

Prime-Ark® Traveler Thornless, Primocane-Fruiting Blackberry

'Prime-Ark® Traveler is the fifth release in a series of erect-growing, high-quality, productive, primocane-fruited blackberry cultivars developed by the University of Arkansas System's Division of Agriculture. This is the first thornless, primocane-fruited 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.

Prime-Ark® Traveler resulted from a cross of two Arkansas breeding selections, both thornless plants, and one expressing the primocane-fruited trait, with the cross made in 2004. The selection APF-190T (the patent name for Prime-Ark® Traveler) was made in June, 2008. 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-fruited.

Ripe date: Average first floriculture 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 two varieties, 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. Plants of Prime-Ark® Traveler 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.



