

# Caneberry Variety Update

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# Protected Agriculture

- Most new raspberries bred for protected culture
  - High Tunnel and/or greenhouse production
    - Improved fruit quality, size, yield
    - Pest management advantages
      - And some challenges
  - Combined with substrate production
    - Pots/bags for brambles
      - Coconut coir or other soilless mixtures
    - Greater schedule flexibility and space utilization
- Blackberry breeding is limited in the public sphere
  - More effort on primocane fruiting
    - U Ark varieties most common

# Protected Agriculture







Photo credit: Lisa Rayburn NCSU















# Pest Management Challenges for High Tunnel Brambles

- **SWD**
  - Clean harvest with monitoring and insecticides
  - Netting?
- **Spider mites**
  - Preventative predator release works
  - Clean nursery stock
- **Blackberries have few pests outside SWD**
  - Vigor management key
- **Powdery mildew**
  - Use resistant varieties
  - Few modern varieties susceptible
    - Canby, Nantahala, all black raspberry
- **Occasionally root rot**
  - Proper site slope for rain drainage important
  - Raised beds reduces problem
  - Encore, C. Giant, C. Night, Nantahala more susceptible.



# Bramble Varieties for High Tunnels

## Primocane/Fall Bearing

- Crimson Treasure
- Polka
- Himbo Top
- Double Gold
- Crimson Night
- ABB varieties
  - Imara, Kweli, Kwanza, Mapema
    - Hi license fee to grow
      - \$1 ea. <5000
      - Annual/m for large #

## Floricanne/Summer Bearing

- Bristol black raspberry
- Prelude- early red
- Von blackberry
- Ouachita blackberry
- Ponca blackberry
- Triple Crown blackberry

Producing a summer crop (double crop) from fall bearing types is an option.



# Crimson Treasure

- Large, firm, bright red, conic fruit
  - 3 to 6 g
- Good flavor and shelf life
- High yield
  - 13-15 t/ha (11.5-13k lb/ac)
- Long harvest period
- Upright, self supporting canes
  - Relatively short (4-5 ft.)
  - Highly branched
- Tolerant to root rot
- Resistant to powdery mildew





# Double Gold

- Peach to pink color
- Excellent flavor
- Relatively soft
- Medium size
- Later fall season





# Crimson Night

- Dark red/magenta
- Low acid/high sugar
- Excellent freezing quality
- Moderate vigor
- Somewhat root rot susceptible





# Ouachita



# Von



# Triple Crown



# Ponca





# Blackberry Varieties

## ➤ Ouachita

- High yield, large size, decent hardiness

## ➤ Von

- Firm fruit, good eating quality, good hardiness

## ➤ Ponca

- Newest industry darling, excellent flavor

## ➤ Triple Crown

- Long time flavor favorite, good hardiness, soft

# Blackberry Pests

## ➤ SWD

- Clean harvest,
- Spray schedule or netting

## ■ Crown gall

- Avoid contaminated sites (grape ground)

## ■ Orange rust

- Systemic
  - Rouging the only option
  - Similar to black raspberry orange rust





# Additional Information

- [www.fruit.cornell.edu](http://www.fruit.cornell.edu)
  - High Tunnel Raspberry and Blackberry production guide
  - Raspberry and Blackberry Production Guide
- Penn State High Tunnel Production Manual
  - [plasticulture.cas.psu.edu/manual.htm](http://plasticulture.cas.psu.edu/manual.htm)
- [www.hightunnels.org](http://www.hightunnels.org)
- Cornell pest management guidelines
  - <https://cropandpestguides.cce.cornell.edu/>

# Latest Update from the Cornell Breeding Program

## ➤ Primocane red raspberry

- NY17-25
- NY17-35
- NY19-38
- NY20-40

## ➤ Floricane red raspberry

- NY20-02
- NY20-29

## ➤ Spine free black raspberry

- NY20-04bT
- NY20-32bT

## ➤ Primocane blackberry

- NYB21-05T (spine-free)



# NY17-25

- PF ripens as early as the first week in August
- Medium height
- Very upright
- Shiny, bright red
- Non-darkening
- Excellent eating quality



# NY17-35

- PF ripens late into Oct.
- Tremendous crop load
- Very large size
- Glossy light red
- Non-darkening
- High eating quality





# NY20-02

- Early mid-season FF
- Firm, bright red
- High eating quality
- Established in vitro for trials
- High crop load



# NY20-29

- Mid-season FF
- Firm, bright red
- High eating quality
- Established in vitro for trials
- High crop load





# NY19-38

- PF ripens mid-season
  - Sept 15
- Shiny, intense red
- Non-darkening
- Excellent eating quality
- Firm and picks early



# NY20-40

- Large, glossy red, conic fruit
- PF Mid fall season
  - Sept 15
- Excellent eating quality
- Moderate vigor





# NY20-04bT

- Fully spine-free FF
- Great black raspberry flavor
- Open clusters for easy harvest
- Productive upright canes
- Light primocane fruiting



# NY20-32bT

- Fully spine-free FF
- Great black raspberry flavor
- Open clusters for easy harvest
- Productive upright canes
- Floricane only





# NYB21-05T

- Large fruit
- Late primocane
- Heavy crop load
- Spine-free
- Good flavor

