A Fruitful Future: The Potential of Food Forests as a Solution to Water Scarcity, Food Waste, and a Greater Connection to the Environment

The concept of A Fruitful Future aims to bring awareness to the San Luis Obispo (SLO) community and beyond about urban food forests and their potential to solve a plethora of issues facing metropolitan areas, including air quality, the urban heat island (UHI) effect, water scarcity, biodiversity, and food insecurity. Through the course of these five months, I have begun to plan this project by doing in-depth research, reaching out to local businesses and organizations, and educating students about the potential of A Fruitful Future as a systemic change to how people think about their relationship with water, the environment, and urban spaces as a whole. The result of my CAP project was all the foundations needed to begin connecting with and encouraging SLO residents to begin converting their lawns into food forests.

Initially, the goal I had set to achieve in this five-month period was to begin planting trees throughout San Luis Obispo. However, I quickly realized that these projects take so much more time, requiring approval from the city in order to plant trees in public places. In a meeting with Brian Vejar, the associate director of community forestry for TreePeople–an environmental organization dedicated to greening neighborhoods and preserving natural spaces–, I learned that planting in public spaces required navigating complex city approvals, addressing liability concerns, and considering residents' differing opinions about land use. Rather than seeing these obstacles as setbacks, I used these time-related limitations as a strategic pivot: I shifted my focus toward building community awareness and education, laying the groundwork for long-term impact rather than immediate physical change. This shift allowed the project to scale more sustainably and reach a wider audience. If I had a proof of concept or a physical example of these productive landscapes, more residents would be willing to convert lawns into places for fruit trees, vegetables, and native plants.

With this shift in focus, I began engaging with the community through educational initiatives. After a meeting with one of my mentors, Mr. Christian Strauli, he recommended local organizations that worked with and supplied fruit trees. With the help of another one of my mentors, Mrs. Jodi Evans, I reached out to the California Rare Fruit Growers and coordinated a workshop where local chapter representatives would visit classes and teach students how to graft apple trees. We ordered **80 apple saplings** which were grafted by two different classes (agricultural biology, chemistry and agriscience). Currently, they are sitting in the back of the classroom where students water them and check up on their growth; these trees will be ready to plant in two weeks. After reaching out to Mr. Christian Strauli–my mentor and the gardening teacher at the local elementary school–high school students now have the option to donate their saplings to Bellevue Santa Fe Charter School or bring them to their own home, where they will be supplied with native wildflower seeds to start their own food forest. This interactive experience provided an introduction to the A Fruitful Future education program, where I delivered presentations to various audiences, including three different agricultural classes (totaling **over 100 students**), parents at a school showcase, and participants in local public speaking events. These presentations covered my experience with Project Green Challenge and framed food forests as not just a gardening idea, but a systemic change that changes how people think about water, land, and environmental responsibility.

In addition to educational initiatives, I took the concept of A Fruitful Future to another level. After doing extensive research on water consumption for grass compared to urban food forests, I submitted an eight-page, nine-minute speech about my climate action project to the Future Farmers of America organization, where I

presented it (fully memorized) at the San Luis Obispo sectional competition, placing fourth and qualifying for the regional competition. I then took my speech to the South Coast regional conference, where I was one of the **top two finalists** and was able to present my speech on the main stage in front of **over 500 attendees and advisors**. Lastly, I was qualified to showcase my presentation at the California state FFA convention, broadening the reach of the A Fruitful Future project to so many more people. After my speeches, I got so many compliments and noticed that students were having meaningful discussions with their parents about converting their lawns into food forests.

Throughout the process, I learned that education and awareness are two of the most powerful tools for driving systemic change. By introducing students to permaculture and their benefits to homeowners, water supplies, and the environment, I was able to kickstart future advocates when students learned that they can also mobilize and take part in this movement for sustainability. I also realized that having a physical example of a food forest would make the concept more compelling to interested homeowners, who would be able to look at a proof of concept, learn about permaculture, and decide whether or not to embrace this shift from "conventional lawns" to food forests. This reinforced my belief in starting small, building a strong foundation, and growing the initiative from there.

While the project did not lead to the immediate planting of trees throughout the city, its impact has been no less significant. The conversations sparked, the lessons taught, and the excitement generated among students represent both the planned and unexpected outcomes of A Fruitful Future. One of the most rewarding aspects of this climate action project was the interest that students in local, sectional, and regional levels showed towards the idea of food forests and permaculture. By providing apple trees for students to graft and potentially take home, I was able to encourage students to start the process of transforming their suburban lawn into a food forest and take the knowledge they gained through A Fruitful Future presentations with them.

Looking past Project Green Challenge finals, there is so much potential for ongoing impact. Throughout the course of my climate action project, I have laid all the foundations needed to begin planting and educating residents about environmental sustainability through the transformation of lawns into permaculture. I've learned from existing tree-planting organizations through meetings and research; engaged with students throughout the state; and grown community interest through educational programs and speeches. Throughout the course of these five months, I've created a strong base for future implementation of this project. As I carry on this concept for the next few years, this growth in knowledge and awareness about the value in converting lawns into productive ecosystems will continue to expand the reach of the project throughout the city and to other communities as well.

What I am most proud of from this experience is the receptiveness that so many students have to the transformations of lawns into food forests. When people heard about the negative practices of lawns and the plethora of opportunities that permaculture offers, they were very willing to adopt more sustainable practices. Turning a personal idea into a platform for education and awareness has been so incredibly fulfilling, and knowing that many students are excited about planning their food forests, growing fruit for their communities, and actively reimagining our urban spaces has shown me the true power of urban residents driving broader action. And this is only the beginning of this initiative. With students as environmental stewards pushing for systemic change in how people think about metropolitan areas, A Fruitful Future will blossom into a larger community movement—one tree, one garden, one home at a time.