Olives in Hawaii

• Early workers on Parker Ranch on the Big Island brought/planted olive trees in the late 1800/early 1900’s in the dry area between Waimea/Kamuela and Kona

• Farmers are now growing different varieties in Waimea and Kona on the Big Island and in Kula on Maui

• Given the right growing conditions, it might be feasible to produce sufficient olives to make it a niche market activity
Conditions and Cultivation of Olives

- Long dry season
- Low humidity
- Neutral-Basic soil (pH ≥ 7)
- Survive & grow in 120º F
- Lethal temperature of 15ºF
- Mediterranean climate
Climas mediterráneos en el mundo
Mediterranean climates on earth

Zonas con clima mediterráneo
Areas with mediterranean climate
Olive trees growing at CTAHR Experiment Station in Lalamilo
Trees can grow from 1 foot tall to 9 feet in 16 months.
Olive trees have longevity. Some trees are 1,000 years old.
Olive fruits on a two year old tree
Given the proper pruning and fertilization, olives can be produced in fairly large quantities.
Pickled Olives vs. Olive oil

- People think olive oil when seeing olive groves. What’s involved?
  - Need a processing facility
  - Require expensive equipment: crusher, oil press, filters, centrifuges, settling tanks, and stainless steel storage tanks, not counting bottling equipment.
  - Need lots of olives!
  - Need to deal with 80% – 90% residual waste
Olive plantation in Granada, Spain
### Olive quality, ripeness, and oil %

<table>
<thead>
<tr>
<th>Quality</th>
<th>Olive color</th>
<th>Ripeness</th>
<th>Quantity/L</th>
<th>Percent Oil in fruit</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>green, yellow-green</td>
<td>Very green</td>
<td>11 – 12 kg (24 –26 lbs)</td>
<td>~ 8%</td>
</tr>
<tr>
<td>High</td>
<td>green, yellow-violet</td>
<td>Green</td>
<td>7 - 8 kg (15-17 lbs)</td>
<td>12%</td>
</tr>
<tr>
<td>Medium</td>
<td>Violet-black</td>
<td>Ripe</td>
<td>5 - 6 kg (11- 13 lbs)</td>
<td>~ 20%</td>
</tr>
</tbody>
</table>
Pickled Olives vs. Olive oil (con’d)

• For an niche market in Hawaii, making pickled olives might be economically feasible.
  – Processing can be done in a certified kitchen
  – Whole fruit used. No waste.
  – Can pick fruit when green, medium ripe, or ripe
  – Require large soaking containers, water, equipment for scoring olive fruit surfaces, etc.
  – Can make it uniquely Hawaii: Kim Chee flavored olives, Li Hing olives, etc.
Questions?
Monthly progression of fruit development

February  March  April  May

June     July    August  September