Niwot Double-Cropping Black Raspberry

Pete Tallman, Longmont, Colorado
Agenda

- Breeding background
- Niwot black raspberry
- Futures
Using Black Raspberries

- Plain
- Milk & sugar
- Cold cereal
- English custard
- Fruit salad
- Ice cream
- Sorbet
- Pancakes
- Cobbler
- Pie
- Apple crisp
- Jam...

…
Breeding Base

- Primocane-fruiting wild seedling W1
  - Observed in Poughkeepsie, NY October 1986
  - Collected spring 1988
Breeding Base... (cont)

- Commercial black raspberry cultivars to cross: Jewel, Bristol, Allen, Cumberland, Haut

- Wild selection CB from Arkansas 1991
  - From NAFEX contact
  - Unusually large berries for a plant in the wild

- Crossing started 1992
Selection 9301.A.3

- F₂ generation seedling (W1 x CB)
- Selected August 2002
  - USDA Zone 5 hardiness
  - Over 50 berries per primocane
  - Some berries over 2g
  - Ripening starting in August
- Plants distributed for evaluation 2006
Explorer Black Raspberry

8/23/2005

8/23/2005
Explorer Fail

- Explorer requires outside pollen source 😞
- Defect discovered summer 2008 during evaluation trials
Selection 9866.2.A.4  (aka PT-2A4)

- Selected June 2006 on floricane crop
- Re-selected August 2006 on primocane crop
- $F_3$ generation seedling of 1998 cross (CB x (W1 x selfed))
- Bigger berries, smaller seeds, more productive than Explorer

- Summer 2008 confirmed self-fruitful (whew!)
Niwot Black Raspberry (US PPAF)

8/11/2012
Niwot Double Cropping

- Floricane crop very productive
  - One week earlier than Jewel
  - More productive than Jewel, longer season
  - Berries slightly smaller than Jewel
- Primocane crop starts late August or early September
  - Berries comparable to or larger than Jewel
- Plants more vigorous than Jewel
  - Consider 3-foot to 5-foot in-row spacing
Berry Comparisons vs. Jewel

Floricane Berries
7/9/13

Primocane Berries
9/17/13
Niwot Pruning Options

- Retain floricanes?
  - Impressive floricane crop
  - Potentially earlier primocane berry ripening without floricanes
  - Recommend: Try both

- Tip prune primocanes?
  - Tip pruning to increase fruiting branches & spread out production
  - Earlier primocane crop without tip pruning
  - Recommend: Try both

(Web search on: Pete Tallman raspberry pruning)
Hardiness, Disease Resistance

- Niwot Hardy for zone 5 Longmont, CO
  - Better hardiness than Jewel
- Little or no disease pressure in Colorado
  - Asking for observations
- One report of zone 3 hardiness in Minnesota
  - but... season too short
  - Choose floricane crop or primocane crop?
  - Recommend Pequot instead

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Niwot Curiosity

Seeing a few split doubled berries

- Primocane berries only
- Not a significant yield reduction

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Expected Niwot Availability

- Spring 2015

- Very limited availability in 2014
  - Not commercial quantities
  - Main 2014 purveyor: Henry Field’s Nursery
Future Breeding Potential?

- Earlier primocane crop
- Bigger berry
- Productivity
- Less prickly

Seedling evaluation rows in winter
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