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Useful Online Links

- **Smartphone App**: **MyIPM** *provides Integrated Disease Management (IPM) information for conventional and organic production of strawberries and peaches in the Southeastern United States.* (Android version is available in Google Play, and the iOS version should be in the Apple Store by the end of January.)
- **IPM program in the greenhouse** (similar for high tunnel) (Link)
- 2015 Southeast Regional Organic Blueberry Pest Management Guide (pdf)
- 2014 Production Guide for Organic Blueberries (Cornell University) (pdf)
- 2013 Midwest Blueberry Production Guide (pdf)

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2015 Fruit Spray Guides

- MP44 Arkansas 2015 Recommended Chemicals for weed and brush control (free pdf)
- MP144 Arkansas 2015 Insecticide Recommendations (free pdf)
- MP154 Arkansas 2015 Plant Disease Control Products Guide (free pdf)
- MP467 Arkansas 2015 Small Fruit Management Schedule (free pdf)
- Midwest Small Fruit and Grape Guide (2015) (free pdf)
- Midwest Tree Fruit Guide (2015) (free pdf)

Upcoming Events

- **February 24-27**, 2015 North American Raspberry and Blackberry Association Conference in Fayetteville, AR (Register, Hotel Reservation, Conference Program)
- **February 28-29,** Mid-America Strawberry Growers Association Annual Spring Meeting- Branson, MO
  For information contact: Jim Goodson, Association President – 501-951-6830
- **April 18,** Arkansas Pecan Growers Association Meeting- Conway, AR (dates and registration information soon)
- **April 21**, Protected Agriculture Production- Harrison, AR (dates and registration information soon)
- **May 2**, Strawberry Production Field Day- Harrison, AR (dates and registration information soon)

Lime sulfur applications:

It is time to start thinking about lime sulfur application to manage disease in your berry plantings:
MAKE SURE TO FOLLOW LABEL RECOMMNEDATIONS

Dormant lime sulfur application for small fruits			
Crop	Stage	Disease (s)	
Blueberry	Dormant (before flower or leaf buds break)	Exobasidium fruit and leaf spot	Apply at delayed dormant 1-2 weeks before leaf and/or flower buds break. Exobasidium is not listed on the label, but when applied for Phomopsis, suppression of Exobasidium has been observed.
Blackberry and Raspberry	Delayed Dormant (swollen buds) to Green Tip	Anthracnose cane blight and Spur blight	Apply lime-sulfur at delayed dormant, but before shoots are ¾ inch long. Lime sulfur will 'burn' applicators as well as the plant. Any exposed green tissue will likely be burned. A minimum of 200 gallons of diluted spray is recommended per acre. Follow specific label directions for dilutions, and never use in undiluted form.
Bunch grapes	Dormant	Anthracnose and Phomopsis	A dormant spray of lime sulfur is needed only if anthracnose is a problem. Sufficient water should be used to thoroughly wet the vines. This spray helps reduce the overwintering inoculum of the Phomopsis and it may reduce powdery mildew fungus inoculum.

New Blackberry Cultivars from the UA Division of Agriculture

Prime-Ark® Traveler Thornless, Primocane-Fruiting Blackberry

Dr. John R. Clark

'Prime-Ark® Traveler is the fifth release in a series of erect-growing, high-quality, productive, primocane-fruiting blackberry cultivars developed by the University of Arkansas Division of Agriculture. This is the first thornless, primocane-fruiting cultivar with shipping- quality fruit recommended for the commercial market. It produces medium-large berries, good yields, and has excellent plant health. It is intended to complement Prime-Ark® 45 for commercial use. Testing was most extensively done at the University of Arkansas Fruit Research Station, Clarksville, with additional testing in other locations including California.

Important information on Prime-Ark® Traveler (data from Clarksville, AR unless otherwise noted):

Type: Erect, thornless, primocane-fruiting.

Ripe date: Average first floricane harvest date for Prime-Ark® Traveler was June 5, usually with Prime-Ark® 45 and Natchez. Primocane first-ripe date ranged from July 23 to August 8, 7-12 days earlier than Prime-Ark® 45. This primocane first-ripe date should be important in California to allow an earlier harvest

season, and in more northern areas of the US where primocane cropping period can be reduced by early frost.

Berry characteristics: Size/weight/shape: Berry average d 7-8 g, and is a semi-elongated berry that should be easy to pick and pack in clamshells. Double fruits have been uncommon.

Soluble solids (sweetness), acidity, flavor: Berries were usually 9-11% SS, and rated very good in flavor, equal to Prime-Ark® 45, and a little higher than Natchez. California SS values ranged from 10-12% SS. Berry acidity is reduced, below 1.0% titratable acidity and lower than Natchez and slightly lower than Ouachita and Prime-Ark® 45.

Berry firmness by compression was measured using a texture analyzer and results indicated Prime-Ark® Traveler had firmer berries than Natchez, Ouachita, Osage and Prime-Ark® 45, both prior to storage and after cold storage for 7 days.

Postharvest Performance: Postharvest storage results have been good and consistent for Prime-Ark® Traveler, rated comparable to Ouachita and Prime-Ark® 45 in most comparisons. This variety should perform well in the shipping market.

Plant characteristics:

Yield on floricanes for Prime-Ark® Traveler have either been comparable to Prime-Ark® 45 or lower, depending on year, ranging from 10,000 to 22,000 lb/year depending partially on the amount of primocane-fruiting that occurred the year prior.

Primocane yields (from plants that produced a floricane crop) in Arkansas have been comparable for these to, with yields of 4,000 to 7,500 lb/acre. In California, Prime-Ark® Traveler provided good yields, but were not as high as Prime-Ark® 45.

Plant vigor and health have been rated high for Prime-Ark® Traveler, higher than for Ouachita, Natchez and Prime-Ark® 45. In some years the leaves of Prime-Ark® Traveler exhibited upward curling, but no disease symptoms were seen. No orange rust was observed on Prime-Ark® Traveler in any evaluations, even though infected plants were seen within 30-50 yards of data collection plots in each year of evaluation. Prime-Ark® Traveler berries or canes have not been observed to be susceptible to anthracnose in Arkansas. This variety produce a more extended fruiting cluster on primocanes than Prime-Ark® 45, **and double tipping of primocanes will likely be beneficial to enhance primocane yields.**

Heat tolerance of primocane flowers and fruits appear to be similar to Prime-Ark® 45, or possibly slightly improved.

Chilling requirement of Prime-Ark® Traveler not verified, likely near that of Prime-Ark® 45 which is estimated to be 300 hours.

Prime-Ark® Traveler has completed virus testing and heat treatment at the USDA-ARS Horticultural Crops Research Laboratory, Corvallis OR.

Notes to commercial producers concerning primocane fruiting cultivars (M. Elena Garcia):

In Arkansas, **primocane** fruit yields have been low for all primocane-fruiting genotypes due to very high summer temperatures. On a commercial scale, this cultivar should only be planted on a trial basis to determine its performance in your area.

Also, plant availability for Prime-Ark® Traveler is going to be very limited this spring with a more dependable supply in fall 2015 into spring 2016.

Pictures are provided below of Prime-Ark® Traveler.



Osage Blackberry – Comments by First-Year Growers

Dr. John R. Clark, University of Arkansas

Osage blackberry is the newest floricane-fruiting blackberry from the University of Arkansas. It was released in the summer of 2012, and hit the market in a limited amount in the spring of 2013. In 2014, the first berries were produced by growers. I recently heard several growers comment on Osage, and I want to share a few first-crop impressions.

Grower Ervin Lineberger of Kildeer Farm, Kings Mountain, NC shared that his Osage plants were very healthy and established well – he said that his primocane growth at the end of the 2014 season was the best he has seen on any blackberry on his farm. He harvested a good crop of berries in 2014 and was very impressed with the flavor and quality. He further stated that this berry was very easy to pack, particularly in smaller clamshells. Many of you have heard me say that Osage is one of my favorites for flavor, and this was a key reason this was released – it is good to hear positive comments on flavor for this new blackberry option.

David Childers with Lewis Nursery and Farms in Rocky Point, NC commented that Osage performed very well in their eastern North Carolina location in its first fruiting year. It had a good yield, high quality berries, and was a good complement to Ouachita, ripening about 7 days earlier. Primocane growth on this variety was particularly good in 2014 so the 2015 crop potential is great. I have noticed very good plant health year after year in my evaluations of Osage, and it is exciting to hear this report in a grower planting.

Growers Paul and Peter Willems in Kingsburg, CA were very pleased with their first crop of Osage. They were most impressed with the flavor, productivity of the plants, ease of packing particularly in smaller clamshells, and the window when it ripened – just after Natchez. Primocane growth after harvest in summer of 2014 has been exceptional, setting the stage for a great crop in 2015.

Steve McMillan in Enigma, GA shared that Osage produced firm berries, and in the southern Georgia heat, the berries held up well, particularly in firmness and maintaining black color. Osage overall performed in packing and handling as well as Ouachita or better. His second-year plants tended to overcrop to some extent and this reduced berry size in 2014 compared to the first crop in 2013, however.

Osage sold about 100,000 plants in 2014, which reflects it is getting a good start commercially. The first indications are that this variety is shaping up to be one to consider as new blackberry plantings are established.

For those not familiar with Osage, it was released primarily as a very good-flavored variety to complement Ouachita. In Arkansas, it ripens between Natchez and Ouachita, but can fruit quite a long time through the Ouachita season. Berry size is on average about a half a gram less than Ouachita, a characteristic that concerned me when I was considering its release. However, growers have not had major concerns with size, partly due to the ease of packaging this berry – it is not too large and its round shape allows quick placement in the clamshell. It is consistently productive, equal to higher than Ouachita in Arkansas trials. I have always liked the plant health of Osage also, and it has very good vigor in all locations I have observed it. But, flavor is really

what got my attention with Osage. As I have said in various presentations, I found it to taste good on "bad flavor days" in my years of evaluations of many blackberry selections in the breeding program. Some days blackberries just are not as good as others – due to either the berries or me – and this one seems to get good comments time and time again. It is one I will take home! If you are planting blackberries this winter, consider Osage, and it is available from a number of propagators licensed by the University of Arkansas.