Key points that have ‘caught on’

By Steve Spark
2006 to present

Many Key points/fundamentals presented (as per Ross’s presentation)

• need rootstock + density → low vigour, calm tree at maturity + good precocity + high yield efficiency
• fill the allotted space quickly (5 years)
• density + tree form intercepts >70% of total available light
• Max. light distribution throughout the entire canopy = good colour
• Planting development= economic sense i.e. IRR > 15%
Lightbulb moments

✓ Maximising young tree growth
✓ Put away the “snips”
✓ M9 won’t grow here
✓ Young trees require TLC (from day 1)
✓ Includes nutrition, water & tree training
✓ Don’t overcrop - use TCA
✓ Simple pruning rules work
✓ Better execution of exciting new growing systems
✓ OBA
What needed to change?

Often better to:-
- put away the snips
- $\frac{1}{3}$ rule over used?
- more TLC!

(water, nutrition, herbicide etc)
Myth-M9 wont grow here?
Training can quickly pay dividends
Grow the tree first to fill allotted space
Don’t overcrop, use TCA.
More trees/ha?
Focus Orchard Case Study: Simple pruning rules improve Royal Gala performance?

Orchard: Jilba Orchard, Batlow Fruit Co-op, NSW
Orchardist: Matthew McMahon and Steve Bunter
Prepared by: Steven Spark, AgFirst and Kevin Dodds, DPI NSW.

Trial assisted by Ralph Wilson, Batlow orchardist.
Routine pruned  Simple pruned
Simple pruning rules:-
1. best quality wood & buds
2. remove 6 & 12 o'clock shoots
3. remove most coral (weak spent spurs)
4. minimal big cuts (none)
5. long prune
Class 1 packout increased by 20%, increased bin worth by $96
OBA – helps identify opportunities
<table>
<thead>
<tr>
<th>Apple</th>
<th>Grower</th>
<th>Average</th>
<th>Upper QTL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pipfruit</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><em>Fuji</em></td>
<td>6.464</td>
<td>32,458</td>
<td>45,188</td>
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<tr>
<td><em>Class 1 Packout:</em></td>
<td>84.1%</td>
<td>74.8%</td>
<td>81.9%</td>
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<tr>
<td><em>Golden Delicious</em></td>
<td>31,203</td>
<td>41,822</td>
<td>56,441</td>
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<td><em>Class 1 Packout:</em></td>
<td>70.2%</td>
<td>77.2%</td>
<td>77.5%</td>
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<tr>
<td><em>Granny Smith</em></td>
<td>37,711</td>
<td>50,013</td>
<td>69,115</td>
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<td><em>Class 1 Packout:</em></td>
<td>83.9%</td>
<td>68.7%</td>
<td>88.8%</td>
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<tr>
<td><em>Jonathan</em></td>
<td>26,975</td>
<td>33,174</td>
<td>46,369</td>
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<td><em>Class 1 Packout:</em></td>
<td>94.8%</td>
<td>78.2%</td>
<td>82.5%</td>
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<tr>
<td><em>Pink Lady</em></td>
<td>21,735</td>
<td>35,702</td>
<td>50,426</td>
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<td><em>Class 1 Packout:</em></td>
<td>87.6%</td>
<td>68.8%</td>
<td>74.1%</td>
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<td><em>Red Delicious</em></td>
<td>8,217</td>
<td>32,776</td>
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<td>81.1%</td>
<td>85.0%</td>
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<td><em>Royal Gala</em></td>
<td>11,698</td>
<td>30,709</td>
<td>38,671</td>
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<td><em>Class 1 Packout:</em></td>
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<td>77.4%</td>
<td>82.7%</td>
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<td><em>Sundowner</em></td>
<td>22,375</td>
<td>38,798</td>
<td>50,531</td>
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<td><em>Class 1 Packout:</em></td>
<td>78.9%</td>
<td>80.4%</td>
<td>88.0%</td>
</tr>
</tbody>
</table>
Fastest production increases come from going up?
Key Drivers

Focus on bottom line

- Production,
- Packout,
- Price
- Variety

- Execution

(No always about reducing costs)
Improved irrigation
Orchard Density and Canopy Design

Prepared by
Ross Wilson
AgFirst NZ
2.5m X 1.4m = 2857 trees/ha
380 mm between wires
3.4m high
36 km fruiting wood

2m X 3m = 1600 trees/ha
300 mm between stems
3m high
39 km fruiting wood
V iteration 46km