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Vincennes Nurseries Nut Catalog

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U. S. DEPARTMENT OF AGRICULTURE



SCENE IN NATIVE PECAN LAND
Near Henderson, Kentucky

Original Propagators of Hardy
Pecans and English Walnuts
for Northern Planting

W. C. Reed - - - - Proprietor
Vincennes, Indiana, U. S. A.



Original Tree Indiana Pecan

ANNOUNCEMENT

To Patrons desiring Fruit Trees would call attention to the fact that we have 150 acres in Solid Nursery Stock and can furnish Cherry, Peach, Pear, Apple and Plum in large quantities; also Ornamentals. Ask for Fruit Catalog. Commercial planters submit list of wants for prices

Introduction

Since issuing our Nut Catalogue in the Fall of 1912 (which was the first Catalogue of Hardy Northern Pecans issued by any Nursery) we have found the interest in Nut Trees more wide-spread than anticipated, having had calls for same from England, France, Germany, Prussia, Panama, Philippine Islands, Porto Rico, Bombay, British India, South America, and numerous other foreign countries. Our supply became exhausted and we were compelled to hurriedly issue a supplement.

In this issue we have increased the pages, also the number of varieties listed. We have kept in close touch with the developments of Nut Culture in the North, working in harmony with the Department of Agriculture. The Northern Nut Growers Association, the different experiment stations and leading authorities along this line.

We have devoted much time and money in tracing up valuable varieties and studying out methods of propagation. The trees we offer are the best that can be produced by the latest methods under close personal supervision.

To whom it may concern, would say Mr. W. C. Reed has been in the Nursery business for 28 years. Having established the Vincennes Nurseries 25 years ago and has grown a general line of Nursery stock.

Having specialized in the growing of Cherry trees until today we have the largest blocks of Cherry trees to be found in the United States. Vincennes Cherry are acknowledged the Standard for Quality.

About ten years ago we commenced the propagation of the Hardy Northern Pecan in a very limited way and grafted the first Pecan trees ever produced in the North. The first Pecans we budded were sold to Mr. T. P. Littlepage. Since that time have furnished nearly all of the Experiment Stations where they can be grown.

Since commencing the propagation by budding and grafting of Pecans and English Walnuts it has been our policy not to offer Seedling Trees of same at any price knowing that they would not prove satisfactory.

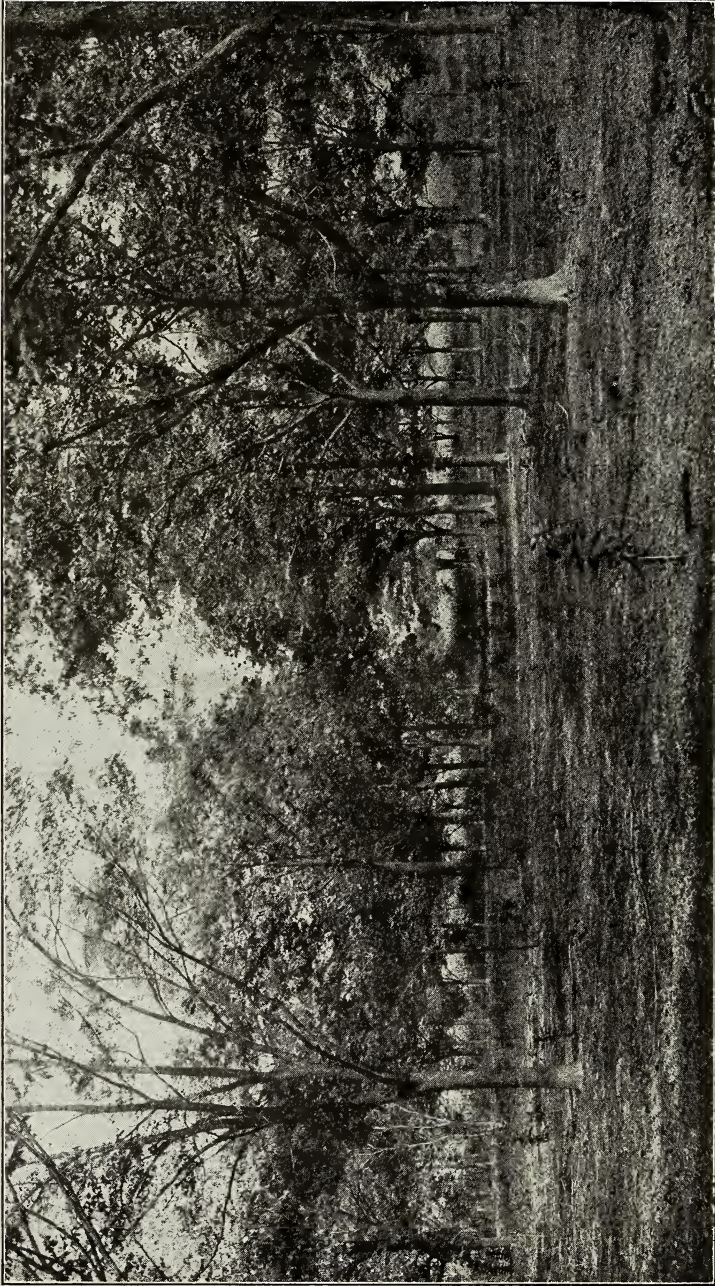
Mr. Meredith P. Reed helped to bud the first Pecans we ever propagated and has had much of this work in charge and has become an expert along that line.

Not wishing to mislead or encourage any one to plant Pecans where they might not succeed, we offer the map and article on Pecan areas and trust it may be of much value to our customers. Our stock of grafted English Walnuts is perhaps the largest east of the Rocky Mountains. In budded and grafted Pecans our stock of large size saleable trees is second to none.

Demand for trees has exceeded the supply and we have been compelled to return a large number of orders each Spring unfilled. Having increased our plant and become more efficient in the propagation, we now are in position to furnish trees in quantity and can accommodate the Commercial Planter.

The cuts in this catalogue are as near actual size as it is possible to have them. In the descriptions and information given, we have tried to be as accurate as possible, and desire to merit the esteem and good will of our customers and friends, feeling that a bearing Pecan or Walnut tree in the possession of a satisfied customer is a lasting monument for centuries to come.

THE VINCENNES NURSERIES
W. C. Reed, Prop. Vincennes, Indiana



First planted grove of Northern Pecan, at New Harmony, Indiana. Had this grove been planted with Budded Trees it would have made the owner a fortune. Being all Seedlings only a portion has been profitable owing to fact that only about 60 per cent of Seedlings ever bear and only a small percentage of these are large enough for profit.

To Customers

Prices quoted in our Catalogue are F. O. B. Vincennes, Ind., all trees carefully packed and guaranteed to reach destination in first class condition.

Shipping—Express shipments are carried at 20 per cent less than regular merchandise and we recommend that all Nut Trees be shipped that way, and unless otherwise instructed will forward by Express. Large orders are boxed and can be shipped by Freight.

Terms—Cash on or before delivery to transportation company. Where orders are placed some time in advance one-half cash, balance C. O. D. excepting where we open accounts with patrons by previous arrangement.

Responsibility—We refer to any Bank or Business House in Vincennes or Dunn or Bradstreets commercial agencies.

Shipping Season—Opens about October 15th and lasts until May 1st. We have frost proof packing house, 60 by 125 feet and orders wanted early can be dug late in the fall and buried in sand and shipped at any time during winter that weather is safe

Root Pruned—When packing Nut Trees we usually trim Roots ready for planting preferring to give this gratis to know that it is properly done. Tops should be shortened back after setting.

Packing—All bales are paper lined and burlapped. Boxes are paper lined, this prevents evaporation and also keeps out frost in case of cold weather.

Care of Stock When Received—Soak Trees well with water on arrival and bury in trench or place in cool cellar until holes are dug, do not expose to sun or weather. In case Trees are received frozen bury same at once without opening until all frost is out.

Commercial Planting—To those wishing to set Commercial Orchards will be pleased to have you visit Nurseries and inspect our stock.

OREGON AGRICULTURAL COLLEGE

Experiment Station, Hermiston, Ore., April 8, 1914

Dear Sir:—Prof. E. R. Lake, Pomologist United States Department of Agriculture recommends that I get the Major, Posev, Indiana, Greenriver and Kentucky. Please forward three trees of each and three Weiker Hickory.

Yours truly,
R. W. WALKER, Supt.

PENNSYLVANIA SCHOOL OF HORTICULTURE FOR WOMEN

Ambler, Pennsylvania, November 25, 1913

Dear Sir:—The students unpacked your shipment of Pecan trees today. They were in excellent condition and we all admired them.

Yours truly,
J. L. DEAN

Evansville, Indiana, September 26, 1916

Dear Sir:—The Pecan Trees purchased from you last year have come through the summer O. K. and look for a nice growth next season. Did not lose one.

T. L. KERTH

Williamsport, Pennsylvania, January 6, 1914

Dear Sir:—Please send me your Nut catalogue. Dr. Deming, Secretary of the Northern Nut Growers' Association referred me to you as a reliable party.—H. T. Heim,

Nevada, Missouri, March 15, 1916
Dear Sir:—Please send copy of Nut Tree Catalogue. I have been told it is a reliable source of information. My informant, Bureau of Plant Industry, Dept. of Agriculture.

Mellville, Rhode Island, November 16, 1915

Dear Sir:—Trees arrived and they look all right. There is an English Walnut near here thirteen years old that bore 4 bushels this year.—Amos F. Marvel.

Pecans

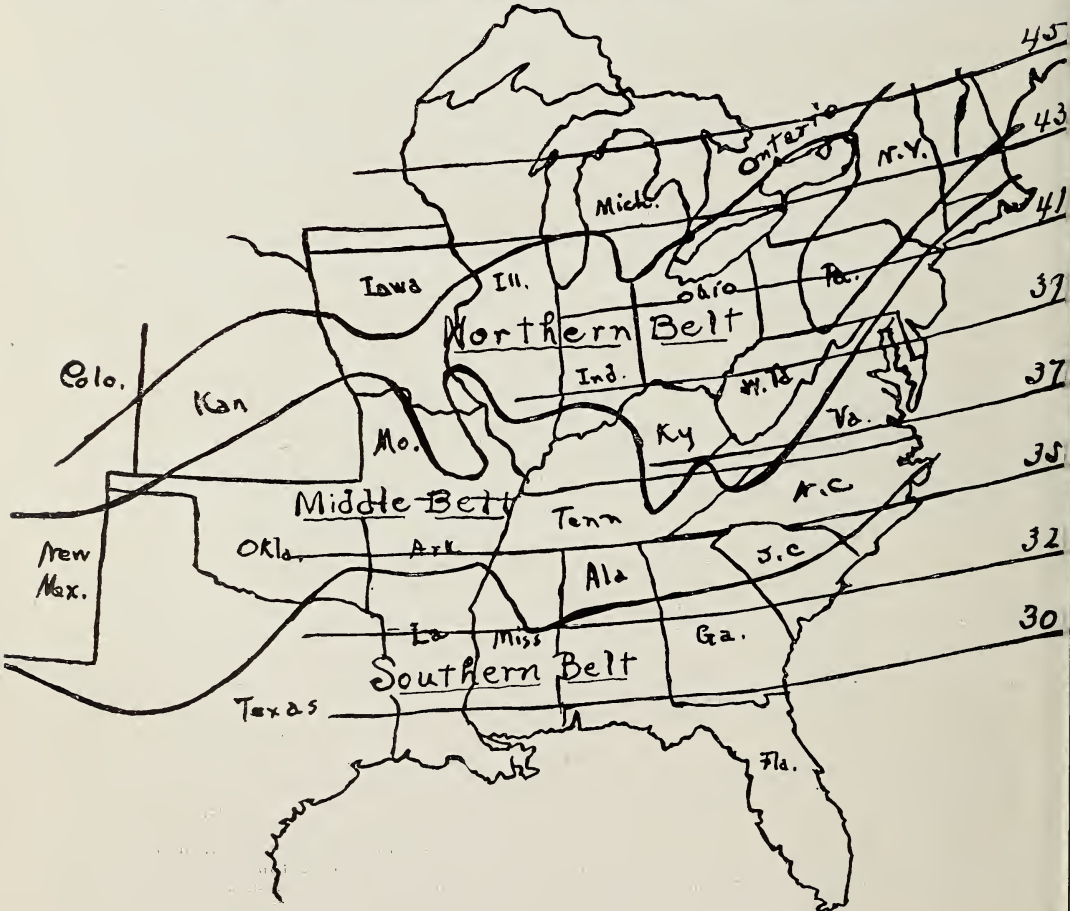
The Pecans as grown in the North are perfectly hardy. There are two bearing trees at Clyde, Ohio, 25 miles south of Lake Erie. These trees are 20 years old and have been bearing for the past 10 years. These are located opposite the traction station.

There are two trees on the grounds of M. Geisler, twelve miles south of Lincoln, Nebraska. Also two trees on grounds of E. Y. Grupe, 157 south 30th St., Lincoln, Neb. These trees have been bearing for several years. Two trees on the grounds of Chas. Patton, Charles City, Iowa.

There are other seedling trees growing in Michigan, Canada and most of the New England States.

PECAN AREAS OF THE UNITED STATES

Boundaries of the Three Pecan Belts Are Shown by Heavy Lines



The Pecan is found native in the Mississippi, Wabash and Ohio Valleys, growing as far north as Davenport, Iowa, Covington, Indiana, and Cincinnati, Ohio, covering a portion of Iowa, Indiana, Illinois, Ohio, Missouri and Kentucky.

Indiana, Illinois and Missouri ship annually about ten car loads each of Pecans.

CAN I GROW PECANS?

This question is asked by many of our correspondents. We are pleased to answer same more fully by reproducing the following paper written by Mr. M. P. Reed, by referring to the map and the different Belts that different varieties are adapted too, it will enable you to select varieties suited to your locality.

ADDRESS BEFORE THE WESTERN ASSOCIATION OF NURSERYMEN
KANSAS CITY, MO., DECEMBER, 1915

AREA IN WHICH THE PECAN MAY BE PROFITABLY GROWN Meredith P. Reed, Vincennes, Indiana

The increasing cost of farm lands, due to the rapid settlement of the country and the growing demand for food stuffs from the great centers of population, make it necessary that greater returns be obtained from the soil than formerly. This, in turn calls for the exercise of more care in the selection of the crops best suited to the several localities and for additional knowledge as to the chief climatic factors in order that the maximum possible return shall be obtained both from the smallest amount of land and with the minimum of effort.


The growing importance of nut orcharding in all portions of the country and the tendency toward intensive cultural methods for all crops and the effort made to extend the field of profitable growth of new and important varieties of farm products, necessitate the most careful consideration of the several factors that make for the success or failure of such effort.

Probably no factor in the study of climate from the standpoint of the nut orchardist should be given more consideration than the average length of the growing season. Much loss has been occasioned by efforts to extend such operations into fields which a careful study of the climate would have revealed as unsuitable on the average for such extension. This has been clearly demonstrated by those who believed that the Southern Pecan would succeed throughout the entire Cotton Belt

All nut enthusiasts practically agree that there are three "Pecan Belts," the Southern, the Middle and the Northern, but to my knowledge none of them has been defined except in a vague, general way. The Southern Belt has been determined more clearly than any other. Formerly it was the impression that the Southern or Gulf Coast varieties would succeed anywhere in the Cotton Belt. In a recent letter from T. P. Littlepage of Washington, D. C., he says: "A few years ago I made a trip down through Missouri, Arkansas and Tennessee and studied the pecan trees in those sections. I found the pecan trees there having all of the characteristics, wood growth, foliage, form of the branches, identical with those in Indiana, but I found that they had a longer growing period. That is to say, the nuts did not ripen quite as early as they do in Indiana. The Gulf Coast pecan tree is radically and materially different from the Northern tree. The wood itself is brash, coarse and not very strong. The bark of many of them is of a whitish hue. I saw a grove of seedling pecans at Coden, Alabama, on the Gulf Coast a few years ago and looking at the bodies of the trees from a distance you would think they were small sycamores. Of course not all of them look that way, but there is a very great percentage of them having a whitish cast. This disappears when you get up in the native pecan timber in the Middle Belt and, as I have said, the difference there is based more largely upon the growing period. But it is a serious mistake for a man in the Middle Belt to set those Gulf Coast varieties. I saw quite a number of them severely winter-killed at Birmingham, Ala., a few years ago."

Mr. Littlepage also says that some of the Gulf Coast varieties are almost as tender as the oleander and cannot be brought away from the Gulf Coast safely.

Where most of the Southern varieties originated they have an average grow-



VINCENNES NURSERIES, VINCENNES, INDIANA.

ing season of 270 to 290 days. Bringing these same varieties only as far North as Atlanta, Ga., one reduces the growing season to 220 days; the probability of their being frost bitten is very apparent. However the northern limits of the Southern Belt have been defined by an imaginary line running approximately from Wilmington, N. C., westerly through Augusta and Atlanta, Ga., Birmingham, Ala., bearing on Southwest almost to Jackson, Miss., thence northward crossing the Mississippi in the vicinity of the 24th parallel continuing on through Pine Bluff, Ark., and McAlester, Okla., and on southwest to El Paso, Texas.

A minute study of climatic charts shows that Western Kentucky, a small portion of Southern Illinois and the extreme southwest corner of Indiana has the same length of growing season as Tennessee and a part of Northern Georgia and Alabama. This warm pocket of air is probably caused by the confluence of the Wabash, Ohio and Mississippi rivers and the protecting mountains of Eastern Kentucky, and the Ozarks of Missouri. In this so-called "pocket" is what is known as the "Evansville Group" of pecans, namely the Major, Greenriver, Kentucky, and Warrick, which, in their native habitat, have a growing season of 200 days which places them in the "Middle Belt." In defining the northern limits of this belt I will exclude all territory having a growing season of less than 180 days, except sections where local conditions make that section at variance with the rest of the "Belt."

Taking 180 days growing season as our basis, we start at Newport, R. I., continuing southward almost to Asheville, N. C., coming around the Cumberland mountains bearing almost due north to Louisville, Ky., on through Vincennes, Indiana, Bellville, Ill., thence northward crossing the Mississippi at Hannibal, Mo., thence dropping southward around the Ozarks in Southern Missouri and again northward through Moberly and St. Joseph, Mo., and on southwest to Santa Fe, New Mexico.

Taking up the Northern Belt, the first consideration is the varieties which to date are the Posey and Butterick, with a growing season of 190 days, and the Indiana, Busseron and Niblack with a growing season of 180 days. As in the case of the Middle Belt varieties, it is reasonably certain that these Northern Belt varieties will succeed with a 20 day shorter growing season, thereby taking in that territory below a line running from Portsmouth, N. H., almost south to Cumberland, Md., turning northward through Pittsburg and Bradford, Pa., Auburn, Syracuse and Watertown, N. Y., skirting the northern shore of Ontario, through Detroit, dipping down to the northern edge of Indiana, thence back to the 43rd parallel through Grand Rapids and Milwaukee, bearing a southwesterly direction on to Trinidad, Colorado.

Throughout the entire mountain and plateau regions there are protected valleys and slopes where the influence of topography on air drainage is sufficient to considerably modify the effect of latitude in the distribution of temperature, and fruits native to localities much farther south may be grown with little fear of frost injury.

Consideration of these points is essential to the successful locating of sites for orchards in all hilly and mountainous regions, it being possible to find belts on the sides of mountains or high hills where plant growth begins several weeks earlier in the spring than at the tops of the hills or in the valleys below; and likewise in autumn, frosts are delayed to the same extent, thus lengthening the growing season in these belts several weeks.

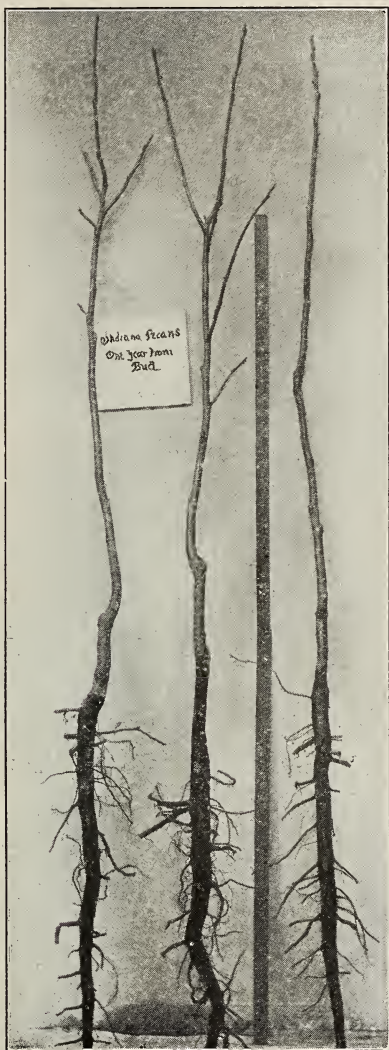
The influence of large bodies of water in tempering the severity of frosts is clearly brought out in the vicinity of the Great Lakes, also along the Atlantic Coast.

The prospective pecan orchardist should consider several important points before he sets any trees. They are: Soil, growing season, annual precipitation, varieties and last but not least the nurseryman with whom he is doing business. The fake promoter and the crooked nurseryman will no doubt come in for their inning in the North as they have in the South and the public will be imposed upon by inferior and "doctored" trees.

The different belts I have set forth are where, in my opinion, the pecan may

be commercially grown with reasonable safety and even north of the Northern Belt there isn't a doubt that the tree itself will succeed and bear some seasons; and if one plants for shade why not plant the pecan; few trees excel it for loftiness or beauty.

There are those who may disagree with me on the above limits I have named and in reference to these will say that these are only my opinions based on data I have gathered and observations I have made and I may be mistaken. If you do agree with me, let us use these "until we or some future generation shall find the right."



Budded Pecan Trees, One Year Old

COMMERCIAL PLANTING

With the introduction of such hardy and splendid thin-shelled varieties as mentioned in this catalogue, we see no reason why the Pecan belt may not be extended much farther north than was formerly supposed.

Why invest in Pecan orchards many miles from home when you can plant your orchard where you can see that it has proper care and attention and enjoy the pleasure of watching it grow and come to maturity under your own personal supervision, which will insure success?

PECAN AS A SHADE TREE

Every home should have at least a few shade trees. The Pecan makes a beautiful shade tree. The six to eight, and eight to ten foot trees are adapted to street and lawn planting and when the side limbs are removed and tops shortened back these large trees transplant readily.

Why not plant pecans and enjoy the fruit as well as shade? They will last a century. When planted as shade trees they should be well mulched or kept cultivated until well established.

Withstand Cold. Budded Pecan trees in our Nursery, One Year old withstood the winter of 1911-1912 without injury even though the mercury registered 20 below zero. Parent trees bore very heavy crop following summer.

SOILS

Pecan trees will succeed on a wide range of soils; while it is native of the river bottoms, it succeeds well on the sandy or clay uplands. It will succeed in the overflow lands, but does its best where the water does not stand or become stagnant. A good, loamy soil, underlaid with a medium clay subsoil, is ideal.

TRANSPLANTING

Late fall and early winter are the best times for transplanting the Pecan, but they may also be transplanted in early spring. In this case it is well to have trees shipped during early winter, heeled in carefully and protected from the sun until

the season becomes favorable for transplanting; for those preferring spring planting we can ship early as wanted.

Pecan trees should be planted 40 to 50 feet each way; the stronger the land the greater the distance.

Transplanting Pecans requires more care than is usually given fruit and shade trees, on account of the long tap root. However, trees that are properly dug and packed and carefully set out at the right season should live as well as fruit trees.

The soil should be tamped very solid around the roots. Holes should be dug deep and of good size. Dynamite can be used to good advantage in planting Pecans. Be sure to allow a few hours for the fumes to get out of the soil before setting.

All trees should be pruned to straight whip and tap root shortened back slightly when transplanting.

CULTURE

Pecan Trees respond readily to good cultivation and fertilization. Where they are planted in gardens or lawns they should be well mulched or kept hoed around, so as to keep the ground from becoming baked.

The roots go deep into the soil, so crops can be cultivated near them without any danger of injury.

PLANT BUDDED TREES ONLY

Nursery production of Pecan trees in the North is much more expensive than in the South. Most Southern nurserymen propagate the Pecan by root grafting below ground; this method is cheap and more rapid. In the North, however, the grafts do not seem to unite well and form a weak union that will invariably winter-kill the first winter. For this reason all our trees are budded on strong stocks three to four years old, and worked above ground, which is very much slower and more expensive. Trees propagated in this manner are perfectly hardy, and ripen up their wood early.

Varieties Offered

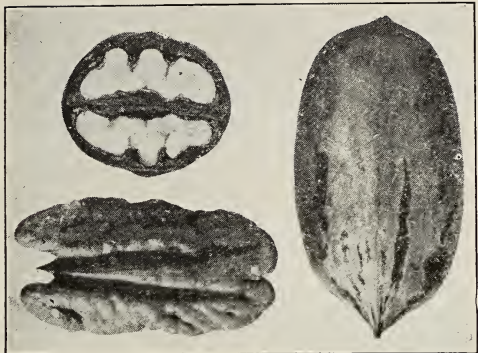
PRICE OF BUDDED AND GRAFTED HARDY PECANS

	Each	Per 10	Per 100
2 to 3 foot trees -----	\$1.50	\$12.50	\$110.00
3 to 4 foot trees -----	1.75	15.00	130.00
4 to 5 foot trees -----	2.00	17.50	150.00
5 to 6 foot trees -----	2.25	20.00	175.00
6 to 8 foot trees, select -----	2.50	22.00	200.00
8 to 10 foot trees, select -----	2.75	25.00	225.00
10 to 12 foot trees, select -----	3.00		



Indiana

Indiana—This variety originated in Knox County, Indiana, is perhaps the best known (owing to its name), and has not failed to produce at least a partial crop annually for 15 years, since it has been under close observation the past 7 to 8 years. It has usually borne from 100 to 300 lbs. Tree located in cultivated field, circumference 5 feet, height about 60 feet, spread of top 50 to 60 feet. Nut is of good size, moderately thin shell; the texture of kernel is solid, fine grained and splendid quality. Nuts on cover pages of this variety reduced in size. (Origin Northern Belt.)



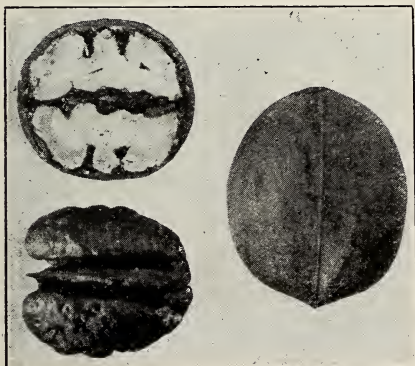
Busseron

Busseron—Originated in Busseron Township, Knox County, Indiana, about 200 yards from the Indiana. These two nuts are almost identical, except the Busseron has a larger husk. Parent tree 3 feet in diameter, annual and prolific bearer. Young trees in the nursery have matured fruit two years from bud, showing a tendency for very early bearing. Nut is of good size, uniform and among the largest of the northern types; quality of the best; kernel fine grained; shell moderately thin; the Indiana and Busseron are the two most Northern Pecans that are being propagated and were brought to notice by Hon. Mason J. Niblack and were the first Northern Varieties to be propagated. Owing to its being a strong grower and tendency to early bearing have propagated more of this variety than any other. (Origin Northern Belt.)

Major—From the Major Grove, Henderson County, Kentucky. Parent tree prolific annual bearer. Crop 1912, 160 lbs. usually bears 100 lbs or more. Size slightly below medium; shell thin; kernel unusually plump; quality rich, flavor excel-



This "Major" Pecan tree withstood the coldest day Toronto ever knew, 22 degrees below zero in January, 1914. The growth for summer of 1915 from little girl's finger up. For 1914 from tar paper. Last summer I cut off a lateral branch of 2 foot growth.—Prof. G. H. Corsan, Toronto

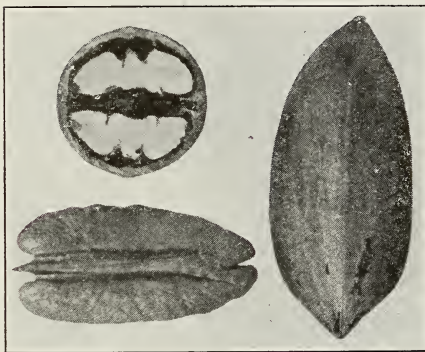


Major Pecan

VINCENNES NURSERIES, VINCENNES, INDIANA.

lent, one of the best crackers; shape of kernel is one of the most desirable for Confectionery purposes. (Origin Middle Belt.)

Niblack—Parent tree 3 miles South of Vincennes. Annual bearer and very prolific annual bearer. Crop 1912, 160 lbs. 1914, 225 lbs; Crop 1915, estimated 100 lbs; Parent tree 20 inches in diameter, 50 to 60 feet high, 40 foot spread. Nut of Medium size; the thinnest shell of any variety that has come to my notice.



Niblack

Kernel is tapering, a beautiful straw color, splendid quality. In cracking the kernels invariably corner out whole. The cracking qualities are sure to make this a popular variety. Was brought to notice by Hon. Mason J. Niblack, for whom we have named this variety. (Northern Belt.)

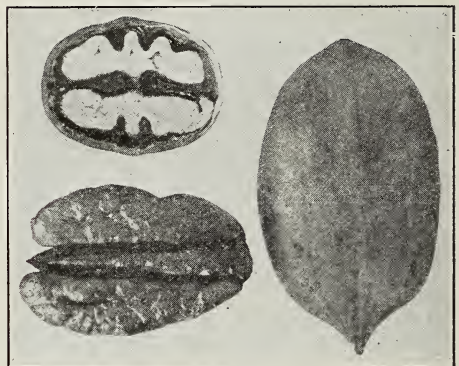
Posey—Origin Middle Belt Gibson



Warrick

County, Indiana, near Grayville, Ill. The largest Northern variety yet offered. Thin shell, splendid cracker, quality among the best. Crop 1914, 125 lbs. Tree located in edge of corn field, near timber. Crops 1911 and 1912 not so heavy. I do not consider it a heavy cropper like Indiana or Niblack, but its size and cracking qualities will make it popular and it may prove to bear better under cultivation.

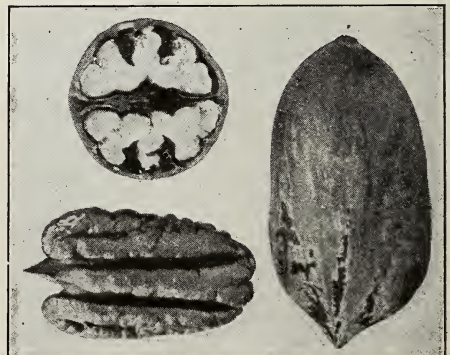
Warrick—From Warrick County, Ind-



Posey

iana. Medium size, quality rich, flavor excellent. Parent tree very regular bearer. (Origin Middle Belt.)

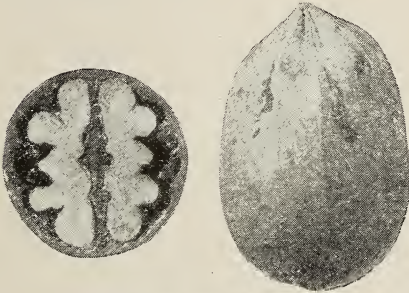
Kentucky—Origin near Rockport, Indiana. Size medium; moderately thin shell, of good quality; owner says tree has only missed two crops in 20 years. Crop 1912, 4½ bushels. (Origin Middle Belt.)



Kentucky

Greenriver—From Henderson County, Kentucky. Parent tree $2\frac{1}{2}$ to 3 feet in diameter, located in forest. Has not missed a crop in the past 12 years. Crop 1912, 250 lbs. Nut medium size; shell average thickness; kernel plump, quality rich; flavor excellent. Owing to its oval shape, one of the best crackers. (Origin Middle Belt.)

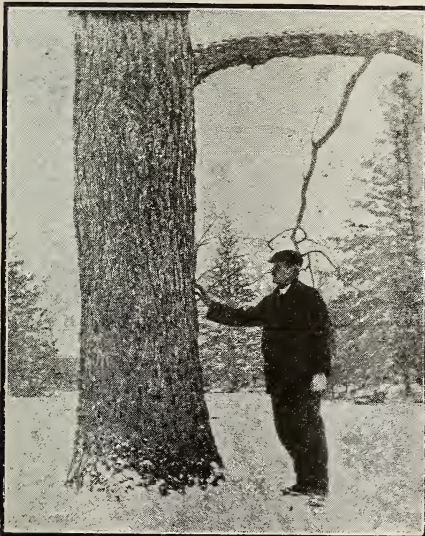
owner stated he had owned the farm 50 years, and that it was a good sized bearing tree at that time. Consider this one of the best. Nut is large, very thin shell, splendid cracker, kernel full and of excellent quality. Crop 1913, 350 lbs. when other trees bore light crop. (Origin Middle Belt.)



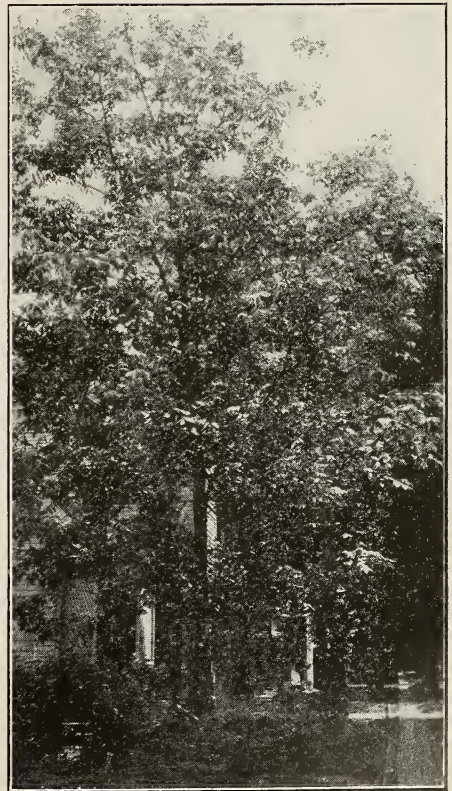
Butterick Pecan

Butterick—near Grayville Ill. This Giant tree stands in open field, measures 14 feet in circumference, 90 feet spread and 100 feet high, usually bears from 5 to 7 bushels. Owner tells me he has owned this tree 46 years, and it has not missed more than 2 or 3 crops, and when he bought the farm the former

Mantura—The original tree is growing in Surrey County, Virginia. Tree is large and symmetrical. The Nut medium to large; shell thin; kernel dark straw colored and of good flavor. Tree a vigorous grower, recommended for planting in the middle range. Top worked trees have borne the second year from grafting.



Seedling Pecan Tree, Hartford, Conn., 9 feet, 3 in. circumference



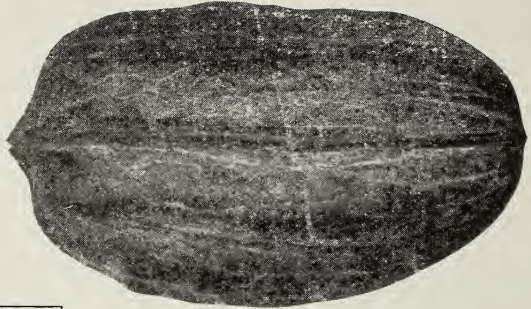
Pecan Tree, Lincoln, Neb.

I have two Pecan trees 20 years old, 40 feet high, that have borne every year for past 9 years. E. Y. Grupe, 157 South 30th St., Lincoln, Neb.

McAllister—A true hybrid showing considerable Hickory blood, but resembling the Pecan. Splendid foliage, strong grower. Limited number of grafted trees \$2.00 each.

Hickories

We are trying out a number of the best thin shell Shagbarks that have been brought to notice by the Department of Agri-



McAllister

culture and the Northern Nut Growers Association, such as the **Weiker, Swaim, Casper, Reike, Barnes and Kentucky**. Can furnish a limited number of trees at \$2.00 each our selection of the above.



Weiker Hickory Nut

Seedling Shagbark Hickories

To those who wish to plant Seedling Trees can furnish same grown from selected seed. 3 to 4 feet, stocky trees, 75c each; \$6.00 per 10.



English Walnut Orchard of Adelbert Thompson, Avon near Rochester, N. Y., containing 228 trees. Crop 1913 sold for \$2080. Trees are all seedlings, many non-productive and small, had they been budded trees crop would have brought several times the above amount. This orchard was formerly planted with peach as fillers a splendid plan to follow.

Persian (English) Walnut

Ever since the Colonists first established themselves in the Western Hemisphere, nut trees have been planted up and down the Atlantic Coast. One of the species oftenest included in such plantings was a Walnut, a native of Persia which, with Romanism had spread across Europe and the Channel into England.

In the old world it had variously been known as Jove's Nut, under the supposition that it had once been the food of the Gods; Royal Nut meaning King's Nut; and by other common names which would be interesting to discuss, but which are not pertinent in this connection.

In England it had been known, merely as the Walnut, but in the New World, to distinguish it from the walnut found here, it was called English Walnut. In the Trade today it is commonly known by the Old World name. However being a native of Persia, it was long ago decided the correct name should be Persian walnut, as such it has been referred to in scientific publications for well toward a quarter of a century.

The Persian Walnut orchards of California from which today the bulk of the production is being realized, are of seedling trees.

PLANT BUDDED TREES

However the Californians have learned their lesson and today are replacing their orchards with budded stock as rapidly as possible. They have found that while the Persian walnut, which for centuries has been grown from seed, will reproduce itself fairly true to type, it does not repeat true variety, every tree no matter how carefully its parentage may have been guarded, is unlike any other.

SEEDLING TREES

The Seedlings differ in traits of vigor, hardiness, susceptibility to disease, time of beginning to bear, productiveness, and longevity, and the nuts vary in size, form, thickness of shell, ease of cracking, etc.

The people of California have also found that in many ways, Persian Walnut trees on their own roots are less desirable than are those budded or grafted on black walnut.

Subsequent to this rather limited and scattered planting on the Atlantic Coast, by perhaps 300 years, the Persian put in its appearance on the Pacific Coast, following the Gold Rush of 1848 planting became more general, but usually with hard shell strains and always with seedling trees.

From these early trees the crops were never of great importance. In 1867 Mr. Joseph Sexton, of Santa Barbara, planted a sack of walnuts purchased in the markets of San Francisco, which he had reason to believe were grown in Chili, S. A. Of the resulting trees some were good, others mediocre and some worthless.

About 1871 Feliz Gillet in Northern California began the introduction of French Walnuts both of seeds and scion. Out of his efforts and those of others who joined him developed the walnut industry of Northern California.

The famous French varieties of Franquette and Mayette were introduced by Mr. Gillet.

Notice. The above article was taken from a paper prepared and read before the Northern Nut Growers Association at Rochester, N. Y., September 1915, by Mr. C. A. Reed, Nut Culturist, U. S. Department of Agriculture, Washington, D. C. Mr. Reed is in no way connected or related to any member of our firm, simply has the misfortune to spell his name the same. Have taken the liberty to copy same, feeling it covered the ground most thoroughly.

DISTRIBUTION

There are bearing Persian Walnuts scattered over some twenty or more states of the Union. On the Western slope, California, Oregon, Washington, Arizona, New Mexico, Utah and Idaho.

Eastern States: New York, Pennsylvania, New Jersey, Delaware, Maryland, Rhode Island, Virginia, Connecticut, Massachusetts, Carolinas.

Central States: Ohio, Indiana, Michigan, Missouri, also in Southern Canada.

Prof. Fagan of State College, Pennsylvania, commenced a survey of the Persian Walnut in that state and up to September 1, 1915, had located about 2,000 trees in twenty-five counties. One grove in Erie county, containing 250 trees, 14 years old.

Prof. Fagan estimates there may be 5,000 trees in Pennsylvania. New York in the vicinity of Rochester has a number of orchards, one of the largest at East Avon. Also a roadside tree at Barnard, 105 years old. One at St. Catherine, Ont., 60 years old.

ORCHARD PLANTING

California was the first to plant the walnut as a commercial proposition in orchard form. This plan has been adopted by all the western walnut growing sections. Owing to the fact that the Persian Walnut makes a very large tree and are planted 40 to 50 feet apart, other crops can be grown on the same land for a number of years and with the increased cultivation has given best results.



Budded English Walnut, Planted 1911, Bore Twenty-one Nuts 1913; Sixty Nuts 1914

Fruit Growing did not develop until it was possible to secure budded and grafted trees. The same is proving true of the English Walnut. The poor trees in California are being worked over and the greater portion of all new plantings are of budded and grafted trees.

Trees on their own roots are more tender and lacking vitality are inclined to grow too late and do not ripen up their wood.

PRUNING THE WALNUT

When planting all trees should be shortened back severely and after they have grown two years, shorten back all straggling and irregular growth and keep a round, compact head, which will give you more bearing surface and an upright tree.

CULTIVATION

The English Walnut, like the Peach, will respond to thorough cultivation. Trees in our garden set three years have made 4 to 5 feet of growth this summer.

Peach and Cherry trees make good fillers to set between your walnuts. The same cultivation will prove beneficial to all and vegetables can be grown between the trees.



English Walnut Tree, 75 years old, Charlotte, New York, owned by B. S. Abrams; average crop four to five bushels since 1886. Crop 1915, eleven bushels; circumference of tree, eight feet and two inches.

VARIETIES

The question of what are the best varieties must be left to the future to decide.

We have endeavored to select eastern varieties that have borne well and withstood the rigors of our cold winters. The French varieties however, give great promise of being the coming varieties for eastern and western planters owing to the fact that they are two weeks later coming into leaf in the spring and the danger of injury from frosts is much less.

They seem to be equally as hardy when budded on the native Black Walnut and as to quality there is nothing to equal them.

Therefore we would recommend for commercial planting such varieties as Mayette and Franquette for the main planting. These are the ones that have proven best in Oregon and Washington.

Prof. Gossard of Wooster, Ohio, in the Ohio Forester says: I celebrated Thanksgiving day by planting eighteen of Mr. Reed's (Nut) Trees on my farm north of Wooster. These were used as a roadside row and as lawn trees, for the Pecan is equal to or superior to the finest Oaks as an ornamental tree.

Washington, D. C., December 1, 1914
 Dear Mr. Reed—I forgot to tell you in my last letter that I received the bundle of trees which you sent. They came in perfect condition and looked just as well as if they had just come out of the ground. I never saw trees packed better for long distance shipment.

Yours truly,
 T. P. Littlepage

Mr. Littlepage is ex-president of the Northern Nut Growers Association.

ROADSIDE PLANTING

Much has been said about planting along our public highways. Fruit trees are not adapted to this kind of planting. The English Walnut and Pecan are specially adapted to this kind of work. Also for planting around the house and lawn they make beautiful shade trees, and if given proper attention should produce fruit as well. Careful attention must be given such trees to not expect them to grow unless they are cultivated; the better the cultivation the better they grow and bear.

Varieties Offered

IN BUDDED AND GRAFTED TREES

PRICES, ENGLISH OR PERSIAN WALNUTS
All Trees Budded or Grafted on Black Walnut Roots

	Each	Per 10	Per 100
2 to 3 foot trees -----	\$1.50	\$12.50	\$110.00
3 to 4 foot trees -----	1.75	15.00	130.00
4 to 5 foot trees -----	2.00	17.50	150.00
5 to 6 foot trees -----	2.25	20.00	175.00



Black Walnut Top Worked to English Walnut one season's growth. Photo August 22, 1914, being inspected by Northern Nut Growers at our Nurseries.

If total order amounts to fifty trees, either Pecan or Walnut, same furnished at hundred rates.

In an article in a recent issue of American Fruits Dr. Robert T. Morris of New York City, first president of the Northern Nut Growers' Association, and chairman of its executive committee, directs attention to statements in nursery catalogues which are misleading in relation to nut trees. He says:

"Almost none of the nut trees bear true to type from seed. I have a number of catalogues advertising named varieties of nut trees which are bound to disappoint customers who do not know that they must buy grafted trees in order to secure a type that is true to name. Furthermore, most of the seedling nut trees require very many years for coming into bearing while grafted trees bear early."

Mayette (Wi'z Strain)—This is the largest nut of the Mayette types; large and smooth, very attractive appearance; the shell is thin and cracks easily, releasing the plump, white kernel whole. Quality and flavor the best. Tree healthy and vigorous and should succeed in any place where ever the Walnut can be grown. We consider

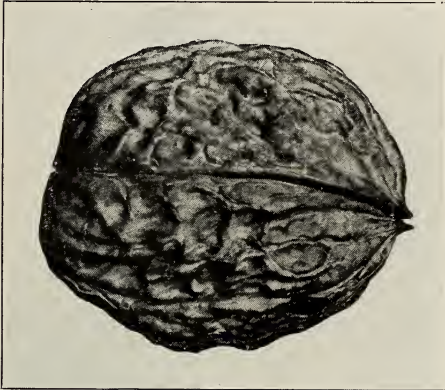


Mayette

VINCENNES NURSERIES, VINCENNES, INDIANA.

this the best of the French varieties. Scions of this splendid variety have been secured at considerable expense; scion wood cut from grafted trees in bearing Orchard. Can furnish several thousand trees of this variety. Date of Vegetating at Vincennes May 1st.

Hall (Vegetates April 15th)—Originated in Erie County, Penn., by Mr. L. C. Hall. Original tree brought from Germany 60 years ago by a German settler. Tree very hardy annual bearer; bore good crop in 1912 when Peach trees in vicinity were all killed by the winter previous. This is one of the largest nuts we have ever seen of Bijou type; quality



Hall

good, a little rough and cracks open rather easily for Commercial purposes. Recommended for family use. Have a large Black Walnut tree top grafted to this variety 3 years ago that is doing splendid, no injury from the winter.

VROOMAN STRAIN

Franquette (Vegetates May 1st.)—This improved Franquette is another French Variety a close rival of the Wiltz Mayette and should be planted extensively. It has a thinner shell and more



Franquette

attractive than common Franquette and tree is more vigorous. This variety is planted more extensively in Oregon and Washington than all others. There is a tree of the Franquette type at St. Catherines, Ontario, 61 years old, bearing regular crops. Crop 1915, 200 lbs.

There is also a Grafted tree in Adams County, Pa., for Commercial Planting. We need nothing better than these two varieties. However, there are a number of Eastern Varieties that have proven reliable and owing to the fact that cross Pollenation is very beneficial, it might be well to plant other varieties.



Rush

UNIVERSITY OF CALIFORNIA
Agricultural Experiment Station

Berkeley, California, August 8, 1916

Dear Sir:—I have just had an inquiry from Mr. A. M. Miller of Santa Barbara regarding **Hardy English Walnuts** as they are anxious to know where to obtain the trees. I have referred him to you for information. The Pecans which we purchased from you last year are growing well at the University Farm at Davis.

Sincerely yours,

R. H. TAYLOR, Ass't Prof. of Pomology

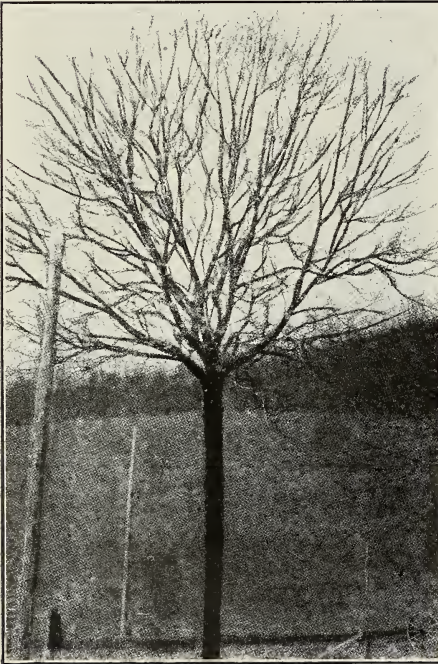
VINCENNES NURSERIES, VINCENNES, INDIANA.

Rush (Vegetates April 15th)—Originated by Mr. J. G. Rush of Lancaster County, Pennsylvania. The Rush was the first eastern variety to be propagated by budding and grafting. The nut is medium to large, quite smooth and attractive. The tree is strong and vigorous in growth, makes a beautiful shade tree and bears good crops of fruit very young and very regularly. It is self Pollenating and a good one to pollenate other varieties of Parisienne type.

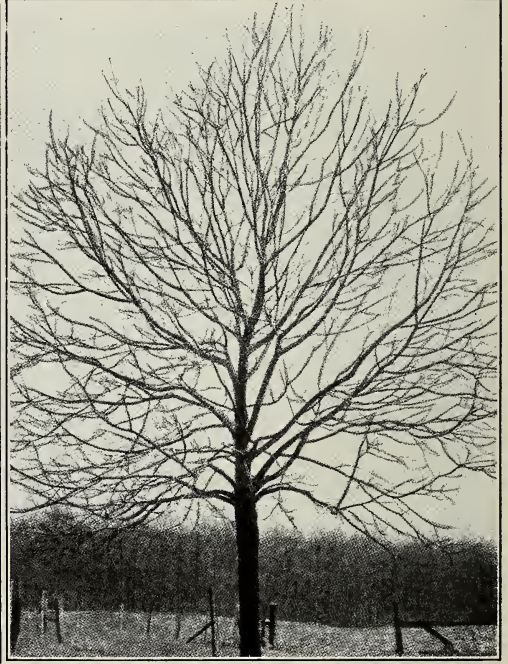
Nebo (Vegetates April 15th)—Originated in Lancaster County, Pennsylvania. The Nut is quite large of Parisienne type, kernel is full and of very good quality, original tree probably 100 years old. Said to be a good bearer.



Thomas



Mayette Eng. Walnut, grafted in 1900, crop 1914, two bushels; owner, Jno. Garretson, Aspers, Penn., Adams Co.



Franquette Eng. Walnut grafted 1898, began bearing fourth year, has borne every year since. Jno. Garretson.

Brentwood, N. J., November 30, 1916
 Dear Mr. Reed:—I enclose check for Pecan Trees delivered to me today after journey to Brentwood, N. Y., (through error of express company) since the 9th. I was dubious of results after so long a trip, but after I saw the way the trees were packed all misgivings vanished. They were prepared to stand the journey around the world and back.

Yours truly,
 DR. JOHN F. KEENAN

Budded Black Walnuts

Thomas Black Walnut—There is a growing demand for a good black walnut. The Thomas is the largest and one of the best, the first to be introduced. Can furnish a limited number of Budded trees. Mr. E. A. Riehl of Alton, Ill., has been growing this variety for several years and cracks same for the Fancy Market, securing 10 lbs. of kernels to one bushel of nuts, which he sold the past season at 30 cents per lb.

3 to 4 feet-----\$1.25 each
 4 to 5 feet-----\$1.50 each
 5 to 6 feet-----\$1.75 each

Black Walnut (Seedling Trees,) 5 to

6 feet 50c each, \$4.00 per 10.

Black Walnut (Seedling Trees) 3 to 4 feet 40c each, \$3.00 per 10.

Black Walnut (One Year Seedlings,) 2 to 3 feet, \$10.00 per 100.

White Walnut—Butternut Seedlings, 4 to 5 feet, 75c each \$5.00 per 10.

Japan Walnut

Japan Walnut—Cordiformis. Heart shaped Nut of good quality, thick shell. Tree perfectly hardy, rapid grower, good form, bears young.

4 to 5 feet trees (Seedlings) 50c each, \$4.00 per 10.



Paragon

Rochester

Boone

Chestnuts

The Chestnut is a rapid growing handsome tree, attaining large proportions; its dark waxy-green foliage makes it a beautiful tree for planting in the lawns or parks, along avenues or roads.

CHESTNUT BLIGHT

This dreaded disease imported into this country from the Orient has played havoc with most of the native Chestnuts in the East.

However it can be partially controlled if it is watched and all blight removed soon as it appears. There is no blight on native Chestnuts in Indiana and they do not grow native in this part of the state. The trees in our nursery are free from blight and if planted in sections where there is no blight your chances for a profitable tree are all the better.

BUDED VARIETIES CHESTNUTS

3 to 4 foot trees -----\$1.25 each; \$10.00 per 10.

We have a limited number of the following varieties. Boone, Rochester, McFarland, Cooper and Paragon.

SEEDLING TREES

4 to 5 feet -----50c each; \$4.00 per 10.

The seedling Chestnuts we offer are all grown from selected Seed of Rochester and other large fruited Varieties and will likely be much larger than common seedlings.

Filberts

The European Filberts succeed over a large area and are very desirable. The Nuts are fully as large and fine as the imported.

The trees we offer are direct importations to us grown from Layers and transplanted and are therefore on their own roots.

We offer four or five of the best named Varieties. 2 to 3 foot Bushes, 40 cents each, 3 for \$1.00.

American Hazel grown from Native Seed. 18 to 24 inch Bushes transplanted, 30 cents each, 4 for \$1.00.

Hardy Almond

Ridenhower—Originated at Vienna, Ill., parent tree over 60 years old. Long willowy limbs, very rapid grower, bears young, will fruit wherever Peach Trees will grow. Thick shell. Good quality desirable for home use. Top worked tree 2 years old bearing good crop this season.

Buds of this were secured from Dept. of Agriculture.

One Year Trees, 4 to 6 feet, 50c each; \$4.00 per 10.



Almonds

Persimmon

The Persimmon is rapidly assuming the position of a Commercial fruit of exceptional value.

Its popularity in the markets is growing by leaps and bounds. This fruit for centuries has been one of the leading Commercial fruits of Japan and China.

The Varieties listed below are perfectly hardy and we recommend them very highly.

Description as given by Dept. Agriculture, F. Bulletin 685.

Early Golden—Origin Illinois. Introduced by E. A. Riehl of Alton, Ill., where it ripens September 1st; form oblong, size medium to large; color yellow; skin thin, seeds few, flavor sweet; quality very good; fruit sent in by Mr. Riehl. Nine fruits fill a pint box. Consider them one of the best.

Golden Gem—Introduced from Borden, Indiana, where it ripens from August to

October; form roundish oblong; size medium to large; color dark orange to red, seeds few, flavor rich and sweet; quality good.

Prices of Budded and Grafted Persimmon Trees

4 to 5 foot, \$1.00 each; \$8.00 per 10.

Persimmons should be planted in groups
One tree will not bear alone

Battle Creek, Michigan, August 3, 1916

Dear Sir:—I am glad to tell you that the Nut Trees received from you in 1912 are alive and flourishing. They have certainly done splendidly.—Dr. J. N. Kellogg.



Parent Tree of the Butterick Pecan
Over 100 years in bearing



Busseron Pecan Tree coming 2-year. Photograph taken in June, bearing sixteen well developed Nutlets in Nursery row