www.forgottenbooks.com

The Kadota Fig

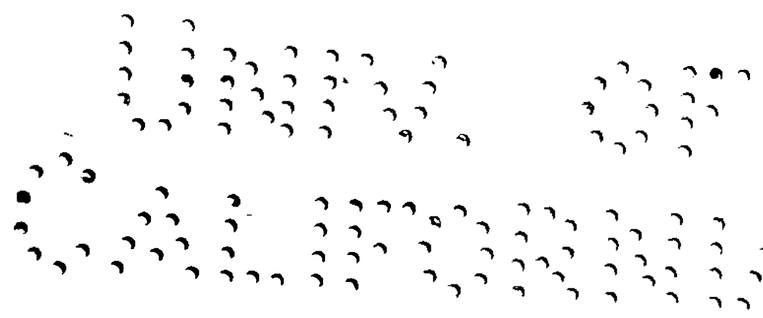
A Treatise on its Origin, Planting and Care

By

W. SAM CLARK

Sultana, Cal.

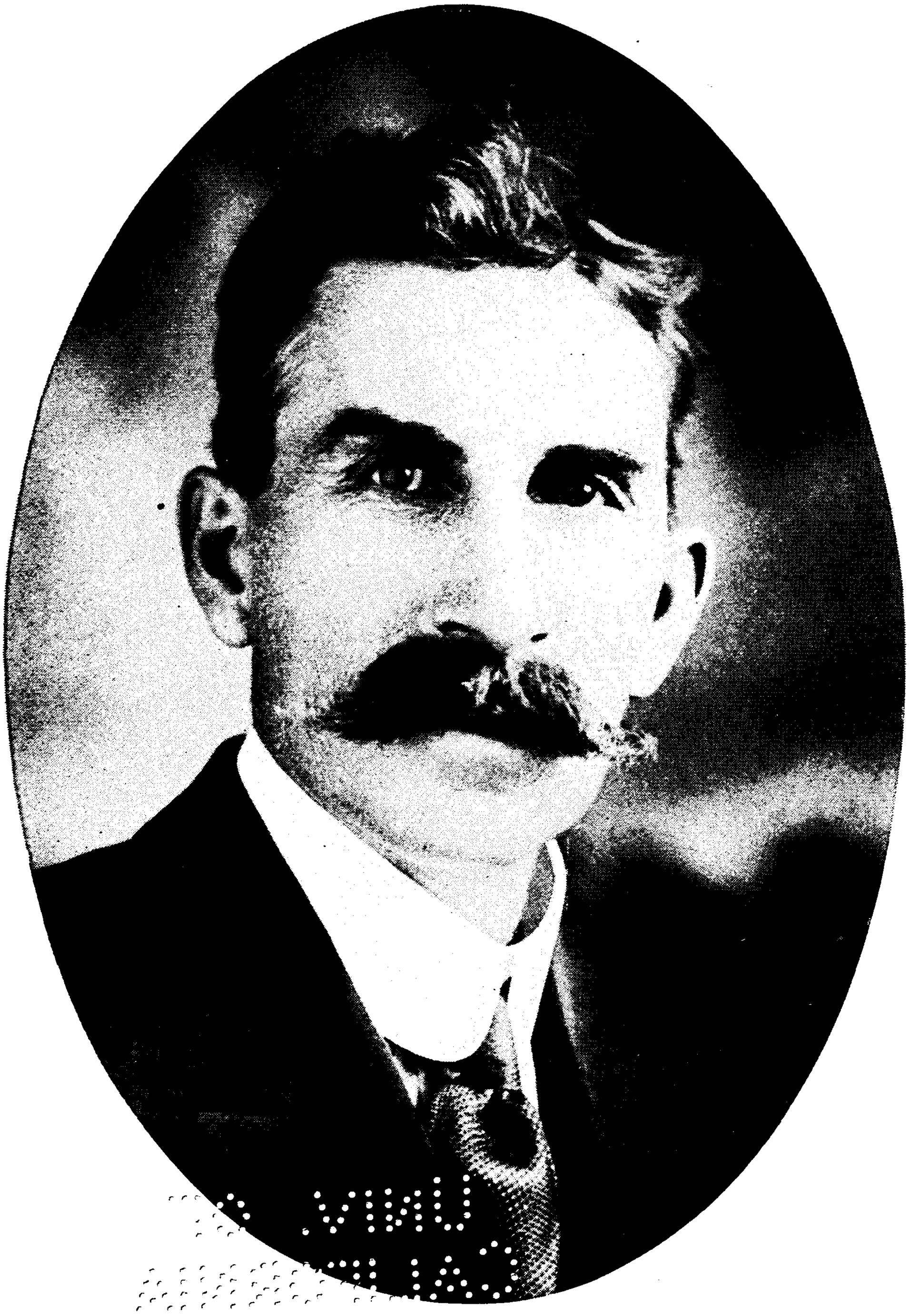
PRICE ONE DOLLAR, POSTPAID



Published by

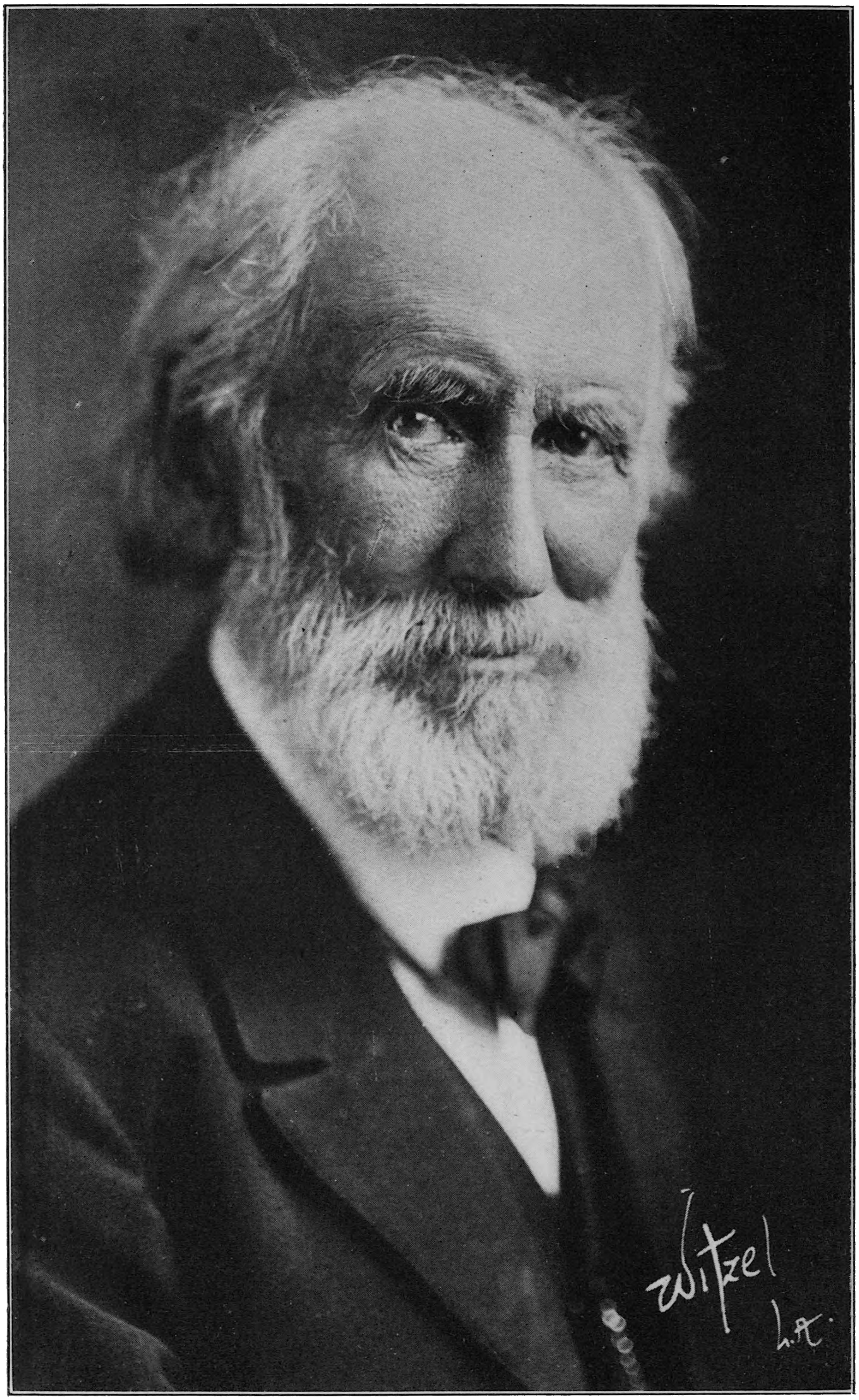
THE FIG AND OLIVE JOURNAL

311 East Fourth St., Los Angeles, Cal.



W. Sam Clark

CONTENTS



Frontispiece

Stephen H. Taft, Discoverer of the Kadota Fig

The Kadota Fig

In presenting this little book on the Kadota Fig to my friends and patrons, I do so with a full recognition that so swiftly are we advancing in all branches of horticulture and disposition of our products, that a writer on the subject may produce something that is hopelessly antiquated almost before it leaves the press.

It is only the entire absence of anything printed regarding this horticultural marvel, developed in late years, that prompts me to put out this regarding the Kadota Fig.

In going back into the history of human progress, I cannot help but be impressed with the equilibrium or co-advancement of human and horticultural achievements. Each stage of human advance witnessed a corresponding advance in the fruits and grains of that age.

The personality of the human race is reflected in the products of the earth, directly or indirectly as a result of their mental attainments. From earliest humanity to the present, from the Tropics to the Arctics, flora and fauna are co-existent and make co-advancement.

Is it imaginary on my part to attribute to the fig, the fruit nearest and dearest to mankind since the beginning of time, a kindred nature, reflecting the color and life habit of the race which produced it? Can we not see, away back in the haze and dimness of antiquity, a sympathetic likeness between the earliest man, imperfect and erring, and the fig of that time, a wild, fierce thing, scarcely recognizable at present as the forebear of the joyous fruits we now produce?

Is not the Smyrna fig, a product of Oriental advancement, an exact reproduction of the people who propagated it? Are they not secretive and evasive, utterly depraved on one side of their nature, and human perfection and kindness on the other? Fair of skin, an object of beauty are their females in youth, and fading in early age, yet a race existing for centuries regardless of vicissitudes? Is not the Smyrna fig an exact counterpart of their progress and their lives? A thing of beauty and a joy unsurpassed is the ripened perfect fruit, yet secretive and a useless, deplorable thing, unless by the implanting of an outside influence in the form of the wasp, which brings perfection to the fruit, only as does the winged spirit of Christianity, carrying the pollen of kindness, an invisible leaven, makes more perfect the nature of the race who produced this fruit? Long-lived and tenacious of existence, neither is fit for our association unless by the infusion of outside elements invisible, almost, but effective. Are not the people and this fruit twin products of their time and age?

Is not the Adriatic fig also a reflection of the peoples who associate their existence with the fig bearing the name of the region whence they spring? A hardy, mountain people, who have struggled and lived for ages in adversity, and who maintain an existence by sheer tenacity of spirit, yet whose imperfect human productions will liken achievements to this fig which so closely

resembles them in every way. Does not this fig thrive in adversity. regardless of outside assistance or abuse, and will it not produce an abundance of fruit, poor and imperfect to be sure, not true at heart in all cases, yet a splendid product is obtained when transplanted to proper soil, and under correct conditions, and yielding readily to the influences of the wasp, which we may liken unto the pollen of civilization, which that race of people so hungrily long for and respond to when given?

Are the people of that land and this fruit of those people not twins, fair of face and color, typical in life and spirit? Each imperfect, yet swiftly responding to betterment when correctly applied? It strikes me so.

Was it not the Moor, strong and sturdy, dark of skin and warm of heart, that transplanted from the shores of Tripoli to the hills of ancient Spain, a dark-skinned fig, each a conqueror in its own way, winning the land and the love of the people?

In after centuries, was it not the dark-skinned Padres of old Spain whose indomitable spirit and loving kindly ways blazed the Christian trails into our western lands, bringing comfort and spiritual cheer, and implanting with their blessings this same old fig in the sun-kissed lands of California? Does not this fig image an exact reproduction of these patient and blessed men who gave this fig and their lives to us? Does it not furnish physical shade and protection, temporal food and spiritual inspiration and lasting blessings? Are its fruits not sweet and pure, dark in color, yet never failing in time and season? Are not these fruits like the silent Padres of old, ever welcome in humblest home, to lordly mansion, bringing peace and consolation to us all? Are they not almost *one*?

Now comes the Kadota, a product of our land and time. Almost with meteoric speed and splendor, from out our western skies comes this fair-faced visitor, like gracious maiden through parted curtains, a vision of beauty and a joy.

Springing from the soils of our thrice blessed land comes the product of our century. Its golden fruit, snuggling in velvet foliage of deep dark green, comes like the vision through parted portieres. With a speed and swiftness, like our lives and actions, comes this child of our dreams. How very like our people is this tree and its fruit. Impatient of all delay it brushes aside all granted prerogatives of its cousins of old; from babyhood it yields its products with an assurance and a certainty of the precocious child that it is.

Its swiftness and marvels of achievement exactly mirror our age and time; its generosity and fair play image the men of our western empire, while its sweetness and tenderness are the spirit of our women, swaying to every impulse for betterment and improvement, yet always true and steadfast wherever placed by fortune or conditions.

It meets our every demand for speed and certainty. In our race against time we never lose sight of fair play and justice. A perfect product for a given stipend is motto alike for man and fig, and in its travels, imprisoned in walls of glass, it carries visions of golden sunrise fanned by gentle zephyrs, laden with scent of blooming fields and gardens.

Or, wrapped in waxen paper, the freshly gathered fruit of golden radiance we send like graceful carrier pigeon, bearing a message to our Eastern cities, from these lands of music and pleasure, of sunshine and plenty, beside our Sunset Sea.

This fig, true product of our land and spirit of our people, brings us fame and honor, while radiating pure joy and pleasure.

Vibrating from its very heart are the impulses of the Californian; scattering with prodigality and western abandonment its harvest of luscious fruits and fulfilled promises.

Discovery

The honor and credit for the discovery of the remarkable fig now known as the Kadota belongs exclusively to that wise old horticulturist, the late Stephen H. Taft, of Sawtelle, a member of the Centenary Club of Southern California.

When nearing the brave old age of five score years he crossed over the sunset sea, leaving behind him a horticultural triumph whose magnitude and value were but faintly appreciated even by himself.

As the planted acres of this fig are leaping from hundreds into thousands, and demand outstrips all possible production even now, only then does the true worth of this fig appear and the magnitude of the discovery become apparent to those interested in this branch of horticulture.

The original tree of this variety, then a stranger, discovered and named by Mr. Taft and afterward distributed, first appeared in an orchard grown by Mr. Cyrus Way of Whittier, from cuttings furnished by Mr. Theo. Hockett, from his orchard of *Dottatos*, which in turn was an orchard grown from cuttings imported from Europe in 1887, by Mr. R. Thompson of Orange County, California.

In the orchard grown by Mr. Way was one only tree of most remarkable vigor, growth, and early production, and in every way superior to the balance of the orchard surrounding it. The discriminating judgment of Mr. Taft immediately recognized in this stranger the very qualities and virtues so long sought by all progressive fig growers the world over.

Whether it be an off-shoot, a sport, or a freak of nature, matters but little to us now, and its remarkable achievements in the few short years of its existence has astounded the fig growers of central California, and it now stands at the very head of all figs of its class, and has indeed created a branch of the fig industry all its own.

Introduction

It is perhaps true that no fruit ever grown has so surely and so swiftly leaped into fame and found a place for itself in the thoughts and the acres of the progressive and discriminating orchardists of California.

The advent of this fig has revolutionized the planting and pruning of fig orchards. It has created a new industry—the canning of fresh figs as other fruits are canned. It has already caused the installation of canning establishments in several of our interior cities, and more are in the formative stage. Coast cities had first canned our crops. It has created a new department of labor—the skilled picking of fresh figs.

This fig has upset all the established rules for irrigation of fig orchards. It has created a confidence in the fig industry not previously enjoyed by the

older varieties, because of its early bearing, tremendous tonnage, certainty of crops, and unprecedented demand for its products and unparalleled cash returns enjoyed by the planters who grow this variety, occasioned by the many uses to which this fruit is now put.

All this and more has been achieved by this fig in the three short years since we had the honor and the pleasure of introducing it to the fig growers of California, assembled in Fresno, January, 1917, on the occasion of the first Fig Growers' Institute held at that time. Relatively but little was known before that date regarding this fig, its uses and virtues, and the publicity given it on that occasion was all that was needed to cause it to leap into the limelight and occupy the unique position it now holds.

Distribution

After Mr. Taft had given his new fig a rigid tryout in its many uses, he began the propagating and distribution of this variety, and in 1913 I secured from him the rootings which constitute my original orchard, now six years of age. He was at that time a man somewhere in the nineties. His age and limited acreage made it slow and difficult for him to distribute very widely his discovery.

I had had considerable correspondence with him and was deeply impressed by his enthusiasm, foresight, and absolute honesty, and fully appreciated the loss to the industry occasioned by his decease, which left no one in particular to champion the cause of his fig. So in a timid and halting manner I attempted to carry on the work he was forced to drop. I soon discovered that others were impressed very favorably with this fig and my first nursery proved all too small to meet the growing demand, and from my first venture to the present time we have never been able to supply even 50 per cent. of the rootings desired by intending planters, and while each year I increase my nursery to the greatest possible extent I still fall far short of demands. The saddest feature of this shortage of genuine stock lies in the opportunity it gives to the distribution of spurious stock, secured from orchards of the old "White Endich," "California White" and "White Pacific," all collectively sold as Kadota or Little Kadotas. These older varieties have long been known in California and classed as unprofitable figs. But in general appearance they so closely resemble the genuine Kadota that unwittingly planters are accepting this stuff, and only when too late will they discover their error, and two results are absolutely certain.

First, they will grow a smaller tree and a smaller, poorer fruit; and, secondly, the name and reputation of Kadota is sure to suffer as these planters in perfect faith and honesty will condemn this fig, naturally thinking they are growing the genuine, which in their orchards is falling far short of the many virtues claimed for the genuine, and really enjoyed by those fortunate enough to have secured true stock. So with all the emphasis at my command I warn all planters to be *absolutely sure they secure rootings of direct lineage to that one only tree, from which Stephen H. Taft named and secured his original cuttings.* There was no such a fig as the Kadota previous to that time, however much nurserymen claim to the contrary.

In my immediate vicinity there is an orchard of sixteen acres, one-half of which is Endich, the other half Kadota, and any one may stand half a mile

away and instantly see the difference and recognize the very row of trees where the two varieties meet. A nursery is now growing from cuttings taken from that orchard, and the Japanese who will sell the rootings will sell "Kadotas" next planting season. He neither knows of nor cares anything for the Taft variety, but the demand will sell his "50-50" stock and many orchardists may hereafter have years of regrets.

So few are the years since the advent of this fig, and so few are the genuine nurseries, that any planter may easily prove the origin of his rootings. A law protects a planter in this state against the purchase of stock afterwards proving to be not true to name. But that joke causes a nurseryman, within seven years, to refund to the planter the *purchase price* of his rootings. Wouldn't that make you smile? After seven years you find you were buncoed, and then get back the 25 cents per tree you perhaps paid for the false rooting!

Planting, Cultivating and Irrigation—Soils

Kadota figs are now growing in all soils and beside every other variety of fig grown in California, and while some soils are most assuredly superior to others for the production of figs, this fig has demonstrated that nothing special in soils or treatment is required to make it out-grow and out-bear in tonnage any other fig with which it may associate.

All figs should avoid pure sandy soil; select something heavier and use sandy soils for something else. My home orchard is planted in heavy adobe and dry-bog. Loams are, in my judgment, most superior for growing figs, and soils under-laid with hard-pan which may be blasted may, in the long run, prove still better than loams. The breaking up of hard-pan liberates the elements so essential for the production of a superior quality of fruit.

Lime is pre-eminently a requisite for heavy, meaty, rich figs, and all hard-pans are heavily impregnated with lime, and more or less so with potash, sulphur and iron, all of which go to make a soil favorable for fig production. A deficiency of lime in any soil will cause a fruit to be produced that dries into a hollow shell of seeds and little meat. We have all seen that kind of dried fruit.

Air and water will cause hard-pan to disintegrate, thus liberating these above named values. The tree itself may flourish in any soil deficient in lime, potash, sulphur and iron, yet the product of the tree will be poor. Again, hard-pan land when blasted conserves moisture below the pan, as summer heat cannot evaporate the moistures invariably found beneath, and the tree will eventually push its roots downward and laterally, thus securing required moisture at all seasons.

Planting

Regardless of the price of powder, blasting of locations for fig tree planting should invariably be practiced. First, a deeper, bigger, better hole is thus secured; filling the hole with aerated soil from the surface insures strong, vigorous growth for three years on the part of the newly planted tree. Secondly, the hole acts as a reservoir for the irrigation or rain which should follow the planting, and the cracks caused by the blast radiating laterally in all di-

rections permits roots a freedom of spread not enjoyed by a tree planted in a dug hole, whose sides are by pressure of the spade tightly sealed against the tiny rootlets. Blasted holes should invariably be filled and settled with water before tree is planted.

As fig rootings are the most delicate of all the trees planted in California, the greatest care possible should be exercised in their handling. From the nursery to the tree hole all speed and care should be employed. The rootings should never even for sixty seconds be exposed to hot air or wind. Spotted fig orchards everywhere emphasize this caution and advertise the fact that some one either in ignorance or carelessness, or both, between the nursery digging and the planting failed to heed these well known warnings. So, learn your nurseryman's habits before you secure your stock of rootings. A fig tree that has been well handled and well planted is worth one dollar more than cost, the moment the roots are covered. A new fig orchard one year old and 100 per cent. stand should be worth $100.00 per acre more than the land was one year before. So use all care and caution in handling your rootings.

Plant your rootings 4 inches deeper than they grow in the nursery, settle the dirt with water about the roots, and if you are planting Kadotas, then cut away all the tree 10 or 12 inches above the ground.

First, this cutting away balances the top with the lacerated and reduced root system occasioned by the removal of the rooting from the nursery bed.

Second, a Kadota is a fruit which derives its greatest profit by selling as fresh figs, and must be picked from the tree, and a tall tree is a very expensive tree to pick, and ladders should be as low as possible to increase profit in handling the fruit.

Hence, crown your Kadota at or near the ground, induce a wide spreading tree by top pruning and shade ground and trunk from frost and sun, and double the tonnage of your fruit over any and all fig trees pruned by the old obsolete methods so much in vogue in California. Forget the tillage under your tree. Don't attempt to plow either deeply in a fig orchard or near to the tree. The roots that make the tree are deep and out of reach of the plow. The fruit rootlets are almost invisible, delicate and near the surface. Plowing over 6 inches deep will probably destroy or reduce your crop. Deep plowing may perhaps be practiced if from the first year planted it is always done and roots always kept deeply down.

The grass under your tree may be removed with a hoe. You grow an orchard for profit, not to satisfy a vanity unfortunately found in many growers regarding the appearance of their orchards.

Irrigation

If you are growing a Kadota orchard, keep in mind these facts: A Kadota orchard in full bearing must mature a crop 4½ months each season, and a tonnage practically three times that of any other fig orchard. Hence your soil must either possess or be given more water than the soil of another orchard to assist the tree in fulfilling her obligations.

Another thing: Remember, you cannot in any manner, shape or form injure the tree or the fruit with an excess of water at any stage of the fruiting season. So apply the water before and between crops, increase the growth

of your tree, *and every inch of new growth on every limb brings a new leaf. and every leaf on new wood harbors a fig which will ripen that season; so force the size and growth of your trees whenever possible.*

All soils do not require the irrigation I give to my land, and each planter can use judgment according to his conditions. In the growing season the terminal bud should be kept unfolding into a new leaf. When that operation ceases, water is needed.

In my orchard of adobe land I irrigate late in April, or twice in May, and twice in July after the June crop is gathered, and again between crops in August and September if time permits. I force the growth and tonnage.

Pruning

By cutting back a newly planted fig tree to 10 or 12 inches from the ground you induce a low dense growth near the ground that, as the tree ages, permits of an easy and cheap method of gathering the fruit as above stated, and you also cause the trunk or body of the tree to be at all times protected from the elements, both winter and summer, and you also provide a dense shade conserving the moisture inherently in the soil or added by irrigation. All varieties of figs are improved by this method of pruning, and invariably a heavier tonnage of fruit is thus secured.

For gathering figs ripened on the tree and fallen, the extremely low branches may be removed to permit the small boy to rustle about under the branches. But always bear in mind that our improving system of growing orchards is getting us each year farther away from the old California system of driving a six-horse team under the branches of our trees, and we are also learning that intensive cultivation immediately under a fig tree is not essential to growth or fruit.

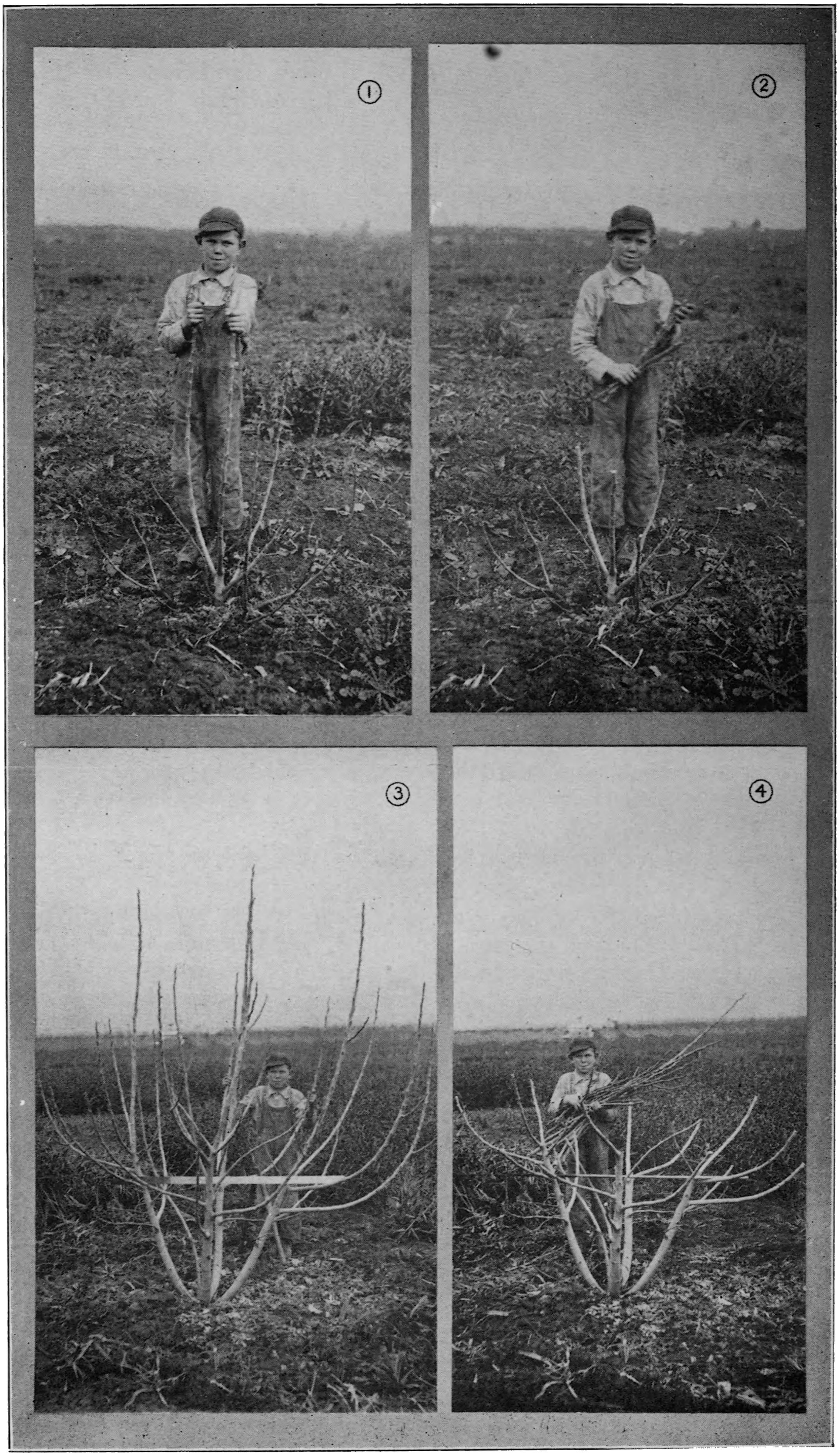
The best bearing old fig tree we know anything of is one in door-yard, fence corner or on ditch bank, where horse, teams or tractors never go.

The time is rapidly coming when all varieties of figs desired for drying will be picked fresh from the tree, dehydrated, and otherwise handled in a manner to cause California dried figs to become famed the world over. That desired end will not be accomplished with our present methods. In connection with that future prospect the pruning of all varieties of figs must be practiced along the lines now accepted as the correct method for pruning the Kadota. After planting cut tree back to 10 or 12 inches.

The second season shorten all growth to 16 or 18 inches and cut center out. Third season shorten all growths to 12 or 18 inches.

The fourth season the growth of many branches should be cut back to 16 or 18 inches, as in previous seasons, with this difference: You are now expecting to gather a considerable tonnage of fruit, and the branches which have not made a growth to exceed 20 or 22 inches should not be disturbed this season but should be permitted to remain to give you your June crop, and may be shortened next season to proper length, and the greater growths on the tree should all be cut away to within 16 or 18 inches of their union with parent branch. In branching they will give you crops later in the season.

In the season to follow, as the tree increases in size and age, leave all short growths for June fruit, and, unless you can cut away at least 6 inches and retain required length of stub, do not cut. Small slender growths may



Upper View—Kadota Fig, 10 months after planting, correctly pruned.

Lower View—Kadota Fig, 22 months after planting; 4 ft. lath indicates spread of branches, correctly pruned.

be retained as fruit producers and shortened or removed another season, for you will always have plenty of cutting to do on sturdy growths.

Always keep the center of your tree open. The bigger the tree the greater the opening should be. A crop will ripen in the center of an open tree, and none to mention in a jungle.

Keep your trees low. Remove all upper branches that are out of easy reach of a picker standing on a 4-foot ladder, or within reach of picker standing in the center of your tree.

Remove branches that grow into the ground. Cause your tree by pruning to have its greatest circumference at a point within reach of a picker of

Kadota Fig—Third pruning, 34 months after planting. The "bush" effect, so essential for economy in gathering fresh fruit, is being obtained by correct pruning.

average height standing on the ground; curving inward and downward toward the trunk, that lower branches may not grow to such an extent as to impede picking when a ladder is used, and upper branches must be reached.

Study your tree; do not hesitate to remove a big branch to induce new growths to take its place when it has outgrown its usefulness, and always keep your trees low. Reducing height of tree eliminates the use of ladders to a great degree and reduces cost of gathering fresh fruit, be it Smyrna, Mission or Kadota.

Summer pruning by pinching off terminal bud is not good practice; a cluster of limbs will spring out where the bud is pinched; cut away 6 or 8 inches or more, and limbs will come distributed along, back on the parent stock.

This same tree, 6 months after pruning. One may readily see the advantages obtained by correct pruning, as contrasted with my older trees.

The old obsolete pruning of fig trees is merely a follow-up of pruning systems employed in New England and other sections, where a fruiting tree was not a tree unless it was pruned up high enough to drive a horse and tall harness-hames under the lowest branches and not knock the apples off.

A fig orchard should not be an orchard at all in the acceptance of the term. It should be a "Fig Garden" and the trees should be "bushes," as they are on the Island of Capri.

This past summer several of my 6½ year old figs measured 100 feet circumference of the branches. The bearing surface was immense. Others were 75 to 90 feet.

Closer planting, severe pruning and smaller bushes, and more tonnage per acre, will be the practices in the near future of *all* varieties of figs.

The pruning of a Kadota orchard is the most essential as well as most delicate task we have. The limb of a Kadota tree produces fruit for 18 months, and thereafter is a loafer in the tree, except at the extreme tips, or becomes the medium for the production of other limbs that will bear fruit.

Consequently I practice the removal or shortening of all limbs past the producing age. Cut a limb 18 inches from its junction with its parent and it in turn becomes a parent for 3 or 5 newer limbs. all new wood and consequently producers of fruit the season following pruning. They get to work *right now*. They don't wait a year and then get busy.

Kadotas produce an abundance of seasonal growth of 3 to 7 feet in length. If not cut back next pruning season your trees will soon be full of long fishing poles and while your June crop will be reduced by shortening back these long growths to 16 or 18 inches, the multitude of newer wood resulting from the pruning vastly over-pays the losses occasioned by cutting, and your tree is shaped better and a greater percentage of your fruit is secured without the use of ladders.

In my orchard I found it cost 43 per cent *more* to gather a given tonnage of fruit by using ladders than the same tonnage gathered by standing *on the ground.*

Furthermore, a Kadota tree should be kept pruned out in the center to permit sun and air to enter, that a crop may be gathered from the *inside* circumference of the tree as well as the *outside* circumference.

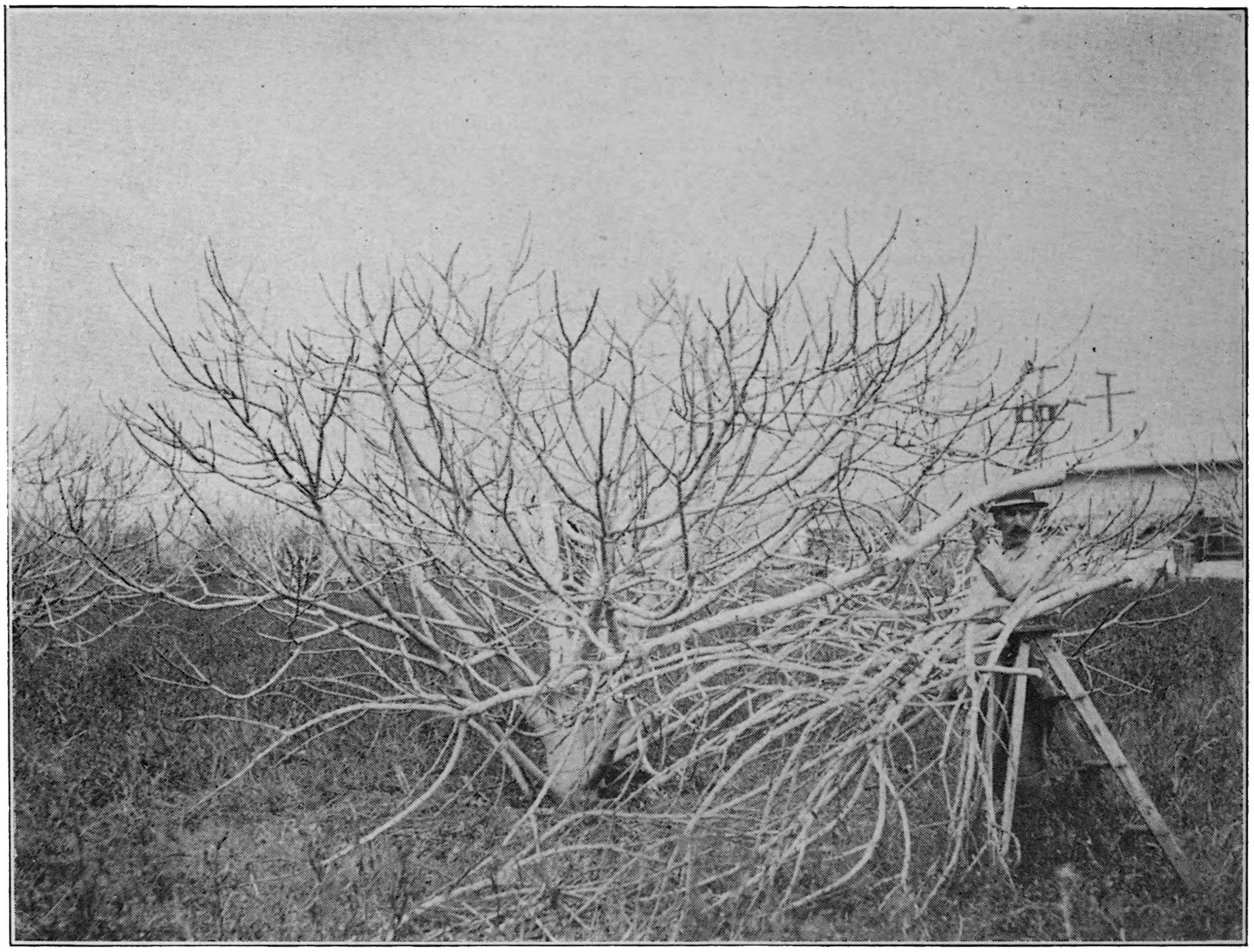
Conduct your pruning along these lines and increase your tonnage very considerably.

Everyone has observed fig trees grown dense in the center, tall slender limbs pushing up to the light and air at the extreme top of the tree and fruiting only at that point, entirely out of reach of a picker.

Remember, a fig tree produces only on the tip ends, and on new wood, and axiomatically your tonnage will increase with increasing new tips and quantity of new wood, and the greater the outside diameter of your tree the greater the tonnage you will gather. Observe photos herewith presented showing trees six years of age measuring over 100 feet in outside circumference of the branches.

Kadota Fig tree 5½ years after planting. Observe the long, slender, non-bearing limbs in this tree. Unwise pruning in first and second years permitted this condition.

Go and measure some 15-year-old Smyrnas or Missions and find an equal measurement and then observe methods of pruning practiced in the past, and you will readily see where the crowning of any fig tree three feet or so from the ground has caused the owner yearly losses which could and should have been prevented. No tall tree can possibly have the bearing surface of one crowned near the ground.



Same 5½ year old tree, after pruning. Observe the length of brush removed; wasted tree energy due to imperfect early pruning.

Gathering, Packing and Shipping

When a Kadota fig orchard reaches a bearing age, it produces crops for 4½ months each season. The first crop begins to ripen on or before June 18 with us, and one season ripened the first week in June.

The fruit should be gathered while firm, yet fully matured and full sugared. If it is good to eat off the tree it is ready for shipment. Otherwise don't pick it, as it never puts on any sugar after being picked.

The June crop is not as good for Eastern shipment as subsequent crops, as it is more watery.

After experimenting for four seasons on a basket to pick with we decided upon a light galvanized oblong receptacle weighing 3 pounds, and one that will last for many years. The basket is 3¼ inches deep, 14 inches wide and 18 inches long, with ¼ inch iron bale with hook attached to center of bale, to hook on limb of tree or on ladder. Each picker carries two baskets into the orchard and when full uses a yoke to carry to packing shed. Each basket when full contains 18 to 20 pounds net.

Kadota Figs. Planted March, 1913. Photographed Dec. 4, 1917

per pound for all he picked, everything worked smoothly and careless pickers were weeded out and best men retained.

Packing

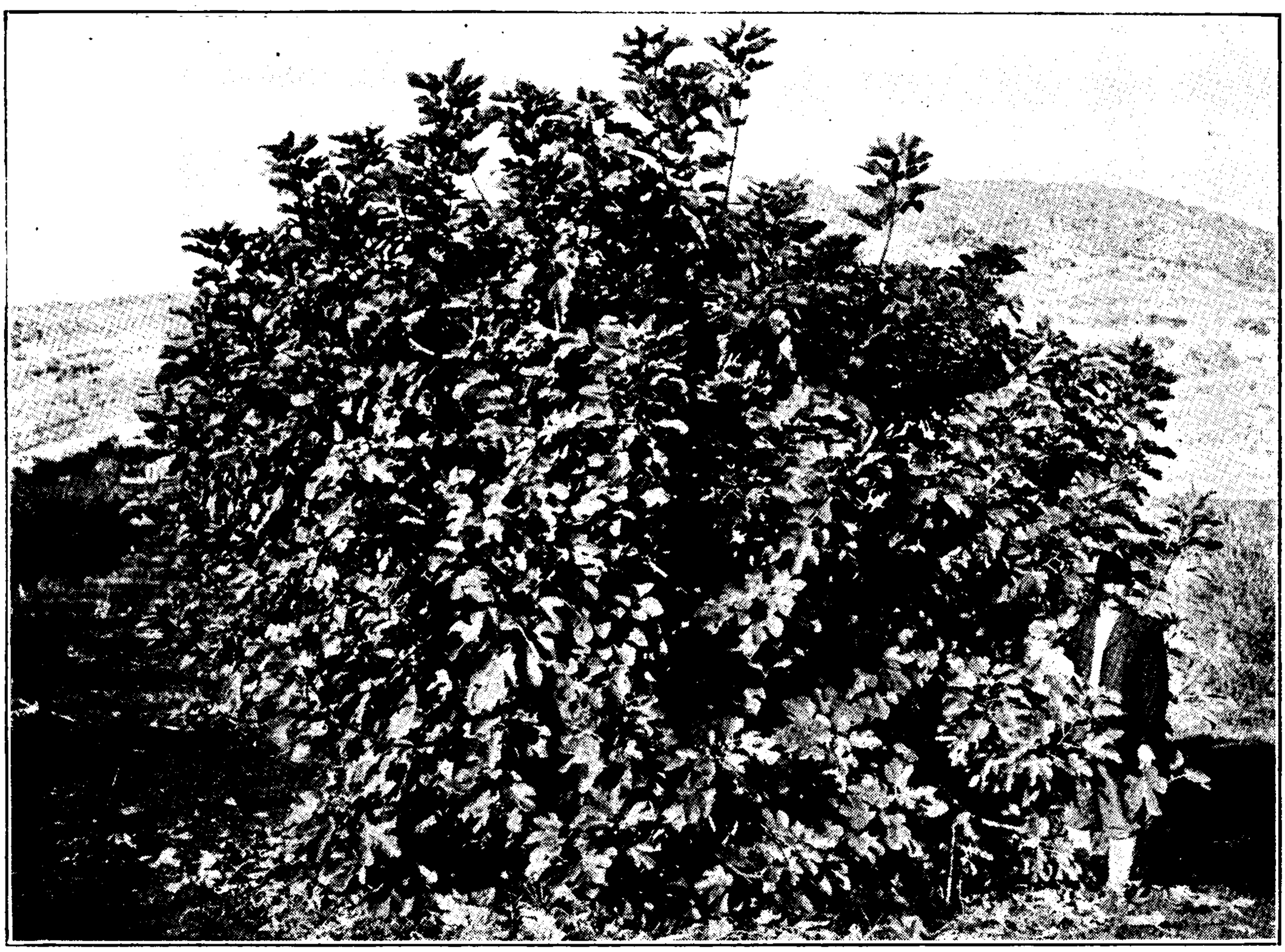
Experience is required to pack successfully for Eastern shipments in refrigerator cars with grapes or other fresh fruits.

Place figs in *airy* part of car far removed from the ice. They mold badly if *on* or against ice. Circulating air is preserving medium for fresh figs in transit.

In packing-shed girls should use care in handling figs. Once picked up, each fig should be placed immediately in box, either for local cannery or more select fruit for the Eastern shipments.

The standard box view shown on page 32 is used for one layer fruit of larger sizes. It contains 8 to 10 pounds net, according to size of figs used. A layer of waxed paper is placed under and over the fruit. Five of these boxes are covered and crated together when ready for refrigerator car.

The less classy figs of every other size are placed in deeper boxes without regard, and delivered to your canner, by express or by auto truck with auxiliary springs attached to false bottom of truck to minimize the jar and fret in transportation. This false bottom is light and removable from truck and is a wonder in saving the fruit. The canners separate sizes according to their requirements. All soft and over-ripe figs are classed as seconds and are packed for cannery in separate lug boxes and labeled as such and bring about one-half the price of the solid figs. The girls become expert in the selection of the three grades of figs, and if they are careless they should be



Kadota Fig, 4½ years after planting

replaced by others who use their heads all the time. The fruit is too valuable and the growing industry too great to be injured in any manner by heedless pickers and packers.

Carefully dry all figs too ripe for the canners.

Eastern Shipping

In shipping our figs to Eastern markets, we usually place from one to five packages of 5 boxes each in the squeeze or brace of the car, where air circulates freely and far removed from the ice. If the car is in motion all the time the figs will stand 12 or 14 days shipment and have sold for fancy prices 17 days after being picked. Ten days is standard time to average Eastern destination. During the war the congested railroad traffic caused the fruit trains to stand still at times and the moisture-laden air of the cars caused the figs to mold. Permit me to quote Prof. I. J. Condit, late horticultural expert of the University of California, now on the J. C. Forkner Fig Garden staff at Fresno. He placed my figs in refrigeration last season in temperatures of varying degrees up to the freezing point, and if my memory serves me right he kept the figs not to exceed 7 days without molding at the most favorable degree and others a lesser time. Had he possessed a refrigerator containing a fan and circulated the air, I believe he could have kept the fruit much longer. Probably 10 or 15 or 20 days even.

My figs have been transported to Eastern Canada, as well as to all Eastern seaboard cities, and have sold for prices ranging from 20 cents to 50 cents per pound, and were transported in ordinary iced cars, consuming 10 to 16 days in transit. Hence my deduction regarding circulation of air.

New York, Boston and Pittsburg in the East, and St. Louis in the West, have proven my best markets, while Chicago has invariably been my poorest.

I am informed that our figs are retailed at 10 and 15 cents each and are eaten out of hand by the consumer in these Eastern markets, and the average person gets but a couple of figs fresh per season. The market is absolutely undeveloped and entirely unlimited, and we in California will never be able to supply the Eastern demand for our fresh article, even when the welcome day arrives when we Kadota growers can load a full car of figs, after effecting an organization of Kadota fig growers and shippers, and launch a campaign of education in the East and forward our own fruit to our own selling agency and distributor. After we have done these things, I doubt if there be acres of land in California capable of bearing sufficient figs to produce a supply that will satisfy local canners and an educated consuming public in the East. The prices will always be good and demand increasing and prospects positively startling.

With our fresh fig industry only just born, yet so great is the demand by the consuming public, both East and West, for fresh fig products, that we cannot now and perhaps not for 25 years to come can we plant fast enough nor

Kadota Fig, 4½ years after planting

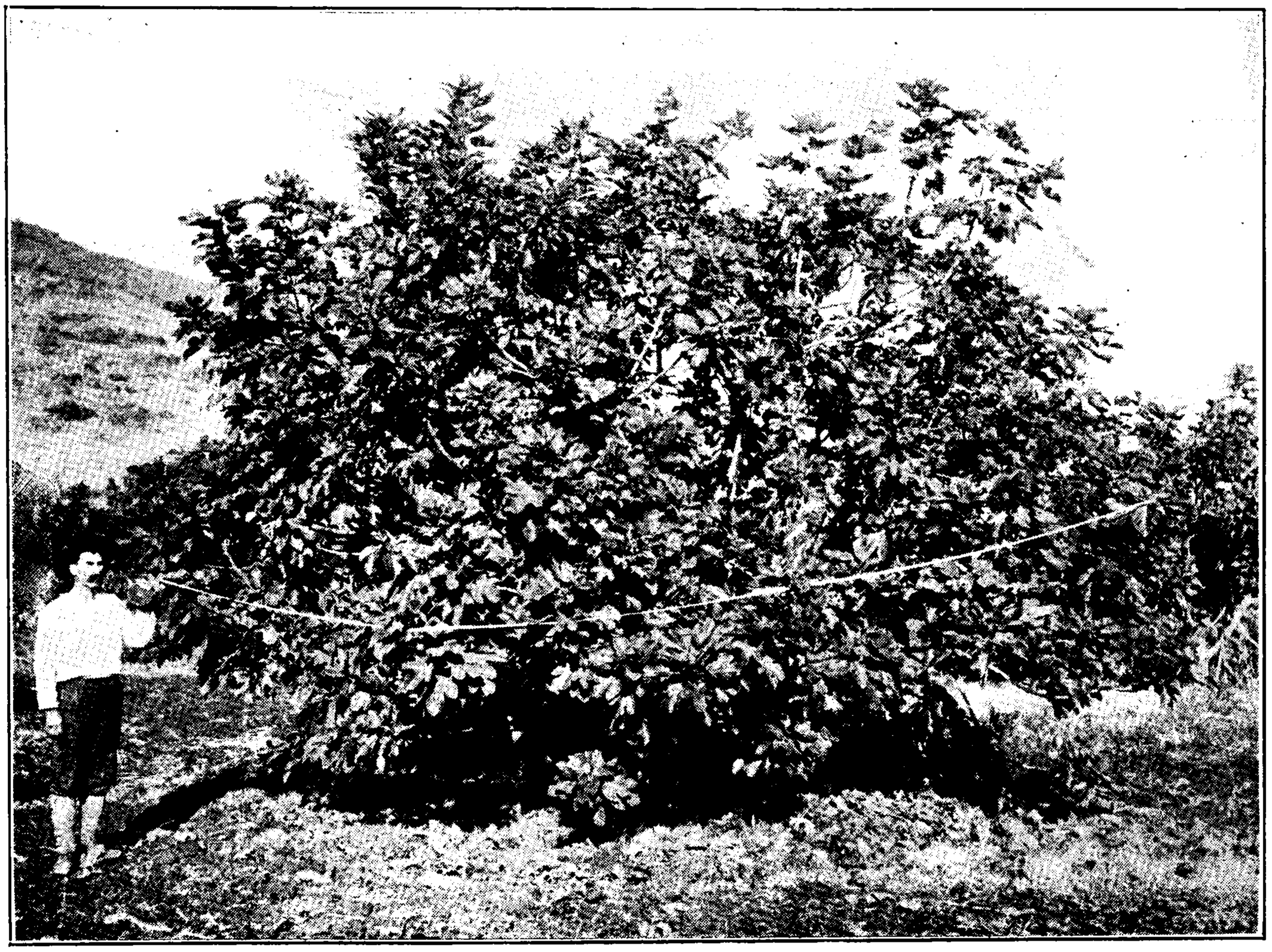
acres enough to cause supply and demand to balance in that one branch alone; with only three short years to our credit we have now two San Francisco canners buying our fruit, one in San Jose, one just established in the Forkner Fig Gardens, Fresno, to handle Kadotas, one exclusively for Kadotas at Reedley, one San Francisco firm located a one-unit cannery this season in a Kadota orchard at Porterville, one at Armona, which cannery alone is asking for ten times the Kadota tonnage now in existence, and one projected for Dinuba, and another in Stanislaus county. I can safely predict that wherever 100 acres or more of Kadotas are in bearing another cannery will be established or, as in Porterville, a branch unit will be started by some firm operating elsewhere.

In glass jars so wonderfully attractive is the fruit that it commands immediate sale, almost regardless of price, and when eaten so exceptionally delicious the flavor as to mortgage a consumer's pocketbook for life.

Canning

The canning of fresh figs deserves a chapter all to itself; space does not permit me to so digress, however.

The marketing of ripe figs in glass and tin as preserved, jammed, spiced, marmalade, candy, paste, cake filler, and other uses has been practiced for some years by canners in Texas and Louisiana, where the drying of figs was impractical, due to climatic conditions. They there used a fig known as Mag-



Kadota Fig, 4½ years after planting. Heavily irrigated first three years. 90 feet circumference of bearing surface.

nolia, which when compared with a Kadota is a vastly inferior product. Yet a ready sale and increasing demand has always consumed their production.

Immediately canning of the Kadota began the trade clamored for that beautiful and most truly delicious article and today, only three years since the first Kadota was preserved in glass, a trade has become established that absorbs immediately every jar processed and orders placed for ten times the capacity of orchard supplies. We are totally unable to supply the demand at present of even the few canners preserving our products.

While the Eastern markets pay splendid prices for our fresh Kadotas, yet so insistent is the demand from preserving plants that this past season (1919) I never shipped even one box East. Canners got them all; canners take all sizes and utilize every pound produced, firm or over-ripe, and every evening the day's pick is delivered to the preserving plant in perfect condition, there placed in jars ranging in size from 4 figs as individual service jars, to 12 figs for family use, and larger containers of tin for jams and fillers.

With a market embracing the whole United States and Canada, which is a great consumer of sweets, and also Europe, where canning of figs is not practiced extensively, the future outlet at fancy prices for our Kadota fig crops is assured.

Overproduction is an impossibilty

Peaches are raised and canned in every state in the Union and part of Canada. There is no lack of a market at good prices to the grower of peaches. Apples, the same, plums also, all fruits the same. Vegetables are grown and canned everywhere. The demand increases, more canneries are being built in every state. Overproduction seems improbable. City populations are growing rapidly. Country production areas, slowly. Demand seems to be outrunning production of the Nation. Better financial conditions call for better food products. Consumption only awaits production.

Therefore with only a limited area in California growing the most delicious of all fruits the world produces, delivering to consumer in a package sanitary and lasting, a delight to eye and palate, we in confidence may plant to our greatest extent this superb fruit, fearing no competition, fearing no crop failure, knowing that from planting the tree until crop harvesting we wait but three short years; our golden future is certainly spanned by a rainbow of splendid promise.

Prices, Fresh and Dry

I planted my orchard in 1913. In 1915 I packed my ripe figs in one-layer boxes and shipped to Los Angeles and San Francisco. I soon found the California consumers of fresh figs had been soured on white figs. They perhaps had gotten too often Adriatics and Smyrnas that were sour or contained mold and they were skeptical regarding the Kadota, which was new to them. They demanded the black or blue fig long known to them; generally the Mission variety.

I received from 8 to 12 cents per pound, but transportation, truckage and commission ate up my profits. As my trees were young, the fruit was small, they dried poorly and we had not discovered the canning demand at that time.

So the next season, 1916, in August, I tried the Eastern shipment plan; it worked beautifully and I received $2.30 per box for my first consignment; that was an 8-pound box (net). My prices ranged from $1.75 to $2.50 per box that season and but few were lost.

My dried figs that season sold at the regular Adriatic prices then prevailing.

In 1917, I was shipping East also, but the Pacific Coast Syrup Company of San Francisco had contracted to take all my smaller figs at 6½ cents f. o. b. and furnished boxes and transportation.

In 1918, we again contracted with the canners, with prices on the June crop at 6½ for firm fruit and 4 cents for seconds, and the crops following July 1st brought 8 cents per pound, or $160.00 per ton.

Our 1919 contracts called for 8 cents per pound for all figs, big and little, up to and including July 1st, and all figs delivered thereafter bringing 9 cents per pound, which means almost one cent per fig, or $180.00 per ton for our fresh fruit. Opening prices, 1920, are 10 cents for perfect fruit.

Because of the lack of tonnage of dry Kadotas, no special featuring of them has been possible, to command a special price, because of the fact that they never sour, split or mold; hence we receive regular Adriatic prices for such tonnage as we offer for sale.

Drying

The Kadota fig will dry and fall from the tree exactly as do any of the other varieties. They are not a good dried article until the tree is 4 or 5 years of age, and full sugar, flavor and sizes are attained by the fruit.

The August and September crop may be caprified exactly as is the Smyrna, and a heavier, sweeter, full-meated fig, filled with big, plump, fertile seeds, is the result.

A caprified Kadota when ripening fails to take on the beautiful golden color of the uncaprified fruit and remains until drying a decided green shade, which fades away as drying progresses, leaving a very white, attractive and delicious dried fig.

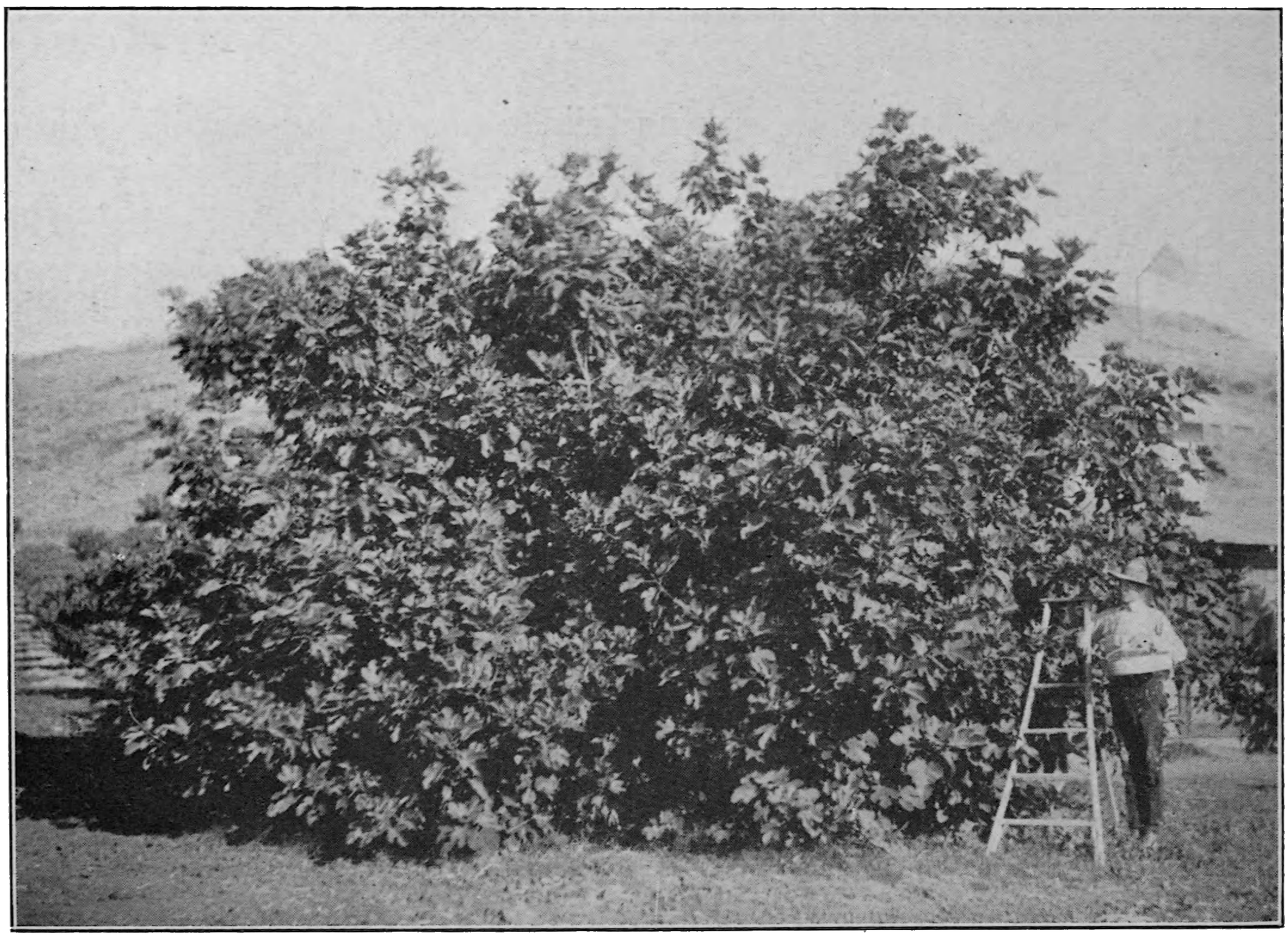
The University of California has furnished us with an analysis of our caprified product and we have been enabled to compare these results with the analysis of imported Smyrnas, finding from 3 to 12 per cent more sugar in the California raised Kadota than is found in the imported Smyrna.

If Kadotas chance to be raised in remote locations and drying is desired instead of fresh-shipping, the grower has it coming and going over planters growing either Adriatic or Smyrnas, inasmuch as he raises a June crop which he may dry and which the other white varieties do not produce, and while he cannot caprify that crop, he may fertilize the August and September crops and thereafter until November 15 continue to gather and dry additional tonnage from his Kadotas at a season when the Smyrna and Adriatic have ceased to produce.

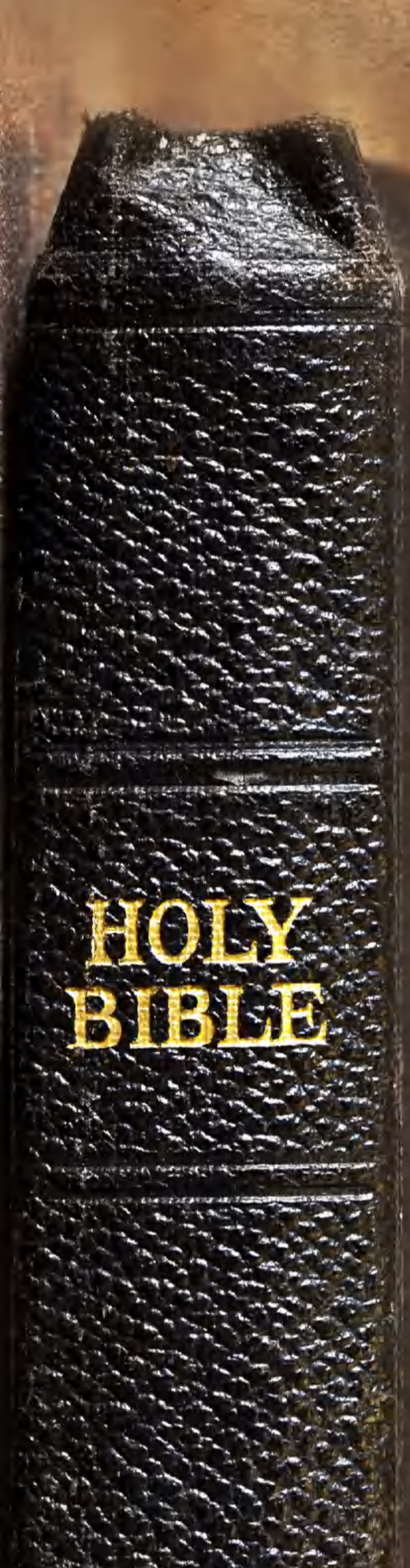
In drying our figs by the present time-worn methods, we all over-dry them, making tough, leathery fruit, neither attractive nor palatable, as compared to what we could produce if we were to advance our methods in fig production, as we have in all other commodities. I long for the day to come when the dry-fig producers will achieve those commendable results.

Even now we may finish drying our fruit in the shade, tray on tray or in sheds, and by dipping our dried fruit in a 2 or 2½% salt solution and then packing them temporarily in receptacles free from the infestation of the fig pests, we will derive great good. Deliver early to the packers that they may properly process and carton the fruit. For home supplies or for gifts to distant friends, dip dry figs in boiling salt water (2 oz. salt to one gallon of water) and immediately, while heated through and through and still dripping, place in tins, press down lid, and seal with wax and the fruit will remain sterilized, moist and perfect for years. Even card-board, wax-dipped, or empty coffee tins are very good.

Under the above caption I ask my readers to permit me a little digression. From earliest childhood I have loved the fig, and worshiped the spreading fig tree. Location and climatic conditions in my boyhood home made impossible the successful growing of the commercial fig, yet distance did not discourage my intimacy with the occasional fig tree planted by the early Spanish settlers in my California birthplace. I knew every tree, its actions and production for 20 miles on every side. Their lack of care and protection hurt me as the suffering of a little child. The balsam-like odors of the old fashioned tree, that filled the soft and balmy summer nights, was rarest perfume to me, and no fruit that grows is half so delicate and delicious to my man-grown fancy as was the ofttimes stolen fruit of those lonesome and neglected fig groups. In rocky canyon beside the clear cold springs, or in valleys, near adobe-walled home of Spaniard or Forty-niner, then stood and yet stand today these monuments to our early settlers. Ever they bear and ever as sweet as then. With sadness and sorrow have I sat my little mustang pony under the shadows of



Six year old Kadota. Picker gathering fresh fruit



Know Your Bible

Forgotten Books' Full Membership provides unlimited access to more than 28,000 volumes of Christian literature for $8.99/month

The saving in weight by hand-picking eliminating other losses now sustained, will meet additional cost of preparation, and improvement of finished product will naturally bring sufficiently better prices to meet all expenses, and with organization will follow the elimination of one or more middlemen between producer and consumer, and lessened cost to consumer will be attended with increased consumption. The world must look to California alone for this betterment in figs, and from the Forkner gardens may we expect these changes to be inaugurated, where knowledge, modern methods, organization and money are incorporated and aided by science and skill.

Returns per acre to date

As my orchard was planted in March, 1913, it is but six and a half years of age at the present writing. It is on heavy land and has had good care. As I chanced to be a pioneer in the growing of this fig, I could obtain no advice on its habits and no man could aid me. Methods formerly used were considered practical and proper, and while debating planting methods one man of experience said: "Oh, a fig is a fig; they're all alike."

Right there my mistakes and troubles started and I am paying the bills now and will for years to come pay for my ignorance in my older orchard. Fortunately I can save to all others now *labor, years and money.* What I have written and spoken in the past few years has been the results obtained from actual experience, some of it sad and very expensive.

As a result of my mistakes the financial returns herewith presented from my orchard are necessarily less than I could expect to obtain now under similar conditions, now that our knowledge of this fig has vastly broadened. I planted my orchard 36 x 36—or 34 trees per acre *instead* of 25 x 25 or 69 trees per acre. In 1915 I grossed about $20 per acre or 60 cents per tree. In 1916 I "netted" $74.00 per acre or about $2.00 per tree. In 1917 I grossed $125.00 per acre or $3.70 per tree, and it rained for several weeks, making picking in my adobe land impossible. Losses were considerable.

In 1918 I grossed $198.00 per acre of 2754 pounds, or $5.82 per tree of 81 pounds, and hot winds in June caused a loss, and the continued rains in the autumn made picking impossible for over three weeks. Our 1919 crop in June netted 2125 pounds per acre or $170.00, which was $5.00 per tree. Three blazing hot weeks in July with temperature ranging from 100° to 118° in the shade set a new heat record for our section and all figs and fruits suffered. Our season's record was cut down 50% earlier estimates and our orchard grossed us $13.10 per tree. Earlier estimates were $25.00 per tree.

The above prices were obtained while we were experimenting in growing, pruning and marketing. All that is now saved the grower of the future, and had our orchard been planted at the now approved distances of 25 x 25 or 69 trees per acre, even under the handicaps we were compelled to overcome the results should have stood something like this:

Third summer, $41.40 per acre.

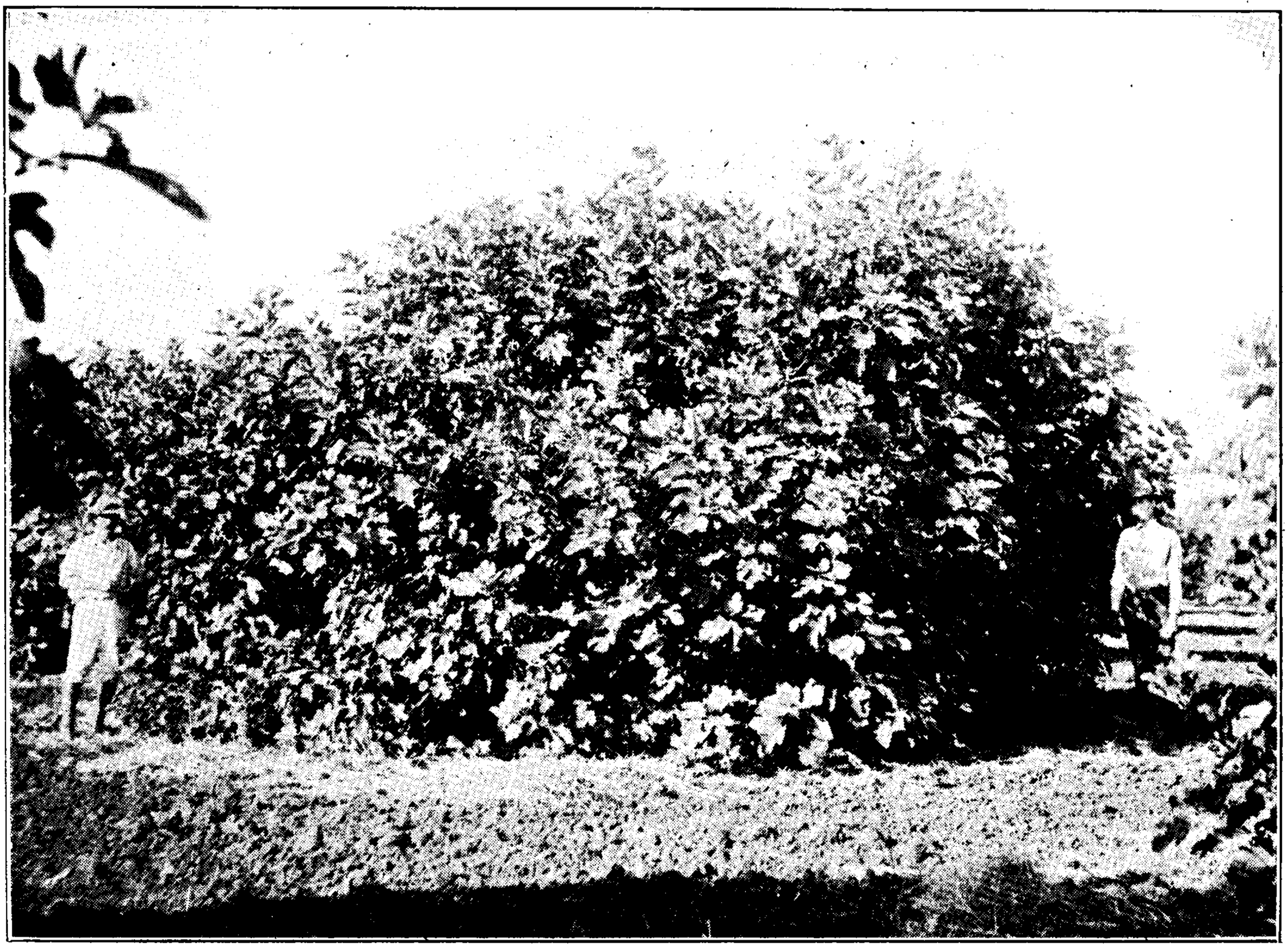
Fourth summer, $138.00 per acre.

Fifth summer, $255.00 per acre.

Sixth summer, $401.58 per acre.

Seventh summer, $903.90 per acre.

To the fig grower of other varieties these figures may seem absurd, but he must remember we are dealing with something newer, and marketed in a different manner than anything of which we have ever had knowledge in the past.



Six year old Kadota. Correctly pruned in first three years.

The following letter speaks for itself. It reads in part as follows:

1961 Wilcox Ave., Hollywood, Calif., October 15, 1917.

Mr. W. Sam Clark, Sultana, Calif.

Dear Sir:—I have read and re-read your article in the proceeding of the Fig Institute of January, 1917. I have a small orchard of Kadota Figs, which I planted twelve years ago, having secured my rootings from Mr. Stephen H. Taft as you did. I knew when you secured your rootings, some years ago. I am experimenting with intensive cultural methods with this fig. * * * When my trees were six years old, I sold my entire crop green to Hotel Alexandria for twenty cents per pound. In September of that year I sold $100.50 green figs from my six trees. * * * By my methods of culture many of my figs attain a size of one-fourth to one-third and some almost one-half pound EACH. * * * One year I sold my

entire crop to Hotel Angelus at fifteen to twenty-five cents per pound, selling 700 pounds from my six trees, averaging twenty cents per pound season average (average $23.20 per tree).

Other seasons have sold entire crop in bulk off the trees to Lankershim, Van Nuys and Beverly Hills Hotels at a flat rate of twelve and a half cents straight. * * * By intensive culture my figs on the extreme six-inch tip of the limbs attain immense size and crowd one another off, there being ten to fifteen figs clustering on extreme tip of the limb. * * * I prune my trees back very severely to permit of green picking, as I don't like to climb to the clouds to gather my figs. * * * I have a few rootings for sale, my price, like Mr. Taft's, being fifty to seventy-five cents, and for especially fine trees I have received as high as $2.00 each.

Respectfully,

JOHN H. OLIVER.

The Prospects of the Kadota Fig

W. SAM CLARK

(Paper at Fig Institute, 1919)

By the prospect of any undertaking we mean, in reality, the *possibilities* which that undertaking holds in store for its promoters. To gain a view in the mind's eye of the prospect or possibility of any undertaking we must in a great measure be guided by what has transpired in the past, regarding that same object, and we say the prospects are either *good* or *poor*.

Regarding the Kadota fig we are compelled, most emphatically, to pronounce the prospects *good*.

We may say in all truth and sincerity that, judging the future by the short past, these prospects exceed all our expectations, and even our fondest hopes bid fair to be out-realized.

In speaking of the Kadota fig I refer only to that fig distributed by the late Stephen H. Taft and named by him, to distinguish this strain from several other varieties, now ofttimes being marketed under the popular name of Kadota; therefore planters should be absolutely sure of the origin of the rootings they set out.

A few years ago the Kadota was an experiment. Today it is an accomplished fact. It has sprung to the very head of every fig in its class, and we might say it is almost in a class by itself; yet in some respects it overlaps the granted prerogatives of some of the older varieties. I refer now to its caprifying and drying qualities. I will dwell upon these points a little later.

In speaking of the prospects of this fig we must base our statements and expectations upon its record in California during the last ten years, since it was introduced and distributed.

Advantages

First of all, we have a fig of wonderful growing habits; it outstrips by far all others.

Secondly, we have a fig that bears in its tender infancy. From planting to crop gathering is but a very few short years.

Third, we have a fig which, under proper care and cultivation in the San Joaquin Valley, ofttimes attains a size of 3 and 3½ inches in diameter, while from about Los Angeles even larger sizes are reported. Not all the figs on every tree are thus in size, neither are all the figs extremely large on any other variety of fig tree. The Kadota in reality has three sizes, and each has its particular market.

Fourth, we have a fruit in demand in many markets. By that I mean we have a fruit for canning and preserving in many forms, and a fig for long distance shipment to the Atlantic seaboard and to population centers impossible of fig production.

Fifth, we have a variety here that bears a tremendous crop four and one-half months every summer. The cycle of its ripening period is roughly 30 days, shading slightly either way according to weather conditions, the first cycle being in June, the others August, September, October and November 15th.

Sixth, this fig is now succeeding in any soil and under nearly all conditions in the Valley where any of the older varieties now succeed, and is proving as hardy under extreme cold and drouth as any of the others, and it leads them all when early rains come. For rains, fog and dampness are no disaster to this variety. These conditions simply retard ripening and the crop awaits return of normal weather conditions and continues its ripening, until the November cold closes the season.

May be Caprified

While this fig is primarily a green shipper and a canning and fresh eating fig, second to none ever grown, yet this fact remains: So easily are they caprified that a grower may fertilize his August crop, gather it as any other dried fig crop, and, when the Capri wasp is no longer obtainable, he may resume his green shipping for two and one-half months longer.

As the Kadota fig has never under any circumstances been known to sour, split or contain mold of any kind, the dry article is most satisfactory for all purposes, and when caprified and mixed with dried Symrnas experts assure me they cannot separate the varieties.

Results of Caprifying

While on this subject of the dry and caprified Kadota fig, permit me to read to you extracts from a communication I received some time since from Prof. I. J. Condit of the University of California on this subject:

"Fresh Kadota figs caprified were received from you August 22, 1918. I made the following notes on these specimens; the exterior appearance of the two are markedly different.

"First, the color of the uncaprified Kadota is a light golden-yellow, and the surface is somewhat glossy; the color of the caprified Kadota is green or yellowish-green, and the surface is dull.

"Second, the ribs of the uncaprified fruit are practically absent and unnoticeable; in the caprified fruit the ribbed appearance, especially in the wilted specimens, being netted and roughened, by the slightly elevated longitudinal cross-veins.

"Third, the meat or rind seems to be little affected in thickness or texture. Whether the naturally excellent keeping and shipping qualities are impaired by caprification I cannot say.

"Fourth, the uncaprified Kadota is practically seedless, or the seeds are so small and so few in number as to be hardly noticeable. The seeds in the caprified Kadota are numerous, fairly large, and, of course, fertile.

"Fifth, the difference in flavor is distinct, the caprified fruit being sweeter and richer. Tests of the sugar content (Balling) were made with Prof. Cruess' assistance, with the following results: caprified figs, 35.2%; uncaprified figs, 28.4%.

"Three figs were weighed, and the fertile seeds in each counted, with the following results:

(1) 25.5 gr.....544 fertile seeds
(2) 31.5 gr.....412 fertile seeds
(3) 30 gr.....402 fertile seeds

Now follows a letter to Prof. Condit from Prof. M. E. Jaffa, dated Dec. 15, 1917, regarding "Dried Kadota Figs":

"Mr. Albro has determined the percentage of sugar and moisture in the two samples of Kadota figs, which you left with us, with the following results:

Kadota Figs

	Caprified	Uncaprified
Water	22.57%	25.75%
Total sugar	75.36	68.16

Comparison with Foreign Figs

The above results, as I have presented them to you, are from our University professors, upon the Kadota fig both fresh and dry. Now permit me to give you for a comparison the analysis of the Smyrna and other European imported figs dry, as reported by Dr. Gustav Eisen in his volume entitled "The Fig, Its History, Culture and Curing."

On page 285 we find his analysis of California-grown Adriatics as 57% sugar, and that of imported Smyrnas at 62.50%; a second sample of Smyrnas he records as having 72.53% sugar. His first analysis of the imported Smyrna, you will observe, falls short of the Kadota exactly 12.86% in sugar, and his second sample is shy 3%, in favor of the Kadota. On page 287 of this book, Dr. Eisen gives us the analysis of fourteen other varieties of dried figs raised in the various fig-growing sections of the world and only three of the fourteen exceed in sugar content the Kadota, as presented by our University professors. I had no statistics at hand regarding the Smyrna fig of California, so could not make a comparison. But, as we out-sugar the Smyrna figs of Asia Minor, "we should worry."

Gathers Golden Crop from Trees in November

From FIG & OLIVE JOURNAL
[*November*, 1918]

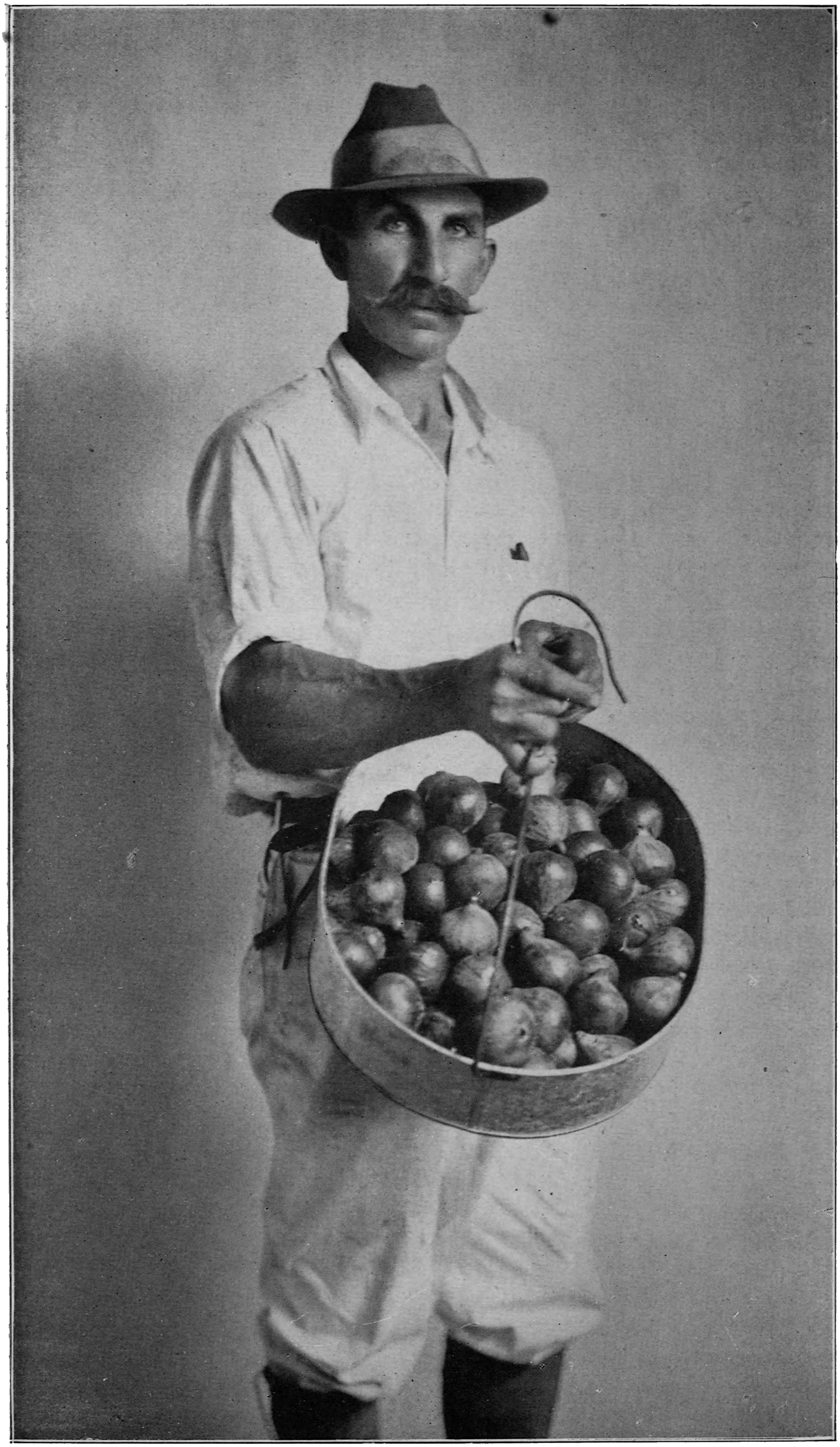
Having heard much in favor of the Kadota fig and being rather impressed by the good accounts given by those who were engaged in its culture, the publisher of the Journal gave himself a treat by visiting recently the Kadota orchard of Mr. W. Sam Clark, near Sultana.

After seeing what we did on that enjoyable occasion it is in order for us to say that our previous ideas regarding the Kadota were far short of the realities that faced us when we stood in Mr. Clark's orchard and viewed his magnificent trees, loaded with fruit that is hardly to be described as being less than the concentrated essence of flavor and sweetness. This, mind you, at a time of the year when it is about impossible to secure an eatable fresh fig in all the length and breadth of the San Joaquin Valley. Truly, the Kadota seems to be a perpetual bearer, for the trees in this orchard were full of figs in every stage of development from those just out of the bud to fully ripened figs heavy with sugar. Only the coming of frost will put an end to the harvesting of the fruit, we are told, and even then the trees will carry a crop that, if harvested from the average orchard, would mean prosperity for the owner.

Mr. Clark is busy shipping his present crop of Kadotas to a large packing concern in San Francisco, which uses the fruit for preserving, a purpose to which the Kadota lends itself with all the success attending the famous Magnolia fig of Texas, heretofore the recognized standard of excellence in this line of fancy products.

Since early last June Mr. Clark has gathered from his trees, at intervals of about thirty-five days, successive crops of high-grade figs that have sold at splendid prices. The Kadota bears throughout the season in cycles, Mr. Clark explains, and each cycle occupies about thirty-five days. This continues until the winter's cold will no longer permit the fruit to mature, and surely no one could reasonably ask for a longer season than this.

From what we have seen of the Kadota fig on the Clark place we are convinced of these facts: The trees make a prodigious growth, far outstripping any other fig we have seen; they bear exceedingly early, a tree eighteen months from the planting bearing in many instances as much as thirty to forty pounds of edible figs; the fruit is of good size and literally as



Picking basket and fresh fruit. Basket 14x19 inches by 3¾ inches deep. Light galvanized iron. Easily kept clean and sanitary and very durable; weight 3½ pounds; 18 pounds fresh fruit.

The difficulty of caprifying the Smyrna, when thus planted, and the trouble and expense of gathering the Kadota when planted in border form, leave us no other choice of varieties that will even remotely produce financial returns equal to those obtained in the use of the Mission.

On every hand we see grand old Mission trees producing great crops year after year, no cultivation or care ever given, little or no irrigation practiced, yet with every neglect they never fail in leaf or crop.

Smyrna

Next in order in the drying fig from point of income we must place the Smyrna of the Lob-Injir variety. Of the white dry figs nothing ever has been or probably ever will be produced equal to a perfect Smyrna fig. There is not now planted in California sufficient acreage of Smyrnas to properly supply the markets of the very near future. The beauty of this fig in its various forms of pack; its flavor and general excellence create for it a permanent place in the favor of all consumers the world over.

'Tis hard to conceive an overproduction of this fruit. To the intending planter, however, who is not definitely wedded already to this fig of commerce, I would suggest that he duly consider his soil, climatic conditions, including regular or sporadic breezes in the pollenizing seasons, and supplies of capri figs of his own or from other orchards.

Intelligent and careful consideration of soil for successful propagation of the Smyrna fig of a quality to meet importation competition will probably reveal to the investigator that much of the splitting and subsequent losses of this fig is due largely to a lack of moisture in the soil at a critical period in its growth; soils whose composition are such as to permit of the evaporation of the last irrigation, or moisture supply from other sources permit (when unusual periods of heat occur) the evaporation of moisture exactly when most needed.

The leaves of the tree draw heavily upon the stored moisture in the soil and it is lost in various ways before the growing and swelling fruit can secure sufficient to meet its requirements. Hence a stagnation in growth temporarily occurs, the skin of the fruit toughens or hardens, and upon cool weather returning, or an additional supply of moisture otherwise occurs, a rush of sap to the fruit results and the skin of the fruit cannot expand and splitting follows, exactly in proportion to the duration of the privation the fruit previously sustained. A hot summer following a dry winter gives us our worst losses in Smyrnas from splitting, and sudden coolness following intense heat produces the same result.

It is my opinion that the souring of the Smyrna fig may be traceable to the same conditions as the splitting.

It is my belief based on observation only, that there is a critical period in the development of this fig, when, if a sudden flow of sap be diverted from the tree and leaf "to the fruit," by coolness of the days and nights, and the evaporation just preceding the coolness is stopped, the excess sap permitted to go to the fruit cannot in so short a time become converted into sugar, and while that slow process is taking place fermentation sets in and vinegar forms and we have our sours.

I have no way of proving my assertions in this matter and my opinions may find opposition in the investigations of others. However, I have observed that water slightly sweetened will sour quickly and water heavily impregnated with sugar is slow to sour, and that figs that form and ripen before a hot spell seldom sour and split, and that immediately upon the return of cool weather following the hot spell, splitting and souring immediately occur.

Soil very retentive of moisture *regardless of weather conditions* in my opinion will produce figs less likely to sour and split. Hence soil composition enters into the game very prominently.

A Smyrna fig grower, having secured capri figs ready to liberate wasps in plenty, with necessary pollen, and finds his Smyrna figs are also in a receptive condition, dreads to see a wind storm, regular or sporadic, come along, as his little benefactors are blown, scattered and lost, and eventually he may not fertilize over 80 per cent of the figs set upon his trees.

Smyrna figs on borders are harder to pollenize than a block of trees set in rectangular form, as above named conditions make it difficult to retain the wasps. In my opinion more cash returns will always be obtained from border planting if the Mission fig be planted instead of the Smyrna.

Adriatic

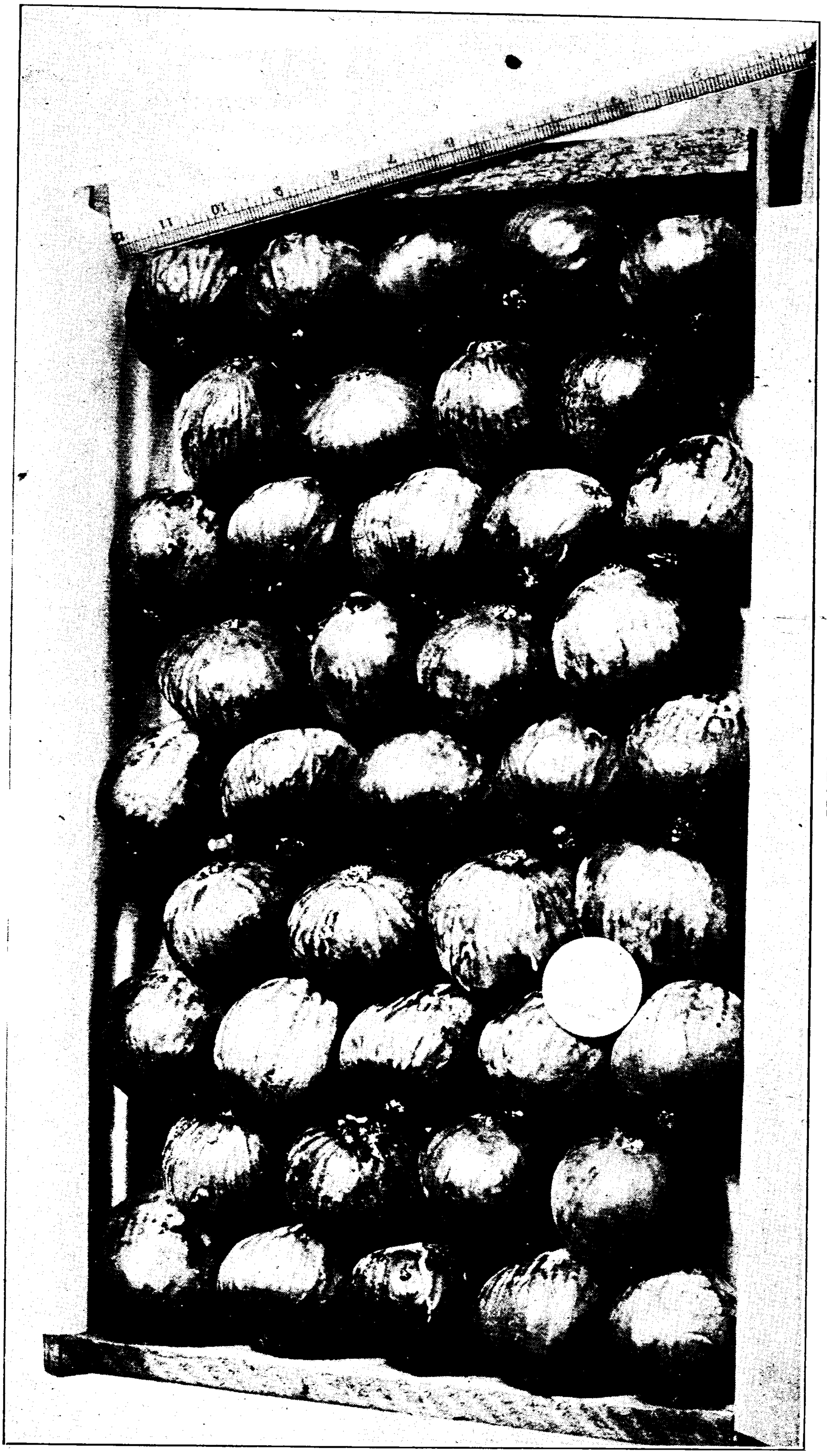
Planting of Adriatics in the past has been a profitable procedure, but no consideration was given the soil for this variety, consequently we find it growing everywhere, and in the majority of cases the fruit sours, splits, molds, and has brought the name of California dry figs into disrepute in Eastern markets where it is sold in competition with the imported Smyrna.

The Pure Food Law has been invoked in the season past and a serious loss to growers was averted only by the leniency with which the law was applied. In the seasons to come no such leniency may be expected and the financial returns to growers of Adriatics will be seriously affected.

Intending planters of this variety should determine in advance that they have the soil wherein this fig will mature and be a perfect fruit; so few and far between are these areas that we may almost class the Adriatic as a forbidden variety.

Land is too valuable and time too precious and other varieties too plentiful to take a chance in planting a variety which offers so little for the future. Aside from the soil, a cool damp night, a fog or rain plays the mischief with a crop of Adriatics. The salvation of the older Adriatic orchards will probably be found in caprifying the fruit, gathering it fresh as is done with Mission and Kadotas, and employing dehydration methods to produce a better dried fig. A very creditable article may thus be obtained and confiscation under the Pure Food Law be averted.

The older methods employed in the past must surely be abandoned. Large quantities of Adriatics will in the future be consumed in canning and preserving plants and factories, and pruning to permit fresh picking must be practiced.



KADOTA FIGS

These figs are packed, ready for shipment to the New York market. The beautiful golden yellow of the fruit photographs dark. Silver dollar is for contrast.

Description of Kadota Fruit

The fruit of the Kadota fig is rather of the oblong type, yet specimens very flat often occur. The color is golden yellow, tinting to green, and reaches its perfection in color and flavor in August and September of each year. Earlier and later fruit due to climatic conditions shade less to golden. The texture of the skin is very "*clastic*," which virtue added to the solid formation of the interior of the fruit makes possible the fresh fig being shipped in refrigerator cars to Eastern seaboard cities and also Eastern Canadian destinations.

On young trees, the second summer after planting, a crop of figs may be gathered small in sizes and lacking in flavor, but very sweet.

The absence of seeds, or rather the infinitely small size of the seed found in a Kadota fig, is the secret of this fig's long distance shipping. The fruit is not broken in transit by the incessant jar of a car, as the seeds having no weight do not break down the tissues and cause the fruit on arrival at destinations to be classed as a "leaker," as is the usual case with other varieties when their long distance shipment is attempted.

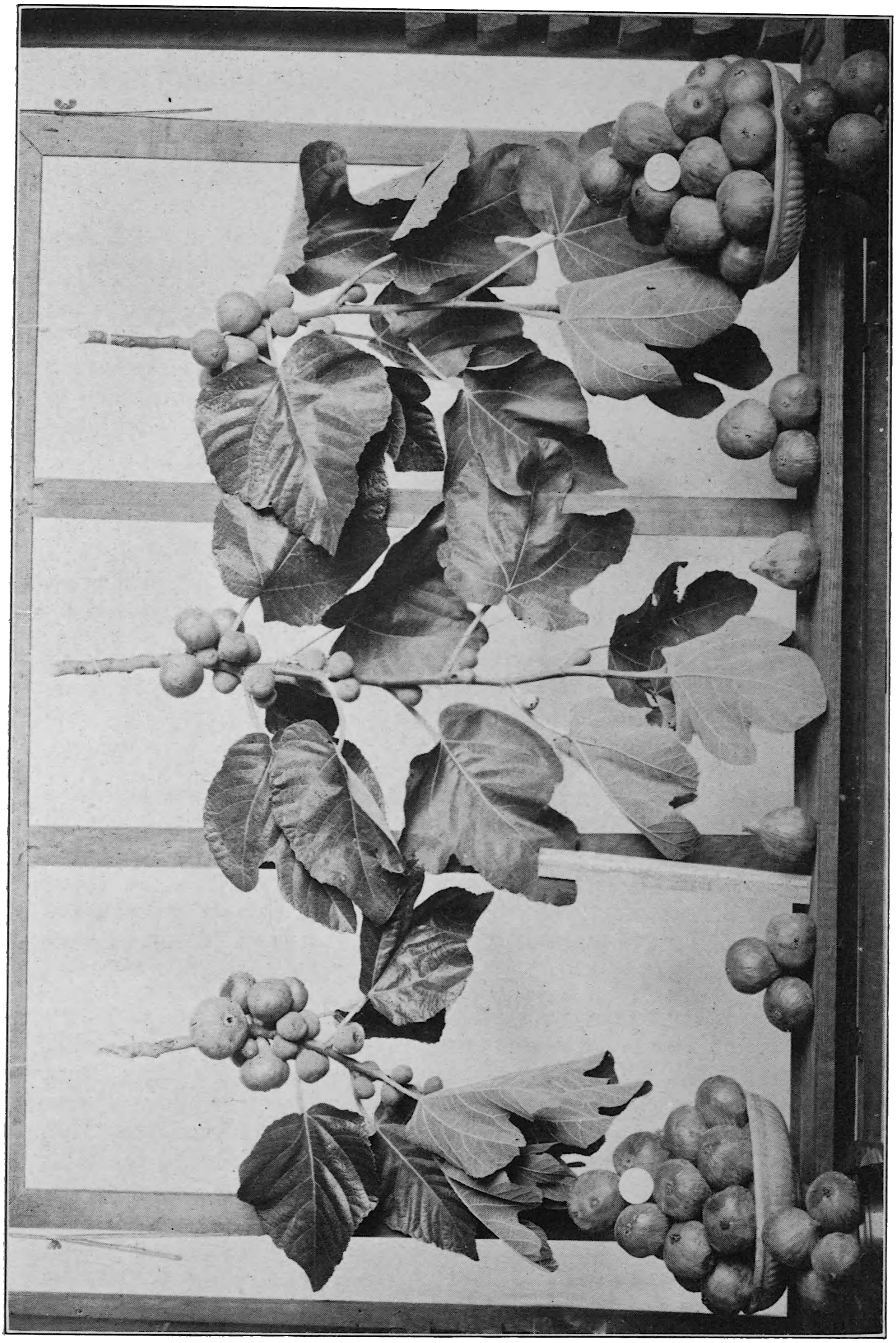
In the Eastern shipment of the Kadota we have secured fancy prices even though the figs have been 17 days in transit. That is an exceptional case, however, as 10 to 14 days is usually the limit. The circulation of air in a car containing figs is an absolute essential, and if any delay in transit is occasioned, the air becoming stagnant, molding of the fruit will invariably follow.

As I have said before, young trees bear a crop of small-sized, well-colored figs, yet as the trees increase with age the size of the fruit also increases until the fifth or sixth year, at which age the maximum sizes seem to have been attained, and perfection of the fruit in color and flavor has been secured.

With the age of tree and size of the fruit comes also the sealing of the fig at the blossom end. A drop of clear, slightly sweetened wax will then fill the eye of the fig, the wax hardening and thus absolutely sealing the fig against the intrusion of insect and moisture, insuring the consumer of this fig, either fresh or dry, a perfect product, which may be eaten out of hand or in cooked forms, there being removed the fear that something undesirable may be consumed with the fig.

There is another point regarding this fig which I wish to emphasize right here. No Kadota fig up to the present time has ever been known to sour, split, or contain black mold. Hence, a consumer need never fear of biting into a big luscious fig and find the interior filled with a googling mass of vinegar or a bunch of black mold, and a grower can safely plant and grow this fruit without the haunting fear that his land or some portion of it will cause his future crops to be unmarketable, or at least cause him a partial loss of profits. He also is in a great measure insured against adverse weather conditions, as rain, fog, or dew have but little bearing on the harvesting of the crop. Rain will delay the ripening and perhaps delay the picking of a few figs at that time ready for market, and the return of favorable weather means a resumption of gathering and marketing of the fruit.

Young trees produce small fruit, of a size and color greatly desired by canners and preservers, as well as confectioners for glace and candy pur-



KADOTA FIGS

Showing June crop and habit of growing. Observe the new growth of the limbs, which produce the later crops of figs. Every new leaf on the new wood protects a fig which ripens and is gathered during the summer. Contrast size of silver dollar with size of figs.

poses. As the orchard increases in age, an increase in size of fruit occurs, until the fifth and sixth summers find figs of the genuine Kadota in size equal to the largest of figs grown. Figs of 3 inches to 3¼ inches in diameter occur and extreme sizes weigh 3 to the pound, and in my own orchard four and five figs to the pound are not infrequent in June and early August crops. Later in the season slightly smaller sizes occur until October, when, in favorable seasons, large figs again develop. However, only about 10% of any crop is extreme in size, while perhaps 60% is medium and 30% small in sizes. Each size has a special market and all are in growing demand.

A genuine Kadota fig that is uncaprified is of a golden yellow color, shiny as though varnished, solid in fruit and very sweet and of pleasing flavor differing from that of any other variety.

The skin does not prick or burn the lips, and is very pleasing in taste, making it unnecessary to remove the skin for eating out of hand or serving on the table, with cream and sugar, or crushing to serve with ice cream.

The seeds being infinitely small are not detected while being eaten and that factor adds to the joy of eating this fig by people who have a plate or whose teeth are otherwise troublesome. The fig being solid within is consequently a heavy fruit, hence the returns from a tree loaded with fruit is greater than would be suspected.

Climatic conditions cause a variation in this fig not observable in others. Coastal regions produce no June crop and the size of the fruit in August is greater than the interior valleys produce. The color is likewise different. Less of the golden color is found, but more shades of green occur. Imperial Valley grows a smaller fruit than any other section of which I have knowledge; the color is golden, however. The moisture content is less and the drying fruit is hard and unsatisfactory. The San Joaquin and Sacramento Valleys will eventually produce the choicest of this delicacy.

The caprified Kadota is vastly different from the uncaprified, and is green in color when ripened, the interior being a deep shade of red, the seeds large and heavy, the sugar content increased, and general appearance radically differing from the uncaprified.

Caprification does not cause an increase in *size* of fruit; however, increase in *weight* being noticeable, both fresh and dry. The fruit of the June crop is found on the tips of the growth of the preceding season and from four to ten figs will be clustered on the terminal of a limb, and as the sizes increase they press into one another, making a great cluster of golden colored fruit, very beautiful and spectacular.

The crops in following months are on tips of new growth and scattered along down the branch, a fig invariably occurring at the axel of each leaf which grows as the limbs extend in length. Consequently every new leaf harbors a fig and a continuous crop occurs throughout the ripening season.

Description of Tree and Habits

The Kadota tree in leaf and form resembles in many respect three other varieties of figs long grown in California and elsewhere, and this resemblance has occasioned a sad mixture in orchards desired by growers to be *true Kadota.*

The tree is an upright grower of wonderous thrift and vigor, and unless intelligently pruned from its very infancy will fail to make the desired shaped

tree and produce the maximum crop of which it is capable. Its vitality and tenacity almost invariably produce a 100% stand wherever the rootings are planted. So sure is its growth that in my nursery business I invariably guarantee to replace all stock which fails to grow, and return all money paid for such rootings regardless of soil conditions if the planting occurs before *March 15th.* Strong alkali land is the exception to my guarantee, although we have thriving Kadota orchards in land considered alkaline.

The leaves on the tree differ vastly in form one from another. Some are five-lobed, some only three, and again no lobes at all appear, being a very large oval-shaped leaf, some being of enormous size in thrifty trees.

This fig has proven to be as frost resistant as any other grown in California, and even more so than the more tender varieties—young Mission, for instance. Excessive frosts have frozen Kadota orchards to the ground, yet they come up again. In my own case, on one plot of eight acres in the spring of 1917, I found not a sign of life on any tree above the ground, yet not a single tree had to be replaced, as 100% came from the roots and is now as splendid an orchard as can be found in the State.

How to Plant

In preparing your land for planting you will find this system, as I have, in many respects superior to any of the many other systems now in use. By this system you may level in one section of your field, blast or plant in any other, and no operation will interfere with any of the others simultaneously performed.

The correct tree location may instantly be determined regardless of what section of the field you may be standing in at the time. To use this system, determine your tree distances with wire or tape, either on your own borders or just outside your own property or area to be planted. Place whitewashed lath or 4 ft. stakes at proper distances entirely around future orchard location outside of planting area. Next, quarter your area with a similar row of stakes, NOT where trees are to be planted, but somewhere between rows.

Now step into any quarter of your location, the northwest for instance. Use your shovel-handle to help you line up the stakes numbered in this diagram for demonstration purposes, looking east, 24 and 13. Then looking south, line up 35 and Eye, (I) and you have W as correct location for that particular tree.

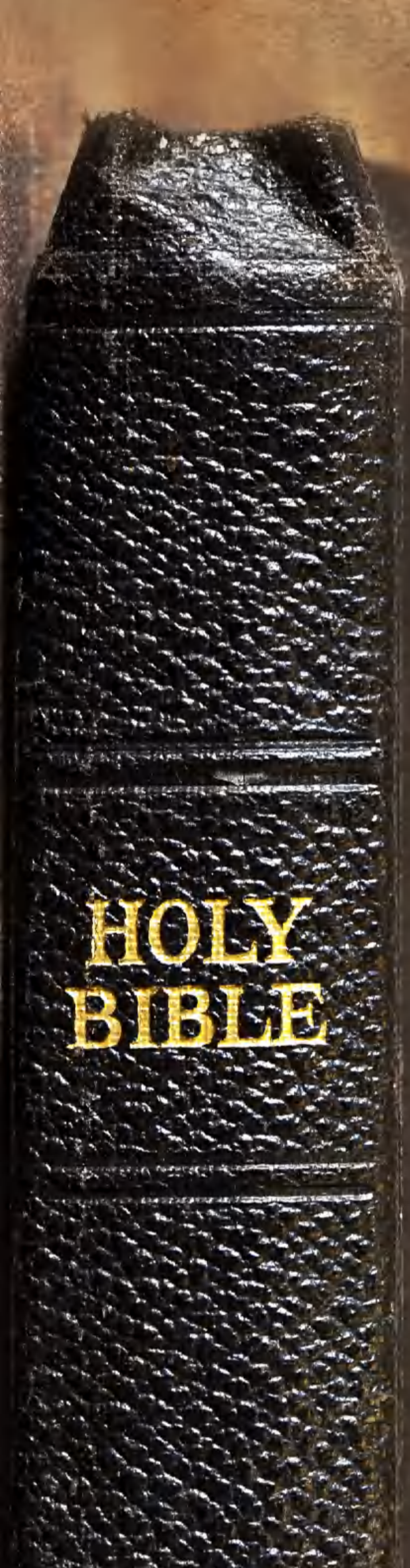
Next, go into the southeast quarter, look north and line up 38 and E; and looking west you get 33 and 11 in line, and the exact position for that tree is accurately determined, marked Z.

Any other tree location in the entire orchard may as readily and with absolute accuracy be found.

You may be planting, blasting, scraping or plowing in any of the four quarters at the same time and no operation need interfere with any other. Leave the entire staking system in place until the last tree is planted.

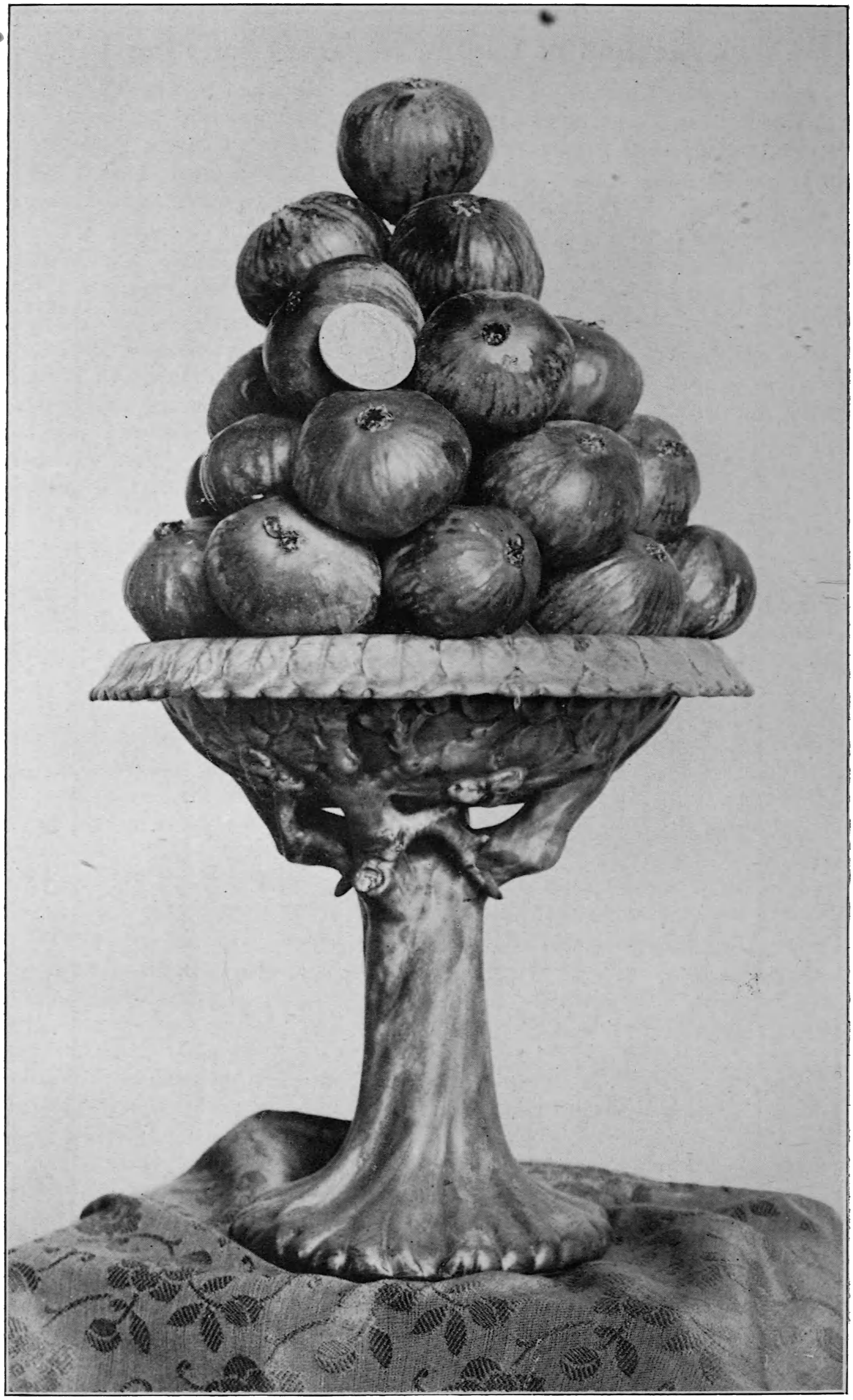
If a stake becomes knocked down it may accurately be replaced, as you have two other stakes to realign it with in replacing.

By this system much worry and annoyance may be avoided, as no little stakes are used and no planting board, and your orchard will always be in perfect alignment, even though your land may be rough, rolling or on a hillside.



Know Your Bible

Forgotten Books' Full Membership provides unlimited access to more than 28,000 volumes of Christian literature for $8.99/month



KADOTA FIGS

Notice size of silver dollar as contrasted with size of figs. The fruit is a golden yellow and glossy as though varnished.

Frozen Nursery Stock

As I said in another portion of this book, the planter would do well to know the habits of his nurseryman. But very few of the average nurserymen know as much about fig nursery stock as they do of other varieties. They do not, as a rule, appreciate the extreme delicacy of the roots of the baby fig trees they are selling. A breath of hot or dry air will injure them, and the most extreme care should be exercised at all times in their handling. Exposed to the sun, they are injured or killed. Exposed to frost, the same results occur.

Frost will injure a nursery-bed, and the trees, large and small, may be so chilled, if not actually frozen, as to be almost useless. A frozen rooting will show the top black, and, at times, bent over. At only a short space at the top may this be noticeable, and while the buds are bright and green in appearance all down the tree, yet it may be frozen to the roots.

Let the planter take his knife, and with the small blade cut into and upward deeply in the bark of the stick. Now press the portion so cut DOWN and back into place. If milk issues from the wound, that part of the stick on down to the roots is uninjured. If nothing issues from the wound, or only a little watery substance, you may rest assured that from the incision upward to the top, the tree is frozen. The tree may be frozen only a portion of its length, and by so prospecting downward you may determine exactly the point where the tree should be cut off and waxed over.

In the case of the Kadota, it should be cut to within 10 or 12 inches from the ground when planted, and if frosted the frozen part is thus cut away. In any event, the stick should be cut on down until the milk will flow freely, even though it should be necessary to cut it off level with the ground, in which event the tree will branch AT the ground instead of a few inches farther up. Either method is good, as the results desired may thus be obtained, namely, a low, spreading tree, easily picked without the use of ladders.

Here is something to remember: When a tree is growing the sap flows upward from roots to leaf and branch. When the same tree is dormant the roots are sustained by a DOWNWARD trend of the sap in the tree. The more the roots draw on the tree the more HARDENED and DORMANT it becomes. Nursery stock in autumn, not exposed to very severe frosts, slowly becomes dormant and later in the season may withstand a severe freeze without injury. However, if the frosting takes place early in the autumn, the tree is caught full of sap and the frozen portion sours and generates a poison, which is slowly drawn down into the roots, causing even the unfrozen part of the tree to die, and in the majority of cases so infecting the roots that they in turn are killed.

However, in most cases if too long a time does not elapse from freezing to cutting away the frosted portion, the tree may prove as good as any. If planted and left uncut and unwaxed, the loss is almost certain. My experience has been that if the frozen tree is in orchard form and frosted portions cut away and roots never removed from the ground, it will nearly always come again. Furthermore, the Kadota has proven far more sturdy under the freezing and cutting back than any of the other figs I have ever handled. They seem to have more vitality under such abuse and a satisfactory stand may be secured from stock frosted, and cut back, if planted early in the season.

My nurseries this season, 1919, were caught in heavy frosts very early in the Autumn and my losses were extremely heavy. Great disappointment will come to my customers, who have ordered stock and have been assured my nurseries would supply them, only at the last moment to find my frozen stock useless, and their plans ruined for this season.

While my losses are heavy, I fully appreciate that the growers' losses are heavier still. I am apportioning to those ordering very early, and the year before, all I have in my nurseries which stand a chance at all, and here I again assure my customers that *every* rooting I supply to them is supposed to *grow*. If it is planted before March 15, and it fails to grow, next season I will supply another tree of the same price, *free*, and will *refund* the original price paid for the defunct rooting.

I am in the nursery business to STAY and a satisfied customer is my best advertiser.

Fig Pointers in General

Fig rootings are more delicate than any other deciduous tree of which I have any knowledge. Rootlets exposed to drying winds or sun, even for a short time, will die.

A frozen nursery fig tree should be cut back severely below the freeze and waxed if possible. The frozen sap is *poison* and is drawn down into the roots and the entire system is impregnated and plant will often die.

A "*growing*" fig tree carries sap from roots *to* branches. When dormant sap flows *from* branches to roots.

Spotted fig orchards are often occasioned by failure of planter to cut back the newly planted tree to balance lacerated and reduced root-system; it's hard for 30% root system to support 100% top growth.

Roots supporting life of fig tree go downward to great depth; almost invisible hair-like fruit feeders grow near surface of ground in first moisture and are easily plowed up and destroyed, reducing season's crop.

Mission and Adriatic figs are both improved by the fig wasp; the Adriatic in more pronounced manner.

Cool nights improve the size of Kadota figs. Hot days improve color.

A fig tree will grow and bear heavy crops beside a running stream or near a spring; it will die young in land holding stagnant water.

It is not advisable to use manure or other fertilizer around a young fig tree unless a *vast amount of water* is available at all seasons.

Lime in soil is an absolute essential for the production of *fat meaty figs.*

Whitewash on a young fig tree is a stimulant as well as a protector against sunburn and rabbits.

Figs planted in sandy land are more susceptible to the nematode worm than those grown on more heavy land.

Soil that runs together and bakes hard is usually safe from nematode. Tomato vines are the natural host for this pest. Keep them away from a fig.

Grafting over a fig to a more desirable variety is good. A bud-graft makes the best union. Less apt to break.

Alfalfa grown between the rows of young figs is bad business. Too many gophers; grow corn, beans or something else first few years.

Smyrna figs dry away three to one. Kadota caprified, two to one, uncaprified 2½ to 1.

A very superior dried fig is obtained by dipping fresh figs in boiling water two minutes, then in boiling syrup (2 pounds sugar to gallon of water), dry on trays four days; product is very tender and clear.

Dip dry figs in boiling brine (2 oz. salt to gallon of water) two minutes, place immediately in tins, lid and seal. Will keep indefinitely.

Adriatic figs grown in heavy land seem to sour every year. Picking fresh and dehydrating or canning will solve the difficulty and save pure food confiscation.

The Kadota fig will be the agent for revolutionizing the growing, handling and marketing of California figs. It ushers in new systems and new ideas. It is truly a California product.

A Canner's Opinion of the Kadota

San Francisco, California, November 11th, 1919.

Mr. W. Sam Clark
Sultana, California
Dear Sir:—

For the past several years we have been using fresh Kadota and White Endich figs for preserving purposes. Some people claim that these two figs are identical and that the difference noted is due to the different localities in which they are grown. But we think that the Kadota is an improved strain of the White Endich and have noted these differences:

Our White Endich growers seem to have but one commercial crop. This comes about July 15th and ends in late August. Our Kadota growers have a crop of considerable size in June. They then ship again in August and from then on quite continually, the weather permitting, into October and even November. Our receipts of White Endich have always been small or medium in size; whereas Kadotas run six and even four to the pound. This increase in size may be due to the fact that the Kadotas come from young orchards and the White Endich from old trees. Placing the Kadota beside the White Endich, no difference has been noticed. But when boxes of one variety are compared with those of the other, we have noticed that the Kadotas appear more golden yellow and richer looking than the White Endich.

Both are good preserving figs but we prefer the Kadota.

Respectfully yours,
PACIFIC COAST SYRUP CO.
By H. L. Kimball, Superintendent.

The Fig Tree

BY

J. C. FORKNER

I am the Fig Tree
I was born in the Garden of Eden
I furnished both food and clothing
For Adam and Eve
For Six Thousand years
I have been a comfort and a solace
To man
During all these thousands of years
While man was evolving
I clung close to the shores of the Mediterranean
My birthplace
Man found many lands
Many climes where he could prosper
I found none
'Till about 150 years ago
Junipero Serra, the Franciscan Father
Planted me in California
When my roots went down into that blessed earth
I then realized a new home
And a new destiny
Was for me
I sojourned many years
In the Golden State
In the Southland, along the coast
And around the bay
Giving the best I could
Where Sun and Soil and Moisture
But partly met my needs
I knew
Somewhere in the State
Of a Thousand Valleys
I would find a place
Where I could do my best
For you must know
I am particular
The winters must not be cold
I must have no rains fall upon me
From June 'till October
The air during the same season
Must be almost bone dry
The soil must be to my liking
Plenty of lime and potash
The drainage must be perfect
For one hundred days the sun must shine
From a clear sky
And reach near one hundred degrees
Of heat each day
Before I give perfect fruit
Now you can see why for six thousand years
I clung to the shores of the Mediterranean
Few places on the Globe suit my fancy
One day near seventy-five years ago
A roving Argonaut planted me
In the red soil
On the western slope of the Sierras
Near where Fresno
The Garden of the Sun
Was destined to be
That day I knew
I had found the spot
Where I could do my best
It has taken all these years
For Californians to see
How perfectly I work
When my requirements are met
I am now producing fifteen million pounds each year
In my new home
There are one hundred million people
In the dear old U. S. A.
They can eat my present yearly supply

On Thanksgiving Day or Christmas
Day
Or any day
And have not near enough
I call upon you, my friends
Plant me
Plant me by the thousands
I will bring a blessing to you
And to all mankind
Do not be afraid of too many figs
Such a thing cannot be
In the J. C. Forkner Fig Gardens
There will be ten thousand acres of me
This is a bagatelle
To the increasing millions who must
eat
There could be dozens of J. C. Forkner
Fig Gardens
Yet untold numbers in America will
be born
Grow to manhood's estate
And pass away never having tasted
my fruit
I know these things to be true
For I have lived
Since the beginning of Man
In all the world today
There is not produced enough of my
fruit
In any one year
To make two ounces
For each of the world's inhabitants
And yet when planted in the proper
place
I live forever
I have no disease
And for Six Thousand years
I have not failed to produce a crop
Each year