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THE PECAN TREE

How to Plant it
How to Grow it
How to Buy it

(Illustrated)

EDITION III.

The G. M. Bacon Pecan Co., Inc.

De Witt, Mitchell County, Georgia

THE PECAN TREE

HOW TO PLANT IT
HOW TO GROW IT
HOW TO BUY IT

ILLUSTRATED

A Comprehensive Treatise Upon All Phases of

PECAN CULTURE

STAMINATE BLOOM OF THE PECAN

THIRD EDITION

OFFICERS

G. M. BACON, Pres. DE WITT C. BACON, 1st V.-Pres. HERBERT C. WHITE, 2nd V.-Pres. & Horticulturist
J. P. GILL, 3rd Vice-President. MILTON BACON, Sec. and Treas.

THE G. M. BACON PECAN COMPANY, Inc.

DE WITT, MITCHELL COUNTY, GEORGIA

Cotton Between Pecan Trees in Young Orchard.

View in One of Our Pecan Orchards.

THE PECAN.

(*Hicoria Pecan* (Marsh), Britton; *Carya olivaeformis*, Nuttall.)

INTRODUCTORY.—In presenting this, the third edition of "The Pecan Tree. How to Plant It, How to Grow It, How to Buy It," we do so with the knowledge that the last two editions have been received with much favor, and that many unsolicited commendations from prominent growers, Government and State officials, have reached us.

The large growth of our business, and the great demand for the two previous editions, also affords confirmatory evidence of the value of the publications.

THE PECAN A SPECIALTY.—By making a single specialty of the Pecan and with our large acreage and long experience with Pecans, we are in a better position to serve and advise our customers than if we were engaged in a general nursery business and treated the Pecan as a subordinate or side issue.

It is our hope that the statements contained in the followings pages will assist growers and prospective growers in the proper planting, culture and development of highly profitable Pecan orchards.

GOLD MEDAL FOR PECANS.—We were awarded a diploma and gold medal for our exhibit of Pecans at the Louisiana Purchase Exposition, held at St. Louis, in 1904. We also received the only medal and diploma awarded specifically for growing Pecan trees planted on the Exposition grounds.

LOCATION.—The larger portion of our Pecan groves and nurseries, (over 700 acres), are located at Dewitt, Mitchell County, Georgia, twelve miles south of Albany, Georgia, on the Albany and Thomasville Division of the Atlantic Coast Line Railway.

Two passenger trains each way daily afford visitors convenient means of visiting us.

Our offices are connected with both local and long-distance telephones, and we have arrangements with both the Western Union and the Postal Telegraph Companies for the prompt forwarding of telegrams by telephone from Albany, Ga.

We also have Pecan groves at Albany, Ga., and in Baker County, Ga.

VISITORS.—We are always pleased to have our customers call on us, and are glad to show them our Pecan groves and nurseries, and explain our methods of propagation, fertilization and culture.

When possible, we request that intending visitors notify us a few days ahead of a visit, in order that we may arrange to give them our undivided attention.

DESCRIPTIVE.—Botanically, the Pecan belongs to the order Juglandaceae (Walnut family), Genus *Hicoria* (Hickory), to which genus also belong the various species of the common hickory, the shellbarks, pig nuts.

Of this genus (*Hicoria*), the Pecan (*Hicoria Pecan*), is by far of the greatest pomological importance.

There are, however, several meritorious varieties of hickories, for instance the "Hales" Hickory, and two or three promising large nuts, supposedly hybrids, and now called "Hicans." The best of these are at present probably comprised in the "Rockville," the "McAllister" (Syn. "Washington") varieties, both of which (including the "Hales" Hickory), we are thoroughly testing. These varieties originated in New Jersey, Missouri, and Indiana, respectively.

The prospective value of these latter nuts lies in the fact that they may be grown in the North and West, where the large improved Pecan of the South may not reach perfection either in early bearing or size of nut. When Pecans can be grown with perfect success over such a large area, we can not recommend the extensive planting of the above varieties for commercial purposes, although we think a few trees may prudently be included in any collection. As no comprehensive test of all the fine varieties originating in the South has yet been made, it is quite possible that some varieties may be found to succeed, at least wherever the hickory and allied species are found.

The Pecan grows to a large, stately tree, eventually attaining a height of one hundred and fifty feet and over, with spreading branches and symmetrical top.

The Parent "Georgia Giant" Tree.

"the Pecan is probably destined to become the leading nut of the American market," and that "if its culture is pushed with the usual skill and energy of American enterprise, there is every reason to believe that it will not be many years that the Pecan will become not only an abundant nut in our markets, but also an important article of export." In the past few years we have shipped Pecan trees to thirty States and Territories, including Indian Territory, Oregon and New Mexico. Our trees or nuts have also been sent to Europe, Mexico, Canada, Australia, and South America, while inquiries are now reaching us from British possessions in South Africa.

AN IMPORTANT INDUSTRY.—More intelligent attention is being given each year to the planting and cultivation of the Pecan. The permanent and increasing annual value of the tree is being realized. Experimental stages have been passed, and the outlook for the industry is brighter than ever. The demand for fine nuts for table and confectionery purposes is constant, and the supply is entirely inadequate. The industry, so far as the better nuts is concerned, is in its smallest infancy. The large nut meat manufacturers of New York, St. Louis, and San Antonio, Texas, advise that the demand for shelled Pecans is on the increase. In July, 1906, "pieces" of Pecan meat were selling at from 31 to 45 cents, and "halves" at from 45 to 49 cents per pound in St. Louis and New York, with demand very active, and good cracking nuts always extremely scarce. One St. Louis house alone will shell twenty-five carloads this season. A house at San Antonio will use at least one hundred cars of Pecans. Smaller plants are being established at other points. The largest manufacturers of candies throughout the country report Pecan meat candies among their best sellers. Dates and figs stuffed with Pecans are also in large demand. Pecan meat is entering into use in many other ways. To better realize the importance of the popularity and increasing demand for nuts, see "Importations," on page seven.

Mr. Wm. A. Taylor, Pomologist in charge of Field Investigations, Bureau of Plant Industry, in 1904 Year Book, says: "Of our native nut-bearing trees none

Being a deciduous tree, it loses its foliage in late autumn, but with its handsome foliage, furnishes an abundant shade during the warm summer months.

RANGE OF CULTURE.

—The Twelfth Census reported bearing Pecan trees in twenty-two States. The next census will doubtless report bearing Pecans in several more States. In a general way it can be said that the Pecan may be successfully planted wherever cotton is grown, embracing a territory of approximately 600,000 square miles, some Pecans are, however, being produced in States north and west of the cotton belt, including Illinois, Indiana, and California. Its area of successful cultivation, therefore, extends beyond the cotton belt. The Pecan is the only nut capable of successful culture over such a vast area of country, and it is for this reason that in a bulletin published by the Government in 1896, it is said

promises to become of such pomological importance as the pecan. Within the region to which it is well adapted for cultivation, which may be roughly stated as the Mississippi Valley below St. Louis, the South Atlantic, and the Gulf States, including Texas, no other nut tree, either foreign or introduced, can be considered as fairly in competition with it. Though long neglected as a possible profitable orchard tree, it has, during the past fifteen years, assumed considerable importance, and extensive orchards have been planted in most of the Southern States. Previous to about 1900 most such orchards were planted with seedling trees, or nuts of particular varieties, which were placed at desired orchard distances and allowed to germinate and grow where the future trees were to stand, thus avoiding the transplanting process. As the earlier seedling orchards have come into bearing it has become increasingly apparent that the seedlings from trees of those exceptionally fine varieties which the orchardist desires to perpetuate vary too greatly from their parent types to be of much commercial value. Such seedlings rarely bear nuts closely similar to the parent in size, form, color, thinness of shell, plumpness of kernel, or dessert quality, and still more rarely do they reproduce the desired productiveness, ripening time, or other important characteristics that determine the commercial value of the tree. The necessity of relying upon budded and grafted pecan trees for commercial orchards is now very generally recognized by intelligent planters, so that at the present time few seedlings are being planted."

NOTE.—The black type is ours.

SOILS.—Pecan trees have been planted on rich river bottoms, on stiff red clay, on deep sand hills, on pebbly soil, on sandy loam underlaid with clay, as well as on stiff hard soil, largely fire and pipe clay (which cracks and bakes in dry weather), but it thrives on all. Soils continuously boggy or springy should be avoided, unless capable of drainage. Occasional overflows do not hurt the Pecan.

Tree Budded in 1902. Bore in 1904, 1905, and 1906. Notice Profuse Bloom.

Many of our trees are subject to the overflow of the Flint River, and although they have stood several feet in the water for days and weeks at a time they are as vigorous and as healthy as others. The wild Pecan trees of Texas are also found along rivers subject to overflow, the nuts no doubt being carried by freshets and deposited on overflowed land. For this reason the fact that wild Pecans have usually been found on river bottoms gives rise for the wrong impression that they will only succeed on bottom lands, for they will thrive in all soils. Nuts are often carried by birds and dropped by squirrels far away from the river bottoms, and many magnificent wild trees exist on the uplands. Soil is not the most important factor in a successful Pecan orchard, but good trees and varieties, properly planted and well cared for.

Upper Figures are Pistillate Blooms Ready For Pollenation.
Lower Figures are Staminate Blooms Which Furnish Pollen.

VARIETIES.—Great care is necessary in the selection of varieties. in planting a Pecan grove it is not advisable to have only one variety, for the following reasons: The staminate (male) bloom which furnishes the pollen is produced on the wood of the previous season's growth, and at the point from where the new growth starts; the pistillate (female) bloom, from which the nut is formed, is produced on the end of the new growth when it has grown from three to ten inches and over. It will occasionally happen that the staminate bloom (catkins) mature and release their pollen before the female bloom is sufficiently developed to be pollinated, or heavy rains may wash the pollen from the catkins at a time when pistillate bloom is in a receptive condition. Without pollination the female bloom withers and dies, or produces nuts without meat or only partially filled. Potent pollen is essential in a nut or fruit orchard. With several varieties a more constant supply of pollen will be available. The pollen of Pecans is a yellow, fine, dustlike substance and capable of being carried by air currents a very great distance. Insects also are factors in the pollination of Pecan blooms. Potent pollen from one Pecan is fully as efficacious in fertilizing the blooms of another Pecan as it is its own, and this susceptibility results in lack of certainty of a seedling tree reproducing identically the seed (nut) from which it is grown. The effect of cross-pollination, where it occurs, does not affect the form or shape of the first generation (the nut we aim to produce to sell) but the next generation. It may be better or inferior, for there is no telling what took place at the time of impregnation. In our long experience we do not know of a single instance of a Pecan reproducing itself from seed and in only the rarest instances is there any improvement.

ORNAMENTAL AS WELL AS VALUABLE.—We can not too earnestly recommend the planting of the Pecan for shade and ornamental purposes instead of valueless oaks, poplars, sycamores, elms, maples, etc. The root system of the Pecan permits the planting of crops, truck, flowers, etc., within a few feet of it, without filling up the surrounding surface soil with fibrous roots in which nothing will flourish, as is usually the case with the other trees mentioned. The Pecan is

EASILY TRANS-PLANTED.—The Pecan is an extremely hardy tree, is easily transplanted, and adapts itself to both very variable soil and climatic conditions. Where trees are planted on land with a very wet subsoil, the tap-root ceases to grow after reaching a stratum where there is a sufficient supply of water; on the other hand, new tap-roots quickly grow where more moisture is needed. There should be good surface drainage.

QUALITY OF NUTS.—

There is a great difference in the quality and market value of Pecan nuts. Some are small, thick-shelled and of poor quality. The best nuts are of medium to large size, with thin shells, well filled, of good keeping qualities, and delicious flavor. Only varieties combining these qualities are being propagated by this Company.

superior to all these, and makes a far handsomer tree. Two or three Pecan trees, even one tree, will in a few years yield revenue enough to pay taxes on a very valuable city lot. For this purpose we always keep several thousand extra large three and four-year-old trees, running from six to eight feet high, on hand, and are prepared to quote prices on these extra large trees. They are ideal for planting on lots, streets and around residences, where both quick shade and early bearing are desired. These large trees should be properly trimmed by us before shipping and unless otherwise instructed we do this as our customers' interests are our own and we wish every tree sent out, to live, grow vigorously and bear early.

AGE OF BEARING.—The subject of age of bearing is more fully discussed under Profits, Budding and Grafting. The most impossible stories are told by irresponsible and dishonest dealers upon this subject, many seedling trees having been guaranteed to bear in two years and to come true to seed. It is an ordinary occurrence for budded and grafted trees to begin to bear at two years and we have many which have borne fair crops of nuts at three years. If Pecans reproduced themselves from seed there would be no need for their propagation by budding and grafting except for early bearing.

IMPORTATION OF NUTS TO THE UNITED STATES.—The values of imported nuts entered for consumption in the United States during the years 1901 to 1905 inclusive are as follows: 1900, \$2,978,834; 1901, \$3,268,855; 1902, \$4,044,341; 1903, \$4,866,398; 1904, \$5,471,166; 1905, \$6,158,343.

By the time freight, insurance, duties and the profits of wholesalers and retailers are added, it will be seen that the nut-eating public of the United States are now spending annually over \$10,000,000.00 for nuts raised in foreign countries alone. The value of imported nuts in 1895 was \$2,012,844.00, increasing to \$6,158,343 in 1905, a gain of \$4,145,499 or 326 per cent. in ten years. Such figures are startling in their significance, and must convince the most skeptical of the opportunities in planting Pecans. The tariff on nuts ranges from half a cent per pound on unshelled peanuts, to six cents a pound on cleared shelled almonds. The only nuts on the "free list" are cocoanuts, cream and brazil, olive nuts ground, and palm nut kernels, all of which are tropical or semi-tropical products.

Mr. Geo. K. Holmes, chief of Division of Foreign Markets, United States Bureau of Statistics, in his paper entitled "Nut Markets, with Statistics of Importations," prepared for the National Nut Growers' Association, at St. Louis, in 1904, among other things, said: "The imports of nuts amount to a considerable figure, and are increasing steadily, and at a rate which indicates that the consumption of nuts is gaining faster than the population. There is always hope and promise for a business or an industry that presents this comparison—a gain faster than the population gain," also, "Notwithstanding the inconvenience of cracking the nuts and extracting the meats and the high prices, it is a great pleasure to perceive that the consumption of nuts is at least gradually gaining. *This appears to be especially true of Pecans.* It is not many years since these delicious nuts were first introduced to the people in the North, and wherever they have gone they have met with instant and cordial favor. It is not necessary to say a

Profuse Blooming. The Pendulous Clusters are Male Blooms or Catkins.

Five-Year Old Budded Tree. Every Terminal Bearing Nuts.

Oceanian and African countries. The figures covering the years 1900 to 1905, inclusive, are as follows: 1900, \$156,490; 1901, \$218,743; 1902, \$304,241; 1903, \$299,558; 1904, \$330,366; 1905, \$309,195.

WORLD MARKET.—The Pecan in Europe is unknown, but our many friends there who have distributed the large, thin-shelled varieties, say that an unlimited market is open as soon as nuts in sufficient quantities can be supplied. It forces the conclusion that those now going into the industry will reap large rewards. The prediction that the fine Pecans will eventually supersede the English walnut is made by many competent judges.

WHAT DEALERS SAY.—We quote the language of a firm of brokers, importers and exporters of Duluth, Minn. (the Louis M. Park Co.), to whom we sent samples of several varieties of Pecan nuts in May, 1906. They say:

"We duly received yours of the 20th ult. and the samples of the new kind of Pecans which you are growing. We showed these to each one of our buyers here and allowed them to try one. It is the universal opinion that this is the greatest product in the nut line that has ever been produced. Buyers predict that this nut will displace, to a large extent, every other nut on the market, and for shelling purposes they will be universally used. You certainly have a great product. The demand will be unprecedented in the history of the nut business."

The better varieties of Pecan nuts almost universally cause comment of this nature from persons who have only been familiar with the ordinary commercial nuts. It is safe to say that when these fine nuts are produced in sufficient quantities to find their way to the general markets there will be 100 persons eating Pecans to one now.

NUT OIL.—In 1901, 365,747 gallons of nut oil were imported, valued at ports of entry in the sum of \$169,892. In 1902, 405,021 gallons were imported, valued at \$177,145. The increase has steadily continued. All varieties of Pecans contain a rich, delicate and nutritious oil in profitable quantities, but some varieties contain much more than others. To demonstrate the richness in oil of the Pecan, we suggest that a kernel be placed upon a piece of wire and lighted. The half kernel of one good Pecan will burn brightly for from five to ten minutes.

word against other nuts, nor am I disposed to do so, because I love them all, but I regard *the Pecan* as having a greater future than any other nut raised in this country. It is a most delicious nut." (The italics are ours.)

EXPORTATIONS.

—Compared with importations, the exportation of nuts is insignificant, indicating an insufficient home supply. Those exported go principally into the Dominion of Canada (Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, etc.), where the Pecan can not be profitably grown. The remainder in minor quantities going to European, North American, South American, Asian,

COMPARATIVE FOOD VALUES AND COMPOSITION OF NUTS AND OTHER FOODS.

From the Farmers' Bulletin No. 122, Department of Agriculture.

	Composition and fuel value of the edible portion.							
	Refuse	Edible portions	Water	Protein	Fat	Carbohydrates	Ash	Fuel value per pound
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Calories
Almonds	64.8	35.2	4.8	21.0	54.9	17.3	2.0	a3,030
Brazil nuts	49.6	50.4	5.3	17.0	66.8	7.0	3.9	3,329
Filberts	52.1	47.9	3.7	15.6	65.3	13.0	2.4	3,432
Hickory nuts	62.2	37.8	3.7	15.4	67.4	11.4	2.1	3,495
Pecans	53.2	46.8	3.0	11.0	71.2	13.3	1.5	3,633
English walnuts	58.0	42.0	2.8	16.7	64.4	14.8	1.3	a3,305
Chestnuts, fresh*	16.0	84.0	45.0	6.2	5.4	42.1	1.3	a1,125
Chestnuts, dried	24.0	76.0	5.9	10.7	7.0	74.2	2.2	a1,875
Acorns	35.6	64.4	4.1	8.1	37.4	48.0	2.4	2,718
Beechnuts	40.8	59.2	4.0	21.9	57.4	13.2	3.5	3,263
Butternuts	86.4	13.6	4.5	27.9	61.2	3.4	3.0	3,371
Walnuts	74.1	25.9	2.5	27.6	56.3	11.7	1.9	a3,105
Cocoanuts	48.8	51.2	14.1	5.7	50.6	27.9	1.7	2,986
Cocoanut, shredded	100.0		3.5	6.3	57.3	31.6	1.3	a3,125
Pistachio, kernels	100.0		4.2	22.6	54.5	15.6	3.1	a3,010
Pinenut or pinon	40.6	59.4	3.4	14.6	61.9	17.3	2.8	3,364
Peanuts, raw	24.5	75.5	9.2	25.8	38.6	24.4	2.0	a2,560
Peanuts, roasted	32.6	67.4	1.6	30.5	49.2	16.2	2.5	3,177
Litchi nuts	41.6	58.4	17.9	2.9	.2	77.5	1.5	1,453
Beefsteak	12.8	87.2	61.9	18.9	18.5	...	1.0	a1,130
Wheat flour	100.0		12.8	10.8	1.1	74.8	.5	a1,640
Potatoes	20.0	80.0	78.3	2.2	.1	18.4	1.0	a385

a. These values were calculated; unless otherwise indicated the fuel values were determined.

From the above it will be seen that Pecans first, and hickory nuts second, furnish more food (fuel) value per pound than any other nut among those analyzed, and infinitely more than beefsteak, wheat flour or potatoes.

Pecan Nuts Are Produced in Clusters at End of First Spring Growth.

PROFITS.—

The profit in Pecan growing depends almost entirely upon the kind of Pecan trees planted and the care taken of them. The Pecan is a tree which responds readily to cultivation, and to get the best results it should be treated as a fruit tree from "seed to harvest." The parental characteristics of early, annual and heavy bearing trees are faithfully transmitted by budding and

grafting. We have four-year-old budded and grafted trees bearing a second crop. We have trees budded and grafted in 1903 and 1904 in bearing. Many customers to whom we sold trees in 1903 and 1904 report them bearing in 1906, some trees with as high as fifty nuts. Many astute business and professional men, both North and South, are investing heavily in Pecans, but only after the most careful investigation. This Company would not have planted so large an acreage without the fullest confidence and proof of the extreme value of the Pecan as a very profitable and permanent investment. By budding and grafting on three-year stocks and roots, as we are now doing (contrary to the usual practice among nurseriesmen of using younger stock), it will be observed that such trees will be nine years old sixth year from transplantation. Assuming, therefore, that prolific and early-bearing varieties with three-year-old roots be planted and properly cared for, the yield per tree the sixth year from transplantation has run as high as thirty pounds and so on until the tenth year from setting out, when a yield of one hundred and fifty-five pounds and over has been attained. Another well authenticated instance is a nineteen-year tree producing six hundred* and thirty-eight pounds of nuts in 1905.

The same tree pounds in 1904, and All trees can not be a yield, but if the half, an immensely exists. We have ing over three

Small mixed seed-grower from eight to cents per pound. according to size and cents per pound and

It is as easy to ties as the common seedling trees is so yields of seedling absolutely no critewhen, by selection of early, annual and thin-shelled varieties it will quickly be yields and profits of enormously greater. succinctly states the ing language: "The Pecan tree of the ties may be reckoned value of its annual average crop of ten selling price of ten crop and price a very make, shows \$1.00 per tree per year, and would undoubtedly show an investment value of \$10.00. But take a budded or grafted tree yielding 100 pounds, which sell for twenty-five cents per pound, and we have \$25.00 for a single crop, show an investment value of \$250.00 per tree, or \$5,000.00 per acre, with twenty trees in that area. If this calculation is not correct, we will be obliged to the person who can show the error."

PECANS AND PEACHES.—The planting of Pecan trees in conjunction with peaches is an excellent one. Before the early-bearing peach trees have outlived their usefulness (eight to twelve years), the Pecan trees will be furnishing profitable and permanent crops. In the meantime peaches will give an income while the Pecans come into bearing. The necessary cultivation of peach trees is ideal for the Pecan. We expect to see all peach orchards thus utilized.

Budded on Three-Year Stock 1904.
Bearing 1906.

bore five hundred four hundred in 1903. expected to give such crop was less than profitable investment trees ourselves yield-hundred pounds, ling nuts will net the twelve and one-half The value increases quality, to forty upwards, wholesale. raise the fine varie-nuts. The bearing of variable that the groves of to-day are rion to go by, but varieties, groves of heavy-bearing, large, can now be planted, seen that the average the future must be A careful writer matter in the follow-value of a single common choice varie-at ten times the yield. The small pounds per tree with cents per pound, a ordinary seedling can

Selection of Trees, Their Planting and Cultivation.

INQUIRIES.—We receive numerous inquiries regarding the setting out, care and cultivation of Pecan groves. As we give our personal attention to all the details of selection, propagation, packing, shipping, etc., we find it impossible to always answer such inquiries by letter as fully or as promptly as we would like, and we have, therefore, embraced herein practically all the main and material points, including the selection of trees, their planting, fertilization and subsequent cultivation. If, however, there is anything you wish to know not contained herein, kindly write us about it and we will take pleasure in advising you at the earliest moment. Do not be disappointed if you do not hear from us by "return mail."

PLANT TREES.—We wanted permanent abandoned that method, from a nursery is far have contended with the in the shape of field salamanders, pigs, wood-themselves (after yearly years) with a grove (?) inches to twenty feet the same conclusion. Buy grower rather than to ence, to raise your own bud and graft them with The time spent in getting of seed, fertilizer, culti- losses in non-germination, to have bought three or grafted trees all trimmed the first place, and have in size and age to begin nut which germinates and we destroy many each year which do not

Budded on 3-Year Stock 1904.
Bearing 1906. Note Heavy Bloom.

have planted nuts where trees, but have entirely finding that transplanting preferable. When others same difficulties we have, mice, squirrels, moles, lice, ants, etc., and find replanting for five or six of trees running from ten high, they will come to trees from a reliable try, without any experi- trees and subsequently its attendant expense. a grove started, the cost vation and percentage of it would have been better four-year-old budded or and ready for planting in a grove of trees uniform with. By no means every produces a vigorous tree, thousands of seedlings indicate thrift and vigor.

Budded and

RESULTS THE
ded and a grafted tree far as results are tree will bear as soon as versa. Grafting is done months, while scions are ding is done in the sum- nular, patch or veneer when bark will slip. The grafting and budding are budded tree is just as one. Owing to some

to graft more successfully than bud, and vice versa, statements are made to the effect that "only budded trees" or "only grafted trees" should be planted! The statements are both unfair and unnecessarily perplex the investigator. Neither the grafting nor budding seasons are respectively long enough for extensive propagators like ourselves to get all their work done, hence some trees being budded and others grafted. We reserve the right to ship either budded or grafted trees, according to our stock of each kind.

BUDDED AND GRAFTED TREES COMPARED WITH SEEDLINGS.—

Grafted and budded trees have great advantages over seedlings because (1) they begin to bear much earlier than seedlings; (2) they reproduce the variety from which buds and grafts were taken; (3) the bearing characteristics of the variety is perpetuated; (4) immeasurably greater value of the product and the uniformity of same; (5) no greater cost of raising the trees; (6) less cost of gather-

Grafted Trees.

SAME.—Between a bud- there is no difference, so concerned. A budded grafted tree, and vice in the winter and spring perfectly dormant. Bud- mer and fall by the an- methods, at any time mechanical operations of entirely different, but a desirable as a grafted small growers' being able

ing and marketing the nuts than with seedlings, as each variety can be gathered at one time and sold under a single name or brand.

COST OF BUDDED AND GRAFTED TREES.—As a consequence of the variable success attending the propagation of Pecans by budding and grafting and the comparative slowness and expense of the processes as compared with the simpler propagation of peaches, plums, oranges, apples, etc., the trees must necessarily sell at a price which allows a margin to cover (1) great losses, occasionally, in budding and grafting from unfavorable weather, such as prolonged droughts, or excessive rains; (2) sacrifice of nuts from choice bearing trees by the cutting therefrom of scions or budding wood; (3) temporary disfigurement of seedling trees where grafts or buds fail to take; (4) the great care and attention necessary by the propagator the first season after the respective operations; (5) the fact that the stocks must be (with us) two years old; (6) that whole roots must be used; (7) the present comparative scarcity of budding and grafting wood of the best varieties and the demand for and value of scions.

Tree Grafted in 1902. Bearing Second Crop of Nuts in 1906. Taken in Spring, Showing Heavy Bloom.

produce satisfactory and profitable crops of nuts for many years before it may be necessary to thin them out. In planting permanent groves of valuable trees we prefer to set them from 40x40 to 50x50 feet, either on the square or equilateral triangle plan. The latter plan allows approximately 15 per cent. more trees to the acre at a given distance apart, and is recommended for orchards. To lay off land for equilateral method a simple way is to make a triangle of wire with loops at each end and small loops for pins or stakes. The triangle is placed on ground and peg drawn through loops at each corner, and moved to another place.

20 p m a 46-8' A 46-8'
RULE.—Square Method.—Multiply the distance in feet between the rows by the distance the trees are apart in the rows, and the product will be the number of square feet for each tree which, divided into the number of feet in an acre (43,560)—will give the number of trees to the acre.

RULE.—Equilateral Triangle Method.—Calculate the number by the "square

BUDDED AND GRAFTED BEARING TREES AT DeWITT.

—We are fruiting budded and grafted trees of practically all of the leading standard varieties. Many budded and grafted trees sold by us in 1903 and 1904 are in bearing, (1906), some with over 50 nuts on them. In connection with the bearing of young budded or grafted Pecan trees, it occasionally happens that the nuts of the very early crop do not reach their maximum size. This may occur with any variety in any soil. We therefore call our readers attention to this so that they may not be surprised or alarmed if the earlier crops of nuts perhaps average smaller than the average run (the only fair test) of a more matured tree. Our experience suggests the prudence of not trying to force young trees into too early bearing, but rather force growth the first four or five years. (See Fertilizers.)

NUMBER OF TREES PER ACRE.

—We used to plant 30x30 feet apart, or 48 trees to the acre. While this eventually becomes too close the trees will

method" and add 15 per cent. The result will be the number of trees required to the acre by this method.

Distance	Square Method 1 acre	Square Method 100 acres	Equilateral Method 1 acre	Equilateral Method 100 acres
30x30.....	48	4840	55	5566
35x35.....	35	3555	40	4088
40x40.....	27	2722	31	3130
45x45.....	21	2151	24	2474
50x50.....	17	1742	20	2003
60x60.....	12	1210	14	1392

To ascertain trees for ten acres take off the right hand figure on 100-acre column; for instance, if it takes 2722 trees at 40x40 for one hundred acres, it will require 272 for 10 acres.

To ascertain the precise number of trees to one acre including fractional parts, point off two figures from right of 100-acre column; for instance, if it takes 3,555 trees for 100 acres, one acre will contain 35.55 trees.

In all these calculations fractions occur, and the nearest number of trees to the definite average should be ordered.

WHEN TO PLANT.—

In the Southern States, Pecan trees may be set out any time after the leaves drop in the fall (November), until generally the end of March.

In the North, Northwest, Eastern and Middle States, above approximately the forty-first degree of latitude, north, the ground will frequently be frozen or snow-bound by the time Southern-grown trees are perfectly dormant. Under these circumstances spring planting must be resorted to. Orders for trees where these conditions prevail should be made during the winter, and if shipped at time

Budding Wood Showing Waste of Nuts. Right Hand Figure Shows Method of Detaching Annular Buds.

until spring-time, when ground is in a suitable condition for planting. Dormant trees may easily be kept many months in a cool cellar, with roots moistened occasionally and kept from exposure from heat and frost.

CARE OF TREES UPON ARRIVAL.—Upon arrival of shipment of trees, bundles or boxes should be opened, a sloping trench dug in a shady place, and roots and half the tops of trees laid therein at a slope, covering them with damp earth and lightly watering to settle the earth. Trees may be kept in good condition several months this way. There must be good drainage, as it will injure the trees for roots to remain in standing water. At no time must roots be allowed to dry out, although an excess of moisture is not necessary. If trees are

frozen upon arrival, bury them entirely in cool, moist earth, or let them thaw slowly in a cool, damp cellar. If trees have dried out in transit, open the bundle and bury trees completely for several days, and they will resume a natural condition. Roots should be covered with wet sacking, wet hay or other material when taken out to field for planting. Many trees are lost and nurserymen consequently blamed on account of failure of the planter to take this precaution. By a process of our own we protect roots of trees before packing, thus reducing the danger from exposure and drying out to a minimum, but we advise our customers to use every precaution to protect the roots of these valuable trees.

Note:—We shipped one hundred Pecan trees to the Louisiana Purchase Exposition, St. Louis, 1904, which were planted on the Exposition grounds after a delay of many weeks. The trees arrived in St. Louis frozen in a solid mass, but by gradually thawing them out, they recovered and were planted. This exhibit of growing Pecan trees was awarded a medal and diploma, being the only awards made for live Pecan trees.

HOW TO SET OUT PECAN TREES.—In setting out a Pecan tree, a hole 24 inches in diameter and 28 inches deep is usually large enough, although wider

View in Nursery Showing Four-Year Trees Blooming Profusely.

holes may be dug with advantage. When setting out a tree, fill in with top soil. Well-rotted manure may be put in outer sides of hole while being filled, an inch or two beyond lateral roots, but so as not to come in direct contact with the roots. Work and firmly press the dirt among the roots, laying each root out in a natural position. No holes or cavities in the soil should be left and soil should be in close

contact with all roots, especially the tap-root. The tree should be set at such a depth that after a copious watering and the permanent settlement of the earth, it will be the same depth or perhaps a little deeper (precautionary) than it stood in the nursery row. It is very important that no part of the crown or root be exposed to the air during the first year's life of a transplanted tree. As a matter of prudence, it is better to plant them an inch or two deeper than they stood in the nursery than to have the crown of root exposed or become exposed. The roots of Pecan trees are of a reddish brown color, which color may usually be noticed for several inches above where first roots start, tapering off into the green bark. All that portion of tree showing any reddish brown tint should be under ground and never allowed to become exposed. The land should be plowed deeply and harrowed either previous to planting or soon afterwards. It is better to do this before planting, as trees or roots may be disturbed by ploughing afterwards. If tap-roots are inconveniently long, say over 28 inches, they may be cut off by a sloping cut with a sharp knife. All ragged ended roots should be smoothly cut off.

(NOTE.—The foolish theory about a Pecan tree not bearing if its tap-root has been cut, has been so universally disproved by ourselves and others that it is not

worth discussion. If the tap-root is cut when the tree is dug, as is often necessary, the cut quickly heals over and a new tap-root is formed, if the tree needs it, which is not always the case.)

Ordinary care should be taken to see that no pieces of wood or other debris be contained in the soil used in filling up holes when setting out trees.

PREPARATION OF TREES.—Our endeavor is to send out trees properly prepared and trimmed, as if for our own planting, leaving the planter nothing to do but set them out. We invariably recommend the proper top trimming or pruning of the tops of the taller grades of trees. It balances the top against the unavoidable loss of some roots when tree is dug. It almost insures the tree living and most vigorous growth. Where this is done, and trees properly handled and planted, there is no reason why any should die.

We should mention that our prices are made on the heights of trees when dug. When properly top-trimmed, the height is often reduced nearly one-half. Therefore, if the height of a trimmed tree when received is less than catalogue height, this is the explanation. The diameter of the tree where cut off will indicate the original height of tree.

Our most satisfied customers are those who have been guided by our experience and judgment in such matters. It is needless to say our customers' interest and our own, are identical.

Trees Budded and Grafted in 1902 Bearing 3 Crops of Nuts (1906.)

nitrogen (the latter being equivalent to about 5 per cent. ammonia). After a tree has bloomed the first time, and is of sufficient size, height or surface to bear a fair crop of nuts, highly ammoniated or nitrogenous fertilizers, such as stable or lot manure, cottonseed-meal, fish, blood, tankage, etc., should not be solely used, but potash and phosphoric acid in almost any of their respective forms should be added to induce bearing, although many trees will bear, no matter what they are fed on. Nitrogenous fertilizers cause principally a rapid growth, and while the tree is young it is as well to encourage as much healthy growth as possible, so that in five years from setting out it will have a large top and be profitable. Fertilizers should be broadcast and well worked into the soil around the tree, commencing at a radius of about the extremities of the branches after the first year. The application of fertilizers too near the tree causes a congestion of roots and may injure them.

PRUNING.—The Pecan needs very little, if any pruning. With young-budded and grafted trees, seedling sprouts (below bud or graft unions), should, of course, be taken off as soon as discovered. This can be done any time, winter or summer. The Pecan will naturally form a strong, symmetrical tree if left to,

FERTILIZERS.

A rotted barn-yard, stable or lot manure contains practically all the plant-food needed by a young Pecan tree. As it is difficult to get this in very large quantities, as a substitute, both to cause vigorous growth and early bearing, we advise the use of a fertilizer analyzing approximately 5 per cent. potash (K₂O.) 6 per cent. available phosphoric acid and 4 per cent.

Winter in Pecan Orchard. Shady in Summer; Sunshine in Winter.

itself. If, however, a tree of a particular form is desired, it may be pruned and shaped to conform to grower's wishes at any time. Should a tree not be making a vigorous growth, a severe pruning in the winter or early spring will greatly stimulate it.

ENEMIES.—

The Pecan is not entirely free from insect and fungous enemies, as

is sometimes said, but of all the valuable food-producing trees, it is attacked by fewer insects or fungous diseases than almost any other. In other words, it is subject to no more enemies than its close kin, the hickory, which is one of our hardiest forest trees. The only way to destroy a Pecan is to grub it up. In the case of the Pecan, profitable crops can probably be made with more certainty, with less expense, and with less trouble from insects than any other known food-producing tree in this country.

POLISHING OF NUTS.—There is a very ready market for our properly-gathered, mixed seedling nuts from our trees at remunerative prices **without polishing or coloring**. The small, wild, usually thick-shelled nuts of the most western Pecan-producing States are polished to make them saleable, and from custom. The bulk of the Pecan crop is at present from the large, wild, uncultivated seedling trees in the river bottoms and alluvial lands, but very extensive plantings of the improved varieties of budded and grafted trees are being made. These wild nuts are very frequently stained and dirty by the time they are picked up, and cleaning and polishing is resorted to. Probably over ninety per cent. of Pecan nut buyers, dealers and consumers have at present seen no other kind.

In cases where we have sent our correspondents specimens of the finer varieties **unpolished or uncolored**, the prediction is made that such nuts would eventually displace every other nut on the market, and that for shelling purposes they would be universally used. These large, thin-shelled nuts are a revelation to those used to the common, polished kind.

The delicate natural color and markings on the shell of a high-grade nut are not objectionable, and appeals strongly to people who have seen them and cracked them beside the artificial-looking colored and polished small, thick-shelled nuts generally seen. There is no necessity now, nor, in our opinion, will there ever be any need for polishing, staining or coloring the better varieties of Pecans.

MARKETING.—We receive a great many inquiries from commission houses for Pecans in car lots. Pecan nuts do not have to be forced on the markets. If necessary, they can be held for a considerable length of time. They may be kept in good condition, in cold storage, from one season to another.

GENERAL CULTURE.—In Pecan orchards, low-growing crops, such as peas, melons, cantaloupes, potatoes, peanuts, cotton, truck, etc., may be raised. The land should be plowed and harrowed early in the spring and again in the fall. Young trees are benefited by being kept free from grass and weeds, and occasional hoeings and thorough pulverization of the soil for several feet around the tree during the growing season are beneficial. Trees of all sizes, and especially newly-set ones, may be mulched with leaves, straw, dead weeds, etc., to

great advantage, conserving soil moisture, reducing expense in hoeing and affording a slowly-decaying supply of natural plant-food.

GATHERING OF NUTS.—The hulls of all the better grades of Pecans begin to open when nut has fully matured. The nuts soon fall to the ground by their own weight, and are shaken out by the wind. The gathering of this valuable crop is extremely simple, inexpensive, and may be leisurely done. It is advisable to gather nuts soon after the hulls have opened, for if they fall and remain on the ground a long time during rainy weather, the shells may become slightly dirty and stained. The standard price for gathering Pecans in our section is one cent a pound. After nuts are gathered they should be spread out and dried a week or ten days, as when first gathered the shells and inner divisions are moist and disagreeably bitter. The drying out makes the shells brighter, more brittle, and more easily cracked, as well as making the meat much sweeter.

Rake away from around trees all debris in which nuts might fall and become hidden, then with a long bamboo pole with a wire hook on end, lightly shake the limbs, and the ripe nuts will fall. When the trees become too large to reach the limbs comfortably from the ground, send a man with rubber shoes or bare feet, up the tree, and either let him jar the limbs with his feet or heavy rubber mallet, or take the bamboo pole up the tree, hook on to the limbs as far out as possible and shake them. Rubber shoes, bare feet or rubber-tipped mallets are advised in order that the bark of tree may not be bruised or injured, as is often the case where leather-soled shoes are used.

A PECAN ORCHARD OR AN INSURANCE POLICY—WHICH?—Always compared to life insurance, but more especially in the light of recent events, as an investment, much is in favor of Pecans. After the land is paid for a non-forfeitable property and a home place results, annually enhancing in value, and held by one's self and heirs forever by the mere payment of taxes.

The planting of fine Pecan trees almost immediately quadruples its value. The cost is insignificant, contrasted with the permanency and daily enhancement in value. Nobody with a young Pecan grove of fine trees wants to sell. It is the most difficult matter to buy a Pecan orchard of budded and grafted trees. *Those who have given the Pecan the greatest study are to-day the heaviest investors therein.*

Old Tree, Seedling Partially Top Budded. Slow, Difficult and Expensive.

The "Atlanta Journal" tersely and truthfully expressed itself in the following language: "The premium on a life insurance policy of \$5,000 invested in a Pecan grove will soon earn annually an amount equal to the face of the policy and annual increase. Parents and guardians of children will find in this industry safety, surety of annual incomes throughout life, which can be reached by no other investments. In the Southern States are thousands of acres, so-called 'worn out,' that will grow Pecans under cultivation, as the roots of these trees feed upon soils not reached by other tree-roots and soon can be made to pay a handsome income

where now such lands only grow taxes. Investigation will furnish proof of all we have said of the valuable industry, the value of which is beyond the figures we have yet stated in the public prints."

Pecan culture may be carried on in conjunction with so many other things that a person desiring to own their own home, and willing to work, can by means of truck, berries, poultry and peaches, etc., very soon be making a living.

TREES FOR MONUMENTS.—Ex-Governor Hogg, of Texas, when consulted on his death-bed as to the kind of monument he wished when he should die, said: "I want no monument of stone, but let my children plant at the head of my grave a pecan tree and at the foot of my grave a walnut tree, and when these trees shall bear, let the pecans and the walnuts be given out among the plain people of Texas, so that they may plant them and make Texas a land of trees."

COMMERCIAL.—In horticulture (for profit), as in all other business matters, the best generally proves to be the cheapest, especially where permanent results are desired. A Pecan tree lives to an indefinite age (300 to 700 years), and generation after generation will enjoy the fruits of what we are now planting, therefore plant the best you can get and leave a permanent monument of your good judgment.

INFERIOR TREES EXPENSIVE.—In the 44th Annual Report of the Horticultural Society of Missouri (1901), appears an article by Albert Brownwell, "Northwest Horticulturist," upon the subject of "cheap trees." It is replete with so much truth and common sense that it may be read with profit by all concerned. It reads:

Top Grafted Tree. Right Hand Figure Shows Early Summer Growth.

"It costs more to produce a good article than a poor one, and in buying, the first question should be not how cheap but how good it is. Many people understand this well enough, and yet how few ever stop to apply the rule to nursery stock. In no other kind of purchase is the quality of the article of such vital importance as in nursery stock. The price of a tree is the smallest part of its cost by the time it has come into bearing. If a man buys cheap trees, to save a few cents on each, by the time the tree comes into bearing the expense of the land, labor, etc., has amounted to several times the cost of the tree; and consequently if his cheap stock turns out, as it uniformly does, to be of inferior and worthless varieties, then it is a serious loss to him and he has to begin all over again. Now, is it not plain to all that it is rank folly for anyone to risk this dead loss of trees, use of land for years, expense of cultivating, etc., to save a few cents on the tree, when for a trifling increase in price he can get the very best warranted stock? As a matter of insurance a man can not afford to buy anything but the best warranted stock. It is a general rule, which can be relied on, that 'cheap' stock is worthless stock, and therefore dear at any price. If a man won't pay for good stock, and

buys cheap stock in order to save money, he is very sure to lose all he puts into it. Most of the worthless stock is worked off by strange agents, who sell on their own account and are not authorized by any responsible firm to take orders for them. Such men buy up refuse stock from large nurseries for almost nothing and fill their orders with it, claiming it to be good. They also frequently warrant the stock, but as they are unknown or irresponsible, their warranty is absolutely worthless. If people would buy only from agents who can show a certificate authorizing them to represent a responsible firm, there would be no danger of being cheated. WE CAN NOT GET SOMETHING FOR NOTHING.

"This is not a world where we can get something for nothing, and when an article is offered at an extraordinary low price, there must be some good reason for it. The very simple reason is that as the article is of bad quality it can not be sold in competition with first-class goods, and is therefore necessarily worked off on the public at a low rate to catch those people who will bite at anything cheap, without regard to quality. Such people never get ahead because they waste their money on poor trash that gives them no 'value received' for their outlay."

JAPANESE WALNUTS.—We are offering a limited number of Japanese Walnut trees (*Juglans Sieboldiana*) raised from nuts from our own trees. This nut, while not as good as the English or Persian Walnut, is of rapid growth and begins to bear nuts in clusters of from seven to fifteen, at three and four years from seed. The shell is rather thick, but the meat is sweet and very rich. The

Our "New Chestnut," Showing Burrs.

foliage is very handsome and the trees, being of relatively dwarf habits, may be planted 25x25 feet. We can not recommend it, or any other Japan walnut, for extensive commercial planting, but for novelty and ornament it will give entire satisfaction.

CHESTNUTS.—We have several bearing trees, and after some years of experimental work have found a chestnut of large size and good quality, ripening the last week in July. The nut has been submitted to many

competent judges and is declared to be of great merit. We do not care much to depart from our specialty (Pecans), but if time permits we will propagate it by budding and grafting. Trees will not be ready for sale or distribution until the fall of 1906, when prices on very limited quantities, if available, will be furnished on application.

NO SAN JOSE SCALE.—Our nurseries are annually inspected by the Georgia State Entomologist, copy of whose certificate accompanies every shipment of trees. The Pecan tree is not subject to the attacks of the San Jose scale, and there is no case on record of its having ever injured a Pecan tree.

PRICE LIST WITH ILLUSTRATIONS AND DESCRIPTIONS.—Prices of trees, with illustrations of nuts will be found on following pages. The illustrations are made from the actual nuts. The demand for specimens and nuts in bulk is very large, and nuts are often engaged long in advance of shipping time. We will, however, be glad to send specimen nuts as long as they last. On account of the large demand and the time and postage required in putting up and mailing specimen nuts, we have found it necessary to make an arbitrary charge of five cents per nut, when only a few are ordered.

VISIT DeWITT.—We would respectfully suggest that if possible before buying you visit our large groves and nurseries, where many valuable object lessons in Pecans may be seen. If unable to do so, do not hesitate in sending your order. All orders receive our best personal attention.

Stuart.

Schley.

Van Deman.

Frotscher.

Russell.

Georgia

Alley.

Pabst.

Centennial.

Delmas.

STUART. (*Synonym: Castanera.*)—Average yield from 1889 to 1892, about one hundred and forty pounds a year. In 1892 the crop was about three hundred and fifty pounds, most of which was sold for one dollar per pound. This variety is a strong, upright grower. Size large to very large, averaging forty to fifty-five nuts to pound. Flavor and quality good. This was one of the first varieties to be widely distributed, and in consequence has been reported as giving satisfactory returns over a wider climatic range than many other varieties of later introduction. Budded and grafted trees fruiting at DeWitt.

SCHLEY. (*Synonym: Admiral Schley.*)—Size medium to large, ranging from forty-five to sixty nuts per pound. Form oblong-conical to long obovate, with conical apex. Shell very thin, cracking very easily. Flavor delicate, sweet and rich, quality very good. The parent is unduly crowded by other trees in a poor soil. With us this variety has proved a very vigorous grower and early and prolific bearer. Budded and grafted trees fruiting at DeWitt.

VAN DEMAN. (*Synonyms: Bourgeois; Duminie Mire; Mere and Meyer erroneously; Paragon, in part; Southern Beauty.*) The original tree (now seventy or more years old), is now a beautiful, thrifty tree, and bearing large crops of nuts. Size large to very large, averaging forty-five to fifty-five nuts to pound. Flavor delicate, quality good. The variety is a strong, vigorous grower, with large foliage. Productive and profitable. Budded and grafted trees fruiting at DeWitt.

FROTSCHER. (*Synonyms: Frotscher's Egg Shell, Egg Shell in Part, Olivier, Majestic.*) Parent tree about fifty years old. Nuts medium to large, averaging from forty-five to sixty nuts per pound. A budded tree set out in southwest Georgia in 1892 yielded nuts to the *wholesale* value of \$65.00 in 1905, notwithstanding the loss of a large portion of top of tree by a gale, and the sacrifice of many nuts by the cutting of budding and grafting wood therefrom. A strong, handsome grower. Budded and grafted trees fruiting at DeWitt.

RUSSELL.—The parent tree, which stands on a city lot, crowded with other trees and vegetation, in poor soil, averages about 150 pounds of nuts a year. Size of nuts medium to large, averaging fifty-five to sixty-five nuts to pound. Thin shell. Flavor and quality good. Budded and grafted trees fruiting at DeWitt.

GEORGIA. (*Synonym: "Georgia Giant."*) Parent tree set out on poor land in 1886. Commenced bearing in 1891, and has borne annual and increasing crops, notwithstanding the excessive crowding of the tree by others. Nuts large to very large. Very early and prolific bearer. Quality and flavor good. **NOTE.**—For several years past we have been cutting the parent tree very heavily for budding and grafting scions, and have necessarily had to sacrifice great quantities of nuts. We call attention to this as we have in consequence been unable to supply the demand for specimen nuts.

ALLEY.—A budded tree of this variety produced thirty pounds of nuts in its sixth year from setting out. The variety is an early and heavy bearer, very vigorous grower, and profuse bloomer. Size of nuts above medium to large, averaging forty to sixty per pound. Shell thin and nuts well filled with bright meat of fine flavor and keeping qualities. Large plantings of this variety are being made, and it should be included in every order. Budded and grafted trees fruiting at DeWitt.

PABST.—The variety is sturdy, strong, and a vigorous grower. Size large, averaging forty-five to fifty-five nuts per pound. Flavor and quality good. Early bearer and productive. Budded and grafted trees fruiting at DeWitt.

CENTENNIAL.—Trees grafted in 1846 or 1847 (sixty years ago), were thrifty, productive and in fine condition in 1902 when last inspected by Mr. W. A. Taylor, Pomologist in charge of Field Investigations, United States Department of Agriculture. The nuts are large, running about forty to fifty to the pound. The meat is plump, solid and of delicate texture and flavor. While this variety is reported as slow in coming to bearing in some places, we are fruiting the variety on trees budded and grafted on two-year stocks in 1903.

DELMAS.—Strong, vigorous and handsome grower. Early bearer. Nut large to very large, averaging thirty-five to fifty to pound. Quality good. Budded and grafted trees fruiting at DeWitt.

Varietal Types of Common Seedling Pecan Nuts. (Shown Only For Comparative Purposes.)

Rome.

Capital.

Moneymaker.

Magnum.

Bolton.

Senator.

Atlanta.

Monarch.

ROME. (*Synonyms: Columbian, Pride of the Coast, Twentieth Century, Southern Giant, Century, Mammoth.*)—This is perhaps the largest Pecan known, and in consequence has been widely disseminated under various names. Size variable, but large to very large, averaging twenty-five (selected samples) to fifty-five nuts per pound. Quality good when well filled. The variability of the bearing, and the filling qualities of this variety does not justify its extensive commercial planting, but a few trees may judiciously be included in any collection, on account of size of nut. For seed purposes it has sold at a higher price than any other Pecan. Budded and grafted trees fruiting at DeWitt.

CAPITAL.—Strong, vigorous grower. Nut large. Early bearer. Budded and grafted trees fruiting at DeWitt.

MONEYMAKER.—This variety is reported to be the best of some seedlings planted on lands contiguous to the Mississippi River. Size medium, averaging fifty to sixty nuts per pound. Flavor and quality good. A vigorous grower, with pale-green foliage. The variety is promising for test in the more northern Pecan districts. Budded and grafted trees fruiting at DeWitt.

MAGNUM. (*Synonym: "Magnum Bonum."*)—Vigorous grower. Nuts large, averaging forty to sixty to pound. Quality and flavor good.

BOLTON.—Vigorous grower. Size of nut medium. Flavor sweet and quality good. Has been extensively propagated, and is popular in its place of origin. Budded and grafted trees fruiting at DeWitt.

SENATOR.—The most vigorous grower out of fifteen acres of trees set out at same time. Size of nut much above medium, averaging forty-five to sixty per pound. Well filled and very rich in oil. The tree is a good bearer. Budded and grafted trees in bearing at DeWitt.

ATLANTA.—A vigorous grower of rather spreading habits. Good bearer. Nuts medium in size, averaging fifty to seventy to pound, but of especially fine flavor and good keeper. Budded and grafted trees fruiting at DeWitt.

MONARCH. (*Synonym: "DeWitt Mammoth."*)—A rapid grower and early bearer. Especially profuse bloomer, furnishing immense quantities of pollen. Nuts large to very large. Budded and grafted trees fruiting at DeWitt.

NOTE.—We are testing many other varieties which have proved worthy of propagation in their place of immediate origin. If they prove satisfactory, both in growth and fruitage with us, we will subsequently propagate and offer them for sale, as well as our own planting. We have sixty-five acres devoted to a test orchard and have some forty varieties of Pecans under test. We wish to satisfy ourselves as well as others.

Eight-Year Seedling Cut Back and Sprouts Budded. Budded September, 1904. Heavy Crop 1906.

"Hican" on Pecan Stock. Vigorous Growth With Handsome Foliage.

LOUISIANA PURCHASE EXPOSITION.

GEORGIA EXHIBIT OF PECAN NUTS.

• STEVENS. •	• CAPITAL. •	• ATLANTA. •	• SENATOR. •	• BACON. •
• MAJESTIC. •	• PABST. •	• ALLEY. •	• BARTOW. •	• ROBSON. •
• BRACKETT. •	• EGG SHELL. •	• MAGNUMBONUM. •	• CENTENNIAL. •	• BOLTON. •
• JAMES SHELL. •	• ROME. •	• MAMMOTH. •	• SCHLEY. •	• RUSSELL. •
• MONEY MAKER. •	• STUART. •	• GEORGIA GIANT. •	• COLUMBIAN. •	• PRIDE COAST. •
• VAN DEMAN. •		• —PREPARED BY— •		• FROTSCHER. •

The G. M. BACON PECAN CO., Inc.,

DeWITT,
Mitchell County,
GEORGIA.

Picture of our St. Louis Exhibit—Gold Medal.

St. Matthews, S. C., June 13, 1906.

The G. M. Bacon Co., (Inc.,)
DeWitt, Ga.

Gentlemen:-

About two years ago I purchased of your firm two Georgia Giant and two Bacon's Choice Pecans. All lived, but I lost one by accident. I notice that one Georgia Giant tree has (3) three pecans this year. Our South Carolina Association holds monthly meetings in this county (Orangeburg) at Court House, first Saturday in each month. I am president of the County Association. The South Carolina Association stands primarily for remunerative prices for cotton and for better farming and better living. It stands, therefore, for a diversification of crops. It is a great educational institution. I have done all I could to keep down the cotton acreage, which is about the same as last year, and increased the corn crop 11 per cent. We have had "Hog and Hominy" meetings. Next month I propose to discuss in our meeting "Fruits and Nuts for the Home and for Market." All this to better the living and condition of the farmers and to keep down the cotton acreage, by devoting some of our land and more of our time and energy to other things than cotton. Now at this next meeting, 7th of July, I propose to invite our lady friends to come and listen to the discussions. I will be glad to have your Prof. White or some other good man come over and make a practical talk on pecans. Will you come? Will be glad to entertain you as our guest.

Yours very truly,

(Signed) J. E. WANNAMAKER,
Pres. Carolina Cotton Association.

Pelham, Ga., June 11, 1906.

The G. M. Bacon Co., (Inc.,)
DeWitt, Ga.

Dear Sirs:

Yours of May 31st to hand, and in reply to same will say that my Pecan trees are fine in growth and out of the four there is one bearing this year. I bought them in 1903. I think they will all bear another year. They all had blooms this year, but I think on account of the dry spell we had caused them to all fall off. I think they are very fine trees, and it may be that I will want some more budded trees this fall if you have them in stock. Hoping you a grand success with them.

I have tried to get the people down here interested in the Pecan business and hope they will soon.

Yours respectfully,

(Signed) W. S. COOPER.

Birmingham, Ala., April 29, 1906.

Mr. Herbert C. White,
2nd V.-Pres. and Horticulturist,
The G. M. Bacon Pecan Co., (Inc.,)
DeWitt, Ga.

Dear Sirs:-

I wish to say concerning the 500 budded trees bought of you, that I am very much encouraged with my outlook. Nearly every tree is budding out and I measured one growth of six inches made in the short time since my late planting.

As this is mountain land, I take some credit to myself in this result as evidencing a reasonable knowledge of proper planting, but divide the honors with your firm for furnishing proper stock.

Yours truly,
(Signed) E. J. BRYAN.

The original of this letter is on file and may be seen in the office of The G. M. Bacon Pecan Co. (Inc.) DeWitt, Ga.

Hoover, Wash., June 12, 1906.

The G. M. Bacon Co., (Inc.,)
DeWitt, Ga.

Gentlemen:-

The trees received from you this spring arrived O. K. and were very satisfactory. Though heeled in for 10 weeks before I could get around to plant them, not a one died, consequently I am very much pleased with the stock.

I write now to find out how the trees should be pruned and trained, as I can find nothing concerning that subject in your book. How high should the trees be headed and how many shoots should be left?

Any advice you can give me will be appreciated, as it is a new crop to me.

Very truly yours,
(Signed) W. S. BLACKMAN, Jr.

J. W. JOINER,

DEALER IN

**Watches, Diamonds, Jewelry and Silverware,
OPTICAL GOODS, MUSICAL INSTRUMENTS, ETC.**

AGENT FOR EASTMAN'S KODAKS AND PHOTO SUPPLIES.

NO. 27 WASHINGTON STREET.

Albany, Ga., July 3, 1906.

The G. M. Bacon Pecan Co., (Inc.,)

DeWitt, Ga,

Gentlemen:-

In reply to your letter of inquiry about my Pecan trees, of the two I got from you in the spring of 1905 both lived and are growing nicely and one of them has on it six nuts which all look like they will mature. The trees are now about 6 feet high. I have other trees on my lot, some of them 8 or 10 years old, that I procured elsewhere, that show no signs of bearing.

Respectfully yours,

(Signed) J. W. JOINER.

The original of this letter is on file and may be seen in the office of The G. M. Bacon Pecan Co. (Inc.) DeWitt, Ga.

TOM EASON
ATTORNEY-AT-LAW
McRAE, GA.

SEABOARD AIR LINE RAILWAY

McRae, Ga., June 6, 1906.

The G. M. Bacon Co., (Inc.,)

DeWitt, Ga.

Gentlemen:-

In answer to your favor of May 30th, permit me to say that in January, 1904, I put out twelve Pecan trees bought of you with the following results: Two died, ten are now living, showing a good healthy growth. Four are bearing. One tree has 3 nuts on it, one has 18 nuts, one 21 nuts and one 51 nuts. These nuts were counted this morning by the Rev. M. A. Morgan in the presence of myself and wife. Some of my trees appear to be top-heavy or the body not sufficiently strong to hold up the top. I would be glad to have a suggestion from you as to a remedy for this.

Yours very truly,

(Signed) TOM EASON.

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CAPITAL OVER \$100,000.00.

C. W. WITHOFT,
MANAGER.

Fort Valley, Ga., May 31st, 1906.

The G. M. Bacon Pecan Co., (Inc.,)
DeWitt, Ga.

Dear Sirs:-

In reply to the enclosed letter, I bought several varieties of Pecans from you in 1904. The trees are growing very nicely, but as they are not two years old yet, have not bloomed any. I bought some Georgia Giants, Stewart, Magnum Bonum and one or two other varieties.

I should like to have your idea as to which of your varieties would it pay to plant on large scale. Would you advise to plant more than one variety? Is it necessary in the proper pollenization?

Yours truly,

(Signed) C. W. WITHOFT, Manager.

The original of this letter is on file and may be seen in the office of The G. M. Bacon Pecan Co., (Inc.) DeWitt, Ga.

BARRETT, DENTON & LYNN COMPANY

—PROPRIETORS—

DALTON FLOUR MILLS.

Dalton, Ga., June 1, 1906.

The G. M. Bacon Pecan Co., (Inc.,)

DeWitt, Ga.

Gentlemen:-

In reply to yours of the 30th ult., beg to say that the seven grafted Pecans bought of you and planted out in the spring of 1905, all are living, made considerable growth that year and are showing rapid growth this spring, and to my surprise two of them bloomed out considerably. Don't know whether there will be fruit on them or not on account of the rapid growth.

The trees I bought of you this spring are all living and doing well. Glad you are succeeding in bringing this fruit into bearing in so short a time

Yours truly,

(Signed) J. W. BARRETT.

BAWGETT, DENTON & LEE COMPANY

DENTON, TEXAS

October 10, 1901

The W. M. Lee & Co. (Inc.)

Chicago, Ill.

Dear Sirs:

In reply to your letter of the 20th inst., we
to say that we have received your letter of the 19th
of you are interested in the sale of the
all the time, and we are constantly
that we are not only interested in the
stock, but also in the sale of the
the same and the same. We have no doubt
there will be a sale of the same in the
of the same.

The stock I have of the same is
and all the same and the same. We have no doubt
the same in the same and the same. We have no doubt
the same in the same and the same. We have no doubt

Yours truly,

(Signed) W. M. Lee & Co. (Inc.)

W. B. PALMER,
President.

J. P. TWOHIG,
Sec'y and Gen'l Manager.

C. E. PALMER,
Treasurer.

PALMER FRUIT COMPANY

(INCORPORATED)

CAPITAL \$150,000.00.

GROWERS AND SHIPPERS OF FRUITS IN CAR LOTS

Bullard, Texas, June 12th, 1906.

Mr. Herbert C. White,

V.-Pres. and Horticulturist.

Dear Sir:-

I am pleased to inform you that of the 500 budded Pecan trees bought from you when we met in Dallas, Texas, last December, 499 are living and growing, some already having made a growth of 18 inches.

These trees were planted in accordance with the directions you gave me. It is needless to say we are very much pleased with this result and congratulate you upon the class of trees sent us, and ourselves for their proper planting, for we know from experience that the proper planting of trees is of the greatest importance.

We shall carefully follow your advice and suggestions upon cultural points, for we feel that we may rely entirely upon your good judgment and advice in such matters.

Yours very truly,
(Signed) J. P. TWOHIG,
Sec'y and Gen'l Mgr.

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in perfect condition. We have a large
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of fruit at short notice.

We are a company of fruit growers,
and our fruit is of the highest quality.
We have a large stock of fruit on hand
at all times, and can supply you with
any quantity of fruit at short notice.

For full list of prices, see our circular.
We are a company of fruit growers,
and our fruit is of the highest quality.

THE ASHBURN BANK

CAPITAL STOCK, \$25,000.00

Ashburn, Ga., June 6, 1906.

The G. M. Bacon Co., (Inc.,)

DeWitt, Ga.

Dear Sirs:-

Yours of recent date received, making inquiry in regard to trees you furnished me. I am pleased to say that on examination of the trees I find that some of them have as high as fifty small pecans on them. Never was more surprised. I can't recollect what year you sent them to me, whether it was 1903 or 1904. Wish you would let me hear. Since getting your letter of inquiry I told several that my trees had Pecans on them; they did not want to believe it. I will say this, if the trees bring nuts according to what they were represented, I will want enough to put out 40 acres, and I think my neighbors will want a good deal of them.

Yours respectfully,

(Signed) W. A. SHINGLER.

THE ASHBURN BANK

THE ASHBURN BANK

CAPITAL STOCK \$25,000.00

INCORPORATED, Jan. 5, 1880.

THE A. S. BANK CO., INC.

NEW YORK.

DEAR SIR:

I have the pleasure to acknowledge the receipt of your letter of the 1st inst. in relation to the loan of \$10,000.00 to the Ashburn Bank. I am pleased to say that an examination of the terms of the loan has been made and that the same have been found to be in accordance with the provisions of the charter of the bank. I am therefore pleased to say that the loan is approved and that the same may be made at the rate of interest of 6 per cent. per annum. I am, Sir, very respectfully,
Yours very truly,
W. A. WARDEN.

Very respectfully,

(Signed) W. A. WARDEN.

THE ASHBURN BANK, NEW YORK.

The **G. M. Bacon Pecan Co., Inc., Dewitt, Ga.**

If we have sold out of any variety or size ordered, do you wish us to substitute something in our judgment equally as good—YES or NO _____

NAME OF VARIETY	Quantity	Size	Budded and Grafted or Seedlings	PRICE	
TOTAL				\$	

P. O. Address _____

NOTE:—1. If necessary to give additional instructions please write them on back of this.
2. No orders filled for less than Two Dollars.

SOUTHERN GARDENER'S PRACTICAL MANUAL

By J. S. NEWMAN

Late Professor of Agriculture and Director of the Agricultural Department of Clemson Agricultural College of South Carolina; Agriculturist and Vice-Director of the State Experiment Station, and Director of Farmer's Institutes.

J. S. NEWMAN

THE object of this work is to furnish a reliable, practical guide to those who desire to avail themselves of the wonderful facilities afforded by our Sunny Southland for supplying the family table with fresh vegetables from the kitchen-garden every day in the year. Fifty years of successful experience in gardening and fruit-growing on both a domestic and commercial scale, inspires confidence in my ability and right to speak "ex cathedra" on the subject.

Detailed instructions are given for the preparation of the soil, for the fertilizing, planting, cultivation and harvesting of the vegetables and fruits suitable for the home and market garden.

The spray calendar for both vegetables and fruits will be found useful to every gardener and fruit-grower. Directions are given for making and applying the principal insecticides and fungicides used in garden and orchard.

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"The Southern Gardener's Practical Manual" is the title of a new book on gardening in the South, by Prof. J. S. Newman, formerly of Clemson College, S. C. Professor Newman is an enthusiastic gardener and eminently fitted to write a book of this kind, and the book itself is undoubtedly the best work on the subject in print today.—F. J. MERRIAM, *Editor Southern Ruralist*.

"I wish to cordially indorse and recommend to the farmers and gardeners of the South this little book of 220 pages from the pen of my old friend and confrere and long-time vis-a-vis, Professor J. S. Newman, late professor of Agriculture and director of the Agricultural Department of Clemson College, South Carolina. He was for many years director of the Alabama Experiment Station. He was a close associate and vis-a-vis of the writer in the Georgia State Department of Agriculture for quite a number of years. But better than all—for the present purpose—he has been all his life a practical gardener, and comes as near knowing all about practical gardening and fruit-growing as does any man of my acquaintance. In this book he has told the story of the garden in plain, every-day style. He tells how to do things. There are no unnecessary digressions or theoretical discussions. The truth is, I expected that he would write a larger book; but, perhaps wisely, he has concentrated and condensed into a comparatively small compass the experience of fifty years in the garden itself."—R. J. REDDING, *Agricultural Editor Atlanta Constitution and Director of the Georgia Experiment Station*.

"This is one of the most concise and handy gardener's manuals we have ever read. Every southern farmer ought to have a copy of it and keep it at hand for constant reference. If its advice is acted upon, there will be no scarcity of vegetables and garden products for the table at all seasons of the year, and the good wife will be spared many hours of anxiety as to what she is to find to cook to make an appetizing meal. The work is the outcome of Professor Newman's long practical experience in the garden, and the advice given is so plain and direct that any man capable of reading at all can understand what he ought to do to succeed with a garden."—J. F. JACKSON, *Editor Southern Planter*.

"This little volume is precisely what it purports to be—a practical manual for the gardener in the South. The author calls attention to the well-known fact that, since White's famous work, "Gardening for the South," "there has been no work which furnished a reliable, practical guide to the southern gardener." And we may say, what the author's modesty forbids, that, not excepting White's book, this is far and away the best guide that the southern gardener has ever had. * * * Altogether the manual is one of the most thoroughly practical and one of the best arranged that we have ever seen, and is the very best that has ever been published for the southern gardener. It should be in the hands of every man or woman who raises vegetables."—A. E. GONZALES, *Editor The State*.

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SEVEN HUNDRED ACRE PECAN GROVE,

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The Largest Pecan Nursery in the World

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It is also a fact that they have a number of *3 year old budded and grafted trees in bearing*. Visitors are always welcome. When in need of anything in the Pecan line, whether trees or nuts, write

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Mitchell County.

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How to Plant it
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How to Buy it

EDITION III.

GOLD MEDAL, ST. LOUIS, 1904

The G. M. Bacon Pecan Company, Inc.

De Witt, Mitchell County, Georgia, U. S. A.