

Peonies as Cut Flowers for Alaska



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

Month	Percent total stem sales
January- March	0
April	3
May	52
June	44
July- December	0

Traditional Favorites

**Dr.
Alexander
Fleming**



**Duchess de
Nemours**



Sarah Bernhardt



Felix Crouse



**Mons.
Jules**

Elie



Coral Charm

Market Color Preference

1. White



3. Coral



**2. Light
Pink,
Rose**



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, 38F
- Bundles of 10
- Store dry up to 12 weeks, 32-38F
- 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

Cultivar	Buds/Plant (mean)	Buds/plant (range)	Flowers/Plant (mean)
Sarah Bernhardt	11.2	4 - 18	3.9
Felix Crouse	10.5	5 - 15	2.7
Bowl of Beauty	8.8	2 - 17	3.8
David Harum	6.5	2 - 13	1.7
Karl Rosenfield	3.3	1 - 16	2.8

Flowering Season

Cultivar	June week 4	July week 1	July week 2	July week 3	July week 4
Sarah Bernhardt	x	x	x	x	x
Felix Crouse		x	x	x	
Bowl of Beauty	x	x	x	x	
David Harum	x	x	x	x	
Karl Rosenfield			x	x	x

Peony Flowering Stem Height 2002- 2003

Cultivar	Height 2002 (in)	Height 2003 (in)
Sarah Bernhardt	61	29
Felix Crouse	51.8	24.8
Bowl of Beauty	63.2	29
David Harum	47.2	26
Karl Rosenfield	54.5	27.8

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?

