Irish Berry Seminar 2014

Haygrove – Past, Present and Future
- Started growing strawberries on 1-acres in 1988
- Haygrove Tunnels started in 1996 in response to our own farming need for rain protection

Haygrove Farming
- 262ha tunnel production
- Strawberries, raspberries, cherries, blackberries and blueberries

Haygrove Tunnels
- Built Tunnels in 50 countries
- 5 factories
- Dedicated team of design engineers

Haygrove Development
- Non-profit making
- Aim to alleviate poverty through horticulture
Haygrove
Growing UK

Crops: Cherries, Strawberries, Raspberries, Blackberries, Blueberries
Crops Grown - Raspberries

- Raspberries - 153 hectares
- Main Variety – Maravilla
- Substrate, soil grown & organic
Crops Grown - Strawberries

- Strawberries - 59 hectares
- Main Varieties – Elsanta, Jubilee, Lusa, Amesti
- Substrate, soil grown & organic
Crops Grown - Cherries

• Cherries - 27 hectares
• Main Varieties – Kordia, Regina, Karina, Sweetheart, Lapins
• Soil grown & organic
Haygrove
Growing SA

Farms: Hermanus, George
Haygrove Growing Systems
Commercial Tunnels
Field-scale
Portable
Full Tractor Access
Follow contours of the ground
Self-build
Fully sealed
Designs: Super Solo Series
Designs: Super Solo Series
Designs: Solo Series
Streamline Doors
Different hoop profiles

- Bigger air volume
- Better picker access
- Easier for spraying
## Steel Choice

### Cost vs Benefit

<table>
<thead>
<tr>
<th>Steel Type</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 x 1.5mm Standard</td>
<td>100 %</td>
</tr>
<tr>
<td>40 x 1.5mm Standard</td>
<td>132 %</td>
</tr>
<tr>
<td>40 x 1.5mm Extra Strong</td>
<td>165 %</td>
</tr>
<tr>
<td>40 x 2mm Extra Strong</td>
<td>213 %</td>
</tr>
<tr>
<td>40 x 2.5mm Extra Strong</td>
<td>256 %</td>
</tr>
</tbody>
</table>

Based on Maximum Bending Moments, (kgm)
Retrofit Pathway

- Rain cover
- + Steel gutters
- + Electric ends & sides
- + Electric roof vent
- + Integrated climate controls

Field-scale Tunnel

Field-scale Glasshouse
Retrofit pathway: steel gutters
Retrofit pathway: electric doors
Retrofit pathway: electric roof venting
UK Strawberry Statistics

- £ value
- Hectares (x10)
- '000 Tonnes
<table>
<thead>
<tr>
<th>Block</th>
<th>Type</th>
<th>Rows per Tunnel</th>
<th>Linear Meters</th>
<th>Variety</th>
<th>Plants per m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block A</td>
<td>Single Gutter</td>
<td>6</td>
<td>7692</td>
<td>Amesti</td>
<td>10</td>
</tr>
<tr>
<td>Block B</td>
<td>Telescopic</td>
<td>8</td>
<td>10,256</td>
<td>Amesti</td>
<td>10</td>
</tr>
</tbody>
</table>
Six rows per tunnel
3m leg spacing
Leaf & truss support every 1m or 1.5m
Picking height as required
End and mid drainage
Telescopic Substrate System

- Eight rows per tunnel
- System telescopes and sits on the floor overwinter for fleecing and forcing earlier harvest
- System is lifted prior to picking
- Central net bridge for presentation of fruit between double row
## Technical Description

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steel Gutter</strong></td>
<td>0.65mm rolled steel gutter</td>
</tr>
<tr>
<td><strong>Gutter corrosion Protection</strong></td>
<td>Zinc treated pre-galvanised steel protected with different options:</td>
</tr>
<tr>
<td></td>
<td>• Primer and white polyester finish</td>
</tr>
<tr>
<td></td>
<td>• Primer and Polyurethane finish</td>
</tr>
<tr>
<td><strong>Leg Spacing</strong></td>
<td>3m</td>
</tr>
<tr>
<td><strong>Working height</strong></td>
<td>0.9m to 1.2m depending on requirements</td>
</tr>
<tr>
<td><strong>Drainage</strong></td>
<td>Plastic end drainage and mid gutter drainage options available</td>
</tr>
<tr>
<td><strong>Truss and leaf support system</strong></td>
<td>Pre-galvanised steel leaf and truss support brackets every 1m or 1.5m depending on specification</td>
</tr>
<tr>
<td><strong>Installation</strong></td>
<td>Formed in the field using the Haygrove Roll Forming Machine</td>
</tr>
</tbody>
</table>