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PECANS

IN THE SALT RIVER VALLEY, ARIZONA

By

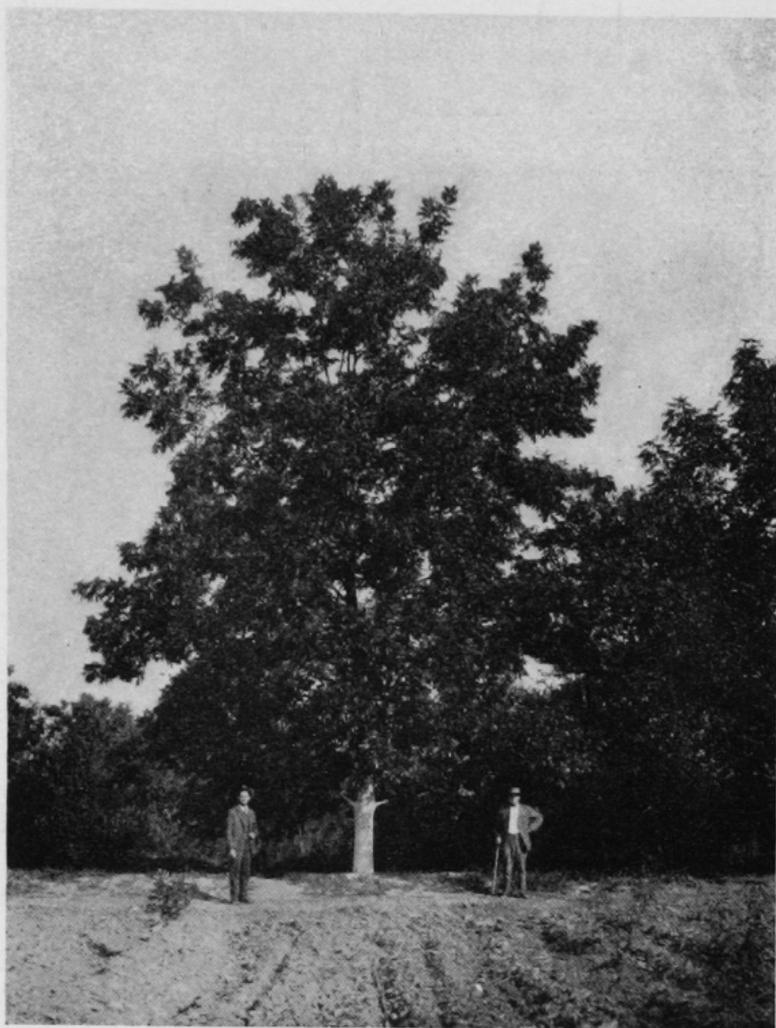
ERNEST R. HALL

PECAN SPECIALIST



THOS. HALL'S "TAXPAYER" PECAN
16 years old; Height, 55 feet; Spread, 45 feet;
4 feet 8 inches in Girth

The nuts from this tree now pay the taxes and water charges on Thos. Hall's 40 acre ranch



*Prettiest Shade Tree in Arizona
Averaging over 200 lbs. nuts per year*

PECANS IN THE SALT RIVER VALLEY

By ERNEST R. HALL, Pecan Specialist

According to the best information the writer can obtain, the first pecans planted in the Salt River Valley were planted about 1890 by "Strawberry" Williams, on the ranch now owned by A. L. Andrews, almost opposite the old Experimental Farm on Grand Avenue. These trees, which are all seedlings, have been bearing regularly for the past twenty-five years. While the nuts are small, some of them are very thin shelled and of extra good quality.

Probably the next oldest trees are those planted by James Ivy on his ranch northwest of town. They were planted about twenty-five years ago and have been producing heavily for the past fifteen years. They too, are seedlings, some of them producing very heavy crops of very good quality, although of medium size.

The first budded or grafted trees, I believe, were planted by L. H. Chalmers at his residence on east McDowell. These trees were sent to Mr. Chalmers by an attorney friend who lived in the South. He sent Mr. Chalmers a number of different varieties of improved pecans. One of these, a Stuart, was given by Mr. Chalmers to Mr. Walter Bennett and was planted by him

at his place on North Central Avenue, a short distance north of McDowell. Both the Chalmers and Bennett trees, have been bearing for the past twelve or fifteen years, never having missed a crop in that time and each year increasing in productiveness, Mr. Bennett's tree yielding over 250 pounds of fine pecans in 1923.

In 1908, ex-Surveyor General Ingalls exhibited some fine, large pecans at the Territorial Fair, grown on his place at Yuma. Thos. Hall, of Hall Brothers, fruit growers on the Lower Buckeye Road, secured these nuts from Mr. Ingalls and planted them in the spring of 1909. The next year the writer secured some more nuts from Mr. Ingalls and planted them on his place, adjoining that of his father's. The young seedlings grew well, but owing to the discouraging information from the experimental station and others, as to it's being too hot and dry here for pecans, only a few of these seedlings were saved and planted, Thos. Hall planting about twenty-five and the writer planting about the same number on his place. These trees were planted along the ditch banks and no care whatever was taken of them. In a few years, however, they commenced to bear a few nuts and each succeeding year the yield was greater and we commenced to realize that pecans were a success in this valley. In the meantime, a number of different varieties had been planted in different parts of the valley, in a great many different types of soils and practically all of them grew well and bore larger crops than trees of the same age in the South.

Three years ago the writer realizing that if the pecan industry was ever to be developed on a large and profitable scale in the Salt River Valley, it would be necessary to test out a great many different varieties in order to find out which would be the best for this locality, for some varieties that do well in one section are a total failure in other sections of the country and that it would also be advisable to experiment in the different ways of planting in order to find out the best size of trees to plant and many other facts that should be determined before going ahead on a large scale. It was also realized that the sooner home grown trees could be furnished the better it would be for the industry. Not only on account of the young trees being acclimated to this hot, dry climate, but so as to prevent the introduction of any of the diseases and pests that some years destroy a large percentage of the pecan crop of the south. In a letter from J. A. Evans, formerly the pecan expert with the Texas Agricultural College, he writes "I wonder if the pecan nut case-bearer has yet been introduced into Arizona. If not, the state ought to take steps to prevent it's introduction. Without this pest the growing of pecans would surpass the wildest dreams." Fortunately for this valley the pecan is not a native and at the present time there are no pests or diseases and there are no wild trees in which the pests could harbor or become a source of infection as they are in the south.

I am testing out about fifteen or twenty of those varieties that are considered the best in different sections of the south and I expect next year that a number of different varieties will bear a few nuts and a number of my old seedling trees which I have budded and grafted to new varieties should bear the following season.

There is no question as to the pecan being a profitable crop in the south. Conservative estimates by the U. S. Dept. of Agriculture place the average value of a ten-year old grove at \$1000.00 per acre and increasing each year thereafter, it being the only fruit tree known that yields more with age for over a hundred years. There are lots of pecan trees fifteen to twenty years of age that produce over \$100.00 of nuts to the tree a year, and by planting the right varieties and taking care of them the right way, groves of that age can be made to average that much for every tree. The Oliver tree in Texas, over seventy-five years old, has produced as high as 800 lbs. in a single year and for thirty years has averaged 500 lbs. per year.

From the results of my observation and experience there is no question in my mind that pecans will pay better in the Salt River Valley than any where in the south and here are some of my reasons:

FIRST. We have no insect pests or diseases that affect the pecan which reduce the southern crop from fifteen to twenty per cent. on an average and some years a great deal more than that.

SECOND. Drought in some years cuts the pecan crop almost in two and the size of the individual nuts is also greatly reduced, while we can supply the necessary moisture when and as often as it is necessary.

THIRD. Rainy spells during the blooming time which prevents the proper pollenization, frequently do serious damage to the pecan crop of the South. Once in a while we have a shower at blooming time, but never a rainy spell of several days or a week or more.

FOURTH. Later frosts in some parts of the south, especially in Texas, sometimes cuts the yield down to almost nothing, as the majority of the trees are in the river bottoms or bottom land where the frost is severest. Here we never have frosts as late as pecan blooming time, as they do not bloom until the latter part of April.

FIFTH. Largely on account of some or all of the above conditions, the yield of a pecan tree in the south is not regular, some years producing a heavy crop and the next year or two not so many. In this valley on account of our long growing season and high temperature, with plenty of moisture, the pecan bears regularly and increases in yield each year. Six-year old trees have borne as high as 30 lbs. of nuts and sixteen-year-old trees over 250 lbs. Probably the heaviest producing pecan tree in Arizona, and, I believe, one of the heaviest, if not the heaviest, yielding pecan tree of it's age in the country is one of the trees from the nuts that were planted by Thomas Hall on the Hall Bros.' Ranch sixteen years ago last spring. This tree now measures over four and one-half feet in circumference, has a spread of about fifty feet and is a little over fifty feet in height. It commenced to bear a few nuts the fifth or sixth year and gradually increased each year until 1920, when its yield was 90 lbs.; in 1921, 122 lbs.; 1922, 150 lbs.; 1923, 192 lbs.; 1924, 236 lbs. and this year, I believe, it will yield very close to 300 lbs. The



*One of the prettiest and the most profitable row of trees
in the valley*

average yield for the past five years is just 200 lbs. and the average for the next five years will undoubtedly be over 300 lbs. per year. The nuts are in clusters of from four to seven nuts in a cluster. The wholesale price of nuts of this quality is around 50 cents per lb., but a great many of these nuts were sold for seed purposes for \$1.00 per pound. For the past five years it has returned a 10% income on a valuation of \$1000.00. It has never been pruned or sprayed and the only cultivation it has received has been the hoeing of the weeds under it each year before picking. Trees grown from nuts of this tree will undoubtedly have a root system similar to that of its parent and these trees budded or grafted to the parent tree or other high producing trees in this valley will give young trees which can almost be guaranteed to be high producing. Several thousand young trees will be budded and grafted to this tree and other trees in the valley which have proven to be high producing trees.

There is no soil too good for the pecan, but any soil of good fertility and having a depth of six to seven feet will do for a pecan orchard. There are now bearing pecan trees in this valley on practically all of the different types of soil, with the exception of some of the shallower soils of the orange district north of town; while even there you can find a number of young trees that are making a very good growth, but to do best they should have a soil not less than seven feet in depth.

Probably over ninety per cent of the hair-like feeder roots of the pecan are within the first four feet of soil, the tap root being nature's provision for carrying the tree through seasons of drought, the real growth of the tree and the crop of nuts being practically all furnished by the nourishment taken up by the feeder roots in the first few feet of soil. As the pecan is a very gross feeder it requires plenty of moisture, the native home of the pecan being on the moist river bottoms and anywhere in this valley where the soil is of the depth given above the pecan will thrive if given plenty of water.

Plant pecan trees for profit. They grow while you sleep and the older the tree the heavier the yield. The record bearing tree, which bore over 2000 pounds of pecans in one year, is esti-

mated by horticulturists to be over 400 years old. Life insurance is a good investment, but a pecan grove is far better. Invest the annual premium on a \$5000.00 life insurance for a few years in planting a pecan grove and in ten to fifteen years your annual income from your grove will amount to more than the face value of your policy and your income will keep on increasing year after year. You will not have to die to reap your reward and when you die you will know that your children and your children's children and their children will always have a good income.

They make a wonderful shade tree and a good pecan tree in your front yard will, in a few years time, yield sufficient to pay your taxes on a city lot and residence, and one in your back yard will pay your water, light and fuel bill.

On your farm plant pecan trees about twenty-five feet each side of your ditches and in a very few years they will yield enough to pay the taxes on your ranch and also the dam water assessments.

The size of tree to plant is something for the buyer to decide. The larger trees of the same age will make a more vigorous growth, but they cost considerable more. The extra large trees with four and five year roots are usually trees held over in the nursery row on account of their being too small to sell when the roots are three years old. A four to five foot tree with a three year old root is much to be preferred to a six to eight foot tree with four or five year old root. If the extra large trees are transplanted immediately upon removal from the nursery row and properly top pruned, the majority of them should do well, but the older the root the greater the shock in transplanting. The writer has planted quite a large number of the two to three, the three to four and the four to five foot trees. We have had very good results with the smaller sizes, but if a person can afford it, I believe that the three to four and four to five foot trees, whose roots are three years old, are the best sizes to plant commercially. Around the house or where one is planting but a few trees the six to eight foot size of the same age roots will give better results from the standpoint of growth, but will not come into bearing any quicker than the smaller sizes.

All trees, and especially the pecan, should be top pruned when planting, the larger the tree the more severely it should be pruned, for it has lost more of it's roots in being removed from the nursery row. A great many of the extra large pecan trees with four and five year roots have been sold here with instructions from the salesman not to prune off any of the top. A salesman usually has not the nerve, after selling a customer an extra large tree at an extra large price, to tell him to cut off a considerable part of the tree after planting, but I know of no grower of pecan trees in any section of the country, who is interested in the future development of the pecan industry or the personal success of his customer, who does not advise severely pruning the top of pecan trees, especially when planting the larger size trees. Here is what the largest grower of pecan trees in the world says about top pruning: Knowing the great reluctance of most people to cutting off the top of trees when planting he cuts the tops off before selling them. "The taller grades of trees should

be top-trimmed, as it balances the top against unavoidable loss of some of the roots when the tree is transplanted. Proper pruning insures the tree living and a good growth. Trees will be cut back more than usual this season because CAREFUL DATA SHOWS THAT THE TREES LIVE BETTER WHERE TRIMMED HEAVILY AND THAT IN TWO OR THREE YEARS THEY ARE LARGER THAN TREES NOT CUT BACK ENOUGH AT PLANTING TIME."

Trees should be headed lower here than in cooler climates, so that the lower branches will shade the trunk of the young tree.

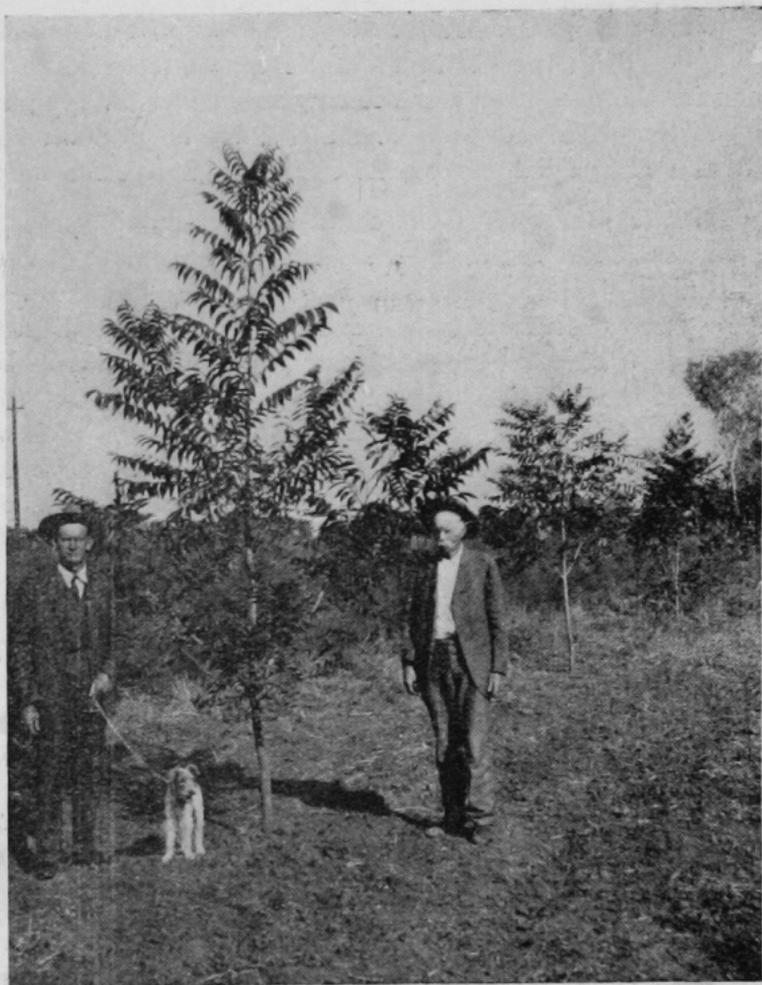
In planting pecan trees the hole should be dug two or three feet deep and about two feet in diameter or far enough across that all the lateral roots can be straightened out and the tree should be planted three or four inches deeper than it stood in the nursery row, except in real heavy soil, where it should be planted at about the same depth as it stood in the nursery row. From the time you get your trees until they are planted, the roots should not be allowed to get dry and in planting the hole should be filled with good top soil until the roots are well covered and then the hole should be filled with water. When the water has all soaked in, the hole should be filled with loose dirt. It is a good idea to shake the tree a little before the water has all soaked in, so that the dirt will settle firmly around all the roots.

It is better to mix considerable manure or other fertilizer with the soil at a distance of two or three feet from the tree and let the irrigation waters carry the fertilizing elements to the roots, than to put the fertilizer in the hole with the tree.

The pecan requires plenty of moisture for proper growth, but a good thorough irrigation, soaking the ground to a depth of four or five feet once a month or six weeks, depending upon the character of the soil, is better than more frequent irrigation that do not penetrate deeper than a foot or two. After each irrigation the ground should be hoed and loosened up for two or three feet around the tree. The trunk of the tree should be shaded from the hot afternoon sun by placing some kind of artificial shade on the south and west sides of the tree.

We will not have any home grown budded and grafted pecan trees until next season, but we have planted pecan trees from a good many different pecan nurseries of the south and the trees we are selling this year are the kind that have succeeded best with us. We could sell you cheaper trees and higher priced trees, but not better trees. We plant the best trees we can get for ourselves and that is the kind we sell to our customers.

We believe in the pecan industry in Arizona and expect to devote the rest of our lives to it. We are the largest growers of pecans and pecan trees in Arizona and we own the best and heaviest yielding pecan trees in Arizona, and for their age, we believe them to be the heaviest yielding trees in the world. We have had sixteen years experience in growing pecans in Arizona, and that is just sixteen years more experience than any of our competitors have had in Arizona. We are engaged in building up the pecan industry of Arizona and have faith in it's future, and as fast as possible are planting our entire acreage to pecans. Our competitors make their living selling pecan trees at fancy



A row of young pecan trees planted 2 years ago.
PLANT THE BEST--WE DO

prices, but not by planting any for themselves. We make ours by growing pecans and selling the same kind we plant at reasonable prices.

It is our aim to give you the benefit of our sixteen years experience with pecans. None of our competitors have ever had any experience at all in growing pecans and pecan trees in Arizona.

We are now taking orders for pecan trees for January delivery, for we have found from experience that January is the best month in which to plant them. It gives time for the roots to get established before the growing season commences. Our terms are one-half cash at time of ordering, balance upon delivery of trees.

Visitors are always welcome at the Hall Bros.' Ranch and Ernest Hall Ranch on the lower Buckeye Road two and one-half miles west of 19th Ave.

Phone 124-R-2

P. O. Box 323

PHOENIX, ARIZONA