RAMP 2008-2010
Economic Analysis

Barbara Dartt, DVM, MS

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Orchard & Vineyard Show, Traverse City
Quadrants of Business Success

- **Financially Healthy**
  - **Q1**: People Happy
  - **Q2**: People Unhappy

- **Financially Unhealthy**
  - **Q3**: People Unhappy
  - **Q4**: People Unhappy
Budgets

• If it isn’t broke...you probably haven’t looked hard enough!
  – Tom Peters

• In business, the only truly sustainable competitive advantage is the ability to learn and adapt faster than your competition.
  – Danny Klinefelter
My Goal
The Johari Window

<table>
<thead>
<tr>
<th>Caution</th>
<th>Certainty</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I know what I don't know&quot;</td>
<td>&quot;I know what I know&quot;</td>
</tr>
<tr>
<td>Explore</td>
<td>Exploit</td>
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</table>

<table>
<thead>
<tr>
<th>Ignorance</th>
<th>Amnesia</th>
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<tbody>
<tr>
<td>&quot;I don't know what I don't know&quot;</td>
<td>&quot;I don't know what I know&quot;</td>
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<tr>
<td>Experiment</td>
<td>Expose</td>
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Outline

• Purpose & Process
• Findings & Conclusions
• Budgets
• Questions
PURPOSE & PROCESS
Purpose

• Illustrate production and financial impacts of pesticide programs utilized by tart cherry producers for both High Pest Pressure (RAMP) and Lower Pest Pressure (TRANSITION)

• Provide a decision-making tool for producers
History and “Today’s” Focus Group

- Michigan Production Costs for Tart Cherries by Production Region, Michigan State University Ag Economics Report #639, Sept 2010

- Focus Group and Cooperators
Process

• Modified
  – Pesticide programs
  – Machinery
  – Labor
  – Management time
  – Pest management services
Thanks

- Jim Laubach
- Erin Lizotte
- Nikki Rothwell
- Jim Bardenhagen, Francis Otto
- Roy Black

08.26.2011
Assumptions

• 10,000 lb yield per acre
  – 2010 publication used 9,000 lb per ac
• Includes cash and non-cash costs
• Includes Yr 1-5 establishment and operating costs, amortized over 22 years
• Includes Yr 6-22 land control cost, annualized
Philosophy

- Decision making aid
- Transparency of assumptions

If you agree with these budgets, you haven’t looked hard enough.
FINDINGS & CONCLUSIONS
## Key Differences

<table>
<thead>
<tr>
<th></th>
<th>RAMP</th>
<th>TRANSITION</th>
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</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>High Pest Pressure</td>
<td>Lower Pest Pressure</td>
</tr>
<tr>
<td><strong>Times over Field</strong></td>
<td>7.5</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Spray Frequency</strong></td>
<td>10 days</td>
<td>10 days</td>
</tr>
<tr>
<td><strong>Sprayer Life</strong></td>
<td>12.5 yrs</td>
<td>4.1 yrs</td>
</tr>
<tr>
<td><strong>Machinery &amp; Labor Hours</strong></td>
<td>1.36x</td>
<td>1x</td>
</tr>
<tr>
<td><strong>Scouting Hours</strong></td>
<td>3.2x</td>
<td>1x</td>
</tr>
<tr>
<td><strong>Management Hours</strong></td>
<td>1.1x</td>
<td>1x</td>
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</table>
## Results Compared

<table>
<thead>
<tr>
<th>CROP PROTECTION</th>
<th>RAMP</th>
<th>TRANS</th>
<th>Difference RAMP-TRANS</th>
<th>RAMP as % TRANS</th>
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</thead>
<tbody>
<tr>
<td>Pest Program</td>
<td>$274</td>
<td>$234</td>
<td>$40</td>
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<tr>
<td>Machinery</td>
<td>$103</td>
<td>$62</td>
<td>$41</td>
<td></td>
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<tr>
<td>Labor</td>
<td>$52</td>
<td>$38</td>
<td>$14</td>
<td></td>
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<tr>
<td>Pest Management Service</td>
<td>$88</td>
<td>$28</td>
<td>$61</td>
<td></td>
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<tr>
<td>Management and Labor Supervision</td>
<td>$195</td>
<td>$173</td>
<td>$23</td>
<td></td>
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<tr>
<td>Interest</td>
<td>$48</td>
<td>$42</td>
<td>$7</td>
<td></td>
</tr>
<tr>
<td>Total Expenses Adjusted for RAMP/TRANS</td>
<td>$760</td>
<td>$576</td>
<td>$184</td>
<td>131.9%</td>
</tr>
<tr>
<td>Total per Acre Expenses</td>
<td>$2,803</td>
<td>$2,619</td>
<td>$184</td>
<td>107.0%</td>
</tr>
</tbody>
</table>

RAMP/TRANS Adjusted Exp % Total per Acre Expenses

<table>
<thead>
<tr>
<th></th>
<th>RAMP</th>
<th>TRANS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27.3%</td>
<td>22.0%</td>
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</table>
## Cost of Production

<table>
<thead>
<tr>
<th></th>
<th>RAMP</th>
<th>TRANSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield</td>
<td>10,000 lb</td>
<td>10,000 lb</td>
</tr>
<tr>
<td>Total Production Cost per Acre</td>
<td>$1,772</td>
<td>$1,587</td>
</tr>
<tr>
<td>Total Establishment &amp; Land Cost per Acre</td>
<td>$1,031</td>
<td>$1,031</td>
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<tr>
<td>TOTAL Cost per AC</td>
<td>$2,803</td>
<td>$2,619</td>
</tr>
<tr>
<td>Total Cost per Lb</td>
<td>$0.30</td>
<td>$0.28</td>
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</table>
Unrealistically High COP?

• Yield may not represent your actual yield
• Costs included here are very comprehensive
  – Orchard maintenance
  – Vehicle cost
  – Full management cost
  – Ownership costs
• Assumptions about total acres and other enterprises that "share" the cost of machinery
BUDGETS
Navigation

- **Light blue cells** – modify without disrupting formulas

- Dynamic
  - Yield
  - Labor cost
  - Pesticide costs
  - Fuel cost
  - Fertilizer cost
  - Full cover sprays and rate
  - Purchase price, years of life, hours used, operating costs
Modifications

• Modifying machinery
  – Update purchase price, years of use, acreage assigned, and operating costs
  – See Machinery Cost Estimates, William F. Lazarus and Andrew Smale, University of Minnesota, Jun 2010 (update May ‘11)

• Modify spray programs

• Adding line items in budgets – need moderation Excel knowledge