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NUT-BEARING TREES.

Pecans, Walnuts, Chestnuts and Almonds of Many Varieties Can Be Profitably Produced in Florida.

By Ezra J. Stewart.

Within the last decade extensive plantings of nut-bearing trees have been made thruout Florida, especially in the northern and western sections of the State. For grove planting some kinds of nut trees, when properly tended produce crops equal or exceeding in value our best citrus fruits, and when it is considered that millions of dollars worth are imported into this country every year, that a large area in the South can be made to produce marketable nuts, there is every reason to expect more extensive plantings in the future than in the past.

The Pecan.

The pecan (*Hicoria pecan*), native to the United States. is a large, majestic tree and long-lived, reaching a hight 75 feet. Its spreading branches and symmetrical form render it a very attractive and desirable shade tree, rivaling the New England elm in size and grandeur. It is destined become one of the principal shade trees in Southern towns and villages. King among nut-bearing trees, the pecan should be planted about the home place of every farmer, and for orchard purposes no better or more valuable nut tree can be found. When properly cared for it is a rapid grower, and some varieties produce abundant crops of marketable nuts.

Related to the hickory, it was formerly thought that pecans would thrive only where the larger species of hickory grew, but this idea has long since been exploded, for splendid specimens of the pecan have been made to grow on our Florida pine lands, on hammocks, and even in the flat woods. In general it may be said that any land producing hard wood is suitable for pecans, while they thrive wonderfully on river or creek bottoms which sometimes over-flow.

A Native of America.

Being indigenous to the Mississippi valley and as far north as Iowa, this tree would probably not do well too far south. In Florida pecans have been obtained from trees as far south as Bartow and Fort Meade, but probably groves should not be planted much below the latitude of Lakeland, in Polk

County. Farther north in Osceola County the planting of nut trees has not been practiced except in a desultory way, nevertheless it is believed that pecan culture would prove very profitable in this County if properly managed.

Trees can be obtained from the seed, budding, and grafting. The first cost of seedling trees is less than that good budded or grafted trees, but the former will not always come true to seed, hence for planting a commercial grove, where uniformity of trees, regularity in bearing, and uniform size, quality, color, etc., is desired, budded or grafted trees are necessary. This is the opinion of most authorities, including Prof. H. H. Hume, formerly Horticulturist of the Florida Experiment Station and one of our foremost authorities on pecan culture for this State. Mr. Hume has made a careful study of the pecan and its adaptability to the Florida Peninsula, the results of which are embodied in reports issued as bulletins for free distribution by the Florida Experiment Station at Gainesville, Fla.

Different Varieties.

Several varieties of the pecan have been developed, but all have not been thoroughly tested. It is therefore necessary for Florida planters to confine themselves to a few varieties known as prolific and regular bearers. Of course, a few trees of unknown varieties might be planted for experimental purposes, but for commercial success it is not best to plant a large number of varieties. The Stuart, Frotscher, Van Deman, Schley, Curtis, Georgia. Bolton and Sweetmeat varieties are safe for Florida planting, and should be grafted or budded on one- and two-year-old seedlings bought from honest nurserymen.

Trees should be set from 40 to 50 feet apart on most Florida soils, requiring, 27 and 17 trees per acre, respectively. Some practice cutting off a portion of the tap-root, thinking it will branch out and give a firmer hold in the ground, besides affording more nourishment to the tree. When this is done the tops should also be pruned.

As in the case of citrus trees, pecans do best planted in November or December, when the ground is apt to be moist and cool, insuring the growth of new roots. In transferring young tree from nursery to grove the roots ought to be carefully guarded against drying out. Watered at time of transplanting and mulched with straw or leaves insures against drought.

Improves Under Cultivation.

Like most other nut-bearing trees, the pecan will thrive and produce nuts without cultivation; it, however, responds wonderfully to special attention. Well fertilized and cultivated the pecan grows rapidly and seldom fails to return the grower a handsome crop in from seven to 10 years from planting.

The ground should be thoroughly cultivated, kept clean of grass and weeds. A good plan is to grow some sort of field crop between the trees, such as cowpeas, velvet beans, beggarweed or peanuts, or perhaps vegetables. This will insure cultivation, besides adding vegetable matter and humus to the soil. Leguminous crops will supply abundance of nitrogen, which is a prime necessity for the rapid development of a pecan grove. After a few years, when the trees have attained a considerable size, it will be necessary to restrict the growth of field crops between the rows, and finally the ground will have to be given up to the trees altogether.

If caterpillars are bothersome burn their webs with a torch, or if very abundant spray with paris green or arsenate of lead. These remedies are often used by apple-growers with excellent results. The twig girdler, he's a bad fellow. When the girdled limbs fall to the ground they should be gathered up and burned, to prevent the larvae from hatching. Notwithstanding these draw-backs, which are not worse than growers of other crops have to encounter, pecan culture is bound to become a source of wealth to the rural population of the South.

Fertilizers.

For young trees nitrogen is, of course, required in abundance, while older trees need more potash and phosphates. Cottonseed meal and raw ground bone, with the addition of small amounts of potash, would be suitable for young trees. Where field crops are grown between the trees, such crops should be well fertilized, in order not to remove too much plant food from the soil. A good fertilizer for young trees, which may be mixed at home, would approximately give the following analysis:

Ammonia (nitrogen) 5 per cent.

Available phosphoric acid ... 7 “ “

Potash, actual 4 “ “

For older Trees:

Ammonia 3 o 4 per cent.

Available phosphoric acid ... 6 to 8 “ “

Potash, actual 12 “ “

Some planters use about a pound of Fertilizer, thoroughly mixed with the soil, at time of planting, then apply the balance in Spring before growth begins. A good plan would be to reserve a portion until the beginning of the so-called rainy season in June.

The Nut Crops.

The best grades of pecans are hand picked, bamboo poles being used to reach those on the outer limbs. Beating and shaking the trees is sometimes resorted to, especially in case of very high trees, but as a rule it pays well to harvest the crop carefully.

Different varieties of pecan nuts vary greatly in size, running from 24 to 50 and 60 or more to the pound. After being graded and polished, they are packed in boxes for shipment. An excellent selling method is to establish a trade with private customers or with high class fruit and nut dealers, those who desire and appreciate nuts of the very best quality. This rule applies to growers of fancy fruit and nut crops generally.

High-grade pecans are sold by growers at 20 to 60 cents per pound, while small, hard-shell nuts bring from 8 to 12 cents per pound.

Walnuts, Chestnuts and Almonds.

The Japanese walnut grows very rapidly in the South, attains a height of 20 or more feet, and forms a large, spreading head. It is a prolific bearer, producing medium-sized nuts of good quality, and some varieties have been known to bear in three years. The nuts grow in clusters of from 12 to 20 nuts each. These trees, with their large, handsome leaves and spreading branches, are very suitable for shade and ornamental use.

The Japanese walnut is worthy a place in every planting; no Southern home should be without a few trees. They thrive best on land that is well drained. Sand land is well adapted. Young trees for planting—one to four feet—can be obtained from reliable nurserymen thruout Florida.

Some Florida nurserymen list other varieties of walnuts in their catalogues, and for experimental purposes it would doubtless prove both interesting and profitable to try a number of different kinds.

The Japan mammoth chestnut tree bears fruit at three to four years of age, and produces nuts of enormous size which are said to be finely flavored. Trees are now being raised from Florida-grown seed and can be obtained from nurserymen. Grown in northern Japan, they have proved hardy enough for almost any section of the United States. Being such an

early bearer and producing such large nuts, the Japan chestnut is very desirable for those who are deterred from planting nut-bearing trees on account of having to wait many years for returns. It is also an ornamental tree suitable for lawn use.

Almonds, the *Princesse* and *Sultana* varieties, mostly cultivated in Europe, are suitable for planting in the Southern States. These two varieties are said to thrive better in Florida than in the middle sections of the South. Not being certain bearers, however, they are recommended more for garden planting than for grove purposes.

In setting out nut trees in Florida, especially the pecan, it is advisable to make double plantings; that is, fruit trees, such as the peach, fig, plum, orange and loguat, might with good advantage be planted among the nut trees. Peach trees, for instance, would come into bearing early and be out of the way by the time pecans began to bear, thus helping defray the cost of making a grove.



A BUNCH OF SHAKER CATTLE ON SHORE OF LAKE EAST TOHOPEKALIGA.