

Blackberry Variety Study

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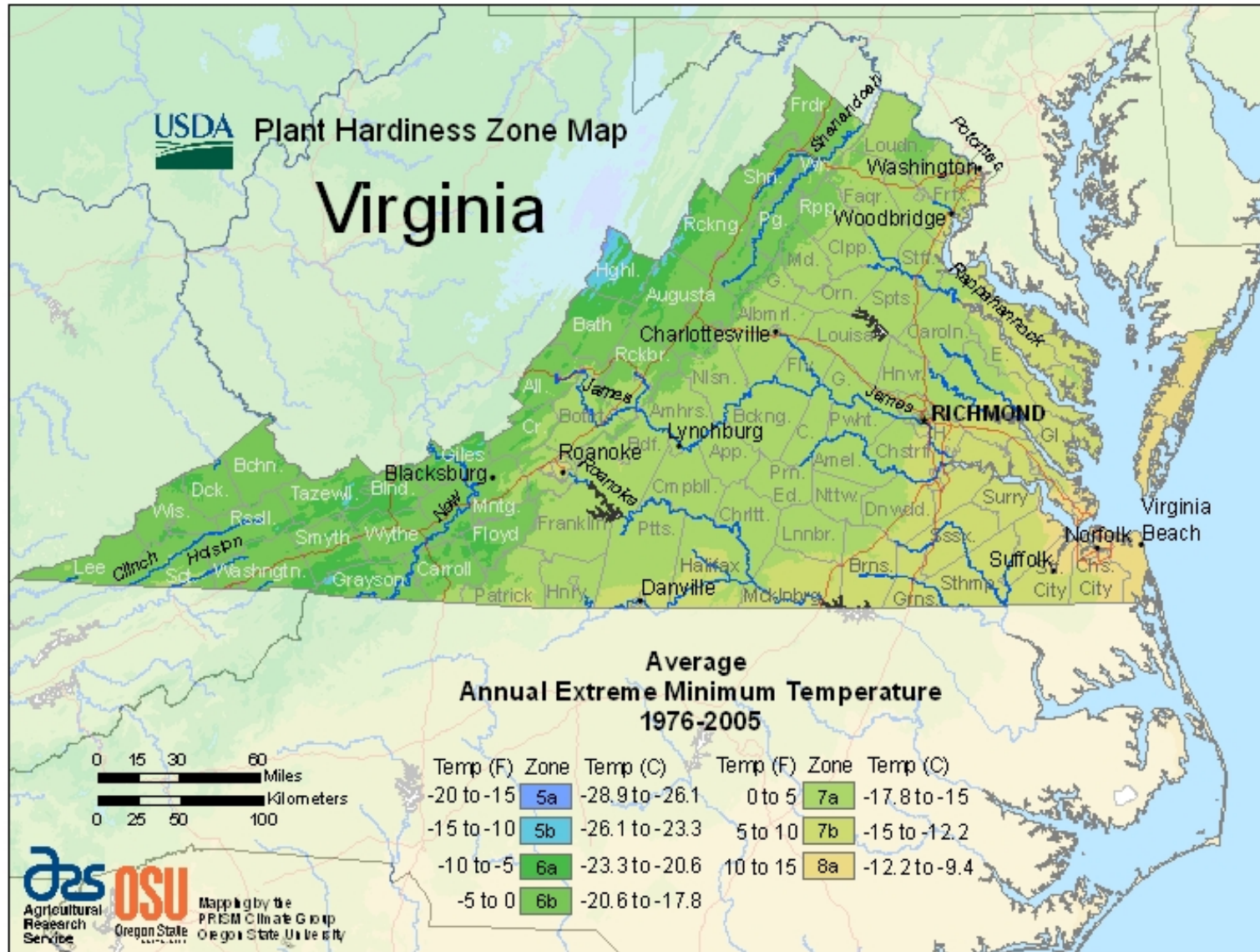
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Blackberries going strong:

- Local food movement.
- Nutrition (low in fat, rich in antioxidants).
- 24% of total berry acreage (269 acres) in Virginia is under blackberry production (USDA, 2015).
- Growing interest among homeowners.








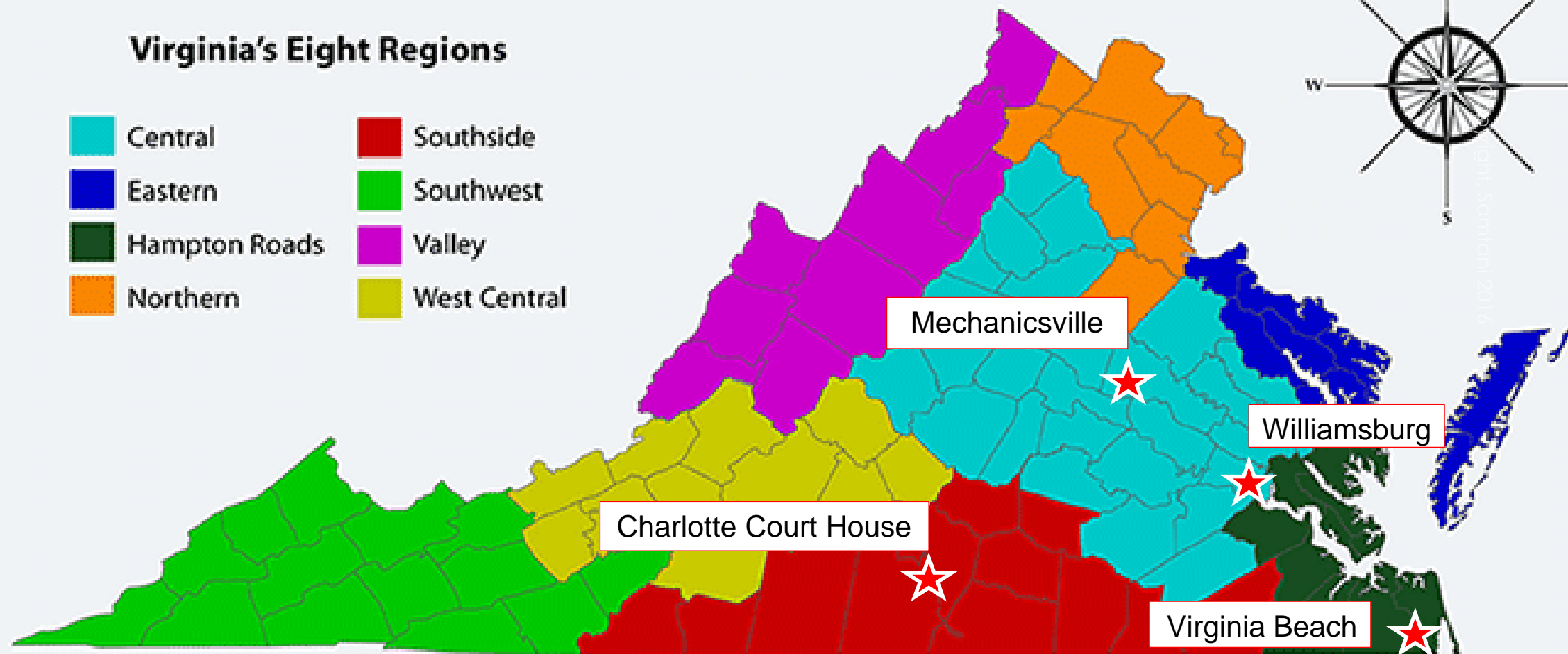
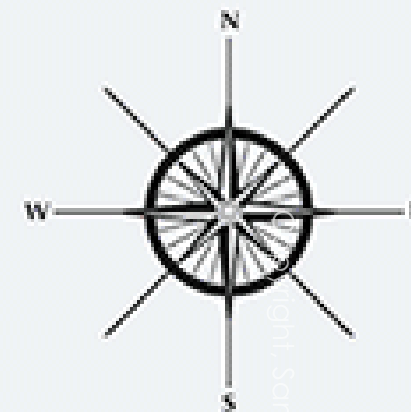
Virginia:
Zones 5a to 8a

North Carolina:
Zones 5b to 8b

Arkansas:
Zones 6b to 8a

Virginia's Eight Regions

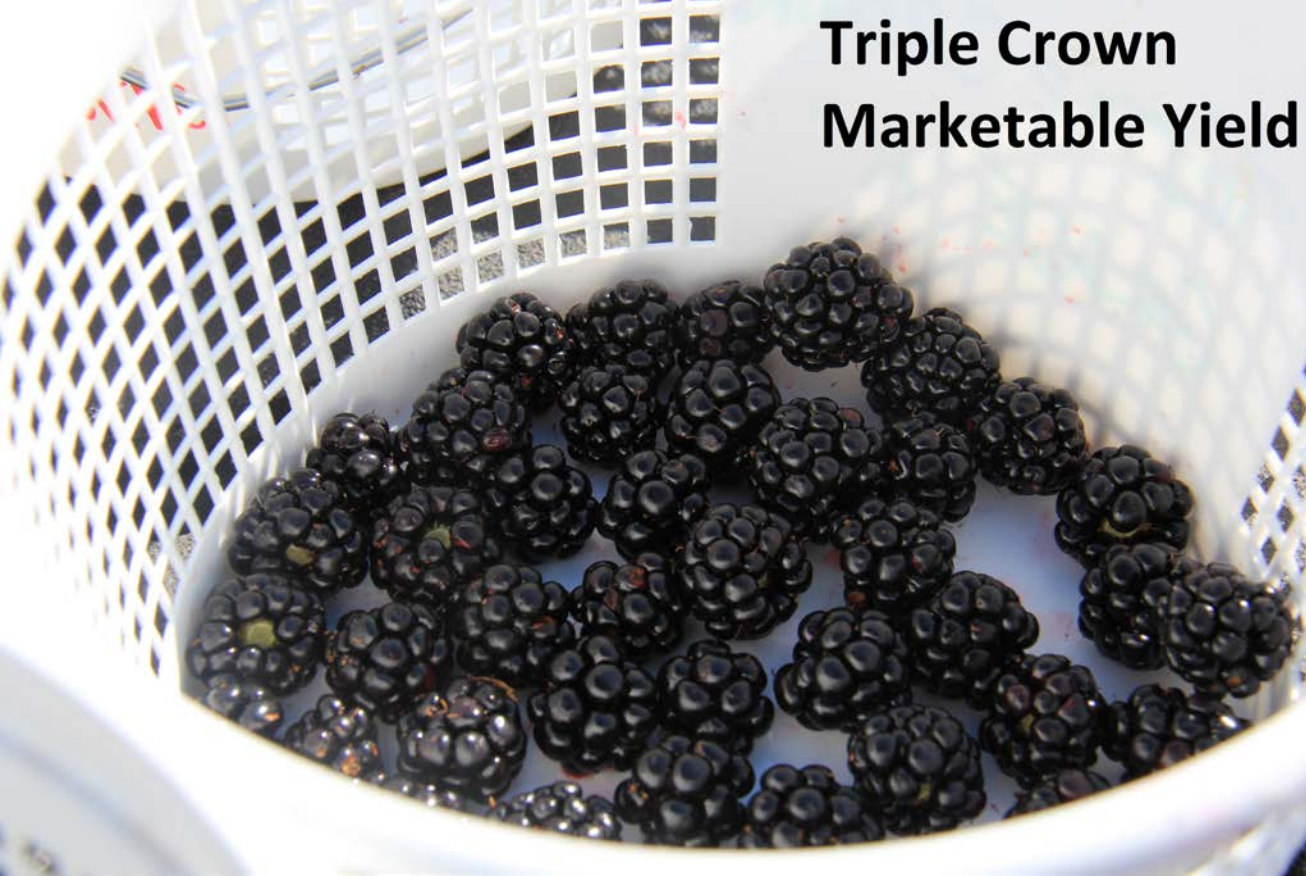
 Central	 Southside
 Eastern	 Southwest
 Hampton Roads	 Valley
 Northern	 West Central



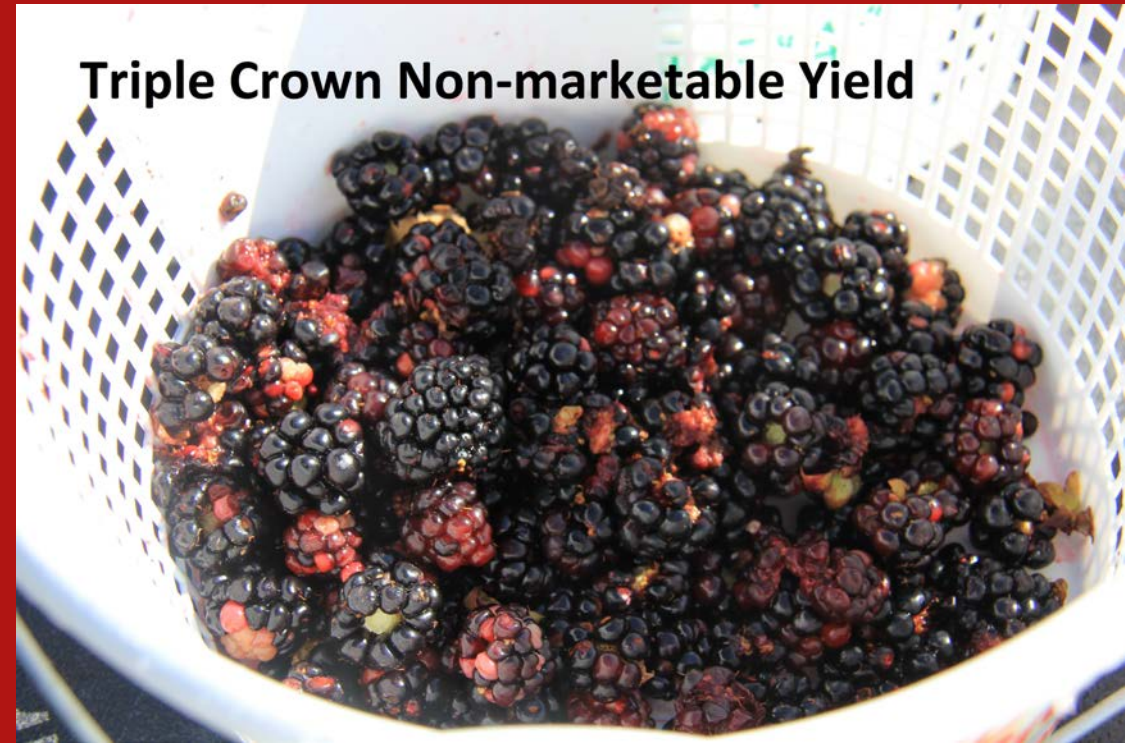
Cultivar	Year released	Growth habit	Cane description	Harvest season
Apache-STD	1999	Erect	Thornless	Mid-Early
Apache-RCA	1999	Erect	Thornless	Mid-Early
Arapaho	1993	Erect	Thornless	Mid
Chester	1985	Semi-erect	Thornless	Late
Chickasaw	1999	Erect	Thorny	Early
Kiowa	1996	Erect	Thorny	Very Early
Natchez	2008	Erect	Thornless	Early
Navaho	1989	Erect	Thornless	Mid
Ouachita	2003	Erect	Thornless	Mid
Triple Crown	1996	Semi-erect	Thornless	Late

On-Farm Locations	Charlotte Court House	Mechanicsville	Virginia Beach	Williamsburg
Age of plants (years)	2 years	5 – 6 years	2 cultivars - 2 ½ 1 cultivar - 15	6 years
No. of varieties evaluated	3	8	3	5
Plant count/variety	3	2 – 4	4 - 5	3 - 4
Plant spacing	4'	3'	5'	1 ½'
Latitude/Longitude	37°06'55.90"N; 78°35'38.64"W	37°41'52.05"N; 77°14'38.21"W	36°42'01.34"N; 75° 59'00.98"W	37°22'25.36" N; 76°44'2.86"W

**Triple Crown
Marketable Yield**



Triple Crown Non-marketable Yield



Our Mobile Office



Measuring the Width of a Triple Crown Berry



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Weighing Ouachita Grade "A" Marketable Berries



Variety	Charlotte Ct. House	Mechanicsville	Virginia Beach	Williamsburg
	Marketable yield/plant (lbs.)			
Apache-STD	*	2.9	*	*
Apache-RCA	*	2.0	*	*
Arapaho	*	*	*	0.6
Chester	5.1	22.6	8.3	*
Chickasaw	*	7.5	*	*
Kiowa	*	9.4	*	*
Natchez	*	5.9	*	1.2
Navaho	5.4	*	*	2.2
Ouachita	5.2	4.4	*	1.0
Triple Crown (Young)	*	7.9	3.8	0.7
Triple Crown (Old)	*	*	3.9	*

*This cultivar not grown at this location



Cultivar	Charlotte Court House	Mechanicsville	Virginia Beach	Williamsburg
	-----°Brix -----			
Apache-STD	*	9.0	*	*
Apache-RCA	*	9.8	*	*
Arapaho	*		*	10.5
Chester	8.5	8.0	9.7	*
Chickasaw	*	8.7	*	
Kiowa	*	8.7	*	*
Natchez	*	8.5	*	10.8
Navaho	12.0		*	10.3
Ouachita	12.8	9.0	*	10.2
Triple Crown	*	9.0	8.9 (2 ½ yr.); 10.7(15 yr.)	9.4

* Cultivar is not at this location.

Mechanicsville	Start Harvest	Finish Harvest	Total Rainfall in Inches
Natchez	06/18/15	07/14/15	1.3
Chickasaw	06/18/15	08/01/15	2.2
Kiowa	06/27/15	08/07/15	1.2
Ouachita	06/27/15	08/04/15	1.2
Triple Crown	07/04/15	08/07/15	1.2
Apache - RCA	07/10/15	8/07/15	1.1
Apache - STD	07/10/15	08/07/15	1.1
Chester	07/10/15	9/04/15	3.3

Charlotte Ct. House	Start Harvest	Finish Harvest	Total Rainfall in inches
Ouachita	6/26/15	8/12/15	4.8
Navaho	7/3/15	8/12/15	4.2
Chester	7/29/15	9/4/15	4.0

Williamsburg	Start harvest	Finish Harvest	Total Rainfall in Inches
Natchez	6/19/15	7/21/15	4.4
Arapaho	6/23/15	7/31/15	4.6
Ouachita	6/23/15	7/31/15	4.6
Navaho	6/26/15	8/11/15	6.2
Triple Crown	7/2/15	8/11/15	6.2

Virginia Beach	Start Harvest	Finish Harvest	Total Rainfall in Inches
Triple Crown Young	7/3/15	8/11/15	8.0
Triple Crown Old	7/3/15	8/5/15	7.5
Chester	7/3/15	8/21/15	11.1

Variety	Charlotte Court House	Mechanicsville	Virginia Beach	Williams burg
-----Fruit size in in ² -----				
ApacheSTD ^z	*	1.1	*	*
ApacheRCA	*	1.0	*	*
Arapaho	*	*	*	0.7
Chester	0.7	0.8	0.8	*
Chickasaw	*	1.5	*	*
Kiowa	*	1.5	*	*
Natchez	*	1.2	*	1.1
Navaho	0.7	*	*	0.7
Ouachita	1.0	0.9	*	0.8
Triple Crown (Y) ^y	*	1.0	0.8	0.6
Triple Crown (O)	*	*	0.8	*



Chickasaw Berry Sample



**Chickasaw
Berries**

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In Summary:

Charlotte Court House – ‘Navaho’ had highest total yield. ‘Ouachita’ was the sweetest and the largest berry.

Mechanicsville - ‘Chester’ had the highest observed yield per plant, ‘Apache’ grown on RCA trellis had the sweetest berries, ‘Kiowa’ and ‘Chickasaw’ had the largest berry.

Virginia Beach - ‘Chester’ had the highest yield, the older plantation of ‘Triple Crown’ produced the sweetest fruit, the younger plantation of ‘Triple Crown’ had the largest berry size.

Williamsburg - ‘Navaho’ had the highest total yield, ‘Natchez’ had the sweetest and the largest berry.



Japanese Beetle
(*Popillia japonica*)



Green June Beetle
(*Cotinis nitida*)

Spotted winged drosophila (*Drosophila suzukii*) - SWD



**Botrytis found on
Triple Crown**



Botrytis on Chester Berries

Gratitude

Funding: Virginia Agricultural Council.

Farms: Wildwood berry farms; Agriberry; Mill Farms;
Pungo Blueberry Farm.

Extension Agent: Robert Jones, VCE Charlotte County.

Lab. Members of Small Fruit Program.



Chester Berries