

## **Summary of Research: 2015 to Present –Research Year One 2020-2021 Log Book and Red Folder Research Notes & Sample Photos**

### **Project Title: Growing Table Grape Varieties for Subtropical Hawaii using Organic Practices**

Below is a summary of research and observation of table grape trials at Kawanui Farm in Kona, Hawaii by Gerry Herbert as outlined in his SARE Research Objectives. These observations and data come from Gerry's Log Book and his Red Folder containing hand made charts of data and observations. Gerry had completed earlier research beginning in 2015, that is being included here also, to give a perspective on the length and breadth of such a long term project to identify varieties of table (bunch) grapes that could be suitable for Hawaii's market farms and home gardens and give evaluators a better idea of the time involved to trial grapes for Hawai'i. The project also has a research focus to identify adaptations needed for the current climate change variations we are seeing here, and identify best organic practices. We are currently writing a Booklet that will summarize research and it will be included in the 2023 end of project Report.

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#### **I. LOG BOOK**

##### **Summary of Grape Research and Observations in the 4 Vineyards of Kawanui Farm 2015-2020 - Log Book & Sample Photos (Photo Log Book)**

- 1. Pages 1-16 – Identification information for first round of grape  
variety scions obtained from Ken Love Hawaii Fruit Growers  
Association and from the UC Davis Grape Repository (2015-2019)**  
These notes include name of variety, identification of parent lines, breeder name and place of origin if known, date planted in vineyard, UC Davis Grape Repository #, growth differences of introductions of the same variety but different origin, recommendations from the breeder, leaf color, pest problems, budding dates, % pruned, training notes, grape clusters, and scion germination. (see sample page Photo 1)
- 2. Pages 17-30 University of Florida and Dunstan & Fennell Varieties**  
Same note categories as above. 2018-2019 (see Photo 2)
- 3. Page 31 - Northeast & Southern Vineyard Map of new UC Davis  
varieties and date planted, survival notes 2018**  
Notes on Garden Nursery scion plant out, grafting rootstock & growth. Grafting Experiment with 5 varieties in the field. Out of 28 scions grafted only one took with Caribe rootstock & Isabella vine. Rather have a grape on it's own roots to eliminate problems. Varieties being grown all have subtropical parents in the line and an "introduction" to this type of climate.
- 4. Page 32 Grape Variety ID Abbreviations 2017 (see Photo 3)**
- 5. Pages 33-37 Maps of North, South, Central, and West Vineyards by  
variety name, date planted 2018**
- 6. Pages 38-39 Notes on Dunstan Varieties 2018-2019**
- 7. Page 40-47 Observations of new UC Davis scions, notes on 3 different  
areas scions were planted. (Gerry's "aha" moment) All varieties should**

each be planted in 3 areas; planted in pots in the greenhouse, in the Garden Nursery, and directly in the field creating more possibilities for success. Weather observations during the 3 month intense 2018 Kilauea Eruption (see Photo 4)

8. **Page 48 Pruning Notes by Variety 2020**
9. **Page 49-54 New UC Davis Scions 2020**  
Observations, parent lines, notes on germination and growth, references to breeder, and Chinese Beetle damage. (see Photo 5)
10. **Pages 55-56 Weather notes 2021 and early 2022. Rainfall Chart (see Photo 6)**

**All Log Book Photos included in separate document titled, “Log Book Photos: pdf.**

## **II. Red Folder Grape Individual Working Papers & Examples**

**2017**

1. **Working Map for grape varieties in vineyards (possibilities)**
2. **Table on Grape Use by Variety (juice, out of hand)**
3. **Grafting Chart, 5 Varieties, Observations**

**2018**

1. **Chart of Chinese Beetle Damage, by variety, observations and growth, North & South vineyards, Last Chance Graft List, Winners Column.**
2. **Chart Grafts 18-19 Winter**
3. **Chart of scion placement in vineyards.**
4. **Chart of possible grafts for 18-19 and why.**
5. **Vineyard Maps, placement and variety names Spring 2018**
6. **Map all vineyards Winter 18-19, Chinese Beetle damage, survival notes by variety.**
7. **Chart of variety names with wild grape parents from Florida, Labrusca, Rotundifolia, Mixed Hybrids. 2018-2019**
8. **Chart 2018-2019 Winter plant out UC Davis, 19 new varieties, scion planting, variety name, date planted out, notes & observations.**
9. **Map of NE and SW vineyards observations by variety. 2018-2019**
10. **Chart 15 new UC Davis varieties. Variety name, scion growth, vineyard placement, greenhouse potting one or two scions per pot, observations, survival, where they were eventually planted.**
11. **Chart of possible placement of rooted scions for Spring 2018 by vineyard name.**
12. **Chart of UC Davis order for 2018. Variety name, UC Davis #, parents, and why chosen.**

13. Grafting Experiment 2018, variety names, 28 grafts made, one survives.
14. Chart Evaluation of UC Davis scion grow out for 2018.  
Variety name, notes, survival notation.

#### 2019

1. Grape growth for the year before pruning, number of feet for each Variety.
2. UC Davis chart of possible planting placement in vineyards and why. 2019.
3. Chart of 28 grafts of 6 varieties, vineyard placement and observations.
4. Chart of scion growth, one or two per pot, variety name, notes.

#### 2020

1. UC Davis new scions notes on Florida varieties, Munson (Texas) Varieties, variety name and parent lines, planting notes, growing observations, and where planted.
2. Possibility Chart for next round of new UC Davis Scions. Possible placement in the vineyards.
3. Maps of all the vineyards 2020-2022
4. List of scions by variety to plant out 2020-2022
5. Chart Summer 2020. Variety name, date planted, # of grape clusters, description of cluster, taste.
6. Upper Southern Vineyard only, plant out map and variety information.
7. South "Garden" Davis plant out Map. Greenhouse variety map, notes on scion grow out # of scions per pot, date & observations, survival notes.
8. All vineyard maps with variety name, placement, date planted, any notes. 2020
9. Chart growth of scions in greenhouse 2020
10. Chart of UC Davis new varieties, variety name, parent lines, divided into 4 categories (Florida wild grape parent, Labrusca, Rotundifolia, and mixed hybrids).
11. Chart Looking Ahead in 2021 map of possible new placements of grapes in the 4 vineyards and empty slots shown
12. Chart: Evaluation of UC Davis scion grow-out for 3/20-5/20. Three plantings of each scion variety. Potted in the greenhouse, scion planted out in the Garden Vineyard, and scion planted directly into the vineyard. Survival rate by variety.

#### 2021

1. List: scions to cut late February 2021. Variety Name, date vine Budded out, # of scions to make.

2. **Spring budding dates by variety and observations.**
3. **Spring Pruning Chart by variety and date.**

**2022 (January-March)**

1. **List of grape work to do by variety & vineyard. Early budding Dates and variety name, notes on pruning each variety. Also, observations on early scion planting in greenhouse by variety.**

**Photo Examples of pages listed above are included in the document titled: Red Folder Research Photos.**

**Additional Documents;**

1. **Rainfall Chart 2003-2021**
2. **Grape Survival Chart: 2015-2022 Variety Name**