

## Introduction

As you may already know, CNGF focuses on California native flora and ecology, especially at the local scale (Santa Clara county). As a nursery intern, you do not need prior experience or coursework but you will need an open mind and willingness to work and learn about the ecological, social, and biological aspects to growing and tending of California native plants. By enhancing the abundance of native flora within an ecosystem, you also enhance the native fauna and all the interdisciplinary niches within the ecological system!

For native plant functions, we will be collecting seeds from plants that are ready to harvest from, propagate plants from collected seeds and cuttings, transplant and enhance existing plant communities whether on site or at other local sites that we botanize in, and so much more. For urban gardening, we are using a "regenerative farm model" that incorporates sustainable land use and native plants into urban gardening/farming that will be many times more productive than conventional agricultural systems. We will be creating physical models where we show how regenerative farming works. This includes planning out planting methods, keeping track of what we are seeding/growing/harvesting for input vs. output, and keeping data for our research in integrating CA native plants into urban agriculture models.

What is unique about what we do is that not only are we restoring local ecology and soil health by planting natives, we are also revolutionizing the way we approach agricultural systems. We are opening up doors for groundbreaking research in environmental ecology, evolutionary biology, and social sciences.

## Overview

The main priorities of nursery management are as follows:

- Gaining knowledge of specific native flora to our area (Santa Clara County) and major species for all plant communities
- Propagating the major plants (most common plants to use in vegetative restoration in Santa Clara County)
  - Choose from most popular clinal plants
  - Choose from most utilized native plants in restoration projects
- Learning propagation methods, depending on plant type and seasonality
  - From seeds, cuttings, divisions → which method is most effective by type
  - Cuttings → learning different types of cutting methods (hardwood, softwood, semi-hardwood, etc, cutting angles,)
  - Seeds → some seeds may require treatment (scarification, heat treatment, water treatment, etc) and some may not.
- Creating and enhancing current and future gardens
  - CNGF garden and Hester school (currently)
  - Keeping inventory of food plants and keeping record of their harvest cycles in conjunction with native flora

## General Monthly Priorities

- First month will focus with orientation and training (learning native flora)
  - Techniques on soil amending, learning different categories we focus on for food plants, learning importance of indigenous knowledge on native plant husbandry, privileges of Santa Clara County and power dynamics between technology and food scarcity
  - Learning about native edible plants, their uses, and functions
- Propagation of at least 100 CA native plants per month (25 per week)
- Each week, learn at least 5 new CA native species (or at least genus)

- By the end of each month, should learn the general plant list to the different CA ecosystems (learning the list will help with understanding what is needed for plant restoration)
- Familiarizing yourself with propagation methods based on plant type
- Consistent updating with growing and harvest inventory for both native plants and food plants
- Weekly meetings: Discuss and organize plans for farmstand to impoverished and homeless communities (reaching out to organizations to receive leftover produce and foods that do not need to be cooked/processed to eat, reaching out to orgs that would host pop-up farm stands, figuring out logistics of directly communicating with homeless community)
  - This may also include a developing work plan on how to work with food organizations to utilize our native plants and sustainably grown food plants
- Bi-monthly readings will be assigned, I expect them to be read, notes to be taken down in preparation for discussion and how they are relevant. Topics will include:
  - Ecological restoration
  - Urban agriculture, overall agroecology
  - Food sovereignty, food justice
  - Decolonization of food systems, environmental stewardship, public health

### **Hester Garden Work Plan**

- Weeding and overall maintenance of garden and food beds *weekly*
- Installing more California native plants around the garden (native hedgerows, native windbreaks, etc)
  - Focus on native edible/medicinal plants that have small flowers to encourage native pollinators: Include → yarrow (*Achillea* spp.), buckwheat (*Eriogonum* spp.), manzanitas (*Arctostaphylos* spp.), etc.
  - Enhancing native habitat on fence side of garden
- With every new space cleared on bed from weeded area, add new plant
  - With a higher density of food plants, the need for mulch on the beds lessens
- Everything that is seeded for Hester, must be recorded (QTY and date) → estimate maturation
  - Everything that is planted into Hester, must be recorded (QTY and date) → estimate maturation
  - Divide and organize things being grown into where they will be put into (donation, sold to SCU, sold to restaurant, harvested for interns or staff, etc)
- **The Five Categories of Food Plants**
  - Perennial
  - “Comfort” (foods that we grew up with and are used to having in our diet)
  - Native medicinal/edible
  - Drought tolerant
  - Superfoods
- Operable nursery space (greenhouse) at Hester for localized growing on site
- Food plants that should we should always be growing:
  - Legumes
  - Lettuces
  - Beets
  - Green onions
- Discuss “grid-layouts” done for Hester:
  - Tall plants in middle of rows, followed by lettuces, N-fixers, edging plants, etc

- This is arranged by harvesting dates, and type of plant
- 5-7 different plants per bed is ideal to reach productive yield output
- Profit productions must be made (estimates OK) per bed → consider qty, yield, harvest into a monthly income to approximate yearly income

## **General Plant List for Hester Garden**

**(this is always a working list, more can be added, of course!)**

### Special Categories:

#### **1. Annual Comfort foods**

- a. Baby Bok Choi
- b. Tot Soi
- c. Cauliflower var (purp, yellow, white,)
- d. Lettuce var (green butt, red butt, little gem)
- e. Tomatoes
- f. Kale
- g. Chard
- h. Beets
- i. Broccoli

#### **2. Riparian Woodland**

- a. Willow Sp
- b. Dogwood sp
- c. Alder
- d. Mock orange
- e. Ocean spray
- f. Choke cherry

#### **3. Edible and Medicinal Pollinators**

- a. Artemisia
- b. Yerba Buena
- c. Yerba Mansa
- d. Yerba Santa
- e. Yarrow
- f. St. john's wort
- g. Coyote mint
- h. Ribes - currant
- i. Arnica
- j. Edible lupine
- k. Astragales
- l. Oxeye daisy
- m. Cleavers
- n. Nettles

#### **4. Prairie Community**

- a. Quamash sp
- b. Mariposa lily
- c. Chocolate lily
- d. Globe lily
- e. Yampah
- f. Annual wildflowers
- g. Native grasses

#### **5. Oakwood land edge**

- a. Oak sp

- b. Coffeeberry
- c. Holly leaf cherry
- 6. Edges for no-till beds**
  - a. Native grasses along the bed edges
  - b. California fescue
  - c. California oat grass
  - d. Indian rice grains
  - e. Yarrow
  - f. Manzanita
  - g. Buckwheat
  - h. Milkweed
- 7. Hangers**
  - a. Sweet pea
  - b. Oregano
  - c. Rosemary
  - d. Chives
  - e. Green onion
  - f. Watercress
  - g. Wintercress
- 8. Interlaced perennial foods**
  - a. Miners lettuce
  - b. Lab lab
  - c. Sweet onion
  - d. Artichoke
  - e. New Zealand spinach
  - f. French sorrel