



Humboldt Preservation Project

Humboldt Preservation Project Mission Statement: It is the goal of the HPP to preserve the region's agricultural heritage through germplasm preservation and education.

Phase 1 – 2017 – ongoing Germplasm Preservation Documentation and preservation of homestead orchard fruit trees will be carried out through germplasm extraction and grafting. At-risk trees will be grafted to new rootstock and planted at a newly established tree nursery at Redwood Acres Fairgrounds in Eureka. When the trees have reached a stable age, they will be relocated in a larger orchard at the fairgrounds that will be funded through the 2021 CDFA Specialty Food Crop Grant. This will allow the trees to be preserved in a location that is averse to fire risk. Once the newly formed trees have matured, additional germplasm will be grafted to new rootstock and replanted at the original orchard locations throughout the region. The Eureka repository will keep and maintain at least one tree per variety as backup. Funding will be needed to establish the 1.5-acre orchard at Redwood Acres Fairgrounds. Costs include fencing, irrigation systems and maintenance equipment. Construction will start immediately after funding goals are reached. This phase began in 2017 when Greg Collins, Lori Brakken and Tom Hart visited homestead orchards throughout Humboldt Redwoods State Park. Identification of fruit trees was carried out at six 19th century homestead sites and the trees were documented. This moment spurred the idea to start preserving fruit varieties at homestead locations through germplasm preservation. Many of the trees were at risk of dying in the next few years and losing valuable germplasm for posterity. Scionwood was obtained from the Tower House Orchards of Whiskeytown National Recreation Area in February of 2019 and grafted in April by Tom Hart and Lori Brakken. Tom Hart established a nursery at Redwood Acres Fairgrounds where 34 varieties of Tower House fruit trees and 3 varieties of apples from Albert Etter's homestead orchard were planted. Every variety was grafted successfully and properly preserved. Additional scionwood was extracted from two dying trees at the Logan/Holmgren homestead orchard (California State Parks) in August of 2019 after a site visit revealed two of the trees had snapped due to heavy fruitload. The scionwood was bud grafted to 4 MM111 rootstocks successfully.

Phase 2 – 2021-22 Historical Research and Establishment of an Orchard Educational Program Research will be conducted to provide a historical perspective of fruit growing on the North Coast. The history of the homestead orchards will be researched and the stories will be presented to visiting schoolchildren through tours and placards through the Humboldt Preservation Project repository. Proper research will identify homestead sites that are suitable for education purposes with special attention paid to homesteaders' relationship to Native peoples in the region. We will not feature homestead stories from sites with unfavorable Native-relation histories. Funding will be needed to hire local historian Jerry Rohde to accumulate information for the homestead locations. The repository will also feature a section dedicated to fruit growing by Native peoples on the North Coast. Native berries will be grown around orchard fencing and a section will feature hazelnut trees. Adam Canter, ethnobotanist for the Wiyot tribe, has been consulted regarding this section and will continue to provide consultation to properly represent the Native history. The goal of presenting the history of fruit growing on the North Coast will be to connect visitors to the region's rich agricultural history.





Humboldt Preservation Project

We hope to inspire visiting schoolchildren and general public visitors alike to engage in their own agricultural endeavors and learn the proper skills to carry this out. Regular workshops will be conducted in conjunction with Humboldt Cider Company to provide education for proper horticulture techniques such as grafting, pruning, irrigation and permaculture.

Phase 3 – 2022 Research When the tree repository is properly established, we will maintain data on the trees to conduct proper scientific research. Research will include, but not limited to, the growing ability and sustainability of different rootstocks and fruit varieties in the coastal zone, fruit production with different nutrient regimens, the effects of dry farming vs. irrigation, pest/infection/disease causation and solutions, organic versus inorganic methods and permaculture's effects on fruit. Identification will be conducted to determine what fruit tree varieties are in the repository. Humboldt State University, College of the Redwoods and local high schools will all be provided opportunities to conduct their own research at the orchard.

Phase 4 – 2023 Harvest and Sale of Fruit Once the orchard has been established, grafted fruit varieties will begin producing fruit in 3 to 5 years. This provides the Repository with the ability to generate revenue for self-sustainability. Fruit will be sold to Humboldt Cider Company to be used in craft ciders as well as local food vendors. A fully operational orchard generates between 12-15 tons of fruit per acre. The going rate for cider apples is \$500/ton, so the 1-acre HPP orchard should generate \$6000+ annually for ongoing maintenance and staff costs. That figure would increase should the size of the orchard be expanded. Local chefs will host pop-up dinners at the orchard to help promote the culinary uses of these rare fruits and native plants. Additional revenue generation could be ascertained through the patent and sale of rare fruit tree varieties that are discovered throughout the homestead orchards. Many of the homesteaders were using seedling and cross-bred varieties that are completely unique. Rediscovery of these one-of-a-kind varieties will open the door to future sales of the germplasm to orchards throughout North America. If a certain variety is identified as a possible patent candidate, the original orchard location will receive a portion of the profits from sales of that variety. Contracts will be worked out with individual origin locations to determine how proceeds will be allocated.

Summary The Humboldt Preservation Project will be crucial to preserving the agricultural history and germplasm of our region. The historical orchards throughout the region contain unique varieties of fruit trees that have been lost through the annals of time. If we are proactive and take the initiative to seek out and preserve these varieties, we will save valuable germplasm. Establishing an educational orchard to house these preserved varieties will allow us to teach future generations valuable agricultural skills. Highlighting the histories of the homestead, mining and Native communities that grew fruit in our region will allow visitors to reconnect with the region's rich agricultural past. When the trees become mature, the replanting ceremonies will spread the breadth of our educational reach and allow residents of the communities around those homestead orchards to be inspired for generations to come.

More details: contact Lori or Tom Hart, Co-Owner/Operator Humboldt Cider Company, Email: Tom@humboldtciderco.com Mobile: [847-323-9227](tel:847-323-9227)

