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Performance of Nine Pecan Cultivars in Southern Georgia

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Abstract

Nine pecan [*Carya illinoinensis* (Wagenh.) C. Koch] cultivars ('Cherryle', 'Desirable', 'Excel', 'Faircloth', 'McMillan', 'Nacono', 'Stuart', 'Tobacco Barn', and 'Zinner') were evaluated for 12 years in a southern Georgia test orchard. Annual yields were measured for each tree and a subsample of nuts was taken to determine percent kernel, nut volume, and nut weight. Trees were also evaluated for fruit cluster size, date of 50% shuck split, and the presence of damage from pecan scab [*Fusicladium effusum* (G. Winter) (syn. *Cladosporium caryigenum* (Ellis & Langl.) Gottwald)] and black pecan aphid [*Melanocallis caryaefoliae* (Davis)]. One cultivar, 'Zinner', was found to be suitable for trial in commercial orchards in southern Georgia. Two other cultivars, 'Excel' and 'McMillan', have high levels of pecan scab resistance and are recommended for use in low-input or home orchard situations.

Georgia is the leading pecan producing state, and pecans are one of Georgia's most valuable horticultural crops (USDA, 2013). Georgia is located in the southeastern pecan growing region, an area typified by a long growing season and hot summers with frequent rainfall. Due to the high level of rainfall, successful cultivars for this region must possess sufficient levels of resistance to pecan scab so that the disease can be controlled with fungicides. Pecan scab infection reduces both yield and quality of pecans, and if uncontrolled can result in total crop loss (Gottwald and Bertrand, 1983). Growers in this region prefer cultivars with a large nut size and high percent kernel because they bring maximum prices (Goff, 2012; Wells, 2013). In addition, harvest date should be early enough that the nuts can reach the market prior to the Thanksgiving and Chinese New Year holidays (Goff, 2013).

Two cultivars, 'Stuart' and 'Desirable', make up over half of the mature trees in commercial orchards in Georgia. Both of these cultivars were developed over 80 years ago, when production practices differed greatly from current ones. 'Stuart' continues to be common as a mature tree in Georgia, but new plantings are not recommended due to its low precocity, relatively poor kernel quality, and loss of disease resistance (Wells and Conner, 2012). 'Desirable' is currently the most widely planted cultivar in Georgia (Wells, 2013). 'Desirable' sets the standard for nut quality in the Southeast, but requires excellent cultural practices to perform well, and has also become increasingly more susceptible to pecan scab (Wells, 2013). Because of the difficulty of maintaining 'Desirable' trees, there is a need for newer, better-adapted cultivars for use in the southeast which possess the nut quality that the consumer demands.

Pecan trees are propagated by grafting a scion cultivar onto a seedling rootstock. Grafted pecan trees require several years of growth before producing a harvestable crop, and several more years to come into full bearing (Sparks 1992). However, pecan trees are an extremely long-lived crop and orchards over 90 years old are still bearing and productive. Once trees are in place it is very expensive to replace them, making cul-

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tivar choice an extremely important decision. Replicated trials of new cultivars can prevent growers from making costly mistakes in orchard establishment. Pecan evaluation at the University of Georgia (UGA)-Tifton Campus began in 1921 with the establishment of an orchard by O.J. Woodard (Worley and Mullinix, 1994). Cultivars are evaluated annually for yield, kernel quality, nut size, and percentage kernel. Cultivars are also rated for pecan leaf scab, nut scab, black aphid damage, and sooty mold buildup. This report summarizes the evaluation of seven new pecan cultivars over twelve years in the UGA pecan cultivar testing program.

Materials and Methods

The test orchard is located in western Tift County, Georgia (lat. 31°30'29.13"N, long. 83°39'4.49"W). Origin and parentage of the test cultivars is listed in Table 1. Test trees consisted of three year old 'Elliott' seedling rootstocks which had been 4-flap grafted (Vanerwegen, 1975) to the scion cultivar a year prior to planting. Cultivars were chosen for inclusion based on grower and breeder observations from other locations. 'Desirable' and 'Stuart' trees were included to serve as check cultivars. Trees were planted in 2002 with the exception of one tree of 'Desirable' and two trees of 'Excel' that were planted in 2003 or 2004 to replace trees which did not survive the initial planting. In addition, the 'Faircloth' and 'Tobacco Barn' cultivars were topworked into the test in 2006. Topworked trees were produced by 4-flap grafting five to six branches of trees that had been planted in 2002, but were selections deemed too scab susceptible for use in this region. Thus the topworked trees consisted of a seedling rootstock, an original test selection which is now serving as an interstock, and a final scion cultivar.

This test orchard is managed to mimic the care that would be given to a well-managed commercial orchard. Trees were planted into a single orchard block at a spacing of 12.2 m × 12.2 m (67 trees/hectare), with tree location randomized within the year planted. Nitrogen was applied annually at 112 $kg \cdot ha^{-1}$, while other nutrients and lime were applied according to leaf or soil analysis. Microsprinkler irrigation was used with one 75.7 $liters \cdot h^{-1}$ microsprinkler per tree. Fungicides were applied routinely according to UGA recommendations (Ellis et al., 2000) and insecticides were applied only when an insect buildup occurred.

Number of fruit per cluster was recorded in early August by counting the number of fruit on 40 clusters per tree. Shuck split percentage was recorded twice weekly dur-

Table 1. Number of trees evaluated, year(s) planted, parentage and origin of pecan cultivars tested at Tifton, GA, 2002-2013.

Cultivar	Trees (no.)	Year(s) planted or topworked	Parentage	Origin
Cherryle	6	2002	Seedling[z]	Alabama, Grand Bay
Desirable	6	2002, 2004	Success × Jewett	Mississippi, Ocean Springs
Excel	5	2002, 2003, 2004	Seedling	Georgia, Blackshear
Faircloth[y]	4	2006	Seedling	Georgia, Ray City
McMillan	5	2002	Seedling	Alabama, Baldwin Co.
Nacono	6	2002	Cheyenne × Sioux	Texas, Brownwood
Stuart	5	2002	Seedling	Mississippi, Pascagoula
Tobacco Barn[y]	4	2006	Seedling	Georgia, Waycross
Zinner	6	2002	Seedling	Alabama, Baldwin Co.

[z] Seedling denotes trees planted by humans where one or both parents are unknown.
[y] 'Faircloth' and 'Tobacco Barn' were topworked into the test in 2006.

ing harvest season with 50 fruit observed per tree. Nuts were harvested when ~90% could be shaken from the tree with a mechanical shaker. Each tree was harvested yearly for total nut yield, and a random 50-nut sample was collected from each tree for quality analysis. Nut volume was determined by water displacement.

Annual pest evaluations were completed in early September. Each tree was evaluated for pecan leaf scab using a four-point scale with the maximum level of infection scored: 1 = no scab lesions, 2 = a few isolated lesions with restricted growth, 3 = multiple lesions with expanding growth, 4 = stem scab lesions or shoot defoliation. Pecan nut scab was scored using a five-point scale with the maximum level of infection scored: 1 = no scab lesions, 2 = a few lesions with restricted growth, 3 = multiple lesions, 0% to 10% nut coverage, 4 = 11% to 50% coverage, 5 = 51% to 100% nut coverage or nut drop. Black pecan aphid damage was rated on a 4-point scale by observing the lower interior of the canopy: 1 = no damage, 2 = light chlorotic spotting, 0% to 25% leaves affected, 3 = moderate chlorotic spotting, 26% to 75% leaves affected, 4 = heavy chlorotic spotting, 76% to 100% leaves affected. Sooty mold accumulation was rated on the lower interior canopy using a four-point scale: 1 = no accumulation, 2 = light accumulation, some black on a few leaves, 3 = moderate accumulation, black on most leaves, 4 = heavy accumulation, black flaking on stems and leaves.

Yield and quality data for each year of growth were calculated for each cultivar by averaging the values of all the replicate trees of that cultivar for the given year from planting. Cultivar values for quality and pest damage ratings were calculated by averaging all data years. Average trait values for each cultivar were subjected to one-way analysis of variance (ANOVA) procedures and mean separation by Duncan's multiple range test (P=0.05) using SigmaStat (Systat Software, San Jose, CA) statistical software.

Results and Discussion

Pecan trees have a long immature phase and the trees in this test did not begin to bear until the fifth year from planting. All the cultivars had relatively good yields for the first 12 years, which averaged from 8.9 to 13.3 kg per tree (Table 2). 'McMillan' yielded more than the other cultivars, perhaps due in part to its large cluster size (Table 3). 'McMillan', and 'Nacono' are beginning to bear irregularly as each produced lower yields in years nine and eleven than they did the preceding year. 'Desirable' and 'Nacono' were among the lower yielding cultivars, and yields were reduced in both cultivars due to scab infection in wet years (Table 4). Kernel yield is a function of total nut yield and kernel percentage, and is a useful measure of saleable product. Kernel yield averaged from 4.3 to 6.8 kg per tree. 'McMillan' and 'Zinner' produced higher kernel yields, but 'Zinner' kernels were bigger (Table 3) and more attractive than 'McMillan' kernels and would likely bring a better price. Average yields of 'Faircloth' and 'Tobacco Barn' could not be compared to the other cultivars since these cultivars were topworked into the test. Topworked trees take several years to reach a similar size and productivity to unworked trees. They eventually reach similar sizes to unworked trees because they are producing lower yields of nuts and can allocate more energy into regrowing the canopy. Examination of annual yields indicates that it took from five to seven years for 'Faircloth' and 'Tobacco Barn' topworked trees to begin yielding similarly to the unworked trees (Table 2).

Large sized nuts have always been valued more highly in the marketplace, and this is especially true in recent years because the export market to China has increased the demand for large nuts (Goff, 2012). Pecan size is generally determined by weight at the buying point. To reliably obtain maximum prices for this market, pecan nuts should be at least 8.3 g or larger. Only 'Tobacco Barn' was smaller than this threshold (Table 3). 'Cher-

Table 2. In-shell nut and kernel yield of pecan cultivars at Tifton, GA, 2002-2013.

Cultivar	Average in-shell nut yield per tree each year after planting (kg)								Avg.[z]	Kernel yield avg.[y]
	5	6	7	8	9	10	11	12		
Cherryle	0.5 b[x]	3.6 b	3.2 b	13.0 bc	16.2 bcd	20.0 cd	23.5 a	40.7 b	10.1 b	5.6 b
Desirable	1.2 ab	5.2 b	10.5 a	10.7 c	19.9 abc	22.5 bcd	20.6 a	19.7 f	8.9 c	4.5 c
Excel	1.2 ab	3.8 b	7.6 a	16.7 bc	16.8 abcd	33.4 ab	27.8 a	55.6 a	10.6 bc	5.4 b
Faircloth[w]	0.0 b	0.0 c	1.7 b	4.3 c	18.9 abc	18.4 cd	21.8 a	29.2 de	--[v]	--[v]
McMillan	1.3 ab	8.0 a	11.0 a	28.2 a	16.0 bcd	40.7 a	14.6 ab	39.9 bc	13.3 a	6.8 a
Nacono	2.5 a	7.9 a	10.3 a	19.7 b	14.7 cd	26.4 bc	9.0 b	27.6 de	9.6 bc	
Stuart	0.3 b	3.2 b	9.1 a	13.5 bc	24.3 ab	21.9 bcd	26.3 a	34.7 bcd	11.1 b	5.1 bc
Tobacco Barn[w]	0.0 b	0.0 c	0.5 b	1.3 d	7.8 d	11.1 d	16.7 ab	23.8 ef	--[v]	--[v]
Zinner	0.5 b	3.3 b	9.0 a	10.2 cd	25.0 a	24.1 bc	24.7 a	32.3 cde	10.4 bc	6.0
Significance P ≥ F	0.003	0.001	0.001	0.001	0.006	0.001	0.017	0.001	0.001	0.001

[z] Average yield of years 5 to 12 from planting.
[y] Kernel yield is determined by multiplying the in-shell nut yield by the percent kernel of the nut sample for each tree each year.
[x] Mean separation within columns by Duncan's multiple range test at $P \leq 0.05$. Values sharing a common letter are not statistically different.
[w] 'Faircloth' and 'Tobacco Barn' were topworked into the test in 2006.
[v] Average in-shell yield and kernel yield of 'Faircloth' and 'Tobacco Barn' were not included because trees were topworked into the test.

ryle' and 'Nacono' were larger than 'Desirable' in terms of weight, but not volume (Table 3). Percent kernel is used at the buying point as a measure of kernel development to determine the quality of the nuts. Percent kernel is a function of kernel development as well as shell thickness and nut size (Dodge, 1944). Large sized nuts with a thin shell will have a higher percent kernel than smaller nuts or nuts with a thicker shell regardless of kernel development. Percent kernel ranged from 45.3% to 57.2% (Table 3). 'McMillan', 'Stuart', and 'Excel' have thick shells leading to lower kernel percentages, while 'Stuart' also commonly had a less developed kernel giving it a very low kernel percentage. Percentage kernel in 'Faircloth' was limited by the difficulty of shelling of the samples, leading to many kernel pieces remaining lodged in the shell pieces and being eliminated. Kernel percentage in 'Desirable' was limited in some years by scab infections which killed the shuck and stopped kernel development late in the season.

Cultivars with large nut size combined with large cluster size have a tendency to produce lower quality kernels (Sparks, 1990). Cluster size in these cultivars ranged from 2.4 to 3.3 which is within the range normally considered acceptable (Sparks, 1992). Shuck split is used as a measure of harvest period of a cultivar (Grauke and Thompson, 1996). These cultivars reached 50% shuck split within a narrow window of 4 Oct. to 14 Oct., allowing them to be harvested in time to be sold for the holiday market, but none were exceptionally early.

Pecan scab was evaluated on both the foliage and nut shucks. Scab was never observed on 'Excel', 'Faircloth', 'McMillan', and 'Tobacco Barn' in this test (Table 4). However, a large number of races of the scab pathogen exist (Conner and Stevenson, 2014), and results from testing in one location does not ensure widespread resistance. As expected, 'Desirable' was the most susceptible cultivar to scab infection (Table 4). Only 'Nacono' was more susceptible than the check cultivar 'Stuart'. The black pecan aphid is often the most economically significant of the aphids

Table 3. Comparison of pecan cultivar nut quality, cluster size, and 50% shuck split date at Tifton, GA, 2002-2013.

Cultivar	Nut weight (g)	% Kernel	Nut volume (mL)	Cluster size (fruit/cluster)	50% Shuck split
Cherryle	11.0 f [z]	55.6 b	13.7 a	2.7 cd	Oct. 6 d
Desirable	10.0 e	50.2 d	14.2 a	2.4 e	Oct. 10 b
Excel	9.3 c	51.1 d	11.8 b	3.3 a	Oct. 7 cd
Faircloth[y]	9.3 cd	49.9 d	10.9 c	2.8 cd	Oct. 4 d
McMillan	8.6 b	50.5 d	11.0 c	3.3 a	Oct. 8 bcd
Nacono	10.8 f	53.5 c	14.1 a	3.0 b	Oct. 6 cd
Stuart	9.7 de	45.3 e	12.1 b	2.6 d	Oct. 14 a
Tobacco Barn[y]	7.5 a	54.6 bc	8.9 d	2.8 bc	Oct. 9 bc
Zinner	9.6 cd	57.2 a	11.7 b	2.6 de	Oct. 7 cd
Significance P ≥ F	0.001	0.001	0.001	0.001	0.001

[z] Mean separation within columns by Duncan's multiple range test at $P \leq 0.05$. Values sharing a common letter are not statistically different.

[y] 'Faircloth' and 'Tobacco Barn' were topworked into the test in 2006.

that attack pecan (Tedders, 1978) and 'Stuart', 'Zinner' and 'Tobacco Barn' were notably susceptible to this pest (Table 4). The majority of the damage from the yellow aphid complex [the black margined aphid, *Monellia caryella* (Fitch) and the yellow pecan aphid, *Monelliopsis pecanis* (Bissell)] is caused by deposition of honeydew on leaf surfaces leading to the growth of a fungal mat (sooty mold) which reduces leaf photosynthesis (Tedders and Smith, 1976). Sooty mold buildup was uncommon in this planting, but 'Nacono' was more susceptible than the other cultivars (Table 4).

'Cherryle' produced moderate yields of a large nut with good quality (Tables 2, 3). Trees were susceptible to pecan scab, but it was easily controlled with fungicide sprays (Table 4). Kernel color was somewhat darker than optimum, and nuts frequently showed a slight split at the shell suture. If yields as a more mature tree are good, this cultivar may be useful in this region.

'Desirable' is the standard cultivar for this region and is well-known (Wells and Conner, 2012). Yield and quality were negatively impacted in this test due to relatively high nut scab infections in wet years (Table 4). This cultivar is only recommended for growers who can maintain excellent spray programs to control scab (Wells and Conner, 2012).

'Excel' is a patented cultivar which has been widely planted in the last ten years because it is one of the few cultivars with excellent scab resistance and a large nut size (Tables 3, 4). Percent kernel is reduced by a thick shell, but kernel development and color were good. This cultivar is recommended for growers who have difficulty controlling scab on susceptible cultivars and as a cultivar for low-input or home orchard situations. Growers with excellent production practices would likely prefer a cultivar with a higher percent kernel that will bring a better price.

'Faircloth' was selected by a grower for its excellent scab resistance and good nut quality. Topworked trees came into production relatively quickly and yields appear to be good (Table 2). This cultivar is not recommended due to the difficulty in shelling the nut to produce intact halves. There is very little air space between the shell and the kernel making it difficult to break the shell without damaging the kernel.

'McMillan' was selected and disseminated in Alabama as a low-input pecan scab

resistant cultivar (Goff, 2013). 'McMillan' trees were very productive, but began to alternate in yield (Table 2). Nut size and quality is only mediocre for this market (Table 4), and kernel color is dark. 'McMillan' is recommended for low-input and home orchards, but nut quality is not good enough to be a commercial cultivar.

'Nacono' was released by the USDA as a cultivar with large high-quality nuts (Thompson and Grauke, 2001). However, the tree is susceptible to both pecan scab and sooty mold buildup (Table 4), similar to its parent 'Cheyenne' (Sparks, 1992) and, because of this, it is not recommended for this region.

'Stuart' is an older cultivar that was included as a check cultivar because most growers have at least a few 'Stuart' trees in their orchards. 'Stuart' is no longer recommended for planting due to inferior nut quality and pest resistance (Wells and Conner, 2012).

'Tobacco Barn' is a seedling that was selected by a grower for its scab resistance. While resistance to pecan scab was good, small nut size and black pecan aphid susceptibility (Tables 3, 4) limit its usefulness in this region.

'Zinner' is a seedling that was selected for its high nut quality. 'Zinner' grew vigorously, especially as young trees, and produced good yields of very high quality kernels (Tables 2, 3). Nuts were easily shelled into complete halves with a bright golden color. 'Zinner' is susceptible to scab (Table 4), but scab was controlled with fungicides without quality loss. Black pecan aphid damage was high (Table 4) and this pest will need to be controlled with insecticides. Bud break of 'Zinner' was similar to 'Stuart' and two to three days subsequent to 'Desirable' (data not shown). 'Zinner' trees have an upright limb growth pattern very similar to 'Stuart' and little limb breakage has been observed. Due to its good production levels of very high quality nuts, 'Zinner' is recommended for trial by commercial growers in Georgia.

Table 4. Ratings of pest incidence on selected pecan cultivars at Tifton, GA, 2002-2013.

Cultivar	Leaf scab[z]	Nut scab[y]	Black aphid damage[x]	Sooty mold buildup[w]
Cherryle	1.3 c[v]	1.2 de	1.4 cd	1.0 b
Desirable	2.2 a	2.9 a	1.7 c	1.1 b
Excel	1.0 d	1.0 e	1.3 d	1.0 b
Faircloth[u]	1.0 d	1.0 e	1.7 c	1.0 b
McMillan	1.0 d	1.0 e	1.6 cd	1.0 b
Nacono	1.7 b	1.8 b	1.5 cd	1.2 a
Stuart	1.4 c	1.5 c	2.3 a	1.1 b
Tobacco Barn[u]	1.0 d	1.0 e	2.0 b	1.1 b
Zinner	1.4 c	1.3 cd	2.2 a	1.1 b
Significance P ≥ F	0.001	0.001	0.001	0.001

[z] 1 = no scab lesions, 2 = a few isolated lesions with restricted growth, 3 = multiple lesions with expanding growth, 4 = stem scab lesions or shoot defoliation.

[y] 1 = no scab lesions, 2 = a few lesions with restricted growth, 3 = multiple lesions, 0% to 10% nut coverage, 4 = 11% to 50% coverage, 5 = 51% to 100% nut coverage or nut drop.

[x] 1 = no damage, 2 = light chlorotic spotting, 0% to 25% leaves affected, 3 = moderate chlorotic spotting, 26% to 75% leaves affected, 4 = heavy chlorotic spotting, 76% to 100% leaves affected.

[w] 1 = no accumulation, 2 = light accumulation, some black on a few leaves, 3 = moderate accumulation, black on most leaves, 4 = heavy accumulation, black flaking on stems and leaves.

[v] Mean separation within columns by Duncan's multiple range test at $P \leq 0.05$. Values sharing a common letter are not statistically different.

[u] 'Faircloth' and 'Tobacco Barn' were topworked into the test in 2006.

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Literature Cited

Conner, P. and K. Stevenson. 2004. Pathogenic variation of *Cladosporium caryigenum* isolates and corresponding differential resistance in pecan. HortScience 39:553-557.

Dodge, F. 1944. A method of measuring the degree of kernel development of samples of pecans. Proc. Amer. Soc. Hort. Sci. 45:151-157.

Ellis, H., P. Bertrand, and T. Crocker. 2000. Georgia pecan pest management guide. The University of Georgia, College of Agriculture and Environmental Sciences. Athens, GA.

Goff, W. 2012. Planting southeastern orchards for the export market. Pecan South 45(10):4, 10-11.

Goff, W. 2013. Pecan cultivar recommendations for the Southeast - 2013 update. Pecan South 46(1):6, 11-19.

Gottwald, T. and P. Bertrand. 1983. Effect of time of inoculation with *Cladosporium caryigenum* on pecan scab development and nut quality. Phytopath. 73:714-718.

Grauke, L. and T. Thompson. 1996. Pecans and hickories, p.185-239. In: J. Janick and J.N. Moore (eds.). Fruit breeding vol. III. Nuts. Wiley, New York.

Sparks, D. 1990. Inter-relationship in precocity, prolificacy, and percentage kernel in pecan. HortScience 25:297-299.

Sparks, D. 1992. Pecan cultivars: the orchards foundation. Pecan Production Innovations. Watkinsville, GA.

Tedders, W. 1978. Important biological and morphological characteristics of the foliar-feeding aphids of pecan. U.S. Dep. Agric. Tech. Bul. 1579.

Tedders, W. and J. Smith. 1976. Shading effect on pecan by sooty mold growth. J. Econ. Entomol. 69:551-553.

Thompson, T. and L. Grauke. 2001. 'Nacono' pecan. HortScience 36:1162-1163.

U.S. Department of Agriculture. 2013. Noncitrus fruits & nuts 2012 preliminary summary, January 2013. Agr. Stat. Board, Natl. Agr. Stat. Serv., U.S. Dept. Agr., Washington, D.C.

Vanerwegen, J. 1975. A new grafting procedure. Pecan South 2(2):70-71.

Wells, M. 2013. 2012 has been an interesting year. The Pecan Grower 14(3):4-7.

Wells, M. and P. Conner. 2012. Pecan varieties for Georgia orchards. UGA Circular #898.

Worley, R. and B. Mullinix. 1994. Pecan cultivar performance at the Coastal Plain Experiment Station, 1921-1994. Georgia Agric. Expt. Sta. Bul. #426.

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About the cover:

'Black Magic™ fruits on a primocane grown in a high tunnel in Pennsylvania. 'Black Magic'™ (US plant patented as 'APF-77'), is a thorny (botanically spiny), primocane-fruiting blackberry (*Rubus* L. subgenus *Rubus* Watson) intended for use primarily as a home garden or local-market plant. It resulted from a cross of 'Prime-Jim'® (APF-12) x 'Arapaho' made in 2001 at the University of Arkansas Fruit Research Station, Clarksville. This unique type of blackberry bears fruit on current season canes (primocanes) and second-season canes (floricanes), potentially providing for crops in the traditional summer season and an additional late-summer to fall season. This new introduction produces large berries with good flavor, has good productivity compared to some prior primocane-fruiting releases, and exhibits some flower and fruit set heat tolerance on the primocanes compared to other primocane-fruiting genotypes in the Arkansas breeding program. It does not have good postharvest storage potential however, and it is not recommended for the wholesale fresh market.

The article describing this cultivar can be found on pages 163-170 in this issue of the Journal of the American Pomological Society.