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Waxahachie Nursery Company

J. R. MAYHEW
PRESIDENT

WAXAHACHIE
TEXAS

CAPITAL STOCK \$92,500.00

Annual Catalog

Waxahachie Nursery Co.

J. R. MAYHEW, PRESIDENT

Catalog 1916-17

WAXAHACHIE, TEXAS

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Introductory

THE present is a time of optimism over the entire country. Especially is this true in agricultural pursuits. Perhaps not before has all farm products brought such wealth to the producer as is true of the present. The man who has raised a crop of cotton, wheat, oats, corn, etc., likewise the man who has for sale a few hogs, cattle, horses, etc., has a fat bank account. Ours today, beyond question, is a land of peace and prosperity. When this is being written, a bale of cotton in the seed is worth an even one hundred dollars, a price not heretofore realized, and the application to other farm products would be just as illustrative.

THE HOPE OF THE SOUTH IS DIVERSIFICATION. The condition referred to in the first paragraph is very largely the result of diversification. The Southwest has produced more and better wheat, oats, corn, and other food crops in 1916 than in any year during her history. Our barns are full of food for man and beast, a fact that has not been true of the past, an asset the worth of which is inestimable. Cotton today is very largely a surplus crop, and this is as it should be.

THE ORCHARD A REAL SOURCE OF REVENUE. No other food crop on the place is of more intrinsic worth as a "feeder" than is the orchard. To delay planting trees because of hard times aggravates rather than lessens the troubles of the man who has a family to feed. A fruit-bearing tree will yield more food for the investment than is true of any other food crop. A full-grown peach tree well taken care of will yield from six to ten bushels of luscious fruit, and the same is true of other varieties of fruit-bearing trees. On no other crop occupying four hundred square feet can so bountiful amount of food be produced.

COST A MERE TRIFLE. A casual glance at prices herein named will convince the poorest man or woman in all the land of their ability to have a few choice trees about the place. You don't have to own a "farm" to raise plenty of fruit. A few square feet planted to trees and carefully cared for will produce an abundance for most families. Select your varieties with care, buy only the best, care for trees after planting, and the results will be highly satisfactory.

TREES BY PARCEL POST. By reason of a recent ruling of the Postoffice Department we will be able during the coming season to send many orders, especially in small plants and roses, by parcel post at a much cheaper rate than by express. This is true especially if purchaser is within the second zone, fifty to one hundred and fifty miles. For greater distances, except on very small packages, we are forced to use express as the fifty pound parcel has not yet been permitted past the 150 mile limit. Where trees and plants can best be sent by parcel post, they will be pruned ready for setting before being sent out. If the customer desires stock sent by parcel post and order is for less than \$5.00, money for postage should be added on the following basis:

- For \$1.00 order add 10c.
- For 1.50 to \$2.00 order add 15c.
- For 2.00 to 2.50 order add 20c.
- For 2.50 to 3.00 order add 25c.
- For 3.00 to 4.00 order add 30c.
- For 4.00 to 4.50 order add 35c.

IN APPRECIATION. We appreciate in a very marked degree the splendid patronage accorded us in the past and shall continue to merit the confidence of our friends and patrons. Our ability to serve the planters of the Southwest is as good as has been true of the past. We continue to grow trees and plants by the million, as good as can be produced on earth. Give us your business and it will be taken care of under most approved methods.

WAXAHACHIE NURSERY COMPANY,
Waxahachie, Texas

Terms and Conditions

(Read carefully before making up your order.)

IN issuing a new catalog we desire to thank sincerely all of our patrons and friends who during the past have contributed to our success. It has been our aim for nearly a quarter of a century to grow and disseminate varieties of true merit, adapted to the soils and climate of the Southwest. Our policies are and have been a square deal for every buyer at prices in accordance with the service rendered. Our ability to serve the planters of the country are as good as the best. Look no further if you are satisfied when you receive the very best at the least consistent price.

Buying From Catalog is growing in popularity year by year, and we encourage our patrons to place order under this plan. To be sure, many buyers are going to follow the old method of buying through salesmen, and in this regard we have no criticism. Every order received by mail has our personal attention and is handled as an individual matter, and guaranteed to reach destination in first class condition. Buying from catalog guarantees receipt of trees and plants under best conditions, because stock is purchased ordinarily at a time when weather conditions are favorable.

PRICES. Our prices are based upon the cost of production and are not in competition with cheap stock grown and handled in a cheap way. Our prices are net per each, per dozen, per hundred, etc., and on orders amounting to \$5.00 or more freight or express will be fully paid and delivery of order in satisfactory condition is guaranteed. We do not prepay transportation charges where order is for a less amount than \$5.00 except as noted under parcel post shipments under announcement. In preparation of these prices every possible reduction is made and prices are based upon the services rendered. Prices named herein abrogate all former prices.

OUR LOCATION. Waxahachie is the capital of Ellis county in the center of the black land belt of Texas. Our soil is rich limestone, free from disease, and especially adapted to growing first class nursery stock. Our packing sheds and offices are at the junction of M. K. & T., H. & T. C., and T. & B. V. railways, with private spur into our sheds. With three express companies, American, Wells-Fargo, and Interurban, we are ideally located for handling all orders with dispatch. We know how to pack and handle orders and are prepared to do it in the most approved manner. Customers and friends have a standing invitation to call and inspect our plant.

DIGGING AND SHIPPING. We begin shipping stock about November 1st, and continue until March 15th. We advise planting at any time during the fall or winter when stock is dormant and soil conditions are satisfactory. We follow shipping instructions when given, otherwise we use our best judgment. Each mail order is packed carefully in either bale or box and will carry safely any reasonable distance.

GUARANTEE OF GENUINENESS. We use constant care in keeping trees true to name. Mistakes are avoided in every possible way, but when they do occur and we are notified of such mistakes, we gladly correct them, and if any stock proves not true to name we will replace it with the genuine or refund purchase price paid for same, but it is mutually agreed between purchaser and ourselves that we are not to be held liable for a greater amount than the original price paid for goods.

REPLACING TREES THAT DIE. Our guarantee is to deliver goods into customer's hands in first class condition. No tree or plant is guaranteed to live. If others agree to replace at one-half price or otherwise, ask yourself how they can afford to insure against unfavorable weather conditions. Your reflection will prove the fact that the only way it would be possible would be to charge more originally than otherwise. The policy as practiced during the past has proven to be "shyster" in the truest sense and to have resulted in only harm to the careful, painstaking planter and reputable nurseryman. Would you sell a horse or cow for its true worth and guarantee its life for twelve months? Beware of the concern which, either through catalog or salesman, promises to replace trees that die.

MAKING OUT ORDER. Please write plainly name, postoffice, express or freight office, variety and grade of trees or plants wanted, on order sheet to be found inside back cover of catalog. Attach postoffice money order or bank check to cover total amount of order and state about what date you prefer bill of goods to reach you. Every order is filled as taken without substitution unless customer advises substitution. In case of substitution we can generally give a variety that is similar to that ordered and which will perhaps prove as satisfactory. Be sure to sign your name to order sheet. If order is not acknowledged promptly write us again. Each catalog carries three order sheets and return envelopes. Last season we received several orders oftentimes from a single catalog. We will appreciate it if you will call your neighbors' attention to our catalog after it has served you, thereby doing us a service which costs you nothing.

TERMS AND CONDITIONS—Continued

GRADING. We pride ourselves on our system of grading. Many people are unacquainted with the terms "3 to 4 feet," "4 to 5 feet," etc.; hence, we show a photograph of the three grades used in filling most retail orders that customer may know what he is ordering. Note the fine root system shown in photograph. In any order placed with us customer may rest assured that goods will be as ordered. Either grade shown in photograph will make splendid trees.

CHOOSING VARIETIES. Do not make the common mistake of planting too many varieties, especially if your orchard is planned for commercial use. A few well-chosen varieties will prove most valuable. If in doubt what to plant we shall be glad to advise customer in a special way.

PREPAID FREIGHT AND EXPRESS. As noted elsewhere, full transportation charges will be paid if order amounts to \$5.00 or more. Because of the cost of handling small orders we cannot prepay charges on orders for less amount. Two or more customers can send their orders together and by having shipment go to one address get the advantage of prepay charges.

PRICES PER EACH, DOZEN, HUNDRED, ETC. Prices named herein may apply as follows: 1 to 6 trees at each rate, 6 to 24 trees at dozen rate, and above 24 trees at hundred rate. This applies only to trees of one sort, as 6, 24 or 100 peach trees, and not to general collection of sorts.

CONCLUSION. We want your business because we know our ability to take care of it. We guarantee every statement made in this catalog and if any tree or plant is not up to grade and satisfactory in every respect, money will be refunded. Do not put off ordering too late. If the seasons are propitious, any day during the fall, winter, or spring trees can be successfully handled. Buy the best, especially if space is limited. A well grown, thrifty tree of the high grade will come into bearing ordinarily the second year after planting.



Grade AA
Extra Large

Grade A
4 to 5 ft.

Grade B
3 to 4 ft.

Address

WAXAHACHIE NURSERY COMPANY,
Waxahachie, Texas.

Number of Trees Per Acre, Spraying, Etc.

THE NUMBER OF TREES REQUIRED PER ACRE varies somewhat with the strength of the soil, also with the variety. Trees or plants on deep, rich soil require more space than if planted on light, poor soil. The following table of distances is recommended on average soils:

Apple, Peach and Pear, 20 feet	109 trees per acre
Plum and Apricot, 15 feet	193 trees per acre
Grape and Figs, 10 feet	434 trees per acre
Blackberry and Dewberry, 4 by 8 feet.....	1,345 plants to acre

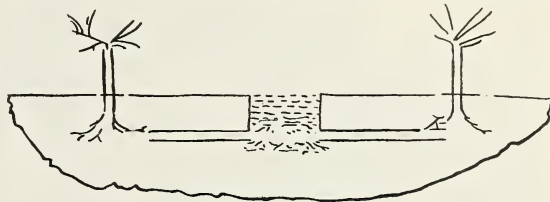
To ascertain the number of plants required per acre at any given distance, divide the number of square feet (43,560) in an acre by the number of square feet you desire to devote to each plant. For instance, in peach planted 20 by 20 feet, each tree will occupy 400 square feet, making 109 trees per acre.

USING DYNAMITE. Over the semi-arid district of the West and Southwest especially, the great hindrance to plant life is the dearth of moisture. This is especially true in handling shade trees where it becomes necessary to plant them along sidewalks and curbs. We recommend exploding one-half stick of dynamite where each tree is to be set, which opens up the sub-soil and allows the moisture to

NUMBER OF TREES PER ACRE, SPRAYING, ETC.—Continued

penetrate down below where trees are set. This can be done at a cost of 15 cents per blast and the result will prove most satisfactory. In using the dynamite, an experienced hand should have charge, and the blast placed about two and one-half to three feet below the surface. It will not injure in the least sidewalks or curbs as the force of the blast is downward.

PROVISION FOR SUPPLYING NEEDED MOISTURE is necessary if the best results are to be had, and this is especially true on non-cultivated soils. Many plans for artificial watering have been proposed during the past few seasons, all of them good. The main thought is to get the water to roots of trees with least possible waste. As an example: Suppose trees are to be planted along the street twenty feet apart. A reservoir 2 by 2 by 2 feet is built midway between trees with tile pipe connecting reservoir to each tree at a depth of 18 inches, the reservoir filled with coarse gravel.



An arrangement such as the above gets the water to the tree with the least possible loss and, from an economic point of view, is highly desirable. Do not cement joints of tile or the best effects of this system will be destroyed. This system will cost something, to be sure, but not as much as losing valuable tree life.

SPRAYING. Each year the necessity for spraying for insect pests, scales, and diseases becomes more apparent. While this is true, it is a question that the layman can hardly cope with successfully. It is an easy enough matter to make up formulas of different sprays, but it is quite a different matter to designate the different pests, diseases, etc., and application or treatment for each, so that they may be successfully combatted. Specimen of insects, scale, and diseases should be forwarded to the Department of Agriculture, Austin, Texas, or to Agricultural & Mechanical College, College Station, Texas, either of which will give remedies promptly. See Spray Calendar on pages 37 and 38.



The above photograph is block of 2-year Budded Pear. Positively no investment will pay better dividends than that made for a few choice Pear trees.



Plant the big money fruit—the luscious Peach

Peaches

THE peach is queen of fruits. Its rich and unsurpassed flavor, delicious sweets and acids, beautiful and gorgeous tints and colors, graceful shapes and forms, make it the universal favorite everywhere. The peach is at home over a greater area than any other variety of fruit, and in the South holds first place as a commercial fruit. Its many varieties furnish a long ripening period, extending from May until November, giving a continual supply to local and distant markets and suitable for table, cooking, canning, drying, and preserving. Peach trees should be set 15 to 20 feet apart in soil well prepared before trees are set. The tree should be well cultivated, pruned, sprayed, and the bodies treated occasionally to prevent borers. Head trees close to ground not above 24 to 30 inches, except "AA" grade, which need not be pruned so severely. On this particular grade we recommend a shortening of all branches to four to six inches, heading the top to correspond with branches cut. When trees are received, as preparation to planting, prune all branches to within one inch of main stem and head not higher than thirty inches above ground. Shorten all roots to within four to six inches and set tree about two inches deeper than it stood in the nursery row, tightening thoroughly each tree in place. Over the Southwest it is often dry during the winter and spring and when this is the case, tree should be watered when set. The following year after setting "rub off" all shoots except those wanted for making a well balanced top. Do not allow more growth on one side of tree than on the other or the result will be a "lop sided," unsightly tree instead of one well balanced and beautiful. Each year will necessitate more or less pruning, spraying, cultivation, etc. A careful study of each tree will suggest these particular and annual needs.

The following varieties are at home over the peach-growing sections and are arranged within the month of ripening:

PRICES ON PEACH TREES

	Each	Dozen	Hundred
5 to 7 ft., AA grade	\$0.50	\$5.00	\$30.00
4 to 5 ft., A grade .....	.25	2.50	22.50
3 to 4 ft., B grade .....	.15	1.50	12.50
2 to 3 ft., C grade .....	.12½	1.25	10.00

MAY

ALEXANDER. Above medium in size. Greenish white, nearly covered with red. Very juicy and of good quality. Trees prolific and bear when young. Semi-cling.

GREENSBORO. One of the largest and most highly colored of the early peaches. Double the size of Alexander, ripening at the same time.

Flesh white, juicy, good. Free.

MAYFLOWER. Large, well colored, of fine quality. Its earliness, high color, and excellent quality are strong points in its favor. Ripens four or five days earlier than Sneed. Cling.

SNEED. Ripens ten days earlier than Alexander and belongs to an entirely different type. Size medium. White with blush. Semi-cling.

MAY—Continued

TRIUMPH. Ripens with Alexander. Tree makes strong growth and is a sure and abundant bearer. Fruit large with small pit. Flesh bright yellow, excellent flavor. Good shipper. Free.

JUNE

ARP BEAUTY. A variety of Texas origin. Almost identical with Elberta, but ripening a month earlier. Sometimes called Early Elberta. The best early yellow peach. Free.

CARMEN. Almost identical with Mamie Ross, except that it is a freestone. Skin very tough; flesh tender and white and of fine flavor. One of the hardiest in bud. Profitable market variety. Free.

EARLY RIVERS. Large and attractive creamy white peach with delicate pink cheek. Flesh rich, melting, and deliciously sweet. Cling.

GOVERNOR HOGG. Large, white with blush. Flesh white, tender, juicy, highly flavored; red at pit. Semi-cling.

HOBSON. Fruit large, white with red cheek; flesh sweet and delicious. A valuable peach and a good shipper. Our introduction. Cling.

MAMIE ROSS. Large, white, almost covered with carmine; flesh white, juicy, and of good quality. One of the best for family use, and probably the best early commercial variety. Semi-cling.

PEARSON. Large, white, with red cheek, rich and juicy; very valuable. Our introduction. Semi-cling.

ROGERS. Very large, white with red cheek; one of the best of its season. Cling.



Old Dixon Cling

JULY

CHAMPION. Large, creamy white with light blush. Very hardy, and a favorite wherever grown. Cling.

CHILOW. A pure yellow cling of very best quality. Very sweet, firm, but not tough. Tree a vigorous grower and very productive. Cling.

CHINESE CLING. Average size probably the largest peach grown. Skin creamy with blush. Flesh white with red at seed. Tree of spreading habit and is a shy bearer. Cling.

EARLY CRAWFORD. Very large, oblong, yellow with red cheek. Flesh yellow, rich and juicy. A valuable free.

ELBERTA. Probably the widest known of any peach grown. The best commercial sort and most valuable for home canning. Large, yellow with red cheek. Free.

EL BIRD (Elberta Cling). Large, deep yellow with red blush. A duplicate of Elberta except it is a cling. One of the most valuable. Our introduction and beyond doubt one of the best we are offering. Cling.

FAMILY FAVORITE. Clear creamy white, with dark blush. Skin quite fuzzy. Flesh white with tint of red at stone. Excellent quality. Free.

GENERAL LEE. Sure and prolific. Skin creamy mottled with red. Flesh white, red at stone. Quality excellent. Seed rather large. Cling.

MINNIE STANFORD. Large, oblong, yellow, of splendid quality; a good shipper. Valuable. Our introduction. Nothing better for canning. Cling.

NATIONAL. Large, oblong, white with deep red cheek; flesh white with red at stone; firm



Mamie Ross

and of excellent quality and flavor. A new variety of great promise. Cling.

YELLOW ST. JOHN. A bright showy peach. Deep yellow covered with crimson. Valuable for canning. An upright grower. Free.

AUGUST

INDIAN CLING. Fruit large, dark brown with deep red veins, downy; flesh dark red, juicy, and of rich flavor. An old standard sort. Cling.

OLD MIXON CLING. Large, skin yellowish white with red cheek. Flesh creamy white, melting, juicy and rich. Highly flavored. Cling.

SALWAY. Fruit large, yellow with marbled cheek. Flesh firm, yellow, sweet and sugary. A late showy market sort. Free.

STUMP THE WORLD. Very large round white with red cheek. Flesh white, juicy and good. One of the best late sorts. Free.

TEXAS KING. Medium to large, white with red blush. Tree vigorous grower and fruit of fine quality. Cling.

WHITE ENGLISH. Large, creamy white with red cheek. Juicy and sweet. Quality of the best. A reliable sort for home use or orchard planting. Cling.

SEPTEMBER

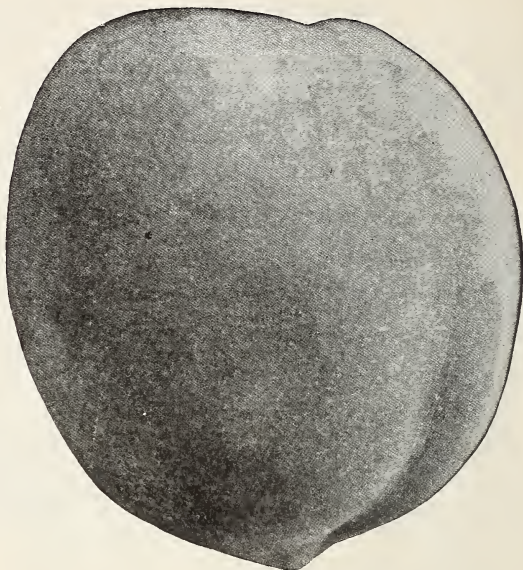
BRIGGS CLING. Creamy white with red blush. Medium size. Sweet and firm. Cling.

HENRIETTA. Deep yellow with brownish shading. A magnificent peach of good size, color and quality. Hardy in bud and tree. Should have a place in all orchards. Cling.

HEATH CLING. Fruit very large with pointed ends. Skin creamy white with faint blush. Flesh very tender and juicy and with the richest flavoring. Quality of the best. Cling.



Elberta



Greensboro

SPENCER. A new peach of exceptional worth. Large. Flesh creamy white with richest flavoring. Free.

POND'S LATE. Large yellow cling. Rare. Tree rather dwarfish in growth, but a good bearer. Rare and of excellent quality.

OCTOBER

BLACK'S OCTOBER. Medium, white, of excellent texture and quality. One of the best late peaches. Cling.

STINSON'S OCTOBER. Medium, white with red cheek, and of excellent flavor. A profitable peach for late market. Cling.

COAST-WISE VARIETIES OF PEACHES

Under this head we give varieties which are especially adapted to planting in the extreme southern part of the state or sub-tropical sections of the country.

ANGEL. Large, round, yellow washed with red. Flesh white, juicy and of fine flavor. June 20th to July 10th. Free.

CARMEN. See previous description.

GREENSBORO. See previous description.

HONEY. Fruit of medium size, oblong, very sweet. Color creamy white with red cheek. Tree a vigorous grower and one of the surest bearers. Ripens June 10-15. Free.

PALLAS. A seedling of Honey, but larger in size. Flesh white and fine grained, with rich aroma. Flavor sweet and excellent. June 20th to July 10th. Free.

PEEN-TO. Very flat. Skin pale greenish white with mottled cheek. Flesh finely grained and of good quality. May 10th to 20th. Free.

Plums

THIS variety of fruit is becoming more popular each year and more widely planted. The tree thrives over a very wide area and fruits admirably in soil where peach is grown successfully.

Over the Southwest trees do best propagated on peach seedlings. The same character of cultivation, pruning, and care as is fully set forth in instructions under peach should be followed in plum culture. The following list of varieties are hardy and prolific and time of ripening indicated:

PRICES ON PLUM TREES

	Each	Dozen	Hundred
5 to 7 ft., AA grade	\$0.60	\$6.00	\$50.00
4 to 5 ft., A grade .....	.50	5.00	40.00
3 to 4 ft., B grade .....	.30	3.00	22.00
2 to 3 ft., C grade .....	.20	2.00	15.00

AMERICA. A fine hybrid of Botan and Robinson. One of the very best. Large, yellow, changing to red where exposed to sun. Tree a good grower and very productive. July.

ARK. LOMBARD. Medium, oval, dark red, juicy, pleasant and good. Tree vigorous and productive. A valuable market variety. July.

BARTLETT. A large crimson plum with flavor similar to Bartlett pear. An excellent plum. July.

BOTAN (Abundance). A beautiful lemon yellow with cherry red, large, tapering to a point. Flesh yellow, melting and rich; aromatic. August.

BURBANK. Large, yellow covered with purplish red. An abundant bearer. July.

EAGLE. Medium, clear yellow tinged with red, sweet and juicy, valuable for both eating and cook-

ing. Begins ripening the latter part of June and extends through July.

DAMSON. Fruit small, oval; skin purple, covered with bloom; flesh melting and juicy, rather tart; separates partly from stone; a moderate grower. August.

GOLDEN BEAUTY. Small, round, yellow. Flesh firm and pleasant. A late bloomer and sure bearer. Tree rather small and with a tendency to overbear. August.

GONZALES. Fruit very large, meaty, brilliant; finest flavor. Good shipper and keeper. Tree very strong and productive. June.

HAPPINESS. Extremely large, dark red, quality unequalled. Probably a better plum than Gonzales. Tree a good grower and very productive. June.



Waxahachie Nursery Co., Waxahachie, Texas

This is a picture of a limb from a Happiness Plum Tree received from your nursery, January, 1915. Will say they are beauties.

Yours truly, H. C. BARZAK.

Hempstead, Sept. 14th, 1916.

McCARTNEY. Large, golden yellow, egg-shaped, very productive. May.

MILTON. Bright red with small white dots; very handsome. A late bloomer. August.

NONA. A most excellent eating plum. Large, bright red, juicy and of good quality. June.

SATSUMA. Large, red, flesh blood red, firm, vinous, acid, excellent. Tree vigorous and very productive. July.

SIX WEEKS. Glowing red, large, meaty and rarely equalled. A very fine early plum. Tree a good grower. June.

WEAVER. Medium, round, dark red, rich, prolific, sure. A valuable sort. August.

WICKSON. A sturdy, upright grower; productive. Fruit dark red, firm, and of finest quality. One of Burbank's hybrids. July.

WILD GOOSE. Well known. Large, deep red, good quality; one of the best native plums. July.

Apples

THIS is the pre-eminent fruit of commerce, being more widely and more extensively grown than any other fruit. Many orchards of this fruit are proving very valuable in Texas. The planter should adhere closely to those varieties which have proven most valuable in the South. This catalog reaches the great apple-producing sections of New Mexico and Arkansas, and to the orchardists of these sections we especially invite correspondence. Our apple, in both one and two year, are good as can be produced.

Apple trees should be planted in the apple-growing districts 25 to 35 feet apart in orchard arrangement. The trees should be headed low to protect from sun-scald. On two year stock this pruning has already been done, hence it is only necessary to shorten all branches to 4 to 6 inches of main stem, cutting the top to correspond. On one year trees we recommend pruning to a single stem and heading to 24 inches. The year after setting, rub off all buds up to twelve inches, or in other words, all shoots, except those wanted for a head. As is true of all other trees, each year will necessitate pruning to keep the tree well balanced. Follow the same method in planting as is suggested under peach.

PRICES ON APPLE TREES

	Each	Dozen	Hundred
5 to 7 ft., AA grade	\$0.50	\$5.00	\$40.00
4 to 5 ft., A grade .....	.30	3.00	20.00
3 to 4 ft., B grade .....	.20	2.00	15.00



Waxahachie Nursery Co., Waxahachie, Texas
This is a picture of my little orchard, mostly one-year-old trees.

Hempstead, Sept. 14, 1916.
Yours truly, H. C. BARZAK.

ARK. BLACK. Large, very dark, red, flesh yellow, sub-acid; long keeper. Winter.

BEN DAVIS. Oblong, red striped, handsome, mild, sub-acid. Tree very vigorous, hardy. One of the most profitable market apples. Winter.

BENONI. Striped and splashed with red. A fine eating apple. Early bearing, fine for family orchard. Summer.

EARLY HARVEST. Medium, flat, pale yellow. A good grower and bearer. Summer.

FANNY. Vigorous, productive, small, red. An excellent variety for both market and table. Summer.

GANO. Tree very hardy and vigorous. Fruit a bright red without stripes or blotches. Large and even in size. Winter.

GRAVENSTEIN. Large, yellow with red. Flesh tender and crisp, with highly aromatic flavor. Tree vigorous. An old standard sort. Early fall.

GRIMES' GOLDEN. Oblong, yellowish white. Flesh mild, sub-acid, with agreeable flavor. Tree a good grower and annual bearer. Early winter.

JONATHAN. Medium, light yellow covered with red stripes. Flesh tender and juicy. Excellent for table and market. Early winter.

KINNARD'S CHOICE. A superb Southern apple. Large, red; flesh pale yellow, crisp, fine grained, of fine quality. Tree long lived. Winter.

LIMBERTWIG. Medium yellow, shaded with dull crimson. Flesh white, tender, juicy, with strong sub-acid flavor. Fall.



Jonathan

MISSOURI PIPPIN. Large, oblong, bright red with grayish dots. An early and abundant bearer. Of fair quality. Winter.

M. B. TWIG. A seedling of Winesap. Dark red slightly streaked with yellow. Flesh yellow, firm, sub-acid and juicy. Of excellent quality and a fine keeper. Winter.

RED JUNE. Medium, oblong, flesh tender and white, excellent for table use. One of the best early apples. Summer.

SAN JACINTO. Large, red. Tree very vigorous and productive. Fruit hangs to the tree remarkably well. A fine keeper for an early apple. A variety of the highest merit for both market and table. Summer.

SHOCKLEY. Small, conical, pale yellow overspread with red; a good bearer and good keeper. Flesh crisp, juicy and of fine flavor. Winter.

SMOKEHOUSE. Medium, flattened greenish-yellow. Flesh creamy-white, tender, juicy and sub-acid. Tree very productive. Especially adapted to this section. Summer.

STAYMAN'S WINESAP. Medium size, beautiful, greenish-yellow with red stripes. Flesh yellow, firm, fine and rich. Tree very vigorous and hardy. Winter.

SUMMER QUEEN. Tree vigorous and productive. Fruit medium to large, round, yellow covered with red. Flesh firm, yellow, acid and spicy. Quality good. Summer.



Yellow Transparent

TEXAS RED. Over a very large part of Texas the very best summer apple. A regular and abundant bearer and fruit of most excellent quality. Summer.

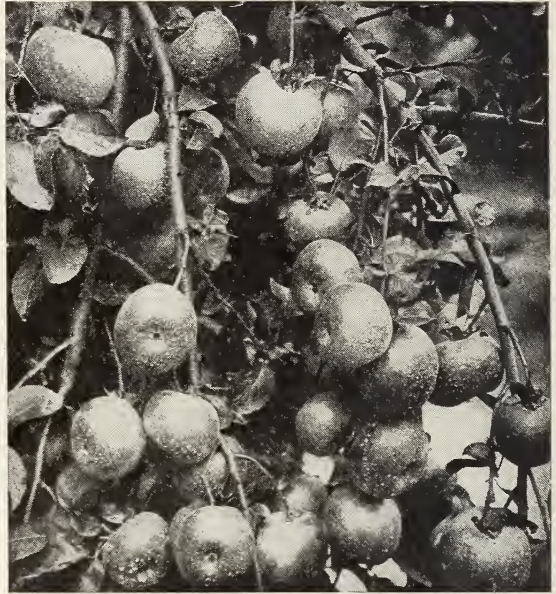
WINESAP. An old favorite. Tree vigorous. Fruit medium, smooth surface, dark red on yellow ground. Flavor rich, acid. Quality probably best for market, table use and cooking. Very desirable on account of its productiveness. One of best apples grown. Winter.

YELLOW TRANSPARENT. A Russian variety. Tree hardy and moderately vigorous. An early and good bearer. Fruit small, clear white at first, turning to pale yellow. Flesh white, tender, juicy, sub-acid. Good. Summer.

CRAB APPLES

TRANSCENDENT CRAB. Tree a strong grower, making a large and beautiful tree. An early and abundant bearer. Perhaps the most valuable of this class. Fruit large, round, yellow, shaded with red. Valuable for preserving and cooking and said to be one of the best for cider. September.

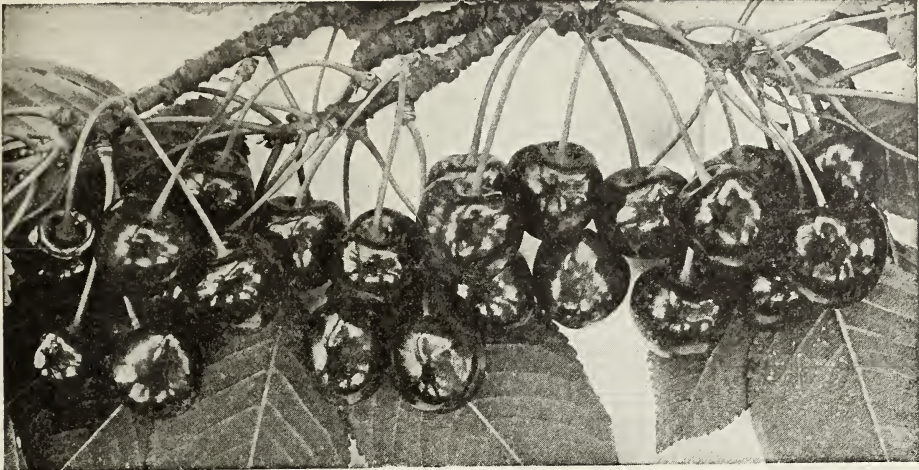
RED SIBERIAN. One of the largest crab apples. Grows in clusters; yellow with dark scarlet cheek. Bears young and abundantly. September.



Properly Sprayed Apples—It Pays



Hardy, vigorous two-year Apple Trees—100,000 strong. The finest we ever saw.



Early Richmond

Cherries

WE do not recommend planting Cherry trees in quantity over the Southwest, except where they have proven profitable. Every home, however, should have a few Cherry trees. This catalog goes into the Far West and Northwest, the ideal cherry-growing section of the country. These should be planted 25 to 30 feet apart in orchard arrangement, and pruning, cultivation, etc., as suggested for peach followed. The bark of the Cherry is sensitive, susceptible to sun scald, hence should be headed low. Where Cherry can be grown profitably it should be planted extensively.



Black Tartarian

PRICES ON CHERRY TREES

	Each	Doz.	100
5 to 7 ft., AA grade.....	\$0.60	\$6.00	\$50.00
4 to 5 ft., A grade.....	.50	5.00	40.00
3 to 4 ft., B grade.....	.30	3.00	22.00
2 to 3 ft., C grade.....	.20	2.00	15.00

BALDWIN. Very large, round, dark, almost transparent. Flesh sub-acid, very good. Fruits early, is hardy and very productive.

BLACK TARTARIAN. Sweet, black, juicy, rich, excellent. Very prolific.

EARLY RICHMOND. Medium size, dark red, juicy, and rich acid flavor; hardy and reliable. One of the best early sour cherries.

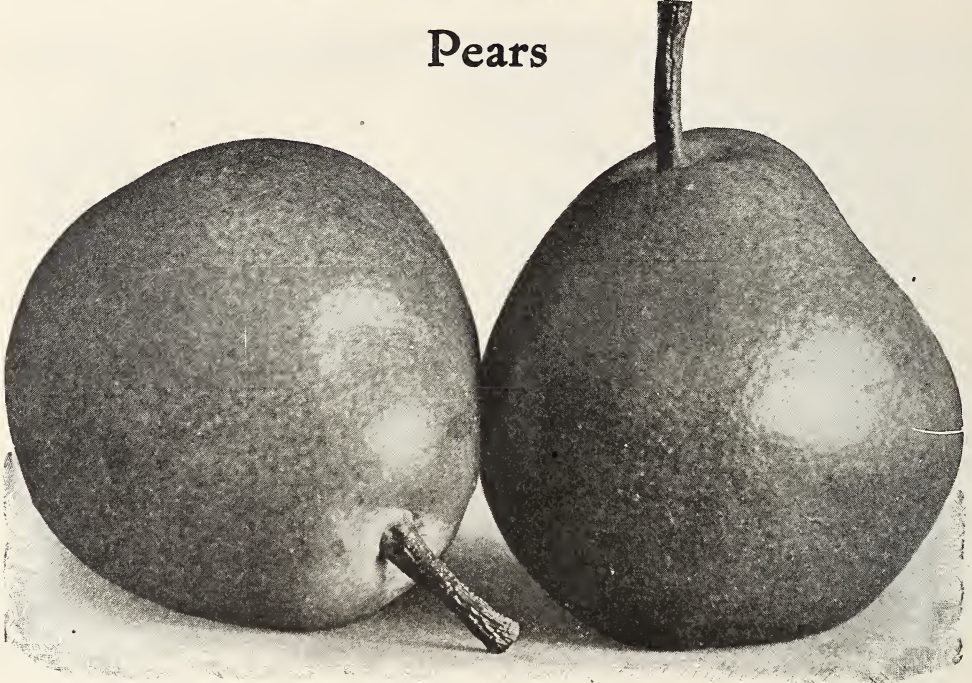
GOVERNOR WOOD. Sweet, large and heart-shaped; light yellow shaded with red; very good. Tree vigorous.

MONTMORENCY. Large red, ripening ten days after Early Richmond. Tree slow grower, but prolific. Valuable sour cherry.

WNIDSOR. Fruit large, dark red, flesh firm and of fine quality. A valuable late variety. Sweet.

YELLOW SPANISH. Large, pale yellow, one of the best light colored varieties. Sweet and good.

Pears



Bartlett

WE cannot recommend too strongly the advisability of planting pear trees, both for home use and commercial orchards. Since the introduction of the hardiest varieties there is no section of this great country but that can have an abundance of this delicious fruit by exercising a little care in choosing varieties. We do not know of a section where it would not be advisable to plant a Kieffer pear, this variety being at home in practically all soils and climates. It is the most universally grown, and while not of that high quality possessed by some other varieties, it should be planted everywhere.

Pear trees should be planted 20 to 25 feet apart, headed low, as has been suggested in pruning peach and apple, and cultivated as other orchard trees. No tree responds to pruning as does the pear, and while the tree is naturally an upright grower, its shape can be readily determined by the pruning shears. Where space for planting is limited, a few pear trees planted about the home in the yard will be found highly desirable and profitable.



Kieffer

PRICES ON PEAR TREES

	Each	Doz.	100
5 to 7 ft., AA grade.....	\$0.60	\$6.00	\$50.00
4 to 5 ft., A grade.....	.50	5.00	40.00
3 to 4 ft., B grade.....	.30	3.00	22.00
2 to 3 ft., C grade.....	.20	2.00	15.00

CLAPP'S FAVORITE. Resembles Bartlett, but is somewhat earlier. A cross between Bartlett and Flemish Beauty. Fruit large and of yellowish color with red. One of the best summer pears. August.

BARTLETT. Tree thrifty and upright. Fruit large and buttery; rich flavor. August.

GARBER. Resembles Kieffer in size and color as well as quality. Large, clear yellow. Valuable market fruit. September.

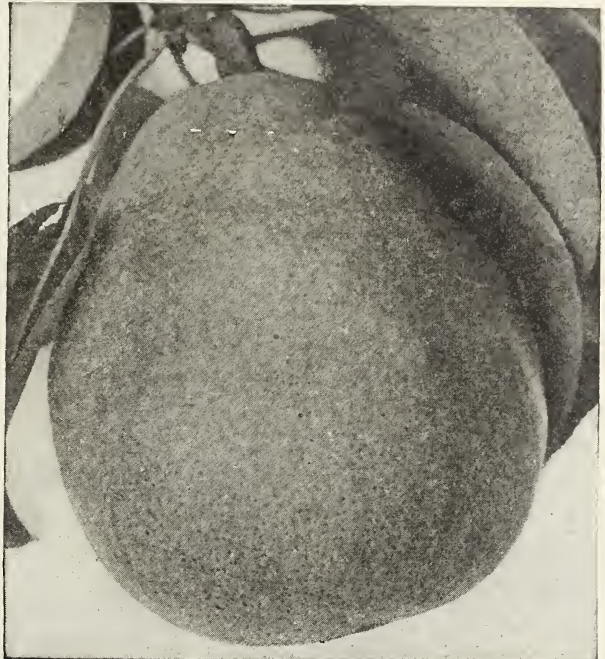
DUCHESS. One of the best pears for Texas. Fruit large and juicy with a rich, excellent flavor. Somewhat knotty, uneven surface. September.

KIEFFER. The best variety for the Southwest. Almost entirely free from blight and is a strong, upright grower. The most valuable sort for market and is especially valuable for cooking purposes. Large, yellow with rusty cheek. October.

LE CONTE. Bell-shaped. Skin smooth and of rich, creamy color. Valuable for shipping and is excellent for cooking. Fruit good when ripened well in shade. July.

SECKEL. Tree a moderate grower and less subject to blight than most varieties. Fruit small, rich, yellowish-brown and red; rich and fine flavored. August.

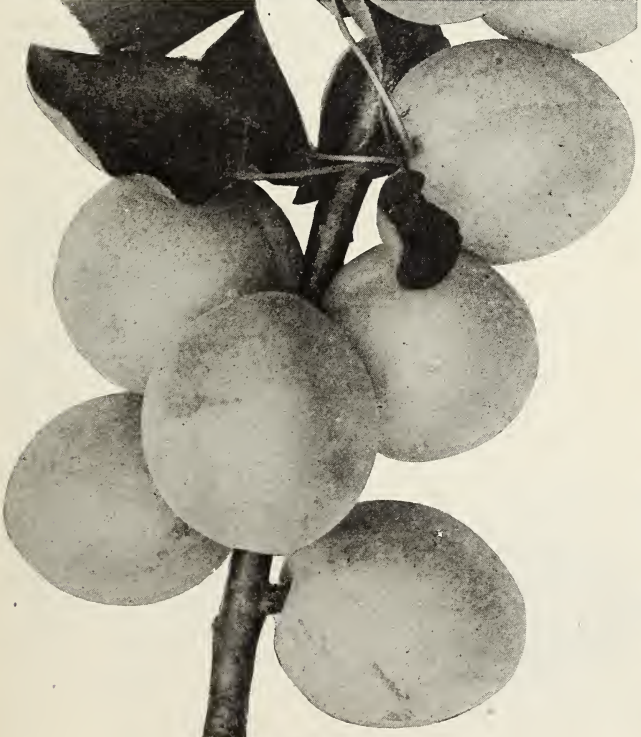
WILDER. Medium size, greenish-yellow with brown cheek and numerous flecks. Flesh white, fine grained, melting, excellent. July.



Duchess

Apricots

APRICOTS succeed best over the western portion of the country, and should not be planted extensively in other sections. The varieties



Moorpark Apricot

here listed have proven hardy and prolific bearers. The trees should be handled as the peach, and where at home are profitable both as a market fruit and for home consumption. In planning an orchard do not overlook planting a few apricots, even though not in the proven district. Apricots ripen through June and July.

PRICES ON APRICOT TREES

	Each	Doz.	100
5 to 7 ft., AA grade....	\$.60	\$6.00	\$50.00
4 to 5 ft., A grade....	.50	5.00	40.00
3 to 4 ft., B grade....	.30	3.00	22.00
2 to 3 ft., C grade....	.20	2.00	15.00

BRADY. Originated in West Texas and especially valuable for that section. Quality excellent.

CLUSTER. This valuable variety is claimed to have never missed bearing a season since its introduction. Originated in Texas from seed of the Russian Apricot.

EARLY MAY. Yellow, free-stone, rich, juicy, of Russian strain. Very early, often ripening the last of May.

LAMPASAS. Large, yellow with red cheek. An excellent variety.

MOORPARK. One of the largest. Orange with red; firm, juicy and with rich flavor. Very productive.



Schley

Stuart

Frotscher

Success

Pecans

THE demand for trees of this splendid nut tree is increasing so rapidly and the process of propagation has been so difficult that the supply has not been equal to the demand. Year by year we are learning something about propagation of pecans that leads us to hope that before many seasons we will be able to offer trees in greatest quantity. As a native tree, the pecan stands first as a beautiful shade tree and as a profitable tree of fruit. Within a few miles of our nursery there are many fine old pecan trees, doubtless hundreds of years old and bearing bountiful crops of the finest nuts yearly. It would be hard to estimate their worth in dollars and cents. The old theory that it takes a life-time for the pecan to come into bearing is exploded upon investigation. One can be reasonably certain of getting fruit in six to eight years from seedling or budded trees.

Top-working native trees with improved thin-shell varieties converts worthless trees into most valuable ones, and is in every sense practical. We have seen trees bear one year after buds were inserted through this method of propagation.

PLANTING PECAN TREES. Do not plant extra large trees. We have had decidedly better success with the grades we are offering than with larger trees. When trees are received, keep from heat, wind, or freezing until well transplanted. Make a hole for the tree with post-hole digger, as there are no lateral roots to be provided for. Remove with sharp knife one-third of the root, making the cut smooth, and cut the top, which is a straight stem, to correspond with root. Place tree in hole two inches below where budded or grafted, which is ordinarily one inch deeper than it stood in the nursery row. Fill in with loose, rich soil, tamping, without bruising, using water sufficient to provide needed moisture. See that every tree is thoroughly tightened before leaving it.

BUDDED OR GRAFTED trees are offered in following varieties and grades at prices listed below:

PRICES ON BUDDED OR GRAFTED PECANS

	Each	Ten	Hundred
1 to 2 feet.....	\$0.75	\$7.00	\$65.00
2 to 3 feet.....	1.00	9.00	85.00
3 to 4 feet.....	1.25	10.00	90.00
4 to 5 feet.....	1.50	12.50	100.00

DELMAS. Strong healthy grower, prolific, early bearer, large nut with shell of medium thickness.

FROTSCHER. Tree vigorous, healthy grower; nut large, well formed, uniform size, thin shell, plump kernel easily separates from shell.

MONEY MAKER. A strong hardy grower, prolific; nut medium to large, well formed; kernel of fine flavor and good quality.



Van Deman

PABST. Nuts large, thin shelled; plump kernel of excellent quality. Trees come into bearing at an early age.

RUSSELL. Medium size nut, thin shell, well filled. Tree a good grower; flavor and quality good.

SCHLEY. Tree a good grower; nut medium to large, thin shell; plump full kernel. Considered by some to be the standard of perfection among named varieties.

STUART. Tree hardy, upright grower, prolific; nut large, medium thin shell; kernel plump, of good quality. One of the best named varieties.

SUCCESS. Good grower. Nuts large, thin shell; kernel very full and plump and of fine flavor.

VAN DEMAN. Tree vigorous grower; nut large, thin shell, well filled with kernel of good quality.

OUR SELECT SEEDLING PECANS are grown from the finest thin shell native nuts and are superior to the ordinary seedling trees offered for sale. Many of our patrons, on account of the price, divide their planting between seedling and budded trees.

PRICES ON SELECT SEEDLING PECANS

	Each	10	100
1 to 2 feet.....	\$0.25	\$2.00	\$18.00
2 to 3 feet.....	.30	2.50	25.00
3 to 4 feet.....	.50	4.00	35.00
4 to 5 feet.....	.75	6.00	50.00
5 to 6 feet.....	1.00	8.00	70.00

Almonds

A LMONDS require a light, warm, well drained location, and for this reason are unreliable in most sections of the South. They bloom early and the fruit is apt to be killed by late frosts. While this is true, no home should be without one or more Almond trees in best location. In training it should be handled like the peach for the first three years to secure well-shaped, sturdy trees. Its tendency is to become too dense, and thinning through the winter months should not be neglected. We can furnish trees in the following thin-shelled varieties:

Prices on Almonds same as Plums.



Native Pecans

In this photograph we show Native Pecan, top-budded at height of about 12 feet, with Stuart, a paper-shell variety. Thousands of native trees over the Southwest could be converted into property more valuable than "gold bonds" by this method.

PRINCESS. Thin shell, hardy, prolific. Where adapted, an exceedingly profitable nut of finest quality. Tree will grow and thrive where peach trees do well.

SULTANA. Probably the most extensively grown variety. Large, thin shell, quality first class. Trees come into bearing ordinarily third or fourth year after planting. Price of Almonds same as Plums.



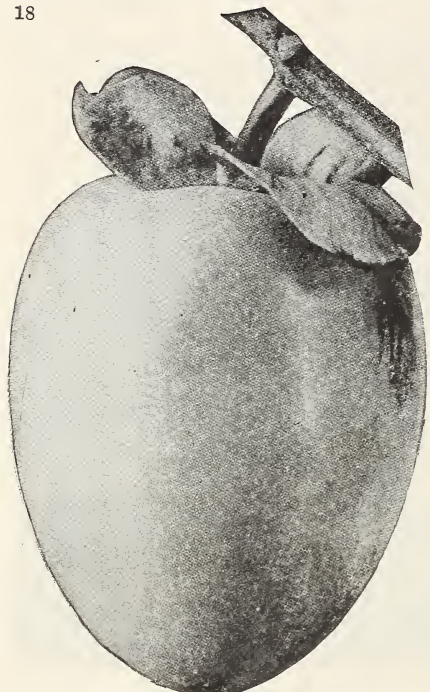
Brown Turkey

Figs

UNTIL recent years the Fig was planted as an experiment in Texas. Today there is not a well-informed citizen of the state but that realizes that fig culture in the coast country, as well as over the southwestern portion of the state (the San Antonio district), is an industry destined to put Texas on the map of the world as a fig-producing state. The possibilities of this industry cannot be overestimated. We urge those, where soil and climate have proven their adaptability to fig growing, to plant figs for profit. Fig trees have, during the past, been crowded in planting, and this is especially true of the coast country of Texas. The tree is spreading in growth and is also a great surface feeder. The trees should be planted 20 to 25 feet apart in orchard arrangement.

PRICES ON FIGS

	Each	Doz.	100
1 to 2 feet.....	\$0.15	\$1.50	\$12.50
2 to 3 feet.....	.20	2.00	15.00
3 to 4 feet.....	.25	2.50	20.00
4 to 5 feet.....	.35	3.50	25.00



Japan Persimmon

BROWN TURKEY. Large, very sweet, hardy, reliable. Color brownish purple.

BRUNSWICK. Very large, white. Productive and hardy.

ISCHIA. Medium size, greenish white when ripe. Flesh white tinged with red. A good table variety.

CELESTIAL. A small pale violet fruit. Very sweet, prolific and hardy.

MAGNOLIA. Fruit very large and of rich straw color. Begins to ripen the last of June and continues to put on new fruit until frost. Trees bear when quite young. Doubtless the most profitable variety grown.

Persimmons

This magnificent fruit should be planted wherever hardy, which is over the cotton belt of the South. Its attractive foliage and luscious fruit make it a favorite wherever known. The tree is a good grower and regular bearer. Should not be planted extensively north of latitude 35.

PRICES ON JAPAN PERSIMMONS

	Each	Doz.
2 to 3 feet.....	\$.25	\$2.50
3 to 4 feet.....	.35	3.50
4 to 5 feet.....	.50	5.00

Quince

The Quince is easy to grow if planted in soil where adapted. Over the Southwest it should only be planted for home use. A few trees will prove profitable and for culinary purposes no fruit take the place of the quince. Trees are of dwarfish growth and come into bearing very soon after planting. We can furnish in any grade the following varieties:

ORANGE

MEECHES PROLIFIC

CHAMPION

PRICES ON QUINCE

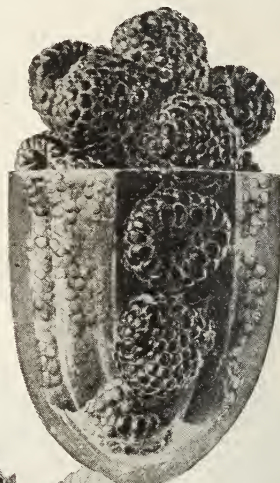
	Each	Doz.
2 to 3 feet.....	\$.25	\$2.50
3 to 4 feet.....	.35	3.50

Raspberries

This fruit comes in just after strawberries, and when properly cultivated is quite prolific. Plant on strong soil, fertilize freely, and mulch heavily. Pinch off canes when three feet high, tie up, and cut out old wood each year. We can supply any of the leading varieties of raspberries, both black and red sorts.

Prices on Raspberries

Per dozen.....\$1.50 Per 100.....\$8.00



Raspberries

Mulberries

This tree is too well known to the growers of the Southwest to need description. It is a natural hardy tree in the South, much valued for both its fruit and shade.

PRICES ON MULBERRIES

	Each	Doz.
3 to 4 feet.....	\$0.15	\$1.50
4 to 6 feet.....	.25	2.50
6 to 8 feet.....	.40	4.00
8 to 10 feet.....	.50	5.00

HICKS EVERBEARING. Fine grower and profuse bearer, ripening through June, July and August.

BLACK ENGLISH. Very prolific and earlier than the Hicks.

NEW AMERICAN. A vigorous grower and exceedingly hardy. Fruit large, black, excellent. Very prolific.



Currants

Currants

Like Gooseberries, these are only moderately successful in this latitude. They do best in a cool, strong, moist loam where they should be well cultivated and fertilized.

Prices on Currants Per doz. \$3.00

Gooseberries

These are classed among the uncertain fruits of the South, but can be grown with moderate success in moist, partially shaded places. We can furnish these in leading varieties at the following prices:

Prices on Gooseberries Per doz. \$3.00

Blackberries and Dewberries

These fruits are easily grown and are very valuable. They bear the second year after planting, and yield a fruit that is profitable for both home and market. The fruit is borne on the previous year's growth and after fruiting the canes die, when all dead wood should be removed.

Prices on Blackberries and Dewberries Except Where Noted:

25 plants	\$ 1.50
50 plants	2.50
100 plants	4.00
1000 plants	25.00

DALLAS BLACKBERRY. Very vigorous, drooping, thorny. Large, round, juicy and sweet. Mid-season.

HIMALAYA BERRY. New and very promising. An exceedingly strong grower, often making 20 to 30 feet of growth the second year. Should be grown on trellis made of posts of lasting timber and strung on smooth wire. Very prolific after it comes into bearing, with fruit of exceptional value. "Bushels of fruit the third year," says one customer. 25c each; \$2.00 per 10; \$15.00 per 100.



Gooseberries

JORDAN BLACKBERRY. Firm, sweet, hardy and prolific.

QUEEN BLACKBERRY. One of the largest and most prolific early berries. Fruit free from core and of fine flavor. Especially adapted to the black lands as well as sandy loam lands.

ROBINSON BLACKBERRY. Berries large, delicious and very valuable.

McDONALD. A cross between the Dewberry and Blackberry. It stands up like a blackberry and "tips" like a dewberry. This variety needs a perfect flowering sort nearby to pollenate to make it productive. The berry is large and of excellent quality. Earliest of all.

ROGERS DEWBERRY. Large, black, delicious. The earliest variety, ripening in April.

AUSTIN DEWBERRY. Fruit very large and fine flavored. Produces a full crop each year.



Dallas Blackberry

Strawberries

The best soil for Strawberries is a deep, rich sandy loam. If the soil is thin, it should be enriched by heavy applications of fertilizer before putting out plants. Any dead parts of the tops of plants should be removed and the roots trimmed one-third their length. Spread the roots out carefully, pack the dirt around them firmly, leaving the crown of the plant uncovered. All runners should be removed and a top dressing of leaves or any good compost should be applied late in the fall. Culture in rows will be found preferable to crowded beds as the exposure to sun and air will insure larger and better fruit. Strawberries are of two classes, the perfect and imperfect flowering. Unless perfect flowering sorts are planted in intervals with the imperfect flowering, the latter will produce very little and inferior fruit, but when properly pollinized they will produce more and better

fruit. We have indicated varieties as Perfect (P) and Imperfect (I).

The following varieties will be found reliable at all times and under good cultivation will produce excellent results:

- Crescent Seedling (I) Lady Thompson (P)
- Klondike (P) Mitchell's Early (P) Gandy (P)

Prices on Strawberries:

Per 100.....	\$1.50	Per 1,000.....	\$10.00
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Klondike

Mitchell's Early

Gandy



Delaware

Grapes

NO matter how small the home, one can usually find space for from four to six grape vines, which will bear an abundance of luscious fruit which cannot be surpassed. They can be trained over the garden fence, over the veranda, not only furnishing fruit, but making a vine that is beautiful and at the same time furnishing shade. Probably the best way to grow grapes, however, is in rows, planting the vines from six to eight feet apart each way and training on trellis. Work the ground deep and well for grape vines, planting a little deeper than they stood in the nursery rows. Keep pruned severely for the first two or three years, allowing the vines to form four or five main stems, when later growth will suggest individual pruning. We again say plant the grape, for both home and market, for no fruit will come nearer pleasing all tastes and adapting itself to all soils.

PRICES ON GRAPE VINES—Except as Noted

No. 1, 2-year25c each; \$2.50 dozen; \$15.00 per 100

NIAGARA. Bunch medium to large, compact, sometimes shouldered. Berries large, skin thin but tough, pale green at first, changing to a pale yellow when fully ripe, with a thin whitish bloom. Flesh slightly pulpy, tender and sweet. It has a musky odor which disappears when fully ripe. Ripens with Concord. June.

WYOMING RED. A very early red grape. Bunch small, compact and handsome. Berry medium, skin bright red, thick, firm, fruit sweet, foxy, but agreeable to most tastes. Very hardy and healthy. Foliage small, thick, leathery. June.

BRIGHTON. Large compact bunches, rich wine color, tender and almost seedless, sugary juice and rich flavor. Having thick foliage, it is enabled to withstand the heat of summer. We recommend this variety for vineyard or garden. June.

BLACK SPANISH. Small, black, small bunches, succeeds well in the coast district. Fine for wine. September.



Niagara

CAMPBELL'S EARLY. Vine healthy, hardy, a profuse bearer. Bunch and berry large and handsome, dark blue when ripe. Keeps for weeks. June.

CARMEN. Medium, round, black, fine quality, vigorous and productive. August.

CONCORD. The old standby. A large purple grape, moderately sweet and juicy; hardy, productive and adapted to almost any soil. June.

CATAWBA. Well known as the great wine grape. Bunches and berries large, of coppery red color, becoming purple when fully ripe. A sweet, rich, musky flavor. August.

DELAWARE. Bunches small, compact, shouldered. Berries rather small, round, skin thin, light red. Flesh very juicy and without hard pulp. Flavor sweet, spicy and delicious. June.

IVES SEEDLING. Healthy and a strong grower. Bunch and fruit medium to large. Flesh sweet and juicy, but foxy and puffy. Dark purple in color. July.

HERBEMONT. Fruit of medium size, large clusters, dark purple when ripe. Very productive. June.

MOORE'S EARLY. Bunch is medium, berry large, round with heavy bloom. Vine exceedingly hardy and entirely exempt from mildew. Its earliness makes it desirable. Berries black. Two weeks earlier than Concord. June.



Concord

SCUPPERNONG. Bunches composed of eight or ten berries which are very large, round, and bronze colored when fully ripe; flesh sweet, pulpy, vinous, of excellent quality. Vine free from disease. August. 50c.

European (Vinefera) Grapes

These varieties succeed only in localities west of the Rocky Mountains, the valleys of New Mexico, West Texas, and the Pacific Coast. They should be planted extensively in these favored sections where they grow to perfection. Fruit-growers are just beginning to appreciate these varieties.

PRICES ON EUROPEAN VARIETIES

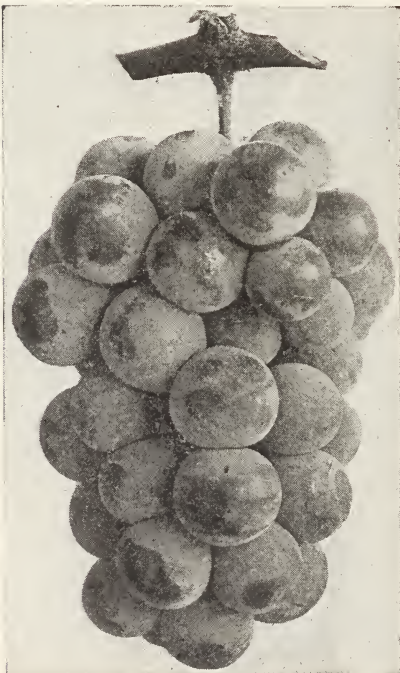
No. 1, 2-year25c each; \$2.50 per dozen; \$15.00 per 100

FLAME TOKAY. Bunches very large, rather compact. Berries large, pale red with bloom. Pulp sweet, firm and good. An old standard variety that command a good price, and as a table grape is more extensively planted than any other variety. September.

MUSCAT. Bunches long and loose shouldered. Berry oval, sometimes round. Skin thick, yellowish-green. Has a decided Muscat flavor. This variety is planted extensively for raisins. August.

MALAGA. A strong grower and immensely productive. Bunches very large, compact, shouldered. Berry large, oval, yellowish-green, skin thick. One of the best shipping grapes and makes a fairly good raisin grape. August.

THOMPSON'S SEEDLESS. Vine an enormous bearer and rapid grower. Bunches very large, berries greenish-yellow, firm, oval, seedless. Skin thin. A very early shipping grape and is a good raisin grape. August.



Catawba

Mr. Mayhew:

This shows the shrubbery purchased from you about three and a half years ago. What do you think of it? T. W. Vardell.



Ornamental Department

THIS is truly the age of luxury and comfort. Our immense crops of grain, cotton, cattle, etc., with the prevailing prices, will make the people of the Southwest, especially the farmer, the wealthiest on the face of the earth. We are today riding over macadam roads in \$2,000 automobiles, where a few years ago our fathers walked and went "muleback." Nothing will, in the future, be too good for the farmer's wife and daughters. We are going to expend more money in building homes than was dreamed of a few years ago. We are going to make these homes beautiful by planting trees, both ornamental and fruit. We will plant flowering shrubs and roses in profusion, and here and there a rare and beautiful old evergreen will be placed. We will make our homes look like "somebody lives here." No effort should be too great that has for its aim making home attractive, for it is here that the impressions on the child life are made, and who will deny that these influences have a far-reaching effect on life thereafter. Better a thousand times economize somewhere else. Make the home as beautiful as your means will permit.



Texas Umbrella Tree is one of the very best from any point of view. The above photograph shows Texas Umbrella covering forty to fifty feet and growing more beautiful and useful with age.

Shade Trees

IF best results are to be had in planting ornamental shade trees, care must be exercised in selecting trees and planting and care of same thereafter. The list of trees we catalog are native over a large area, and if planted with care and properly cultivated, will succeed almost universally over the Southwest. While deep rich soil is best for all shade trees, some varieties should not be planted except on such soil. We especially recommend planting trees by dynamite method.

Pruning shade trees ready for setting saves express or freight and lessens the labor of transplanting. We will prune all shade trees before shipment is made where customer so advises. All surplus wood should be removed and trees should be set in well-prepared soil and three inches deeper than they stood in the nursery rows. Keep trees cultivated, and if dry the season after setting, water occasionally. We offer in all grades over 75,000 trees that should go into the homes of the Southwest. We are especially in position to furnish at a most reasonable cost excellent service to planters in the cities of Texas. Our location, together with our splendid shipping facilities, guarantees to purchaser maximum service at a minimum cost. Where order calls for shade trees in caliper grades, freight is preferable to express on account of the weight. Do not plant forest-grown trees when, for less money, nursery-grown trees of the same varieties will be delivered at your door. Thousands of dollars are foolishly wasted each year through investments in trees dug out of the forest and handled in such a manner that it would be a miracle if any large per cent of them lived. You cannot successfully transplant large trees from the forest except at tremendous cost and great risk. Better plant a young tree and watch it grow than an old one and watch it die.

PRICES ON SHADE TREES—Except where noted:

	Each	10	100
4 to 6 feet.....	\$0.25	\$2.00	\$17.50
6 to 8 feet.....	.50	4.00	30.00
8 to 10 feet.....	.75	7.00	60.00
10 to 12 feet.....	1.00	9.00	75.00
2-inch caliper	2.00	20.00	150.00
3-inch caliper	3.00	30.00	200.00
4-inch caliper	4.00	35.00	.....
5-inch caliper	5.00	40.00	.....

ASH. One of the best of our native trees. A rapid grower, medium size, fine proportions and long lived.

BLACK LOCUST. Especially valuable in the West. Planted extensively for street and shade trees, also for windbreaks. A rapid grower.

BOX ELDER. An excellent native tree of the Maple family. An exceedingly rapid grower.

CATALPA BUNGEII. A dwarf variety of the Catalpa, being top grafted about six or eight feet from the ground with a Chinese variety. Used largely as an ornamental tree, being low and with dense spreading head.

Prices: 2-year heads, each\$1.00

CATALPA SPECIOSA. One of the best and most valuable. It is planted extensively for fence posts and timber purposes. A medium-sized tree, very hardy, producing an abundance of white flowers in the spring.

ELM. One of the best known and valuable shade trees. It thrives equally well in cool, shady parks or in cities.

MAPLE, SILVER. Best suited to moist climate and sandy soils. An exceedingly valuable tree where adapted.

MULBERRY, NON-BEARING. Of these we have the so-called white or paper mulberry, especially acceptable to the Southwestern plains country where shade without fruit is desired.

HACKBERRY. A native tree of great worth. During the past few years of insufficient rainfall over the Southwest the Hackberry has suffered from ravages of borers, it being more subject to these pests than any other of our native trees. If provision is made for furnishing moisture and protection from borers, the Hackberry will continue to be a popular shade tree for the Southwest.

MULBERRY, RUSSIAN. A tree of quick growth with abundant foliage. Fruit of no value.



Soft or Silver Maple

MULBERRY, TEA'S. This tree has a most wonderful drooping habit. It is top-worked on Russian stems, and makes a most pleasing addition to the ornamental trees. Prices: 2-year heads, each, \$1.00.

WILLOW, BABYLONIAN OR WEEPING. A fine Willow tree of graceful, upright habit with the ends of the limbs hanging down. Leaves and bark of a beautiful green. This tree is well suited to the South.

POPLAR, LOMBARDY. An upright grower and valuable where quick growth is desired.

POPLAR, CAROLINA. Large, stately grower, with beautiful foliage.

SYCAMORE. One of the best known and most popular of all native trees. Succeeds admirably over a very wide area. We know shade trees of this variety over half a century old showing no signs of decay. A magnificent combination, especially for street planting, is to plant Sycamore thirty feet apart and between each Sycamore plant a Texas Umbrella tree. The Umbrella is the quickest known growth and will supply shade until Sycamore gets large enough for shade.

TEXAS UMBRELLA. A beautiful, fast-growing, round canopy-top tree of special worth. As suggested under description of Sycamore, a splendid combination is to alternate Texas Umbrella and Sycamore, especially in street planting. The Texas Umbrella is the quickest possible growth, though not so long lived as other hard wood trees. See illustration on page 24.



Tea's Weeping Mulberry



Evergreens

THE variety of Evergreens adapted to the soil and climate of the Southwest is large indeed. We list those that have proven most satisfactory and recommend "specimen plants" where individual plants are desired. We also urge our customers to order evergreens balled in earth, which practically insures the life of every plant. Nothing adds more to the appearance of the yard or lawn than a few choice evergreens well located.

PRICES ON EVERGREENS, BALLED IN EARTH:

	Each
12 to 18 inch.....	\$.50
18 to 24 inch.....	.75
24 to 30 inch.....	1.50
30 to 40 inch.....	2.00
40 to 50 inch.....	4.00

ARBORVITAE, Chinese Golden. Of upright and compact habit, and of a rich golden color. While of free growth, it rarely attains a great height, keeping something near five feet.

ARBORVITAE, Biota Aurea Nana. A new and attractive variety of dwarf habit with exceedingly compact, well-rounded heads tipped with golden color.

ARBORVITAE, Pyramidal Golden. Of erect and symmetrical growth, often attaining considerable height. Close and compact foliage of golden color.

ARBORVITAE, Rosedale. A handsome variety of very compact growth. Foliage fine and feathery and of dark blue steel color.

RETINOSPORA PLUMOSA AUREA. This is the Golden-plumed Cypress. A small dense evergreen of conical shape with bright golden yellow foliage.

RED CEDAR. A hardy, native tree which will grow large or can be pruned to any size and shape as are other evergreens.

CEDRUS DEODORA. This is the well known cedar of the Himalaya mountains. A stately tree

attaining great height, with grayish green foliage, branches feathery and spreading. Perfectly adapted to this climate.

IRISH JUNIPER. Beautiful compact growing evergreen with dark green foliage with metallic luster which has frosty appearance. One of the most attractive evergreens.

Evergreen Trees and Shrubs

MAGNOLIA. One of the finest of all Southern trees. Broad, shining, green leaves. Flowers pure white, petals thick, and very fragrant.

Prices on Magnolia:	Each
18 to 24 inch.....	\$.50
2 to 3 feet.....	.75
3 to 4 feet.....	1.00
4 to 5 feet.....	1.50

LIGUSTRUM JAPONICUM. A beautiful ornamental tree with broad, dark green leaves, bearing panicles of white flowers followed by purple berries. This tree is grown in bush form but can be trimmed into symmetrical shape in tree form. We can furnish either the bush or tree form.

Prices on Ligustrum:	Each
2 to 3 feet.....	\$0.50
3 to 4 feet.....	.75
4 to 5 feet.....	1.00
5 to 6 feet.....	1.50

WILD PEACH. A desirable evergreen tree which attains moderate size. Leaves bright and glossy, dark green. Bears small white blossoms followed by black berries. Can be trained into any desired shape. Very ornamental.

Prices on Wild Peach:	Each
2 to 3 feet.....	\$0.50
3 to 4 feet.....	.75
4 to 5 feet.....	1.00

ABELIA GRANDIFLORA. An evergreen shrub of dwarf but graceful growth, beautiful, bright, shining, green leaves which assume a me-

tallic hue in winter. From early summer until frost the bush bears in profusion clusters of fragrant, small trumpet-shaped flowers tinted outside with pink and waxy white within. Beautiful as a single specimen or in massed plantings.

Prices on Abelia:	Each
2-year, transplanted	\$0.50

MAHONIA. A handsome, compact growing shrub of medium growth. Prickly, shiny, purple leaves; bright yellow flowers followed by blue or black berries. This may be called an evergreen shrub, though in winter the foliage assumes a golden tinge which is very attractive. This shrub thrives best in shady locations and should be protected from the hot sun.

Prices on Mahonia:	Each
2-year, transplanted	\$0.50



California Privet

Hedge Plants

AMOR RIVER PRIVET. This is a hardy evergreen in the South. Leaves dark shining green, which remain beautiful throughout the year. Has dainty white flowers in June followed by black berries.

Prices on Amoor River Privet:	Per 100
18 to 24 inch.....	\$ 7.50
2 to 3 feet.....	10.00

CALIFORNIA PRIVET. This is used almost exclusively as a hedge plant and is hardy and quite satisfactory. Foliage dark green, and almost evergreen. A most desirable hedge plant.

Prices on California Privet:	Per 100
18 to 24 inch.....	\$ 3.00
2 to 3 feet.....	5.00

CITRUS TRIFOLIATA. This is the well-known hardy orange. One of the most valuable hedge plants over the South and Southwest.

Prices on Citrus Trifoliata	Per 100
1 to 2 feet.....	\$ 7.50
2 to 3 feet.....	10.00

EUONYMOUS JAPONICA. Evergreen, with thick shining green leaves. One of the best and most beautiful hedge plants. Makes beautiful shrub grown as specimen plants.

Prices on Euonymous Japonica:	Each	Doz.	Per 100
12 to 18 inch.....	\$0.25	\$3.00	\$20.00
18 to 24 inch.....	.50	5.00	35.00



Hydrangea

Flowering Shrubs

PRICES ON SHRUBS, except where noted:

	Each	10
Strong 2-year	\$0.35	\$3.00

ALTHEA. No more valuable shrub can be grown than the Althea. Bears a profusion of bright colored flowers through late summer and until frost, at a time when other flowers are resting. We can furnish Althea in single and double flowers in white, pink, red and purple. A shrub valuable as a specimen plant or for hedges.

ALMOND, FLOWERING. Beautiful rosy blooms set upon branches in early spring.

CALYCANTHUS. Sweet-scented, beautiful foliage with fragrant flowers.

CREPE MYRTLE. This is a well known old shrub, very effective as a single specimen or in

groups. Blooms throughout the entire summer, producing great masses of beautifully fringed flowers in immense panicles of deep red, pink or white.

FLOWERING PEACH. A small bush with foliage similar to the peach tree, but the limbs are covered with dainty flowers similar to miniature roses. Either pink or white.

HYDRANGEA. A hardy shrub, producing immense flower heads of white and rose early in the summer.

JAPAN QUINCE. Bright red flowers which appear on the bush before the foliage is out. A very early bloomer. Valuable for hedges.



Snowball

CAPE JASMINE. An evergreen shrub with glossy foliage and bearing beautiful white flowers which are very fragrant.

FLOWERING WILLOW. Beautiful bush with foliage similar to the Willow, and bearing a profusion of white or purple flowers during the summer.

LILAC, BUDDED. We use for budding this shrub California Privet, which gives us the best possible results. Sold only as white and purple. Only the finest sorts are budded.

SNOWBALL. Large globes of pure white flowers appear in spring. Should be planted on north side of building or fence for protection from hot sun and winds.

SPIREA BILLARDI. A medium-sized shrub producing spiked panicles of flowers of deep rose pink.

SPIREA VAN HOUTTEI. An upright grower with long, graceful, drooping branches which are literally covered with clusters of small white flowers in the early spring, making of the limbs perfect plumes of two or three feet in length.

SYRINGA (Mock Orange) An upright shrub bearing in May and June a profusion of single white flowers which are very effective.

TAMARIX. A rather large growing shrub with fine feathery foliage and bearing a profusion of small pink flowers in June.

DEUTZIA. Upright grower with delicate flowers borne thickly along the branches. These can be furnished in either pink or white. May be planted as specimen plants or in groups.



Deutzia

SPECIAL SHRUBS

CHASTE TREE. A valuable small tree with sage-like foliage; especially attractive because of its pale lilac flowers which are produced in long spikes and which last a long time. Will grow where ordinary shrubs fail.

	Each	10
Strong, 2-year	\$0.50	\$4.00

BUDDLEIA VARIABILIS. A shrub not so well known, but which stands the heat and drouth of summer remarkably well. A strong grower, often attaining a height of 6 to 8 feet. Foliage dark green and very heavy. Throughout the entire summer flowers of violet-purple with orange throat, very fragrant, are borne in long plumes.

	Each	10
Strong 2-year	\$0.75	\$6.00

BUDDLEIA LINDLEYANA. A conspicuous growing shrub of perhaps 6 feet in height. Leaves dark green; flowers dark purple and produced in racemes 6 to 8 inches long, from early summer until frost.

	Each	10
Strong 2-year	\$0.75	\$6.00

FORSYTHIA. The beauty and grace of this shrub is probably not surpassed by any of the spring flowering shrubs. Very showy, delightfully fragrant, yellow flowers are borne in tufts early in the spring before the leaves appear; foliage lustrous dark green.

	Each	10
Strong 2-year	\$0.50	\$4.00



Weeping Forsythia (Suspensa)



Spirea Van Houtel

INDIAN CURRANT OR CORAL BERRY. A valuable native shrub of attractive growth. The leaves are bright green with purple tinge when young; flowers grayish red, followed by an abundance of purple berries which cling to the branches throughout the winter. Pleasing addition to plantings because of its bright colorings.

	Each	10
Strong 2-year	\$0.35	\$3.00

LESPEDEZA BICOLOR. Of strong shrubby growth; very attractive because of its dark reddish-purple flowers. A hardy shrub which will stand the heat and drouth of summer. Desirable because of its bright attractive coloring.

	Each	10
Strong 2-year	\$0.50	\$4.00

PURPLE FRINGE. A low growing, shrubby tree which is covered in mid-summer with masses of delicate grayish flowers which give it the appearance of a cloud of smoke. An unusual shrub which is very attractive.

Each 10
Strong 2-year\$0.50 \$4.00

TARTARIAN OR BUSH HONEYSUCKLE. A large growing shrub of 6 to 8 feet with upright and somewhat spreading branches; bright green foliage; flowers are bright coral pink in color, borne freely in May and June and followed by red berries which cling to the branches for several weeks. A vigorous grower, free flowering, and of easy cultivation.

Each 10
Strong 2-year\$0.50 \$4.00

POINCIANA. This is truly a shrub for the Southwest, for it will thrive on almost any kind of soil and bloom throughout the entire summer. Foliage finely cut, lace-like; flowers pea-shaped, yellow, with bright red stamens. Often attains a height of 8 to 10 feet and will thrive where other shrubs will fail.



Purple Fringe

Prices on Poinciana:

Each 10
Strong 2-year\$0.35 \$3.00

POMEGRANATE. A large shrub or small tree which is grown both for fruit and ornamental purposes. Small shining, dark green leaves with scarlet flowers; fruit very showy and ripening in late summer or fall.

Each 10
Strong 2-year\$0.50 \$4.00

PURPLE-LEAVED BARBERRY. A most conspicuous shrub growing 4 to 5 feet high, and especially desirable because of its brilliant foliage. Leaves dark purple; small yellow flowers in great profusion early in spring, followed by purple berries in late summer and autumn. Very attractive in groups or masses.

Each 10
Strong 2-year\$0.50 \$4.00

RUSSIAN OLIVE. A beautiful lawn tree of low growth and spreading top; leaves long, narrow, and silvery-white; bark of tree dark shining green; flowers small, yellow, with wonderful fragrance. One of the best ornamental trees and should be more largely planted.

Each 10
Strong 2-year\$0.50 \$4.00



Althea



Boston Ivy

Vines

Prices on Vines, Except Clematis:	Each	10
Strong 2-year	\$0.25	\$2.00

VIRGINIA CREEPER. A high-climbing vine for walls, chimneys, etc. Leaves of bright green which take on beautiful autumn tint.

WISTARIA. A strong grower with long panicles of fragrant flowers which appear early in spring. White and purple.

HONEYSUCKLE. Too well known to need description. Beautiful, very fragrant, white and yellow flowers.

IVY, BOSTON. Vigorous creeper and desirable for walls, fences and rough places.

MATRIMONY VINE. Strong grower with purple flowers and red berries.

TRUMPET VINE. Strong, vigorous growing vine, which is excellent for covering walls and fences, as it clings firmly with its numerous roots along its stems. Orange scarlet, trumpet-shaped flowers are borne at the tips of the branches. Flowers measure 3 to 4 inches long.

Prices on Clematis:

Strong 2-year	Each, 50c;	10, \$4.00
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CLEMATIS, PANICULATA. A very hardy climber introduced from Japan. Small, very fragrant white flowers completely covering the upper part of the vine.

CLEMATIS, EDOUARD ANDRE. Flowers large and of velvety red.

CLEMATIS, JACKMANI. Flowers from four to six inches in diameter and of intense violet purple. The plant frequently blossoms from mid-summer until frost.

CLEMATIS, HENRYI. One of the best Clematis, but not as free a bloomer as Jackmani. The flowers are large, white and very showy.



Clematis Jackmani



American Beauties

Roses

WITH reasonable thought and care, in no other line of endeavor are we more fully repaid than in cultivation of roses. The rose is of a truth the "Queen of Flowers." Produced in every imaginable form and color, blooming from early spring until late in fall, adapted to practically all soils and every climate, no home should be without an abundance of this greatest of all flowers. There is not a section of this great country where, if thought in selection of varieties is given, roses cannot be grown in greatest abundance. The plant thrives best in rich, well-drained soil and with an abundance of water. Each season necessitates severe pruning as the beauty of the rose is decidedly augmented by long stems with each blossom. We can assist you in growing in greatest profusion as good roses as can be produced, no matter what your environment. We would advise that customer plant No. 1 plants, which will bloom nicely the first season. When plants are received, plant in well-prepared soil and keep protected from extreme weather conditions until plant is well rooted.

No. 1, 2-year, field grown.....	Each	Ten	Fifty
XX, Extra strong, field grown	\$0.35	\$3.00	\$12.50
	.50	4.00	15.00



Frau Karl Druschki

AMERICAN BEAUTY. Everbloomer. Rich rosy crimson. Hardy.

BALDWIN. See Helen Gould.

BESSIE BROWN. Color clear creamy white, often tinged with pink. Petals large and full. One of the best bloomers and produces extremely large flowers.

BON SILENE. Everbloomer. Deep rose, free blooming, very fragrant. Hardy.

BRIDESMAID. Everbloomer. A clear, dark pink. Hardy.

BRIDE. Everbloomer. Superb white rose, edge of petals tinged with pink. Hardy.

CATHERINE MERMET. Everbloomer. Clear shining pink. Hardy.

DENSMORE. A generously large rose, very double, full and fragrant. Rich cherry red, hardy, and a general favorite for the garden.

DUCHESS OF ALBANY. See Red La France.

DUCHESS DE BRABANT. Everbloomer. Soft rosy pink. Hardy.

ETOILE DE LYON. Everbloomer. Rich golden yellow. Evtra fine. Hardy.

ETOILE DE LYON. Everbloomer. Rich golden yellow. Extra fine. Hardy.

ETOILE DE FRANCE. Fine buds on long stiff stems. Few thorns. Dark velvety crimson, fragrant and lasting. Hardy.

FRAU KARL DRUSCHKI. Often called White American Beauty. Snow white, very large, full and perfectly formed; superb. This rose should be planted in every collection as it is one of the finest white roses grown. Almost identical with American Beauty, except it is snow white.

GENERAL JACQUEMINOT. Blooms in spring only. Shining crimson. Very hardy.

GRUSS AN TEPLITZ. Everbloomer. Fiery crimson with deep fragrance. Hardy.

GEN. WASHINGTON. Everbloomer. Brilliant crimson. Flowers large and double. Hardy.

HELEN GAMBIER. Apricot - yellow, merging to pink at outer edge of petals. Flowers large, full, borne on graceful stems. A beautiful rose.

HELEN GOULD. Everbloomer. Warm rosy crimson. Very fine and hardy.

HELEN GOOD. A new cochet tea rose. Delicate yellow suffused with pink. Large and free flowering.



Bride

KAISERIN AUGUSTA VICTORIA. Everbloomer. Delicate creamy white with long pointed buds. Vigorous grower; profuse bloomer. Hardy.

KILLARNEY. Everbloomer. Deep sea-shell pink. Buds and flowers of enormous size.

LA FRANCE. Everbloomer. Silvery pink, tinged with crimson. Hardy.

LA FRANCE RED. Everbloomer. Identical with pink La France except that it is a bright crimson. Hardy.

LA FRANCE WHITE. Everbloomer. White, faintly tinged with pink. Hardy.

MME. CAROLINE KUSTER. Everbloomer. Beautiful orange yellow. Hardy.

MME. CAROLINE TESTOUT. Everbloomer. Brilliant pink. Hardy.

MME. CHAS. WOOD. Everbloomer. Bright scarlet. Hardy.

MME. DE WATTEVILLE. Everbloomer, yellow tinged with rose.

MME. FRANCES KRUGER. Everbloomer. Coppery yellow. Fine and hardy.

MALMAISON. Everbloomer. Creamy white, tinged with pink. Hardy.

MALMAISON, WHITE. Large, full flowers, pearly white. Identical with Pink Malmaison except in color.

MAMAN COCHET. Everbloomer. Bright pink, shaded yellow at center. Hardy.

MAMAN COCHET WHITE. Everbloomer. Creamy white tinged with pink. Hardy.



Dorothy Perkins

MARIE GUILLOT. Everbloomer. Pure white faintly tinged with yellow. Hardy.

MARIE LAMBERT. Everbloomer. Snow white. Hardy.

MARIE VAN HOUTTEI. Everbloomer. Canary yellow, passing to creamy white edged with rose. Hardy.

METEOR. Rich velvety crimson. Extra fine. Everbloomer. Hardy.

PRES. CARNOT. Everbloomer. Bright pink. Hardy.

PAUL NEYRON. Blooms at intervals throughout the season. Bright shining pink. Hardy.

PERLE DES JARDINS. Everbloomer. Clear golden yellow. Reasonably hardy.

RICHMOND. Everbloomer. Rich scarlet. Hardy.

SAFRANO. Everbloomer. Strong grower. Sulphur yellow. Hardy.

CLIMBING ROSES

CLIMBING AMERICAN BEAUTY. Except of climbing habit, this rose is the same as its namesake in size, color and fragrance. Hardy, with fine foliage and good blooming habit.

CLIMBING BRIDESMAID. Same as Bridesmaid except climber.

CRIMSON RAMBLER. Blooms in the spring only.



Crimson Rambler



Red La France

DOROTHY PERKINS. A rambler rose which competes with Crimson Rambler in popularity. The flowers are a beautiful shell pink which holds for a long time, fading to deep rose, sweet-scented, borne in clusters of ten to twenty.

CLIMBING KILLARNEY. Of strong growth, bearing long pointed buds on long stiff stems. An exquisite shade of brilliant pink. Flowers large and fragrant. One of the best.

CLIMBING LA FRANCE. Everbloomer. Silvery pink tinged with crimson. Hardy.

CLIMBING MALMAISON. Identical with Malmaison, except it is a climber.

CLIMBING MARIE GUILLOT. A pure white climber. Everbloomer. Hardy.

CLIMBING METEOR. Doubtless the best red climber. Rich velvety red. Hardy.

MARECHAL NEIL. Everbloomer. Deep canary yellow. Good climber. Rather tender.

CLIMBING MAD. CAROLINE TESTOUT. Is identical with Mad. Caroline Testout, except climber.

MRS. ROBT. PEARY. Identical with K. A. Victoria, except it is a climber.

CLIMBING PAUL NEYRON. Identical with Paul Neyron, except it is a climber.

REINE MARIE HENRIETTE. Often called Red Marechal Niel. Everbloomer. Rosy crimson. Hardy. Climber.

CLIMBING PERLE DES JARDINS. Identical with Perle des Jardins, except it is a climber.

TAUSENDSCHON (Thousand Beauties). A rose which produces on the same bush many different colors from delicate rose to cherry red, with tints of white and yellow. A strong grower and hardy.

Cannas

Of all summer bedding plants the Canna is probably the most widely used and furnishes the widest range of colors. Aside from the gorgeous colors in the flowers, the foliage alone is beautiful in its many colors of green, bronze, red, etc. The Canna may be planted so that the compact foliage will form a screen, or where carefully selected the different colors and sizes may be planted to form a most beautiful bed. We offer some of the leading varieties which have been carefully selected and grown.

PRICES ON CANNAS

\$1.00 per Dozen.

ALLEMANIA. Orange scarlet with golden yellow border. Inside of bloom scarlet and dark red. A tall growing variety.

AUSTRIA. A soft canary yellow with spots of red in throat. A tall growing variety of exceptional beauty.

BURBANK. Beautiful rich yellow with mottled crimson throat. Luxuriant growth which makes it one of the best of the tall sorts.

BUTTERCUP. A clear Buttercup yellow. A dwarf variety which is unsurpassed for bedding.

EGANDALE. Cherry red flowers which are borne well above the foliage. A medium grower with beautiful foliage.

FLASHLIGHT. A rank grower with orange colored flowers mottled with red.

FLAMINGO. One of the best dark reds. A constant bloomer which is hardy. A medium to tall grower.

INDIANA. Bright green foliage which is luxuriant. Orange colored flowers.

KING HUMBERT. Bright orange flowers streaked with crimson. Bronze foliage striped with green. Luxuriant grower.

KING OF BRONZES. Tall rich bronze foliage. A luxuriant grower. One of the best.

LOUISIANA. One of the tallest growing sorts. Orchid flowers of deep crimson of exceptional beauty.

MERCEDES. A beautiful soft yellow which is flecked with white in throat. A tall grower.

MUSAFOLIA. Foliage dark green with bronze margin. One of the most luxuriant foliage cannas.

PILLAR OF FIRE. A medium grower with flowers of crimson scarlet. Flowers very large and free.

SHENANDOAH. An abundant bloomer with clear pink flowers. Foliage bronze. Medium height.

VENUS. A clear rosy pink marked with yellow; erect flowers. A medium grower.

WYOMING. Rich purplish bronze foliage. Flowers bright orange slightly rimmed and flaked with rose. Tall grower.

MRS. KATE GRAY. Orchid-flowering, tall growing variety. Flowers orange colored.

MARVEL. Brilliant colored flowers of orange and red. Medium grower.



Cannas

Tuberoses

One of the most fragrant flowers known. The flowers are borne on tall spikes, are pure waxy white, and cut flowers will keep for more than a week. The bulbs throw up these spikes about the first of June and continue to bloom until frost. South of us these bulbs may be left in the open ground all winter with light mulch for protection, but in colder climates the bulbs should be taken up and stored in dry cellar until early spring, when they should be planted in the open ground and well cultivated.

PRICES ON TUBEROSES

Per dozen\$0.75 Per 100.....\$4.00

The Control of Insects and Diseases

Each year the necessity for spraying for insects and diseases becomes more apparent. It is easy enough to make up formulas of different sprays, but it is a different matter to identify the different insects and diseases, and designate the treatment for each, so that they may be successfully combated. However, we have endeavored to give treatment for different pests when such are recognized by the grower. When it is impossible to identify a given pest, specimens of the insects or diseases, in good condition, should be forwarded to the Department of Entomology at College Station, or Austin, Texas, who will be glad to give information regarding methods of control. In order to successfully control insects and diseases of plants, it is necessary to know something of the manner in which they affect a certain plant.

INSECTS

According to the method of taking in food, insects are divided into two general classes, "biting or chewing" and "sucking" insects. The first class may be controlled with a poison when it is possible to apply the spray so that it will be taken into the stomach and the other class must be brought under subjection by a contact spray. The codling-moth of the apple and pear is a good example of the biting or chewing insects, while the San Jose Scale is a good example of the sucking insects.

DISEASES

Diseases of plants are generally caused by a fungus growth and are controlled by a spray called a "fungicide." There are a few diseases, as the fire blight of the pear and apple, that are produced by bacteria which live inside the tissues of the wood, about the only remedy for such diseases, is to cut away all infected branches, making the removal 8 or 10 inches below the portion infected, and destroy the prunings by burning.

SPRAYS

There are two general classes of sprays; insecticides and fungicides. Insecticides are again divided into poison and contact insecticides. Arsenate of lead is a good example of the poison insecticide, while the lime-sulphur is a good example of the contact. The fungicides are represented by the old standby—Bordeaux mixture.

SPRAY FORMULAS

POISON INSECTICIDES

Arsenate of Lead—This is the most common and valuable poison used in the control of biting insects. It can be purchased either in paste or powder form. The paste should be used at the rate of 2½ to 3 pounds to 50 gallons of water or spray material, but use only 2 pounds of the powdered form. Arsenate of lead sticks to the foliage better and produces less injury than other poisons. Its action is not so rapid as Paris green.

Paris Green—This is not so popular as it formerly was. Arsenate of lead is a better poison to use for the reason given above. Never use Paris green on peaches, and when it is used on any other plants it is advisable to use 4 or 5 times its weight in lime to prevent burning. Never use more than one pound of Paris green to 100 gallons of water or spray material.

CONTACT INSECTICIDES

Lime-Sulphur Solution—This is the most important contact spray that we have, being the most effective remedy for the San Jose Scale, used while trees are dormant. If the commercial lime-sulphur is used, it should be diluted one gallon to 8 or 9 of water for the winter spray if the stock solution tests 32 degrees Beaume, while for the summer spray at the rate of one gallon to 40 or 45 of water. Home made lime-sulphur may be made as follows:

Fresh stone lime	20 pounds
Sulphur	13 pounds
Water	50 gallons

It will be necessary to use a large kettle to boil the mixture. Start the lime to slaking in a quantity of boiling water, add the sulphur that has been mixed into a thin paste, continue to boil until the material has become a rich amber color, which will require at least

45 minutes. Constant stirring is necessary while the material is boiling. Keep solution to 50 gallons all the time by adding small quantities of warm water which will not stop boiling. Never add cold water.

Kerosene Emulsion—Used frequently in summer to control lice and other soft bodied insects with sucking mouth parts.

Hard soap	1 pound
Hot water	1 gallon
Kerosene	2 gallons

Dissolve soap in hot water, add kerosene and pump through a force pump back into vessel until the whole is a creamy mass. Dilute at the rate of one gallon to 10 or 12 of water.

FUNGICIDES

Bordeaux Mixture—This is the oldest and most commonly used fungicide. It is very useful in combating fungus diseases of grapes and other fruits, but not to be recommended for use on peaches after the leaves have come out. One of its worst features is that sometimes it produces a severe burning.

Fresh stone lime	4 pounds
Copper sulphate	4 pounds
Water	50 gallons

Dissolve the copper sulphate in ten gallons of water and dilute to 20 gallons. Slack the lime and dilute to 20 gallons. Mix by lime water and copper sulphate by pouring the two into a barrel at the same time, add water to make 50 gallons. Bordeaux mixture must be agitated continuously while it is being applied or a part of the material will settle to the bottom of the tank or barrel. The arsenical poisons may be used successfully with this fungicide, in fact it is advisable to use 2½ to 3 pounds of arsenate of lead paste to 50 gallons of Bordeaux mixture.

Lime-Sulphur Solution—This is becoming a very important fungicide. The concentrated material should be diluted at the rate of one gallon to 40 or 45 of water, if the concentrated tests 32 degrees Beaume. Never use the concentrated form on peach trees after the leaves have forced out.

Self-Boiled Lime-Sulphur—This is a very important spray to use on peach in the control of the scab and brown rot. It does not burn the foliage like the Bordeaux mixture.

Fresh stone lime	8 pounds
Sulphur	8 pounds
Water	50 gallons

Start the lime to slacking and add the sulphur which has been mixed into a thin paste. Allow the material to boil, stirring constantly, until the lime is well slacked, then cool by the addition of cold water. Dilute to 50 gallons. It is advisable to add 2½ to 3 pounds of arsenate of lead paste to each 50 gallons of the self-boiled lime-sulphur.

Ammoniacal Solution of Copper Carbonate—This is a valuable fungicide for ornamentals and fruits where the coloring of other sprays is objectionable.

Copper carbonate	6 ounces
Ammonia	2 quarts
Water	50 gallons

Make copper carbonate into a paste by the addition of one and one-half pints of water, and add ammonia slowly, then add water to make 50 gallons. One or two gallons of strong lime water added to each 50 gallons of the spray will greatly lessen the danger of burning.

Shade trees of different varieties are often attacked by a number of different insects and diseases. When scale are found on shades, treat in the manner recommended for fruit trees. Insects seem to be especially fond of the Hackberry. Borers often get in the bark and in the wood and cause considerable damage. When they get in the tissues of the plant all that can be done at that time is to dig them out, or inject just a little carbon-bisulphide in the hole and plug it up with cotton. It is very advisable to keep the trees in a perfectly healthy condition, keep them well watered during the hot summer months so that they will not get into a weakened condition. The eggs of the borer are deposited during the summer months, hence it is sometimes possible to use some spray that will tend to keep the adults away from the tree, and this also helps in keeping the trunk in a good condition. The following formula will often prove beneficial by making application with a spray pump to the body of the shade trees to keep away the adults. Do not spray the foliage with this material.

Fresh stone lime	15 pounds
Crude carbolic acid	1 gallon
Arsenate of lead	3 pounds
Water	50 gallons

Slack the lime, work the arsenate of lead into a thin paste, dilute and add the crude carbolic acid, stir vigorously, add water to make 50 gallons. Never apply anything to the trunks of trees for beauty; the natural color of the bark is more beautiful at any time than any material that can be applied, only when combating insects as above should any application be made. Consult the Entomologist at College Station or at Austin, Texas, for information regarding the control methods of insects on shade trees.

Spray Calendar

What to Spray	For What to Spray	Kind of Spray	Time to Spray	REMARKS
Apple	Codling Moth	Arsenate of Lead	Just after petals fall	Sometimes it is necessary to spray a second time, 3 weeks after the first, with a mist spray, use 3 pounds arsenate of lead to 50 gallons of Bordeaux mixture. The third spray should be about June 15th, same as second.
Apple	Curculio	Arsenate of Lead	Just after blossoms fall	If not brought under subjection, repeat in about 3 or 4 weeks. Turn under all trash and weeds. Keep the orchard soil in good condition.
Apple	Green Aphis	Kerosene Emulsion	As soon as aphid appears	Spray thoroughly.
Apple	San Jose Scale	Lime-Sulphur Solution	While trees are dormant	Care should be exercised and thoroughly cover the trees, as the scale are killed by contact.
Apple	Borers			Worming and keeping the trees in a vigorous condition. Keep the orchard soil in good condition. Plow under all weeds and trash. Consult the State Entomologist.
Apple	Bitter Rot	Bordeaux Mixture	June 15th	This should be followed by one or two other sprays 2 or 3 weeks apart.
Apple	Black Rot	Bordeaux Mixture	Just after petals fall	When spraying for the codling moth, if a fungicide is used with the arsenate of lead, and the other spraying practices are followed out, this disease will be largely controlled. Cut away dead wood and cankers.
Apple	Blotch	Bordeaux Mixture	3 to 4 weeks after petals fall	Spraying for bitter rot will take the place of later sprayings, otherwise spray as for late sprays for bitter rot.
Apple	Scab	Bordeaux Mixture	Just as leaves are unfolding	A second spray immediately after the blossoms fall.
Pear	Codling Moth	Same as apple	Same as apple	When spraying for the codling moth, be sure that the work is thorough, so the cups will be full of poison.
Pear	Curculio	Same as apple	Same as apple	
Pear	San Jose Scale	Same as apple	Same as apple	
Pear	Fire Blight			This is a bacterial disease and spraying is ineffective in the control. Cut away all diseased portions of twigs and destroy by burning. It is well to disinfect the pruning shears after each limb is cut off.
Pear	Scab	See apple	See apple	This is a little more serious than it is on the apple, but methods of control are the same.
Peach	Curculio	See apple	See apple	Control same as for apple.
Peach	San Jose Scale	See apple	See apple	Control same as for apple.
Peach	Borer			Very difficult to control. Worming often proves profitable. Keep the trees in vigorous condition. Keep all trash and weeds plowed under, do not let them get under headway. Consult the State Entomologist.
Peach	Brown Rot	Self-boiled Lime-Sulphur	4 weeks after petals fall	A second spraying about June 20th. The arsenate of lead can be used with the self-boiled lime-sulphur. Destroy mummied fruit. Do not use Bordeaux mixture or concentrated lime-sulphur on peach trees after the leaves are out.
Peach	Curl	Lime-Sulphur	Before buds swell	In spraying to control the San Jose Scale, it will be effective on this disease.
Peach	Mildew	See curl.	See curl.	Spraying in dormant season as indicated in connection with the other general spraying practices will prove very effective in controlling this disease.
Peach	Scab	See Brown Rot	See Brown Rot	Applications of the self-boiled lime-sulphur same as for brown rot.
Plum	Curculio	See apple	See apple	Same methods of control as in apple, pear and peach.
Plum	San Jose Scale	See apple	See apple	Same spray as for apple, pear and peach.
Plum	Brown Rot	See peach	See peach	Same as for peach.
Plum	Scab	See peach	See peach	Same as for peach.
Cherry	Curculio	See apple	See apple	Same as for apple, peach and plum.
Cherry	San Jose Scale	See apple	See apple	Same control methods as for apple, peach, pear and plum.
Cherry	Brown Rot	See peach	See peach	Same methods of control as in brown rot of the peach.
Grape	Black Rot	Bordeaux Mixture	Just before buds swell	Every two or three weeks thereafter until the fruit ripens, depending largely on weather conditions.
Grape	Mildew	Bordeaux Mixture		This disease will be controlled in the spraying for black rot.
Grape	Powdery Mildew	Bordeaux Mixture		General spraying for black rot will hold this disease in check.
Grape	Anthraxnose	Bordeaux Mixture		Thorough spraying of the grapes for black rot, and pruning away of diseased clusters and canes, will hold this disease in check.
Grape	Leaf-Hopper Grape	Kerosene Emulsion	When the young appear	It is necessary that this spray come in contact with the insect, so apply to underside of leaves with a properly constructed nozzle.
Grape	Grapevine flea-beetle	Arsenate of Lead	As soon as insect appears	Make a thorough application, using a stronger spray than for other insects, use 4 or 5 pounds arsenate of lead to 50 gallons of water or spray material.
Rose	Mildew	Bordeaux Mixture or Flowers of Sulphur	When first sign of disease appears	Ammoniacal solution of copper carbonate is very effective and does not discolor the bushes, flowers or walls. See direction for preparation.

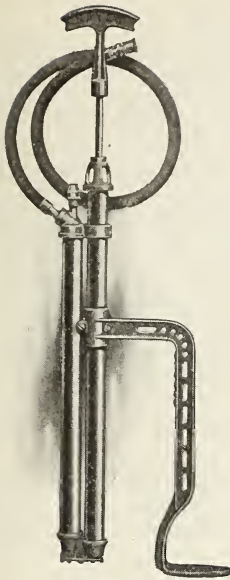


Fig. 21

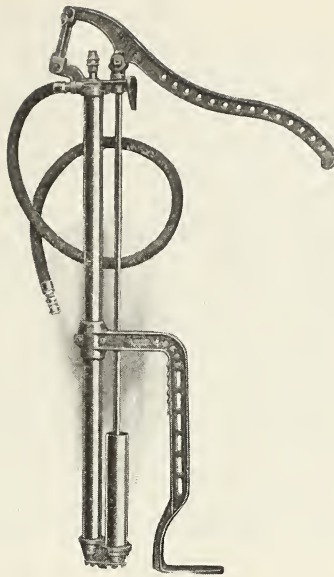


Fig. 23

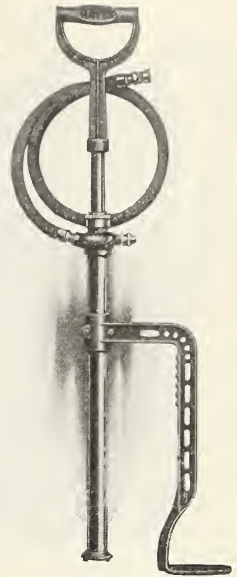


Fig. 25

HAYES BUCKET SPRAYERS

No other tool is more important for farm, home and garden use. Indispensable for spraying trees, small fruits, garden truck, flowers, etc.; washing windows, porches and buggies; disinfecting the farm yard, barns and poultry houses; spraying cattle fly oil and stock dip and whitewashing buildings and fences. All working parts are brass, not subject to corrosion. Solid bronze ball valves. Malleable iron foot rest. Made of tested materials, strong and substantial, they will give long wear and satisfactory service. Will develop strong pressure, and are easy working, long-lasting and exempt from breakage and delays.

Fig. 21. All operation is on the down stroke, which tends to steady and hold the pump down. The air chamber is extra large, giving a continuous spray. A large capacity pump and a very popular type. Price of pump complete, with detachable hose and Hayes small disc nozzle, with discs for fine and coarse spray and extra solid stream cap; weight 7½ pounds.....\$4.00

Fig. 23. Largest and most powerful pump of the bucket type. Large capacity, easy working and high pressure. Foot rest may be removed and pump bolted to inside of barrel. Price of pump complete, with detachable hose and Hayes small disc nozzle, with discs for fine and coarse spray and extra solid stream cap; weight 9 pounds\$6.00

Fig. 25. Double acting. Discharges one-half of the solution on both the up and down stroke, giving a continuous spray. Light in weight, easy to carry, yet a strong and powerful pump. Price of pump complete, with detachable hose and Hayes small disc nozzle, with discs for fine and coarse spray and extra solid stream cap; weight 6¼ pounds\$4.00

Fig. 26. Identical with Fig. 25, except that it has a large brass air chamber which cushions the force of the solution pumped and maintains a uniform pressure. Price of pump complete, with detachable hose and Hayes small disc nozzle, with discs for fine and coarse spray and extra solid stream cap; weight 7½ pounds\$5.00

With Malleable Bucket Clamp, add \$0.50 to price.

With 8-foot Galvanized Extension, add \$0.70 to price.

We advise using an extension for spraying trees to elevate spray. Pumps are packed in strong individual shipping cartons.

HAYES BUCKET CLAMP

Adjustable to any height bucket and can be used with all styles of Hayes Bucket Pumps. Clamps the pump and bucket rigidly together, holds the pump solid for easy operation and permits the complete outfit to be conveniently carried by the bucket bail.

Can be used on all styles of wood or galvanized pails. May be purchased with pump or at any future date and applied by the user.

See that your bucket sprayer is equipped with a bucket clamp. Hayes Bucket Clamp. Price\$0.50

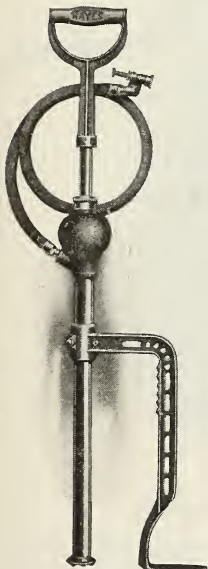
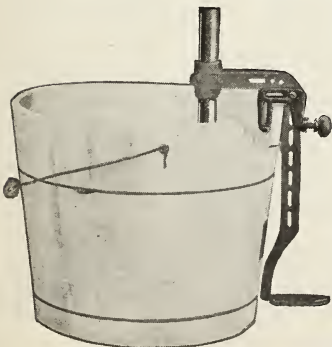
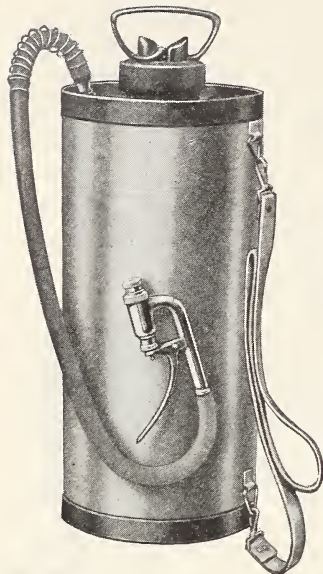


Fig. 26



"BOSS" KNAPSACK SPRAYER



The "Boss" is of simple, strong and substantial construction. Two or three pumpings will discharge the contents of the tank at strong and constant pressure. After pumping the operator has only to direct the spray. Can be used for spraying crops, fruits, shrubs and flowers, disinfecting the poultry house, spraying cattle fly oil, etc.

Made either of high grade galvanized steel or sheet brass. Diameter of tank 8 inches, 17 $\frac{1}{4}$ inches high, with 4 gallon capacity. The tank should be two-thirds filled, weight loaded, 30 pounds. The carrying straps are wide for ease in handling. The pump has a brass tube cylinder strongly attached to the tank cap. One quarter turn of the handle locks it in the pump casting for unscrewing and removing the pump, in which position the sprayer may also be carried by the handle. The plunger is easily removable or replaceable in the pump cylinder.

The nozzle is automatically self-cleaning with a lever for controlling and shutting off the spray. This nozzle will not clog as the cap is cleaned at every operation with a spiral point.

Furnished with a section of $\frac{3}{8}$ -inch hose, spiral wire covered at the tank so it will not kink, crack and break.

Packed in substantial shipping carton. Shipping weight 12 $\frac{1}{4}$ pounds.

"Boss" Compressed Air Sprayer complete, galvanized tank.....\$6.75
 "Boss" Compressed Air Sprayer complete, brass tank..... 9.00

HAYES BARREL SPRAYER

This is a powerful hand sprayer capable of developing 150 to 200 lbs. pressure. All working parts including plunger, gland, valves, valve seats, spring expander and strainer are bronze so that no part is subject to the corrosive action of the spraying solution.

The plunger is cast phosphor bronze and works in perfect alignment in a hard seamless drawn brass cylinder with bronze packing glands. The air chamber is steel of large capacity and maintains a uniform pressure making it unnecessary to work lever constantly. The handle is long and powerful and may be reversed. The agitator is simple and effective, the twin paddles passing on both sides of the strainer and stirring the solution thoroughly.

Price. Pump with 12 $\frac{1}{2}$ ft. $\frac{1}{2}$ -in. 5-ply spray hose, couplings, valves and Hayes disc nozzle; weight 42 $\frac{1}{2}$ pounds \$16.75



HAYES PORTABLE SPRAYER

This is the largest and most powerful hand sprayer built. It is designed with leverage and is capable of developing any pressure up to 300 pounds. The cylinder base, waterways and air chamber are cast integral, giving greater strength with less weight and fewer parts. All working parts are bronze and all joints are bronze to iron, so that no part of the pump is subject to the corrosive action of spraying chemicals. Cast phosphor bronze plungers work in perfect alignment in hard seamless brass cylinders with oil grooved bronze packing glands. Large bronze ball valves, separate and instantly accessible are proof against pressure losses and valve troubles.

Price. Complete outfit with barrel, 12 $\frac{1}{2}$ ft. 5-ply hose, 10 ft. extension with leakageless stop cock, 300 lb. pressure gauge; weight 250 lbs.\$50.00

Without barrel, deduct \$5.00.

