The CropbioLife story

Help your plant to help itself

presented by Nico Hanekom
Effect of Crop\textsubscript{bioLife} on:

- \textit{Xanthomonas pruni} control in Plums
- Fruit Set and retention in plums, pears
- Yield and fruit mass
- Firmness and \% Brix
- Mineral content of fruit
- Russeting apples
- Fruit Colour Apples, Table grapes, Citrus
- Citrus creasing
- Citrus nematodes roots
Fruit set and retention

Plums: Cultivar: Sun Kiss + Golden Kiss

Assessment date: 28 November 2009

![Graph showing fruit set and retention results for different treatments.](image)

- Croplife (50ml)
- Croplife (50ml) + Maxiboost (100ml)
- Untreated

Number of fruit per 1.0m² before thinning

0 10 20 30 40 50 60 70
Fruit set and retention

Pear: Early BC

Total number of fruit per tree at harvest and fruit on the orchard floor after two days of stormy weather

<table>
<thead>
<tr>
<th>Total number of fruit per tree at harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fruit per tree</td>
</tr>
<tr>
<td>150</td>
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<tr>
<td>175</td>
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<tr>
<td>200</td>
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<tr>
<td>225</td>
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<td>250</td>
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<tr>
<td>275</td>
</tr>
<tr>
<td>300</td>
</tr>
<tr>
<td>325</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of fruit per tree on the orchard floor after stormy weather</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fruit per tree</td>
</tr>
<tr>
<td>5</td>
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<tr>
<td>6</td>
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<td>7</td>
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<td>8</td>
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<td>9</td>
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<td>10</td>
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<td>11</td>
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<tr>
<td>12</td>
</tr>
</tbody>
</table>

CropLife (60ml)  CropLife (60ml) + Maxiboot (100ml)  Untreated

CropLife (50)  CropLife  Untreated
Fruit set and retention

Pears: Forelle

Number of fruit per 1.0 m² prior to thinning and number per tree at harvest
Yield and fruit mass
Plums

Cultivar: Sun Kiss + Golden Kiss

Kilogram per tree

Gram per fruit

Cultivar: Sun Kiss + Golden Kiss
Yield

Pear: Early BC
Fruit picked for canning

Average 11.0% increase

Number of fruit per tree

- CropLife (50)
- CropLife (50)+Maxiboost
- Untreated

From Seed to Eat
Yield and fruit mass

Pears: Forelle

Total number of fruit per tree

- Croplife (50)
- Croplife (50) + Maxiboost
- Untreated

Number of fruit per tree
Firmness (kg) and % brix

Cold storage at 4 °C for 21 days and at room temperatures for 7 days.

Cultivar: Golden Kiss plum
Firmness and % Brix
Pear Early BC

Cold storage at 4°C for 21 and 7 days at ambient temperatures

Firmness kg

% Brix

CropLife (50)
CropLife (50)+Maxiboost
Untreated
Pears: Forelle

Fruit firmness and percentage brix at harvest (no cold storage)

Firmness in kg:
- CropLife (50ml)
- CropLife (50ml) + Maxiboost (100ml)
- Untreated

% Brix:
- CropLife (50ml)
- CropLife (50ml) + Maxiboost (100ml)
- Untreated
## Mineral content of fruit

### Apples: Panorama Goldens

<table>
<thead>
<tr>
<th>Mineral Elements</th>
<th>N</th>
<th>P</th>
<th>K</th>
<th>Ca</th>
<th>Mg</th>
<th>Na</th>
<th>Mn</th>
<th>Fe</th>
<th>Cu</th>
<th>Zn</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatments</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Croplife</td>
<td>52.5</td>
<td>8.0</td>
<td>142.5</td>
<td>4.8</td>
<td>6.4</td>
<td>8.3</td>
<td>1.6</td>
<td>3.10</td>
<td>0.7</td>
<td>0.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Croplife + Maxiboost</td>
<td>50.5</td>
<td>7.4</td>
<td>130.0</td>
<td>5.0</td>
<td>6.4</td>
<td>9.0</td>
<td>1.4</td>
<td>2.80</td>
<td>0.6</td>
<td>0.4</td>
<td>3.3</td>
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<tr>
<td>Untreated</td>
<td>41.0</td>
<td>6.5</td>
<td>140.0</td>
<td>4.1</td>
<td>5.8</td>
<td>6.8</td>
<td>1.3</td>
<td>2.20</td>
<td>0.6</td>
<td>0.3</td>
<td>2.1</td>
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</table>

### Pears: Early BC

<table>
<thead>
<tr>
<th>Mineral Elements</th>
<th>N</th>
<th>P</th>
<th>K</th>
<th>Ca</th>
<th>Mg</th>
<th>Na</th>
<th>Mn</th>
<th>Fe</th>
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</tr>
<tr>
<td>Croplife</td>
<td>70.2</td>
<td>11.8</td>
<td>115.0</td>
<td>7.7</td>
<td>7.3</td>
<td>21.3</td>
<td>0.6</td>
<td>2.3</td>
<td>0.7</td>
<td>0.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Croplife + Maxiboost</td>
<td>77.5</td>
<td>14.0</td>
<td>128.5</td>
<td>8.6</td>
<td>7.5</td>
<td>16.2</td>
<td>0.7</td>
<td>2.6</td>
<td>0.8</td>
<td>0.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Untreated</td>
<td>72.0</td>
<td>15.0</td>
<td>124.0</td>
<td>6.3</td>
<td>6.3</td>
<td>26.0</td>
<td>0.6</td>
<td>2.2</td>
<td>0.6</td>
<td>0.8</td>
<td>2.0</td>
</tr>
</tbody>
</table>
Colour Charts for Russetting assessments

Stem end

Class I

Retiform

Class I
Russeting

Apples: Panorama Goldens:
Percentage fruit in Class I (export)
Colour: Pink Lady Apple

Percentage fruit per colour group

Assessment date: 26 April 2010
Citrus Creasing:
Incidence of creasing

Kirkwood:
McClean
Micro irrigation

![Graph showing incidence of creasing in citrus fruit](graph.png)
Citrus:
Fruit colour groups

Group 1

Group 2

Group 3

Group 4
Citrus fruit Colour:
Percentage fruit in colour group 1

Kirkwood: Palmer Drip irrigation

- UG7reated (farm)
- Croplife 50ml (x5)
- Croplife 100ml (x5)

Percentage per colour group

Group 1
Citrus Nematodes:
Incidence citrus nematodes (roots)
Lettuce Trials

CropbioLife Treated

"Untreated" means normal Farmer’s spray program
Cauliflower Trials

“Untreated” means normal Farmer’s spray program

6 Weeks after treatment
4 Weeks after treatment