Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

210365

Successful Citrus Growing in the "Magic Valley"

SOME INTERESTING FACTS AND FIGURES FOR
CITRUS GROWERS AND OTHERS INTERESTED.

By

SAM J. BAKER

(Formerly of Baker-Potts Nursery Co.)

Compliments of

SAM J. BAKER & SON

Veteran Growers of

FINE CITRUS TREES
and
ORNAMENTALS

LOS FRESNOS, TEXAS

MORE THAN FORTY YEARS' EXPERIENCE.

In business in the Valley since 1918.

Our Motto:

"We allow no man to grow better trees than we do."

FOREWORD

The Delta of the Rio Grande, commonly called "the Magic Valley" or the "Lower Rio Grande Valley", a comparatively small area composed mainly of Cameron, Hidalgo and Willacy Counties in the Southern "Tip o' Texas", has proven itself during the last twenty-five years to be the premier citrus growing section of the United States. The grapefruit grown here is admitted to be of the highest quality grown anywhere, while our oranges are sweeter and juicier than those grown elsewhere. Our soils are richer, our irrigation water is cheaper and always available in sufficient quantities. Labor is cheap and plentiful and our climate is more favorable, having fewer spells of dangerously low temperatures than any other citrus section in the United States, so few, in fact, that our growers use no fire protection as California growers are forced to do. In short, we grow the best fruit and at the least expense of any citrus section in the country. Our new sea-port has materially reduced the cost of transportation already and will reduce it further in the near future. The recent land boom is over and the best of citrus lands may now be had at a fraction of their former cost and far below their real value. Taxes have been reduced and other conditions are more favorable than ever before, while marketing facilities and methods are steadily being improved as time goes on. Our recently established canning and juice plants are taking our cull fruit at fair prices, thus taking them out of competition with our good fruit and resulting in better prices. Our pink and red-fleshed fruits can only be grown to perfection here, so we will never have serious competition from other states and our growers are assured of good returns on their investments. Our industry is well past the experimental stage and on a solid and substantial basis. After more than forty years experience and with a thorough knowledge of conditions in other citrus growing areas we have no hesitation in saying that all of the above is true, nor in advising our friends to make investments here, knowing that if good trees are planted on good citrus land and then given adequate care, success is assured.

The Three Main Essentials to Success

First, GOOD LAND. Much of our Valley land is the best in the world for citrus growing, but some of it is worthless for the purpose, though good for other crops. Choose high, well drained land and be sure that it is not water-logged or "salted". Air drainage is important as well as water drainage, so the higher it is, the better. The black sandy soils are considered the best, but the light sandy and "resaca" or "banco" lands are equally good. Avoid low, sticky, mucky lands and those that can not be properly drained. Trees planted on such lands are doomed to certain failure, no matter how good they are nor how well cared for. We refuse to sell our trees to be planted on such lands, as we can not afford to have any failures with our trees. GOOD LAND IS WORTH SEVERAL TIMES ITS COST.

Second, GOOD TREES. No matter how good your land, you can not make a success with poor trees, any more than you could make a success of the dairy business with a lot of long-horn range cows. Cheap trees may look as good to you as good ones, but they can not deliver the goods, because they have not been bred up for high production of high class fruit, while good

ones have. **CHEAP TREES AND POOR LAND** have been responsible for most of the failures you see scattered over the country, yet inexperienced growers are tempted to buy them in order to save a few cents on the price. It is safe to say that every cent saved by buying cheap trees will cost you a dollar in the end. Too many have made this mistake and have lost their life's savings and made a complete failure, while those buying good trees have made a success in almost every instance. **GOOD TREES ARE CHEAP AT ANY PRICE. POOR ONES ARE DEAR AS A GIFT.**

Third, **GOOD CARE.** Even if you have the best of trees on the best of land, you can not expect the best results if they are starved for water, choked by weeds and grass, eaten by live-stock and skinned up by tools or sapped to death by scales and insects. Adequate care is not expensive and pays big dividends. There is nothing that will pay better for good care than a citrus tree, nor prove more disappointing if neglected. **TAKE CARE OF YOUR TREES.**

In a word, **BUY THE BEST TREES POSSIBLE.** Plant them on **GOOD CITRUS LAND.** Then **TAKE PROPER CARE OF THEM** and you will have a **PAY-ING GROVE.** There is plenty of good land and trees available. **BUY NO OTHER.**

Care of a Citrus Grove

While adequate care is necessary to the success of a grove, it is not expensive if handled properly, considering the results to be had from it and the loss to the grower if it is neglected. In planning a grove the prospective grower must remember that it will probably be 4 years before he will realize any profits and he must be financially able to handle the expense for that length of time without income from the grove. No one should plant more trees than he can take proper care of for that length of time, be it few or many.

For the first ten years of the life of a grove the average cost of adequate care is about \$50.00 per acre per year, but this may be greatly reduced or eliminated while the trees are young by growing crops between the trees, as is practiced by many growers. But if this is practiced care should be taken that crops planted do not interfere with the proper care of the trees, and it should not be undertaken unless the owner or some responsible and competent person is in charge. Fall, Winter and Spring vegetable crops may be grown in a grove in some cases if care is taken not to over irrigate the trees, thus causing them to put on new growth and so be tender to cold. It must be remembered that a dormant tree will withstand temperatures that would kill or seriously damage one that was sappy with new growth, and that dangerous temperatures do occur here occasionally, the same as in every other section where good citrus fruit is grown. Corn or some other tall growing crop may be planted in a young grove with good results to the trees, as it will protect them from wind damage and afford a good amount of humus when disked into the soil. A leguminous crop should be worked into the soil once a year in order to keep up its fertility. Absolutely clean cultivation is not to be recommended, as it will eventually deplete the fertility of the soil, but bermuda grass and other vegetable pests must not be allowed to take possession. Shallow cultivation is best, especially after the trees begin to bear, as the "feeder" roots are near the surface and deep cultivation will damage or destroy them and cause

the fruit to shed off. It is usually necessary to irrigate the trees just before the bloom starts, or soon after. This will insure a good "set" of fruit and hold the moisture content up until the fruit is well set, when they may be irrigated again with safety. If allowed to get too dry at blooming time and then irrigated before the fruit is well set it will result in a heavy loss of fruit by shedding. Too much irrigation is as bad as too little, and care must be taken to use only as much as will keep the trees in good thrifty condition. For the first two or three years after planting, young trees may be watered by "tanking" as cheaply and with as good or better results than by regular irrigation. In fact, many growers prefer this practice and a survey of the young groves in the "dry land section" of Willacy and Hidalgo Counties will show the feasibility of the method. These trees will be found to be in as good and thrifty condition as any of the same age that have been irrigated. The Meyers, or Chinese Frost-proof lemons have demonstrated their ability to produce profitable crops without any irrigation whatever, but other varieties of citrus must have irrigation after they begin to bear, otherwise the fruit will be too small to be profitable, unless they have plenty of Fall rains. Very little pruning is necessary, except to remove damaged or dead branches.

Frost Protection

On an average of from five to six years during the last sixteen years we have had temperatures low enough to damage young trees and greatly reduce the crop on old trees. For this reason, young trees should be banked with soil, well up to the branches, by about December 15, after painting the trunks with a good Bordeaux tree paint. These banks should be left until about March 1st to 10th, or until danger from cold is over, when they should be taken down. This should be done each year, as a matter of insurance, until the trees are about four years old, when they will be large enough to withstand low temperatures without serious damage. As to protecting the fruit, dangerous temperatures have occurred so infrequently that most growers do not consider the use of orchard heaters a paying proposition. We have never seen a freeze that destroyed the entire crop. However, a series of experiments are now under way by the Experiment Station at Weslaco to determine the advisability of orchard heating, that is, whether the saving of fruit over a period of years will pay for the cost of heating and leave a profit.

What Results May Be Reasonably Expected

This depends, as we have said, on the quality of trees, land and care. We can probably best answer this question by giving a statement of what Mr. A. N. Roach, of La Feria, Texas, has done with a ten acre grove of our trees during the last ten years. He has good land and has taken good care of his trees, with the result that he has one of the best groves in the Valley, if not in the world, as has been stated by some of the highest citrus authorities in the United States, who have seen it at different times. His trees are planted 25x25 ft., 70 trees to the acre.

This grove was planted during the season of 1925-6 and made considerable fruit the third year after planting, though no record was kept. The fourth year it produced an average of 4 boxes of fruit per tree and

the yield has increased each year until at the end of the season of 1935-6 he had gathered a total of 68 boxes per tree, or 47,600 boxes from and including the fourth to the tenth year from planting, and this in spite of the great hurricane of 1933 and a heavy frost in the Spring of 1935, which cut his crop short for two years. Up until the last two years this fruit brought him an average of over \$2.00 per box and since that time over \$1.00, so he has realized over \$72,800.00 for fruit alone to date, saying nothing of his grove, for which he has refused as much as \$40,000.00 several times. His ten acres cost him \$5,000.00, his trees (\$3.35 each, planted) \$2,345.00, and 10 years care at \$50.00 per acre per year, \$5,000.00 making a total expense for the 10 years of \$12,345.00, leaving him a net profit of \$60,455.00 on his investment, besides his grove, which is increasing in value every year. It is no wonder he refused \$40,000.00 for it! And besides this, he has sold more than enough budwood to cover taxes and interest. He estimates that it costs him 7½ cents per bushel to grow his fruit.

You may say that Mr. Roach's grove is an exception and that the average man will not do so well. That may be true, but what one man has done any other intelligent man may do if he will take care of the main essentials to success, as Mr. Roach has done. But if the average man does only half as well it is still better than anything else we know of, at least in agriculture. With the newer and better paying varieties we now have it is quite possible to do even better than he has, especially by

Double Planting

Experience has proven that 25x25 feet (70 trees per acre) is the proper distance for mature trees here, but they do not need nearly so much room until they are fully matured. So in our own groves we are double planting the trees one way, making them stand 12½x25 feet, which practically doubles the number of trees and consequently the volume of fruit produced, until the trees begin to crowd, when half of them may be removed to a new location at a small cost and brought back into bearing in two years, thus doubling our acreage. This will not become necessary until the 7th or 8th year after planting, so we will have double production for 4 or 5 crops and at practically no added expense except the price of the extra trees, which at this time is from one to two dollars each. If we get only 4 crops or a total of 10 boxes of fruit per acre and only get \$1.00 per box for it, that will give a clear profit of at least \$8.00 per tree, besides the tree (which if replanted should be worth at least \$5.00) making over \$5,000.00 extra profit from a ten acre grove. This method has other advantages as well, one of which is that the trees being closer together, will protect each other from wind and cold, resulting in better fruit and fewer culls. Another is that if two varieties are planted alternated we will have a choice of which to leave when we thin them, and this may well be important. We strongly recommend this system in planting new groves, and, where young groves have been planted with doubtful trees, inter-planting them with pedigreed trees, so that when they begin to crowd the doubtful ones may be removed, leaving a pedigreed grove, with the trees the proper distance apart. Think this over seriously. It is a good business proposition, as it costs practically no more to care for a grove having 140 trees to the acre than one having only 70.

Will a Citrus Grove Pay?

Below is a table giving minimum results to be expected from a 10 acre grove of the standard varieties of grapefruit and oranges for the first ten years from planting, the trees being planted 25x25 feet, or 70 trees to the acre. In our opinion and that of several well posted citrus men who have gone over these figures, this estimate is very conservative, as we are giving only about half the production and price to be expected, while we are using the maximum figures for care and other expenses. A first class grove of Redblush and the other better varieties should produce twice the volume of fruit, which should bring at least twice the price we are using in this table, or four times the profits given. The table also shows the added profits to be expected from double planting.

FIRST COST: 10 acres good citrus land at		
\$200.00 per A.		\$2,000.00
700 best trees, planted, at \$1.50 each.....		1,050.00
3 years care at \$50 per A. per year.....		1,500.00
Allowance for incidentals, taxes, etc.....		450.00
TOTAL,		\$5,000.00

Results -- First 10 Years

Year	Boxes per tree	Total Boxes	Price per Box	Total Amount	Less Care	Net return from fruit. Single pltg. Double pltg.
4th	2	1400	\$1.00	\$1,400.00	\$500.00	\$ 900.00 \$ 2,300.00
5th	3	2100	"	2,100.00	"	1,600.00 3,700.00
6th	4	2800	"	2,800.00	"	2,300.00 5,100.00
7th	5	3500	"	3,500.00	"	3,000.00 6,500.00
8th (x)	6	4200	"	4,200.00	"	3,700.00 3,700.00
9th	7	4900	"	4,900.00	"	4,400.00 4,400.00
10th	8	5600	"	5,600.00	"	5,100.00 5,100.00
Totals	35	24500		\$24,500.00		\$21,000.00 \$30,800.00
				Less first cost,		5,000.00 5,000.00
(x) Interplanted trees removed.				Net for fruit alone,		\$16,000.00 \$25,000.00
				Grove, now worth		20,000.00 20,000.00
				Profits 1st. 10 years,		\$36,000.00 \$45,000.00
				Extra profits from double planting,		\$9,000.00

If the grove is double planted the extra trees when removed are worth at least \$5.00 each, if re-planted, or \$3,500.00, which constitutes another nice item of profit. They may be re-planted at a nominal cost and will be back in bearing the second year, thus giving us another 10 acre grove in bearing in two years instead of four. At ten years old a grove is just coming into full bearing and will increase each year for the next ten years at least and live and bear profitable crops for a life-time, if properly cared for, so there is no telling what a good grove is really worth. At any rate, it is the best and safest investment we know of in agriculture and should satisfy any reasonable man. Citrus growing in the Valley is not only profitable, but is a most fascinating out-door occupation and will add years to the life of the grower and his family, as shown by the experience of many who have come here as invalids, planted a grove and regained their health and happiness, as well as financial independence. Of course, many have failed on account of fatal mistakes made, but the fact remains that a good grove of good trees on good land is a mighty good investment.

A Word About Ourselves

For more than forty years we have been growing fine citrus trees and studying Citriculture in its different phases. Was converted to the theory of the improvement of varieties by bud selection, as taught by A. D. Shamel and others, some 25 years ago, and have practiced it ever since. The result has been that some of the finest groves in the country are trees of our growing and all our customers are our friends. In all these years we have never had a law-suit or a serious misunderstanding with a customer, because we have always given full value for their money and treated them as we would like to be treated. We consider our reputation our greatest asset and have always taken care of it. We believe that a nurseryman who misrepresents his trees or sells them knowingly to be planted on land that is not adapted to citrus growing ought to be in the penitentiary, along with the man who sells land for citrus growing that he knows is not adapted. If any man on earth needs to be strictly honest and reliable it is the nurseryman, as the success of his patrons is in his hands to a great extent and a little crookedness or ignorance on his part may result in the ruin of his customers, as well as himself. For that reason, the prospective planter should deal only with such men as may be depended upon for a square deal, and who know their business thoroughly. Only men of strict integrity and wide experience are capable of giving the customer full value for his money and no other should be patronized. We invite investigation of our reputation for square dealing and our knowledge of our business, and if, after such investigation, you favor us with your business we will see that our dealings with you merits the confidence you have put in us. We believe in strictly reliable trees and grow no other. As Buick has it: "when better trees are grown we will grow them."

Our Methods of Keeping Accurate Records of the Pedigree of All Our Trees

(1) When the buds are cut from the parent trees the operator goes to a certain high production tree, say tree No. 1, in row No. 2, block No. 3 of a certain grove, and cuts a number of bud-sticks from it, immediately attaching a tag to the bundle, showing the tree, row and block number of the parent tree from which it was cut. He then proceeds to the next tree and cuts buds, tagging them with the number of that tree, and so on.

(2) When we are ready to bud, we take out a bundle of bud-sticks, take off the tag and attach it to the first root-stock we are to bud, and proceed to insert buds in each stock down the row until all the buds in that bundle have been used or discarded. We then take out the next bundle, attach the tag to the next stock and proceed as before, and so on until all buds have been used or discarded.

(3) When all the buds have been inserted we drive a durable label stake in front of the tree to which the tag is attached, showing the nursery row number, variety, initial of the parent grove, and the tree, row and block number of that particular bunch of buds. We then go to the next tree having the tag attached and drive the label stake as before, and so on until each lot of buds is staked.

(4) The location of each lot of buds in each nursery row is then entered in our Bud Record Book, giving the number of buds used from each parent tree and the date inserted, and this book is filed for reference.

(5) When the budding has been completed we make a map or plot showing the exact location of all buds from each parent tree in each row of the entire nursery, and this map is put in our safe deposit box and kept until wanted.

(6) When we are ready to dig the trees, we first go over them and caliper them for size, trim back the heads and attach a tag to each tree we are to dig, this tag giving the variety, the tree, row and block number of the parent tree and the name of the grove from which the bud was cut. As all tags are put on BEFORE THE TREE IS DUG, there is no possibility of a mix-up, and the pedigree is absolute and authentic.

Varieties We Grow And Recommend. Standard Grapefruit (Pomelo)

MARSH SEEDLESS. The most popular standard sort for the Valley, and as grown here it is admittedly of the highest quality of any grown anywhere. It will probably never be beaten as a standard variety, as it has all the best and most desirable qualities and no failings. It has been greatly improved by several generations of bud-selection since it was introduced and the trees we offer are buds from the two best groves known, those of Col. Dale Bumstead, of Phoenix, Arizona, and Mr. A. N. Roach, of La Feria, Texas. Better trees can not be grown.

THOMPSON. (Pink Marsh) Practically identical with Marsh, from which it is a bud sport, except that it has a bright pink flesh which makes it very popular with the fancy trade. Our stock is of the original and true strain and is hard to beat.

FOSTER. This is a bud sport from Walters, hav-

ing pink flesh and an outside blush of pink which has made it very popular as a fancy fruit. It is of fine size, quality and appearance, but it is, unfortunately, too seedy to compete with the new seedless pink-fleshed varieties and is losing its popularity for that reason. Fine for home use.

CONNOR'S PROLIFIC. Many growers consider this the best of the white-fleshed sorts as to size and quality, but it is too seedy to compete with Marsh on the market. However, it is hard to beat for home use. It is one of the earliest to ripen.

Fancy Grapefruit

WEBB'S REDBLUSH SEEDLESS. (Webb) This has fully proven itself to be the king of all fancy grapefruit and is considered by the highest authorities to be the most valuable addition to our list of varieties to be found in many years. It is attracting the attention of citrus men all over the world and is certain to take first place on the market as soon as known, as it has done at every citrus show where it has been exhibited. It is a bud sport from Pink Marsh, discovered by Dr. J. B. Webb, of Donna, Texas, in his grove near that place, and has been thoroughly tested and proven during the last 5 years. It is practically seedless, of fine size, shape and texture, its quality and flavor are of the very best and its appearance, both inside and outside is a wonder. The flesh is a bright rose red, instead of pink, and shows through the rind, forming a blush of pink on the outside of the fruit, hence the name. It has all the points of the perfect fancy grapefruit, with no failings such as has Thompson and Foster, and is what citrus enthusiasts have been praying for for years, a variety with all the seedlessness and other high qualities of Marsh and in addition a red flesh and pink cheek. The tree is healthy and vigorous and bears young and prolifically, same as the parent. The original tree has borne its fifth crop of typical fruit and two generations from it now have a crop of the same red-fleshed, pink-cheeked fruit, so there is no question as to the stability of the strain and it may be depended upon to produce typical fruits of the highest quality. We have the exclusive right to grow and distribute trees of this truly wonderful variety and now have a nice stock which we are selling at very reasonable prices. We believe it to be the one most profitable variety to plant and the man who "gets in on the ground floor" is sure to "make a killing", especially as the pink fleshed varieties show little color as grown in Florida and practically none in California, so he will never have serious competition.

ROACH'S STRAWBERRY. This is a bud sport from Marsh, found by Mr. A. N. Roach, of La Feria, Texas, in his grove near that place. It has a bright golden-pink flesh and an outside blush of the same unique color, and its flavor is simply delicious, resembling that of ripe strawberries, hence the name. Unfortunately, it is quite seedy, so will probably never be able to compete with Redblush on the market, but its delicious quality will make it a favorite for home use and we are developing it with that in mind. No planting should be without a few of these trees.

RED-FLESHED FOSTER. This is a variation of the old Foster, probably a bud sport, found by Mr. E. Stewart, in his grove near San Benito, Texas, and is a wonderful improvement over the old strain. It has a bright red flesh, instead of pink as in the old strain,

and the same outside blush, while the flavor is far sweeter and better. It also has fewer seeds, but too many to compete with Redblush. However, it is hard to beat for home use and no planting should be without a few trees of it. We have the exclusive right to grow and sell trees of this fine variety.

GIANT CHINESE. This is one of the most surprising fruits imaginable and worthy of a place in every planting, or where there is room for a tree. The tree is a fine, robust grower, with large velvety leaves and twigs, and bears fruits of such enormous size as to startle one at first sight, the fruits often measuring nearly twelve inches in diameter! A fruiting tree looks like it was hung with bright yellow pumpkins and is guaranteed to make a tourist's eyes pop out. The fruit is round in shape and of good quality and unique flavor. The flesh is very firm and makes a delicious fruit salad. When the segments are skinned out and served on lettuce leaves with French dressing it is a dish that is hard to beat, and as a novelty it has no equal in the citrus family.

GIANT SIAMESE. This is very similar in every way to the Chinese Giant, except that the fruit is somewhat smaller and pear-shaped, instead of round. Both are quite seedy but are worthy of a place in every planting because of their extremely large size and unique flavor.

Standard Oranges

NORRIS SEEDLESS. (Hamlin) We consider this the best extra early orange for Valley conditions to date. It is of good size, quality and appearance and is nearly seedless, so always brings the best price on the market of any of the early sorts. Many trees in the Valley called Hamlin are too seedy, but the grove from which we cut our buds bears the nearest to seedless fruit of any we know of, many having no seed at all, while the color, size and quality is of the best.

TEXAS NAVEL. This is a new but very promising Navel tried out at the State Experiment Station, at Weslaco, Texas, during the last few years. The tree is unusually vigorous and productive, while the fruit is all that could be desired as to quality and proper size. It is far superior to the old Washington Navel, as that variety, though of very fine eating quality, is too shy a bearer and the fruit is entirely too large as grown here to be a profitable market variety. We have long needed such a variety as Texas Navel, in order to compete with California's navels, which are world famous.

SINGER NAVEL. (Surprise Navel). This is another fine Navel for Valley conditions, as shown by the grove of Mr. Grover Singer, near Brownsville, Texas. Mr. Singer has 20 acres of this really fine, extra early orange, trees that have been in bearing for several years and producing fruit that has been pronounced the sweetest and best they ever tasted by almost every one who has eaten it. The fruit is of medium size, of good color, shape and appearance, with a small and inconspicuous navel marking, and almost entirely seedless. The tree is strong and vigorous and bears young and prolifically, something that cannot be said of the old Washington navel. It answers to the description of Surprise Navel as given by Hume, which is the only navel that will produce in Florida, and in our opinion this and the Texas Navel are the Navel oranges to plant in the Valley. Our trees are buds selected from the Singer grove.

JOPPA. (Jaffa). This is a very fine variety from Palestine, the one that is so popular in England. The tree is unusually vigorous and frost-resistant and bears young and prolifically. The leaves are large and placed close together on stiff, upright branches, giving the tree a very attractive appearance. The fruit is medium early, of good size, shape and color and of the highest quality, with few seeds, and is fast coming to the front as a fine variety for our Valley conditions.

DILLER. Another fine variety of the Jaffa type introduced from Arizona a few years ago. It is very similar to Joppa in habit of growth and resistance to cold, as well as quality of fruit, and is also becoming popular here. In fact, the two are so near alike that some claim they are the same variety, but there is a slight difference in the fruit, at least, the Diller being slightly smaller, though not too small to be popular on the market.

We also grow a few trees each of some of the old favorites, such as Washington Navel, Pineapple, Valencia and Lu Gim Gong, for replacements in groves of those varieties, but the varieties catalogued above are recommended for new plantings because of their superior qualities.

Tangelos

THORNTON. There are several Tangelos, crosses between the Tangerine and Pomelo, but this one seems the best for Valley planting and we grow no other. It is a prolific bearer of fruits the size of a large orange, with a flavor of grapefruit and orange, blended. It is nearly seedless and of the highest quality. Many people prefer it to either grapefruit or oranges. Well worth planting for home use.

Tangerines

TEMPLE. While this is not a true tangerine, but a cross between it and a round orange, the fruit is so much like a fine extra large tangerine that we so class it. It is a very heavy bearer of the finest of thin-skinned fruits with a loose peel, characteristic of the Mandarin group. The tree is larger and more spreading in habit than true tangerines but the leaves are very similar. A favorite with many planters and a good one to plant for profit. It ripens in December here.

WANURCO. This one also has some round orange blood, as evidenced by its habit of growth. The fruit is larger than most tangerines and of very high quality, similar to a fine Satsuma orange. It was discovered as a seedling in the nursery of Wartmann Nursery Co., in Florida, and named for them. It is much superior to the old Dancy tangerine, which has not proved satisfactory here. It is our favorite tangerine.

ALGERIAN. This is a true tangerine of the highest quality and is fast becoming a favorite here. It is a prolific bearer of fruits somewhat larger than that of Dancy and earlier to ripen, which is a favorable trait, as it gets on the market ahead of other tangerines and as a consequence brings the top price. One of the best for the Valley.

Lemons

IMPROVED MEYERS. (Chinese frost-proof lemon)

This lemon was brought from China by a plant scout of the U. S. Department of Agriculture, named Meyers, several years ago, and named for him. It is the only lemon known that will stand as low temperatures as the standard grapefruit and oranges and for that reason, as well as for the fine fruit it produces, is very promising for Valley conditions. The tree is of a low spreading habit and bears almost at once. The fruit is of the highest quality, and when this high quality is known it will sell in preference to the common lemons, as it is superior to any of them for juice, flavor and aroma. The original strain does not do well on sour orange roots, our one best stock for most citrus varieties, so has not been popular. But we now have a strain that has proven to be well adapted to that stock, trees now ten years old, budded on sour orange, being as large, thrifty and heavy bearing as any oranges or grapefruit of the same age in the same location, and it is this new and superior strain that we grow and offer. We now have no hesitation in recommending this to our friends as a valuable addition to our list of varieties and feel sure that it will be a money-maker for Valley planters, as the common varieties are too tender to cold to be profitable here and good lemons always bring a good price on the market. On our high sandy lands it produces profitable crops without irrigation.

IMPROVED EUREKA. This is a strain of the old Eureka, California's best commercial lemon, that bears more prolifically and produces fruit of the highest quality and of the right size, the old strain being too large, as grown here. It is tender to cold and must be protected through low temperatures.

PONDEROSA. This is a very robust tree and bears very young and heavily. The fruit is very large, like a large grapefruit, and somewhat rough and thick-skinned, but of good quality and fine for home use. It is a wonder to tourists and everyone should have at least one tree of it. It is also tender to cold and should be protected.

Limes

MEXICAN. (Key Lime). This is the lime so universally used for making cold drinks and is unequalled for that purpose. It is tender to cold and must be protected through low temperatures, but if this is done it is a money-maker, as it begins bearing very young and bears heavy crops of the finest quality fruit, ripening it almost throughout the year, giving the grower an almost steady income. The tree is very thorny and of a spreading habit of growth, though somewhat dwarfish. It should be planted about 16 feet apart for best results.

MEXICAN THORNLESS. This is a great improvement over the old Mexican lime, in that the tree is entirely thornless, so that gathering the fruit is a pleasure instead of a nightmare, and there is no loss of fruit because of thorn damage. The fruit is practically the same as that of the old thorny strain and the crops are fully as heavy. The upright habit of growth, with leaves set close together on stiff upright branches, makes it a very beautiful and symmetrical tree. While it appears to be somewhat more resistant to cold than the old strain, it should be given protection.

CALAMONDIN. (Phillippine Lime). This is the beautiful, tall and symetrical citrus tree seen growing in the vicinity of Brownsville and elsewhere in the Valley, bearing those heavy crops of bright tangerine-red fruits resembling the round kumquats. It is one of the most ornamental trees of the citrus family and the fruit makes a delicious limeade, candied fruits and marmalades. It is one of the most frost-resistant trees we have of the common varieties.

Limequats

EUSTIS. This is one of the crosses of Lime and Kumquat produced by Swingle in an attempt to produce a fruit that would take the place of limes and at the same time be hardy to cold. It will stand temperatures as low as will the standard oranges and grapefruit, while the fruit is equal in quality to the Mexican lime, though the flavor is somewhat different. It is well worth planting as a hardy substitute for limes.

LAKELAND. This is another of Swingle's Lime-Kumquat crosses and has proven superior to Eustis at the Weslaco Experiment Station, which is saying a great deal for it. It is quite probable that the growing of limequats will prove profitable here on account of their ability to stand temperatures that would kill the true limes.

Kumquats

NAGAME. A dwarf variety of citrus from Japan, having small glossy green leaves and of dense, compact growth, and bearing heavy crops of beautiful orange-red fruit about $\frac{3}{4}$ by $1\frac{1}{4}$ inches, and beginning to bear almost at once. The tree is highly ornamental, while the fruit is fine for decoration and for cold drinks, candied fruits and marmalades. It is too acid to eat out of hand for most people but some call it delicious. It is hard to beat for landscape work and for growing in tubs in green-houses in the North.

MEIWA. Very similar to Nagame, but slightly more dwarfish in habit of growth. It is also a young and heavy bearer and the fruit is round instead of oblong and sweet instead of sour. It is delicious to eat out of hand and is sometimes called "the sugar kumquat". It is eaten whole the same as Nagame, the rind being the sweetest part.

Citrangequats

These are also the result of the work of Webber and Swingle, and were obtained by crossing the hardy Trifoliate orange with the sweet orange and then re-crossing with kumquat. They are extremely resistant to cold and may be successfully grown where it is too cold for other citrus. They make highly ornamental trees and when covered with their bright orange colored fruits they are a beautiful sight.

SINTON. This is probably the best Citrangequat for the Valley. It is a fine upright and ornamental tree, bearing heavy crops of deep orange-red fruits, pear-shaped and about $1\frac{1}{2}$ by $1\frac{3}{4}$ inches, which are fine for cold drinks, candied fruits and marmalades. It is almost seedless.

THOMASVILLE. This one is valuable mainly as a stock on which to bud other varieties and is only recom-

mended for that purpose, as the Sinton is superior to it in every other way. It is, however, a fine subject for further experiments in creating new and hardy varieties, and experimenters should not overlook its possibilities.

COMBINATION TREES. How would you like to have a tree bearing Grapefruit, Oranges, Lemons and Limes, all on the same tree at the same time? Yes, we have them, and there is nothing more interesting and valuable for the home planting, especially where there is room for only one tree. The varieties are Marsh and Pink Marsh Grapefruit, Norris Seedless, Surprise Navel and Temple Orange, Ponderosa and Eureka Lemons and Mexican Limes, in several combinations. The trees are thrifty and healthy and will begin bearing early. Only a few to offer, so get your order in early. You are sure to be well pleased with results.

New, Rare and Novel Varieties

WEKIWA TANGELO. (Tangelolo). A cross of Tangerine and Pomelo, re-crossed on Tangerine, originated in California. It is a good bearer of medium sized pink-fleshed fruits of delicious quality, very sweet and juicy, one of the best we ever tasted. It has not fruited here as yet, but as most other citrus fruits are larger and better as grown here than as grown in California we fully expect this to become a favorite as soon as known. It is a very fancy fruit and deserves a thorough trial here. Only a few trees to offer as yet.

VARIGATED SOUR ORANGE. According to Burbank, this is a cross between the orange and lemon. It is a fine healthy tree and bears fruits the size of an ordinary orange, which are beautifully striped with deep orange and light lemon colors, alternated, making a very pretty and striking sight. It is too sour to eat out of hand, but makes a good lemonade. A real acquisition to the home planting. Only a few trees to offer.

VARIGATED LEMON. A sport from Eureka lemon, having large healthy foliage which is edged and spotted with light yellow and white, making one of the most novel and beautiful sights we have ever seen. It bears fruit of about the same size, shape and quality as the parent variety, but the color is a silvery white. It is tender to cold and should be protected from low temperatures, but its value as an ornamental will justify the extra trouble. There is nothing like it, so far as we know.

NAVEL GRAPEFRUIT. Said to be a cross between a navel orange and a grapefruit, bearing navel-marked fruits with a grapefruit flavor. The tree is a vigorous grower, much like a common orange tree, with glossy green foliage, and quite thorny. Valuable mainly as a novelty.

SWEET LIMES AND LEMONS. These are variations of the common sour varieties and similar to them in habit of growth and appearance, but the fruit has no acid and can be eaten out of hand like a sweet orange. They are too insipid for most tastes but our Latin-Americans are very fond of them. Valuable mainly as a novelty.

We have several other new and rare varieties under observation in our experimental grounds, some of which are quite promising, and hope to be able to add something to our list of valuable varieties in the near future. In most of these we have grown more trees than we need for our experimental work and can supply a few to

those who care to experiment with them. To us this is a very facinating work, even though we have more failures than successes, and makes a very interesting hobby.

Other Nursery Stock

While the growing of fine citrus trees is our specialty, we also grow and furnish a good line of Shade Trees, Palms, Roses and other ornamentals for the beautification of the home grounds, which we sell at very reasonable prices. We will be glad to help you in landscaping your grounds and beautifying your groves, and make no charge except for the materials used. A few dollars spent for beautification will add greatly to the value of your property, to say nothing of the satisfaction of having an attractive home and grounds.

About Planting

We quote prices on our trees both "at the nursery" and "planted". When we quote them planted, that means that when the land has been properly prepared for planting by the owner we will lay off the grove, dig the holes and plant and water the trees for that price per tree in orchard lots. It is generally cheaper and more satisfactory for the nurseryman to plant the trees than for the owner to do so, as he is usually better equipped and more experienced.

When we have finished planting, we furnish the grower, free, a map or plot of the grove, showing the exact location of every tree in it, keeping a copy for our files. This gives the owner a strictly pedigreed grove and is especially valuable if bud-wood is to be sold from the trees, and the sale of bud-wood constitutes quite an item in the profits from a pedigreed grove.

Our Free Service

We are just as anxious for our trees to make good as is the owner, because if they fail to do so the nurseryman gets the blame, no matter what the cause of failure. So we reserve the right to examine the land and refuse the order if it is not adapted, and to visit the planting from time to time to see that the trees are being properly cared for, advising the grower as to what may be needed, if anything. This service is free, and is often valuable to the inexperienced grower.

Our Guarantee

We guarantee every tree, shrub and plant we grow to be in good living condition when delivered, and free from insect pests and diseases, and agree to replace free any not found so, but assume no further responsibility. All stock is sold with this understanding. Claims for replacements must be made promptly on discovery of the trouble, should any occur.

Terms of Sale

Because of circumstances over which we have no control we are compelled to sell our trees for cash, only, and this is best for our customers as well as ourselves. In that way we have no bad accounts and can make closer prices to our customers. On orders placed with

us for future delivery we ask that a partial payment be given us with the order, otherwise we can not hold the stock and run the risk of losing a cash sale. In case of our being unable to deliver because of loss of, or damage to, the stock by causes beyond our control, we will of course return any moneys paid us on such orders but are not to be held responsible for failure to deliver the goods under such circumstances. All orders are cash on delivery and are accepted with that understanding.

Invitation

Our nurseries are located one mile north of the new town of Los Fresnos, on the concrete road, and you are cordially invited to visit us, examine our stock and talk over your plans with us. Whether you buy or not, we will be glad to assist you in any way we can. Our long experience may prevent your making serious mistakes and be of help to you in making a success of your plantings.

Yours for a still more successful citrus industry,

Sam J. Baker & Son.

SAN BENITO, TEXAS — LOS FRESNOS, TEXAS

Certificate of Inspection

Each and every order of trees, shrubs and plants from our nurseries is accompanied by an official Certificate of Inspection signed by the Commissioner of Agriculture and the Chief Inspector of Nurseries, certifying that the nursery stock grown and sold by us has been duly inspected and found free from insect pests and diseases.

Our stock is also subject to State Certification as to parentage and other matters of importance to prospective customers, as we keep full and complete records of the parentage of all our trees, from the seed to the finished tree. We use buds from only the best trees in the best groves known and our seed-beds are carefully "rogued" several times so that only true stocks are used for budding. Hence, our customers are assured of getting not only clean, healthy stock but the best-bred stock possible to grow, or "pedigreed" trees, grown especially for Valley planters and for Valley conditions, with which we are thoroughly familiar, after more than sixteen years experience here.

Redblush Praised by Foremost Americans

Having already received the endorsement of hundreds of prominent growers and citrus authorities as to the outstanding quality and appearance of our new Webb's Redblush Seedless Grapefruit, we were anxious to get the opinion of some of our foremost American citizens who, because of their high positions, and wide experience, are competent to judge the merits of such an article, and whose opinions should therefore be of value to prospective planters, we recently sent samples of the fruit to President Franklin D. Roosevelt, Vice-President John N. Garner, Congressman Milton West and Governor James V. Allred of Texas, asking them to serve the fruit on their tables and then kindly write us their candid opinion of it. All wrote us very complimentary letters which we have on file and of which we are justly proud. Below is a copy of the letter from Vice-President Garner, our most distinguished Texan, which is typical of those received from the other celebrities, so far as their opinion of the fruit is concerned:

THE VICE-PRESIDENT'S CHAMBER,
Washington.

January 20, 1936

Mr. Sam J. Baker,
San Benito, Texas.

Dear Mr. Baker:

Your letter of January 11th was forwarded to me by Congressman Milton West a few days ago, followed shortly by the basket of grapefruit you so graciously sent me.

The citrus world owes you and Dr. Webb a debt of gratitude for having originated this unusual grapefruit. I am not surprised at the attention you state it is already attracting and feel sure it will receive greater popularity as it becomes better known.

The fruit is delicious in flavor and, I believe, contains more juice than any fruit of its size that I have had the pleasure of eating. The color is unusual and very pleasing to the eye.

Mrs. Garner joins me in thanking you and extending our kindest regards.

Very cordially yours,

(Signed) JOHN N. GARNER.

JNG-ERG

CONTRACT AND ORDER
FOR
WEBB'S REDBLUSH SEEDLESS GRAPEFRUIT TREES

GROWN EXCLUSIVELY BY
SAM J. BAKER & SON
LOS FRESNOS, TEXAS

[**DUPLICATE**]

Los Fresnos, Texas, _____, 193_____.

I, _____, of _____,

hereby order from Sam J. Baker & Son, _____ trees of Webb's Redblush Seedless Grapefruit, under the following Covenants and Agreement, which are a part of the consideration for this purchase and sale, to wit:

These trees are all to be planted on my own property, legally described as _____

_____, in _____ County, Texas,
and no buds or scions from any of these trees are to be sold, given away or allowed to be taken by any one under any circumstances before June 1, 1938, except that I may use buds for propagating or top-working trees for my own use exclusively, or sell same to Sam J. Baker & Son and no other. These trees are to be delivered to me at

_____, on or about _____, 193_____.

Signed, _____

Purchaser.

NO. TREES	SIZE	AGE OF BUD	ROOT STOCK	PEDIGREE NO.	PRICE EACH

We accept this order under the above agreement and acknowledge receipt of the sum of \$_____ in full payment for same. We also agree to replace, free of charge, any tree or trees that may prove untrue to name, or refund the price paid us for such tree or trees, but assume no other responsibility.

SAM J. BAKER & SON,

DELIVERED _____, 193_____.

By _____.