Growing Blackberries on a Rotatable Canopy Production System:

Opportunities and Challenges

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Static trellis system

* Covering upright plants with a thin blanket does not decrease winter injury
Freeze Protection Technique/Principle:

Goal: Reduce or prevent winter injury

Rotating Cross Arm (RCA) Trellis + Floating Row Cover (Brings canopy down close to ground
Reduce wind desiccation
Insulation heat from ground)

Rotating Cross-Arm Trellis Technology and Cane Training System

What is it?

States with growers using the RCA Trellis technology

New Way to Train Primocanes

TGS, INC. Manufactured Fiberglass components
Plant spacing and cane management

- Plant are set between 5 and 6 feet apart!

Primocane Training

Primocane Training Technique

Tie primocanes to training wire
Tip canes once reach the adjacent plants
RESULTS

Four treatments:
- Cane orientation
  - Vertical
  - Horizontal
- Rowcover
  - None
  - 1.5 oz

Effects of row covers on productivity of ‘Siskiyou’ blackberry

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Bloom date</th>
<th>Yield (lbs./plant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conv - Open</td>
<td>May 22</td>
<td>1.6</td>
</tr>
<tr>
<td>Conv - RC</td>
<td>May 22</td>
<td>4.9</td>
</tr>
<tr>
<td>RCA - Open</td>
<td>May 22</td>
<td>4.0</td>
</tr>
<tr>
<td>RCA - RC</td>
<td>May 15</td>
<td><strong>14.0</strong></td>
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</tbody>
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Other Benefits of RCA Trellis Technology
Plant canopy modification by the new trellis and cane training system

Conventional Hedge Row

Rotating Cross-Arm Technology

- Key to success:
  - Trellis design for dynamic canopy manipulation
    - Positions fruit on one side
    - Canopy can be rotated down close to ground
      Means to protect plants in winter
    - Primocane and floricanes are spatially separated
      - Better light interception
      - More fruitful buds
By applying rowcover in winter, Univ. of Arkansas and other erect varieties can be grown in Zones 6 and 5(?)
• Western trailing varieties can be grown in Zones 7 and 6
• Stretch blackberry season from early June to onset of fall frost!

Other Benefits of Rotating Cross-Arm Technology
• 30% faster harvesting and more sales
• Reduce labor cost for harvesting
• Reduce sunburn (white-drupe) damage
• Little or no need of winter cane pruning
• RCA trellis is EASY to assemble and field install

Thank you Questions?