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# TETLEY NURSERIES

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U. S. Department of Agriculture

ESTABLISHED 1900

Head Office: 4344 Market Street

RIVERSIDE, CALIF.



TO HONOR  
 MRS. ELIZA TIBBETS,  
 AND TO RECORD HER GOOD WORK  
 IN PLANTING BY HERSELF IN 1883  
 THE FIRST WASHINGTON  
 NAVEL ORANGE TREES  
 IN CALIFORNIA.  
 NATIVE TO SAHARA BRAZIL  
 PROVED THE MOST VALUABLE  
 FRUIT INTRODUCED THROUGH  
 THE UNITED STATES DEPARTMENT  
 OF AGRICULTURE  
 1920

PARENT WASHINGTON NAVEL ORANGE TREE

## Citrus and Deciduous Nurseries

LOCATIONS

Riverside, California ---- Yuma, Arizona



## GUARANTEE

We shall zealously guard the purity of our stock, and 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 Tetley Nurseries shall be liable only for the sum paid for the stock which may prove untrue, and shall not be liable for any greater amount.

The Tetley Nurseries book all orders with the mutual understanding that same shall be void should injury befall the stock from frost, hail, fire, or other causes beyond our control. All stock is sold F. O. B. Riverside, and travels at purchaser's risk.

Any claim for shortage or anything else must be made within five days after shipment is received.

All freight and express charges are to be paid by the purchaser, unless other arrangements have been made.

A CERTIFICATE OF GENUINENESS AND PEDIGREE WILL BE GIVEN WITH EACH ORDER OF TREES SOLD AMOUNTING TO \$250.00 OR MORE.

This will be in the form of a certificate backed by the Tetley Nurseries, with its long standing and dependable reputation. This certificate will include the following:

1. The variety of seed used for root stock, and where purchased.
2. Seed has been grown in a seed bed ..... years.
3. Seed bed stock was transplanted to the nursery row on a certain date.
4. Stock was budded or grafted at a certain date.
5. Variety and type of bud or graft used, giving pedigreed serial numbers.
6. Date of delivery of trees to the purchaser.
7. Certificate of inspection from the County Horticultural Commissioner's office, specifying that trees are apparently free and clean of all injurious pests and plant diseases.

The Tetley Nurseries are the first to advocate and to put into use such a progressive plan to protect the purchaser and planter.

This guarantee will make your orchard worth \$100.00 more per acre, because of this written certificate of pedigree, for which there is no additional charge.

## PLEASE OBSERVE WHEN PLACING YOUR ORDER

THE ORDER BLANK accompanying this catalogue is for your convenience, and we will appreciate your using it, as it will facilitate the filling of your order. If in doubt as to the method of shipment, it may be left to our judgment.

SHIPPING INSTRUCTIONS AND TRANSPORTATION—Give your nearest railroad station and the method of transportation you want used. Orders of 50 trees or more delivered within a 100-mile radius of Riverside, with our trucks, without additional charge.

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

SUBSTITUTION. Please state when ordering an assortment, whether substitution will be allowed, as we feel at liberty, when no instructions accompany the order, to use other varieties as nearly similar as possible. We never substitute on large orders for commercial planters without consulting the customer.

PACKING CHARGES. We charge for packing charges, only enough to cover the cost of material.

VISITORS. Our nurseries and office are always open to visitors. We are always glad to have interested visitors inspect our stock, which will prove that our products are the best that experience, good cultivation, and favorable conditions can produce.

Address all communications to F. A. Tetley & Son, Tetley Nurseries, Head Office, 4344 Market St., Phone 3345, Riverside, California.







**I**T IS OUR DESIRE in this folder to encourage the planting of better nursery trees. In the first place, great care is exercised in the selection of our root stocks and seeds. Only seedlings of exceptional vigor, possessing characteristics of resistance to diseases common to orchard trees, and adapted to soil and climatic conditions where they are to be planted are used as root stocks. WE CULL OUT 50% OF OUR SEEDLINGS).

We use the regulation standard for certification for citrus seedlings as accepted by the Lemon Men's Club of the California Fruit Growers' Exchange.

"I should think with the method you speak of, of eliminating practically 50% of all the trees and budding only the vigorous stocks, that such stock ought to do well." (Signed) Dr. H. S. Fawcett, Professor of Plant Pathology, University of California.

We use "SUPPLY COMPANY" buds, furnished by the Fruit Growers Supply Company. They are cut back of the fruit from superior record production trees.

A production record of each individual tree in a grove corresponds to the "Babcock Test" for the dairy herd, and the "Trap Nest" for the laying hen. When a superior producing tree is discovered bearing the most desirable type of fruit, selected buds are secured from the stems producing the fruit. This is the best guarantee available for securing uniform high producing progenies.

That there is wide inherited variation in the yields amongst the trees of some of the best citrus groves in the state is demonstrated by individual tree record experiments conducted by Prof. Milliken, formerly with the University Experiment Station, covering a period of three or more years. A part of this report reads as follows:

"Reliable nursery stock today is something very different from what was implied by the term a few years ago. It was not long ago when the nurseryman who took pains to select his buds from a good grove, although he paid no attention to the particular tree from which they were obtained, felt, that he was one of the leaders in the business. Indeed, even now, some nurserymen regard such selection as adequate. In order to see the lack of uniformity of production of some of our

best groves, the chart herewith was made. IT IS BASED ON THREE YEAR RECORDS of the individual tree productions of one of the BEST TEN-ACRE NAVAL GROVES IN SOUTHERN CALIFORNIA."

The trees are grouped in the chart according to their total production in field boxes for the three years, the number of trees in each group being represented by vertical columns.

At the right of the chart, for instance, is one tree which, in the three years, produced forty-six boxes, one tree that produced forty-one, three that produced thirty-eight, and so on. Trees producing twenty-seven boxes are more numerous, there being about seventy trees in each one of these classes. Even in this good grove, however, we find that there are many poor trees, and it becomes evident in looking at the chart that to take no further care in the selection of buds than to take them from good groves is a worthless guarantee that they are of the right stock.

"TETLEY USES NO GUESS WORK"

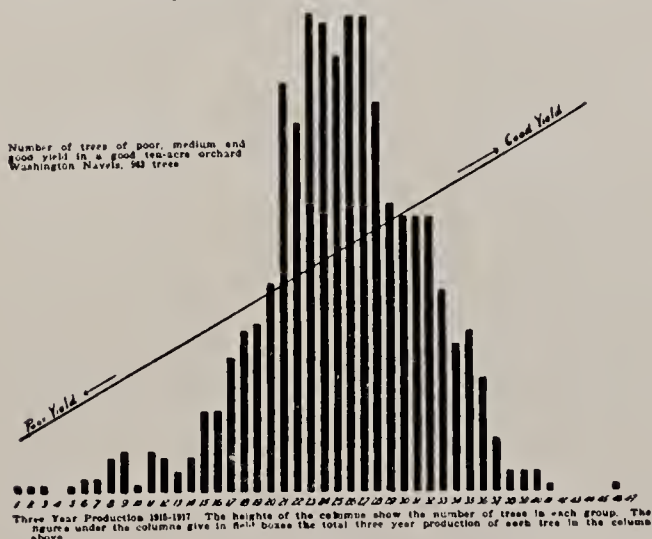
FREQUENCY OF BUD VARIATIONS

In June, 1912, Mr. A. D. Shamel and his associates made a tree census study of a lemon orchard containing about 16,000 trees which were 8 years old. It was found in this work that 3,200, or 20% of the trees in this orchard were of the undesirable shade tree strain. A similar study was made a little later of a 10 acre Eureka orchard 20 years old, from which the buds were secured for the propagation of the larger orchard. It was found that among the 800 trees in this orchard about eighty, or 10% were of the shade tree strain. In seeking an explanation for the increase in percentage of the shade trees in the younger orchard, it was learned from the propagator that, owing to the large number of sucker branches formerly used for propagation purposes, the rapid-growing and non-fruit bearing limbs, in the shade trees as compared with the number of such branches in the productive strain trees, a larger proportion of the bud wood used for the propagation of the younger orchard had been cut from the shade trees than from the productive trees. Inasmuch as no distinction was made between the shade trees and the productive trees, and that sucker growth was considered at that time to be equally good as fruit bearing growth for propagation, it was natural that the bud cutters should secure a larger proportion of bud wood from the shade trees than from productive trees.

Here are two authentic experiments conducted in average California groves upon a scientific basis, that ought to make every citrus grower sit up and take notice.

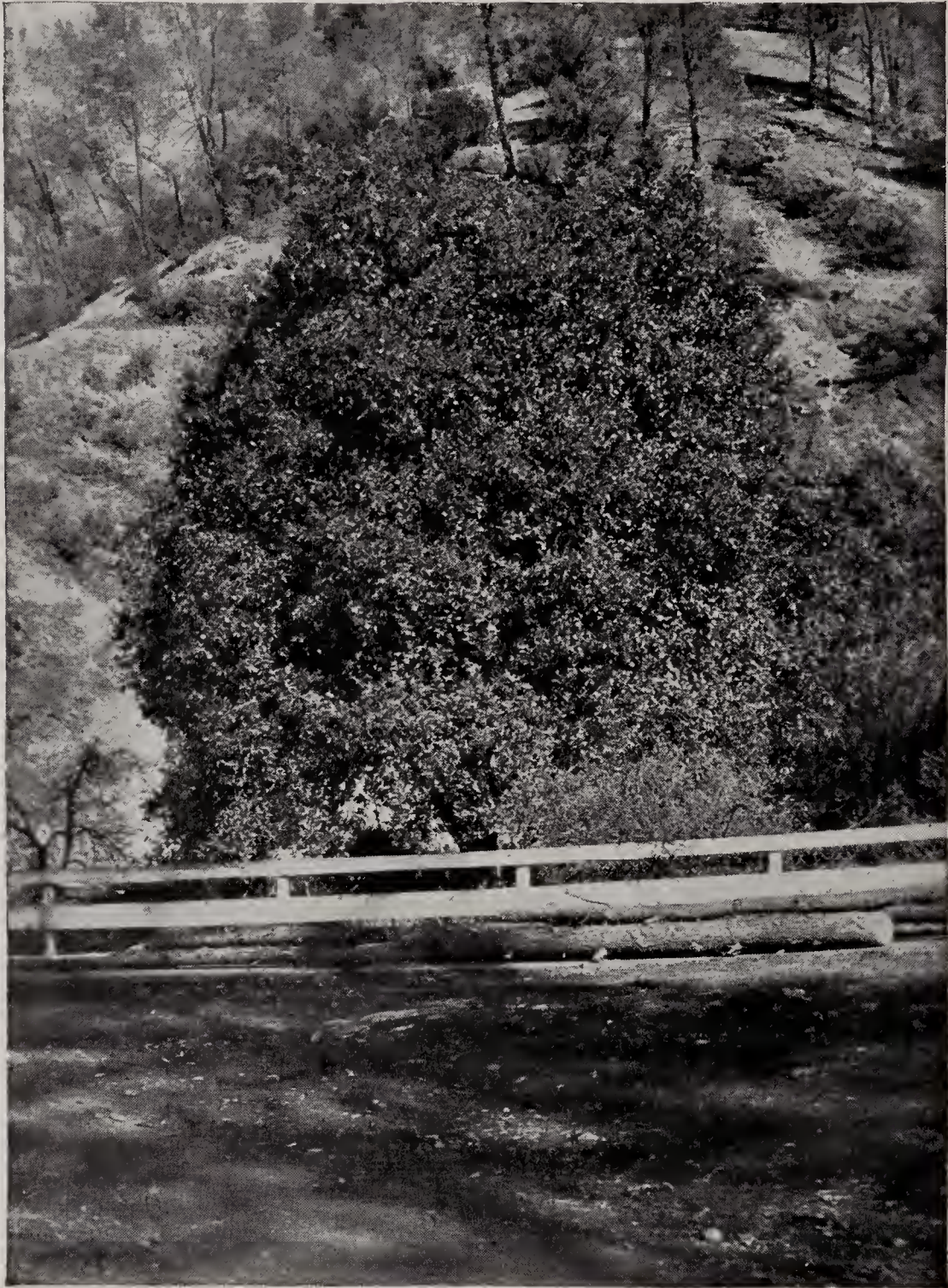
The unproductive tree drinks just as much water and receives the same cultivation as the productive tree. The "loafer" eats just as much high-grade tankage as the rustler.

If, by following the system for propagating nursery stock outlined above, the production of a grove can be increased 25%, or even 20%, is it not well worth the extra precaution. "Higher efficiency" is the slogan all along the line today.



PRICE LIST WILL BE SENT UPON REQUEST





### THE MOTHER MEMORIAL TREE

The Mother Memorial Tree—78 years old, at Bidwell's Bar, near Oroville, California. Height: 33 feet, 6 inches. Circumference of trunk 3 feet from ground, 90 inches. Spread of branches, 31 feet 5 inches. This tree is in perfect health and carries a large crop of fruit each year.

This is the large seedling tree from which the fruits are taken each year to grow several thousand certified sweet seedlings, and which we have used during the past 4 years as one of our root stocks.

The seeds from this tree produce the best type of sweet seedlings grown, and according to Dr. H. J. Webber, this is one of the most reliable sources for propagation purposes.

We have other large trees in Southern California of nearly the same size and age.





Typical fruit-bearing bud stick showing pedigreed bud wood

**PROGENY TESTS OF BUD VARIATIONS**

In order to determine whether or not strains may arise as limb variations and be perpetuated through budding, propagations were made in the spring of 1915 of a number of limb sports which were typical of the important established strains, together with propagations of many entire tree variations. The buds secured from these sports were inserted in sour orange stocks and the trees were grown in cooperation with the Citrus Experiment Station of the University of California. In July, 1917, a part of the progeny trees grown from these propagations were planted on the Station grounds at Riverside.

In order to illustrate the results of these important progeny tests, a typical example in the Washington Naval orange will be given. In this study three progeny trees from an

unproductive limb have produced a total of 64 fruits in the five seasons since they came into bearing—an average of 4.2 fruits per tree each year—while two progeny trees from a normal limb of the same parent produced during the same five seasons, since they came into bearing, 943 fruits, an average of 94.3 fruits per tree per year.

Details are shown in the following table:

1920-21	1	3	0	18	50
1921-22	0	0	0	61	60
1922-23	0	0	1	56	72
1923-24	28	16	15	173	262
1924-25	0	0	0	99	92
Total	29	19	16	407	536
Normal limb—943. Unproductive limb—64.					



Pedigreed Peach Tree

Cluster of Eureka Lemons from Tetley Tree

M. S. Grape Fruit

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The behavior of the progenies as a whole offers most striking and conclusive proof of the value and importance of bud selection in citrus propagation, and the wisdom of the methods which the Tetley Nurseries have adopted in commercial propagation and the selection of bud wood from uniformly productive and superior parent trees.

The results of the extensive progeny tests which have been carried on prove that "The Quantity of Fruit Produced by Citrus Trees is a Transmittable Characteristic, Capable of Perpetuation through Bud Propagation. These Studies also show that Quality of Fruit is an Inherent Characteristic and is Transmitted and Perpetuated through Bud Propagation."

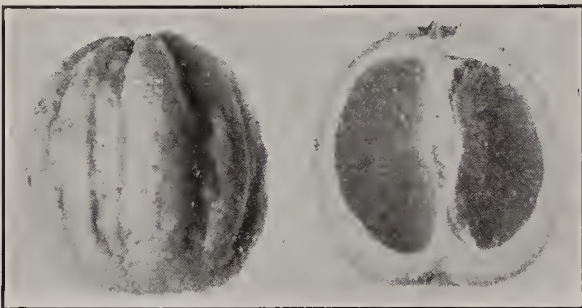
#### STATEMENT OF DR. H. J. WEBBER

Director of the California Citrus Experiment Station before the Lemon Men's Club Field Day, Riverside, September, 1925

"The great importance of bud selection was forcibly brought to my attention in one of the citrus sections of South Africa, where most of the groves were propagated with little or no understanding of the presence of different types among standard varieties. Whole groves had frequently been grown entirely of inferior and nearly worthless types. In one place during a grove demonstration meeting I had called to the attention of the audience a particular Navel tree in a Washington Navel orchard, which, though a very large and vigorous growing tree, produced a small flat compressed fruit with a very thick rough skin, a wholly worthless fruit in competition with good standard types of the Washington Navel.

"A young man in the rear of the crowd pushed through until he stood directly in front of me, and then, confronting me, requested that I repeat what I had said. I again called attention to the general worthlessness of such types. "BUT WHAT CAN I DO," he exclaimed, with tears in his eyes; "my whole five-year old grove is budded from that tree, which we thought to be particularly adapted to this country because of its vigor, and it was said to be a Washington Navel."

I told him that the only corrective measure was to top work his trees with buds from a known good type and that it would require about three years to rebuild the tops. At this he broke down entirely, exclaiming, "But what good is that—my money is gone. I have used everything to build the grove, expecting a good return by this time; I can't go on; I'm already broke, with no prospect."



This is the type of orange produced from the trees mentioned by Dr. Webber in the above article, and showing the absolute worthlessness of such fruit. This type of fruit is quite frequently found in many of the old California orchards.

#### AVOCADOS

We offer the finest field grown avocado trees, grown with our usual, careful selection of seed, root stock and buds at astonishingly low prices. The Fuerte variety which constitutes about 90% of the present planting of the State, is the only variety we grow in commercial quantities, and we highly recommend this variety, particularly for inland districts.

#### PERSIMMONS

The Japanese persimmon is of rather recent importation. It has come to the front very rapidly, on account of the newer varieties which have been propagated so successfully during the last ten years in California.

When planted in the home orchard, the persimmon adds a touch that is out of the ordinary, and the large luscious fruits, ripening after the fall frosts have come, offer a fitting close to the deciduous fruit season.

The persimmon will endure considerable cold weather. In general, it can be stated that the northern limit of successful growth is about the same as that of the fig tree.

Persimmon trees produce well along the coast, and also in the inland valleys, where cold nights prevail.

The persimmon does well in a loam of open texture, with a fair amount of humus and good drainage. Oftentimes the persimmon is planted along ditches or streams, where they do well, even when neglected.

The HACHIYA is the largest and finest conical persimmon grown in California. This is the variety most favored by commercial growers for large plantings.

INVESTIGATE THE WONDERFUL POSSIBILITIES OF PERSIMMON CULTURE BEFORE PLANTING.

#### WHY TETLEY TREES ARE BEST

Our nurseries are for the most part grown on virgin soil and in an area practically scale and pest free.

EACH CITRUS TREE WHEN READY FOR SHIPMENT BEARS A SERIAL NUMBER WHICH CORRESPONDS TO THE PARENT TREE NUMBER AND CAN BE TRACED BACK. THIS IS AN ESSENTIAL FEATURE IN WHICH THE TETLEY NURSERIES LEADS THE FIELD. It is as important as the right classifications of varieties and in this way an orchard can be plotted and each lot of trees from each parent can be kept separate and records of same preserved. These records are valuable when your orchard matures from a standpoint of orchard resale value, individual tree problems and production records.

Tetley's trees and vines were awarded special First Prize at the Southern California Fair from 1920 to 1929 inclusive. Also awarded First Prize National Orange Show, 1922, and 1st prize at the Los Angeles County Fair, 1930 and 1931.

WE DO CONTRACT PLANTING WITH A GUARANTEE



### SATSUMA ORANGE (Owari type)

The hardiest orange that we grow, and for this reason it can be planted where other citrus fruits will not succeed commercially. This orange is of recent importation, coming from Mississippi in 1907. The original importation came to California from Pearl River County, Mississippi.

The fruit is large, flattened, deep orange in color, and has a thin rind which peels off very easily. The fruit is sweet, tender, and juicy, ripening in October. The tree is slow-growing, semi-dwarfed, and somewhat of a spreading habit, with heavy, dark green foliage, bearing tremendous crops while very young.

The Satsuma needs very little pruning, as the outer branches have a tendency to droop, thereby permitting sunlight to penetrate to the upper portions of the tree. The shape of the tree is not symmetrical, as are most other citrus trees.

#### History and Introduction

The Satsuma orange is a native of China, introduction being that it first originated in Japan, where there are bearing trees more than 300 years old. In the United States there are possibly 15,000 acres of this citrus fruit. The Satsuma orange belongs to the Mandarin group, of which the Chinese Mandarin and the Dancy Tangerine are also varieties. The Satsuma is superior to any of its group, for the shipping qualities are good, it is ready for market ahead of all varieties of oranges from competing sections, and has been very popular in the few consuming markets to which it has been shipped. It has a very distinctive blending of citric acid and sugar, giving it a most delightful and highly refreshing quality.

In addition to the above recommendations, it is practically seedless, and it is sometimes called, as are all of the Mandarin group, a "Kid Glove Orange." It is primarily a high-grade desert fruit, and is destined to become one of the leading, if not the most important citrus fruit on the market.

The present acreage is very limited in California, the reason being that it has a peculiarity in regard to its congenialty with the stock upon which it is grown. The Tetley Nurseries have investigated thoroughly the adaptability of propagating the Satsuma on almost all varieties of citrus stock now used.

The Satsuma orange tree will stand, when absolutely healthy and perfectly dormant, the temperature from 12 to 14 degrees Fahrenheit, without apparent injury. This has been demonstrated in the Mississippi district. The trees are tremendously sturdy, and will endure heavy winds with little fruit scarring or tree breakage. These trees particularly prefer a well drained, deep, medium soil.

#### Yields, Costs and Returns

The following yields and returns are given as an indication of what the Satsuma is doing. In 1922, 6500 trees in their third year yielded 1975 boxes of marketable fruit, or practically 1/3 box per tree. One 4 1/2 acre grove gave a return of \$35,00.00, with the average price



Cluster Satsuma Oranges

of \$3.00 per box. This is an average of a yield of 259 boxes per acre, and a gross income of \$777.00 per acre. This was a ten-year-old orchard. In another ten-acre grove, a return of \$10,000.00 was received. In the same grove, a small number of trees produced a yield up to \$3000.00 per acre.

It is not intended to convey the idea that each and every grower can expect such phenomenal returns.

The extent of territory in the United States adapted to commercial production is quite limited. Further plantings will be confined to Alabama, Louisiana, northwestern Texas, and California. The southeastern portion of the United States has been widely exploited, and it seems that California is the logical place for further development.

The Satsuma orange is the first orange on the market. It can be ripened in California and ready for market from September 15 to January 1. The superior quality of the fruit will stimulate a large and increasing demand.

At present only a few of the consuming markets in the United States are familiar with this fruit.

INVESTIGATE THE WONDERFUL POSSIBILITIES OF THE SATSUMA ORANGE BEFORE PLANTING.

PRICE LIST WILL BE SENT UPON REQUEST





Placencia Walnuts

READ OUR GUARANTEE OF GENUINENESS ON INSIDE FRONT COVER.

### WALNUTS

We use the same careful method in selecting seed, seedling and bud wood for propagating our stock.

The demand has kept up with the production due largely to the splendidly organized California Walnut Growers Association, which is a cooperative association formed by the growers and properly distributes the crops so that reasonably profitable prices may be secured.

No other nut tree will yield such abundant crop with so little effort or expense as the walnut.

The Walnut industry in California is only beginning to show its resources. Last year the crop was valued at fourteen million dollars. The annual crop for the past few years has ranged from thirty-two to fifty million pounds of marketable walnuts. The production for 1928 was close to fifty million pounds. These figures are a tribute to the rich soil and abundant sunshine of California, and should prove highly gratifying to those who whole-hearted cooperation has made this development possible. California produces over 90% of the walnuts grown in the United States.

## INSTRUCTIONS FOR PLANTING AND CULTURE

### Care of Shipment on Arrival

Open all bales and packages as soon as possible after arrival and do not allow them to lie around unopened, as the plants may suffer from the delay. Observe the condition of the plants or trees and if the roots are dry, give them a good soaking with water. If plants do not seem to be in good shape or are unsatisfactory in any way, notify us at once, as it is to our interest as well as yours to have your stock reach you in good condition.

Failure to get satisfactory results in planting trees received from the Nursery can be largely avoided if a few simple rules for pruning and planting are observed. On arrival of trees from the Nursery, the trees should immediately be heeled in a moist soil and the earth thoroughly packed around the roots.

In orchard planting, the ground should be thoroughly broken, pulverized, harrowed, leveled, surveyed, or laid off with a small stake standing where each tree is to be set.

Before digging the holes it is necessary to have a tree setting board. This is easily made out of a piece of board about one by four inches and four feet long. Bore an inch hole at each end of the planter, then remove the center stake and board. Dig the hole large enough for the roots to spread out without cramping them. After the hole is dug, replace the board over the end stake in its former position, then plant the tree with the trunk indentially the same place as the stake which was removed to dig the hole. Spread out the roots in their natural position and sift in and work FINE, COOL, MOIST PULVERIZED EARTH around the roots, pouring in from one to three buckets of water. Guard against setting too deeply but allow for the settling of the soil, so that the tree will stand about as it did in the nursery row. Never plant a tree when the soil is too moist or wet.

All roots should be cut back an inch or so to insure a healthy start. Injured or broken roots must be cut off.

Nearly all citrus trees which we send out, including oranges, lemons, pomelos, etc., are dug and shipped with a ball of earth wrapped in burlap on the roots. In handling these trees, lift the balls carefully and do not drag them over the ground or jar them more than necessary as this is liable to loosen the earth, resulting in injury to the roots. If not ready to plant at once, the trees may be held for a few days with perfect safety if placed out of the direct sunlight and the balls kept moist.

In planting all balled trees, do not remove the burlap covering, but place the ball in the hole as it is, so that the surface of the ground is one or two inches higher than the top of the ball. When the soil is one half or one-third filled in around it (use good surface soil) cut the top string, fold back the corners of the burlap, and throw in the remainder of the soil. This procedure keeps the ball of earth intact and the burlap soon rots in the ground. Pack the earth well and leave a shallow basin around the tree which must be

WE DO CONTRACT PLANTING WITH A GUARANTEE





Marsh Seedless Grapefruit Tree, now two years old growing on the Yuma Messa, Arizona, furnished by the Tetley Nurseries. This shows the prolific bearing qualities of bud and root stock selection.

filled with water to settle the earth. Place no fertilizer of any kind in the hole.

No pruning is necessary at planting in the case of citrus trees, unless it is to cut off a limb broken by accident. In warm weather, or if the trees have become dry, all leaves should be removed with a sharp knife, and as a matter of precaution, we sometimes remove all the foliage before shipment.

Yucca or paper tree protectors are advisable for all citrus trees, to guard against injury from sun scald or rodents, and the 24 inch size is most commonly used.

It is very important when irrigating balled trees the first season after planting, to apply the water to the trees thoroughly and for a long period of time, so that the moisture will penetrate entirely through the ball and not merely run down around the sides of it and be wasted. As a rule citrus trees should be irrigated once every ten days or two weeks until established.

Occasionally, for long distance shipments, or in special cases, we ship citrus trees with bare roots, puddled and packed in sphagnum moss and they should be very carefully kept moist

at all times until placed in the ground, when they should be given a good irrigation. The foliage is always removed and tops are cut back more than is the case with the balled trees.

The best time to plant citrus trees is from March to June, altho they may safely be planted one month earlier in locations near the Desert area.

#### SELECTING STOCK

Never lose sight of one point in buying; that when purchasing TETLEY TREES you are buying from a firm that has devoted twenty-five years to the practical study of growing the best tree that money, study and inherited love for perfection in a tree can develop. 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. **Buying trees is different from the average merchandising—it is neither today nor tomorrow that tells the story whether your tree is of a producing strain or a shade tree type, but it is demonstrated in future years.**

PRICE LIST WILL BE SENT UPON REQUEST





Typical Marsh Seedless Grapefruit

**NUMBER OF TREES TO THE ACRE**

	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	286	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
50 ft.	17	34	20	17

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

**SERVICABLE TREE PROTECTORS**

It is advisable to shade the trunks of young trees from the hot sun, and to protect against squirrels and other rodents. We have arranged to supply protectors at manufacturers' prices. All are wired, ready for use, and may be attached easily and quickly.

**PARAFFIN PAPER**

Inc.	Lbs.	per 1000 Price	per 100 Price
14	50	12.00	2.25
18	65	14.00	2.50
24	85	17.50	2.75
30	106	22.00	3.00
36	127	30.00	4.00

**GRAFTING WAX**

May be heated and applied with a brush, per pound ..... .50

**WHY NOT PLANT TETLEY TREES OF KNOWN PARENTAGE AND SELECTED ROOT STOCK, ELIMINATING WASTE?**

**WAXED BUDDING CLOTH**

Made of the best muslin and pure bees-wax, per yard 36 inches wide ..... .75

**WE DO CONTRACT PLANTING WITH A GUARANTEE**





“Give fools their gold and knaves their power,  
Let fortune’s bubble rise and fall;  
Who sows a field, or trains a flower,  
Or plants a tree, is more than all.”

The Winning of Barbara Worth  
Harold Bell Wright.





