“Growing high quality fruit at an internationally competitive cost of production”

Ross Wilson & Steve Spark

AGFIRST

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Part 1: What is an Internationally Competitive Cost of Production (ICCOP)??
What is an Internationally Competitive Cost of Production (COP)?

Australian market

$ / Gross KG?

$ / Class 1 KG?
Orchard Business Analysis 2008

2008 cost of production $/gross kg
2008 cost of production $/class 1 kg

Model: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23

Costs range from $0.00 to $3.00 per class 1 kg.
Orchard Business Analysis 2010

2010 Cost of Production $/class 1 kg

$0.00
$0.50
$1.00
$1.50
$2.00
$2.50
$3.00
$3.50

$/class 1 kg

2010 Cost of Production $/class 1 kg
OrchardNet COP ($/gross kg)
OrchardNet COP ($/class 1 kg)
<table>
<thead>
<tr>
<th>Country Data</th>
<th>Post harvest</th>
<th>On Orchard</th>
<th>Int/Dep</th>
<th>Total</th>
<th>Wholesale equi import price (CIE)</th>
<th>AU grower COP Target $/C1 kg</th>
<th>AU grower COP target $/gross kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td></td>
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<td>2008 AU Model</td>
<td>$0.75</td>
<td>$0.80</td>
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<td>2010 AU Model</td>
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<td>OrchardNet</td>
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<td>$2.26</td>
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<td>Export Countries</td>
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<td>$0.45</td>
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<td>$0.12</td>
<td>$1.08</td>
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<td>USA</td>
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<td>China</td>
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<td>$1.47</td>
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<td>&lt;$1.50</td>
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</table>

**Internationally Competitive COP in the Australian Market ~ TARGET**

<$1.60 <$1.10
How to measure COP?

• Annual Accounts (add up all costs and divide by gross and class 1 kgs)
• Cash Manager & GrowData
• Orchard Business Analysis (OBA)
• OrchardNet

• How does your COP compare? Are you competitive?
How to achieve target?

2.1 Factors affecting orchard profitability

CONTROLLABLE FACTORS

- Variety
- Production systems

EXTERNAL FACTORS

- Climate
- Input prices

EXTERNAL FACTORS

- Quality
- Pack-out rate
- Yield
- Efficiency of input use

KEY DRIVERS OF PROFITABILITY

- Price
- Cost of production

Data source: The CIE.
Maximize Yield

2010 Cost of Production $/class 1 kg vs Yield (t/ha)

$0.00
$0.50
$1.00
$1.50
$2.00
$2.50
$3.00
$3.50

R² = 0.3031
Maximize Packout

2010 Cost of Production $/class 1 kg vs Packout

Cost of Production ($/class 1 kg)

Packout

$0.00
$0.50
$1.00
$1.50
$2.00
$2.50
$3.00
$3.50

40% 50% 60% 70% 80% 90% 100%

R² = 0.2657
Efficiency of input use

- Efficient labour use
- Contract vs casual, permanent vs casual
- Piece rates vs hourly rates
- Good negotiation of inputs
- Appropriate Capital and R&M expenditure
- Hire vs Own
- Good old hard work (50 vs. 38 hr week)
The Human Resource X Factor

• Motivated owners and staff
• Passion for fruit growing and excellence
• Pride in the product
• Good technical and management skills
• Good old “Hard work”
Part 2: What is High Quality and how do we maximise high quality?
“Yields too low” - lack tree height

“Young trees not performing” - not pushed hard enough

• Ian Armour, June 2010

Cost saving not investment maximising

• AgFirst and others.
Right growing approach

- Tree density
- Nutrition
- Irrigation
- Support Structures
- Pest & Disease
Today
Next Paradigm shift

The Norm
High Quality Fruit
High Production
More attention to older trees, look to technology, better plant material

Paradigm shift to improve yields
## Quality standards comparison

<table>
<thead>
<tr>
<th>PINK LADY</th>
<th>Woolworths</th>
<th>FreshSpecs</th>
<th>NZ exporter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Colour (%)</strong></td>
<td>&gt; 50%</td>
<td>&gt; 50%</td>
<td>≥ 40%</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>&gt;64-72mm</td>
<td>&gt;64-67mm</td>
<td>&gt;65mm+</td>
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<tr>
<td><strong>Maturity - Brix</strong></td>
<td>&gt;13.5% SS</td>
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</tr>
<tr>
<td><strong>Minor Defects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superficial bruises</td>
<td>&lt;2 cm²</td>
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<tr>
<td>Healed injuries in skin (hail marks, limb rub)</td>
<td>&lt;1 cm² aggregate</td>
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</tr>
<tr>
<td>Stem end russet</td>
<td>&lt;6 cm²</td>
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<td>&lt;10%</td>
</tr>
<tr>
<td>Cheek russet</td>
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<tr>
<td>Dropped shoulder angle from calyx</td>
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<tr>
<td><strong>Major Defects</strong></td>
<td></td>
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<td>Physical/ pest damage</td>
<td>stem punctures</td>
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<td>cuts, holes cracks or wounds (broken skin)</td>
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<tr>
<td><strong>Consignment Criteria</strong></td>
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<tr>
<td>Total minor defects/apple</td>
<td>&lt;2</td>
<td>&lt;2</td>
<td>-</td>
</tr>
<tr>
<td>Total minor defects / consignment</td>
<td>≤10%</td>
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<td>&lt;6%</td>
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<td>Combined total defects</td>
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<td>&lt;6%</td>
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<td>Shelf Life from receival</td>
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<td>≥14 days</td>
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World Market Place

- Failure to meet Specs
- Downgraded
- Sold as Class 2
- Lost Dollars
- Someone else supplies

Grower Outcome

World Markets

Market Standards
Increase height with post extensions 20 t extra production possible
training, nutrition, irrigation etc
Quote: “Sunlight guarantee for quality and quantity”
“in the shadows grows only little fruit of poor quality, therefore we must strive to position our fruit in the sun” Vigh J. Italy
Paradigm shift - anything possible

increase packout
80-90% too lower COP
Consistency of quality and production becomes more important
Growing high quality fruit at an internationally competitive cost of production.
Future Orchards 2012
Growing high quality fruit at an internationally competitive cost of production” HOW

- TRV > 12000m³/ha (tree height=row width +)
- Calm Trees ~ vigour 20-40cm
- Light throughout the tree (Branch angle, branch caliper, low vigour, summer prune, Extenday)
- Good management of nutrition and water
- Good management of pest and disease
- Regular cropping
- Efficient use of inputs