Parys Pecan

Varity Info Book

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How to use this information.

We hope that this information packet will get you learning more about the different varieties of pecans and help you get to know those nuts you do have. As we get more information about new or different varieties in our area we will expand this info pack.

The info pack is made up of a few varieties, how they where cultivated, photos of nut size and kernel percentages as well as nut colour.

This info pack is taken directly from the source for more information visit: http://cgru.usda.gov/carya/pecans/

Feel free to visit and learn more about other varieties.

Pecan cultivars
Alphabetic Search by Cultivar Name

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Following is a revision of the information on pecan cultivars for the Cultivar Register. Cultivars were added: 1) if they have ever been patented; 2) if there is considerable acreage (based on Thompson, T. E. Pecan South 24:12-17, 20. 1990); 3) if they were the result of controlled cross; 4) if they were used as parents in controlled crosses of major cultivars; or 5) if they are included in the recently formed Core subset (Grauke, L. J., Thompson, T. E. and Marquard, R. D. HortScience 30:950-954. 1995). Cultivars on previous lists were deleted if they are obsolete and obscure. Any cultivar recommended for planting in any state in Thompson, 1990, is retained. Any cultivar on the list having unusual origin, history, or characteristics is retained.

For each entry, history of origin is presented chronologically, with brief but important details included. The exhaustive bibliography provided by Thompson and Young (Pecan Cultivars-Past and Present, Texas Pecan Growers Assn., publ., College Station, TX. 1985.) was invaluable in that effort, as was the library of books, periodicals and notes that we maintain on cultivars at the Breeding Program. Darrell Spark's book (Pecan Cultivars: The Orchard's Foundation, Pecan Production Innovations, Watkinsville, GA. 1992.) provides excellent synopses for many cultivars, with a thorough citation of relevant literature, and was also very helpful.

Uniform descriptors are needed for distinctive parameters of shuck, nut, kernel, bark, tree form, phenology, production parameters and insect and disease reaction. The primary effort in this revision has been to use consistent descriptors of nut shape. Nuts are described as viewed from the side, with suture showing. Descriptors of shape are based on nut length to height ratios, where height is measured as the widest point perpendicular to the plane of the suture. The classes are outlined in the table below:

Descriptors for pecan nut shape based on nut length to height ratios.

Orbicular 1 to 1.39

Ovate 1.40 to 1.59, widest at base

Obovate 1.40 to 1.59, widest at apex

Oval elliptic 1.40 to 1.59, widest in middle

Elliptic 1.60 to 1.79

Oblong elliptic1.80 to 1.99

Oblong greater than 2.00

Descriptors of apex and base shape are very rudimentary;

"acute" for angles sharper than 90o,

"acuminate" for acute angles having concave surfaces; and

"obtuse" for angles greater than 90o

. Cross section form is described as

"laterally compressed" if nut height to width ratios exceed 1.10, and as

"flattened" if they are .95 or less.

Determination of these values is based on evaluation of the samples maintained in our nut voucher collections, when possible, or on evaluation of photographs if no nuts or reliable data was available.

Values are given for number of nuts per pound and percent kernel, the standard characteristics used to describe pecans by the industry. Values provided by George McEachern from the Texas Pecan Show Handbook are used for most western and many southeastern cultivars. Values for northern cultivars were provided from Kansas Pecan Show averages and Northern Nut Grower averages, provided by Bill Reid. These represent averages of the very best performance of the cultivars. For some entries, the numbers describe less prestigious samples.

Dichogamy class is described as protandrous or protogynous based on our observation or reliable reports, with pollen shed and pistillate receptivity further described as "early", "mid-season" or "late". Patterns of bloom for a cultivar will vary slightly from season to season, relative to other cultivars, making detailed description of bloom patterns of questionable value. This system allows estimation of bloom overlap between cultivars at a glance, and is more reliable than merely "protandrous" or "protogynous".

Description of disease resistance is based on our observations, published literature, and on the notes of Glenn KenKnight and Richard Hunter (both retired USDA pathologists).

For some cultivars, photographs are provided. Nuts were photographed under standard conditions

'Apache'

Orig. by controlled cross ('Burkett' X 'Schley') made in 1940 by L. D. Romberg, USDA-ARS, Brownwood, TX. Seedling recorded as 40-4-17; first fruited in 1945; selected in 1947; tested as T-110, released in 1962. Nut: oval elliptic to elliptic, with acute apex and obtuse base; round in cross section; 45 nuts/lb, 59% kernel; kernels golden in color, with prominent basal cleft. Protogynous, with mid- to late-season pollen shed and mid-season receptivity. Precocious and prolific. Ripens late mid-season. Susceptible to scab. Used as a seedstock in TX, NM, AZ.

'Barton'

Orig. by controlled cross ('Moore' X 'Success') made by L. D. Romberg, USDA-ARS, Brownwood, TX. Cross made in 1937 in the orchard of John Barton, Sr., of Utley, TX. Seedling recorded as 37-3-20; first fruited in 1944; tested as T-15, released in 1953. Nut: elliptic with obtuse apex and acute base; round in cross section; shell suture usually dark at base; 48 nuts/lb, 57% kernel; kernels golden in color, with deep secondary dorsal and ventral grooves. Late to break buds in spring, with 'Stuart'. Protandrous, with mid-season pollen shed and mid- to late-season receptivity. Precocious and prolific, with a tendency to overbear with maturity. Ripens early mid-season. Resistant to scab. Recommended (1990) for homeowner plantings in MS.

'Caddo'

Orig. by controlled cross ('Brooks' X 'Alley') made in 1922 or 1923 by C. A. Reed, USDA-ARS, Philema, GA. Tested as Philema 1175, released in 1968. Nut: oblong elliptic to oblong, with acuminate apex and base; round in cross section; 60 nuts/lb, 56% kernel; kernels golden in color with shallow dorsal grooves, wide and extended dorsal ridge; excellent shelling characteristics. Protandrous, with early pollen shed and mid-season pistillate receptivity. Precocious and prolific. Ripens mid-season. Moderate scab resistance. Recommended (1990) for commercial plantings in AR, LA, and TX.


Caddo CSY Y-8 1996
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'Choctaw'

Orig. by controlled cross ('Success' X 'Mahan') made by L. D. Romberg, USDA-ARS, Brownwood, TX. Cross made in 1946. Scion budded into mature tree in 1947; produced first fruit in 1952. Tested as 46-15-276 from 1954 until released by Romberg in 1959. Nut: oval elliptic to elliptic, with obtuse apex and acute base; round in cross section; weak suture on shell; 37 nuts/lb, 58% kernel; kernels cream to golden in color with darker veins; wide, shallow dorsal grooves. Protogynous, with mid- to late- season pollen shed and early to mid-season pistillate receptivity. Prolific. Resistant to scab in most locations, although very susceptible at Hanna, Louisiana. Requires good site and management to produce large crops of well-filled nuts. Recommended (1990) for planting in AR, MS, OK, SC, and east TX.

'Curtis'

Seedling selection grown from seed of 'Turkey Egg' obtained from Arthur Brown, Bagdad, FL, and planted by J. B. Curtis, Orange Heights, FL. Nut was planted 1886, bore first crop in 1893 and introduced in 1896. Nut: oblong elliptic with acute apex and base; slightly compressed in cross section; shell with few markings; 89 nuts/lb, 57% kernel; kernels cream to golden in color, but often with darker speckles that detract from appearance; tight dorsal grooves. Protogynous, with late-season pollen and mid-season pistillate receptivity. Resistant to scab. Susceptible to powdery mildew (Microsphaera alni de Candolle ex Winter). Used as a nursery seedstock in the southeastern U.S. Male parent of 'Houma'. 'Curtis' has a unique isozyme genotype: bc for phosphoglucomutase. Recommended (1990) for homeowner plantings in FL, GA, and LA.

'Forkert'

Orig. from a controlled cross ('Success' X 'Schley') made by C. Forkert of Ocean Springs, Jackson County, MS. Parentage can be confirmed by isozyme patterns as well as by microsatellites. Nuts from the cross were planted about 1913. Introduced by Forkert's nursery in the 1920's and used as a yard tree in south MS. Potential as a commercial cultivar was rediscovered in the 1960's. Nut: oblong elliptic with acuminate apex and obtuse base, surface very rough, with prominent dark stripes; round in cross section; 49 nuts/lb, 62% kernel; kernels cream to golden in color, with deep, relatively narrow dorsal grooves. Protogynous, with mid- to late-season pollen and early pistillate receptivity. Susceptible to scab in LA. Recommended (1990) in AL, AR, LA, MS, and SC.


Forkert CSV 5-5 1995


Forkert CSV 18-17 1995
USDA ARS Pecan Breeding and Genetics

'Giles'

Orig. as native seedling on the Neosho River near Chetopa, KS, on the property of A. E. Giles. Discovered about 1927 by J. Ford Wilkinson, Indiana Nut Nursery, Rockport IN. Intro. in 1930 by Wilkinson. Nut: oblong with acute, assymetric apex and rounded base; laterally compressed in cross section; shell darkly marked with stripes, raised at suture; 74 nuts/lb, 53% kernel; kernels golden, with wide dorsal grooves, narrow dorsal ridge, deep, but wide basal cleft. Protandrous, with mid-season pollen shed and pistillate receptivity. Recommended for commercial orchards in AR, KS, MO, OK, and TN. Used as a seedstock in parts of OK and KS.

'Hopi'

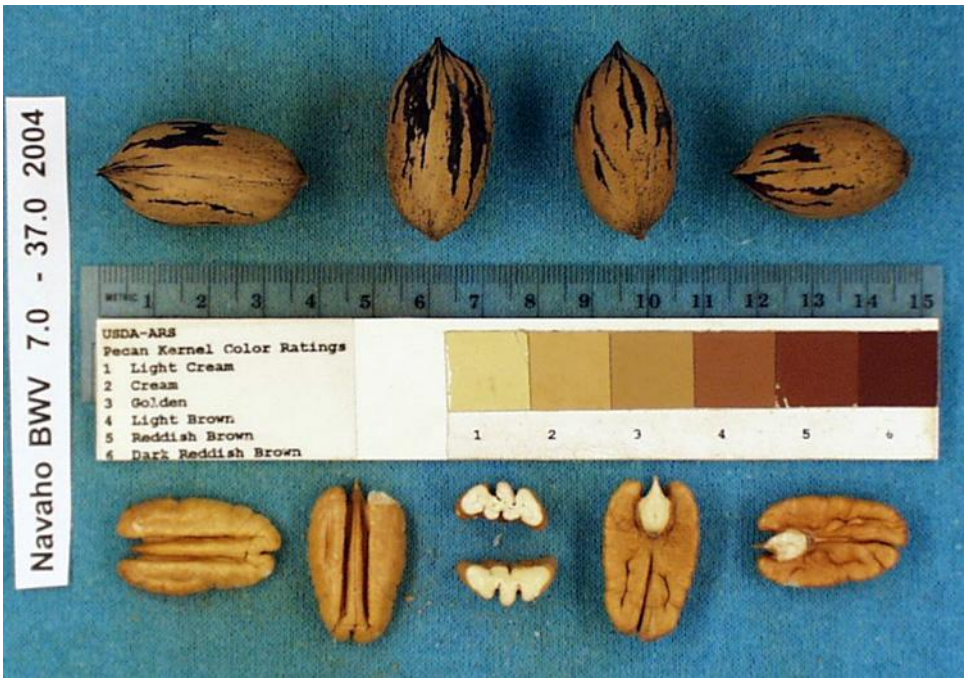
Originated from controlled cross ('Schley' X 'McCulley') made by L. D. Romberg in 1939 and tested as selection 39-5-50. Released 14 May 1999 by USDA-ARS for consistent production of high quality nuts in the western production area. Neither precocious nor high yielding when compared to 'Wichita' or 'Western', but comparable to 'Kanza' and 'Creek'. Nut: ovate with obtuse apex and rounded base; 46 nuts/lb., 62% kernel; kernels with distinctively narrow dorsal ridge and relatively narrow dorsal grooves, light cream to cream in color. Tree: upright growth habit with strong limb angles; protogynous with mid- to late-season pollen shed and early to mid-season pistil receptivity; mid-season nut maturity (mid-Oct. in Brownwood, TX); resistant to vein spot (Gnomonia nerviseda Cole), moderately susceptible to pecan scab [Cladosporium caryigenum (Ell. et Lang.) Gottwald] and downy spot (Mycosphaerella caryigena Demaree and Cole) diseases; medium susceptibility to yellow aphids (Monelliopsis pecans Bissell) and black aphids (Melanocallis caryaefoliae Davis).

'Mahan'

(Chestnut, Florida Giant, Georgia Giant, Masterpiece, Mayhan, Mississippi Giant) . Orig. as chance seedling from seed of unknown parentage planted about 1910 by J. M. Chestnutt. Propagation rights sold to F. A. Mahan, Monticello Nursery Co., Monticello, FL in 1927. Nut: oblong, with acute apex and base; nut often assymetric, appearing 'pinched' in middle due to flattening of abaxial and adaxial surfaces; flattened in cross section; 32 nuts/lb, 58% kernel; kernels with deep secondary dorsal grooves and basal cleft, often poorly filled to base, woody in texture. Homozygous for protogyny (PP) which is a dominant allele, making all 'Mahan' progeny protogynous. Mid- to late-season pollen shed, with early to mid-season receptivity. Very precocious and prolific, with a strong tendency to overbear as a mature tree. Ripens late, about 12 days after 'Stuart'. Very susceptible to scab. 'Mahan' is the female parent of 'Tejas', 'Kiowa', 'Harper', 'Mahan-Stuart' and 'Maramec' and the pollen parent of 'Choctaw', 'Wichita', and 'Mohawk'. Recommended (1990) for planting only in AR.

'Navaho'

Orig. from a controlled cross [48-13-311 (='Moore' X 'Schley') X 'Wichita'] made in Brownwood, TX by E.J.Brown and G.D. Madden in 1974. Tested as 74-1-11 by T. E. Thompson, L. J. Grauke and J. B. Storey and released in 1994. Nut: oblong elliptic with an acuminate apex and obtuse base; round in cross section; 62 nuts/lb, 61% kernel; kernels golden to light brown in color, with deep, relatively narrow dorsal grooves and a prominent basal cleft. Protandrous, with early pollen shed and mid-season pistillate receptivity. Susceptible to scab and vein spot. Trees are vigorous with strong structure, and begin growth early in the spring. Very precocious and prolific. Nut maturity mid-October in College Station, TX.



'Oconee'

Orig. by controlled cross ('Schley' X 'Barton') made by L. D. Romberg, USDA-ARS, Brownwood, TX. Cross made in 1956. Selected and tested as 56-7-72 by T.E. Thompson, E. F. Young, Jr., R. E. Worley, R. D. O'Barr and R. S. Sanderlin; Released in 1989 for use in the southern U.S. pecan belt. Nut: elliptic, with obtuse apex and base; round in cross section; 48 nuts/lb, 56% kernel. Protandrous, with early to mid-season pollen shed and mid- to late-season pistil receptivity, similar to 'Desirable'. Good precocity and yield potential. Nut matures with 'Cheyenne', about Oct. 21 at Tifton, GA. Moderate scab resistance, fair resistance to downy spot and vein spot. Recommended (1990) for planting in LA.

'Pawnee'

Orig. by controlled cross ('Mohawk' X 'Starking Hardy Giant') made by L. D. Romberg, USDA-ARS, Brownwood, TX. Cross made in 1963; selected and tested by T. E. Thompson and R. E. Hunter as 63-16-125. Released in 1984 to be grown throughout the U.S. pecan belt. Nut: elliptical with obtuse apex and rounded base; laterally compressed in cross section; 44 nuts/lb, 58% kernel; kernels golden in color, with wide dorsal grooves and deep basal cleft. Protandrous, with early to mid-season pollen shed and mid- to late season receptivity. Precocity and production medium, with some tendency to biennial bearing. Nut matures early, latter half of September in Brownwood, TX. Medium susceptibility to scab, fair resistance to downy spot, outstanding resistance to yellow aphids. Recommended (1990) for planting across TX, OK, KS, to AL and AR.

'Riverside'

'Riverside' is a seedling selection from Big Valley, Mills County, Texas, that grew near the confluence of Pecan Bayou and the Colorado River. It is thought to have originated from the rootstock of a grafted tree on which the scion died. The rootstock may be a product of E. E. Risien's early rootstock development program. Our SSR analysis indicates that it is probably a cross between 'Longfellow' and either 'San Saba' or 'Family Use', all of which are Risien's selections. 'Riverside' is commonly used as a rootstock for the western pecan growing region, due to demonstrated salt tolerance (see Miyamoto, S., G. Gobran and K. Piela. 1985. Salt effects on growth and ion uptake of three pecan rootstock cultivars. Agron. J. 77:383-388.). Although it also has the reputation of having strong taproots, 'Riverside' seedlings form good lateral roots under some soil conditions. Nut germination is limited by poor quality and can be a problem, since 'Riverside' trees often overbear.

'Wichita'

Orig. by controlled cross ('Halbert' X 'Mahan') made by L. D. Romberg, USDA-ARS, Brownwood, TX. Cross made in 1940, scion budded into bearing tree in 1941, first fruited in 1947, tested as 40-9-193. Released in 1959. Nut: oblong, with acute to acuminate, assymetric apex and rounded apiculate base; round in cross section; 43 nuts/lb, 62% kernel; kernels golden to light brown in color with narrow dorsal grooves and a wide, shallow basal cleft. Protogynous, with mid-season pollen shed and early to mid-season receptivity. Precocious and prolific. Ripens in mid-season, with 'Western', 4 to 20 days before 'Stuart', depending on location (earlier in SW). Tree moderately upright, vigorous, often with a late flush of growth. Very susceptible to scab. Recommended (1990) in AZ, AR, CA, NM, OK, and TX.


Wichita CSX 2-7 1996
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