

ELDERBERRIES AT THE ECO-GARDEN

Assessing the ability to create value added products from elderberries through sustainable, ethical, and culturally relevant practices. | Summer 2025 |

Background

Elderberry has long held cultural and medicinal significance, particularly among Native American tribes who have utilized the plant for centuries.

Traditionally, elderberry has been used for a variety of purposes, including medicine, food, and natural dyes. Nearly all parts of the plant are utilized. The roots have been used in traditional healing practices, the branches for crafting instruments, and the berries for an array of medicinal and culinary applications. Given its historical and ecological importance, it is essential to preserve and share knowledge about the elderberry, especially as current and future UC Davis students continue to engage with and benefit from its many uses.



Project Overview

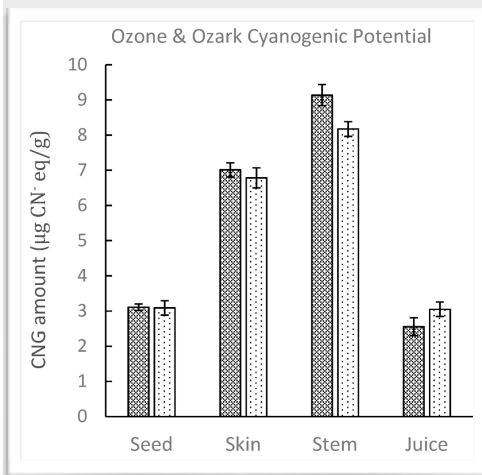
This Summer, the UC Davis Student Farm has focused on a central goal: getting more elderberries from the farm to the people. With 19 mature elderberry trees on site, which have supported various harvest efforts in the past including collaborations with [Fresh Focus](#) and the [Native Nest](#), the harvest yield is so large that we're now working to expand its use and share it more widely, our team saw an opportunity to better share this abundant resource with the campus and broader community. To put into perspective, our data collection showed us that we have approximately 445lbs of harvestable elderberries.

To make this possible, we explored a range of harvest and processing options including distributing fresh berries, dehydrating them for further use, juicing, and experimenting with the development of value added products. Each method came with its own set of possibilities and challenges, especially when considering how best to make elderberry products accessible to off campus populations while navigating proper food handling ¹



Important Characteristics

Raw elderberry, stems, leafs, and roots contain cyanogenic glycosides and when ingested can break down into hydrogen cyanide and can induce vomiting. It is important to understand this as processing and heating is a very important step in creating a sellable product.



MDPI: Cyanogenic Glycoside Analysis in American Elderberry Molecules doi.10.339026051384



A major step in our effort was investigating what it would take to commercialize elderberry products. This included looking into relevant food safety regulations like cottage food licensing, Processed Food Registration License, accessing commercial kitchens, processing costs, and logistical considerations around scaling up.

Throughout this time, we've also deepened our partnerships with the Native Nest, an on campus group promoting indigenous education and community building, as well as shared knowledge with various collaborators about food processing techniques and community focused approaches to resource sharing. We are working with UC Extension, UCANR, and the pilot plant to gain knowledge about future available resources. These connections continue to inform and strengthen our efforts as we look toward expanding this work in the future.

Methods

In collaboration with Olivia Marie Quinlan Henry who works for UC Extension as a Regional Food Systems Area Advisor and Julia Schreiber who is the UC Davis Ecological Garden Coordinator we worked to achieve the mentioned goals. To do this we:

1. Developed standardized harvest protocols aimed at educating current and future students, as well as community members, on effective and sustainable elderberry harvesting practices..
2. Conducted secondary research and comprehensive literature reviews to assess existing knowledge on elderberry utilization.
3. Engaged with local experts and organizations, including UC Agriculture and Natural Resources (UC ANR), to gain insight into food safety regulations, available processing resources, and best practices for value-added production.
4. Created a Profitability Calculator to analyze the profitability of three value added products compared to expected yield and labor time requirements.
5. Experimented with various elderberry processing techniques to determine the most accessible, efficient, and community-appropriate methods for future use and distribution
6. Coordinated outreach to on-campus groups and invited them to participate in the elderberry harvest, fostering engagement and shared learning around this culturally and nutritionally significant crop

FUTURE LOOK?

As we continue exploring methods for elderberry utilization, our ongoing research and community engagement have revealed additional opportunities for processing. We are currently in contact with [Horticultural Innovation Lab](#) who has access to large scale solar dryers, which present a promising option. These dryers could significantly reduce infrastructure costs, support more sustainable processing practices, and enable operations at a larger scale. Producing a dehydrated elderberry product also aligns well with food safety regulations and offers the most economically viable option in terms of fixed costs and distribution to the community.

