Lily

Control lesson

- High volume sprays of Callisto better than low volume
- Surfactant minor effects
- Need high rates for best efficacy
- Earlier timing is better
- Can get decent control with Callisto, but with thick vine coverage it is difficult to get canopy penetration.
- Vinegar treatment OK, but lack consistency
Arrowgrass

Control lesson

- Immediate postharvest, 2,4D amine is pretty effective (0.5 to 1%)
- Timing window for Weedar 64 is narrow (must be viable green tissue)
- Additions of 2,4D G may improve efficacy
- Phytotoxicity to cranberries none to slight, but may increase with each additional treatment
Sourgrass/ sorrel

Control lesson

- Multiple postharvest and winter spot treatments of Stinger
- Cease treatments before bud break
- Supplemental Callisto treatments minor benefit
Buttercup

Control lesson

- Herbicide C tolerance package was submitted to EPA June 2007; expect label in spring/summer 2008.
- Winter to Spring treatment with herbicide C very effective on established plants.
- Seed bank of buttercup is significant and will required subsequent treatment of seedlings with Callisto to obtain midseason control.
Yellowweed

Control lesson

- Callisto adequate for suppression, but requires early and frequent applications.
- An effective crop-safe herbicide has been found, but registration will be a long uphill battle.
Silverleaf

Control lesson

- Callisto is a good replacement for Casoron for silverleaf control and an effective means to mitigate for decline in vine density following long-term Casoron use.
- Best efficacy with treatments applied at first and second flush of weed growth.
- Permanent control after several years.
- Control is not improved with an early 2,4-D burndown.
- Reduced Casoron use results in improved productivity.
Horsetail

Control lesson

- Weed mapping with spot treatment of Casoron
- Multiple early applications of Callisto, starting at first growth
Fireworm

Control lesson

- All the new chemistries control fireworm, but when applied via chemigation none are as good as Diazinon.
- “DP” shows promise with having reasonable chemigation efficacy.
- Delegate appears to be a very good replacement for Success and other biorational insecticides.
  - However, we don’t have chemigation data for Delegate.
  - Product will be available in 2008; price structure is pending.
  - Success will be available through 2008, but at a reduced price.
Girdler

Control lesson

- None
- Take full advantage of 2008 being “last” year for Diazinon 14G.
- Nematodes likely to be the most suitable replacement
- No new insecticides work
Tipworm

Control lesson

- Potential for buildup in populations with a transition to biorational controls.
- Sites with heavy damage still seemed to have decent yield. We will monitor long-term yield impacts in subsequent seasons.
- Control with frequent applications of an OP is feasible, but not really advised.
- Two new alternative reduced risk insecticide looks promising, but one appears to cause some phytotoxicity.
- First major infestation starts early June
- Second major infestation starts in July and continues to increase
Weevil

Control lesson

**Adulticides**
- Not convinced the commercial Cryolite bait is an ideal formulation
  - Efficacy and mold issues
- Apple press cake or feed grade beet pulp might be suitable alternatives.
  - Beet pulp is readily available and cheap.
- Baits only provide partial control.
- Chemical broadcast adulticides only provide partial control.
- Combinations of chemical broadcast treatments + baits provided the best efficacy.

**Larvicides**
- One or two Admire applications by themselves are not adequate.
- Best chemical control was a combination of 2 adulticide + 2 larvicide treatments
- A single nematode treatment (late summer) provided excellent efficacy.
Fruit rot
Control lesson

- No advantages or disadvantages seen to date (2005 & 2006) for extra mid-bloom fungicides
Returns per acres at different yield and reductions in fruit weight with early harvest

<table>
<thead>
<tr>
<th>Bbl/ac</th>
<th>100% yield @ $43/bbl</th>
<th>20% decrease @ $46.5/bbl</th>
<th>10% decrease @ $46.5/bbl</th>
<th>5% decrease @ $46.5/bbl</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 bbl/ac</td>
<td>12900</td>
<td>11160</td>
<td>12555</td>
<td>13252</td>
</tr>
<tr>
<td>200 bbl/ac</td>
<td>8600</td>
<td>7440</td>
<td>8370</td>
<td>8835</td>
</tr>
<tr>
<td>100 bbl/ac</td>
<td>4300</td>
<td>3720</td>
<td>4185</td>
<td>4417</td>
</tr>
</tbody>
</table>

Biggest affects on high yielding beds with significant fruit growth remaining
## New variety plantings

<table>
<thead>
<tr>
<th>Variety</th>
<th>BBL/ac 2005</th>
<th>BBL/ac 2006</th>
<th>~BBL/ac 2007</th>
<th>Fruit size g/fruit 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Crimson Queen’</td>
<td>77</td>
<td>179</td>
<td>256</td>
<td>1.9</td>
</tr>
<tr>
<td>njs95-37</td>
<td>85</td>
<td>277</td>
<td>226</td>
<td>1.5</td>
</tr>
<tr>
<td>‘Mullica Queen’</td>
<td>23</td>
<td>20</td>
<td>165</td>
<td>2.1</td>
</tr>
<tr>
<td>cnj96-44-83</td>
<td>54</td>
<td>203</td>
<td>133</td>
<td>1.8</td>
</tr>
<tr>
<td>cnj95-20-20</td>
<td>32</td>
<td>180</td>
<td>243</td>
<td>1.4</td>
</tr>
<tr>
<td>cnj93-9-42</td>
<td>61</td>
<td>187</td>
<td>256</td>
<td>1.5</td>
</tr>
<tr>
<td>njs93-13-100</td>
<td>46</td>
<td>135</td>
<td>223</td>
<td>1.5</td>
</tr>
<tr>
<td>BE4</td>
<td>150</td>
<td>217</td>
<td>240</td>
<td>1.2</td>
</tr>
<tr>
<td>AR2</td>
<td>16</td>
<td>222</td>
<td>260</td>
<td>1.7</td>
</tr>
<tr>
<td>Bain Favorite #1</td>
<td>46</td>
<td>177</td>
<td>173</td>
<td>1.9</td>
</tr>
<tr>
<td>Pilgrim</td>
<td>257</td>
<td>202</td>
<td>253</td>
<td>1.9</td>
</tr>
<tr>
<td>Stevens</td>
<td>1</td>
<td>48</td>
<td>133</td>
<td>1.6</td>
</tr>
<tr>
<td>njs98-65</td>
<td>11</td>
<td>201</td>
<td>226</td>
<td>1.9</td>
</tr>
<tr>
<td>njs98-28</td>
<td>27</td>
<td>171</td>
<td>253</td>
<td>1.6</td>
</tr>
</tbody>
</table>