community Demonstration Garden

Oak Ridge Public Library (ORPL) is requesting \$4,880 to create a community demonstration garden in collaboration with the Oak Ridge Civic Center, Oak Ridge National Laboratory (ORNL), Master Gardeners, and University of Tennessee Extension. This garden will be used to engage underserved segments of the community and cultivate community resilience by demonstrating a sustainable alternative method of food production and increasing awareness of health, horticulture, and environmental science issues and resources.

Statement of Need

The city of Oak Ridge has a high prevalence of food insecurity: 14.4% compared to 11.1% nationwide (Deloitte et al., 2020). Much of the city is classified by the USDA as a food desert (Rhone, 2019). The city also has high rates of obesity and diabetes, a fact that is exacerbated by a lack of health insurance; 13.2% of Oak Ridge residents do not have health coverage (United States Census Bureau, 2019). In order to combat this issue, ORPL proposes building a community demonstration garden and using it to educate the community on nutrition, alternative food systems, sustainable agriculture, and environmental science. To this end, ORPL is partnering with ORNL in order to leverage the wealth of scientific expertise in the city.

The primary intended audience for this project consists of Oak Ridge residents experiencing food insecurity; however, the benefits of a community garden are manifold, and there will be opportunities for all community members to participate in the project. Gardening offers community members an opportunity to exercise and build relationships with neighbors (Hanna & Oh, 2000). By growing food in the garden and encouraging community participation in planting the garden, ORPL can provide healthy foods that community members want, while teaching them how to grow those foods for themselves at home. The garden will also be used to ground programming related to sustainable agriculture and other environmental science topics, making it an excellent tool for improving the community's climate resiliency.

Project Design

The goals of this project are to 1) build community resiliency and 2) develop a model for a library garden program that other public libraries or community organizations can replicate. Several objectives will contribute to achieving those goals: 1) engage marginalized segments of the Oak Ridge community, particularly residents experiencing food insecurity and ethnic minorities, in library programming and services, 2) encourage community ownership of the garden, 3) improve awareness of health and sustainability issues affecting the community, as well as of the relevant resources available through the library, 4) leverage the scientific expertise already existing in Oak Ridge to benefit the entire community, and 5) Ensure that other libraries or community organizations have the information necessary to launch similar initiatives.

The garden will have two components: an outdoor garden and an indoor tower garden. In addition to demonstrating aeroponics, an alternative method for growing produce, the indoor component will extend the project's accessibility, increase the visibility of the project, and enable garden programming to run year-round. Because the tower garden requires minimal setup, the indoor component will be implemented first. Immediately after receiving funding, the tower garden will be purchased, set up inside the library building, and planted with the starter seeds included with the purchase of the tower.

The outdoor garden will be a thirty square yard space by the Oak Ridge Civic Center. UT Extension and Master Gardeners will assist in designing the garden. In order to foster a sense of ownership amongst community members, two open design meetings will be held: one at the beginning of the process to brainstorm and gather suggestions, and one the following month, once a preliminary design is in place, to discuss any feedback on initial plans. The garden will also be planted and maintained through biweekly, volunteer-led garden workdays. ORPL will use its existing relationship with Arissa Garden Club, a local gardening club whose members regularly volunteer at the library, to organize these workdays.

Diversity Plan

The primary target for the community garden project at ORPL is Oak Ridge households that are experiencing food insecurity. Low income levels have a strong correlation with food insecurity (Coleman-Jensen et al., 2019), so residents who are living under the poverty line will be targeted. Disability is another risk factor for food insecurity (Coleman-Jensen & Nord, 2013), and gardening provides an opportunity to exercise that is highly adaptable to different abilities (Hanna & Oh, 2000). Oak Ridge also has a relatively large disabled population: 14% to the nationwide 8.6% (United States Census Bureau, 2019).

Research has shown that ethnic minorities are less likely to eat nutritionally balanced diets if they lack access to culturally appropriate foods and nutrition information. Because of this, the impact of food deserts is often amplified for ethnic populations (Abu-Saad et al., 2010). Compared to the state of Tennessee, Oak Ridge has a relatively high percentages of Asian, mixed-race, and Hispanic residents: 3.2%, 5.2%, and 6.8%, respectively, compared to Tennessee's 1.9%, 2%, and 5.6%. Immigrants also make up a relatively large portion of the population; almost 8% of residents are foreign-born, and 10% speak a language other than English at home, compared to 5% and 7.1% statewide (United States Census Bureau, 2019).

ORPL will use existing relationships with local schools, food banks, and community organizations including YWCA, to conduct targeted outreach to reach community members who are experiencing food insecurity, ethnic minorities, and individuals with disabilities. Through these connections, individuals from the target demographics will be invited to participate in programs such as

Impact

The benefits of a community garden are not limited to the production of fresh produce. Community gardens can be used to encourage early literacy (Kallunki, 2015), improve student engagement (Torrise, 2010), or teach culinary and nutritional sciences (Morehart, 2019). As mentioned previously, gardens also help promote community ties and provide an opportunity for exercise. The advantages of community gardens are numerous and diverse, making this project adaptable to suit the needs of any community.

ORPL is uniquely suited for creating a model garden program for other libraries and community organizations around the country to follow. The library already has a successful seed exchange program to build off (Brock, 2018), and is located right next to the Oak Ridge Civic Center, which has ample outdoor space to host the outdoor garden. Oak Ridge is also a scientifically-minded community—it is home to multiple DOE facilities, including ORNL, and even emphasize STEM education in all public schools (Oak Ridge City Council, 2019). ORPL's community has the enthusiasm and expertise to make this project especially successful.

In order to make pertinent information and planning materials available to other libraries interested in creating similar programs for their own communities, ORPL will document and maintain records of the planning and execution of the garden, as well as of related programming, in order to create a library garden guide. The library will also create a webpage for the garden as a part of the library's website. This page will include contact information so that any interested libraries and community organizations will be able to request the complete guide.

Budget Summary

ORPL is requesting a total of \$4,880. Oak Ridge Civic Center will provide forty square yards of land for free, but the land will need to be prepared. The soil must be tested to ensure food safety, which will cost \$15. \$1200 is needed to till the land and purchase additional soil and compost to supplement the existing soil. A fence will be installed for \$2200 to prevent excessive damage to the garden plants by wildlife. An additional \$100 is requested for a compost bin, and \$345 for gardening hand tools. Seeds for the garden will primarily be sourced from ORPL's seed library and will be returned at the end of growing season, so only \$50 will be used to purchase additional seeds to start the garden. Finally, the cost of one indoor Tower Garden system is \$970.

References

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