Here & Now Gardens
Jana’s Peony
(possibly *Paeonia veitchii*)

- June-flowering
- Hardy with little snow cover
- Named for local gardener who has grown it for 60 years in Fairbanks
Productivity Estimates for “Lower 48”

- 10,000 plants per acre
- 10 harvestable stems per plant
- 100,000 harvestable stems per acre
- $0.75 - $4.00 selling price per stem
- $75,000 - $400,000 gross returns per acre
Research at the UAF Georgeson Botanical Garden

- Identify potential markets
- Determine marketing process
- Cultivar testing
- Methods of field cultivation
- Challenges to production (diseases, pests, quality standards)
World Markets

• South Island, New Zealand
  – 2000 flower growers
    • Commercial and part-time hobby growers
  – 723,000 peony stems exported in 2002/3
  – Market mostly U.S.
  – November through January
Other Major Export Countries

• China - grown for 1000 years
  • So important, peony seeds went into first Chinese space mission

• Japan

• Australia

• Chile
# Annual Dutch Auction Sales of Peonies

<table>
<thead>
<tr>
<th>Month</th>
<th>Percent total stem sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>January- March</td>
<td>0</td>
</tr>
<tr>
<td>April</td>
<td>3</td>
</tr>
<tr>
<td>May</td>
<td>52</td>
</tr>
<tr>
<td>June</td>
<td>44</td>
</tr>
<tr>
<td>July- December</td>
<td>0</td>
</tr>
</tbody>
</table>
Traditional Favorites

Dr. Alexander Fleming

Duchess de Nemours

Sarah Bernhardt

Mons. Jules

Elie

Felix Crouse

Coral Charm
Market Color Preference

1. White
2. Light Pink, Rose
3. Coral
4. Red
Doubles preferred over singles
Growers experimenting with new species, cultivars
Peony fields- lower 48

- Perennial beds
- 10 to 15 year life
- Year 1-3 = planting, cultivating, weeding, maintenance
- Year 4-5 = harvest begins
Peony stems for market

- **U.S. No 1**
  - Min 20 inches
  - 1-inch diameter bud
  - Straight stems
  - No damage, disease

- **U.S. No. 2**
  - Min 18 inches
  - 7/8-inch diameter buds
  - Straight
  - Disease free
Processing

- 1-2 hours in water, 38°F
- Bundles of 10
- Store dry up to 12 weeks, 32-38°F
- Fresher is better
Markets

- Bundled into plastic sleeves
- Shipped in cardboard floral cartons, 20-40 bunches per box
- 10 - 15 boxes minimum per shipment
Transportation from Fairbanks

- Germany, Holland- Lufthansa
  - No certificates required

- L.A., Seattle, Denver wholesale markets- Alaska Airlines
  - No certificates required

- Tokyo- Lufthansa
  - Phytosanitary certificate required at port of exit
Peony Experiments in Fairbanks

- Begun in 2001
- Cultivar trials - 30 early and mid season varieties
- Top commercial varieties, Minnesota, Kansas trials
Cultivar plot
## Top five peonies in flower bud production, 2003

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Buds/Plant (mean)</th>
<th>Buds/plant (range)</th>
<th>Flowers/Plant (mean)</th>
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<tbody>
<tr>
<td>Sarah Bernhardt</td>
<td>11.2</td>
<td>4 - 18</td>
<td>3.9</td>
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<td>10.5</td>
<td>5 - 15</td>
<td>2.7</td>
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<tr>
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<td>8.8</td>
<td>2 - 17</td>
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<td>2 - 13</td>
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<tr>
<td>Karl Rosenfield</td>
<td>3.3</td>
<td>1 - 16</td>
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## Flowering Season

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>June week 4</th>
<th>July week 1</th>
<th>July week 2</th>
<th>July week 3</th>
<th>July week 4</th>
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<tbody>
<tr>
<td>Sarah Bernhardt</td>
<td>x</td>
<td>x</td>
<td>x</td>
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Peony Flowering Stem Height 2002-2003

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<th>Cultivar</th>
<th>Height 2002 (in)</th>
<th>Height 2003 (in)</th>
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<tbody>
<tr>
<td>Sarah Bernhardt</td>
<td>61</td>
<td>29</td>
</tr>
<tr>
<td>Felix Crouse</td>
<td>51.8</td>
<td>24.8</td>
</tr>
<tr>
<td>Bowl of Beauty</td>
<td>63.2</td>
<td>29</td>
</tr>
<tr>
<td>David Harum</td>
<td>47.2</td>
<td>26</td>
</tr>
<tr>
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<td>54.5</td>
<td>27.8</td>
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Peony bud blast

Botrytis paeoniae
Possible Causes

- Spring frost damage
- Disease, mostly *Botrytis* mold
- Frost damage plus secondary infections
- Thrips
- Excessive rain damage to roots
- Inadequate nutrition
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Second research project - 2002

- Organic amendments at planting

- Spacing
  - 18 inches?
  - 4 feet?
Other questions

• Mulching
  – Is it necessary?
  – Can we mulch with artificial snow?
And More . . .

• What about *Botrytis*?
  – where does it come from?
    • Carried with the plant?
    • Native?

  – Will simple sanitation work?
  – Or are fungicides in order?
Are there any other flowers with odd timing?

Lily of the Valley
What about this idea that we have bigger, more vibrant flowers in the Far North?

Is it true?

Is it marketable?