Bramble Season Extension

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# Red/Black Raspberry Components

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>ORAC$^1$</th>
<th>Ellagic$^1$ (mg/g)</th>
<th>Vitamin$^2$ (mg/g)</th>
<th>Fiber$^2$ (mg/g)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bristol</td>
<td>303-364</td>
<td>0.52</td>
<td>50</td>
<td>10</td>
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<tr>
<td>Jewel</td>
<td>415-451</td>
<td>0.39</td>
<td>70</td>
<td>10</td>
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<tr>
<td>Red</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caroline</td>
<td>213</td>
<td>0.30</td>
<td>380</td>
<td>152</td>
</tr>
<tr>
<td>Heritage</td>
<td>53-90</td>
<td>---</td>
<td>280</td>
<td>115</td>
</tr>
</tbody>
</table>

$^1$Brunswick Laboratory – 2001  
$^2$Covance Laboratory – 2001
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Bramble Types

• Floricane Raspberries
  - Early summer harvest
    Red, Purple, Gold, Black
• Floricane Blackberries
  • Mid-summer harvest
• Primocane Raspberries
  • Late summer – Fall harvest
    - Red, Gold
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Primocane Bramble Season Extension with Varieties
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Primocane Bearing Red Raspberry Varieties

- Early
  - ‘Jaclyn’, ‘Caroline’
- Mid-Late
  - ‘Josephine’, ‘Heritage’, ‘Deborah’

Golden

- ‘Anne’, ‘OAY-F1’
‘Jaclyn’
Jaclyn Caroline with ‘Caroline’
‘Josephine’
'Anne' (JEF-B1)
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Primocane Bramble Season Extension with Cultural Practices
Bramble Season Extension
Bramble Season Extension
Soft tip
Hard tip
Bramble Season Extension
**Bramble Season Extension**

**Heritage Bloom Delay Treatments**

<table>
<thead>
<tr>
<th>Year</th>
<th>Row Covers</th>
<th>Mow 6”</th>
<th>Soft Tip</th>
<th>Hard Tip</th>
<th>Soft Tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td></td>
<td>5/16</td>
<td>6/29</td>
<td></td>
<td></td>
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<tr>
<td>1996</td>
<td></td>
<td></td>
<td>6/21</td>
<td>6/21</td>
<td>7/10</td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td></td>
<td>7/8</td>
<td>7/8</td>
<td>7/29</td>
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</table>
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Heritage Bloom Delay - 1995
Bramble Season Extension

Heritage Bloom Delay - 1996

<table>
<thead>
<tr>
<th></th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lt Tip 6/21</td>
<td>1000</td>
<td>2000</td>
<td>2000</td>
<td>5000</td>
</tr>
<tr>
<td>Hd Tip 6/21</td>
<td>1000</td>
<td>2000</td>
<td>2000</td>
<td>5000</td>
</tr>
<tr>
<td>Lt Tip 7/10</td>
<td>1000</td>
<td>2000</td>
<td>2000</td>
<td>5000</td>
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Heritage Bloom Delay - 1997

<table>
<thead>
<tr>
<th>Month</th>
<th>Control</th>
<th>Lt Tip 7/8</th>
<th>Hd Tip 7/8</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>3000</td>
</tr>
<tr>
<td>Sept</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
<td>9000</td>
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<tr>
<td>Oct</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>7000</td>
</tr>
<tr>
<td>Total</td>
<td>14000</td>
<td>14000</td>
<td>14000</td>
<td>45000</td>
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</table>

Legend:
- Control
- Lt Tip 7/8
- Hd Tip 7/8
- Hd Tip 7/29
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Heritage Bloom Delay - 1998

Aug  Sept  Oct  Nov  Total

0  1000  2000  3000  4000

5000  6000  7000  8000

FRC  Control  Lt Tip 6/24  Hd Tip 6/24
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Heritage Bloom Delay 1995-98

Control
Lt Tip 6/21
Hd Tip 6/21
Mow 95, LT 7/10 96, HT 7/29 97, FRC 98
# Bramble Season Extension

**Heritage Bloom Delay - Number of Days**

<table>
<thead>
<tr>
<th>Year</th>
<th>Row Covers</th>
<th>Mow 6”</th>
<th>Soft Tip</th>
<th>Hard Tip</th>
<th>Soft Tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td></td>
<td>+27</td>
<td>+27</td>
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<td></td>
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<tr>
<td>1996</td>
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<td>+7</td>
<td>0</td>
<td></td>
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<tr>
<td>1997</td>
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<td>+14</td>
<td>+48</td>
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<td></td>
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<tr>
<td>1998</td>
<td>-9</td>
<td>0</td>
<td>+35</td>
<td>+63</td>
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Heritage Bloom Delay Summary

• Tipping treatments successfully delay harvest
  – Late June best
  – Soft tip preferred
  – Not too late

• Mowing at 6’ primocane height also effective
  – One time only
  – No taller than 6”
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Heritage Bloom Delay Summary

• Tipping successfully delays harvest but non tipped canes always have higher yield
• Floating Row Covers successfully give earlier yield and can increase yield
• A combination of FRC and soft tip in late June along with non treated primocanes will extend harvest season earlier and later as well as stagger production peaks
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