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'Kiowa' Pecan[1]

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'Kiowa' pecan [*Carya illinoensis* (Wang) K. Koch] is a precocious and prolific bearer whose nuts resemble those of 'Desirable' in size and shape but have a thinner shell. This hybrid meets the industry demand for a cultivar that produces heavy crops of large attractive nuts for marketing in shell. It has performed well in the Southwestern U. S. where it has been tested thoroughly. 'Kiowa' shows commercial potential under a rigid fungicide spray program in the humid Southeast, where testing has been limited.

Origin

'Kiowa', tested as 53-9-191, is a selection from a 'Mahan' by Odom' cross made by L. D. Romberg in 1953 at the U. S. Pecan Field Station, Brownwood, Texas. A bud from the resulting seedling was propagated onto a mature tree in August 1954 and forced in 1955. The seedling first fruited in 1958, and scionwood was distributed to test cooperators over a wide area beginning in 1960.

Description

Growth characters. The trees grow vigorously, but narrow crotch angles, susceptible to breaking, often form from shoots developed from primary buds. Scaffold limbs should be formed from secondary or tertiary buds (1). The foliage, branching, and buds resemble those of the 'Mahan' parent. The tree is densely foliated, and the leaflets are large with a pale green cast.

Fruiting characters. 'Kiowa' is protogynous in blooming and pollinates well with 'Desirable', 'Caddo', 'Cherokee', 'Cape Fear', 'Moore', 'San Saba Improved', and 'Western', and to a lesser degree with 'Barton' and 'Cheyenne'. The nuts mature about Oct. 20–30 at Brownwood, Texas and a week earlier at Albany, Georgia. The nuts are oblong but do not taper at the base as do those of 'Mahan'. Shell markings and large size make 'Kiowa' an attractive nut for marketing in shell (Fig. 1). The nuts average 88 – 110/kg (40 – 50/lb.) with 55 – 60% kernel. Both their lack of tight packing within the shell and thin shell makes them compatible to commercial shelling equipment.

Outstanding Characteristics and Uses

'Kiowa' is among the most precocious pecan cultivars and compares favorably with 'Wichita', 'Chickasaw', 'Cherokee', and 'Grabohls'. The trees bear heavy crops. Five-year-old trees on 12-year-old 'Riverside' seedling rootstocks in Texas produced 3.2 kg/tree (7 lb./tree) despite frost damage (Fig. 2). In Georgia, trees in the 5th, 6th, and 7th years produced 4.5, 9.5, and 10.5 kg/tree (10, 21, and 23 lb./tree), respectively. The nuts of 'Kiowa' have a greater percentage of kernel than those of 'Desirable', and owing to their size and quality, bring 15 to 20¢/lb. more than do medium sized nuts when retailed in shell.

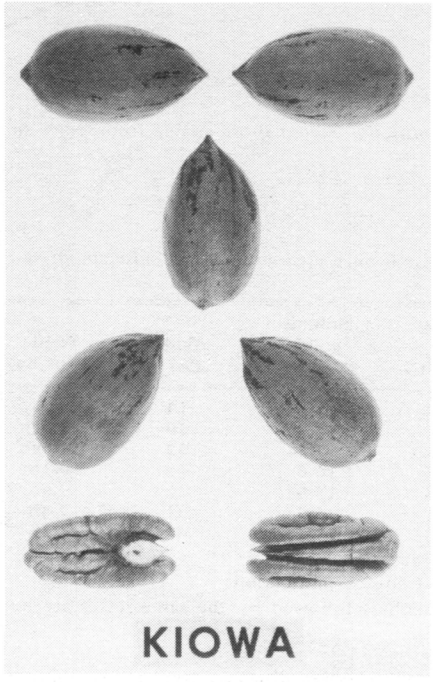

Fig. 1. Nuts and kernels of the 'Kiowa' pecan.

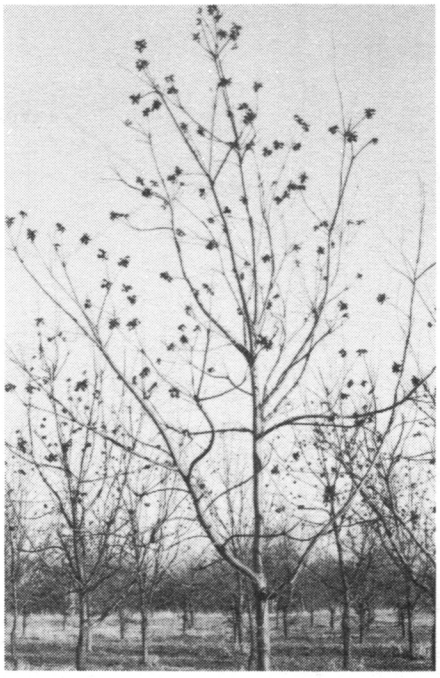

Fig. 2. A 5-year-old 'Kiowa' tree showing branching and bearing characteristics.

The cultivar shows a wide range of adaptability, but is moderately susceptible to pecan scab fungus. 'Kiowa' has been tested in the Southeast since 1966 but should be grown on a limited basis in humid areas until more is known about its performance under these conditions. 'Kiowa' is suitable for high density planting because of its precocity, heavy bearing and branching characteristics although pruning may be necessary to regulate production and tree size.

Availability

Scionwood will be supplied only to nurserymen and State Universities and Experiment Stations in 1976. This may be obtained from George Madden, Research Leader, U. S. Pecan Field Station, P. O. Box 579, Brownwood, TX 76801 or Howard Malstrom, Research Leader, Southeastern Fruit and Tree Nut Research Station, P. O. Box 87, Byron, GA 31008.

Growers may obtain scionwood or budded nursery trees from nurseries in 1977 and thereafter. A list of nurseries will be furnished upon request. The U. S. Department of Agriculture does not have any trees for distribution.

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Literature Cited

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