

New blackberry cultivars and the North Carolina blackberry industry

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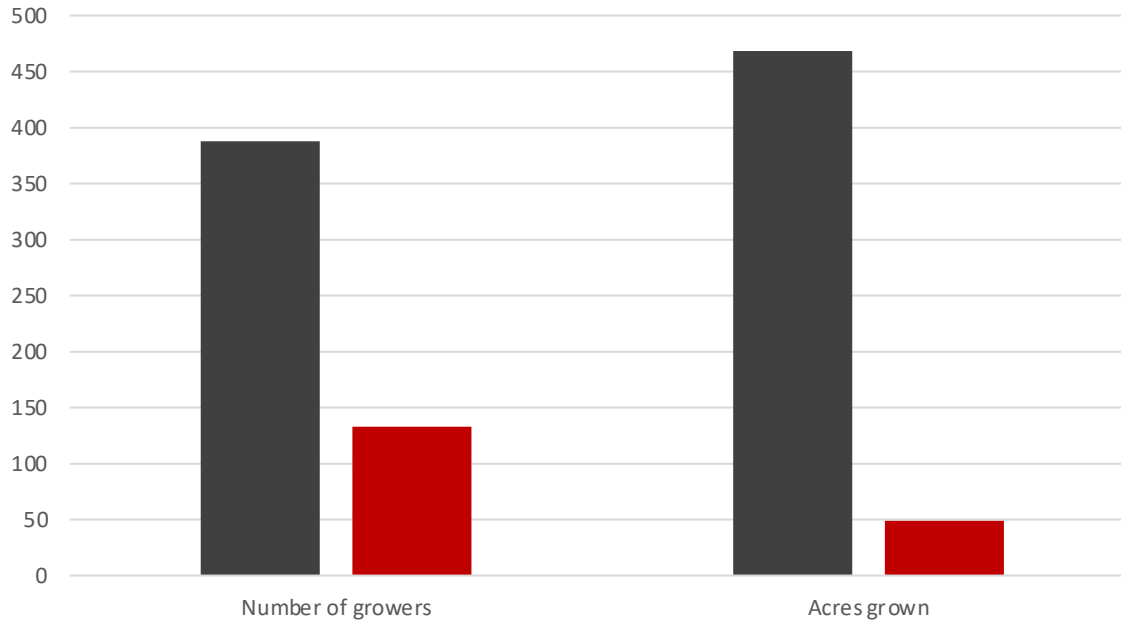


SE blackberry industry is “new”!



In NC, there are many more blackberry than raspberry growers

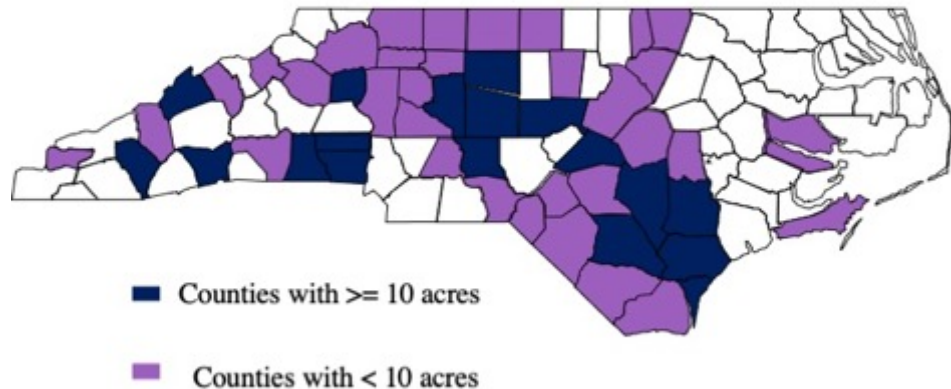
Blackberry and Raspberry Operations in NC



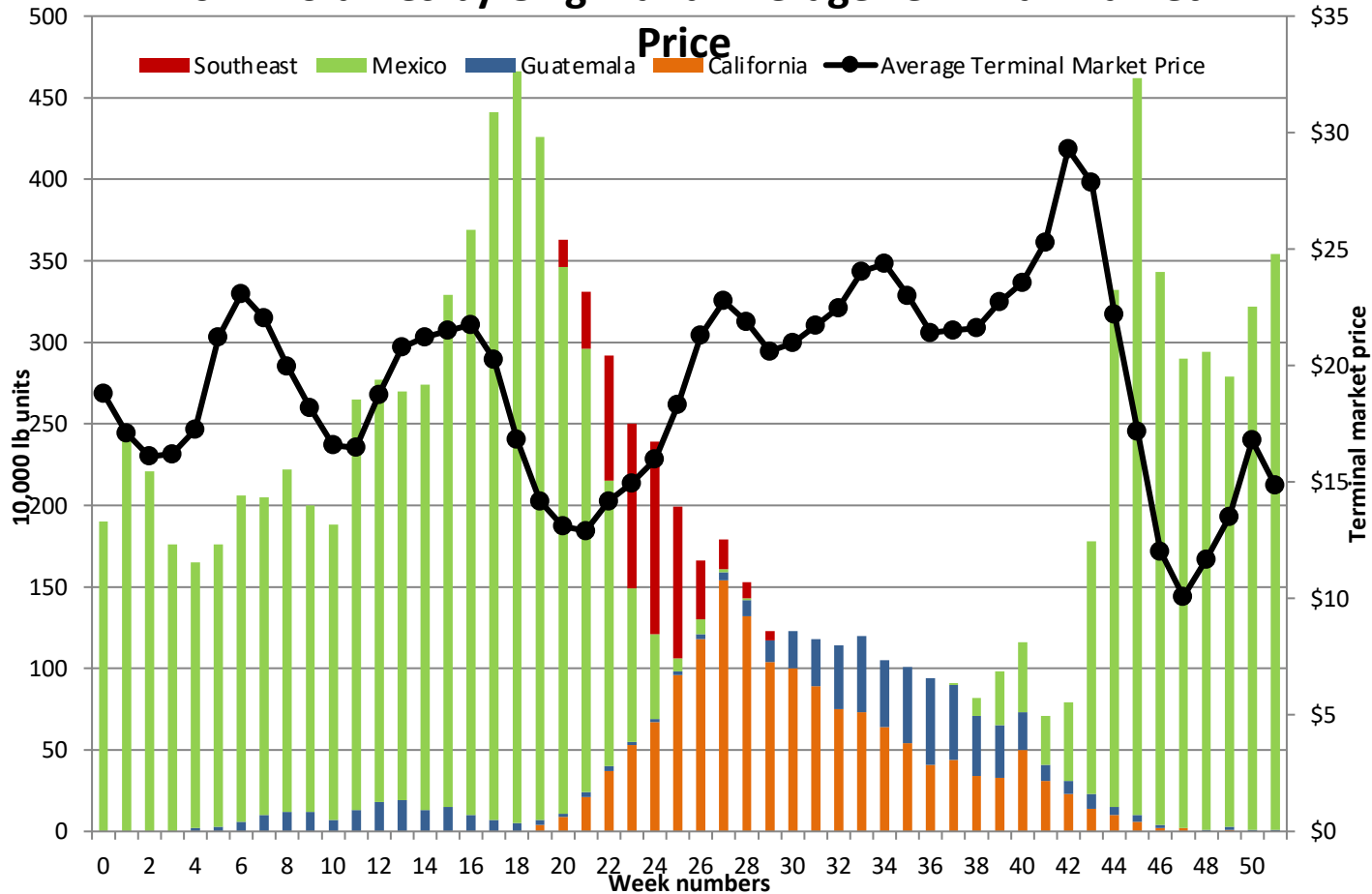
Blackberry industry in NC

- 100 acres 1996
- 2006 Sunnyridge contracts with growers
- 1000? acres 2021 (Carolinas)
- 90% blackberries
- Arkansas varieties (mostly)
- \$50,000,000 farm gate value?
- North Bay, Naturipe, Driscolls, east and west NC

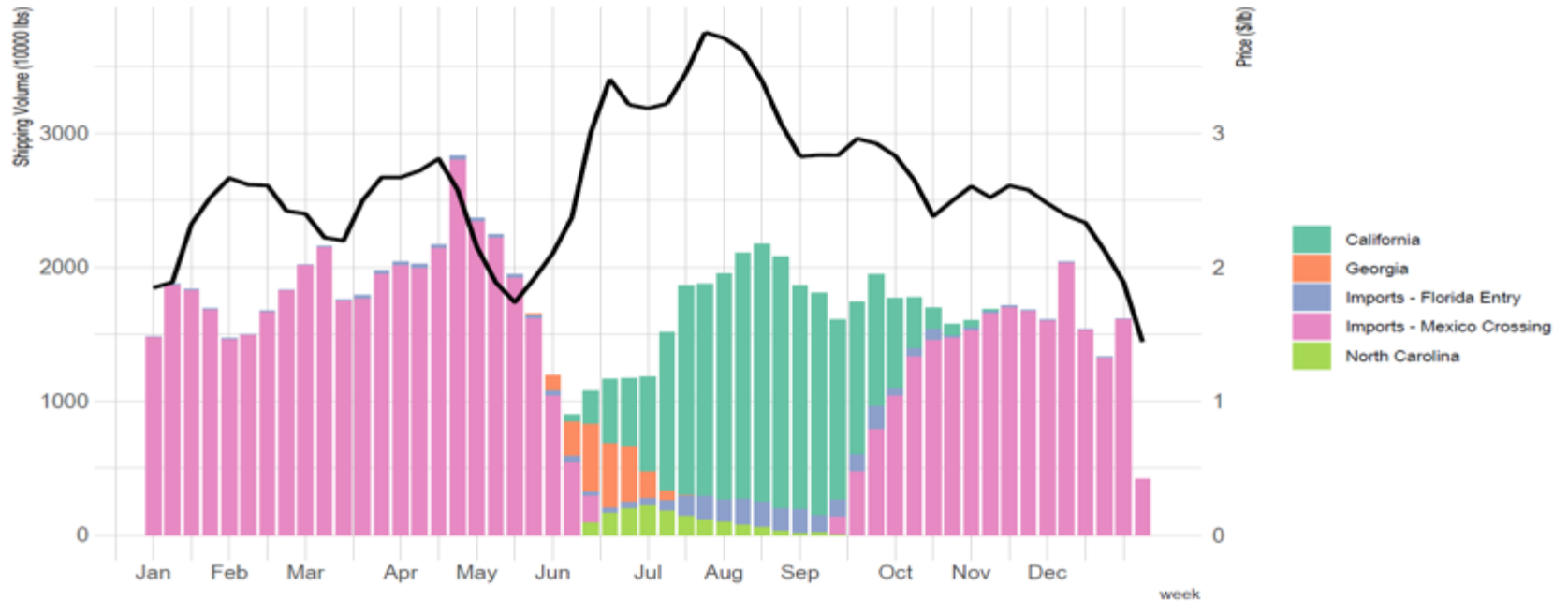
Counties with Blackberries in North Carolina
Heat map developed for the Blackberry Pest Management Strategic Plan



2011 Volumes by Origin and Average Terminal Market



10 years later....peak production, peak prices



Average shipping point price and volume (2016--20). Source: USDA AMS

NARBA price survey 2020

- 155 valid responses

Region	Respondents (%)
Canada	4
Mid-Atlantic	14
Midwest, East	21
Midwest, West	6
Northeast	6
Pacific Coast and West	12
Southeast	19
Southwest / South	18

Table 1. Percentage of growers from each region

Fig. 1. Regions used in this survey



Farm stands and farmers' markets had the highest prices

Table 3. Average prices per pound received by respondents by market and region

Region	Average Price Received (\$/lb)						
	Farm Stand	U-Pick	Farmer's Market	Wholesale (small)	Wholesale (large)	Processor	Other
Blackberry							
Canada	7.33	NA	NA	NA	3.33	NA	6.67
Mid-Atlantic	7.43	4.48	6.78	4.27	NA	2.83	NA
Midwest, East	6.51	3.77	7.00	5.33	NA	2.83	8.00
Midwest, West	5.07	3.62	5.99	4.53	4.20	2.75	3.50
Northeast	6.67	5.33	8.00	NA	NA	NA	6.67
Pacific Coast and West	10.67	3.25	6.07	7.47	NA	0.53	3.72
Southeast	6.04	4.30	7.00	3.67	5.63	1.50	9.03
Southwest / South	4.39	3.91	5.72	NA	NA	3.50	6.66

NC blackberry fun facts

- Hot humid summer, ideal conditions
- 800 or more chilling hours
- Central and western NC open field. Eastern Tunnels.
- 1-90 acres
 - Mostly commercial/shipping market (H2A)
 - Some local sales
 - Frozen (Seal the seasons)
- Some spring freezes can damage primary buds
- V trellis, 3-4' between plants, 8-10' rows
- Pests: SWD, borers, cane dieback (complex), lots of weeds



Fruiting Types (you already know)

Floricanne

- Produce Fruit on 2nd year growth
- These are the primary varieties grown where hot summer heat is an issue
- Regular pruning required in fall and winter along with “tipping”



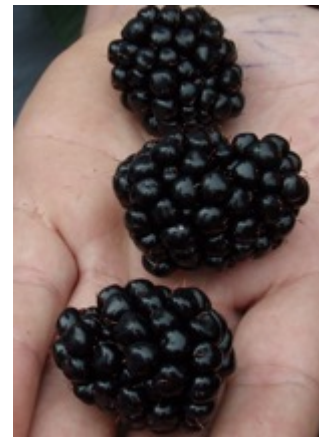
Primocane



- Produce Fruit on 1st year growth
 - Early Fall
- Can be managed with minimal fall pruning
 - Can also be managed with selective pruning to fruit both in the fall and spring.
- Must “Tip” in late spring
- Heat limits floral development over 85-90°F

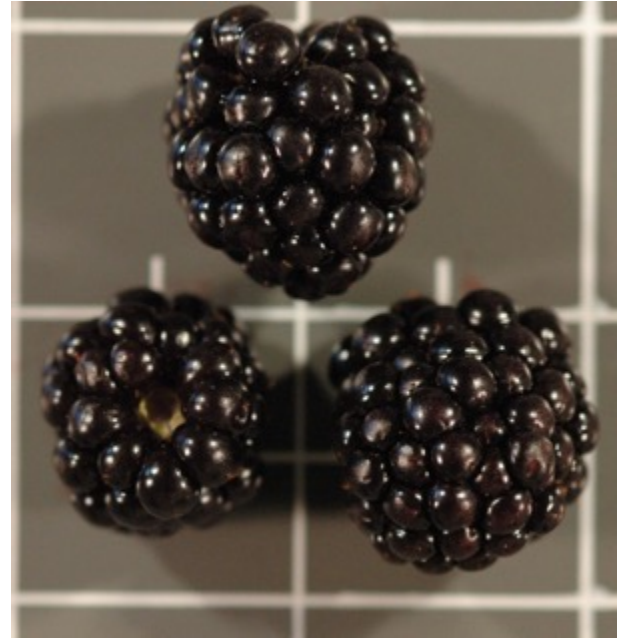
Ouachita

- Floricane fruiting
- Thornless
- Pronounced: WAH-CHA-TAH
- The NC Standard
 - The most widely planted and adapted
- 400-500 hours chilling
- Consistent production year to year
 - *Not extremely early budbreak*
- Excellent shipping capability
- Over 1 million plants sold last three years



Osage

- Floricane fruiting
- Thornless
- 350-450 chilling hours
- Ripens between Natchez and Ouachita
 - a COMPLEMENT TO OUACHITA
- Yields have been consistent and good, comparable to higher than Ouachita
- Berry size is medium, 5-6 g, slightly smaller than Ouachita
 - Good size-Packs really easy in smaller clamshells
- Great postharvest handling potential



Von

- Floricane fruiting
- Thornless
- Developed by NCSU
- Clean plant, “resistant” to orange rust
- Total yield 24,063 lbs/acre.
 - Marketable yield 21,434 lbs/acre.
 - First year a bit less.
- Smaller drupelet and seed size
- Late season production-
 - Average 1st harvest third week of June, peaking second week of July and ends the first week of August
- Growers in western NC like this one



Caddo

- Floricane fruiting
- Thornless
- Pronounced CAD DO (think cat o)
- Harvest between Natchez (2 d after) and Osage (2 d before) season
- Great plant health; floricanes and primocane leaves; deep green color
- Flavor a key attribute
 - Great aromatics
 - 10% SS or more
- Excellent storage potential



Caddo

- Comparable yield to Osage and Ouachita (19,000 lb/acre), below Natchez (22,000 lb/acre)
- Begins harvest between Natchez (2 d after) and Osage (2 d before) season; ave. 8 June
- Average 8-9 g; 2-3 g larger than Osage and 1-1.5 g larger than Ouachita; large all season



Ponca

- Floricane fruiting
- Thornless
- Great plant health; floricane and primocane leaves; deep green color
- Can produce secondary bud crop, ripens 14-20 days after primary crop starts harvest
- Internode length often shorter, primocanes usually emerge above canopy later than other Arkansas thornless



Ponca

- Begins harvest with Natchez, 2- 4 days before Caddo and Osage and a week before Ouachita
- Average 6.8 g; a little larger than Osage, about with Ouachita, smaller than Caddo and Natchez
- Comparable yield to Osage and Ouachita 20,000 lb/acre
- Sweetness and flavor a key attribute
 - Soluble solids can exceed 13%
 - Reduced acidity, always below 1%
 - The one JR Clark **MAKES SURE TO PICK AND TOTE HOME!**



Twilight

- Thornless, semi-erect habit
- Medium-high yield
- Large fruit; 9 g
- Very firm and crisp texture
- Excellent flavor
- With or slightly later than Loch Ness but before Triple Crown and Chester Thornless



Eclipse

- Thornless, semi-erect habit
- 75% Eastern (erect/semi-erect)
(Navaho x ORUS 1122-1) x Triple Crown
- Medium-large yields
- Medium size (~6.5 g), roundish; V. glossy;
Good flavor/ v. sweet, V. good firmness
- Ripens late July-early August; with Loch Ness
and before Triple Crown
- Plants can be available!



Galaxy

- Thornless, semi-erect habit
- 75% Eastern (erect/semi-erect) : 25% western
- Good yield
- Large fruit (~7.5 g), roundish; V. glossy; Good flavor/ v. sweet, V. good firmness
- Ripens late July-early August;
w/Loch Ness & before Triple Crown



Primocane Fruiting Types



- 'Prime-Jim[®]' and 'Prime-Jan[®]'
- 'Prime-Ark[®] 45'
- 'Prime-Ark[®] Freedom'
 - *Thornless*
 - *Intended for home garden*
- 'Prime-Ark[®] Traveler'
 - *Thornless*
 - *"Traveler" because of shipping quality*
- 'Prime-Ark[®] Horizon'



Prime-Ark[®] 45 –Changing Blackberry Production

- Changed Blackberry Production
 - 1st primocane fruiting
 - late summer and fall blackberries in the US
- Thorny
- Large, productive; floricanes and primocanes (in moderate climates)
- Most popular on the west coast
- Sold over 1 million plants last three years
- Make sure primocane fruiting blackberries work where you are...



Prime-Ark[®] Traveler



- The First:
 - I. Primocane Fruiting
 - II. **Thornless**
 - III. SHIPPING-QUALITY Blackberry
- Medium size – 7 g
- 9-11% SS, reduced acidity
- Shipping potential for distant markets
- Target use is shipping, local markets and home gardens

Prime-Ark® Freedom

- Floricane crop ripens 7-10 days before Natchez = *really early*
- Primocane berries up to 16 g in (cool places)
- Intended for home garden or local-market use



Prime-Ark[®] Horizon

- Primocane fruiting, thorny (though reduced thorns on main canes)
- A complement to Prime-Ark[®] 45
- Huge floricane crop potential
- Longer primocane-fruiting crop potential
- Large berries



Prime-Ark[®] Horizon

- The berry:
 - Ave. 7.8 g on floricanes
 - Ave. 7.3 g on primocanes (very close in size, and is unusual for a PF variety in the South)
 - Can range up to 10 g or more
 - Primocane berries can be larger than FC berries (in Calif, and at times in Ark or NC)

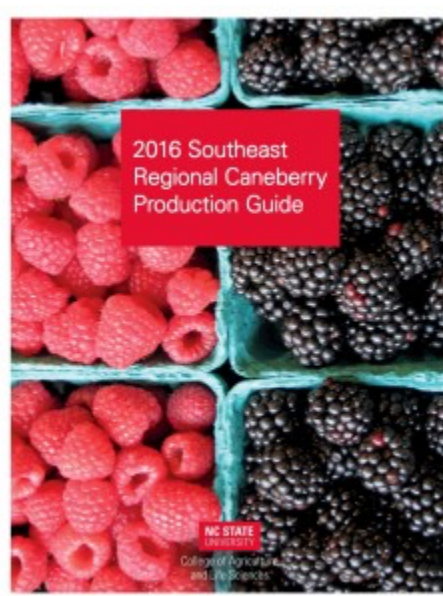


Prime-Ark[®] 45- left

Prime-Ark[®] Horizon - right

Resources

- Southern Region Small Fruit Consortium
 - www.smallfruits.org
 - Quarterly newsletter, chores, production guides, IPM (spray) guides
- Blackberry and Raspberry Portal
 - www.rubus.ces.ncsu.edu
 - General production info, yield data, post harvest data
- Team Rubus Blog
<http://teamrubus.blogspot.com>
- Team Rubus Facebook
- Twitter @NCteamrubus
- Gina_Fernandez@ncsu.edu



Follow Along to Learn How to Set Up, Manage and Grow your Blackberry Operation

www.uaex.edu/blackberryschool



Winter

1. **Basics of Blackberry Production** with Dr. Amanda McWhirt
2. **Variety Selection** with Dr. John Clark
3. **Pesky Winter Pests** with Dr. Jackie Lee
4. **How To: Winter Pruning** with Taunya Ernst



Summer

1. **Summer Tipping, Fruit Disorders and Irrigation of Blackberry** with Dr. Amanda McWhirt
2. **High Tunnel Blackberry Production** with Dr. Elena Garcia
3. **Consumer Preferences and Postharvest Handling** with Dr. Renee Threlfall
4. **Early Summer Pruning of Floricane Blackberries** with Taunya Ernst



Spring

1. **Blackberry Fertility Management and Trellising** with Dr. Amanda McWhirt
2. **Spotted Wing Drosophila and Broad mite Management in Blackberry** with Dr. Donn Johnson
3. **Pesky Spring Pests** with Dr. Jackie Lee
4. **How To: Spotted Wing Drosophila ID and trapping in Blackberry** with Dr. Donn Johnson



Fall

1. **Interactive Fruit Budgets** with Leah English and Dr. Jennie Popp
2. **Produce Safety** with Dr. Amanda Perez
3. **Weed Management in Blackberry** with Dr. Nilda Burges
4. **Soil and Plant Tissue Nutrient Sampling of Blackberry** with Dr. Amanda McWhirt
5. **How to: Identifying Anthracnose in Blackberry** with Shemie Smith



Early Summer Pruning of Floricane Blackberries
22 views

UA Arkansas
Published on Oct 26, 2017



- **13 Recorded Talks**
- **4 How-to videos**



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the **Southern Region**
small fruit consortium

THANK YOU
QUESTIONS?