Goals of This Talk

Many of you wear different hats as grower, packer, marketer, supplier, board member, manager, government official, etc. Aim to provide you with:

1. Ways to think about competition effects.
2. Evidence of competitiveness, by country.
3. Examples of costs, by country.
4. Tips on Improving Competitiveness.

International Competitiveness

Desmond O’Rourke,
Belrose, Inc.
World Fruit Market Analysts

May 2008

Competition
The Life Blood of Business

• Among farms, districts, countries.
• For labor, land, water, packers, marketers.
• For government attention and support.
• For a share of domestic and foreign markets.

Five Major Contributors to Competitiveness

1. Price (relative to rivals).
2. Intrinsic quality.
3. Service to customers.
4. Reputation (of district, country, etc.)
5. Extrinsic qualities. (Added value.)
1. Price
- Competition tends to drive down price for similar products.
- Many farmers compete only on price.
- How low can they do this without going out of business?

2. Intrinsic Quality
- How does your product look, taste, smell, store, travel?
- How pleasing is the color, sweet-tart ratio, juiciness, crunch, etc.?
- Are those qualities superior to rivals?

3. How’s Your Service?
- Is your supply of products continuous, reliable, prompt?
- Do you provide the customer with help before, during and after sale?
- Ditto for your packer and marketer!

4. Reputation
- Does your product set off trumpets or alarms?
- What reputation does your firm, brand, district, state or nation have among buyers?
- How does your reputation rank beside rivals?
5. Extrinsic Qualities

- Feathers and braid now more important than the hat.
- Assurances on food safety, environmental quality, worker treatment, status, promotion, etc.
- Meeting GlobalGAP, SQF, BRC standards, etc., etc.

Competition in Adding Value

- Service, reputation and extrinsic qualities all add value to the basic product. Much of this added value is created off the farm.
- Today’s complex customer needs added value to be satisfied.

Controllable v. Uncontrollable Factors

- Some factors that affect competitiveness are controllable, and some are not.
- Controllable e.g. chemical or water use.
- Uncontrollable e.g. exchange rates or retailer demands.
- Producers can not change uncontrollable factors, only learn to adapt to them.

Controllable: Long and Short Term

A. Long-term: Decisions on site, density, rootstock, cultivar, etc.
B. Short-term: Response to weather, insects, diseases, quality control, etc.
Uncontrollable Factors

Examples: Drastic changes in exchange rates; competition from China; availability of capital.
Response: May need to review your assets, change your orchard strategies, try new tactics, possibly exit.

Eight Sources of Competitive Advantage

<table>
<thead>
<tr>
<th>Source</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Location</td>
<td>Production, Markets.</td>
</tr>
<tr>
<td>2. Natural resources</td>
<td>Land, soil, climate, water, energy.</td>
</tr>
<tr>
<td>3. Human resources</td>
<td>Entrepreneurs, managers, workers.</td>
</tr>
<tr>
<td>4. Internal efficiency</td>
<td>Farms/ agribusinesses.</td>
</tr>
<tr>
<td>5. Infrastructure</td>
<td>Roads, rail, ports, etc.</td>
</tr>
<tr>
<td>7. Industry organizations</td>
<td>Research, promotion, lobbying.</td>
</tr>
<tr>
<td>8. Science &amp; Technology</td>
<td>Public and private</td>
</tr>
</tbody>
</table>

Assessing Competitiveness

- Not all factors can be measured/assessed,
- World Apple Report has developed ranking using 22 measures, including:
  - Production factors
  - Infrastructure and Inputs
  - Financial and Market factors
- Each measure is scored from 1 to 10.

Apple Competitiveness Rankings, 2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>Overall</th>
<th>Production</th>
<th>Infrastructure &amp; Inputs</th>
<th>Financial &amp; Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chile</td>
<td>N Zealand</td>
<td>Chile</td>
<td>Italy</td>
</tr>
<tr>
<td>2</td>
<td>N.Z.</td>
<td>Netherlands</td>
<td>U.S.</td>
<td>France</td>
</tr>
<tr>
<td>3</td>
<td>Italy</td>
<td>Chile</td>
<td>N Zealand</td>
<td>Belgium</td>
</tr>
<tr>
<td>4</td>
<td>U.S.</td>
<td>Austria</td>
<td>Argentina</td>
<td>Japan</td>
</tr>
<tr>
<td>5</td>
<td>France</td>
<td>S Africa</td>
<td>Canada</td>
<td>Austria</td>
</tr>
<tr>
<td>6</td>
<td>Australia</td>
<td>Australia</td>
<td>Australia</td>
<td>Australia</td>
</tr>
</tbody>
</table>
Pear Competitiveness Rankings, 2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>Overall</th>
<th>Production</th>
<th>Infrastructure &amp; Inputs</th>
<th>Financial &amp; Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chile (155)</td>
<td>S Africa</td>
<td>Chile</td>
<td>Belgium</td>
</tr>
<tr>
<td>2</td>
<td>Netherlands (154)</td>
<td>Netherlands</td>
<td>U.S.</td>
<td>Netherlands</td>
</tr>
<tr>
<td>3</td>
<td>Belgium (152)</td>
<td>Argentina</td>
<td>N Zealand</td>
<td>Italy</td>
</tr>
<tr>
<td>4</td>
<td>U.S. (152)</td>
<td>Belgium</td>
<td>Argentina</td>
<td>Austria</td>
</tr>
<tr>
<td>5</td>
<td>Italy (146)</td>
<td>Chile</td>
<td>Canada</td>
<td>Canada</td>
</tr>
<tr>
<td>13</td>
<td>Australia (130)</td>
<td>Australia (# 10)</td>
<td>Australia (# 11)</td>
<td>Australia (# 12)</td>
</tr>
</tbody>
</table>

Cost Competitiveness will be Key for Most Producers

1. Demand in world markets is flat. Consumers are unwilling to pay more for standard products.
2. Australian consumption falling.
3. Most apples will continue to be traditional or established varieties.

Cost Competitiveness Equation

Delivered Cost equals
Orchard Costs
+ Packing/ Handling Costs
+ Transportation costs
Only orchard costs can be controlled by you.

Orchard Costs:
1. Availability and Cost of Inputs
   - Land, water and labor will be key:
     - Land costs will favor countries like Chile, China, Turkey, Poland.
     - Water. Availability of good irrigation critical. (e.g. Chile, Turkey)
     - Labor. Which country has the most rational policy on migrant labor.
Orchard Costs: 2. Yields

- Based on average yields alone, average costs per ton of apples produced in Australia would be much higher than among key competitors.

Australia Relative Costs per unit

But, Costs are Rarely Average

Schotzko 2004 Study of Washington State found average costs:
- Red Delicious: $264/ha
- Golden Del: $282/ha
- Granny Smith: $290/ha
- Fuji: $342/ha
- Gala: $343/ha

Breakeven Varies by Variety

Du Bruille–Barritt: Country Comparisons, US$ per metric ton

<table>
<thead>
<tr>
<th>Country</th>
<th>Labor $</th>
<th>Labor %</th>
<th>Direct $</th>
<th>Direct %</th>
<th>Total $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>125.93</td>
<td>35.4</td>
<td>159.59</td>
<td>44.8</td>
<td>356.19</td>
</tr>
<tr>
<td>U.S.</td>
<td>123.61</td>
<td>41.0</td>
<td>150.73</td>
<td>50.0</td>
<td>301.46</td>
</tr>
<tr>
<td>Chile</td>
<td>52.67</td>
<td>39.7</td>
<td>73.10</td>
<td>55.2</td>
<td>132.53</td>
</tr>
<tr>
<td>Poland</td>
<td>24.33</td>
<td>17.6</td>
<td>50.30</td>
<td>36.5</td>
<td>137.88</td>
</tr>
<tr>
<td>China *</td>
<td>57.75</td>
<td>19.2</td>
<td>211.31</td>
<td>70.1</td>
<td>301.50</td>
</tr>
</tbody>
</table>
UC Davis: Fuji Net Returns, 2007

<table>
<thead>
<tr>
<th>Av Price</th>
<th>6 ton/ac</th>
<th>8 ton/ac</th>
<th>10 ton/ac</th>
<th>12 ton/ac</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,420</td>
<td>-$8,624</td>
<td>-$6,983</td>
<td>-$5,334</td>
<td>-$3,683</td>
</tr>
<tr>
<td>$1,820</td>
<td>-$6,224</td>
<td>-$3,783</td>
<td>-$1,334</td>
<td>$ 1,117</td>
</tr>
<tr>
<td>$2,220</td>
<td>-$3,824</td>
<td>-$ 583</td>
<td>$ 2,666</td>
<td>$ 5,917</td>
</tr>
<tr>
<td>$2,620</td>
<td>-$1,424</td>
<td>$ 2,617</td>
<td>$ 6,666</td>
<td>$10,717</td>
</tr>
</tbody>
</table>

UC Davis: Fuji Cost Study, 2007

Major assumptions:
- Land cost $60,000 per acre.
- Density: 272 trees per acre (672/ha).
- Tree costs: $8 each.

Major conclusion:
- Positive net returns only with both yields and prices above average.

South Africa: Apple Crop Budgets

(Rand per hectare)

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2004</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-harv. Fertiliser</td>
<td>2,048</td>
<td>2,195</td>
<td>5,384</td>
</tr>
<tr>
<td>Pest/Fungi</td>
<td>7,583</td>
<td>7,516</td>
<td>10,252</td>
</tr>
<tr>
<td>Casual labor</td>
<td>1,808</td>
<td>2,110</td>
<td>7,066</td>
</tr>
<tr>
<td>Total</td>
<td>15,188</td>
<td>18,158</td>
<td>29,747</td>
</tr>
<tr>
<td>Harvest Total</td>
<td>5,251</td>
<td>13,757</td>
<td>18,085</td>
</tr>
<tr>
<td>Grand Total</td>
<td>41,277</td>
<td>45,806</td>
<td>72,764</td>
</tr>
</tbody>
</table>

U.S. Cost Inflation, Jan 04-Jan 08
Three Keys to Prosperity

1. Increasing Productivity: Value of output per unit of input.
2. Embracing technology.

Systematic Innovation

- Need to have systematic approach to renewing every aspect of your business.
- Troll your own and other businesses for ideas.
- New technology just one part of the solution.

Two Final Issues

- None of us can afford NOT to change.
- The bigger question is can we afford to change? We need to look at the best use of our capital, the potential return on investment and the potential payback period.

Final Thought

- The world continues to consume 60 million metric tons of apples a year.
- That is equivalent to about 82 million apples a day.
- There have to be many creative ways to make a profit in providing consumers with all those apples.