'Osage' Pecan

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Additional index words. *Carya illinoensis*, cultivar, variety

Few improved pecan [*Carya illinoensis* (Wangenh.) K. Koch] cultivars are available for the northern U.S. production area (pecans in Zone 7a northward), especially any that shed pollen early (protandrous). Therefore, 'Osage' was released by the Agricultural Research Service, U.S. Dept. of Agriculture (USDA), and the Texas Agricultural Experiment Station, Texas A&M Univ., College Station, on 15 Nov. 1989. Compared to other northern protandrous cultivars, 'Osage' has similar (early) nut maturity, adequate yield potential, and a high percentage of kernel per nut. This cultivar likely will be well adapted throughout the northern pecan production area. It is *not* recommended for planting in the southern pecan area because it produces small nuts.

Origin

'Osage', tested as selection 48-15-3, is a progeny from a 1948 cross between 'Major' and 'Evers' (Fig. 1). The seedling was budded to a branch of a bearing tree in Summer 1949 and was among the first clones of this cross to fruit. Based on preliminary performance, extensive testing was started in 1956.

Description

According to early yield data, the precocity and yield potential of 'Osage' are high, compared with other northern, but not southern, cultivars (Malstrom et al., 1976, 1977). Nut maturity is 1 to 2 weeks earlier than for 'Pawnee', or about 11 Sept. at Brownwood, Texas (Table 1 and Thompson, 1983).

This protandrous cultivar has a pollen-shedding pattern similar to 'Pawnee', 'Cheyenne', 'Major', and 'Peruque' (Table 2). It likely will be a good pollinizer for many protogynous cultivars and likely will be pollenized well by most protogynous cultivars.

'Osage' has high scab [*Cladosporium caryigenum* (Ell. et Lang.) Gottwald] resistance (Table 3). In severe scab environments, it has shown little or no leaf or nut scab. It also appears resistant to downy spot (*Mycosphaerella caryigena* Demaree and Cole) and vein spot (*Gnomonia nerviseda* Cole).

Nut quality is excellent (Fig. 2), although the nuts are small (Table 1). However, 'Osage' compares favorably with other northern cultivars in nut size. In-shell appearance is good. About 54% of the nut is

kernel (Table 1), and its color is very good. This pecan cracks well and the meat separates well from the shell.

Availability

Graftwood will be supplied only to nurseries and state universities and experiment

Table 1. Performance of 'Osage' pecan compared with control cultivars at Brownwood, Texas (1979).^a

Cultivar	Kernel (%)	Nut wt (g)	Shucksplit date
Osage	53.8	5.3	11 Sept.
Shoshoni	52.9	7.7	29 Sept.
Mohawk	55.5	8.2	2 Oct.

^aData based on Thompson et al. (1981).

Fig. 1. Pedigree of 'Osage' pecan, including the year each cultivar was named. F = female parent and M = male parent.

Fig. 2. Nuts and kernel halves of the 'Osage' pecan.

Table 2. Performance of 'Osage' pecan in 1988 at Lincoln, Neb., in a replicated test grafted in 1983. All data are given as month and day.^a

Cultivar	Budbreak	Pollen shed	Pistil receptivity	Shucksplit date
Osage	19 Apr.	18 May	19 May	27 Sept.
Colby	28 Apr.	28 May	20 May	28 Sept.
Major	22 Apr.	19 May	22 May	11 Oct.
Peruque	28 Apr.	18 May	26 May	26 Sept.

^aData based on Nelson et al. (1988).

Received for publication 29 Oct. 1990. The cost of publishing this paper was defrayed in part by the payment of page charges. Under postal regulations, this paper therefore must be hereby marked advertisement solely to indicate this fact.

Table 3. Average disease resistance of 'Osage' pecan compared with control cultivars. All ratings are on a 1 to 5 scale: 1 = no sign of disease; 5 = very severe disease.

Cultivar	Scab		Downy spot	Leaf scorch	Vein spot
	Nut	Leaf			
Osage	1.1	1.1	2.0	1.3	1.2
Desirable	2.1	2.4	1.5	1.6	1.7
Cheyenne	1.6	2.0	1.6	1.5	1.1
Pawnee	1.8	2.8	2.0	2.0	1.0
Wichita	3.0	3.0	2.3	1.9	1.1

stations. All requests should be sent to T.E.T. Growers may obtain scionwood or budded trees from nurseries in 1992 and thereafter. The USDA does not have trees for distribution.

Literature Cited

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