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1923 Catalogue

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FANCHER CREEK
NURSERIES
FRESNO, CALIF.



FANCHER CREEK NURSERIES



1923 CATALOGUE

FRESNO, CALIFORNIA

Read Carefully Before Placing Your Order

SEE FRUIT INDEX PAGE 37

THE ORDER BLANK accompanying this catalogue is for the convenience of customers and we will appreciate their using it, as it will facilitate the filling of their orders.

ALWAYS GIVE FULL ADDRESS—This is important: write your name plainly, your post-office, county and state.

SHIPPING INSTRUCTIONS—Give your nearest express office and railway station, or stage route, and the name of the transportation company.

WRITE DISTINCTLY HOW YOU WISH US TO SHIP—By freight, express or parcel post; also designate the route, otherwise we use our own discretion in forwarding.

EXPORT ORDERS—Orders for export to Old Mexico, the Hawaiian Islands, Cuban and South American points should give, in addition to the above, the steamship routes by which their orders are to be shipped.

No accurate data can be given as to freight charges on orders for export, but charges must be prepaid. With all export orders we require full amount of cash and in addition thereto at least as much as one-half of the amount of the order to cover transportation charges; otherwise we will reduce the order so that the remittance will pay for the order and transportation charges. Any amount remitted and not used will be returned later.

ACCOUNTS—Orders from unknown correspondents must be accompanied by a remittance or satisfactory reference. Orders to be sent by express, C. O. D., will be filled, provided one-half of the amount is sent with the order.

REMITTANCES—Send post-office money order, registered letter, express order, bank draft, or check. All orders from foreign countries to be accompanied by draft or international money order payable in U. S. gold.

SUBSTITUTION—Please state whether substitution will be permitted, as we feel at liberty when no instructions accompany the order to use other varieties as nearly similar as possible.

It very often happens on orders of small assorted varieties, for a home orchard, that it is necessary to make substitutions. On orders for commercial planting, substitutions are never made without first obtaining consent of customer.

GRADES—On account of the difficulty of positively knowing until our trees are dug just how they will grade out, we accept all orders with the distinct understanding that price is to be charged in accordance with the grade of trees supplied.

PRICES ARE FOR STOCK AT FRESNO—We have made a very close study of traffic conditions, and our knowledge is used to secure in all cases the very lowest freight rates for the benefit of our customers.

We cannot hold ourselves responsible for any loss or injury to trees or plants after they have been packed and shipped, but we will do everything in our power, if any loss should occur, for the protection and recovery of our customer's property.

PACKING CHARGES—We charge for the same only to cover the cost of material. Cartage to the railway or express office free of charge.

PARCEL POST—Within a radius of 150 miles from Fresno, orders not exceeding fifty pounds in weight and outside of this zone in the United States or any of its possessions, packages not exceeding twenty pounds may be forwarded by parcel post. However, where stock is shipped parcel post the packing charge is usually slightly higher. The postage is always charged for.

It is not practical to send anything but the light grade trees, shrubs and plants in this manner and in many instances these must be cut back severely to come under the dimension regulations.

In California the requirements to forward to district inspection points for examination by the Horticultural Commission before it reaches destination, in many cases adds to the cost on account of the charges which accrue for re-forwarding and possible damage to the stock due to the lack of facilities for re-packing properly. Except to points at a distance from the railroad we strongly advise the forwarding of shipments by freight or express.

ERRORS—Mistakes made in filling orders will be cheerfully rectified, but we must respectfully request prompt notice of any error found.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

QUANTITY ORDERS—Articles mentioned in this catalogue will be furnished as follows: 5 of a variety at the 10 rate, 50 at the 100 rate, 300 at the 1000 rate. To illustrate: one each of Baldwin, Delicious, Gravenstein, Lawver, Red Astrachan, making five in all would entitle the purchaser the 10 rate on apples. If an order called for five varieties of apples, as mentioned above, 1 Muir Peach, 1 French Prune, 1 Royal Apricot, 1 Bartlett Pear, 1 Washington Navel Orange, the 10 rate would apply on the apples, but the "each" rate on the assorted trees. Purchasers will please bear in mind that the quantity rates apply only where multiples of the same variety of tree is ordered and not on assortments. As an extreme case, 300 apples, one of each variety, would entitle the purchaser to the 1000 rate just the same as if the order consisted of 10 varieties of 50 trees each; if, however, 100 apples, 100 peaches, 100 pears were ordered, the 100 rate would apply on each item.

GUARANTEE—The Fancher Creek Nurseries will exercise care to have all stock true to name; nevertheless it is understood and agreed that should any stock prove untrue to name, the Fancher Creek Nurseries shall be liable for the sum paid for the stock which may prove untrue, and shall not be liable in any greater amount.

Address all correspondence to

Fancher Creek Nurseries

GEO. C. ROEDING, President

Telephone, Telegraph, Postoffice and Express Address:

FRESNO, CALIFORNIA

Cable Address "Callmyrna"

Western Union Code

Nurseryman's Telegraphic Code

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THE PURPOSE OF THIS BOOK

To Those Interested in True Trees

In preparing our 1923 catalogue, it has been our desire to make it not only a descriptive book telling the kind of stock we grow, when and how to plant and care for it, the prices at which it sells, and the effects it will produce, but also to give our many customers information showing how the stock itself is produced, the care that has been exercised in its building, together with lots of little helps heretofore not found in any nursery catalogue.

Our aim has been to produce a tree that at once possesses a strong, healthy, well developed root system:—one that will insure a long life to the tree it supports, a sturdy type with all those tendencies toward prolific bearing which are required to make an orchard a success.

With this in view, many years ago we began to pay attention to the root and the seed which produced it, selecting with utmost care nothing but first-class, healthy seedlings, and at last, after years of careful observation and costly experiments, we have, we believe, found the essential points necessary to produce stock on which to place our buds that possess health, vigor and long life.

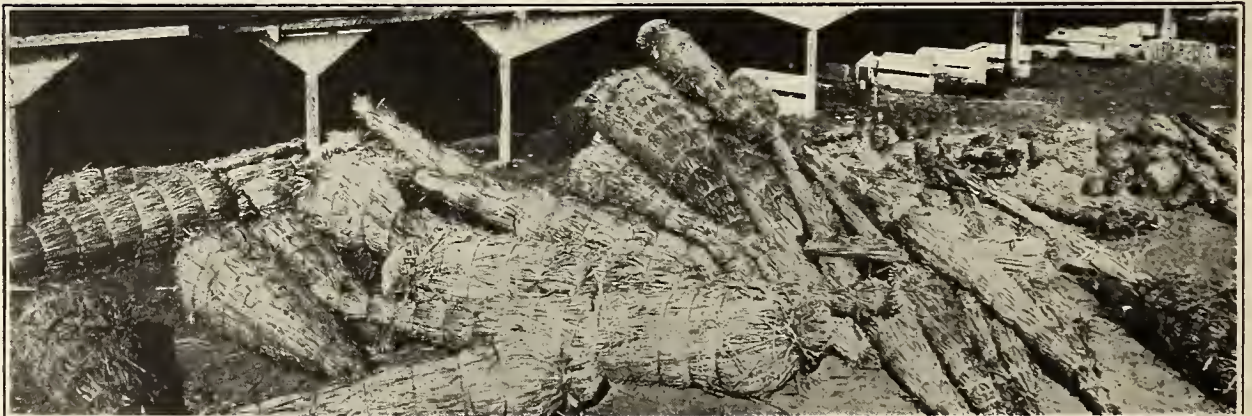


A Perfect Tree. The result of care in the selection of both Root and Budwood

Like in the selection of seed and root-stock, we have for a long time engaged in carefully scrutinizing the orchards of the valleys and the hills of California, selecting with diligent care from the very best of these, bud-wood with which to work the superior root-stock that was ready for the building. We point with pride to orchards of Elberta, Phillips' Tuscan and other varieties which have borne for a period of years almost fabulous yields,—tonnages of fruit that, were it not for the actual figures as proof, even we, knowing the trees, might be lead to doubt. For more than 20 years competent men who have made a life study of types and varieties of fruit have searched these orchards and checked the individual trees from which the buds are taken. From such orchards as we have mentioned we have selected buds that have gone into the making of every variety of trees we are offering in this book.

The purpose of this book is to describe, to price, and to offer such stock as we have just mentioned. To offer to our customers something different, something better, something worth every dollar that they pay for it, something that is more than just 'trees' direct descendants, if you please, from record bearing orchards; trees built from buds which stand in a class by themselves; trees built on roots that have also been approved. With such stock you are bound to succeed.

FANCHER CREEK NURSERIES,
FRESNO, CALIF.



ROEDING TREES PACKED READY FOR SHIPMENT

FRUIT TREE DEPARTMENT



YOUR OPPORTUNITY

There is a charm in the sun-kiss of California's wonderful climate that is akin to that said to have inhabited the waters of Coney Fork, "Drink Once and Ye Shall Return."

So for years past others have, and without doubt the future generations will feel the magic call to return, once they have bathed in the floods of her wonderful, almost perpetual sunshine. Just one state of many, yet so vast in proportion as to form a veritable empire, capable of supporting a population of that of Spain and Italy combined, and containing more square miles than either. In fact 158,297 square miles are within her borders, which is more than the combined area of New York, New Jersey, Massachusetts, Rhode Island, Vermont, Maine, New Hampshire, Connecticut and Ohio. With a shore line of 1300 miles, and an average width of 250 miles, representing untold acres of fertile soil and an inexhaustible supply of water, supported with a climate unsurpassed by that found in any other country in the world, what a wonderful possibility it presents to those interested in horticulture. For it is a veritable Garden of Eden counting in its lengthy category of adaptable fruits, even the apple and the fig.

The development of her rich acres have only begun. The world is her market, and with the ever increasing demand for California products, there is an ever increasing necessity for more and better planting.

THE ORCHARD

There are many things to consider before entering into the business of fruit growing. In these days fruit growing should be specialized. This does not mean that a man with his family living on his farm should not have a small home orchard, berries, vegetables, alfalfa, a cow, poultry and hogs. The fact that if more of our orchardists would give closer attention to these details they could not only operate their properties more economically, but derive much more pleasure than they now do from them.

The preparation of the soil is practically the same for all sections of California. It is always a good plan when convenient to first cultivate the soil well and devote the land to the raising of alfalfa for three or four years,

for alfalfa will redeem soil very much more quickly than it can be built up in any other way. The land should be carefully plowed and the roots cleared out before planting trees. This can best be accomplished by thorough plowing, followed up with harrowing until the soil is friable. This work should be done in the fall and early winter months before the rains set in if possible. Sub-soiling is essential to any well developed land as it loosens the earth and leaves it in a condition that will permit deep penetration of the roots.

Where irrigation must be practiced, grading must be done so that all spots will be accessible from laterals running from the main ditch, and should there be any low spot where the water is likely to stand too close to the surface, drainage should be carefully considered.

Fall planting, as practised in the East and Middle West, is not desirable in California because the growing season generally extends into November and it rarely occurs that stock is ready to lift before the fifteenth of December, therefore it is not wise to hurry planting. From January to April first is the planting period, giving preference to January and February and the first two weeks of March. However, in sections where the climate is cool, planting may be continued even later than April 1st.

SELECTING NURSERY STOCK

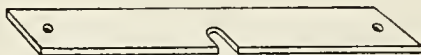
Never lose sight of one point in buying: that when purchasing "Roeding True Trees" you are buying from a firm that has devoted more than 35 years to the practical study growing the best trees that money, study and an inherent love for perfection in a tree, can develop. Remember also that each tree represents years of thought, and the application of practical experience in the growing of the root and the selection of the bud and the rearing of the entire tree. Remember also that buying trees is different from the average merchandising. It is neither today nor tomorrow that tells the story, but it is three or more years before your fondest hopes are realized. From the planting of the seed to the time the trees reach our patrons, every care that human ingenuity can devise is carefully observed.

BLASTING

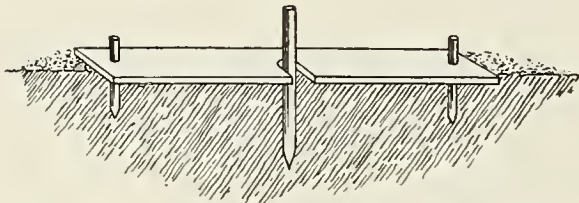
Much interest has been manifested of late years in dynamiting the holes prior to the planting of the trees. It is absolutely necessary to do this in hardpan soils in order to plant trees at all. While it is not absolutely necessary to blast where three feet of good soil is found, practical experience has demonstrated the advisability of doing so, not only where hard pan is evident, but in any hard, compact soils as well.

As has been suggested previously, above all things have your ground in the very best condition of tilth.

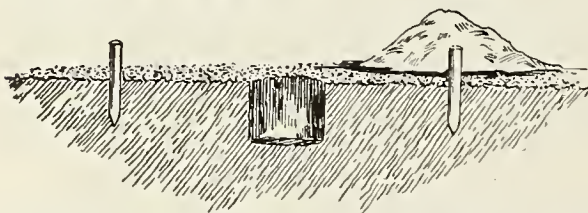
A stake about half an inch square and one foot long will be found to be a very convenient size as a marker for the setting of the trees. Dip about six inches of one end in white wash as they can then be readily seen, and should any of the stakes be out of line it will be noticed at once.



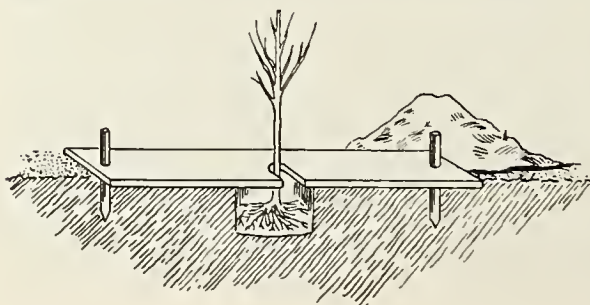
Before digging the holes it is necessary to have a tree setting board. This is easily made out of a piece of 1 x 4 x 6 feet long, with an inch hole at each end and a notch in the center.



Place the notched center against the stake where the tree is to be planted and push a stake into the ground through the holes at each end of the planter and



remove the center stake and board. The hole may now be dug and this should not be less than 18 inches in diameter and 18 inches deep.



After the hole is dug, replace the board over the end stakes in its former position, then plant the tree with the trunk end resting against the center notch in the board and it will be in identically the same place as the stake which was removed to dig the hole.

In setting out, one person should hold the tree in an upright position against the notch in the tree setter, while another fills in the loose soil around it, first spreading out the roots and rootlets. The surface soil should be put in first among the roots. When the hole is two-thirds full, firm the earth thoroughly about the roots, but before doing this draw the tree up to its permanent position. The top three to four inches of soil should not be tamped. A basin should be scooped out around the tree which will hold at least 15 gallons of water, which should be given at once after planting. The following day draw in loose soil to fill up this basin. Do not tramp in. Guard against setting too deeply, but allow for the settling of the soil, so that when once established the tree will stand about as it did at the time of removal from the nursery rows. In the hot interior valleys of this state, it is also very important to protect the trunks with tree protectors until they can supply their own shade.

BRINGING AN ORCHARD OR VINEYARD INTO BEARING

Just in the proportion that the orchard received intensive and intelligent care, will it give corresponding returns for the investment of capital, time and labor. The care bestowed for the first two or three years in cultivating, pruning and irrigating, where the rainfall is insufficient to carry the trees through the long dry summer months, is the foundation for the upbuilding of an orchard which will redound to the credit of the owner and give him ample returns for his intelligent care and years of hard work.

Next to thorough cultivation there is nothing which is more vital to the life of a tree than proper irrigation.

After a tree is set never fail to cut it back. This is now the general practice among the most successful orchardists throughout California, and is the result of years of experience.

To go specifically into the subject of irrigation is not within the province of this book. Soil conditions bear a very important part in the particular plan which should be followed to secure the best results. Where water is pumped from wells experience has demonstrated that cement pipes are more serviceable for carrying water to the point where it is to be distributed than anything else.

During the first season for deciduous trees in districts where irrigation is practiced, water should be applied not less than four times during the year. For the first two years it is not necessary to irrigate all of the ground between the rows. A space six feet wide will answer the necessary requirements in nearly all cases.

The trees when received at point of destination should be immediately unpacked and the roots laid in a trench and well covered with soil, which should then be thoroughly wet down. If delayed in transit, thereby becoming dry and suffering from exposure (the bark showing signs of shriveling), it is a good plan to immerse the trees in a tank of water over night, burying the tree root and top completely in damp soil for a few days until they become normal, when they may with safety be planted out. Should trees become frozen in transit, the package should be placed in a cellar or some cool place free from frost until they are thoroughly thawed out, and if so treated will not be injured by having been frozen.

PREPARING TREES FOR PLANTING

Before planting, the roots should be carefully examined and any bruised or broken roots should be cut back to good smooth surface. The cuts on the larger roots should be sloping and made on the lower side. If for any reason planting is delayed and the trees begin to show signs of starting new growth they should be removed from the trenches, all the dirt shook from the roots and exposed for two hour. i. the early morning on a calm day to the rays of the sun. This will cause the small, white rootlets which have started, to dry up, and if the trees are heeled in (wetting them down of course), in a shady place, their dormancy may be prolonged several weeks.

HOW TO PLANT

There are a number of methods of planting an orchard. Vineyards are usually set in a square system. We are exhibiting diagrams showing the different methods, with explanations.

SQUARE SYSTEM—The advantage of this system is that it permits cultivation both ways. The first step to be taken is this and the following plans, is to have your base lines at right angles. In planting a large place, these lines should be obtained by a transit.

EXPLANATION OF DIAGRAMS—The planting distances are represented by the figure 1; all other related distances by multiple parts of 1, so that any desired distance on any of the diagrams may be obtained by the simple process of multiplying the desired planting distance indicated on diagram.

RULE: Square Method—Multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill; which, divided into the number of feet in an acre (43,560), will give the number of plants or trees to an acre.

Lay off the base lines A B and A C along two sides of the planting field in such a manner that the angle at A is an exact right angle (90 degrees), and set stakes on said base lines the desired distance apart. Care must be exercised to have all stakes on true lines.

A right angle can be formed in the field by the following method:

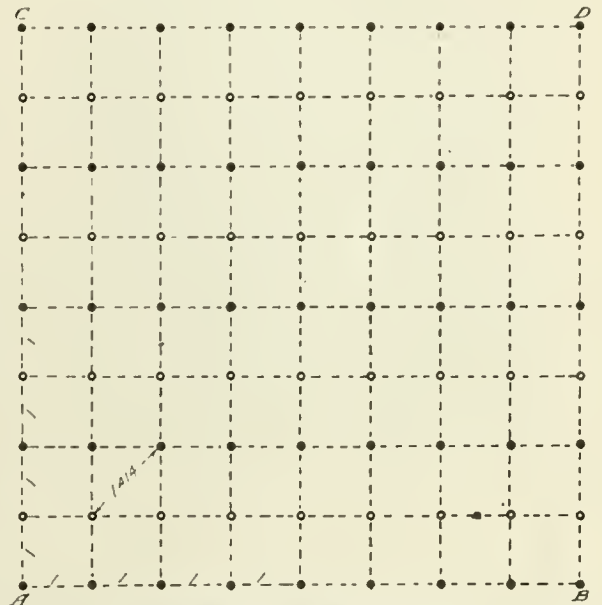
Lay off 30 feet from A along base line A B on the diagram, then a point on base line A C will be 40 feet from A and 50 feet from the other end of the 30-foot length.

After setting the stakes along the base lines at planting distance apart, the next step should be to set stakes along secondary lines drawn parallel with base lines A B, and such distances therefrom as will be multiples of the planting distance, required, and at the same time no further apart than permitted by the length of the planting chain.

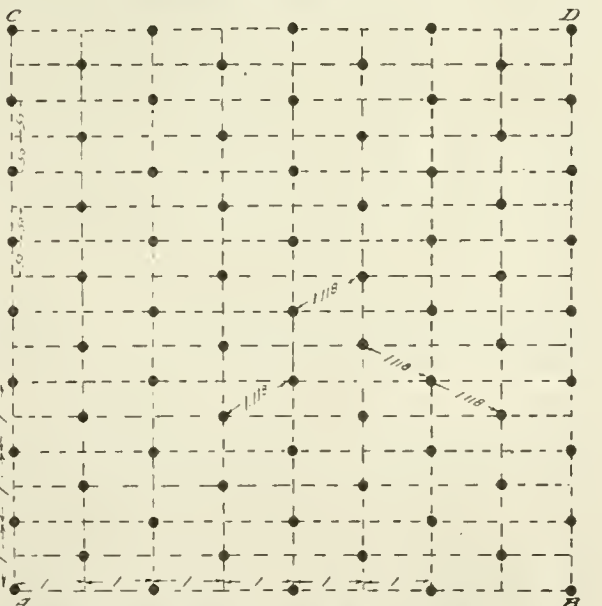
Experience has demonstrated that a 250-foot chain is the most serviceable. The chain should be stretched for several days before using to prevent too much variation in the field. Iron stake pins should be used to hold the chain in position. To do this properly it is advisable to lay off a temporary base line B D from end B of base line A B and at right angles thereto, setting flags on such temporary base lines at distances to correspond with the spacing of the secondary lines.

With the flags as a guide lay off the planting stakes on the secondary lines, starting always from base of line A C.

All that is required to complete the staking will be to stretch the chain between similar points on the secondary line and set the stakes at tag on the chain previously adjusted.



SQUARE PLANTING



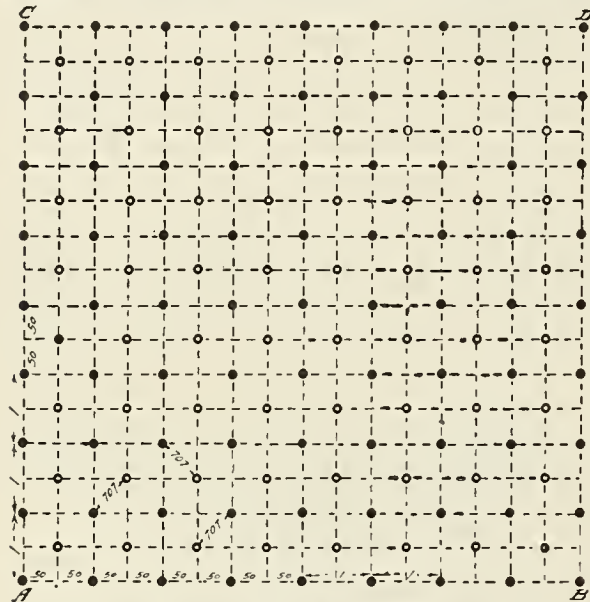
ALTERNATE PLANTING

ALTERNATE SYSTEM—Let the planting distances be 24 feet apart; and then all stakes on base line A B will be 24 feet apart. The alternate stakes on this line will be for temporary use only. In setting stakes on lines parallel with base A C, the tags of one color should be spaced 24 feet apart, commencing at the zero end. Tags of another color (for use on alternate lines) should be spaced 24 feet apart, commencing at a distance of 12 feet from the zero end of the chain.

RULE: Alternate Method—The number of plants required per acre by this method is the same as that required by the "square method" with similar planting distances.

QUINCUNX SYSTEM—The only advantage in this method of planting is in connection with using a filler temporarily, to be dug up as soon as there is any indication of crowding. This permits of double the amount of trees to the acre than in the square system.

Proceed to stake the field in squares. Then without the aid of a chain, place a stake in the center of each square. This is readily determined by sighting along the two diagonal rows of stakes at right angles to each other.



QUINCUNX PLANTING

RULE: Quincunx Method—Multiply the number required to the acre "square method" by 2. The result will be the number of plants required to the acre by this method.

HEXAGONAL SYSTEM—This is the only one in which the trees are equidistant apart in every direction, every tree being at one point of an equilateral triangle.

The name "septuple," sometimes applied to this system, refers to the fact that the number of trees in each group unit is seven. Note hexagon on diagram.

To illustrate the plan to be followed, we will consider that the trees are to be set 24 feet apart. Then on base line A B set stakes 24 feet apart. On base line A C set stakes 0.866 times the planting distance apart or every 20.784 feet or (20 feet, 9 inches).

The first stake on the intermediate line, shown by the hollow circle on the diagram, should be 12 feet from the base line A C and 20 feet 9 inches from base line C D.

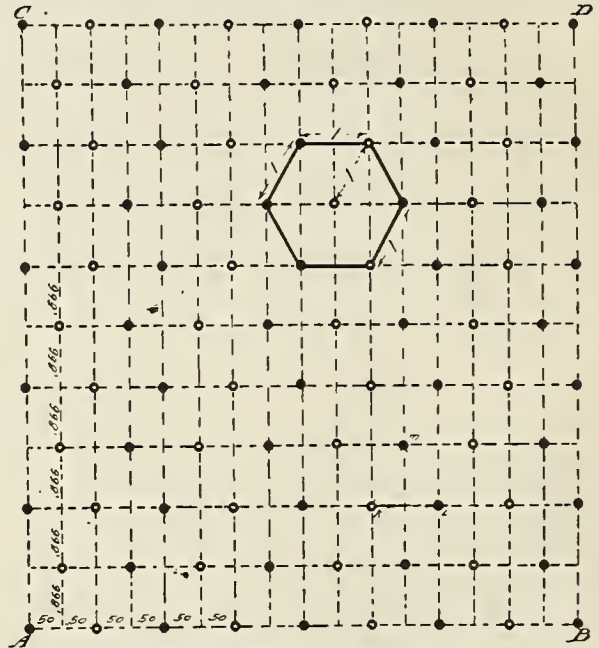
In using this method of staking, tags of two different colors should be used, one starting at zero and the other .50 times the planting distance from the zero end of the chain.

For the convenience of the planter we are giving here-with the distances between rows of trees, parallel with base line A B on the diagram, to correspond with various planting distances:

As an illustration, if trees are planted 18 feet apart on base line A B, the following row would be 15 feet 7 inches and correspondingly greater distance where the trees are to be planted further apart.

Base line A B 18 ft. Secondary line 15 ft., 7 in. from A B
 Base line A B 20 ft. Secondary line 17 ft., 4 in. from A B
 Base line A B 22 ft. Secondary line 19 ft. 1/2 in. from A B
 Base line A B 24 ft. Secondary line 20 ft., 9 in. from A B

Base line A B 28 ft. Secondary line 24 ft., 3 in. from A B
 Base line A B 30 ft. Secondary line 26 ft., 0 in. from A B
 Base line A B 36 ft. Secondary line 31 ft., 2 in. from A B
 Base line A B 40 ft. Secondary line 34 ft., 8 in. from A B



HEXAGONAL PLANTING

RULE: Hexagonal Method—First, figure the number of trees required per acre by the "square method," using the same planting distance; then divide by the decimal .866. The result will be the number of plants required to the acre by this method.

PLANTING DISTANCES

	Distance apart each way
Standard Apples	25 to 30 feet
Standard Pears	24 to 30 feet
Dwarf Pears	12 to 15 feet
Strong-growing Cherries	24 to 30 feet
Duke and Morello Cherries.....	18 to 24 feet
Standard Plums and Prunes.....	24 to 30 feet
Peaches and Nectarines.....	24 to 30 feet
Quinces	15 to 20 feet
Apricots	24 to 30 feet
Figs	25 to 35 feet
Olives	30 to 35 feet
Citrus Trees	22 to 30 feet
Walnuts	40 to 50 feet
Almonds	24 to 30 feet
Grapes.....	6x6, 6x12 and 8x10 feet

NUMBER OF TREES TO THE ACRE

Distance	Square	Quincunx	Hexagonal	Alternate
8 ft.	680	1360	785	680
10 ft.	435	870	500	435
12 ft.	302	604	349	302
14 ft.	222	444	255	222
16 ft.	170	340	196	170
18 ft.	134	268	154	134
20 ft.	109	218	124	109
22 ft.	90	180	104	90
24 ft.	75	150	87	75
25 ft.	70	140	80	70
26 ft.	64	128	74	64
28 ft.	56	112	64	56
30 ft.	48	96	55	48
32 ft.	43	86	49	43
36 ft.	34	68	39	34
40 ft.	27	54	31	27
45 ft.	22	44	25	22

Note—All of these figures are not exact for planting one acre, but are intended for the planting of a multiple of acres.

THE APPLE

There is no fruit so widely distributed or more extensively planted (particularly in the temperate zone) as the apple. From its enormous list of varieties we have selected only those best adapted to California culture. Each locality seems to require certain varieties, hence it is always best when contemplating an orchard to consult experienced growers before planting.

The interior valleys are not suitable for commercial orchards of this fruit, although no home orchard may be considered complete without its quota of apples.

SOIL. Deep, rich, well drained soil is decidedly better, while light sandy locations should be avoided.

SITUATION. The coast region, the foothills, the lower elevations up to 5,000 feet or more, are the very best for commercial plantings.

PLANTING DISTANCES. Most of the commercial growers agree that the apple should be planted from 25 to 30 feet apart in orchard form. The trees should be cut back to 20 inches when planted. This rule, however, varies with the higher altitudes where, on account of heavy snow fall, the trees should be headed from about 24 to 30 inches from the ground to prevent the settling snow from breaking the branches. The young trees should be protected after planting to prevent sunburn. Tree protectors are the best method. Whitewash is also a splendid preventative.

Formula for preparing Whitewash: Dissolve $\frac{1}{2}$ gallon of soft soap in $\frac{1}{2}$ gallon of hot water. Add $\frac{1}{2}$ pint crude carbolic acid. When mixed add 5 gallons of hot water and enough lime to make the consistency of paint.

BUILDING THE TREE. No branches closer than one foot from the surface of the ground should be allowed to grow. The following winter they should be thinned out to four branches, and these cut back about one-third to form the head of the tree. The second winter no more than two laterals should be allowed to remain, and if they crowd, only one should be left, and its growth should again be shortened severely.

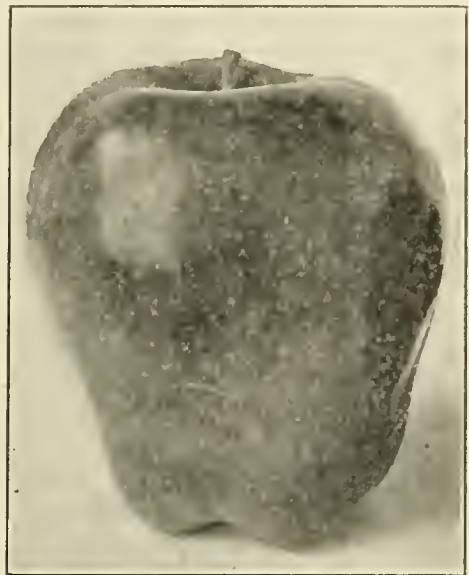
As the tree develops, cutting back and judicious thinning should be carried on to prevent long bare branches often seen in orchards. When this method of pruning is carried out the results are: sturdy, strong, structural branches, bringing the load of fruit closer to the trunk, avoiding the necessity of propping the branches, even tho the crop is heavy.

THINNING is employed in apples as in other classes of fruit. It increases the size, permits even spraying, and gives the fruit better color and better appearance.

SUMMER APPLES. Should be gathered as soon as they have attained full color, the same rule applies to fall apples. In gathering the fruit, care should be exercised so as not to break out the stem.

WINTER APPLES. Should be gathered when mature and fully ripe. By opening and examining the apple the proper time for picking can be ascertained. The seed will be slightly brown when ready to pick. However, the external appearance of the fruit is a fair guide.

LATE WINTER VARIETIES are generally gathered while they are yet too hard to yield to the pressure of the thumb and always before the heavy autumn frosts.



DELICIOUS APPLE

APPLES

VARIETIES AND DESCRIPTIONS

In presenting our list of apples for the Pacific Coast planting, we have included only the most desirable varieties for the home and commercial orchard.

ALEXANDER. (Ripens in August). Is a good keeper, as late as November. A splendid vigorous grower and abundant bearer. Suitable for planting in all apple districts, including the interior valleys where many other varieties are not a commercial success. The fruit is large, striped with brilliant red, with just a suggestion of color on the shaded surface. Skin thick and tough; flesh greenish white. Not first-class in texture but tender, firm and juicy.

ARKANSAS BLACK. (Ripens in December). Is always good until March and April. This variety is planted largely in the coast districts, but has been found a splendid sort for the interior valleys as well. It is classed among the heaviest of bearers. Flesh is deep cream, firm, juicy, and its quality number one. It is a round apple of medium size, with a clear waxy skin of deep rich red, the "Sun-kist" surface deepening until almost black.

BALDWIN. (Ripens in November.) Often keeping well until April. This variety like the Northern Spy is noted for its length of life. Vigorous growth and bearing tendencies. It has long been accorded a permanent place in the list of old reliable and successful sorts planted from Main to California. The fruit is large, nearly round. The skin splashed and mottled with rich bright red, fading slightly on the shaded surface; flesh pale yellow; texture firm; flavor very good; juicy and slightly acid.

BEN DAVIS. (Ripens in October). Keeps fairly well into December and January. The fruit is slightly above medium in size, often varying considerably. The skin is smooth, presenting a yellow base over-spread with different shades of red striped and splashed. The flesh is white with a faint suggestion of green about the core; firm and juicy; quality lacking. The value of the Ben Davis as a market variety is well established. It is regarded very highly wherever it is planted.

BLACK BEN OR GANO. (Ripens in October). Keeps until April. This variety is an improved Ben Davis. The description is practically the same.

DELICIOUS. (Ripens in November). Keeps well until March. A truly remarkable dessert apple. The fruit is large and uniform in size, elongated and visably ribbed. The skin is yellow, overspread with dark red, while the portion exposed to the sun livens to a bright crimson. Flesh white; quality the very best; crisp and juicy, with just a trace of acidity. It is one of the very best for general planting because as a market sort it demands the top prices, and as a home orchard variety it is enjoyed by every member of the family.

ESOPUS SPITZENBURG. (Ripens in November). Keeps well until May and June. This variety, like the Baldwin and Northern Spy, is an old, well known sort which has been very widely planted and successfully grown. It thrives best within the coast regions and foothill sections, yet it has been found a good producer when planted in the interior valleys. The fruit is oblong, conical, slightly broadened at the base. Skin is tough, smooth, and very highly colored and covered with russet dots. The flesh is yellow; quality very fine; flavor remarkably delicious. The tree is a splendid grower and a wonderful bearer.

FAMUESE OR SNOW. (Ripens in October) Will keep until December. The tree is a very vigorous grower, the fruit round, medium in size, striped with yellow and red, sometimes almost completely overspread with red. The flavor is splendid. Flesh snow white and very tender.

GRAVENSTEIN. (Ripens in August). Will keep until October or November. Successful in all parts of California. Skin pale yellow, striped with light and dark shadings of red; flesh yellow, fine, tender and juicy.

JONATHAN. (Ripens in October). Keeps well until December. This apple was originated in New York State, and has been largely planted through the Eastern, Middle West, and Western states with uniform success. The tree is a sturdy grower, rather slow, however, in arriving at full maturity. The fruit is of medium size, oval, slightly broadened at the base; color bright red, deepening on the sunny side to a very dark rich red, almost black. It is one of the most attractive apples on the market in its season. The flesh is mild cream in color, generally bearing just a faint suggestion of red. In flavor it is the very best. We recommend it for planting in all apple sections. As a home orchard variety for the interior valleys it is unexcelled.

KING OF TOMPKINS COUNTY. (Ripens in September.) Will keep until November. On account of its size and splendid color this apple usually brings the top market price. The trees are wonderful growers. The fruit is round; the skin medium, splashed and streaked with beautiful shadings of red and yellow. The flesh is almost white, medium coarse, sub-acid. It is regarded very highly as a dessert variety and for culinary purposes.

KING DAVID. (Ripens in October.) Is a good keeper. The fruit is medium to large; dark red in color, often showing yellow shadings. Its brilliant color and delicious flavor have gained for it an enviable place in the markets.

RED ASTRACHAN. (Ripens in July.) One of the very earliest introductions into this country. It is probably more widely grown and has been found more universally satisfactory than any other one variety grown in America. The trees are not what would be called vigorous growers, however, are good producers and are adapted to planting in every section of California. It seems to have a tendency to withstand the intense heat experienced in the interior valleys, rendering it valuable for the valley planting. The fruit is of fair size, slightly flat; skin thin, quite tender, and of a mild green, overspread with deep crimson stripes. The flesh is white with a faint greenish tinge, tender, juicy and sub-acid in flavor. There is no apple ripening in its season that we recommend for planting in California above the Red Astrachan. It has no peer among the early apples

RED JUNE. (Ripens in July.) Should be marketed at once. It is an early summer variety. Suitable mainly for home orchard and local markets. It is a fairly reliable bearer. The fruit is small, round, with a clear skin, the sunny side being overspread with deep red, sometimes the shaded portion of the apple reveals a green or pale yellow surface. The flesh is white, usually tender, with a sub-acid flavor.

ROME BEAUTY. (Ripens in November.) Keeps until February. The tree is a good grower and prolific bearer. Fruit slightly above medium in size, slightly oblong in shape. The skin is rather tough and smooth. Color splashed and mottled with brilliant red over a base of yellow. The flesh is white with a faint suggestion of green, giving it the appearance of a very mild yellow; fine; juicy; flavor sub-acid. On account of its wonderful keeping qualities it has been accorded a fixed place with the commercial trade. This variety is well adapted to all sections where apples are grown, and as a home orchard variety can not be excelled.

SMITH'S CIDER. (Ripens in November.) Keeps well until February. This is one of the good California varieties suitable for planting in the valley sections. It has been found to thrive and bear well in the coast regions as well. The fruit is large, round, yellow, striped with red and covered with russet dots. The flesh is fine grained, almost white, crisp and tender.

STAYMAN'S WINESAP. (Ripens in December.) Will keep until March and April. The fruit is very much larger, not quite as rich in color, but, in all, is an improvement over the Winesap. Skin is smooth and thick, and the color is rather dull carmine. Flesh is greenish yellow; texture firm; quite acid in flavor. It is adapted to the interior valleys, and the foothills more particularly, although plantings of this variety in the coast regions have been found very satisfactory.

WHITE ASTRACHAN. (Ripens in July.) A prolific producer; fruit large, almost round, slightly flattened at either end. The skin is yellow, with suggestion of red and pink, as if painted upon the surface. The flesh is white and might be termed sour, rendering it particularly well adapted for culinary purposes. Ripening as it does in the very early weeks of July. It is in high favor as a market variety.

WHITE WINTER PEARMAN. (Ripens in November.) Keeps well until January. This variety is one of the best known and is probably one from which there has been more revenue derived than any other apple on the Pacific Coast. The tree is exceedingly vigorous, produces uniformly an abundant harvest. The fruit is medium to large in size, is oblong in shape. The skin is pale yellow, with a brilliant blush on the sunny side, the entire surface being covered with russet dots. The flesh is yellow, fine grained, tender and juicy. This variety is recommended by growers for planting in all sections of California.

WINTER BANANA. (Ripens in October.) Keeps until January. A splendid variety, fruit large, almost round, somewhat conical, flattened at base. Skin thick and tough. Color yellow with a dark pink cheek. Flesh almost white. Quality slightly under first class, yet crisp and tender. Flavor sub-acid. In the Winter Banana we are offering one of the best table varieties, adaptable to all apple sections and one that is grown with success in the interior valleys.

WINESAP. (Ripens in November.) Keeps until February. No apple is as widely and favorably known as the Winesap. The fruit is only medium in size, round, skin smooth, thick, yellow, covered with a dark, glossy red. Flesh pale yellow, texture firm and crisp. Flavor good, slightly acid. The tree is a splendid grower and a wonderful producer.

YELLOW BELLFLOWER (Ripens in October.) Good until January. It is without doubt California's staple market variety for it is here that it appears at its best. The fruit as a rule runs large, oblong and ribbed. The ribs becoming more pronounced as they near the blossom end. The color greenish to yellow, nearly always showing a blush cheek. Flesh nearly white, tender and juicy. It is grown generally over the State and seems to do well wherever planted. The tree is of a thrifty habit and a prolific bearer.

YELLOW NEWTOWN PIPPIN. (Ripens in December.) Good until April and May. A moderate grower. Fruit irregular, oblate. Skin tough, overspread with russet dots. Color lively yellow with a shading of pink. Flesh cream white, firm and tender, slightly acid. Do not hesitate to plant this variety for either Commercial or the Home Orchard.

THE CRAB APPLE

VARIETIES AND DESCRIPTIONS

Cultural instructions, same as for apples.

HYSLOP. (Ripens in November.) Keeps until January. The tree is hardy, fruit fair size borne in cluster, skin is deep crimson, overspread with thick blue bloom, excellent for cider, jelly, preserves or pickles.

RED SIBERIAN. (Ripens in September.) One of the old standbys. Fruit found in clusters, small, round, the skin is bright red, with yellow field. This variety possesses an excellent flavor and is highly prized for jellies, in fact for all culinary uses.

TRANSCENDENT. (Ripens in September.) One of the very best of the old Russian sorts, fruit very large, skin yellow striped with red. Flavor good, one of the best large crab apples.

WHITNEY NO. 20. (Ripens in August.) Almost good enough for a dessert apple. Tree a vigorous grower and very heavy bearer, skin bright green striped and splashed with rich carmine. Flesh firm, juicy and of excellent flavor—the largest of Crab apples.

YELLOW SIBERIAN. (Ripens in September.) Fruit medium to large, like its name indicates is of a rich yellow color borne in clusters. Flesh amber, juicy, rich. It is prized very highly as one of the best varieties for jelly preserves, jam and pickles.

CRABAPPLE PRESERVES

Select perfect, well colored crabapples, wash thoroughly and remove blossom ends, leaving stems and skins. Place apples in heavy boiling syrup and stew gently until well done. Lift out of the syrup and put into jars. Unless the syrup is very thick boil longer until it becomes like jelly. Then fill jars and seal at once.



A three year old pear orchard showing the result of care in the selection of both root and budwood

THE PEAR

Pears are very generally planted over the state, in fact over the entire United States. Among the very best locations and districts adapted to its commercial planting in California are the Sacramento and Santa Clara Valleys, Palmdale, Little Rock and the Tehachapi districts.

In these sections the trees seem to be practically free from blight, thrifty and bear well. While they show little preference to soil they do much better in heavy, deep, rich loam.

The pear will do well in soils containing considerable alkali where vineyards and other fruits have perished. They are ordinarily planted in commercial form from 24 to 30 feet apart each way. Dwarf varieties, that is those worked on Quince roots are planted from 12 to 15 feet apart.

The trees should be pruned vase form, this seems to be a natural tendency of the growth. The fruit, like many other kinds, should be thinned where the trees are heavily loaded. It is surprising how much difference there is in the grade of the fruit when thinning is resorted to.

Summer and autumn varieties are gathered when the first indications of ripening appears.

The sign being the tendency of the stem to part from the spur when the fruit is gently raised. Late pears should hang as long as possible. Slight frost will not injure them as much as early gathering. When gathered they should be put in a dark, cool storage where they will ripen evenly. The demand for pears green, dried or canned is so well established that no fear may be entertained for an over production. While pears are freely grown throughout the state we do not recommend their planting in a commercial way in the interior valleys.

We are producing the most of our pears on

Japanese roots, because we have found that the seedlings are much stronger, adapt themselves to a greater variety of soils and are considered decidedly resistant to blight.

The Bartlett and some other varieties will not make a good union with the quince when budded direct. It has therefore been found desirable to bud the Buerre Hardy Pear, which has a remarkable affinity for the quince and then bud or graft the other varieties on it. This process is known as double working.

On account of the tendency of the pear to wards an upright growth methods of pruning must be applied to hold the tree in control and at the same time to promote fruit spurs from the framework branches to the top of the tree. In fact this is what every pear grower would like to achieve.

Pear trees like other fruit should be cut back to 20 inches when planted. In mid-summer just before the wood begins to harden, from four to five branches well distributed to form the frame work of the tree should be selected and then pieces of wood from three to six inches long slightly notched should be arranged to push the branches away from the body of the tree.

The following year new growth starting from these branches should be pruned back at least one-half with the exception of the terminal which should have its growth shortened one-third. At least one lateral starting midway of the framework branches should remain. Not overlooking the fact that two-thirds of its growth is cut off.

The third season again the new growth should be severely cut back leaving the leaders longer and this time several new laterals are allowed to remain properly distributed on the main branch, pruning away at least one-third of their growth.

The following season the same method of shortening and building up the frame of the tree is followed.

In the later years general pruning continues except that the cutting back of the tree is regulated by its growth. This method of pruning produces fruit spurs from the point where the frame work branches diverge from the body of the tree to its very top and the fruit when it appears will be evenly distributed. In the years of enormous crops, the leader may be used for stringing wires to prevent the lateral branches from breaking down with their load of fruit.

PEARS

VARIETIES AND DESCRIPTIONS

Only such sorts as are safe for general planting are included in the following list:

BARTLETT. (August.) Large; skin thin, clear lemon-yellow with soft blush on sunny side; flesh white, buttery, very juicy and highly flavored. It is the best summer pear in existence; does well in all parts of California. No variety is more popular or more highly esteemed for canning, drying or shipping than the Bartlett.

BEURRE BOSCH. (September.) A fine, large pear with long neck. Color brownish russet. Very showy. Fruit melting, juicy and delicious. The tree is a robust grower and a prolific bearer.

BEURRE CLAIRGEAU. (September.) Fruit large; yellow with orange and crimson shadings, showing many russet dots; flesh yellowish; buttery and juicy. A splendid shipping sort.

BEURRE HARDY. (September.) The variety best adapted for working on quince root, the union is perfect producing a dwarf, early bearing tree. However, it is worked on Japanese or French pear stock with splendid results. The tree is large, upright, vigorous and a very prolific bearer. Fruit large, greenish in color covered with light russet, shaded with brownish red; flesh buttery with rich vinous brisk flavor.

DANA'S HOVEY Winter Seckel. (November.) A splendid keeper. Fruit only medium, skin greenish yellow; flesh juicy; melting; very sweet. Flavor rich. Tree a splendid grower and tremendous bearer.

DOYENNE DU COMICE. (October.) Almost as popular as a winter pear as the Bartlett is as a summer variety. Tree a vigorous grower and regular in bearing. Fruit large; roundish tapering toward stem. Skin greenish yellow shaded crimson on sunny side; flesh rich; buttery and slightly aromatic. A late bloomer and early bearer.

EASTER BUERRE. (October.) An excellent shipper, tree a rapid grower and splendid bearer. Fruit large roundish, skin greenish yellow generally showing many dots and sometimes patches of russet. Flesh white, juicy and fine-grained with a very pleasing flavor; one of our most desirable winter sorts.

GLOU MORCEAU. (December.) Fruit large, skin mild green showing many green dots; flesh fine-grained, buttery, melting and very sweet. Excellent for table; also a good shipper.

MADELEINE. (Late June.) Of French origin, valuable on account of ripening period. Tree a strong grower and abundant producer. Fruit medium size, skin pale yellow, dotted with brown generally showing faint blush on cheek. Flesh white, melting, juicy. Flavor delicious. The first early market pear.

P. BARRY. (December.) This is a true California pear having been originated by the late B. S. Fox of San Jose. Fruit large to very large; ovate pyriform; skin yellow, nearly covered with dots and patches of russet. Flesh fine-grained, juicy, with an excellent rich sprightly flavor. The tree is a wonderful grower and heavy producer.

SECKEL or Summer Seckel. (August.) A small pear of exquisite flavor; originated on the farm of Mr. Seckel, near Philadelphia. It is without question the richest and most highly flavored pear in existence. Its highly concentrated, spicy, honeyed flavor is not equalled by any other variety. Skin bronze green with a bright russet cheek, flesh white, melting, buttery and juicy.

WINTER NELIS. (December.) An excellent keeper and one of the best shippers. Fruit medium; skin yellowish-green, dotted with gray russet; flesh cream, fine-grained and very juicy. Flavor rich, aromatic. This variety seems to be adapted to a warm dry climate, the tree is a good grower and an abundant bearer.

TO MAKE PEAR PRESERVES

Peel, halve and core as for canning.

To prepare syrup: 3 pounds of sugar to 2 pints of water, 1 pint of vinegar and spices. Thinly sliced lemon rind (a few strips only) added to the syrup improves the flavor of the preserves. Add 3 pounds of the pears to this amount of syrup. Cook to heavy preserve, 55 degrees Balling or 218 degrees Fahrenheit, and allow to stand over night. Pack carefully in jars. Add the syrup to the fruit. Seal and sterilize in water heated to 180 degrees Fahrenheit (simmering) for 30 minutes. Jars should be completely covered during sterilization. Time counted after water reaches 180 degrees Fahrenheit (simmering.)

THE CHERRY

The real cherry producing sections of California are limited mainly to the counties near San Francisco Bay. Other districts, particularly counties north of the bay where the benefit of the mild sea air is felt cherry growing should be more largely entered into. The wonderful results derived and the ever-increasing demand in the East for California fruits should prove an incentive to plant cherries over the greater territory.

Oregon and Washington also produce very fine cherries but California has a decided advantage over these two states for our cherries ripen much earlier and reach the market ahead of those from other localities. California cherries ripen from May the first to June the fifteenth while the crop from Oregon and Washington may not be expected before the fifteenth of July.

In the upper San Joaquin Valley, particularly around Stockton and in many sections of the Sacramento Valley and in the adjacent foothill districts there are many good cherry orchards. In the interior sections cherries should be planted only for home use, for commercially they are not a success.

In very rich deep soil the trees should be planted thirty feet apart, however, in ordinary soils twenty-four feet is a good planting distance. Cherry trees are grown on two stocks, the Mazzard and Mahaleb. The first name has for years been the one favored by California nurserymen. It has been used so long that there is a decided preference for it. In fact growers in general seem to feel that to work the Mahaleb (which is the stock used almost entirely in the East) is to court disaster, notwithstanding the fact that there are some splendid orchards on the Mahaleb root growing here in California.

Near Vacaville in Solano County there are several young orchards and one old orchard of over forty years, where the sweet cherries on this root are not only very thrifty but are producing very heavily. One of the most successful growers in the valley, Mr. H. A. Bassford, has said that he prefers this root on account of the trees being longer lived and more productive, evidently due to the influence of the root on the growth of the tree. Some have said that the Mahaleb root dwarfs the tree or at least has a dwarfing tendency but this is not borne out for the orchards noted have shown a remarkably sturdy growth both the young and the old alike.

Cherry trees at planting should be cut back to about twenty to twenty-four inches. During the first year three or four branches should be allowed to grow to form the head of the tree, and these should be so distributed as to prevent forks as the cherry has a tendency to split as it grows older.

The first winter these branches should be cut back one-half and the following winter not more than one or two branches should be allowed to grow from those left the first year.

The second season the new growth should be shortened in about the same and some of the laterals appearing near the point of divergence of the main stems should not be cut off, merely shortened for the shade they furnish is one of the essential features in development of the trees. The procedure is about the same up to the fifth year. After that the cutting should be less severe, but pruning unless the tree should show too much of a tendency to spread out should continue every year.

CHERRIES

VARIETIES AND DESCRIPTIONS

The sweet cherries are recognized as the Harts or Bigarreus. The trees are strong, vigorous growers. These are designated by the letter "H."

The Dukes or Morellos which are the sour sorts are slow growers, the branches are slender and leaves smaller. These are designated by the letter "D."

BING "H". (Middle of June.) A wonderful large black cherry. Its firmness and shipping qualities render it in active demand. Tree a thrifty grower. However unless mixed with other sorts preferably the Lewelling it is a shy bearer.

LAMBERT "H." (Middle of June.) Surface smooth and glossy, color deep red covered with minute russet dots; size large to very large; flesh reddish with light veins; very firm; quality excellent; one of the best shipping varieties.

NAPOLEON BIGARREAU OR ROYAL ANN "H." (Late June.) The largest of cherries; pale yellow mottled with deep red; cheek bright red; fruit very firm; juicy and sweet. It is the most popular variety for canning and shipping. The tree is a rapid grower and an abundant bearer.

THE PLUM

Plums and prunes are of one family. The main difference being that prunes are sweet plums possessing the property of drying and curing without the seed being removed while the commercial value of the plum is as a canner or shipper.

Plums are grown commercially over a very large range, are thrifty growers and bountiful bearers along the coast as well as in the interior valleys. There is scarcely a county in California that does not class plums among its successful bearing fruits.

The plum like the prune is grown on both peach and Myrobolan roots to suit the varying soil conditions met with not only in California but in other countries as well. The Peach root will thrive on loamy soils. The Myrobolan seems to exercise an influence on the longevity of the tree. We recommend it for any ordinary soils and particularly to localities subject to overflow or standing water.

In orchard form the trees should be planted from twenty-two to twenty-five feet apart each way. Being bushy growers they should be quite severely pruned when young, in fact at planting they should be cut back to twenty inches from the ground and should be protected from the sun by tree protectors or white wash as the young trees are quite subject to sun scald.

For three or four seasons after planting the same general pruning instructions applicable to other fruits will apply, but after that the only pruning necessary is the removal of branches that interfere with others. Formula for white wash will be found on page 7.

PLUMS

VARIETIES AND DESCRIPTIONS

ANITA. (Middle of July.) This truly wonderful plum is a seedling of the Tragedy, fruit as large as the Grand Duke or Hungarian. Color rich purple, deep bloom, flesh yellow, exceedingly rich flavored, sweet, juicy and free stone. This plum contains a high percentage of sugar and may be dried either pitted or without pitting. We recommend it as a regular bearer.

APEX PLUMCOT. (June.) Fruit very large, color deep pink or light crimson, freestone. Flesh honey-yellow, firm, rich, aromatic. Ripens with the earliest plums, rendering it a valuable market variety. The tree is a strong compact upright grower and a good regular bearer even where apricots can not be grown and in seasons when some plums are failures.

BEAUTY. (June.) This plum is all that the name implies. Fruit oval, crimson with crimson-amber flesh, the largest and most showy of the early shipping varieties ripening ten days before the Santa Rosa. The tree a vigorous and upright grower with an abundance of large healthy foliage.

BECKY SMITH. (Late August.) Brilliant red, tecture fine. Flesh yellow. Flavor partic-



SANTA ROSA PLUM

ularly good. It is a freestone Japanese variety appearing at a time when there are no other plums of its class on the market. Tree a regular and prolific bearer.

BURBANK. (Late June.) Color bright red slightly mottled with yellow. Fruit medium to large and nearly globular; flesh deep yellow, very sweet with a peculiar and agreeable flavor; tree vigorous sometimes commencing to bear when only two years old. On account of its wonderful bearing tendencies the fruit often needs thinning to maintain the larger sizes.

CLIMAX. (Middle of June.) Color rich dark red. Fruit heart shaped; flesh yellow, firm, fragrant, delicious; flavor excellent. Tree vigorous and very productive—one of the best of early shipping plums.

CLYMAN. (Late June.) Reddish purple. Flesh firm and sweet. Freestone. Valuable for shipping. Tree very prolific and a strong grower.

DIAMOND. (July and August.) Fruit large to very large. Oblong, dark purple with deep bloom; texture firm; flavor brisk acid; an excellent shipper. Tree a wonderful grower, a regular and prolific bearer.

FORMOSA. (July.) Fruit very large, heart shaped and of light cherry red color. Flesh pale yellow, firm, sweet and with a delicious rich flavor.

GAVIOTA. (July.) Color deep reddish purple. Very showy, flesh honey yellow; fragrant and sweet. Ripens two weeks later than Formosa. Pit exceedingly small—might be called almost seedless. Tree a good grower and splendid bearer. Very desirable for both commercial and home planting.

GRAND DUKE. (August and September.) Skin dark, almost blackish purple. Flesh greenish yellow, adhering closely to the stone. Has a sweet rich flavor. Tree a regular and prolific bearer.

JEFFERSON. (August and September.) Large, oval, freestone. Color greenish yellow. Sunny surface bluish red. One of the most desirable and beautiful of all canning and dessert sorts. Tree a medium grower but very productive.

KELSEY JAPAN. (July to October.) Very large, heart-shaped, color green, changing to rich yellow, nearly overspread with brilliant red when fully ripe. Flavor excellent, very sweet. Flesh firm, pit small semi-cling; splendid shipper. Tree an immense bearer.

SANTA ROSA. (Middle of June.) One of the most popular shipping plums of the present time. Very large, color deep purplish crimson covered with pale blue bloom. Flesh yellow, streaked and shaded with crimson. This plum is accorded a first place in the list of desirable Japanese types. It has few if any equals as a shipping plum. Tree a robust grower and good bearer.

SATSUMA. (July to August.) Large, globular, skin shaded lilac to reddish-purple. Flesh dark, rich red from skin to pit. Firm, rather juicy, good flavor. Pit very small. Splendid for culinary purposes, particularly jelly and preserves.

SHROPSHIRE DAMSON. (October.) Fruit oval; medium to small; dark blue with blue bloom; very firm. Flesh greenish, juicy when fully ripe. Excellent for culinary purposes, especially for preserves.

SIMON PLUM or *Prunus Simoni* **Apricot Plum.** (July.) Large fruit of a cinnabar-red color; flattened at both ends; flesh yellow, firm, rich, sweet with a marked pineapple and faint banana flavor; pit small. One of the best of the foreign plums, its high color, delicious flavor and earliness of ripening combine to make it one of the best plums for eastern shipment, likewise a splendid home orchard sort.

VESUVIUS. (Purple leaved.) Prized mainly for its wealth of beautiful purple foliage borne on long graceful limbs. In form the tree resembles the elm. It is very much superior to the other varieties of purple leaved plum in that it is a more vigorous grower and more heavily set with much larger leaves of a decidedly more pronounced crimson color. Fruit is small and of no commercial value.

WASHINGTON. (August.) An excellent large plum possessing great merit as a canning sort. Color dull yellow with pale crimson blush on surface exposed to the sun. Flesh yellow, firm and finely flavored. Separates freely from the pit. Tree a good grower and bearer.

YELLOW EGG. (August.) Fruit large to very large; skin deep golden color covered with white bloom; flesh firm, juicy but rather acid. Very fine for cooking and in high demand as a canning sort. When fully ripe is a most attractive dessert plum

THE PRUNE



Prunes

Prunes are in reality the dried product of certain varieties of plum. However the commercial growing of these certain varieties has been so long carried on that they have gradually lost their identity as plums, and by common consent have become termed prunes, and by most nurserymen classed independent of the plum. The commercial line has been

so clearly drawn between the plum and the prune that today most people consider them different fruits entirely.

The cultural directions, soil, climate and pruning are the same as apply to the plum and other deciduous fruits. Prune growing has developed until today it is next in importance to the grape, and it has been lately found that

many sections formerly considered unfit for commercial prune growing are producing an abundance of wonderful quality fruit.

We grow our prunes on three different stocks, Myrobolan, Peach and Almond. The first two are most largely used. It is difficult for nurserymen outside of California to grasp the vast importance attached to the root stock, as a first safe guard to the life and health of the tree, as well as its ultimate fruitfulness. In purchasing, the proper root stock should be selected which is adaptable to the particular soil in which the tree is to be planted. The Myrobolan root is adaptable to a wide range of soils but should always be used in low, heavy land.

Peach roots are best for light well-drained soils. Some varieties may not be successfully worked to the peach on account of a lack of affinity. Among these are the Robe de Sargent, Imperial, and Sugar. The Robe de Sargent will not take on the Almond, however, the other two will work splendidly. The features in favor of the peach root are the early development of the tree and the robust growth apparent. Yet the Myrobolan claims in its behalf a longer life.

GATHERING AND DRYING

Prunes should be picked when fully ripe. That is when the fruit is soft to the touch. The trees should be shaken slightly and such fruit as falls gathered, many growers, however, make pickings from time to time as the fruits ripen and drop to the ground.

To dry, first dip the fruit in boiling water in which lye has been dissolved, using one pound of lye to ten gallons of water. The important point is to maintain a temperature of at least 200 degrees Fahrenheit. The purpose of the dipping is to crack the skin to facilitate drying, as a rule one minute is sufficient time for the prunes to be immersed. Care should be taken in dipping the Imperial Epineuse to have the water at the boiling point for a little carelessness may cause fermentation, resulting in what is termed "bloaters." After the prunes have been dipped they should be rinsed off in cold water to remove all traces of the lye. They are then placed on trays in the open sun to dry. They should be stirred occasionally to prevent sticking, this will also assist in an even drying. As soon as they have dried sufficiently the trays should be stacked one above another and after a few days the prunes should be placed in bins on wooden floors where there is plenty of air yet so covered that rain will not get to them. A simple dip for preparing prunes for commercial packing is to dissolve five pounds of salt to one hundred gallons of water. This gives the prunes the rich glossy appearance.

The solution should be used hot and surplus moisture dried off before packing.

PRUNES

VARIETIES AND DESCRIPTIONS

DOUBLE X FRENCH PRUNE. (September.) This variety is a genuine bud sport of



DOUBLE X FRENCH PRUNE
The largest of all the French types

the old reliable French Prune, having been found on the F. B. Smith place located in the famous Saratoga Prune district in Santa Clara County, California.

Of all the new varieties and types of the French prune originated in recent years this one will undoubtedly become a standard. The trees are remarkably strong growers and their bearing qualities are above question. Out of 4770 lbs. of this fruit delivered by Mr. J. E. Cox of Saratoga to the California Prune and Apricot Growers' Association in 1920, the grade certificate No. 90467 shows as follows:

2323 lbs. graded 20s to 30s
1961 lbs. graded 30s to 40s
486 lbs. graded over 40s

Thus you will see that the Double X French Prunes grade the largest of any drying prune on the market. The buds for our stock were secured from the orchard of F. B. Smith the originator, which is a positive guarantee of their genuineness.

FRENCH. See Double X French and Improved French.

HUNGARIAN PRUNE, Pond's Seedling Grose Prune d'Agen. (August and September.) Tree a strong grower and good bearer. Its large size and showy appearance render it valuable for shipping as well as an excellent home orchard variety.

IMPERIAL EPINEUSE. (August and September.) Fruit large, violet-purple, covered with dark blue bloom, flesh greenish yellow, and very sweet. Pit small. This very showy prune is successfully grown over the prune (September.) Fruit large, ovate, skin thick, reddish-violet with numerous brown dots; juicy and

sections of California. The tree is a strong grower and a consistent bearer in all districts adapted to its planting.

IMPROVED FRENCH. (September.) This valuable variety is almost identical with the common French prune except that the trees show a weeping habit and larger foliage. The fruits average 40s and 50s from year to year and dry just as well as the small French prune.

Mr. J. R. Chadburn, a prominent orchardist of Suisun, Solano County, California, in speaking of this prune, says, "I can frankly state that it is fully entitled to the name 'Improved French Prune' and I would recommend as a fruit grower that purchasers should give preference to this variety, due to its many superior qualities."

ROBE DE SARGENT. (August and September.) Fruit medium to large, skin deep purple, almost black, covered with a thick blue bloom; flesh greenish-yellow; sweet and well flavored; sugary, rich and delicious, adhering slightly to the pit. Valuable bot'ly for drying and preserving.

SUGAR. (Early August.) Fruit large, dark purple covered with a thick white bloom, flesh yellow, tender and rich. The tree is vigorous, a strong grower and an enormous regular cropper, the fruit runs very even in size but should be thinned. It is a very valuable variety for drying as well as shipping green.

TRAGEDY. (July.) No better shipper may be found anywhere. Its attractive appearance and size has won for it a place in the mar-

kets that can be filled by no other prune. Fruit large to very large, dark purple, flesh mild-green with just a suggestion of yellow; very rich and juicy, its early season also assists in making it a favorite.

STUFFED PRUNES

Select large perfect prunes and soak for four hours. Steam for ten minutes, and remove the pits through a slit in the sides. Chop walnuts or pecans with a few figs, and press into the prunes. Roll in granulated sugar before serving.

PRUNE PUFF

Place two cups of cooked prunes in a buttered baking dish. Pour over them a batter made from 3 cups flour, 3 teaspoons baking powder, ½ teaspoon salt, 2 of melted butter, a cup of milk and 2 beaten eggs. Bake until the crust is light and brown and a straw comes out clean. To be served with butter and egg sauce, as follows: One-half cup butter creamed with one of sugar. Set in bowl over a kettle and whip in the white of one egg until foamy.

PRUNE PIE

Two cups Sunsweet prunes; 1-3 cup sugar; 2 teaspoons butter; 2 tablespoons flour; 1 teaspoon lemon juice. Wash Sunsweet prunes and soak in cold water to cover two hours or more. Cook slowly in same water until soft. Remove stones, cut in quarters, and mix with sugar and lemon juice. Line plate with pastry, cover with prunes, pour over prune juice, dot with butter, dredge with flour, put on upper crust and bake in moderate oven.

THE APRICOT

This fruit is a native of Asia Minor, but like many other fruits it seems to do much better in California than in its native haunts.

Commercially California has a monopoly in apricot culture for no other section of the United States produces it in such quantities and at so small expense. The long dry summers facilitate in the successful handling of the fruit with hardly any risk of loss, while the climatic conditions are such as insure an even cropping.

For canning, drying, evaporating and for shipping fresh, the fruit cannot be excelled. It is particularly adapted to the coast section, and is also quite extensively planted in the interior valleys both north and south where the yield is heavy, sure and quality excellent. The great advantage in favor of the valley plantings is that the fruit ripens nearly a month earlier than in the cooler coast regions.

Trees should be planted no closer than twenty-four feet apart, thirty feet is better.

Apricot trees are worked on apricot, myrobolan and peach roots. The soil conditions should be considered when ordering, that the best results may be obtained. The myrobolan root withstands a surplus of moisture, is rather free from sour sap, gives the tree a longer life and adapts itself to almost all except very light sandy soils.



WESTERN UNION TELEGRAM

TILTON APRICOT

The very fact that apricot trees are strong, straggly growers renders it necessary that care be taken in the pruning for the first three or four years. They should be cut back to twenty inches at planting, it is safe to cut the trees back to this height even if they are quite large and devoid of any lateral branches below where the tree is cut off not more than four branches should be left the first year after planting.

The second year these branches should be cut back at least two-thirds of their length.

The third year should be less severe.

In the fourth year the pruning is carried out with a view of shaping and controlling such branches as tend toward making a rampant growth.

GATHERING AND DRYING

The proper time to pick apricots for canning is when they have reached their size, are firm and show a slight tinge of green near the stem end. For drying they should be somewhat further advanced. Canners prefer fruit that will run twelve to the pound. The larger the size the higher the price paid. For drying it is necessary to halve the fruit and remove the pit. Prune trays are used for drying apricots.

The very fact that the apricot ripens so far in advance of the prune and at a time when there is no danger of rain, should prove an incentive for prune men to plant them in connection with their orchards of prunes.

APRICOTS

VARIETIES AND DESCRIPTIONS

BLENHEIM SHIPLEY. (Middle of June.)

One of the most widely known canning and drying varieties grown in California, similar to Royal but larger. Fruit oval, above medium in size; color orange-yellow; flesh juicy, rich, delicious. Tree an early and regular bearer. While it is known as a commercial sort there are few varieties as good for home planting.

HEMSKIRKE. (June.) Often mistaken for Moorpark, is earlier, more regular and prolific in its bearing habits. Fruit very large and of excellent quality. Flesh bright orange and tender, with a rich plum-like flavor.

ROUTIER'S PEACH. Peach Bergetti's French. (Middle June.) Fruit very large somewhat flattened on its sides with a well-marked suture. Skin orange-yellow, flesh saffron-yellow, juicy, rich and highly flavored. When dried is of a deep golden-yellow. Its large size and excellent color render it a very attractive dried product.

ROYAL. (Early June.) Probably the most extensively planted apricot in cultivation. Size medium, color deep yellow, flesh pale orange, with very rich, vinous flavor. A most desirable variety for canning and drying.

TILTON. (Middle June.) This valuable apricot was originated by Mr. Tilton of Lemoore, Kings County, California. It resembles the Routier Peach Apricot and is fully as large. Fruit orange yellow with a pronounced flavor. This variety is very largely planted in the San Joaquin Valley where it seems to be well adapted, bearing abundant crops of wonderful fruit. As a dryer and canner it cannot be surpassed.

THE PEACH

Like the prune and the apricot, the peach is indeed a fruit of great commercial importance. It is found widely distributed not only in California but throughout the length and breadth of the Pacific slope, as well as in every state in the Union.

For size, flavor, color, shipping and drying qualities, the peaches grown in this state have gained a world wide reputation. Peaches prefer a deep, light, well-drained sandy loam. The general cultural directions for the handling of deciduous trees cover the peach. There is one unalterable rule in the development of the orchard. The trees must be pruned. They should be headed to twenty inches when set and should be very severely pruned the first year, cutting off at least one-half to two-thirds of the season's growth. Not more than four branches should be allowed to grow to form the head of the tree, and these should be so selected as to form a symmetrical head. In the second and third years the framework

branches should be cut back about one third and the laterals distributed along their entire length at intervals of six to eight inches apart should be shortened in, but not cut off.

In the fourth year and in seasons following the methods of pruning will be self-evident to the experienced pruner. To obtain large grade fruit, thinning should be done when fruit is well set and before the kernel has hardened.

In the past there has been more or less prejudice to dried peaches due to the fuzzy skin. This may be easily overcome by a process of removing the peel, by a recent invention, even after the peach has been dried. At a very small expense the orchardist can easily do this himself. All that is necessary after the peaches have been halved, regardless of variety, is to immerse the fruit in hot lye water maintained at a temperature of two hundred degrees Fahrenheit for forty seconds. Dissolve one pound of lye in ten gallons of water. The peaches after being given the lye dip should be thoroughly rinsed in cold water to cause the skin to slough off and to remove all traces of the lye.

PEACHES

VARIETIES AND DESCRIPTIONS

ADMIRAL DEWEY. Triumph. (Middle of June.) This variety is the first yellow fleshed peach to ripen. A perfect free-stone, pit very small. Fruit yellow, nearly covered with red, with uniform yellow flesh, clear to pit. Texture fine, flavor excellent. The very best early yellow free-stone peach.

ALEXANDER. (Early June.) Fruit large, greenish-white with deep maroon shadings; juicy and sweet, a standard shipping sort, quite largely planted for early markets.

BILYEU'S LATE. (October.) The latest of all peaches. Size large, color white, with a beautiful pink cheek; flesh white, coarse but sweet, being an excellent shipper is highly prized as a late market variety.

BRIGGS RED MAY. (Middle June.) A California peach originated by J. B. Briggs of Marysville. Fruit medium to large, color greenish white, with bright red cheek, flesh white, melting and juicy. A good market sort.

EARLY CRAWFORD. (Middle July.) Very large, oblong; skin yellow with rich red cheek; flesh yellow, firm, very sweet, flavor excellent. A splendid and reliable market sort.

ELBERTA. (Late July.) This well known variety is the result of a cross between the Early Crawford and Chinese cling. Fruit very large; bright yellow, with a beautiful mottled red cheek; flesh yellow, juicy, sweet. Flavor excellent. Tree a uniform and regular bearer and a strong grower. It is one of the best known shippers and a wonderful dryer, has also won distinction as a canner. It claims a first place in the ranks of varieties adaptable to home planting.

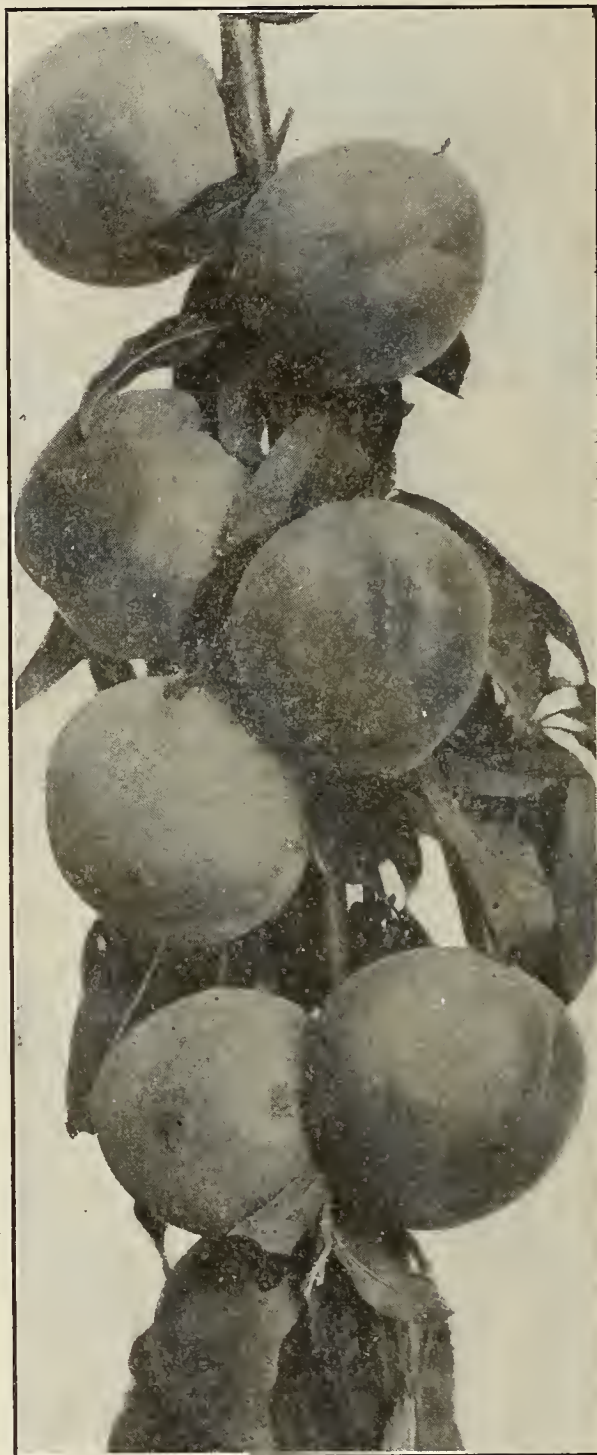
FOSTER. (Middle July.) Large, color yellow, dark red cheek, similar to Early Crawford but better in every respect. Is excellent for drying or canning. Is also in good demand as a market sort.

MOWRY'S STRAWBERRY CLING. (September.) Large yellowish-white, splashed with red, flesh firm, flavor excellent. A splendid shipper and a particularly fine home canning sort.

GREENSBORO. (May.) One of the earliest peaches. Very large, creamy white, with dainty blush. Tree a wonderfully vigorous grower.

J. H. HALE. (Middle July.) A valuable variety, similar to Elberta but larger. Skin smooth, very firm, flesh yellow, free-stone, tender, quality the best. Not a commercial canning variety on account of the red at the pit and rags in the syrup. Yet as a shipper it has no equal.

LATE CRAWFORD. (Early August.) One of the best known peaches, planted from Maine to California. It is a good shipping variety and dries fairly well. Fruit large, roundish, skin yellow, dark red cheek. Flesh rich yellow, faint red at pit. Tree a good grower and cropper.



PERFECT FRUIT

LEVY'S LATE OR HENRIETTA CLING. (Middle September.) A magnificent large cling. Skin a deep yellow, firm, juicy, sweet, half melting, slightly vinous, a splendid peach for canning and market.

LIBBEE CLING. (Late July.) Fruit large to very large. Skin highly colored. Flesh deep yellow. Tree a robust grower and very heavy producer. A very fine canning variety.

LOVELL. (Early August.) One of the best drying and canning free-stones. Dries even heavier than the Muir. Fruit round, color yellow, flesh fine, firm, yellow to the pit. The tree is a strong grower and a bountiful bearer.

MAYFLOWER. (May.) One of the earliest peaches. Red all over. Tree a strong grower, late bloomer and heavy bearer. Considered one of the best early shipping peaches; brings good price and ships well.

McDEVITT'S CLING. (Late August.) Originated with Neal McDevitt of Placer County, California. Fruit very large; rich golden yellow; firm and of excellent flavor. A good shipper.

McKEVITT'S CLING. (Last of August.) Skin clear creamy white with a delicate blush of red; flesh firm, rich, sugary, highly flavored and greenish-white to the pit. One of the best white clings for canning and its remarkable firmness even when fully ripe makes it invaluable for shipping. Tree a thrifty grower and almost free from curl.

MUIR. (Late July.) This wonderful peach may be justly accorded the distinction of being the greatest drying peach ever produced. It is large to very large; a perfect free-stone; flesh clear yellow; very dense; rich and sweet; pit small. Fruit a good shipper and canner, but peculiarly adapted to drying because of its exceptional sweetness and density of flesh. Very widely planted.

PHILLIP'S CLING. (Early September.) A magnificent large yellow cling; flesh firm clear yellow to the pit which is very small; its firmness and fine texture of flesh make it one of the most valuable of canning peaches. Probably the best known strictly canning variety grown in California.

RUNYONS ORANGE CLING. (Early August.) Originated by Mr. Sol Runyon in the Sacramento district. Tree is a heavy producer of very large fruit; rich yellow in color with a deep crimson cheek on "Sun Kist" surface. The flesh is fine, rich and highly flavored. It

is an excellent canner and a very good shipper.

SALWAY. (Middle September.) A late free-stone variety Fruit large, flesh deep yellow; rich and sweet, flavor fine, good for both canning and drying.

SELLER'S ORANGE CLING. (Early August.) Another California variety, originated on the ranch of S. A. Sellers, in Contra Costa County, California. Tree very productive. Fruit large; color rich golden yellow; flavor good. An excellent canner and good shipper.

SELMA CLING. (August.) Named after City of Selma. Fruit is a beautiful golden yellow, skin slightly colored when exposed to sun. Somewhat flattened; flesh clear yellow to the pit; is fine grained and of excellent flavor. Pit very small. A most wonderful peach for canning. The syrup is left clear, there being no rag of the flesh at all in canning. The Selma ripens between the Tuscan and Phillips rendering it in high demand by canners.

SIMS CLING. (Middle August.) Very similar to Phillips' Cling but better. Fruit large to very large; golden yellow, with faint blush; flesh deep yellow, of fine texture, firm and rich; pit small. We regard this as a superior canning peach and recommend its more extensive planting.

SNEED. (Middle May.) Free-stone, fruit large, creamy white, with blush cheek; tender, juicy; valuable for early shipping.

TUSCAN Tuskena; Yellow Tuscan. (Middle July.) Next to the Phillips the Tuscan is the best canning peach in cultivation. It is very large; yellow to the pit. As a bearer the tree cannot be excelled. It is not infrequent that yields of twelve to fifteen tons per acre are reported.

WHITE HEATH CLING. (Middle of September.) Very showy; skin downy; creamy-white, with faint blush of red; flesh white slightly red at the pit; very tender, juicy, sweet and delicious. One of the very best peaches for canning.

THE NECTARINE

VARIETIES AND DESCRIPTIONS

No fruit more readily adapts itself to California conditions than does this one. There seems to be a mistaken idea among some people that the nectarine is a cross between the peach and some other kind of fruit. This, however, is not true, for, in reality it is nothing more or less than a smooth skinned peach. While grown with good success all over the state, the interior valleys where abundant crops of very large luscious fruit may always be expected, seems the best location.

During the past few years nectarines have come rapidly into favor as a commercial fruit. Their wonderful adaptability for drying, and canning and the splendid shipping qualities of the more firm varieties, render them

an easy favorite. Their exceedingly fine flavor, excellent color, either green or dried, render them very attractive. They are as easily grown and a surer producer than many varieties of peaches.

There is at present many orchards in bearing, the profits from which give them a recommendation that should prove an incentive for others to plant nectarines more extensively.

Cultural instructions same as for the peach.

ADVANCE. (Early July.) Fruit large; skin green, splashed with red and brown on exposed surface; flesh greenish white, tender and sweet. Flavor excellent.

GOWER. (Early July.) Earliest and best of all red nectarines. Fruit large, very firm, rendering it the best of the nectarines for shipping purposes. Tree a wonderful grower and a heavy and consistent bearer.

HUMBOLDT. (August.) Fruit very large, skin bright orange-yellow, streaked and mottled with crimson on sunny side; flesh orange, very tender and juicy. Tree a good grower.

NEW WHITE. (Early July.) Fruit large; skin greenish-white; flesh white, tender and juicy. Stone small and free. A very fine drying sort.

STANWICK. (August.) This wonderful red variety was originated in England from seed brought from Syria. It is safe to say that it is one of the few very desirable varieties if not the best, from a commercial standpoint. Fruit very large, skin pale, shaded rich violet, flesh white, tender and juicy. Its color and richness of flavor cause it to be in great demand.

VICTORIA. (August.) Fruit medium roundish, oval, color greenish-yellow, crimson on sunny side. Flesh medium, firm, sugary. Flavor the best. Tree a strong grower and heavy bearer.

THE QUINCE

VARIETIES AND DESCRIPTIONS

The quince is a standard fruit, which, while it has held its own for a hundred years or more has not attracted any marked attention commercially until within the last few years. Lately however, it has begun to come forward and heavier plantings are evident.

It thrives best in a deep loamy, moist soil and is particularly adapted to planting in low damp land where other kinds of fruits will not thrive.

For jelly-making they are superior to any other fruit. They are also excellent for preserves. Such varieties as Pineapple and Smyrna make a most palatable dish when cooked. It is a fact not generally known, that car-load shipments of quinces are now quite frequent.

APPLE OR ORANGE. (September.) Large, fine golden color; very productive, very good for preserves or flavoring.

CHAMPION. (September.) Large to very large, russeted around the stem; below a bright yellow, flavor most delicious. More productive than the Orange, ripening two weeks later.

PINEAPPLE. (September.) The fruit in form and size resembles the Orange quince, but is smoother and more globular, flavor has a suggestion of pineapple. Makes a fine jelly, can be eaten raw and will cook as tender in five minutes as the best cooking apple, possesses a most exquisite flavor not equalled by any other quince.

REA'S MAMMOTH. (October.) A very large, fine variety of the orange quince; a good grower and quite prolific. One of the best.

SMYRNA. (September to October.) The fruit of this superb variety is very large and of a lively, lemon-yellow color; presenting a fine appearance, tender and delicious, has a most pronounced quince taste and odor.

THE NUT TREES

Twenty-five years ago it would have been hard to convince anyone that California would eventually become one of the principal nut producing sections of the world, yet in a quarter century what then seemed impossible has become an undeniable fact.

From a then meager 150 tons of almonds per year we now average four to five thousand

tons. From 400 tons yearly of walnuts to nearly 15,000 tons, what a stride, yet the planting of nut trees has only begun. Think of the possibilities presented when we learn that in spite of the immense tonnage of nuts produced we still are forced to import an average of nearly 10,000 tons of almonds and 20,000 tons of walnuts to supply the ever increasing demand here at home.

THE ALMOND

This old standard nut seems to be very well adapted to many sections of California. In fact there are a great many more satisfactory planting localities than was at first thought. We find abundant crops of excellent quality nuts growing in many sections of the great interior valleys and in many of the coast counties, where a few years ago it was thought they could not be grown.

One of the most favored spots perhaps is located in San Luis Obispo County where the climate and soil conditions seem exactly right. Many thousands of acres have been planted, and only a beginning seems to have been accomplished. Each season finds further territory adaptable, with those who are interested ready to begin its development.

Almond trees are budded on both the Almond and the peach roots; never on apricot. The almond root is splendidly adapted to sandy or gravelly soil where there is an absence of surplus moisture during the late summer months. The peach roots should be given preference on loamy, compact soils which are retentive of moisture.

There are two grades of sweet almonds. The hard shelled varieties which are valued mainly as seed for propagating root stocks, and the soft or paper shell sorts which are the true commercial nuts. There is one exception to the rule regarding hard shell varieties. It is the "Jordan," which is the most highly flavored almond grown. The meats of this variety always command a high price as they are about the only satisfactory product for confectionary uses.

In planting almonds care should be taken to obtain the right varieties as cross pollination plays a great part in their successful fruiting. The alternating of varieties, that is planting of from three to six rows of a variety then changing to another variety and so on throughout the planting, has been found a splendid practice, and has a marked influence on the yield in after years.

Practically the same pruning instructions and care is necessary to success as applies to other deciduous fruits.

At planting the trees should be cut back to twenty inches from the ground. During the first year allow the numerous shoots to grow and in the early winter thin out the laterals so that the lowest ones will not be closer than ten inches from the ground, not leaving more than four to form the head of the tree. Even if they have made considerable growth, cut them back severely, for almonds need but little pruning in later years.

The second and third winter one-third of their growth should be removed.

The fourth winter, the tree now sturdy, should show a goblet form which is ideal. Now confine your pruning to thinning out the branches needing to be removed to permit air and light to circulate through the trees.

ALMONDS

VARIETIES AND DESCRIPTIONS

DRAKE'S SEEDLING. Nut medium size, roundish; shell medium soft. Tree shaggy grower, blooms late; abundantly, a popular commercial sort. This variety is splendid for borders, tree bears well when planted alone.

EUREKA ALMOND. Usually blooms March 1st. Nuts mature in September. The Eureka on account of the similarity of the kernel in shape and flavor to the famous Jordan, commands the very highest price, and confectioners pay well to secure it. It differs in two essentials from the Jordan being somewhat smaller in size and is a paper-shell variety.

I. X. L. A strong upright grower; nut large, generally single kernels; but perfect, hulls easily, no machine needed; bleaching unnecessary in many districts. A widely grown variety.

JORDAN. (Palatine.) The famous Spanish variety introduced by the late Jno. Rock. The nuts are long and are hardshells; the kernels are single, narrow, long and plump and filling the entire cavity. The tree is a strong thrifty grower and heavy bearer. Best for confectionary purposes.

LANQUEDOC. Nut is large, shell thin and the kernel is very sweet. In some localities it is not a regular bearer, while in others it produces large and regular crops.

NONPARIEL. Of a weeping habit of growth, smaller foliage than the I. X. L., but still forms a beautiful tree. The nut is large, long and narrow, kernel of excellent quality, bears heavy and regularly.

NE PLUS ULTRA. Nut large and long; generally single kernels; fine flavor, hulls readily, regular and heavy bearer; tree of strongest growth. An old standard sort.

PEERLESS. Resembles the I. X. L. but is larger. Shell medium soft, white. Kernel short, few doubles. Grown quite largely in Sacramento Valley where it is considered very profitable.

TEXAS PROLIFIC. Closely resembles Drake's Seedling. Kernel very plump and of medium size, soft shell. Valuable to plant with other varieties for pollination, most vigorous grower. As a regular and sure cropper has no equal.

CHESTNUTS

This nut tree does best when planted on river bottom land. Yet many good specimens may be seen at different points throughout the state growing in soils varying from sandy to loamy, and even heavy clay. The one main requisite being plenty of moisture with subsoil that will permit free root penetration.

Considerable difficulty in starting the young tree is experienced, particularly in the interior valleys—due mainly to the excessive heat, as the tree is quite subject to sunburn the first year or two after planting.

Being a late bloomer no danger from frost is encountered. Trees should be planted from forty to fifty feet apart each way. After the head of the tree is formed little pruning will be necessary except to remove the branches that may interfere.



A GOOD EUREKA WALNUT



Almonds do well in many sections of California

THE WALNUT

VARIETIES AND DESCRIPTIONS

We know of no other nut tree that will yield such abundant crops and at so little effort or expense as the walnut. While it prefers rather loamy, deep, rich soils and responds quickly to good and thorough cultivation, it has been known to furnish excellent crops when planted under adverse conditions and attended with much neglect.

We graft our walnuts on California black

walnut root which renders them adaptable to a very wide range of soils and at the same time promotes a strong, robust growth.

Commercial plantings should be set from forty to fifty feet apart each way, for the trees are very large when fully grown. The holes should be not less than three feet deep and two feet in diameter.

There is more or less difference of opinion with regard to pruning the walnut tree. But there is one thing certain regardless of the height of the tree when planted it should be cut back to three and one-half feet from the ground and a system of pruning carried on which will promote the growth of a strong, symmetrical head.

EUREKA. Tree is remarkably vigorous, upright grower, with clean branches and open growth; bark slightly rough; not subject to sunburn. Blooms fully three weeks later than seedlings of the Santa Barbara. Soft shell, and is therefore very desirable in localities subject to late frosts; nuts large, elongated, smooth and tightly sealed.

FRANQUETTE. This nut stands high in favor with the northern growers on account of its late blooming tendencies. It is large, elongated, smooth and tightly sealed, having a full sweet kernel. Our trees are of the Voorman strain, and have been found to be very satisfactory for the coast and interior valley plantings.

MAYETTE. Nuts large and uniform; shell light colored; blooms late in the spring and bears abundantly. Trees hardy. A standard commercial sort.

PLACENTIA PERFECTION. This splendid variety is a vigorous grower, usually bearing the fifth year after planting. A very profitable nut for southern and coast planting and very well thought of in the interior valleys.



FRANQUETTE WALNUT

THE FIG

There is an almost endless list of varieties of figs—yet here in California the real commercial sorts are few and are divided into two classes, the Smyrna and Adriatic.

The fig will adapt itself to a wider range of soil and climatic conditions than will almost any other deciduous fruit. Figs are used in many ways, for drying, canning, preserving, and of late have become very favorably mentioned as a fresh shipping fruit. This season several car lots have safely reached the eastern market where they have brought the very highest prices.

The secret of the culture of the Smyrna fig was so carefully guarded that it was not until after fourteen years of constant and persistent efforts on the part of Mr. George C. Roeding that he succeeded in producing by artificial pollination, the first Smyrna figs to be matured in the United States, this was in 1890 and it was ten years later before his efforts to establish the *Blastophaga grossorum* were crowned with success, and that the first Smyrna figs were produced in a commercial way.

The Adriatic fig differs from the Smyrna in that it matures its fruit without the aid of the insect (*Blastophaga grossorum*) and has less sugar content.

CAPRIFICATION

One point must not be overlooked, that the edible fig grows on an entirely distinct tree from the Capri fig. The Capri fig serves as a home for the several generations of the wasp and its figs are not edible. The Capri fig produces three distinct crops annually, the first one pushing out on the wood of the previous year's growth in March; the second crop comes on the new wood in July; the third in September. These several crops are designated as follows: Profichi or spring crop; Mammoni or summer crop; Mamme or overwintering crop. The Mamme figs remain on the trees all winter, from September until into April of the following year, the wasps during this period being in the larvae stage. When the Capri fig starts to grow in the spring the wasps pass out of the larvae into the pupae stage, and finally when the Profichi figs are about the size of marbles, which usually occurs in April, the female wasp passes from the Mamme figs and forces her way through the scale of the orifice into the Profichi figs (which to the naked eye is closed) and deposits an egg in the ovaries of the gall flowers. The life history of the wasp in this crop is the same as in the others, the only difference being that the metamorphosis takes place more rapidly. When the crops reach maturity there are both males and females. The males are wingless and are readily distinguished by their reddish tinge; the females are of a lustrous black color and are winged.

The male first intuitively locates the female in the gall in which she is confined, gnaws an opening with its powerful mandibles

and impregnates her. She then enlarges the opening made by the male and starts on a tour of exploration. Her sole object in life is to perpetuate her species and to do this she must find the flower of another fig to deposit her eggs. As the Profichi crop bears the most important part, in her relation to mankind, for the sake of argument we will take it for granted that the female wasp is coming out of the Profichi crop. As she prepares to take her departure she passes through the male or staminate flowers surrounding the orifice of this crop and her body is completely dusted with the pollen grains. In the great fig-growing districts this flight occurs in the month of June. It is in this stage of her existence that the hand of man and nature interferes with her effort to propagate her progeny.

The Profichi figs are gathered from the trees and are distributed in oval baskets made of $\frac{3}{4}$ -inch poultry netting or placed in small strawberry or fruit baskets which have been previously hung on wire in the Smyrna fig trees. At this time the Smyrna figs vary in size from a small pea to a large size marble. The wasp forces its way between the scale of the orifice of the edible fig, going into it for the avowed purpose of laying its eggs.

Fortunately for the fig industry it is frustrated in its efforts to reach the ovaries of the female flowers with its ovipositor to deposit eggs. In its persistent and determined effort to find a receptacle for them it crawls around the inside of the fig and dusts the pollen on the pistillate organ of the female flowers. The insect is exceedingly small and it finally perishes within the fig, being absorbed by its juices or it crawls out and dies. One wasp is sufficient to pollinate the numerous flowerets on the inside of the fig, but it very often occurs that on breaking open a fig, three to four insects will be found crawling around. Within a couple of days after the wasp has penetrated the fig, its entire appearance changes; it becomes plump and firm and of a deep green color, while the figs on the same tree which the wasp has failed to reach turn a sickly yellow, shrivel up and drop off. Nature again asserts herself in behalf of man, by delaying the pushing out of the Mammoni crop of figs until the season for caprifying the edible figs is practically over with. The Mammoni is the lightest of all the crops, and it is very difficult to find any figs of this crop in the Capri fig tree until July. There are just enough of the late Profichi figs on the tree at this time to supply wasps for the Mammoni crop.

SMYRNA FIGS

VARIETIES AND DESCRIPTIONS

CALIMYRNA - Smyrna. (August to October.) The genuine Smyrna fig packed in Asia Minor under the name of "Erbeyli," (Signifying fine fig.) Large to very large; turbinate, pyriform; very short, stalk short, ribs distinct, orifice large, of a pale ochre color and widely opened when the fig is matured are be-

fore shriveling; skin lemon-yellow; pulp reddish amber, sometimes pale amber, turning to dark amber just before falling. Flavor and quality unsurpassed. To grow this variety successfully it is necessary to have the aid of the wasp (*Blastophaga grossorum*.) These minute insects dwell in the wild or Capri varieties and convey the pollen into the edible fig.

KASSABA. (September.) Large; almost globular; skin pale green; pulp reddish pink; the sugar content being higher than in any other variety. Makes a splendid dried fig.

ADRIATIC FIGS

VARIETIES AND DESCRIPTIONS

MISSION. California Black. (Late in June and August.) The large black fig most common in California. Tree a vigorous grower and heavy bearer. Stands in the lead of all black figs for shipping and drying.

PORTUGAL. (August.) Similar to San Pedro Black but much larger. A very fine table variety; violet black in color; pulp of a copery red.

SAN PEDRO BLACK. (August.) Very large, violet-black with green neck, pulp red, skin smooth. One of the largest of figs, excellent for table uses.

WHITE ADRIATIC. (August.) Fruit large. Skin greenish-yellow, pulp carnation red. The standard white commercial sort of the Adriatic class; not as high in sugar content as the Calimyrna, yet a splendid drier and a good fresh fruit variety as well.

WHITE ENDRICH OR KADOTA. (First of August.) Although introduced over forty years ago by Mr. W. B. West of Stockton the variety has again in late years come into prominence. Just what the original name of this fig was no one knows. And on that account Mr. West called it Endrich. It has been sold at different times under the following

names: White Endrich, White Pacific, Verdoni, Smyrna and lastly Kadota. This variety is one of the best for canning, pickling or preserving. It has never been classed of any great importance as a drier. It has in its favor the one very good quality of never souring although planted in the dampest locations. Fruit medium, thin white skin, pulp white, flavor excellent, a wonderful fig for eating when fresh.

WILD OR CAPRI CLASS

VARIETIES AND DESCRIPTIONS

MAGNISSALIS. The largest caprifig in our collection. Introduced by Mr. Geo. C. Roeding who mailed buds of this variety from Aidin where he discovered it in June, 1901. Figs of the Profichi crop three inches long by two inches cross-diameters. Figs commence to ripen shortly after the Profichi of Roeding's Capri No. 1.

ROEDING'S CAPRI NO. 1. Particularly valuable on account of producing all the crops necessary for successfully carrying through all the generations of the *Blastophaga*. A rapid grower and produces an abundance of all crops.

ROEDING'S CAPRI NO. 2. Produces an abundance of the Profichi crop, maturing later than the Roeding's Capri No. 1. The first figs ripening June 16, in which its value principally lies, as it lengthens the season of caprifification of the Smyrna figs. An upright grower, branches very slender, leaves small.

ROEDING'S CAPRI NO. 3. Figs of the Profichi crop very large, heavily ribbed and developing a larger number of galls with insects than either of the other two varieties; much heavier and more closely jointed than Nos. 1 and 2; leaves small and serrate. The first figs ripening June 8. A rather uncertain bearer of the other crops.

OLIVES

VARIETIES AND DESCRIPTIONS

There is no longer any doubt in the minds of the people of California whether olives can be grown successfully here or not. The experimental stage has long since been passed and now the oil is produced in quantity and an abundance of the best quality ripe pickles are marketed each season.

We have here in California practically the same soil and climatic conditions obtaining in Europe, Asia and Africa, where more than six and one-half million acres are devoted to the culture of this fruit.

We have all the best and largest varieties of foreign culture and can produce fruit equal to that grown anywhere in the world.

In order to insure the best results for orchardists, we make an invariable rule to top prune and shorten all the lateral branches before shipment from the nursery. When they are received they should be taken from the package and heeled in light sandy soil.

As soon as they are taken out of the trenches and prior to planting, all bruised and lacerated roots should be cut off and a new clean cut made on all the other roots. Before taking out to the field, puddle the roots in thin mud. Dig the holes to receive the trees as recommended for the general run of deciduous fruit trees and follow the other directions faithfully. Do not fail to cut the tree back to two feet after being planted and shorten all laterals to two inches. If there should be no laterals, cut the trees back anyway, for the olive will always force out its blind buds. The olive should be planted no closer than thirty feet apart each way and in particularly strong fertile soils, forty feet is better. When the tree is planted it should stand at least four inches deeper than in the nursery rows. The first winter after planting trim all the growth off except four or five branches close to the head, and have these

properly distributed, as they will ultimately form the main framework branches. Cut off two-thirds of their growth. The second winter trim the tree in such a manner as to leave from one to two laterals on the original framework branches bearing in mind that these branches should have an upright tendency, and cut them in turn back at least one-half. In subsequent years this same method of thinning out and shortening should be followed, and this cutting should be quite severe for at least four years.

We are devoting our attention particularly to growing the best types of these recognized standards, the cuttings having been taken from the orchards of the George C. Roeding Company at Exeter, California, of which there are none superior in the state.

Olive trees are sold on the basis of Caliper measurement, the heavier the body, the higher the price.

MANZANILLO. (October.) Fruit large, purplish black with light colored specks. Very hardy, and a regular and prolific bearer. Produces oil of a very high grade and one of the standards for green and ripe pickles.

MISSION. (Late October.) Fruit medium to large, makes a rich-flavored, well-colored pickle and a good quality of oil. A heavy producer. The tree is a handsome upright grower, hence a valuable tree for roadside or border planting.

SPECIAL VARIETIES

ASCOLANO. (October.) A superb Italian olive of large size and fine appearance. When pickled the olive is of an excellent flavor. Its size permits its being sold under the brand "Queen Olive."

SEVILLANO. (October.) The largest of olives; the variety exported from Spain under the name, "Queen Olive." When ripe of a bluish-black color; flesh adheres to the pit. The best variety for green pickles, also excellent for pickling when ripe.



MISSION OLIVES

Splendid for oil and pickles

CITRUS FRUITS

That citrus culture is one of the great and growing industries of California can no longer be questioned when it is borne in mind that the shipments amount to \$40,000,000.00 and over annually.

Citrus trees are either dug with a ball of earth varying in weight from 25 to 40 pounds, or they are taken up with naked roots. The former method is usually followed in handling trees in California. In taking up trees with naked roots the greatest care should be exercised on the part of the orchardist to avoid exposure. When set the leaves should be stripped off to retard evaporation and loss of sap in consequence. In planting set the trees so that when the soil is settled the union of the bud with the stock will be at least several inches above the ground.

Be sure to settle the earth around the trees with water, whether planted with naked roots or balled. After the hole, in which a balled

tree is planted, is partially filled, cut the cords by which the burlap is tied to the tree; the burlap need not necessarily be removed as it will soon rot.

Budded trees should be planted not closer than 22 to 24 feet on the square method; with the exception of such varieties as Satsumas, Limes and Kumquats, which are of a dwarfish habit, and should be planted from 12 to 15 feet apart.

Citrus trees being evergreen can be planted at all seasons of the year although the months of March, April, May and June are considered the most favorable.

In order to meet soil and climatic conditions in different sections we bud our citrus trees on the following stocks: Sweet Orange, Sour Orange, and Citrus Trifoliata. On the first named sort the budded trees outgrow those on any other root. Sweet orange seedlings are grown from the seed of the common sweet

seedling orange. Sour orange seedlings are grown from the seed of the sour orange so extensively grown in Florida as a seedling for budding practically all types of citrus trees. Although the buds do not grow as rapidly or attain as large a size in mature trees, this stock is very resistant to gum disease, hence it has been much in demand in recent years for heavy soils where water was apt to stand for any length of time either because of summer irrigation or a heavy rainfall in the winter months. The Citrus Trifoliata is a native of Japan and is the hardiest orange known. It is deciduous, its fruits are very bitter and of no commercial value, but its hardiness seems to exercise a decided influence on the budded tree. It is more resistant to cold than and other stock.

Our citrus trees are headed at about twenty-eight inches from the ground, hence all that is necessary for the planter to do is to shorten the branchlets to about six inches and to thin them out, not leaving more than six if they have a tendency to be overcrowded.

Trees headed at four feet or more should be cut back to 28 inches for the purpose of forming a new head.

We grow trees on sweet and sour roots. We use the greatest care in selecting buds from trees showing the best type and bearing habits. You may also feel confident that our trees will grow and produce the maximum of large fruit if planted in proper soil and under favorable climatic conditions. Roeding citrus trees have made a great record for themselves with thousands of planters throughout the state.

THE GRAPEFRUIT

VARIETIES AND DESCRIPTIONS

MARSH'S SEEDLESS. The finest variety of Pomelo. Fruit medium to large, skin very smooth, glossy lemon-yellow. Pulp juicy with very little rag. Our buds are taken from the record bearing trees of the highest standard type in the George C. Roeding Company orchard at Exeter, Tulare County, California. The fruit from this orchard has found a place on the tables of the Palace Hotel, San Francisco, and the unexcelled "Harvey System" on the Santa Fe, as well as many other popular hotels and resorts.



THE GRAPEFRUIT (POMELO)

THE LEMON

VARIETIES AND DESCRIPTIONS

EUREKA. The leading commercial lemon, fruit uniform and of medium size, sweet, smooth, glossy, rich in juice. Bears heavily and continuously especially during the summer when lemons are in greatest demand. Shipping qualities the best.

LISBON. Fruit medium size, uniform, very juicy, strong acid. Tree a good grower, thorny, but thorns decrease with age. A splendid variety for planting in the San Joaquin Valley.

VILLA FRANCA. Fruit oblong; rind thin, without any trace of bitterness, pulp acid, juicy, nearly seedless; a fine commercial variety.

THE ORANGE

VARIETIES AND DESCRIPTIONS

GOLDEN NUGGET NAVEL. (November to March.) Fruit oblong, of a rich golden color, smooth, solid and thin skinned. Pulp delicious, sweet, free from rag and seedless.

JOPPA. (April to July.) Fruit large and of a ruddy orange color, nearly seedless, thin rind; pulp very fine, sweet and juicy.

RUBY BLOOD. (January to April.) Medium size, nearly round; skin thin but tough, pulp rich, juicy and sweet, streaked with red. The tree is hardy, a good grower and a regular bearer.

VALENCIA LATE. (June to September.) The summer orange of California, reaching the market when all other varieties are gone. Tree a strong, vigorous, upright grower, very prolific; fruit medium size, oblong, with few seeds.



WASHINGTON NAVEL

WASHINGTON NAVEL. (November to March.) Easily heads the list of California Oranges. The tree is a thrifty grower, and a prolific bearer. The fruit is large; flesh meaty, tender, sweet and highly flavored, peel smooth and tough, rendering it ideal for shipping. This variety may be planted with safety where it would be unwise to attempt growing

lemons or many other varieties of citrus trees.

WHITE ORANGE. A very distinct variety, fruit striped, white pulp, flavor excellent.

SPECIAL CITRUS FRUITS

VARIETIES AND DESCRIPTIONS

CITRON

The tree is even more tender than the lemon, and should therefore be planted where there is very little danger from damage by frost. The fruit is prepared for use by immersing in a brine for several months, and after washing, it is placed in a hot syrup, remaining for three weeks. Later it is cooked with crystalized sugar dissolved in water, being cooked and cooled alternately until it has taken in sufficient sugar, when it is ready for the market.

CITRON OF COMMERCE. Large, shaped like a lemon, weighing three to five pounds, skin bright yellow, very glossy. The tree is of a dwarf habit, with large glossy leaves, quite ornamental.

LEMONS

PONDEROSA. An ornamental lemon of dwarf habit, although possessing no commercial value it is splendid for small garden or pot planting. Fruit very large and juicy.

LIMES

Valuable for its citric acid, which is extensively used in the concoction of summer drinks, and especially palatable as a lemonade. Fancy limes, and especially the newer seedless sorts, command good prices in the leading markets of the Western states. The tree is more tender than the orange, hence should be planted only in the sheltered foothill regions of the state. Commercial orchards should be planted from fifteen to twenty feet apart. It likes moist soil, and in California a lime grove should be liberally irrigated. The tendency to form dense, bushy head should be encouraged by following somewhat more strenuously the instructions given for pruning the orange.

BEARSS SEEDLESS LIME. Fruit very large, seedless, very juicy with pronounced acidity, quite hardy and exceedingly productive, fruits mature all the year round, one of the best in cultivation.

SWEET LIME. The fruit is medium size, skin thin. Unlike all other varieties the juice is sweet and highly flavored.

ORANGES

CITRUS BIGARDIA, Seville. Produces abundant clusters of most beautiful flowers. The variety used for marmalade.

LUE GIM GONG. Fruit large, similar to Valencia in shape; a good keeper and a fine shipping fruit. Believed to be a cross between Hart's Late and Mediterranean Sweet. Tree hardy. Fruit has been known to hang on the tree for two years or over and when picked to be in an edible state.

NEW SATSUMA ORANGE. (October to December.) This tree is not quite as vigorous as the ordinary Mandarin or Satsuma. Tree of dwarfish habit and in addition to this is very striking on account of its willow-like foliage, making it a very handsome ornamental tree as well as being a heavy producer of most luscious oranges, has a few more seeds than the Mandarin type. The flavor is of the best and the fact that it ripens fully a month earlier combined with the fact that it is exceedingly ornamental, as well as being very prolific, makes it a valuable acquisition for small gardens.

TANGERINE

NEW ALGERIAN TANGERINE. Similar in habit to the Dancy, but ripens three months earlier and is almost seedless.

DANCY'S TANGERINE. (March.) Skin orange-red, pulp of best quality, medium size, very sweet, rind separates readily from flesh, juicy, highly flavored. Tree strong grower and very prolific.

WILLOW LEAVED MANDARIN. (December to February.) Beautiful symmetrical tree, fruit juicy and aromatic, skin thin.

MISCELLANEOUS FRUITS

THE PERSIMMON

VARIETIES AND DESCRIPTIONS

There are two varieties in cultivation in this country, viz., the American and Japanese. The latter, on account of their attractive appearance and large size are destined to be extensively planted as soon as their commercial importance is more appreciated.

There are many variations in the character of the fruit. Some varieties are not astringent at all and are edible in early autumn while still hard and green. Several kinds never soften at all until they decay. Others are edible only when fully ripe and soft. Still others lose their astringency only after they have been dried.

There is quite a distinction between the dark and light fleshed varieties. The former contains seed, are crisp and meaty and are edible before they soften. The light fleshed kinds are seedless (or nearly so) and cannot be eaten until they soften. The fruits will very often hang on until January, providing there have been no heavy frosts.

The trees should be planted twenty-four feet apart. The tap root should be cut back to eighteen inches and fresh cuts made on all the fibrous roots. After the trees are set, head back to eighteen inches. The first winter thin out the branches not leaving more than four to form the head of the tree. Cut these back at least one-half. In the second, third and fourth years, the pruning of the tree should be continued to fashion into the typical goblet form. A better quality of fruit and larger sizes will be effected by pruning every year.

The trees are quite hardy and fruit freely in all sections of the coast and in the southern states.

Persimmons are delicious when dried. They are so sweet and rich in sugar and have such unique flavor that one who has never eaten the dried persimmon before immediately comes to the conclusion that the fruits have been crystallized.

The method of drying is simple. The skin is pared off and the fruits are suspended by the stems on a stick and exposed to the sun when

they gradually lose their original form, turning quite dark and covered with sugar crystals. Fruit should be picked for drying when yellow and firm.

DAI-DAI-MARU. Fruit very large, color light yellow, round, somewhat flattened, flesh delicious, firm, juicy, very good, seeds generally absent.

HACHIYA. (October.) Very large, oblong, conical pointed toward the apex. Skin bright red with dark spots or blotches; few seeds, a valuable variety, considered to be one of the best. Dried quite extensively in its native home, Japan.

TANE NASHI. (Middle of September.) Large to very large, broadly oblong, pointed, skin light yellow, changing to bright red at full maturity. Flesh yellow, seedless, quality very fine, must be fully ripened before eating. Tree a vigorous grower, a prolific bearer. A Valuable market variety, and on account of its size and earliness, one of the best for drying.

THE POMEGRANITE

VARIETIES AND DESCRIPTIONS

The natural habit of the pomegranite is to grow bushy. It should not be pruned severely for to treat it in that way tends to limit its bearing. Growers are finding an ever increasing demand for this wonderful showy fruit.

SWEET-FRUITED. (September.) Fruit large, pulp sweet and juicy, but not as highly colored as the Wonderful.

WONDERFUL. (October.) Large, highly colored and attractive, pulp a rich garnet color, with an abundance of juice. Valuable for shipping to eastern markets This is the variety in such urgent demand by the manufacturers of grenadene.

AVACADO, ALLIGATOR PEAR

A tropical or subtropical pear-shaped or spherical fruit of great food value, which will undoubtedly become one of the leading commercial fruits of California, as all who have tested it so far are enthusiastic in its praise as an income producer.

Where conditions will permit no one should neglect to plant one or more trees of this delicious fruit.

While this subtropical fruit is best adapted to the warmer southern districts there are varieties quite suitable for planting in the many less favored sections. In selecting varieties for our customers we have limited the number, embracing only those we can recommend for general planting.

VARIETIES AND DESCRIPTIONS

FUERTE. (January to August.) One of the most hardy and surest early cropping winter varieties. Fruit oblate, usually weighing twelve to fourteen ounces, skin smooth, green, flavor excellent, quality the best.

SEEDLING. Our seedling Avocados have been grown from the seed of choice fruits, and while it is not absolutely certain just what kind, color or type of fruit will be found on the trees produced in this way, yet in most instances the result has been very satisfactory.

SHARPLESS. (October to February.) Fruit large, color purplish black, flesh rich and melting. This variety seems to have all the fine qualities desired in the Avocado.

THE JUJUBE

Our stock is of the large fruited strain, bears at a very early age. The fruit must be processed before it is at its best, for when dried is even more luscious than the Arabian date which it resembles very closely both in appearance and flavor.

The work of processing this fruit is very simple and easily accomplished. First select good firm fruits. After passing them over a pricking board to perforate the skin, they should be placed in a syrup composed of one cup of sugar to one cup of water and boiled for twenty minutes. They should then be removed, the syrup permitted to drain and placed on drying trays in the sun for two or three days. They will then not only have the appearance of the date but will have a flavor even superior to it.

FEIJOA SELLOWIANA

Flesh thick white, pulpy and watery, with a sugary taste resembling the pineapple and guava combined with a strong, agreeable odor. Fruit oval, large and very hardy. Our stock is budded, not seedlings, and are beautiful plants in appearance. When in bloom this fruit is highly ornamental.

GUAVAS

VARIETIES AND DESCRIPTIONS

More of a shrub than a tree. Very ornamental on account of their glossy foliage, abundant flowers and showy fruit. All varieties are tender and will not thrive in localities where it becomes cold in the winter months.

PEAR OR LEMON GUAVA. One of the finest of the Guava family. Fruit large, pear-

shaped, yellowish, prized for jellies and jams. The bush is somewhat tender and should be grown only in the most favored localities.

STRAWBERRY GUAVA. A fine glossy-leaved shrub or small tree which produces an abundance of luscious fruit, fine claret color with strawberry-like flavor.

LOQUATS

A beautiful evergreen shrub or tree attaining a height of fifteen to twenty feet, bearing pear-shaped fruit of a pleasant acidulous flavor and of lemon-yellow color.

The large budded varieties listed below are far superior to the seedlings usually grown. The loquat is used quite extensively for making jellies, jams and preserves. Trees are easily grown and may be planted twenty to twenty-four feet apart.

VARIETIES AND DESCRIPTIONS

GIANT. Introduced from Japan, fruit very large, pear-shaped, flesh deep yellow when fully ripe. It has a sweet, sherry-like flavor.

PREMIER. Fruit large, color is lemon yellow, flesh melting, juicy and sweet. Very little tartness. Seeds small.

SELECT LOQUAT SEEDLINGS. Fruit medium, borne in immense clusters, varying in color from yellow to deep orange. Flesh melting, juicy and sweet.



ALIGATOR PEAR
No longer an experiment

THE GRAPE



THE TYPE OF GRAPE VINE THAT PAYS

In California where almost every known plant can be grown to better advantage, than in its native habitat, the grape is no exception, wherever irrigation is practiced in either the San Joaquin or Sacramento Valleys there is quite sure to be a corresponding development of this industry. Fresno is the heart of the great raisin industry. Nowhere in the world can a better grape or raisin be produced.

LAYING OUT A VINEYARD

To properly lay out a vineyard first establish your base lines. It is best to have this done with a transit. If the base lines are not at right angles, the rows will not be straight, and nothing is more unsightly. For planting, use a steel woven No. 19 galvanized wire, dividing same up into sections as recommended under heading "How to Plant," and at equidistant points on the chain a piece of wire is wrapped to which markers are attached and soldered into place. It is best to have the wire chain the width of the check, the last link coming flush with the stake indicating the roadway. These roads should be at intervals of twenty-four rows for a wine and table vineyard and thirty rows for a raisin vineyard. Start at one corner of the field with the chain, which should have three-inch rings at each end for inserting the iron stakes. The stakes which are to be used as markers may be split out of redwood, or any other material for that matter, and at least

six inches of one end dipped into a bucket of whitewash, so that the line of the base rows may be readily seen.

Having set the stakes along the outside line at the distance apart the vines are to be planted, start at the same end of the field again and set another line of stakes parallel with the first line and the length of the chain distant from the outside line. Proceed in this manner until the entire field is laid out in checks.

The distance to plant always gives rise to much discussion, and opinions vary so that the planter is often in a quandry as to what course to pursue. The prevailing practice is to plant wine grapes 8 x 8 feet, leaving out the twenty-fifth row for an avenue. For types of raisin grapes which are to be short pruned and headed low where the drying is to be done on trays in the vineyard, any of the following distances are satisfactory: 8 x 8, 7 x 10, 6 x 12 feet, always leaving the wide rows east and west, so the trays shall get the full benefit of the sun's rays. In this case the checks may be thirty rows wide. For staked vines of raisin grapes, where the drying is to be carried on in the vineyard, 6 x 12 feet is undoubtedly the most economical distance to plant, as picking is much facilitated. Table grapes should not be planted closer than 8 x 10 feet, with the wide rows north and south. The grapes then have more exposure to the sun and mature more uniformly.

All rootlets, excepting those starting from the base of the vines should be cut off. Next shorten in all the roots radiating from the base of the cutting from two to three inches.

Then prune the top of the vine, leaving only one spur with from one to three buds. The vines should be pruned a day or so in advance of the planting, and the work should be entrusted to careful men.

HOW TO PLANT

Each man should be provided with a bucket or five-gallon coal-oil can. A small quantity of water in the bottom will keep the roots moist. Each bucket should be filled with vines, and replenish from time to time as they are needed by the planters.

The planting wire should be stretched across the first check by two stakes which should be directly opposite each other. Each planter should have charge of two marks on the wire. The marks eight feet apart in the chain indicate where the vines are to be set. In planting, the vine should be set so that the collar will be level with the top of the ground when it is settled. Having set this line of vines the chain is carried to the next two line stakes, and so on until the check is planted. Within one week after planting the earth should be settled around the vines either by hauling water to them or by irrigating, running the water in furrows along each row.

CARE AND PRUNING THE VINE

It goes without saying that thorough cultivation and careful attention to keep the vines in an active state of growth during the growing season will be amply repaid when the vineyard reaches its bearing age.

The training of the vine should be given careful attention the first year of its growth. In order that the plant may not form a head close to the top of the ground a short stake allowing it to be a foot above the ground should be driven in beside the vine. These stakes should be one inch square and two feet long, as they should be taken out the first winter. In July, before the growth of the canes has become lignified, they should be tied with three or four-ply baling rope to the stake, and about one-third of the top growth cut off.

The most servicable permanent stakes are those split out of coast redwood. These stakes should be at least 2 x 2 inches. Their length will depend largely on the variety of grape to be trained to the stake. For Muscat vines and other vines which do not make long canes a 3 foot stake will answer. For Malaga and stronger growing vines in its class use a 4 foot stake and for Emperor, Flame Tokay, Cornichon, Sultana and Thompson Seedless the stake should be at least 6 feet long.

If the cane shows by its size that it is not strong enough to be carried to its maximum height in the first winter pruning, it should be cut off to a point where it is sturdy and during the growing season the strongest shoot from it should be selected and firmly

tied to the stake. It is of the utmost importance to have the stem of the vine tied firmly to the stake to have it as straight as possible for it will ultimately form the body of the vine. In the second winter when pruning the low varieties, leave at least four spurs, getting them as evenly distributed as possible, and be sure to have one at the tip end of the vine. The medium standard should have at least six and the high vine not less than eight. None of these spurs should exceed five inches in length. In the third winter each one of these spurs will have several canes and in the case of the low and medium vines which ordinarily would not be trellised, low spurs with not more than three eyes in each should be allowed to remain. In succeeding years these eyes from the original stock may be increased, depending on the growth of the vine. In the third year the trellising of high growth should commence, when this is done one cane and one short spur with three eyes or buds should be allowed to grow from the stock of the preceding year.

For trellising, use a 12 gauge wire and either staple it to the stakes, using a medium sized staple, or bore holes through the stakes and pass the wire through. To prevent the wires from becoming slack the end stakes in each row are braced, the braces being of sufficient length to reach from the top of the inside stake to the base of the stake on the next row. At three years old a trellised vine should not have more than four canes. This may in later years be increased, but eight should be the outside limit.

RESISTANT VINES

The ravages of the phylloxera in the grape regions of France and the practical extermination of the French vineyards through this dreaded pest are too well known to require repetition here. Resistant vines are the only preventive that will safeguard the grape industry of California.

The resistant sorts were originally wild American grapes, natives of the Mississippi Valley. These were taken in hand by the French viticulturists, improved by hybridization and selection, until today a large number of sorts adapted to a variety of soils and locations have come into general use.

In the roots of the resistants, although subject to these attacks, the punctures do not extend deeper than the bark of the rootlets, and as this is sloughed off each year, the roots are left as healthy as before. The cultural directions already given for planting vines on their own roots may be applied to the resistants in so far as preparing the vines for planting. In planting the rootings, the vines should be set so the union of the stock is at least an inch above ground. The same recommendations for training and pruning vines on their own roots may be followed with grafted vines.

Our stock of vines are grown on new land, causing them to have a fine, vigorous root system.

GRAPES

TABLE AND SHIPPING

BLACK CORNICHON Red Cornichon. (October.) Bunches long and loose, berries long, skin thick and dark, covered with bloom. flesh firm, good flavor, and good shipper.

EMPEROR. (October.) Vine a strong grower and heavy bearer; bunches very large, and long—berry large, oblong, deep rose colored, covered with light bloom, firm, skin thick. Commands a good price in eastern markets. withstands rain better than any other variety.

FLAME TOKAY. (September.) Bunches and berries very large, pale red with bloom, flesh firm and sweet. A handsome grape and a good shipper.

MALAGA. (August.) One of the best table grapes. Vine a strong grower and very productive, berry large, oval, yellowish green, one of the best shipping grapes. Makes good second quality raisins.

WINE GRAPES

BURGER. (September.) Produces a light, white wine of excellent quality.

FEHER ZAGOS. (September.) Vine a vigorous grower and very hardy. Does excellent in sandy soils. Bunches large and compact, berries oval, yellowish-green. A valuable sherry grape.

GRENACHE. (September.) Berries bluish black. A strong growing variety, makes an excellent wine.

MISSION. (September.) This variety is an excellent table as well as wine grape. It is the one planted by the Padre Fathers in the gardens of the California Missions. Berries medium, round, purple-black, sweet and delicious.

PETITE SYRAH. (September.) Medium size, black; one of the best of the claret type.

RAISIN GRAPES

MUSCAT. (September.) An excellent raisin and table grape. Muscat flavor. One of the richest flavored of all grapes.

SULTANA. (August.) Berries small, round firm and crisp, amber colored, seedless. Vine vigorous and prolific bearer. Makes fine seedless raisins.

THOMPSON SEEDLESS. (August.) Oval, greenish-yellow, seedless, thin skinned, good, but not strong flavor. Bunches very large. Valuable for either table use or seedless raisins. Profitable early shipping variety.

SPECIAL RAISIN GRAPES

ZANTE CURRANT. (August.) Black Corinth. This variety is in extensive demand. It is the variety which when dried makes the currant of commerce. It is quickly dried and easily handled; bunches medium; berries

small, seedless; skin thin, black; blue bloom.

Of this variety alone there is annually imported into the United States from Greece over one million pounds. The planting of this variety is no experiment, it has been thoroughly tested and found adapted to our conditions.

AMERICAN GRAPES

It is sometimes said that American grapes do not bear well in California. This statement is not in keeping with the facts for they do bear most abundantly when properly taken care of. They are especially desirable for arbors and to run over unsightly outhouses and should be planted much more largely than they have been. We list the very best in black, white and red varieties. Our vines are grown in suitable soil producing vigorous vines with strong, well developed root systems.

VARIETIES AND DESCRIPTIONS

CATAWBA. (September.) Bunches large and loose; berries coppery red, becoming purplish when well ripened. Vinous and rich.

CONCORD. (August.) Undoubtedly the most widely known and popular of all the American grapes. Color black covered with thick bluish bloom. Sweet pulpy and tender. Especially good for jelly.

PIERCE Isabella Reggia, California Concord. (Late September.) Extremely large, sweet and of extraordinary quality; berries bluish black; vine of vigorous growth; leaves large.

PHYLLOXERA RESISTANT VINES

These are the kinds of roots which are resistant to the attack of Phylloxera. Any variety of grapes may with safety be planted when grafted on these roots. These vines are well established and have a fine root system. They can be bench grafted, or field grafted as desired. Many planters are now placing the vines either in vineyard form or in nursery rows and grafting them with the very best of results.

RIPARIA GLORIE DE MONTPELLIER. It does well in California, where conditions are favorable for its development, growing well in very shallow soils, providing they have the necessary amount of fertility. It is not suited to dry compact soils, but should be planted in moist alluvial soils.

RUPESTRIS ST. GEORGE. Adapts itself to a great range of soils, does equally as well in a moist, very heavy compact clay soil as in the driest hillsides providing they are deep having the remarkable faculty of sending its roots straight down in search of moisture. In rich fresh soils they must be generously pruned to allow plenty of wood to bear the fruit and regulate the vegetation. Will thrive in soils with a moderate amount of lime but should never be planted in shallow soils.

SMALL FRUITS

This term usually applies to the berry family — Blackberries, Raspberries, Currants, Gooseberries, Strawberries, etc. The whole Pacific slope, wherever fruit soils and sufficient moisture prevail is adapted to their successful culture. In California there is almost a continuous growth and intermittent cropping can be carried on almost during the entire year.

The preparation of the soil should be thorough. The roots being close to the top of the ground and of small, rather fibrous nature, the importance of having the soil in the very best possible condition to insure a good stand of plants and a satisfactory growth must be apparent to anyone engaging in the culture of berry plants. Thorough dressing with well-rotted stable manure will do much to promote a vigorous growth the first season, and having secured this, profitable crops may be expected the second year after planting.

Logan, Mammoth and Himalaya Blackberries are practically in a class by themselves, and the cultural directions for one apply to the other, so we will consider them under the same head. They should be planted in rows six feet apart and eight to ten feet between the rows. The best results are obtained by trellising the runners to wires on heavy posts which will hold the wire taut. As soon as the fruiting season is past the fruiting canes should be cut away and the new canes be bunched together and wound around the wire. At least two wires should be strung on the posts, so that as soon as one wire is covered the remaining canes may be wound around the other.

The Dewberry, or trailing blackberry is very popular. They are enormous croppers, produce fruit of the very best quality, which ripens fully two weeks earlier than any of the blackberries. Plants should be set four feet apart, with the rows six feet apart. When there is not sufficient rainfall to keep the vines in active growing condition, irrigation should be practiced. Immediately following the harvesting, all the old canes should be cut off, and the following spring the new ones should be trained to a wire two feet from the ground.

Ordinary Blackberries and Raspberries should be planted in rows six feet apart with eight feet between the rows. The first season all the shoots which have attained a height of two feet should be shortened in to twenty inches. This will cause them to send out many lateral shoots. These laterals should have one-half of their growth cut off in the winter months. In the second year, as soon as the season's crop has been harvested, cut away the fruiting wood, so that all the energy of the plant will be forced into the new growth. The young shoots should again be cut back at the proper height to develop laterals, and these, as has already been directed, should be cut back in the winter months.

The Strawberry bears almost the entire year in several of the coast counties, and the same may be said of the plants in the interior valleys, where they are properly mulched and irrigated. In laying off ground for strawberries, the first essential point is to grade the plot so it has a gradual fall, so that no part of the rows will become submerged in irrigating. There are a number of methods for laying out strawberry beds, but the one mostly followed by commercial growers is to plant in rows, hilled up and about two feet apart, with a ditch between for irrigating. Set the plants eighteen inches apart in the rows. The best time to set the plants is late in the fall after a heavy rain or any time in January or February.

BERRIES

VARIETIES AND DESCRIPTIONS

LOGANBERRY. (May.) Berries extremely large, purplish-red with a pleasant tart flavor, combining the taste of the blackberry and raspberry. Excellent for table, eaten raw or stewed, makes a fine jelly or jam. The juice of the Loganberry has become favorable known as a healthful and refreshing fountain drink.

HIMALAYA BLACKBERRY. (June to late fall.) A most remarkable grower, the canes often reaching forty feet in one season. A prolific bearer. Very few seeds and with almost no core.

MAMMOTH BLACKBERRY. Of vigorous growth with good foliage. Supposed to be a cross between the wild blackberry of California and the Crandall's Early. Deep red, enormously productive and exceedingly early. The fruit is large and long, surpassing all other blackberries in size and flavor; very productive.

CORY'S THORNLESS BLACKBERRY. The berries are very large, sometimes measuring two and one-half inches. Core small; flavor delicious, sweet, suggestive of the wild berry. They are richer and sweeter than other blackberries, yet have sufficient acidity to make the finest of jelly. The plant is vigorous, sending up strong stocky canes early in the spring, which often make a growth of twenty to twenty-five feet in one season. Thrives in any good soil and will amply repay for special culture and fertilization. This variety is absolutely thornless.

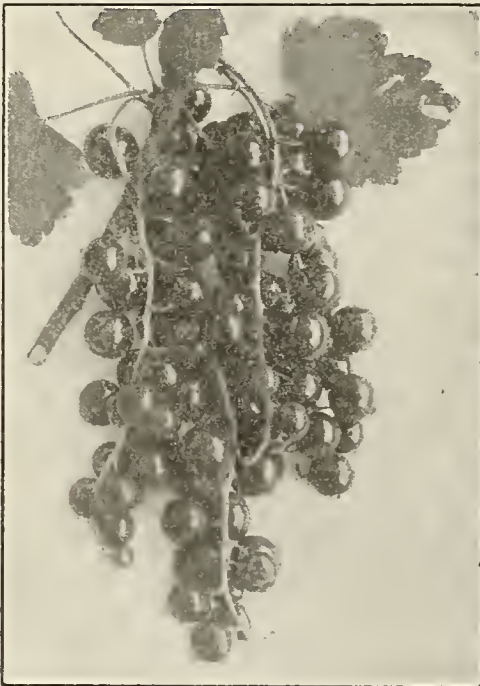
DEWBERRY, Lucretia. (May.) The berries are large and of unequalled excellence; soft, sweet and luscious. Glossy black color. Heavy bearer.

CUTHBERT RASPBERRY. Berries large, rich crimson; good shipper; the old standard. One of the best red raspberries for California planting.

KANSAS BLACK CAP RASPBERRY. One of the best black cap varieties; strong grower and a good bearer.

ST. REGIS RASPBERRY. The earliest and best red raspberry to date. It not only ripens early but produces good crops throughout the season. Berries of large size and excellent quality, rich and sugary and with raspberry flavor. A strong grower with abundant foliage. age.

BANNER STRAWBERRY. This truly wonderful variety is conceded to be the queen of the strawberry family. For California planting there is no variety that can equal it. The berry is firm, color deep red, very sweet in flavor and best of all a splendid keeper; abundant bearer and a long lived plant. It is the one desirable variety for home and commercial planting, hence we list no other.



PERFECTION CURRANT
The best bearing variety

CURRANTS

Currants and gooseberries are usually planted in rows five feet apart; the plants standing three feet apart in the rows. They will not thrive in the hot interior valleys, being subject to sunburn. It is only practical to grow them in the coast counties; they attain perfection when they get the benefit of the cool, moist air from the ocean.

Prune in winter, thinning out the new shoots when they are too thick, and remove the old unfruitful wood. Thorough cultivation, but not deep, is at all times advisable.

VARIETIES AND DESCRIPTIONS

BLACK NAPLES. Very large and black, valuable for jams and jellies. One of the best currants for the valley planting, not subject to mildew, and not subject to sunburn.

CHERRY. Vigorous and productive when grown on good soil and properly cultivated, berries large and deep red.

PERFECTION. A very heavy bearer, large, bright red, rich sub-acid flavor; plenty of pulp and few seeds. The best red currant for the interior valleys.

WHITE GRAPE. The finest of the white sorts. Large, yellowish-white, valuable for the table. Very productive—does well even when planted in the warmer sections.

GOOSEBERRIES

In the mountains and at an elevation of three thousand feet, and anywhere in the coast regions, the gooseberry thrives and produces an abundance of fruit.

VARIETIES AND DESCRIPTIONS

HOUGHTON. Fruit medium size, roundish inclining to oval, skin smooth, pale red, flesh tender, sweet and very good. A vigorous grower and entirely free from mildew.

OREGON CHAMPION. Fruit very large, brownish-red in color. This variety like the Houghton is free from mildew. It is the one variety most generally planted in California.

VEGETABLES AND GARDEN ROOTS

This division embraces all of those varieties that can not well be treated under any of the several preceding heads.

ARTICHOKE, GLOBE. A splendid variety that produces from early winter and practically through the entire summer. In the interior sections of the state its flower buds do not appear until late spring. The plant presents a very tropical appearance, and is therefore a valuable addition to any garden. The flower buds should be cut off as soon as they are well formed and before the scales open, otherwise they are tough and tasteless. Never allow the flowers to mature as the plants will dwindle down and die. Suckers should be taken during the winter months and planted in rows three feet apart and six feet between the rows. Experience has demonstrated that the best quality artichokes are

produced by cutting the plants down during the month of July, thus stimulating the growth, causing them to produce an abundance of flower buds during the winter and spring months.

ARTICHOKE, JERUSALEM. Radically different in its character of growth from the preceding and will thrive on any well drained soil. The method of cultivation and hilling is practically the same as for potatoes. They should be cut to single eyes and planted in rows eighteen inches apart with rows four feet apart. The tubers are not mature until the tops are frozen when they may be dug up and used for hog feed. They produce enormously on good soil, with liberal cultivation and moderate irrigation, fifteen to twenty tons to the acre. For the farmers of Califor-

nia it possesses so much merit that no farm having a few hogs, should be without a patch of these tubers, which will supply feed during the winter months when all other foods are scarce. Those who have used the artichoke as a food claim it to be very palatable.

ASPARAGUS, PALMETTO. The popular favorite with California growers for the early market. Produces enormous tender and delicious sprouts, the heaviest bearer and most profitable of all.

HOP ROOTS. Climbing vines valuable for ornamental purposes, producing the hops formerly used so extensively by brewers. The male plant is not necessary except where planted commercially.

HORSERADISH Maliner Kren. The best variety of this pungent vegetable. It prefers a rich moist loam. Should be planted in rows eighteen inches apart. This is the variety used commercially for manufacturing the horseradish relish sold by all grocers.

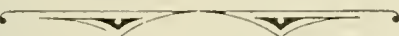
RHUBARB

VARIETIES AND DESCRIPTIONS

RHUBARB, STRAWBERRY. (March to July.) One of the finest. A strong, rapid and a very productive grower; well adapted to the coast sections. Possesses a delicious strawberry flavor and when cooked is slightly pink in color. Large stocks, tender and requires very little sugar. Extensively grown for market and shipping.

RHUBARB, WAGNER'S SELECT. This plant grows vigorously at all seasons of the year, but is at its best from October to June. The stems are tender, cook readily, are of good color, not hard and stringy. Excellent flavor.

RHUBARB, WAGNER'S GIANT. It is a strong, rapid grower and very productive. Stems extra large, unsurpassed in flavor and yields much heavier than any of the old time sorts. It will prove a great money maker.



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ORNAMENTAL DEPARTMENT



BURNING BUSH (*Crataegus Pyracantha*)

This ornamental shrub produces a wealth of beautiful red berries in autumn

Traverse the whole world, search as you may and you will not find another place possessing more natural advantages for growing ornamental plants, trees and shrubs than are found in California.

Here we have all those climatic possibilities ranging from the torrid heat of the desert to that in the realms of perpetual snow, with soils and locations to meet the native requirements of almost every known plant.

The tempered climate of the coast region seems to be particularly well suited to the

successful growing of many varieties which after being well developed may be planted in the highly heated interior valleys with the best of results.

Many varieties being quite tender when very young may not be propagated so well here on account of the intense heat and for that reason we have arranged to grow our ornamentals in the bay region where there is no danger of injury. This method though more expensive insures to our customers, strong vigorous stock that will go ahead when planted rendering a full measure of satisfaction.

DECIDUOUS ORNAMENTAL TREES

The heading "Deciduous Ornamental Trees" so clearly explains the division that is to follow, that no lengthy fore-word is necessary.

They are the varieties which shed their foliage, remaining dormant and devoid of leaves from late autumn to early spring. Included in this list are many of the most valued shade and ornamental trees so often seen and admired along the streets, avenues and highways of California. Varieties followed by (S) are by nature shrubs, by (T) trees.

BIRCH *Betula*. (T.) Trees of vigorous and upright growth, but with slender, usually drooping shoots. Leaves rather small. Will thrive even in poor soils.

European White (*Betula Alba*.) Europe to Japan. 80 feet. Medium to large tree with white bark on the older limbs and trunk.

Growth somewhat irregular. Branches assume a drooping habit.

CATALPA *Speciosa*. (T) Highly ornamental tree with large, bright green heart-shaped leaves and beautiful white or yellowish flowers in large showy clusters, followed by long slender seed pods The wood is very durable in the soil, and valued for fence posts and railway ties. They are tropical in appearance and adapt themselves to almost any soil.

MULBERRY (*Morus*.) (T.) Rapid, dense-growing tree; popular for planting in hog pastures and chicken yards. A few trees planted near a cherry orchard is advisable as the birds will eat them in preference to the cherries.

Multicaulis (White Mulberry.) A strong growing small tree from China, where it is the chief silkworm mulberry.

POPLAR (Populus.) (T.) Poplars are very rapid growing trees and thrive under a great variety of conditions. Their leaves are bright a month earlier than other trees of heavier foliage. They are well adapted for streets, avenues and windbreaks. Where quick shade is desired these trees serve the purpose. They do not bear the objectionable cottony seed.

Balm of Gilead (Balsamifera Candicans.) N. America. 80 feet. A handsome, tall tree with spreading branches. Most popular variety for shade and avenue planting.

Balsan (Balsamifera.) N. America. 60 feet. A tall tree with erect branches forming a narrow, pyramidal head. Often planted for the delightful resiniferous odor of the buds.

Carolina (Deltoides Carolinensis.) Europe. 60 feet. Very rapid grower. Valuable for avenue planting.

Golden (Aurea Van Geerti.) 40 feet. Has fine golden yellow foliage.

Lombardy (Nigra Italica.) 120 feet. Erect growing tree, with a tall spire-like form.



SILVER OR SOFT MAPLE
Excellent for street planting

JUDAS TREE (Cercis.) (T.) Striking ornamental tree loaded with a mass of pea-shaped pink blossoms in early spring, before the leaves appear. Pods remain all summer, very ornamental.

White Flowering (C. Siliquastrum Album.) (T.) S. Europe. 30 feet. Tree of the same habit as the above, but flowers are pure white.

LINDEN EUROPEAN OR LIME TREE (Tilia Europaeca.) (T.) 90 feet. A very fine pyramidal tree, with symmetrical round-topped crown, leaves obliquely heart-shaped, bright green, fading in autumn to tones of yellow and brown; a handsome street or avenue tree.

LOCUST (Robinia Pseudacacia.) (T.) Eastern U. S. Adapt themselves to almost any soil conditions. Wood of the larger growing varieties hard and durable; valuable for posts

and railroad ties. Varieties bloom from early spring until summer.

Black (R. Pseudacacia.) 80 feet. A good timber tree of very rapid growth. Flowers white.

LOCUST, PINK FLOWERING (Decaisneana.) (T.) 60 feet. A vigorous straggling grower with pink flowers; very ornamental.

MAPLE (Acer.) (T.) Valuable tree for street planting. The foliage assumes handsome autumnal tints.

Norway (A. Planoides.) 100 feet. Large and handsome; deep green foliage and compact growth. A valuable tree for interior valleys.

Silver or Soft (A. Dasycarpum.) Eastern N. America. 120 feet. A large tree of rapid growth; foliage bright green above, silvery beneath. A favorite tree for streets and parks; grows well in interior valleys.

MOUNTAIN ASH EUROPEAN (Sorbus Aucuparia.) (T.) A fine tree, with dense and regular head, covered from July to winter with great clusters of bright scarlet berries.

ELM (Ulmus.) (T.) Stand in the first rank among American trees; grow rapidly; are long-lived, of very graceful spreading habit, and are not over-particular as to soil. Our trees are all budded or grafted, insuring uniformity of leaf, form and habit, making them particularly desirable for avenues and for specimen planting.

American or White (Americana.) United States. A magnificent tree, native from the Rockies to the Atlantic. Growth is erect, with smaller branches drooping when old. Grows rapidly here.

E. Huntingdon (Scabra Huntingdonii.) Of very erect habit and rapid, vigorous growth. Bark clean and smooth. Foliage dense, leaves large, dark green, remaining on the tree until late. Fine for street and avenue planting. The handsomest of all Elms.

GOLDEN CHAIN (Laburnum Anagyroides.) (T.) A beautiful small tree of rather quick growth. Leaves clover-shaped, soft, pleasing green; do not change color in fall. Flowers fragrant, bright yellow, in long drooping racemes, suggestive of yellow wistarias borne on a tree.

SYCAMORE (Platanus.) (T.) Plane tree. In great demand for shade and avenue planting; a rapid, symmetrical grower, thriving in almost any soil. Planted largely along California highways.

European (Orientalis.) 100 feet. Erect-growing tree, with bright green foliage and beautifully mottled trunk. Regarded as one of the best street trees for California.

TEXAS UMBRELLA (Melia Azedarach Umbrauliformis.) (T.) S. Asia. 40 feet. One of the handsomest shade trees of umbrella form; shade very dense; foliage dark green; produces lilac-colored flowers.

THORN (Crataegus.) (T.) Europe. Grow in almost any soil; abundant flowers in spring, are followed by showy fruits in fall.

Paul's Double Scarlet (*C. Oxyacantha Paulii*.)
12 feet. Small tree, with spreading branches.
Flowers of a deep crimson.

WEeping DECIDUOUS TREES



TEAS WEeping MULBERRY
A beautiful tree for the lawn

The weeping trees stand in a class by themselves. They are particularly effective when standing as specimens on a lawn or when grouped along the outer edges of larger growing trees. They lend, so to say, a pleasing finish to a group of both evergreen and deciduous forest trees. They are budded or grafted on straight stems of the same species at a height of six to eight feet from the ground. To bring out their best points and make them show off to the most advantage, it is very important to prune them regularly every winter. A systematic thinning out of the branches which crowd and interfere, and by careful attention to the shortening in of the extending limbs, and cutting to an upper limb or bud will do more than anything else to give the tree an arbor-like appearance.

ELM CAMPERDOWN WEeping (*Ulmus Scabra Pendula*.) 20 feet. Vigorous branches, having a uniform weeping habit, overlapping very regularly and forming a roof-like head; the leaves are large, dark green and glossy, and cover the tree with a luxuriant mass of verdure.

MULBERRY, TEAS WEeping (*Morus Alba Tatarica Pendula*.) 15 feet. A very graceful weeping tree, with long, slender branches, drooping to the ground, parallel to the stem; one of the most graceful and vigorous of weeping trees.

WILLOW (*Salix*.) Most rapid growing weeping tree, particularly adapted to moist locations.

Common (*S. Babylonica*.) Asia. 30 feet. The well-known weeping willow.

New American (*S. Babylonica Dolores*.) 50 feet. Large, glossy leaves and very pendulous habit.

FLOWERING FRUIT TREES

Under this head we are listing the different varieties of fruit trees including apple, peach and quince. These trees are very attractive, both in fruit and foliage and contribute greatly to the beauty of our gardens in the early spring. Their beauty and charm are indeed individual, and no one should forego the joy of these trees somewhere in their grounds.

APPLE (*Pyrus*.) Beautiful trees for lawn or ornamental planting; bearing abundance of blooms during the spring.

White Flowering (*Spectabilis Albo Pleno*.) Flowers very large, semi-double, white. Fragrant.

Niedwetzkyana. A curiosity from Siberia. The entire tree—bark, wood, fruit and foliage, except old leaves—is red. Free bloomer and bears edible fruit.

PEACH FLOWERING (*Persica*.) They blossom in April, and the branches are covered with a mass of beautiful colored flowers, long before the leaves appear.

Double Red-Flowered. 15 feet. Flowers semi-double, bright red, superb.

Double Rose-Fringed. 15 feet. Flowers double, fringed and rose colored.

Double White. 15 feet. Flowers large, double, pure white.

QUINCE (*Cydonia*.) Japan. 6 feet. The Japanese quinces are beautiful dwarf species, remarkable for the brilliancy of their blossoms, which vary from the richest scarlet to the most delicate blush color. They are well adapted for single plants, on the lawn, for the edges or borders of groups of trees and for planting ornamental ledges. The foliage is very ornamental. The fruit has a delicious fragrance but is worthless.

Red Flowering. Deep red.

Rose Flowering. Semi double rose.

Single White. Very large white flower.

DECIDUOUS SHRUBS

A good rule is to prune these shrubs when they have finished blooming. This is very necessary with such as bloom from the old wood in the previous season; observation will show which these are. To prune them when dormant spoils their chances of flowering. Those which bloom from new wood of the current season's growth can be pruned either when dormant or after flowering.

This list covers many of those old familiar plants so often seen and admired throughout the east and middle west. They are worthy of a more extensive planting here in California but because we have such a long list of evergreen varieties, the deciduous kinds are often overlooked. They are perfectly hardy and planted here will make a wonderful showing.



BARBERRY

BARBERRY (*Berberis Vulgaris*.) Europe. 8 feet. Handsome distinct foliage and yellow flowers, succeeded by red berries.

Purple-Leaved (*V. Atropurpurea*.) 8 feet. A pretty shrub with purple foliage.

Thunberg's (*Thunbergi*.) 4 feet. Low growing shrub; leaves small which color in the fall, berries bright red.

BIRD OF PARADISE (*Poinciana Gillisii*.) S. America. 8 feet. Adapts itself to the poorest soils. Flowers light yellow pear-shaped, 2 inches long, with brilliant, protruding, red stamens, appearing all summer.

CRAPE MYRTLE (*Lagerstroemia*.) China. This very strong growing shrub adapts itself to almost any soil condition. The leaves are bright green, the flowers with their pretty curiously crimped petals, are produced in very large panicles at the ends of the branches during the entire summer.

Pink (*L. Indica Rosea*.) 12 feet. Similar in habit to the following except that the flowers are pink.

Purple (*L. Indica Purpurea*.) 12 feet. A very free bloomer; flowers purple; a most desirable shrub for grouping; very rapid grower.

White (*L. Indica Alba*.) Asia. 8 feet. A very rare and beautiful shrub with leaves ovate, dark lustrous green. Flowers very much crimped, pure white, and ruffled. Seems to be exceptionally well adapted to our interior climates.

DEUTZIA. Japan. A very attractive, free-flowering shrub with long flower racemes.

Fortunei. Flowers large, single, pure white.

Pride of Rochester. Tall growing variety. Flowers double, white, tinged light pink on back of petals.

ELAEAGNUS (*Longipes*.) Japan, China. 6 feet. Very ornamental shrub of spreading habit. Branchlets ruddy brown. Leaves silvery, brown dotted beneath. Flowers small but numerous, yellowish white and fragrant, followed by scarlet fruits nearly an inch long, on elongated stalks. The fruit is not only edible but adds greatly to the effect of the plant.

ELDER (*Sambucus*.) England. These are showy, large shrubs, quite ornamental in flowers, fruit and foliage; they blossom in June, very desirable for grouping.

GOLDEN BELL (*Forsythia Suspensa*.) China. **Drooping** (*F. Suspensa*.) 6 feet. Foliage deep green; flowers bright yellow; branches slender, drooping.

HYDRANGEA. Japan. 4 feet. There is nothing so effective as the hydrangea for grouping. Their luxuriant foliage and rich, delicate flower globes render them very attractive. The prices of the following plants are regulated by the number of branches rather than by their height.

LILAC *Syringa*. Europe.

Common Purple (*Syringa Vulgaris*.) 8 feet. An old favorite; very fragrant.

Common White (*S. Vulgaris Alba*.) 8 feet. Similar to preceding with white flowers.

MOCK ORANGE (*Philadelphus*.) Very vigorous shrubs with handsome foliage; flowers white, with orange-blossom fragrance.

Garland Syringa (*P. Coronarius*.) Europe. 10 feet. Flowers pure white, delightful orange-blossom fragrance; one of the first to bloom.

Largeflowered (*P. Grandiflorus*.) South-eastern U. S. 10 feet. Slender, twiggy habit, with fragrant flowers.



PHILADELPHUS (MOCKORANGE)

PEONY TREE (*Paeonia Moutan.*) China. 6 feet. These beautiful flowering shrubs bloom in April and are among the best flowering shrubs. Positions for planting should be selected where the influence of the sun's rays are not felt until late in the morning. The flowers are enormous in size. The range in colors through red, pink, purple and white.

POMEGRANITE (*Punica.*) S. Asia. A particularly fine shrub for California. Flowers all through the summer season followed by brilliant showy fruits. Foliage glossy and handsome with ruddy tints on new growth. Pink and white varieties.

SNOWBALL (*Common Viburnum Opulus Sterilis.*) N. America. Produces an abundance of pure white, globular flowers in May and June.

SNOWBERRY (*Symphoricarpos Racemosus.*) Eastern U. S. Has small pink flowers and large white berries which hang in clusters the greater part of the winter.

SPIRAEA (*Spirea.*) Medium-sized shrubs. Embracing a wide range of growth, color of flowers and season of blooming. Of easy culture.

Anthony Waterer (*Bumalda.*) A strong grower; a free bloomer; an ideal potplant; a grand *Spirea*.

Japanese (*S. Thumbergi.*) Branches slender and arching. Flowers single, white borne in small loose clusters along the slender branches.

Van Houtt's (*S. Van Houttei.*) Similar to the Bridal Wreath, but of a far more graceful habit.

TAMARISK (*Tamarix.*) Elegant, fine-flowering and handsome shrub; thrives in all soils. One of the best for subduing shifting sands.

Japanese Hispida Tamarix (*T. Estivalis.*) Japan. New. Very vigorous, upright grower; leaves bluish green; flowers bright carmine-red. Blooms twice a year.

French (*T. Gallica.*) Foliage exceedingly fine and feathery; flowers pink, small, very numerous.

CONIFERS AND BROAD LEAVED EVERGREENS



Scene in Roeding's Park, Fresno's most beautiful and attractive public garden

Under this head are associated the trees which do not shed all their foliage at one time, thereby remaining green, although the old leaves do shed from time to time as they become overshadowed or crowded out by the younger foliage. It is the evergreen tree which has done so much to enliven the landscape of California during the winter months.

All stock quoted in tubs, cement pots and boxes are specimens which have been well established in their containers.

It often happens we have an assortment of large sizes in specimen plants on which it is difficult to make quotations in this list. We invite correspondence relative to same or personal inspection when convenient.

ACACIA

Although there are some 400 species of Acacia, we have confined ourselves to varieties of well-known merit, the uses of which are enumerated below. The Acacia finds the most favorable conditions to its development in California. Nearly all of them have their origin in Australia.

ARMATA (*Kangaroo Thorn.*) 10 feet. A spreading shrub, with yellow flowers; excellent for grouping.

Cultiformis (*Knife-Leaved.*) 8 feet. A small tree; leaves triangular shaped; blooms profusely; flowers deep yellow. Have 2 to 3 ft. only.

Dealbata (*Silver Wattle.*) 60 feet. A rapid growing tree; feathery foliage; golden yellow flowers in February. Very hardy.

Decurrens (*Green Wattle.*) 75 feet. One of the best for parks or avenues; leaves feathery, dark green; flowers whitish yellow, appearing in May; upright habit; hardy.

Floribunda (*A. Neriifolia.*) 30 feet. A beautiful street tree, of pendulous habit; long, narrow leaves and bright yellow flowers. Fine for grouping.

Latifolia. 20 feet. Of a spreading habit; valuable for grouping; long, glossy green leaves; flowers golden yellow.

Melanoxylon (*Black Acacia.*) 75 feet. A strong grower; one of the best for parks and street planting.

ARAUCARIA BIDWILLI (*Bunya Bunya Tree.*) Australia. 150 feet. A magnificent tree; branches in regular whorls, closely set with spiny, deep green leaves; handsome for lawn, and by far the finest and most attractive of all evergreen trees. Does well in the interior valleys.

Norfolk Island Pine (A. Excelsa.) West of Australia. 200 feet. One of the handsomest. Pyramidal in form and very symmetrical; very desirable for interior decoration. Adapted to outdoor culture only in the coast counties.



CEDRUS DEODARA
Very ornamental, easily grown

Monkey Puzzle (A. Imbricata.) Chili. 100 feet. A fine tree of regular pyramidal form; leaves bright green, broad, thick, pointed and overlapping each other. Will grow in the great interior valleys, but must be protected for a few years.

ARBORVITAE (Thuya.) The thuyas are all of regular, symmetrical habit. They are roundish, pyramidal, and are well suited for massing or borders, also for hedges and wind-breaks.

American (T. Occidentalis.) 60 feet. A native species known as the White Cedar. Foliage bright green, yellowgreen beneath; brown and bronze in winter.

Chinese (T. Orientalis.) Fine variety, of good habits; foliage rich emerald green.

Gigantea (T. Plicata.) Pacific Coast. 200 feet. Branches spreading, regularly and closely set; foliage bright green, dark green beneath. The bark is brownish red and very attractive.

Golden (T. Orientalis Aurea.) 15 feet. Elegant variety, regular habit, foliage beautifully tinged with gold in the spring.

BOTTLE TREE (Brachychiton Diversifolia.) Australia. A magnificent avenue tree with graceful, tapering trunk. Foliage bright, glossy green, deeply lobed; shape changes throughout the season.

BEEFWOOD (Casuarina.) Native of Australia, with extremely hard wood equalling in this respect the walnut and hickory. Its redness has given it the popular name of beefwood. The branches are long and slender, and weep-

ing with jointed needle-like leaves. They are odd but beautiful ornamental trees, growing well even in alkali soils. Of very rapid growth. Stand pruning well and as formal street trees and for hedges we recommend them highly.

Casuarina Stricta (C. Quadrivalvis.) Of very rapid growth, with long drooping branches and pale green, needle-like leaves.

CALIFORNIA BIG TREE (Sequoia Gigantea.) California. 350 feet. A magnificent park, avenue or specimen tree, of pyramidal form; lower branches sweeping the ground. This is the famous "Big Tree of California." Reached a diameter of 30 feet.

CALIFORNIA REDWOOD (Sequoia Sempervirens.) California. 300 feet. A valuable ornamental tree of rapid growth and of a tapering pyramidal habit.

CALIFORNIA LAUREL OR BAY TREE (Umbellularia Californica.) California. 80 feet. A very rapid growing tree with glossy lanceolate oblong leaves. Along the coast near water courses it grows to perfection and makes a strikingly handsome tree.

CAMPHOR TREE (Camphora Officinalis.) China and Japan. 40 feet. A most symmetrical ornamental tree, thriving in poor soil; foliage bright green. Well adapted for lawn, street and avenue planting.

CEDAR (Cedrus.) Of majestic habit; valuable for planting grounds or avenues, where shade is not an object. Will succeed all over California and in warmer valleys when once established, is of very rapid growth.

Atlantica (Mt. Atlas Cedar.) Africa. 120 feet. A handsome pyramidal tree; silvery green foliage; branches have an upright tendency.

Deodara (Himalayan or Indian Cedar.) 120 feet. Exceedingly handsome; drooping branches and silvery green foliage; very popular. The most rapid-growing of all cedars.

RARE VARIETIES OF CEDAR

MT. ATLAS SILVER CEDAR (Atlantica Glauca.) 100 feet. Similar to Atlantica, irregular straggling when young, later becoming symmetrical. A striking and most beautiful tree.

CYPRESS (Cupressus.) This numerous family of trees, with aromatic foliage, seem to adapt themselves to California conditions. Some varieties, like the *C. Macrocarpa* (Monterey Cypress) stand pruning well and are largely used for hedges. They grow very well in the interior valleys. Their native habitat seems to be confined to California and the Gulf states. They are not particular in regard to soil and situation, but prefer deep, sandy loams.

Arizona Cypress (Arizonica.) 40 feet. Rare, slender, pyramidal; foliage pale, glaucous green, brown in winter.

Monterey Cypress (Macrocarpa.) California. The well-known, rapid-growing native cypress. Useful where quick effect is wanted. Makes a dense, compact hedge.



FANCHER CREEK
NURSERIES

ESTABLISHED 1884



Fresno, California

THE FANCHER CREEK NURSERIES "Since 1884"

Revised Price List

January 1, 1923

Deciduous Ornamental Trees

	Each
Birch (Betula)	12 to 15 grade \$ 3.00
Catalpa (Speciosa)	8 to 10 grade 1.25
	6 to 8 grade 1.00
Mulberry (Morus)	4 to 6 grade 1.00
	3 to 4 grade .75
Poplar (Populus) Balm of Gilead, Carolina, Lombardy.....	12 to 16 grade 1.50
	10 to 12 grade 1.25
	8 to 10 grade 1.00
	6 to 8 grade .75
	4 to 6 grade .50
Judas Tree (Cercis).....	6 to 8 grade 1.25
	4 to 6 grade 1.00
Locust (Robinis Pseudacacia)	8 to 10 grade 1.00
	6 to 8 grade .75
Maple (Acer).....	12 to 14 grade 3.00
	10 to 12 grade 2.50
	8 to 10 grade 2.00
	6 to 8 grade 1.50
Mountain Ash, European (Sorbus Aucuparia)	10 to 12 grade 2.00
	8 to 10 grade 1.50
Elm (Ulmus)	12 to 16 grade 4.00
	10 to 12 grade 3.00
	8 to 10 grade 1.50
	6 to 8 grade 1.00
Sycamore (Platanus).....	12 to 16 grade 2.50
	10 to 12 grade 2.00
	8 to 10 grade 1.50
	6 to 8 grade 1.00
Texas Umbrella (Melia Azed- rarch, Umbraculiformis)	6 to 8 grade 1.00
	4 to 6 grade .75

Weeping Deciduous Trees

Elm Camperdown Weeping (Ulmus Scabra Pendula)	2.50
Mulberry, Teas Weeping (Morus Alba Tatarica Pendula).....	3.00
Willow (Salix).....	8 to 10 grade 1.25
	6 to 8 grade 1.00

Flowering Fruit Trees

Peach Flowering (Persica).....	1.00
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Deciduous Shrubs

	Each
Deutzia	2 to 3 grade \$1.00
Elaeagnus (Longipes)	1 to 2 grade .75
Golden Bell (Forsythia Suspensa)	2 to 3 grade .60
Hydrangea (Japan)	1.00—1.50
Lilac (Syringa)	2 to 3 grade .60
Mock Orange (Philadelphus).....	3 to 4 grade 1.00
Pomegranate (Punica)	2 to 3 grade 1.00
Spiraea (Spirea) (Bridal Wreath)	2 to 3 grade .60
Tamarix (Tamarisk)	2 to 3 grade .60

Conifers and Broad Leaved Evergreens

Acacia (All varieties)	6 to 8 grade	2.00
	4 to 6 grade	1.50
	3 to 4 grade	1.00
	2 to 3 grade	.50
Araucaria Bidwilli (Bunya Bunya Tree)	2 to 3 grade	3.00
Arborvitae (Thuja) (Common) Balled	4 to 5 grade	3.00
	3 to 4 grade	2.50
	2 to 3 grade	1.75
	1 to 2 grade	1.50
Arborvitae (Golden)		4.50
Cedrus Deodora	4 to 6 grade	6.00
	3 to 4 grade	5.00
	2 to 3 grade	3.50
Beefwood Casuarina) Potted.....	4 to 6 grade	1.50
	2 to 3 grade	.75
California Big Tree (Sequoia Gigantea)	3 to 4 grade	5.00
Redwood (Cans)	3 to 4 grade	2.00
Camphor Tree (Camphora Officinalis)	1 to 2 grade	.75
Cypress (Italian)	6 to 8 grade	7.50
	4 to 6 grade	6.00
Cypress (Arizona)	4 to 5 grade	5.00
Eucalyptus (The Gum Tree).....	4 to 6 grade	.75
	3 to 4 grade	.60
	2 to 3 grade	.50
Flats		3.00
Firs (Abies) Blue or Green.....	4 to 6 grade	6.50
Juniper (Juniperus) Balled.....	1 to 2 grade	2.50
Magnolia	4 to 6 grade	4.00
	3 to 4 grade	3.00
Oak (Quercus)	4 to 5 grade	1.00
Pepper Tree (Schinus Molle).....	2 to 3 grade	.75
	1 to 2 grade	.60
Pine (Pinus)	3 to 4 grade	3.00
Rubber Tree (Ficus Elastica) Potted	4 to 5 grade	3.50
	3 to 4 grade	3.00
	2 to 3 grade	2.50
	1 to 2 grade	1.50
Spruces (Picea) Blue or Green (Balled)		6.50
Yew (Taxus) Green and Golden (Balled)	4 to 6 grade	10.00

Evergreen Shrubs

Angel's Trumpet (Datura Arborea) Potted	1 to 1½ grade	.75	
Acuba Japonica (Japanese Laurel) Potted	2 to 3 grade	1.50	
	1 to 2 grade	1.00	
Buxus (The Boxwoods) Balled....	2½ grade	4.00	
	10 to 15 grade	1.25	
Abelia Grandiflora	2 to 3 grade	3.00	
Broom (Cytisus)	2 to 3 grade	.75	
	3 to 4 grade	1.00	
Burning Bush (Pyracantha Coccinea) Potted	2 to 3 grade	2.00	
	Balled	3 to 4 grade	3.50
Carpenteria California (Wild Anemone) Potted	1 to 2 grade	1.25	
Cherry (Cerasus) Potted.....	2 to 3 grade	1.25	
	1½ to 2 grade	1.00	

Coronilla Glauca (Blue, Green, Variegated) Balled	3 to 4 grade	1.25	
	1 to 2 grade	1.00	
Cotoneaster Balled	2 to 3 grade	3.00	
Elaeagnus (Evergreen Cleaster) Balled	2 to 3 grade	2.50	
Escallonia (Pink, White, Red) Balled	2 to 3 grade	2.00	
Evonymus (Green, Golden, Variegated, White Variegated) Balled	2 to 3 grade	2.00	
	1 to 2 grade	1.75	
Heath Mediterranea (Erica) Balled	1 to 2 grade	2.00	
Hypericum Moserianum (Gold Flower) Balled	1 to 2 grade	1.00	
Laurel (Laurus) Balled	3 to 4 grade	2.50	
	2 to 3 grade	2.00	
Laurustinus (Viburnum Tinus) Balled	3 to 4 grade	3.00	
	2 to 3 grade	2.00	
Leptospermum Laevigatum Potted	2 to 3 grade	1.00	
		Each	
Lonicera Nitida (Upright Evergreen Honeysuckle) Balled	2 to 3 grade	1.50	
Mahonia Aquifolium (Oregon Grape) Balled	2 to 3 grade	2.00	
Myrtle (Myrtus) Balled	1 to 2 grade	2.00	
Nandina Domestica (Japanese Nandina)	2 to 3 grade	2.50—3.00	
Oleander (Nerium) (Red, White, Salmon, Yellow, Pink, Balled....	3 to 4 grade	1.50	
	Potted	2 to 3 grade	1.25
Pittosporum (Green and Variegated) Balled	1 to 2 grade	2.50	
Privet Evergreen (Ligustrum) Balled	3 to 4 grade	1.50	
	Pots	2 to 3 grade	.75
	Pots	1 to 2 grade	.50
Raphiolepis Japonica (R. Ovata) Balled	1 to 2 grade	2.50	
Strawberry Tree (Arbutus Unedo) Balled	2 to 3 grade	3.00	
Photinia Serrulata	3 to 4 grade	2.50	

Climbing and Trailing Plants

	Each	10
Akebia (Lobata) .....	.60	
Ampelopsis .....	.60	5.00
Bignonia .....	.50	4.00
Ficus Repens (Climbing Fig) .....	.50	4.00
Honeysuckle (Lonicera) .....	.50	4.00
Ivy (Hedera) .....	.50	4.00
Jasmine (Jasminum) .....	.50	4.00
Lantana (Sellowiana) .....	.50	4.00
Muehlenbeckia Complexa (Wire Vine) .....	.50	4.00
Plumago (Plumago) .....	.50	4.00
Smilax (Asparagus Medeoloides) .....	.30	2.50
Solanum Jasminoides (Potato Vine) .....	.30	2.50
Sollya Heterophylla (Australian Blue Bell).....	.75	
Tecoma .....	.50	4.00
Virginia Creeper .....	.50	
Wisteria	1.00	

Palms

	Each
Chamaerops (Trachycarpus) 2 to 3 grade	2.50
Cocos (Boxed) 8 to 10 grade	20.00
..... 6 to 7 grade	15.00
..... 3 to 4 grade	10.00
..... 2 to 3 grade	5.00
Cycas Revoluta (Sago Palm).....12 inch tubs	20.00
..... 10 inch pots	15.00
..... 8 inch pots	10.00
..... 6-7 inch pots	6.00
..... 4-5 inch pots	5.00
Erythea Boxed 5 to 6 grade	10.00
..... 4 to 5 grade	8.00
..... 3 to 4 grade	6.00
..... 2 to 3 grade	4.00
Kentia Potted 3 to 4 grade	6.00
..... 2 to 3 grade	4.00
..... 1½ to 2 grade	1.50
Phoenix Balled 4 to 6 grade	5.00
..... 3 to 4 grade	3.00
Washingtonia Balled 1 to 2 grade	1.50

Agaves, Dasytirions, Dracaenas, Yuccas, Bamboos

Agave Americana (Century Plants) Potted 1 to 2 grade	.75
Bamboos 4 to 5 grade	2.00

Decorative Bedding and Border Plants

	Each
Amaryllis (Belladonna Lily) Potted .....	.30
Asparagus (Hardy Ferns) .....10 inch pots	2.50
..... 7-8 inch pots	1.25
..... 6 inch pots	.75
..... 5 inch pots	.60
..... 4 inch pots	.50
Daisy (English) (Bellis Perennis)..... .05—10—3.00	
Geraniums All Varieties .....	.40
Heliotrope (Heliotropium) Potted .....	.40
Lantanas Medium Plants .....	.50
Small Plants .....	.25
Lavendula Vera (Lavender) .....	.50
Philodendron Binpinnatifidum Potted 1.50 to 15.00	
Sanseveria (Zeylonica) Potted	1.00
Santolina Incaria (Lavender Cotton) Potted.. .10	.80
Tradescantia (Wandering Jew).... 5 inch pots	.40

Roses

Roses50 to 1.00
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ITALIAN CYPRESS

Italian Cypress (*Sempervirens Fastigiata.*) Europe and Asia. A tall, very slender tapering tree with erect branches lying close to the stem. The classical cypress of the Greek and Roman writers. Excellent for architectural effect. Should always be planted in dry situations.

CYPRESS (*Chamaecyparis.*) Flat branched Cypress.

Lawsoniana, Lawson Cypress (Port Orford Cedar.) California and Oregon. 200 feet. Graceful and conspicuous; branches horizontal, slightly pendulous; foliage dark green. Fine for grouping or single specimen. For timber it is said to be more durable than coast redwood.

EUCALYPTUS (The Gum Tree.) The tree is a native of Australia and serves a variety of purposes—for example it is often planted in damp, swamp places, where it acts as a sort of drain, absorbing excess moisture and frequently improving an otherwise malarial

locality. The ornamental value of the Eucalyptus is considerable; its merits should not be overlooked. All varieties planted in flats contain about 100 plants to the flat. As it is necessary to cut the flat in case a smaller quantity is ordered, part flats will be charged at 1½ cents per tree higher than the hundred rate. We have these trees ranging in sizes as indicated and will fill in any variety the nearest grade, if out of the size ordered.

Callophylla. Australia. 25 feet. A moderate sized tree and in appearance differs from most all other Eucalyptus. Bark rough and brown; leaves dark green, glossy above and feather veined; flowers unusually large, cream colored borne in large clusters. Seed cones are often used for pipe bowls. Suitable for warm coast regions.

Citrioidora (Lemon Scented Gum.) Queensland. 150 feet. A rapid grower, foliage lemon scented; hence its name. Flowers creamy white. Tree sensitive to low temperatures. Wood strong and durable.

Globulus (Blue Gum.) 200 feet. Broad, bluish leaves when young. More extensively planted than any other variety; wood when polished resembles hickory. Valuable for wagon work, bridges, tool-handles, and as fire-wood.

Leucoxylon (Victorian Ironbark.) (South Australian Blue Gum.) 100 feet. Similar in growth and foliage to the Leucoxylon Rosea except that the flowers are white.

Rostrata (Red Gum.) 200 feet. Outgrows any other variety in the interior valleys. Wood takes a handsome finish and is desirable for interiors. Called "Red Mahogany." Valuable for ties, fence posts, etc.

Rudis (Desert Gum.) 100 feet. An excellent avenue tree, of very rapid growth, and withstands both heat and cold. Wood hard and close-grained.

Tereticornis (Forest Gray Gum.) 150 feet. Fully as rapid a grower as the Rostrata; timber sometimes more durable.

Viminalis (Manna Gum.) 300 feet. Very hardy; of rapid growth; fine avenue tree, with its long, graceful, festoon-like branches.

SPECIAL VARIETY

Ficifolia (Crimson Flowering.) 30 feet. A unique type; dwarfish habit, large, dark green leaves and great clusters of brilliant scarlet flowers. Seed-cones so large they can often be used for pipe bowls. Tender.

FIRS (ABIES)

This group of remarkable evergreens vary in color from glaucous blue to dark green. Natural pyramid form; valuable for single specimens or grouping. Distinguished from spruce by their erect cones and needle-shaped leaves scattered all around the shoots.

Nordmann's Silver Fir (Nordmanniana.) Caucasus, Europe. 150 feet. Very symmetrical; foliage massive, dark green, glossy above, slightly glaucous below. Does well in the interior valleys.

European Fir (*Pectinata.*) Southern Europe. 150 feet. A noble tree; spreading branches; broad, silvery foliage.

JUNIPER (*Juniperus.*) These extremely hardy trees seem to be as much at home in the warm interior valleys as they are in the coast counties. They are very ornamental, mostly of pyramidal or columnar habit, and are very decorative either as single specimens on the lawn or if planted in groups. The low growing species are admirably adapted for covering rocky slopes or sandy banks. They are well adapted for hedges, for planting as shelter or windbreaks; also for seaside planting. The close-grained, fragrant wood is much used for the interior finish of houses.

Communis. (Common.) Eastern U. S. 40 feet. A tree with spreading branches, foliage grayish green, very dense; valuable as a ground cover.

Irish (*J. Communis Hibernica.*) Eastern U. S. 25 feet. An erect, dense, conical tree.

Japan (*J. Japonica.*) Japan. 60 feet. Of pyramidal habit, with grayish green foliage.

RARE VARIETIES OF JUNIPER

JAPANESE CREEPING JUNIPER (*Chinensis Procumbens.*) 4 feet. Valuable for rock work. A striking variety.

Savin (*J. Sabina.*) South Europe. 8 feet. Low shrub; trailing branches; foliage dense, dark green.

LIBOCEDRUS. A valuable park and lawn tree, of pyramidal form; foliage bright green.

Incense Cedar (*L. Decurrens.*) 100 feet. A very ornamental, distinct, erect, compact, growing tree, with a stout trunk; branches a bright, rich, glossy green, glaucous underneath; a native of the mountain regions of California and Oregon. Does exceedingly well on the coast and in the interior.

MAGNOLIA. One of the grandest of broad-leaved ever-greens; flowers fragrant, 10 to 12 inches across. Blooms abundantly in May and June, succeeded by cone-like fruits, bearing seeds of deep coral-red in October. Adapts itself to a wide range of locations.

Grandiflora (**Bull Bay.**) Southern U. S. 50 feet. Foliage thick, brilliant green on the upper surface, and rusty underneath; flowers pure waxy white.

OAK (*Quercus.*) The evergreen oaks are among our most picturesque trees. The *Q. Agrifolia* with its bright, dark green foliage relieves the barrenness of the hills during the summer months; in addition to this on the deep rich valley land it makes a fine low-spreading tree, always effective. In late years more attention has been given to the oak for avenue and park planting. We can recommend the tree highly for both purposes.

California Live Oak (*Q. Agrifolia.*) 50 feet. The well-known majestic evergreen, growing abundantly along the shores of San Francisco Bay and the interior valleys, adding great beauty to our lowland scenery.

Cork Oak (*Q. Suber.*) S. Europe. N. Africa. 50 feet. A very ornamental and upright growing variety of evergreen oak; thrives well here; the outer bark furnishes the cork of commerce. A magnificent tree for avenues, park or street planting.

PEPPER TREE (*Schinus Moll.*) Peru. 40 feet. A most picturesque park, avenue or shade tree, Feathery foliage, yellowish white blossoms followed by rose-colored or deep red berries.

PINE (*Pinus.*)...The family of pines is probably one of the most important of timber trees. The trees are usually tall with spreading branches forming a pyramidal or rounded-top and becoming very picturesque in old age. They are much used for subduing shifting sands and for seaside planting. They are valuable for the decoration of parks, gardens, and for grouping among other trees. Should be planted extensively for windbreaks. Can also be used to splendid advantage for planting large estates and natural parks in the foothills.

Canariensis (**Canary Island Pine.**) 80 feet. A rapid-growing, handsome pine. Leaves slender, spreading and pendulous, dark green.

Montana (**Swiss Mountain Pine.**) Mountains of middle Europe. 40 feet. Handsome, spreading, low growing. Bright green leaves.

Pinea (**Parasol Pine**) (**Italian Stone Pine.**) Southern Europe. 50 feet. This most beautiful tree is one of the features of the landscape in southern Europe. Does remarkably well in



MAGNOLIA

California and is worthy of wide dissemination. Branches spreading, usually clustered at top of tree.

Radiata (Monterey Pine) (P. Insignis.) California. 100 feet. Leaves slender and dark green. Well adapted to coast regions.

RUBBER TREE (Ficus Elastica.) Asia. 100 feet. Popular for indoor decoration; leaves large, dark, glossy green above, yellow beneath. Has a habit of staying bright and attractive even when neglected; is hardly practicable out-doors except in our southern coast counties.

Macrophylla (Moreton Bay Fig.) Australia. 100 feet. Hardier than *F. Elastica* Variegata, with somewhat smaller leaves; valuable for indoor and outdoor planting.

Variegated (F. Elastica Variegata.) Similar to *Ficus Elastica* except that the leaves are creamy white or yellow near the edges.

SILK OAK (Grevillea Robusta.) Australia. 100 feet. Very graceful, fern-like leaves; of rapid growth; covered with bronze-yellow flowers in early summer. Resists drought; stately for avenue and lawn.

SPRUCES (Picea.) In habit of growth the spruces are very similar to the firs, but the branches stand out from the main stem more horizontally and not so closely together. Distinguished from the firs mainly by their drooping cones and linear, flat leaves on the upper side of the branches; the firs have their needles short and scattered all around the branches.

Alba (White Spruce.) N. America. 70 feet. Foliage silvery gray; strong aromatic odor when bruised.

Excelsa (Norway Spruce.) Europe. 150 feet. A lofty, rapid grower; branches of graceful, drooping habit; very hardy.

Polita (Tiger Tail Spruce.) Japan. 90 feet. A distinct Japanese species. It is of erect habit, and has sharply pointed, very rigid, bright green leaves, contrasting beautifully with the yellow branches. Excellent specimen tree for a lawn.

SPRUCE SPECIAL VARIETY

Pungens Glauca (Colorado or Koster's Blue.) Rocky Mountains. 80 feet. Branches in regular whorls, gradually receding toward top, and forming a conical outline. Leaves vary from green to silvery white. Thrives in dry climates.

STERCULIA. See *Brachychiton*.

YEW (Taxus.) Very desirable for park planting; densely clothed with dark green. Wood heavy, hard, close-grained, strong, elastic, reddish. Thrive best in a moderately moist sandy loam. In warm climates they must be shaded the first year.

Dwarf Golden (T. Baccata Elegantissima.) 20 feet. One of the most valuable dwarf, golden-leaved evergreen yews; new leaves bright straw color.

English (T. Baccata.) Europe. 40 feet. Slow growth; densely branched, spreading head; dark green leaves.

Erect (T. Baccata Erecta.) Compact, erect grower. Leaves are small and of medium green color. Does not bear berries.

Irish (T. Baccata Fastigiata.) 40 feet. An upright-growing variety; deep, dark green foliage. One of the most desirable evergreens of columnar habit for formal gardens.

Variegated (T. Baccata Fastigiata Variegata.) 20 feet. Same habit as above, but with part of the foliage striped and margined with silvery white or pale straw colored blotches.

EVERGREEN SHRUBS

Nowhere in the United States nor perhaps in all the world is it possible to use the large assortment of beautiful flowering evergreen shrubs, many of which bear colored berries in the winter season, as in California. These hundreds of different varieties of green, golden and silver variegated foliage plants are used for every purpose to make the gardens and landscape views attractive every day of the year.

ABELIA GRANDIFLORA (A. Rupestris.) 6 feet. A garden hybrid. A pretty shrub of straggling growth, bearing small, fragrant, tube-like flowers during the entire summer, color light rose on the outside and white on the inside.

ANGEL'S TRUMPET (Datura Arborea.) S. America. 10 feet. Large shrub or tree; leaves 6 to 12 inches long, covered with fine "powder." Flowers creamy white, trumpet-shaped, 7 to 8 inches long, with a musk-like odor. Blooms all summer.

ACUBA JAPONICA (Japanese Laurel.) 4 feet. S. Asia to Japan. A very handsome shrub, and one of the best of the colored-leaved foliage plants; leaves large, distinctly speckled with golden-yellow; should be grown in partial shade.

Japonica Aureo Maculata. 6 feet. A form of the above, with yellow spotted leaves.

BUXUS (The Boxwoods.) These very ornamental shrubs of dense but rather slow growth, with shining foliage are invaluable for grouping, lawn decoration and for hedge purposes. For tub culture and for formal decorative work they are more extensively grown than any other class of plants. They thrive in a warm dry climate fully as well as on the coast. The very hard and close-grained wood is in demand for engraving and finer turnery work.

Japonica Angustifolia (Narrow-Leaved Japanese Box.) 3 feet. Light green, long narrow leaves. A very compact slow grower. Excellent for low hedge.



CAMELLIA

Japonica Rotundifolia. Handsome, light green, glossy foliage. Rapid grower; excellent for hedges.

Sempervirens (Tree Box.) Europe. Large shrubs of dense habit; small foliage.

Sempervirens Arborescens. 25 feet. Tall shrub or small tree. Suitable for hedge.

Sempervirens Macrocarpa Rotundifolia. 6 feet. Foliage large, golden. Fine for single specimen.

BREATH OF HEAVEN Diosma Ericoides Africa. 4 feet. Foliage heather-like; agreeably fragrant; flowers white, small, star-shaped; used in floral work. Plant hardy; very easily grown.

BROOM (Cytisus.) Will succeed in almost any soil or situation. The large, pea-shaped flowers appear in the spring, followed by small pods; leaves rounded elongation of the stem.

Canariensis (Canary Islands.) 8 feet. Makes a dense growth. Branches very downy. Flowers borne in dense racemes, bright yellow and fragrant.

Scotch (C. Scoparius.) Europe. 8 feet. Drooping branches; covered in spring with bright yellow pea-shaped flowers.

Spanish (C. Hispanica.) Europe. 8 feet. An upright-growing shrub; flowers yellow, on long, drooping, leafless branches.

BUDDLEIA JAPONICA. Japan. 5 feet. A handsome ornamental shrub; spreading habit; flowers lilac color and borne in pendulous racemes.

Globosa (Globe Buddleia.) Chile. 10 feet. Medium size. Leaves long, narrow and rough. Flowers yellow, fragrant.

BURNING BUSH (Pyracantha Coccinea.) Europe. 10 feet. A thick, thorny shrub, foliage small, rich, bronzy, glossy-green color; white flowers, followed by masses of crimson berries, persisting all winter. All of this family is very hardy and withstands the coldest weather.

Crenulata (Chinese Evergreen Hawthorn.) Himalayas. 10 feet. A beautiful shrub in spring; brilliant in winter with masses of scarlet berries.

Lalandii (P. Coccinea.) Asia. 12 feet. Similar to the preceding but of more vigorous growth; berries orange yellow.

CAMELLIA JAPONICA. Japan. 6 to 12 feet. Very beautiful winter flowering evergreens; and magnificent, wax-like flowers of various colors which appear in great profusion all winter render them indispensable for the conservatory, and well adapted for parlor or window culture; perfectly hardy in this climate in the open ground, but should be planted in a shady place and protected the first year.

Double Pink.

Double Red.

Double Red and White

Double White.



MAHONIA AQUIFOLIUM

CARPENTERIA CALIFORNICA (Wild Anemone.) 6 feet. An ornamental, tall-growing shrub; a native of the Sierra Nevada mountains; flowers pure white with yellow stamens like a greatly enlarged Mock Orange, from three to four inches across, and very fragrant. Adapted to the driest locations. A grand native shrub.

CEANOTHUS. Free flowering shrubs especially valuable for their late flowering habit. Grow in almost any soil, preferring a sunny position.

Arboreus (Tree Myrtle.) California. 10 feet. Small tree with whitish bark. Flowers pale blue to white borne in panicles.

Thysiflorus (California Lilac.) 20 feet. A splendid variety, with fine dark green foliage; flowers light blue.

CHERRY (Cerasus.) A bush or small tree sometimes making a height of 20 feet. Very ornamental with shining, dark glossy green holly-like foliage, and found growing in the lower foothills throughout California. Flowers are produced in racemes and are followed by large red or purple cherries, the stone almost filling them. A superb shrub and worthy of extensive cultivation. Often used for hedges.



BOXWOOD OR BUXUS

For borders; also for porch plants

Broad-Leaved (C. Integrifolia.) Catalina Islands, California. 15 feet. Similar to preceding; leaves larger, with few spines; flowers more numerous and fruit larger.

California Evergreen (Cerasus Illicifolia.) 20 feet. With brilliant foliage, lighter than holly. Found in the lower foothills of California.

CHRISTMAS BERRY (Heteromeles Arbuti folia.) 10 feet. A native shrub of California, growing quite abundantly in the coast counties and thriving equally as well in the hot, dry climate of the interior. In bloom in the

summer, in numerous white panicles. Valued highly not only as a striking decorative plant but also for the deep red berries which hang in immense clusters on the ends of the branches from November to February. These berries are extensively used during the holidays and are known as Christmas berries, Holly Berries, etc.

COLLETIA CRUCIATA. S. America. 4 feet. Curious shrubs with eleptic, flattened, prickly spiny leaves. Covered in spring with small white flowers. Fine single specimen plants.

COPROSMA BAUERIANA PICTURATA. New Zealand. 6 feet. Dense-growing shrub with rounded, glossy green leaves. Fine decorative specimen plants; makes a fine, compact hedge.

CORONILLA GLAUCA. Europe. 4 feet. Pretty evergreen shrub, covered with yellow flowers in summer; fragrant in daytime, scentless at night; foliage glaucous green. Blue, green and variegated.

COTONEASTER. Chiefly grown for their red fruits which are borne in great profusion, and remaining throughout the whole winter. Thrive in any good drained soil. Rapidly attaining great and deserved popularity.

Acuminata (C. Nepalensis.) Himalaya. 6 feet. Erect grower; leaves medium size, pointed; flowers white, slightly pink, followed by showy red berries.

Augustifolia. China. 8 feet. Spreading grower, leaves long and narrow. Berries orange yellow, persisting all winter.

Horizontalis. China. 2 feet. Branches stout, almost horizontal; large, rose-colored flowers; leaves small, turning bright red in fall.

Pannosa. China. 10 feet. Shrub of upright growth, branches long and slender, leaves deep green above, silvery beneath. Flowers white followed by enormous quantities of red berries in the fall.

DOGWOOD EVERGREEN (Cornus Capitata.) Himalayas. 15 feet. A large sized shrub, flowers large, similar to those of the eastern flowering dogwood. The plant is extremely successful in California. Flowers cream colored becoming ruddy before falling, followed by large, red showy fruits, edible but insipid. A most beautiful plant and deserves to be widely planted.

ELAEAGNUS (The Evergreen Oleaster.) Highly ornamental shrubs with handsome foliage and for this reason very decorative either on a lawn or as single specimens. Will do well in any ordinary soil and thrive remarkably well in the interior valleys. Very attractive planted as a hedge, trimmed to a height of 5 feet.

Reflexa Maculata (Golden Leaved Oleaster.) Japan. 6 feet. Foliage blotched golden yellow.
Reflexa Pungens (Bronze Oleaster.) Japan. 10 feet. Spreading shrub, bronze brown branches; leaves glossy green above and silvery beneath.



EVONYMUS

ESCALLONIA. South America. These fine plants grow freely in almost any ordinary soil; they are well adapted as shelter plants for hedges. As foliage plants alone they are exceedingly attractive but add to this their very free flowering habit and they present a combination of qualities making them invaluable as all around purpose plants.

Montevidensis. 10 feet. Erect bush, cylindrical branches; roundish, dark, glossy leaves; flowers white all summer.

Rosea. 6 feet. In general, same as preceding; flowers light pink.

Rubra. 4 feet. Branches erect, hairy; dwarf; shining green leaves, bright red flowers.

EUGENIA. Shrub or low growing tree, very closely related to the Myrtle. Grown chiefly for their ornamental foliage and berries. Desirable as specimen plants and for hedges.

Myrtifolia (E. Australis Brush Cherry.) Australia. 15 feet. Handsome shrub of compact growth; leaves dark green, the new growth being a ruddy red. Blooms very profusely, followed with purple berries. Will not stand much cold.

EVONYMUS. Japan. 3 to 8 feet. Very desirable for hedges. Variegated varieties are very effective when planted alone or when

established in containers for porch decorations. The shrubs are being very largely planted in all parts of the state. Stands severe pruning.

Japonicus (Evergreen Evonymus.) Dense upright; leaves dark, lustrous green.

Japonicus Albo Marginatus (Silver-Margined Evonymus.) Compact growth; leaves have narrow white margin.

Japonicus Argenteo Variegatus (Silver Variegated Evonymus.) Upright; silvery variegated foliage.

Japonicus Aureus (Golden-Leaved Evonymus.) Prized for its golden foliage.

Japonicus duc d' anjou (Golden Blotched Evonymus.) Foliage light green, outer edges variegated, golden yellow band.

Japonicus President Gouthier. A splendid variety with large leaves, beautifully variegated creamy white.

FABIANA IMBRICATA. S. America. 3 feet. A very erect-growing shrub with heath-like foliage and white, funnel-shaped flowers.

GREVILLEA THELEMANNIANA. 6 feet. Beautiful evergreen shrub, fine feathery foliage producing continuous display of brilliant scarlet flowers on ends of branches. Plant only in protected sections of California.

HEATH MEDITERRANEA (Erica.) S. Europe. 2 feet. Dwarf shrub with numerous short branches, densely clothed with small needle-like leaves. Very showy plants and produce exquisite purplish pink flowers in early spring. This is the only variety that will do well in warm climates.

HYPERICUM MOSERIANUM (Gold Flower.) France. 3 feet. Hardy; abundant single yellow flowers, 2 inches across; leaves dark green, ovate.

Patulum Henryii. 3 feet. This variety is hardier than Moserianum. Make a vigorous growth. Suitable for low hedges.

LAUREL (Laurus.) There are few foliage plants superior to the Laurel for inside or out of door decoration or ornamental purposes. They can be used advantageously as single specimens, for grouping and for embellishing the lawn and are very effective wherever planted. Habitat S. Europe.

English (L. Cerasus.) 15 feet. Broad, shining leaves; great clusters of creamy white flowers; purple berries.

Portugal (L. Lusitanica.) 4 feet. Dwarfish with glossy dark leaves; flowers intensely, fragrant at night.

LAURUSTINUS (Viburnum Tinus.) Mediterranean region. 8 to 12 feet. A well known and popular shrub planted widely in California as a specimen plant and very fine for hedges. Bears an abundance of white flowers in the winter. Very hardy.

LEPTOSPERNUM LAEVIGATUM. Australia. 20 feet. A tall, gracefully arching shrub; foliage grayish green; flowers white in the greatest profusion. A fine shrub to secure rapid effects; not very particular as to location. Used very extensively in the pioneer



HEATH

work in Golden Gate Park. Does very well in the interior valleys.

LITHRAEA MOLLEOIDES. Brazil. 12 feet. Closely related to the Pepper tree. Leaves are alternate; flowers small, greenish-white which are borne in panicles. Makes a good informal hedge.

LONICERA NITIDA (Upright Evergreen Honeysuckle.) 6 feet. A very beautiful shrub of recent introduction. Its graceful stems with a wealth of tiny, glossy green leaves, white flowers, followed with purple fruit, make it very desirable.

MAHONIA AQUIFOLIUM (Oregon Grape.) Pacific Coast. 6 feet. Shining, purplish, prickly leaves; bright yellow flowers; berries blue-black. A native variety used for cover planting.

MYOPORUM LAETUM. New Zealand. 20 feet. Quick growth; leaves large, glossy, oleander-like; small white flowers, pink berries. Grows well in nearly any soil.

MYRTLE (Myrtus.) Europe. Classic shrub, with handsome, aromatic foliage, and fragrant white flowers, which appear all summer; effective for grouping. We can supply these plants trimmed up like Bay Trees with 1 to 2 feet stems and crowns well shaped and de-

veloped. These make fine specimens for formal planting and when planted in containers are very desirable for porch decorations.

Bush form for hedges or spot plants—

NANDINA DOMESTICA (Japanese Nandina.) 4 to 6 feet. A beautiful upright growing dwarfish shrub with a number of reed-like stems about as thick as a finger and crowned with deep, glossy green leaves and with tall spikes of white flowers. The young growth is prettily tinged with red and in winter assumes beautiful coppery tones. In the fall it is covered with masses of small red and white berries. This elegant, graceful plant does well on the coast and interior.

OLEANDER (Nerium.) S. Asia. 15 feet. We are making a specialty of growing these beautiful plants, and have selected the following fine varieties as the best. Oleanders are particularly adapted to this climate and are deserving of more cultivation than has been given to them; their large deep green foliage, combined with their fragrant flowers of many hues, which appear all summer render them our most attractive and effective ornamental plants.

Album Maximum. A robust grower with good foliage; single white flowers.

Album Plenum. The most perfect white variety; flowers very double in large trusses. Very free flowering.

Atropurpureum Duplex. One of the best doubles; deep carmine, streaked white.

Claude Blanc. Scarlet.

Lillian Henderson. Double white; heliotrope-scented.

Madam Sarah Bernhardt. Immense truss; single, delicate white streaked pink.

Mme. Planchon. Semi-double; rosy lilac.

Mrs. F. Roeding. Originated by us; strong fringed, color of La France rose.

Nankin. Single; salmon yellow; of dwarfish habit; best yellow.

Nankin Variegated. Leaves beautifully variegated; flowers double; light pink.

Purpureum. Single; deep carmine-crimson, shaded maroon.

Sister Agnes. Very large truss; single; pearly white; very free blooming.

Splendens Giganteum. Double rose; very fragrant; largest of all Oleanders; blooms all summer.

PITTOSPORUM. Very bright foliaged plants either growing compact with spreading branches or with an erect upright habit. They are all very ornamental and their attractive colors combined with the fact that some of them are very free flowering, causes them to be in demand for grouping, hedges and for lawn ornamentation.

Phillyraeoides. Australia. 30 feet. Slender, graceful habit like weeping willow; flowers yellow.

Rhombifolium (Queensland Pittosporum.) 20 feet. An ornamental tree suited for avenue planting. Flowers white and fragrant followed by yellow berries persisting all winter.

Undulatum (Wavy Leaved Pittosporum) Australia. 10 feet. Deep green, glossy leaves; flowers intensely fragrant at night.

Tobira (Japanese Pittosporum.) 10 feet. Low growing shrub, dark green leaves; fragrant flowers; pure white.

Tobira Variegatum (Variegated Japanese Pittosporum.) 4 feet. Same habit as the preceding; foliage margined white.

PLUM NATAL (*Carrisa Grandiflora*.) S. Africa. 20 feet. A striking flowering shrub. Flowers have a strong Jasmine odor, succeeded by scarlet edible fruits; foliage glossy green.

POLYGALA DALMAISIANA. S. Africa. 4 feet. A very free blooming plant with rosy pea-shaped flowers completely enveloping it during the entire summer. The odd color and shape of the flowers and its free blooming make it very attractive. It will stand considerable frost.

PRIVET EVERGREEN (*Ligustrum*.) Ornamental shrubs or small trees, with shining green leaves and small, whitish flowers, followed by black round berries. Fine for tall hedges.

Japonicum (Japan Privet.) Japan. 15 feet. Glossy, dark, leathery leaves. White flowers in clusters; purplish berries.

Nepalense. Himalaya. 10 feet. An exceedingly strong, upright grower; light green leaves. Well adapted for hedges.

Reevesi (Reeves' Privet.) Small shrub, very small light green leaves; flowers white in sprays. Excellent for either hedge or specimen plant.

Robusta Variegatum. Rapid growth; rich green leaves beautifully variegated with yellow.

Sinense (Chinese Privet.) 10 feet. Slender spreading leaves shining dark above, light beneath; bluish black berries covered with bloom.

California (*L. Ovalifolium*.) Japan. 15 feet. A pyramidal shrub with bright green, narrow leaves; producing white flowers in June.



OLEANDER

RAPHIOLEPIS JAPONICA (*R. Ovata*.) Japan. 10 feet. Compact growing shrub; dark green leaves; white flowers in summer, followed by black berries.

RHAMNUS ALATERNUS. Europe. 20 feet. Very hardy shrub, with smooth, shining, green leaves and short racemes of small, greenish flowers.

Alaternus Variegata. Same as the *Alaternus* except that the leaves are variegated.

ROSEMARY (*Rosemarium Officinalis*.) Mediterranean region. 6 feet. Small growing shrub. Leaves are long and highly aromatic. Flowers lavender color and very fragrant.

STRAWBERRY TREE (*Arbutus Unedo*.) Europe. 10 feet. Foliage dark green, peculiarly beautiful in the fall, when the tree is covered at once with blossoms and ripe fruit, which is edible; identical with strawberries.

TEUCRIUM. 8 feet. Hardy plants with aromatic foliage; suitable for garden or rock work.

Fruticans. S. Europe. 5 feet. Suitable for dry locations; leaves ovate, flowers blue. Has long blooming season.

CLIMBING AND TRAILING PLANTS

This list comprises all of the best deciduous and evergreen climbing and trailing vines. No home is complete without a few climbing vines to shade the porches and pergolas. Also these vines may be used to splendid advantage as screens to cover unsightly views and add wonderful attractiveness as climbers on old brick walls and elsewhere. The English Ivy is especially desirable for a division fence and for rock work.

AKEBIA (*Lobata*.) Graceful, hardy climber with twining stems. Very desirable and does well in exposed situations. Flowers purple, followed by showy purple fruits.

Quniata (*Five Leaved Akebia*.) Japan. One of the hardest; small, deep green foliage; violet-brown flowers; fruit dark purple.

AMPELOPSIS. Hardy, deciduous and evergreen tendril creepers; fine for covering stone walls, chimneys and fronts of houses.

Quinquefolia (Virginia Creeper.) Eastern U. S. Common American Ivy; luxuriant foliage, assuming gorgeous colors in autumn.

Veitchi (Boston Ivy.) Japan. Leaves glossy green; glorious autumnal coloring; flowers small; dense clusters of deep blue berries.

Engelmanni. Shorter joints and more rapid growth than *Quinquefolia*.

Henryana. A remarkably vigorous grower, with large, peculiarly variegated foliage.

BIGNONIA. Beautiful plants with large, showy flowers of the most delicate shades and colors.

Capreolata (Cross Vine.) Eastern U. S. Very vigorous grower; flowers extra large; beautiful shade of yellowish red; deciduous.

Cherere. S. America. Flowers 4 inches long; blood red, but yellow at base; one of the finest; evergreen; will not withstand much cold.

Grandiflora (Trumpet Vine.) Japan. Strong climber; large, orange scarlet flowers; deciduous foliage.

Tweediana. S. America. A rampant grower, clinging; small evergreen leaves; flowers canary yellow; trumpet shaped. Good for covering walls.

Venusta. Brazil. Vigorous grower; large, deep orange-colored flowers; will not withstand very much cold; evergreen.

BOUGAINVILLEA. S. America. A very showy class of climbers, requiring some protection during winter, in the interior. Grows to perfection in many localities in Southern California.

Glabra Sanderiana. Evergreen climber; deep rosy flowers in abundance.

Spectabilis. Leaves large, bright green; flowers rosy magenta, of a lighter color than the preceding; very much showier.

CLEMATIS. Vigorous deciduous climbers; do best in light, loamy, well-drained soil.

FICUS REPENS (Climbing Fig.) Japan. Evergreen climber; small, roundish, dark green leaves; attaches itself to walls like ivy.

Pumila Minima. This variety makes a short, compact growth, suitable for climbing low heights. Excellent for hanging baskets and window boxes.

HONEYSUCKLE (*Lonicera*.) Comprise a number of well-known, hardy, climbing vines.

Aureo Reticulata. (Variegated Leaved.) Japan. Flowers yellow; fragrant; leaves netted and veined clear yellow; evergreen.

Chinese (*L. Standishti*.) Half Evergreen, flowers white and pink; fragrant.

Gigantea Superba. S. Europe. Very vigorous grower, with large, downy leaves.

Halliana Japonica (Japanese Honeysuckle.) Rampant evergreen climber; dark green, ovate leaves; flowers fragrant, white, changing yellow.

Periclymenum (Woodbine Honeysuckle.) Asia. Flowers yellow, blotched red above; very fragrant; blooms all summer.

IVY (*Hedera*.) Europe, Africa and Asia. The Ivy is a very valuable plant for covering walls, trunks of trees, for screens, covering walls of cool green-houses and for hanging baskets. It makes a handsome evergreen carpet under trees and may be used to advantage for borders of shrubberies. Its flowers are inconspicuous but there are but few evergreen, climbing foliage plants that will thrive under as many uncongenial conditions as it will.

Canariensis. Rapid and luxuriant grower. Leaves large, bright green. A fine variety.

English (*H. Helix*.) Large, thick shining, leathery leaves.

Maculata Major. Large leaves, spotted and striped yellowish white.

Maderienseis Var. Leaves edged white.

Raegnneriana. Handsome and distinct; leaves large, dark green, leathery.

Variegated (*H. Variegata*.) Form of "Common English Ivy." Bright green leaves, margined and blotched, creamy shades.

JASMINE (*Jasminum*.) These are very interesting plants. Very graceful, and their mass of showy flowers, which in some varieties push out the full length of the stems, makes them very attractive.

Gracillimum. Borneo. New evergreen Jasmine; clustered flowers pure white.

Grand Duke. Flowers large, double, white, fragrant.

Grandiflorum (Catalonian Jasmine.) India. Free-blooming; flowers pure white, star-shaped, fragrant; foliage delicate; evergreen.

Nudiflorum (Naked Flowered Jasmine.) China. Drooping branches; enveloped with bright yellow flowers in winter before leaves appear.

Officinale (True Jasmine or Jessamine.) India. Slender-growing vine; produces abundance of snow-white, fragrant flowers all summer. The foliage is glossy and clean.

Primulinum. China. New Variety; same as above, but flowers are fully double the size.

Revolutum (Italian Yellow Jasmine.) Asia. Vigorous; rich yellow flowers all summer. Leaves thick, glossy and evergreen.

LANTANA SELLOWIANA (Weeping or Trailing Lantana.) S. America. Pretty trailing variety; flowers rosy lavender, produced freely.

MUEHLENBECKIA COMPLEXA (Wire Vine.) New Zealand. Very rapid and showy climber; flowers small, hick waxy white, followed by transparent, glistening, icicle-like fruits.

PASSION VINE (*Passiflora*.) The Passion vines are all strong growing evergreen climbers with large, yellowish green leaves and brilliantly colored flowers, some varieties maturing their fruits when grown out of doors and adding to the brilliancy of the plant. They are of exceedingly rapid growth and are well adapted for growing on old-tree stumps, covering walls or buildings. They always excite admiration when in bloom.

Coerulea. Brazil. Vigorous; hardy; flowers quaintly scented purple at bottom, white in middle, blue at ends; fruit yellowish.

Pink (Tacsonia Mollissima.) S. America. Flowers rose color; nearly 3 inches across.

PLUMBAGO. S. Africa. Very free blooming; can be trained as a spreading shrub.

Capensis. Flowers azure-blue, color most unique.

Capensis Alba. Pure white. Form of above.



THE PASSION VINE

SMILAX (Asparagus Medeoloides.) S. Africa. Climbing perennial, prized for its foliage and twining habit. Flowers small greenish white, fragrant.

SOLANUM JASMINOIDES (Potato Vine.) S. America. Rapid grower; dark green leaves; flowers white, yellow center.

SOLLYA HETEROPHYLLA (Australian Blue Bell.) Hardy evergreen climber; producing numerous brilliant blue, bell shaped flowers one-half inch long. Very graceful.

TECOMA. Beautiful, showy climbing plants, resembling Bignonias.

Australis. Australia. Rapid grower; elegant, thick, green foliage and white flowers in greatest profusion make it very desirable.

Capensis (Cape Honeysuckle.) S. Africa. Flowers orange-red, about 2 inches long, in terminal racemes.

Jasminoides (Australian Bower Plant.) Bright glossy leaves; white flowers, shaded deep purple at throat.

Jasminoides Alba. Australia. Very rare; similar to Jasminoides, but with white flowers.

VIRGINIA CREEPER. See Ampelopsis Quinquifolia.

VITIS (Evergreen Grape.) S. Africa. Strong grower and prized for its large, round, evergreen leaves. Not very hardy.

WISTARIA. Japan and China. One of the most graceful of climbers; a quick, rapid, vigorous grower; it is surpassed by no plant for covering walls or piazzas, and this, combined with its rich, pendulous panicles of pea-shaped flowers appearing in the spring in great profusion renders this one of the most desirable of deciduous climbing plants.

Chinese Purple (W. Chinensis.) Flowers pea-shaped, in pendulous clusters a foot long.

Chinese White (W. Chinensis Alba.) Chinese variety; pure white.

PALMS

No plants are more decorative, for indoors or out. The smaller and more tender varieties "set off" interior decorations, while the larger and hardier varieties are invaluable for garden, lawn and avenue. We carry a large stock in boxes, tubs and cement pots, which have been taken from the open ground and are well established. These can be used either for porch decorations or planted out in the open. Such plants give an immediate effect, and never go back, when transplanted.

All marked with an asterisk (*) are for indoors and conservatory decoration.

CHAMAEROPS (Trachycarpus.) Hardy fan-leaved palms, with dark, hairy trunks, and very slender leaf stalks.

COCOS. Probably the most graceful of Palms; the type includes the Coconut of Commerce. While the Australis is very hardy the Plumosa is somewhat tender and should only be planted out in very mild climates.

Australis (Pindo Palm.) Paraguay. 15 feet. Slow-growing, graceful, hardy; leaves silvery green. Fine for small gardens.



COCOS AUSTRALIS

***Plumosa.** Brazil. 40 feet. A quick grower; slender, smooth trunk; plummy, graceful leaves. Very extensively used in the southern part of the state for avenue planting.

CYCAS REVOLUTA (Sago Palm.) Japan. 10 feet. A magnificent plant; many beautiful, pinnate, dark green leaves, uncurling from

the top of the stem like ostrich feathers. These Palms are grown in pots and tubs only; quotations are based more on the number of fronds or leaves than the size of the container.

ERYTHEA. These beautiful and very hardy palms have never received the attention they are entitled to, no doubt because they are so little known. They are very hardy, graceful and are worthy of wide dissemination.

Armata (Blue Palm.) Lower California. 40 feet. One of the most graceful and striking of Fan Palms; color of leaves gives the plant a silvery blue hue. Quite distinct and hardy.

Edulis (Guadalupe Island Palm.) 50 feet. Like California Fan Palm; stem slender, graceful; leaves deep green, no filaments.

KENTIA (Howea.) Lord Howe Island. More extensively used for house decoration than any other Palm. Their stateliness and graceful, drooping foliage make them invaluable. These palms are grown in tubs and pots only and the prices are regulated by the number of leaves the plant contains, as well as the height. For extra large specimens, write for price on size desired.

***Balmoreana (Curly Palm.)** Valuable for house; elegant, pinnate leaves, stems gracefully arched. Large sizes are specimen plants.

***Forsteriana (Thatch-Leaf Palm.)** Robust growth; for house culture only. Large sizes are specimen plants.

PHOENIX. It is needless to say that there are few palms which have done more to add to the semi-tropical appearance of our landscapes than this majestic family of palms. Their massive trunks with their ascending, arching and pendulous pinnatifid leaves causes them to excite admiration wherever seen.

Canariensis (Canary Island Palm.) 40 feet. Handsomest of hardy palms; leaves pinnate, deep dark green; effective for lawns.

SABAL (The Cabbage Palms.) A very hardy, graceful family; not very particular as to soils.

Adansoni (Dwarf Palmetto.) South U. S. 6 feet. Leaves dark, rich green; smooth-edged stems. Flower spikes rise 6 to 7 above leaves. Withstands temperature of 10 degrees Fahrenheit.

WASHINGTONIA. Tall-Growing, fan leaved varieties, native to California and Northern Mexico.

Filifera (California Weeping Palm.) 80 feet. Trunk attains diameter of 4 feet; leaves fan-shaped, with numerous divisions and whitish filaments. Petioles stout, smooth, 5 to 6 feet long, margined with hooked spines.

Robusta (W. Gracilis or Sonorea.) California., 100 feet. A distinct type; leaves drooping, much greener than preceding and with fewer white filaments. Petioles more heavily spined; much more rapid grower than *W. Filifera*; trunk much more slender than that variety.

AGAVES, DASYLIRIONS DRACAENAS, YUCCAS BAMBOOS

AGAVE AMERICANA (Century Plant.) Tropical America. 6 feet. The well-known "Century Plant;" glaucous green leaves. Not difficult to grow, sandy loam being the best soil to use.

Americana Variegata. Tropical America. 6 feet. Variegated form of preceding; leaves edged rich yellow.

DRACAENA, AUSTRALIS (Cordyline Australis D. Indivisa.) New Zealand. 20 feet. Fine avenue and street trees for the coast; do not do well in the interior.

DASYLIRION. Mexico. Very ornamental desert plants, with slender spiny leaves; flowers in tall, dense spikes.

NOLINA PARRII. Mexico. 20 feet. Like Dasylyrion, except their leaves are unarmed.

YUCCA. Very effective palm-like plants, with spikes of white flowers; require little care once established.

Filamentosa (Adam's Needle.) Southeast U. S. Compact grower; dark green leaves and majestic spikes of yellowish white flowers.

Whipplei. California. Very fine; has a flower-like stem 8 feet high.

BAMBOOS

Very useful and ornamental; they seem to do well in all reasonably good soils, and should be planted by every farmer. Decorative house plants, fine for lawns or groupings. Whenever used, they should be given warm, rich soil. All varieties respond quickly to good treatment.

Bambusa Alphonsei Karri. Japan. 10 feet. Yellow and green stripes on stem. Very ornamental.

Bambusa Aurea Striata. Japan. 10 feet Dwarf, highly ornamental. Plant bushy with yellow variegated leaves.

Bambusa Henonis. (Volatile Bamboo.) Japan. 15 feet. Thick and bushy. Excellent wind-break; feathery foliage or graceful, arching canes.

Bambusoides. 10 feet. Slender yellow stems; leaves bright green. Rare.

Phyllostachys Quillioi (Giant Bamboo.) Japan. 75 feet. Stems 4 to 5 inches at base; leaves largest of all. Leaves dark green, often spotted brown, glaucous on the under side.

DECORATIVE BEDDING AND BORDER PLANTS

AMARYLLIS (A. Belladonna) Belladonna Lilly. Cape of Good Hope. Leaves are strap shaped, growing during the winter months. In early summer they die back and the flower stock appears, attaining a height of about 2 feet. The flowers are tubular, color pink and are very fragrant.

ASPIDISTRA LURIDA. Foliage plant; long dark green leaves; odd purplish flowers.

BANANA, ABYSSINIAN (Musa Ensete.) Magnificent foliage plants; very rapid growth.

ASPARAGUS (Hardy Ferns) Sprengeri. Useful for decorative purposes; white flowers; red berries; fronds rich green, valuable for cutting, remaining fresh for weeks; an excellent house plant.



BOSTON FERN

CARNATIONS (Dianthus Caryophyllus.) The exquisite and free blooming quality of these plants keeps them in popular favor. We offer only the best sorts. After October first only large potted plants ready for winter bloom available. The very best mixed varieties.

CHRYSANTHEMUMS. Careful attention is being given to the culture of these beautiful winter blooming plants. They will thrive in almost any soil. Our collection comprises some of the best varieties. List will be furnished on application.

(Will Bloom this Season)

CYPERUS ALTERNIFOLIUS (Umbrella Plant.) Erect, jointless stems; long, narrow leaves, umbrella-shaped, require plenty of water.

DAISY, ENGLISH (Bellis Perennis.) Pretty plants; numerous white to pink flowers, on stems 6 inches long.

FERNS. We offer a complete list of the best varieties of these graceful, delicate foliage plants, all suited for pot and hanging basket culture. Prices vary according to the quality and number of fronds per plant, as our stock is constantly changing we cannot very well enter a list, but will gladly advise what we have and quote prices upon request.

FRAGARIA CHILENSIS (Sand Strawberry.) A fast growing native plant with small dark green leaves and white flowers. An excellent ground cover requiring very little water. Grows well even on poorest of soils.

GERANIUMS, Single, Double and Ivy-Leaved. We have used the utmost care in the selection, limiting our list to improved types. Assorted varieties.

HELIOTROPE (Heliotropium.) Rich, fragrant flowers; dark green leaves. Assorted varieties.

LANTANAS. The various varieties we offer of these fine bedding plants are the new and improved sorts. The flowers are much larger than the older sorts and the plants have a more compact growth. Their usual height is about 12 to 20 inches.

Camara Amiel. Orange-red. One of the very best, also the Sellowiana, Lavender, were both planted on the grounds occupied by our new offices; their rapid growth and wealth of bloom borne throughout the entire season have been a source of admiration to all who have seen them.

LAVENDULA VERA (Lavender.) The true sweet lavender. Fragrant blue flowers. July and August.

MARGUERITE (Chrysanthemum Frutescens Paris Daisy.) We grow both the white and yellow varieties.

NEW ZEALAND FLAX (Phormium Tenax.) Large, erect, dark green leaves, with narrow, reddish brown margin.

PHILODENDRON BINPINNATIFIDUM Magnificent foliage plant. Leaves dark, rich green color and more or less notched at the sides. A fine house plant or for conservatory decoration.

PHLOX. Among the hardy perennial plants there is no class of more importance that the Phlox. They succeed in almost any soil and bloom from early spring to late in the fall. Their wealth of colors makes them prized in garden as well as landscape work. For a reasonable amount a fine collection of the plants can be secured. The best selected varieties in scarlet, white, orange, red, purple, salmon, pink and variegated.

PRIMROSE (Primula Obconica.) Free flowering; dark green foliage, stems of large flowers, varying from white to crimson.

ROMNEYA COULTERI Matilija Poppy (California Tree Poppy.) Adapts itself to a wide range of locations. One of the most beautiful of the numerous list of native California plants. The petals are of the purest white, the stamens in the center being a rich yellow. Very fragrant and blooms continuously all summer.

SANSEVIERIA (Zeylonica.) Leaves 1 to 3 feet long, sword-shaped; variegated with grayish white cross markings; flowers greenish white.

SANTOLINA INCARIA (Lavender Cotton.) Stands extreme drought and cold; valuable for borders; foliage silvery.

SHASTA DAISY (Chrysanthemum Maximum.)

THYME (Thymus.) We grow the common Thyme, with plain green foliage, and also the variegated variety.

TRADESCANTIA (Wandering Jew.) Assorted varieties; fine for hanging baskets, jardinières, and vases.

VERBENA. The following varieties we offer are all mammoth type of flowers, producing large heads far superior to old sorts; Red, pink, purple, and mixed.

VIOLET (Viola Odorata.)

California. Single, blue violet, profuse bloomer, very fragrant.

Giant. Very large, blue.

Giant Prince of Wales. Largest of all. White violet.

Mary Louisa. Very pretty violet.

Princess de Gales. Single, rich violet blue, blooms large, borne on long stems; fragrant.

BULBS AND TUBEROUS ROOTED PLANTS

CALLA LILY (Alba Maculata.) Profuse bloomer; pure white flowers.

CANNAS. Very attractive plants with large green leaves, often shaded with red and crimson. Flowers in a great array of colors and appearing from spring until fall. For producing tropical garden effects and for borders they are invaluable. Out of the many hundreds of varieties introduced in recent years, we have only selected those which are typical of the improved sorts. Those who order from us will, we are quite sure, commend our selection. Our trial grounds were a mass of beauty. You will not be disappointed. Many of these are equal to the rare sorts sold in the east up to \$5.00 each.

DAHLIAS. The Dahlia is one of the most satisfactory flowers and not being particular as to soil will often do very well under adverse conditions. They respond readily to good treatment and will produce a wealth of bloom in return. A medium, light, loamy soil that is well drained is most suitable. Stable or barnyard manure should be worked into the soil during the fall and winter months; they should also be fed some fertilizer when the plant first begins to bud. Do not water very much until the plants are in bud. This is especially true in the interior valleys in this state.

Any open situation is favorable for the Dahlia. Tubers should be laid flat four to six inches from the surface (do not stand on end.) The soil over sprout should be kept well cultivated.

The list of varieties is too long to place in this book and would only serve to confuse the purchaser. If you will kindly tell us for what purpose you wish to use the plants and the base color desired we will gladly select the very best varieties suitable. Colors: dark and light reds, pink, rose, cream, straw color, white, orange, lemon and yellow.

IRIS GERMANICA (German Iris.) Hardy, early blooming; large, ornamental flowers of rich colors; early May.

Kaempferi (Japanese Iris.) The well-known Japan "Flag," many colors. Flowers sometimes measure 10 to 12 inches across.

Stylosa. Imported by us from Holland. This is a winter-blooming iris. The blue and white types are very beautiful and are particularly valuable because of being in bloom when no other flowers are to be had.

Summer Flowering. Purple. Splendid growers. Best summer blooming iris.

ROSES



WHAT IS MORE BEAUTIFUL THAN THE ROSE

"The Rose! 'Queen of flowers,' chief favorite of man since Eden was. Thou who graced the gardens of Babylon or lent your fragrance through the palaces of Cleopatra—beloved of old, yet ever new; admired by the young; cherished by the aged, and adored by all—art with us ever, a pleasure to our childhood days; a solace in reclining years; an inspiration in happiness, sorrow or suffering, a last tribute of sympathy which passes with us to the grave."

Caring little for location or environment, it is found, either in its simplicity or its grandeur, from the frigid plains of Siberia to the balmy slopes of Japan, from America to Africa, and even to the arctic shores of Iceland. But nowhere in all the world is it found in such luxuriant beauty as in California.

Countless varieties, single and double flowered, showing every color of the rainbow, with all the intervening shades and variations that the mind and ingenuity of man could contrive have been produced until we have arrived at a point where adequate words are scarcely found to properly portray their wondrous beauty. Each season new varieties are introduced, although, many of the good old favorites are always popular.

In making up our list of roses, we have not attempted to give all the known varieties, but have carefully selected only the best and unless they possessed marked features of merit they were discarded. They have been propagated in the open field, insuring strong roots and robust plants.

While the rose will grow almost wherever planted—to obtain the best results, it should not be placed in the lowest spot in the garden or near trees, neither is it necessary to have unbroken sunshine all day, especially where the dark red varieties are located. They do best in locations where the soil is deep and fertile, well drained and well pro-

TECTED FROM WINDS.

They will thrive in any good garden soil but a deep mellow, well manured soil with a permeable subsoil will best produce a sturdy growth and an abundance of bloom. Like all hardy flowers they rejoice in rich well drained soil. Most of the Hybrid Perpetuals do best in rather heavy loam, while the sandy soils are often preferred for the culture of tea roses.

PLANTING. For the best results one should trench and manure the ground some weeks previous and the roses should be planted immediately upon their arrival. Dig holes a foot or more square and of such depth that the junction of tops and roots will be about two inches below the surface. This prevents suckers. The roots may be dipped in a pail of water before planting, carefully spread out and covered with a few inches of fine soil. This should be trodden in and the hole then filled with ordinary soil.

PRUNING. There is only one absolutely unalterable rule referring to the care of roses, which reads, "NEVER ALLOW ROSES TO GO UNPRUNED." To lay down rules of pruning for the uninformed to strictly follow, would indeed be presumptuous, for no two classes—yes, hardly any two bushes are pruned exactly alike.

At planting time, which in California is between December 1st, and April 1st, the plants should be cut back leaving three to six inches of the green wood or top, with all light branches thinned out. The sturdy strong limbs remaining are to form the framework of the bush. It is to be understood that the tea roses and roses of kindred classes do not require as severe pruning either at planting or in after years, as do the Hybrid Perpetuals and sturdy growing classes.

The first season, preferably during the winter or dormant period, thin out to three

branches and shorten them in about two thirds of their length, and should remaining laterals be over-crowded, they should be thinned out or shortened. If this plan is followed out the bushes will present the appearance of deer antlers. In the following seasons thin out and cut back to prevent over crowding laterals which would result in dead wood and lack of blooms. The same rules apply to Climbing varieties, judgment being used in the pruning.

Tree roses are handled much the same as bush roses, except one must bear in mind that the trunk of the tree is not the same class as the top, hence pruning should not be too severe for fear of losing the entire head of the tree.

WINTER PROTECTION. In the mild climate of the Pacific Coast and extreme south no protection is needed. In colder climates for tender sorts, we advise mounding up the dirt around the base of the bush about six or eight inches, after heavy frosts or first freezing weather. In addition a fork full of straw manure should be placed well into the branches to prevent injury when weather gets very cold.

CLASSES

Abbreviations opposite each variety of the following list indicate the class to which it belongs.

Ban., Banksia; Ben., Bengal; Bour., Bourbon.

H. B., Hybrid Briar; H. N., Hybrid Noisette.

H. P., Hybrid Perpetual; H. T., Hybrid Tea.

Misc., Miscellaneous; M., Moss; N., Noisette.

Poly., Polyantha; Pr., Prairie; Per., Pernetiana.

Rug., Rugosa; T., Tea; Wich., Wichuriana.

H. W., Hybrid Wiscuriana.

In listing our roses this season we have arranged the varieties under the commonly recognized base color, such as red, pink, yellow and white, each separate variety is fully described setting forth the varying shades.

ROSES

VARIETIES COMMONLY RECOGNIZED AS —RED BUSH ROSES—

AMERICAN BEAUTY. (HP) Flowers large very double, beautiful in form, with a delightful fragrance, similar to the LaFrance, color deep rich rosy crimson, blooms borne singly on long slender stems, an excellent variety for propagating under glass; also good for general planting.

BABY RAMBLER. (Poly.) A crimson dwarf bedding rose, does not mildew and blooms all summer until late frosts. It has a beautiful, glossy, disease resisting foliage. Does not climb but forms a compact bush about one foot high. Suitable for the edges of walks and flower beds.

BLACK PRINCE. (H. P.) Dark crimson, nearly black. Flowers globular, of good size and lasting. Similar to Prince Camille de Rohan.



DEAN HOLE

DEAN HOLE. (H. T.) A beautiful, very double rose of silvery carmine shaded salmon. Buds are enormous and very long pointed, opening into a mammoth flower of great substance. It is absolutely distinct, has won many prizes and is still keeping up its reputation as a wonderful rose. It is a prolific bloomer and seems free from mildew.



PINK CHEROKEE



GENERAL McARTHUR



THE LYON

ERNA TESCHENDORFF. (Dwf. Poyl.).. Flowers are a baby velvet crimson with pink at base of petals, and have a permanency of color not found in most roses of this class. Free and abundant bloomer with beautiful bronze green foliage.

FRANCIS SCOTT KEY. (H. T.) Large, very double, cherry red rose with beautifully recurved petals. The massive blooms are produced on long, stout canes.

GENERAL JACQUEMINOT. (H. P.) Brilliant crimson. Flowers large, full and very fragrant. Magnificent buds, large and effective. It is adaptable to many soils and climatic conditions. It is esteemed very highly.

GENERAL MacARTHUR. (H. T.) Scarlet crimson. Probably greatest favorite of all crimson roses and has frequently carried first honors at rose shows. It is hardy and unexcelled as a garden variety. Rose shows best when about half opened for it is then at its highest point of brilliancy and if protected from the hot rays of the afternoon sun, it retains its color until the petals are dropped. Possesses great fragrance of rather strong tea character. It is practically immune from mildew and blackspot, and will do best in rather heavy loam. It is adapted to the cool climates as well as the warmer ones.

GRUSS AND TEPLITZ. (H. T.) Rich scarlet overlaid with crimson, unsurpassed by any other shade particularly in the spring. The moderately full cup-shaped flowers are usually borne in clusters at the end of long stems. It is a wonderfully free bloomer and an extremely vigorous grower. It is the very best rose for massing and hedging, producing an abundance of color with its beautiful plum shaded foliage. It is the reddest of roses, being a cross between Papa Gontier and an unnamed seedling.

GLORIE DE CHEDANE GUINOISSEAU. (H. P.) Bright vermillion red shaded velvety crimson. This rose is considered by some judges as superior to Ulrich Brunner. It is probably as good and under some conditions better. In any event it is a splendid rose of large size, brilliant color and beautiful form.

HOOSIER BEAUTY. (H. T.) The flowers are of a dark glowing maroon with darker shadings, reverse of petals show silver sheen texture like velvet. Double, very pretty in the bud, opens showing yellow stamens. Deliciously fragrant. Leaves dark green, flowers borne on long stiff thorny stems. Strong grower, free and continuous bloomer.

HUGH DICKSON. (H. P.) Brilliant crimson tinted scarlet. Flowers large, finely formed and fragrant. Petals slightly cupped and reflexed. Received Gold Medal of National Rose Society of England also awarded the Nickerson prize as best red rose for general garden purposes.

MADAM EDOUARD HERRIOT or Daily Mail. (Pern.) Superb coral red shaded yellow at base, passing to shrimp red. (Pernet-Ducher.) At first sight it seems artificial. Flowers large and semi-double. Buds perfectly formed and magnificently colored, continuous bloomer, flowers do not last long but are always coming. Called the Daily Mail as a result of winning the Gold cup offered by that paper for the best new rose at Int. Hort. Expo. London. Also received Gold Medal of National Rose Society of England. Produces a profusion of exquisitely formed and sweet scented buds of reddish copper and coral tints.

MRS. CHAS. RUSSEL. (H. T.) Rosy carmine with scarlet center. One of the very best and of American origin. Color is brilliant and pleasing. Flower is beautifully formed with petals of wonderful substance. Stems could not be better and flowers always come singly.

MARSHALL P. WILDER. (H. P.) Color bright cherry carmine, fragrant, and of good growth with fine foliage. Very good for ordinary planting. Absolutely hardy.

PAPA GONTIER. (T.) A magnificent red tea rose. Rosy crimson with a carmine center, only moderately double and of silken texture. The buds are of good size and fine form. Free blooming and perfectly adapted to California conditions. Delightful fragrance.



LADY HILLINGDON



FRAU KARL DRUSCHKI



CL. CAROLINE TESTOUT

RED RADIANCE. (H. T.) A glowing crimson. It is similar in growth to Radiance, of which it is a sport, except the bright red color. The flowers are perfect in form and are produced on heavy straight canes.

RICHMOND. (H. T.) Vivid crimson scarlet. The buds are long pointed and when half open the coloring is very rich. The color is kept well even in hot weather. The fragrant flowers are produced on strong stems. Elegant foliage.

ULRICH BRUNNER. (H. P.) Bright cherry red. Flowers large, full and globular in form, petals of good substance and shell shaped. An abundant bloomer, upright grower, with bright, healthy foliage. Fragrant. A seedling of Paul Neyron. Not subject to mildew.

VARIETIES COMMONLY RECOGNIZED AS PINK BUSH ROSES

BELLE SIEBRECHT. (H. T.) Bright, rosy pink. The long tapering buds open into large well formed flowers, sweetly perfumed. Very free bloomer. Foliage of glossy leathery texture.

CAPTAIN CHRISTY. (H. T.) Full medium to large flowers with petals of satiny texture, color a peach pink, deepening to a rosy crimson. Blooms practically the entire season. It is a strong grower and has beautiful, dense deep green foliage. A valuable as well as a beautiful rose.

COLUMBIA. (H. T.) A new pink rose which has just been given highest awards out of some seventy new varieties by competent judges at the Portland Test Gardens of the American Rose Society. It is a cross between Ophelia and Mrs. G. Sawyer. The flowers are large and of brilliant pink color, surmounting the long stout canes. A very fine rose.

DUCHESS DE BRABANT. (T.) Soft rosy flesh color changing to deep rose edged with silver. A very charming standard tea rose.

GEORGE ARENDS. (H. P.) Delicate pink. Large handsome rose of solid color and good form. Well known as the Pink Frau Karl

Druschki and although it bears some resemblance in growth and bloom to the famous white rose of this name, it does not look like a sport of that variety. The growth is rampant and could be trained as a climber. The very fragrant flowers are produced on long, thornless stems.

KILLARNEY. (H. T.) Flesh suffused with silvery pink. Petals large and of great substance. Buds long, pointed and very beautiful. Free blooming and fragrant.

KILLARNEY BRILLIANT. (H. T.) Similar to the Killarney except the coloring is a brilliant pink. When shaded it deepens to almost crimson.

LA DETROIT. (H. T.) Shell pink, tinted soft rose, color very pleasing and does not fade. Beautiful both in the bud and when open.

LA FRANCE. (H. T.) Delicate silvery rose shading to pink. Large exceedingly fragrant flowers with a sweetness peculiar to itself, equal in delicacy to a tea rose. One of the best known roses and always popular.

LOS ANGELES. (Hybrid Briar.) Luminous flame pink toned with coral and shaded with translucent gold at the base of petals. Reflex of petals silvery, base creamy orange. This new rose originated in California and is emblematic of the Golden West with the rich flame pink and golden yellow. Buds long and full on fairly long reddish purple stems. Excellent for cutting. Leaves are emerald green.

MAMAN COCHET. (T.) Deep rose pink on outer petals, inner side silvery rose shaded and touched with golden yellow. Exquisitely molded petals recurving as they expand. Being very full they hold their form until withered. Magnificent in every way, except the stems are not quite strong enough to carry such large flowers. In bud resembles Mermet family, being long and shapely and borne on long stiff stems. One of the most popular varieties and known as Pink Cochet. Very hardy and in great demand.



A VASE OF ROSES

MME. CAROLINE TESTOUT. (H. T.) Official city flower of Portland, Ore. Bright satiny pink rose of largest size and beautifully formed. Free blooming, vigorous and fragrant. Best hardy rose. Flowers usually borne in clusters of three or four. Stems and foliage dark green. One of the best Hybrid Teas.

MMLE. CECILE BRUNNER. (Poly.) Beautiful salmon pink flowers produced in clusters, small, daintily formed and delicately colored. Profuse bloomer, admirable in both bud and open flower. Very fragrant.

MRS. JOHN LAING. (H. P.) Soft pink. Flowers beautifully formed, extremely fragrant and borne freely on long stems. As it is scarcely ever out of bloom all summer, it makes a fine bedding rose and is splendid for cutting.

MRS. WAKEFIELD CHRISTIE MILLER. (H. T.) Rosy carmine, outer petals soft pearly blush. Buds and flowers extremely large, borne perfectly erect on grand stems. Petals have the two-toned effect. Bush is healthy and vigorous. A superb new rose and in the opinion of the raisers there is no such attractive piece of coloring among all the roses in cultivation. Blooms are large and retain their colors well in the sun. Bush of good habit.

MRS. GEO. SHAWYER. (H. T.) Bright peach pink, almost solid color. Large, full, well formed and carried on long stems. Well recommended for forcing; also a good rose for cutting.

OPHELIA. (H. T.) Salmon flesh shaded rose with chamois center. A rose that is love-

ly at any stage. The buds and flowers are beautifully formed and colored, enhanced by a rich veining on the petals. Stems are long and carry the flowers erect. Profuse bloomer.

PAUL NEYRON. (H. P.) Dark rose color. Largest rose in cultivation. Handsome, upright grower producing an immense double flower at the end of every long stiff stem. Buds are as large as best American Beauties, even those grown under glass, and are borne in open ground. It far excels the American Beauty as an outdoor variety and is often confused with that rose. Free bloomer.

RADIANCE. (H. T.) Soft rose pink. Flowers are large and double with an exquisite fragrance. Growth vigorous and erect. Good bloomer and well liked.

VARIETIES COMMONLY RECOGNIZED AS WHITE BUSH ROSES

FRAU KARL DRUSCHKI. (H. P.) Sometimes called Snow Queen or White American Beauty. Largest and most popular of the white roses, blooms six inches across not uncommon. The immense buds are egg shaped, long and pointed, opening into a superb beautifully formed, white, waxy petaled rose with out a tinge of color. Growth strong and vigorous with abundant foliage. Hardy. You cannot afford to omit it from your garden.

KAISERIN AUGUSTA VICTORIA. (H. T.) Finest of all cut flowers. Produces blooms of enormous size, white, faintly suffused lemon yellow. Large pointed creamy white buds, strong stems, glossy foliage. Easily the most widely known and popular of the white varieties.

MAMAN COCHET. (WHITE.) Sometimes known as Priscilla. It is a child of Maman Cochet and largest of all Cochet roses. Buds and flowers large and full, creamy white with faint tinge of blush. Excellent for cutting and delightfully tea scented. Like the Maman Cochet the stem is too weak for the enormous flowers; otherwise faultless.

WHITE KILLARNEY. (H. T.) It is a sport of the well known Killarney and very similar except it is more vigorous in growth and resists disease better. Pure white and stays in the bud long. Excellent for cutting.

VARIETIES COMMONLY RECOGNIZED AS YELLOW BUSH ROSES

HARRISON. (Austrian.) Golden yellow, medium size, semi-double. A freer bloomer than Persian. Very hardy. The old Eastern variety.

IRISH FIREFLAME. (I. S.) Old gold flushed crimson. Buds long, slender and spiraled, remaining in shape a long time. Open flowers quite large and have a delightful tea scented fragrance. Foliage rich glossy green, stems long, wiry and violet colored.



Roses are suitable for border and hedges

IRISH ELEGANCE. (I. S.) Irish single rose of apricot shading to bronzy orange and pink. Buds particularly handsome and of little deeper shade than the open flower. Always in bloom.

JULIET. (Pern) "Outside of petals old gold, interior rich rosy red changing to deep rose as flowers expand" (Paul.) The effect is very striking when the bud begins to expand and petals roll back revealing the bright cherry red inside petals against the buff shade of the outside. Very double and fragrant. Flowers mostly in spring and late fall. Bush handsome, growing vigorously and erectly with dark green glossy foliage. Exceedingly thorny. It is susceptible to mildew and should be planted where there is plenty of ventilation.

LADY HILLINGDON. (T.) Deep apricot yellow flower with long pointed buds and remarkably large petals. It never fades and even after the flower is cut the color deepens. The wood and longstems are deep violet, as also the luxuriant foliage is at first, but later it becomes a deep green with a violet hue.

PERLE DES JARDINS. (T.) Deep golden yellow. Bud resembles Marechal Niel, large and full, and of perfect form. It is a good bloomer with an excellent fragrance.

PERSIAN YELLOW. (Misc.) Bright yellow, small and very double. Foliage faintly scented, wood a distinct chocolate brown. Hardy anywhere and needs little pruning, the yellow rose of the East and North, the one seen so frequently on Memorial Day.

SUNSET. (T.) Rich golden amber with ruddy tinge, resembling a splendid sunset.

A sport of Perle des Jardins and an equal in every way of this excellent variety, fragrant and very double.

SUNBURST. (H. T.) Yellow rose with coppery orange shadings. Outer petals lighter. Large, full and of beautiful form. It has a splendid fragrance of the tea character. Plant is a vigorous grower sending up strong canes heavily clothed with handsome foliage.

VARIETIES COMMONLY RECOGNIZED AS RED CLIMBING ROSES

CL. AMERICAN BEAUTY. (Misc.) Rich, rosy crimson. Medium size flowers, possessing rich fragrance, due to its Wichuriana blood, which is also evident in its rich glossy foliage. It is mildew proof. A cross between American Beauty and an unnamed Hybrid climber, but it does not resemble the American Beauty.

CHEROKEE RED. Identical with the Pink Cherokee excepting in color, the inside petals being a brilliant red.

PHILADELPHIA RAMBLER. (Poly.) Improved form of Crimson Rambler. Flowers produced in large clusters which hold their color well, not subject to mildew. It differs from the Crimson Rambler in the following points: Color deeper and more intense, flowers double to the center, very durable and of finest substance, blooms retain their freshness longer and it blooms later.

REINE MARIE HENRIETTE. (H. T.) Cherry red. A great favorite. Flowers large, full, freely borne, attractively colored and fragrant. It would be almost perfect except its tendency to mildew during the early part of the season. A strong grower, red climbing variety and a grand old pillar rose of the south. Flowers are tea scented and are deservedly popular.

VARIETIES COMMONLY RECOGNIZED AS PINK CLIMBING ROSES

CL. BELLE SIEBRECHT. (H. T.) or Mrs. W. J. Grant. Bright rosy pink. The climber is considered superior to the bush type; flowers are colored the same but are fuller and larger. This plant should not be planted in poor soil.

CHEROKEE PINK. (Cher.) Practically the same as white except the flowers are larger and ruddy pink. Single, with a circle of gold stamens.

DOROTHY PERKINS. (Misc.) Shell pink. Plant practically covered in spring with countless dainty pink double flowers. Sweetly scented. Foliage attractive, glossy, not subject to mildew. Noted for its vigorous habit of growth. Attracted attention at the Pan-American Exposition, where a fourteen months old plant produced a show of bloom unsurpassed by any unless it was the Crimson Rambler. Raised from seed of Rose Wichuriana and crossed with Mme. Gabriel Luiz. Large for rose of this class.

CLIMBING CAROLINE TESTOUT. (H. T.) A bright pink. A sport of the same name and identical with its parent. Does not fade. Flower large and fragrant.

CLIMBING MMLE. CECILE BRUNNER. (Poly.) Salmon pink. Flowers are borne so freely as to often hide the bush. Identical with the bush variety, of exquisite form and color. Only climber in the Poly. division that flowers after the main spring crop.

TAUSENDSCHOEN. (Poly.) Delicate pink varying to rosy carmine. Produced in large trusses, fragrant and hardy. Wood brown and thornless. Does not mildew. A stem of this is sufficient for a bouquet.

VARIETIES COMMONLY RECOGNIZED AS WHITE CLIMBING ROSES

BRITISH QUEEN. (H. T.) pure white, buds short pointed, flushed peach but this tint usually disappears as flower opens. Open flowers are particularly well formed, center pointed and outer petals strongly reflexed.

CHEROKEE, DBL WHITE. (Misc.) Sometimes called Fortune's White. Brought from China by Fortune 1850. Pure white flowers

of medium size, very double and borne profusely in spring only. Considered a hybrid between Banksia and Cherokee hence the name, Cherokee Double White.

MAMAN COCHET WHITE. A climbing form of white Maman Cochet. Similar to bush type except flowers may be a trifle larger.

WHITE DOROTHY PERKINS. (Wich. Hybrid.) A new sport of Dorothy Perkins with which it is identical in every point excepting color.

VARIETIES COMMONLY RECOGNIZED AS YELLOW CLIMBING ROSES

MARECHAL NIEL. (T.) Deep golden yellow, immense flowers sweetly scented. Conceded to be the best rose of its color in existence. Particularly attractive when in bud.

YELLOW RAMBLER. (Poly.) Flowers yellow in the bud but nearly white when opened. A tremendous grower. The only yellow hardy climbing rose. Found by test to successfully withstand without protection temperature of zero and below. Flowers Lorne in clusters and have same lasting qualities as Crimson Rambler, remaining in bloom three or four weeks.

SUPPLIES

VALUABLE REFERENCE LITERATURE

California Fruits and How to Grow Them. Seventh edition, revised and extended. A manual of methods which have yielded greatest success. By Edward J. Wickson, A. M. Size of page 6½ by 9½ inches, 513 pages, bound in cloth and fully illustrated. Postage prepaid, \$4.00 per copy.

California Vegetables, in Garden and Field. Fourth edition, revised and extended. A manual of practice with or without irrigation for semi-tropical countries. By Edward J. Wickson, A. M. Size of page, 6 by 9¼, 368 pages, well printed and strongly bound in cloth; illustrated. Postage prepaid, \$2.00.

Farm and Garden Rule Book. By Prof. L. H. Bailey. A new edition of the Horticulturists' Rule Book and Compendium of Useful Information for Nurserymen, Florists, Seedmen, and Fruit-Growers. Size of book, 12 mo., containing 600 pages. Price, \$2.50 postage prepaid.

California Garden Flowers. By Edward J. Wickson. First edition 1915, 262 pages, 5½ x 7½ inches; illustrated; cloth bound. This book aims to tell the beginner in California, whether he be a scholar struggling with his school garden, or a suburban gazing vacantly on his residence lot, or the farm

home maker, who is puzzled to translate his experience with teams, plows and pasture fields into trowels, pruning-shears and lawns, just what to do to make garden soils, grow plants and surround his abode with beauty under the peculiar climatic conditions of California. Price \$1.50 per copy, postpaid.

Roeding's Fruit Growers' Guide. First edition. The illustrations in this book, in many cases, convey the information desired. There are few men in California who have given more thought and who have had a wider experience in diversified horticulture than Geo. C. Roeding. This book contains practical information presented in a clear, concise manner which will be appreciated by the novice as well as the experienced fruit grower. Price \$1.25 per copy, postpaid.

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They will PROTECT your trees from injury of RABBITS, SQUIRRELS, GOPHERS, GRASSHOPPERS, SUNBURN, FROST and BORERS.

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Acacia	42	Elder	41	Phlox	55
Acer	39	Elm	39-40	Phoenix	54
Agaves	54	Erica	49	Phormium	55
Akebia	51	Erythea	54	Phyllostachys	54
Amaryllis	55	Escallonia	49	Picea	46
Ampelopsis	51-52	Eucalyptus	44	Pine	43-45
Angel's Trumpet	46	Eugenia	49	Piaus	45
Apple, Flowering	40	Evergreen Grape	53	Pittosporum	50
Araucaria	42	Evonymus	49	Platanus	39
Arborvitae	43	Fabiana	49	Plum	51
Arbutus	51	Ferns	55	Plumbago	53
Ash	39	Ficus	46	Poinciana	41
Asparagus	53-55	Ficus Repens	52	Polygala	51
Aspidistra	55	Firs	44	Pomegranate	42
Aucuba	46	Forsythia	41	Poplars	39
Australian Blue Bell	53	Fragaria	55	Populus	39
Bamboos	54	Geraniums	55	Potato Vine	53
Banana	55	Golden Bell	41	Priamrose	55
Barberry	41	Golden Chain	39	Primula	55
Bay Tree	43	Gold Flower	49	Privet	51
Beefwood	43	Grévillea	46-49	Punica	42
Belladonna Lily	55	Gum Tree	44	Pyracantha	47
Bellis	55	Heath	49	Pyrus	40
Berberis	41	Hedera	52	Quercus	45
Betula	38	Heliotrope	5	Quince, Flowering	40
Bignonia	52	Heliotropium	55	Raphiolepis	51
Birch	38	Heteromeles	48	Rahmnus	51
Bird of Paradise	41	Honeysuckle	50-52	Robinia	39
Boston Ivy	52	Howea	54	Romneya	55
Bottle Tree	43	Hydrangea	41	Rosmaris	51
Bougainvillea	52	Hypericum	49	Rosemary	51
Boxwood	46	Iris	56	Roses	57-63
Brachychiton	43	Ivy	52	Rubber Tree	46
Breath of Heaven	47	Jasmine	52	Sago Palm	53
Broom	47	Jasminum	52	Salix	40
Buddleia	47	Judas Tree	39	Sambucus	41
Bull Bay	45	Juniper	45	Sand Strawberry	55
Bunya Bunya	42	Juniperus	45	Sansevieria	56
Burning Bush	47	Kentia	54	Santolina	56
Buxus	46	Laburnum	39	Schinus Molle	45
Cabbage Palm	54	Lagerstromia	41	Sequoia	45
California Big Tree	43	Lantana	52-55	Shasta Daisy	56
California Laurel	43	Laurel	46-49	Silk Oak	46
California Redwood	43	Laurustinus	49	Smilax	53
Calla Lily	56	Lavender	55-56	Snowball	42
Camellia	47	Lavendula	55	Snowberry	42
Camphora	43	Leptospermum	50	Solanum	53
Camphor Tree	43	Libocedrus	45	Sollya	53
Canary Island Palm	54	Ligustrum	51	Sorbus	39
Cannas	56	Lilac	41	Spiraea	42
Carissa	51	Lime Tree	39	Spirea	42
Carnations	55	Linden	39	Spruces	46
Carpenteria	47	Lithraea	50	Sterculia	43
Casuarina	43	Locust	39	Strawberry Tree	51
Catalpa	38	Lonicera	50-52	Sycamore	39
Ceanothus	47	Magnolia	45	Symphoricarpos	42
Cedar	43	Mahonia	50	Syringa	41
Cedrus	43	Maple	39	Tamarisk	42
Century Plant	54	Marguerite	55	Tamarix	42
Cerasus	48	Matilja Poppy	55	Taxus	46
Cercis	39	Melia Az. Um.	39	Tecoma	53
Chamaerops	53	Mock Orange	41	Teucrium	51
Cherry	48	Monkey Puzzle	43	Texas Umbrella	39
Christmas Berry	48	Moreton Bay Fig	46	Thuya	43
Chrysanthemum	55	Morus	38-40	Thyme	56
Cocos	53	Muehlenbeckia	52	Thymus	56
Colletia	48	Mulberry	38-40	Thorn	39
Coprosma	48	Musa	55	Tilia	39
Cordylone	54	Myoporum	50	Trachycarpus	52
Cornus	48	Myrtle	50	Tradescantia	52
Coronilla	48	Myrtus	50	Trumpet Vine	52
Cotoneaster	48	Nandina	50	Umbellularia	18-53
Crape Myrtle	41	Natal Plum	51	Umbrella Plant	55
Crataegus	39	Nerium	50	Umbrella Tree	39
Cross Vine	52	New Zealand Flax	55	Ulmus	39-40
Cupressus	43	Nolina	54	Verbenas	56
Cycas	53	Norfolk Island Pine	43	Viburnum	42-49
Cydonia	40	Oak	45	Violets	56
Cyperus	55	Oleander	50	Virginia Creeper	53
Cypress	43-44	Oleaster	48	Vitis	53
Cytisus	47	Paeonia Moutan	42	Wandering Jew	56
Dahlias	56	Palmetto	54	Washingtonia	54
Daisy	55	Palms	53-54	Wild Anemone	47
Dasyliirion	54	Passiflora	52	Willow	40
Datura	46	Passion Vine	52	Wire Vine	52
Deutzia	41	Peach, Flowering	40	Wisteria	53
Dianthus	55	Peony Tree	42	Yew	46
Diosma	47	Pepper Tree	45	Yucca	54
Dogwood	48	Flowering Peach	40		



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