

# No Better Grapes Can Be Grown in the World, Nor More Grapes to the Acre, of the Wanted Kinds, Than Can Be Grown Here

## CHIEF IN HORTICULTURE AT O. A. C. GIVES HIS O. K. TO GRAPE CULTURE

"Grapes Are Very Productive in This Country, and the Question of Profitable Grape Growing Rests Not on Producing the Grape, But Upon Getting a Market for It," Says Prof. Brown

(Oregon Agricultural college has no available bulletin on grape culture—but one will be prepared if the millage bill passes, giving that institution some money to work with; and a number of other matters important to Oregon farmers and fruit growers are awaiting that issue. But the chief in horticulture at O. A. C. has written the following for this issue of The Statesman:

**Some Important Phases.**  
Your letter to Miss Helen Holgate under date of April 22nd has been referred to me.  
I am sorry we have no bulletin on grape growing which is available for distribution. I have looked through my files to see if I have something suitable which I could send you and which you could return to me, but I do not find anything which is quite up-to-date in all matters and that would be of use to you. We hope to publish a grape bulletin some time this summer if the fates are kind to us and we can get some more money to work with after May 21st.  
I will give you a few ideas of the more important phases of grape growing.  
To go into the matter very deeply would require a bulletin, as you understand.

In the first place, the grape requires a rather light loamy soil and will do better if this soil is on a south or southwest exposure to assure plenty of warmth and sunshine. Grapes must have plenty of sunshine to manufacture sugar. Very frequently the lightest and poorest soils on the farm are used for the culture of grapes, but that does not mean that the grape will do its best on such soil, although it may come through fairly well.

Of the varieties that I would recommend in the Willamette valley, I would mention such as the Concord, Niagara, Diamond, Moore's Early, Worden and Agawam. These, all as you know, are American varieties. The climate in the Willamette valley is not suited to the production of the vitifera or European grapes.  
Grapes are planted in rows about

nine feet apart and from eight to ten feet apart in the row, depending upon the vigor or the variety, the richness of the soil, etc. The American grapes are all trellised, in commercial work, along on two or three wires, the two wire system being about 30 feet apart and the wires are usually about 12 gauge galvanized iron. The end posts should be very well braced and larger than those used in between.

The two common methods of pruning the grape are what is called the two-arm or tie-up system, and the four-arm or kniffin system. In the first, two wires are run for the trellis at heights of 2-1-2 and 4-1-2 feet. The little vines are trained up to the first wire where two arms are allowed to run out one on each side along the wire, and from these arms the young shoots are tied up to the upper wire. In the four-arm system, the young vine is trained clear to the top of the upper wire and the two wires are at the heights of three and five feet above the ground, so that the vines can run along the wires and not have to be tied up, but the young shoots, after they come out, drop down.

In both these systems, the cutting back or renewal, as it is called, for each year is practically the same. The old cane, which sent out the fruiting canes for this year, will next year be cut back to a strong cane nearest the

stub of the vine. This strong cane, that has fruited and grown through one season, will then be let down along the wire and will be the parent cane for new shoots that will come out next year and bear the fruit. Usually two good bunches can be counted upon to come out of the young shoot which springs from the bud of the cane which is laid down along the wire. It is, therefore, necessary to cut back these canes, after they are laid along the wires, to a point where the vine will not over bear. For strong growing American grapes like the Concord, a maximum crop for commercial vines is considered to be about 120 bunches. That would mean that about 60 buds would be left upon the canes to produce fruiting shoots.

So far, the demand for American grapes in the state of Oregon has been largely for the fresh grape. There is some prospect, however, that grapes may be grown here in the future for their juice and for jelly making, just as they are in other sections of the country.  
Grapes are very productive in this country, and the question of profitable grape growing rests not upon producing the grape, but upon getting a market for it.  
I am sure that your suggestions may be of some help to you, I am, yours very truly,  
—W. G. BROWN,  
Chief in Horticulture,  
Corvallis, Ore., April 24, 1920.

fruits grown not excepting the loganberry or the prune.  
The grape fever has broken out in New York, and one nursery man in Illinois wrote me that a New York syndicate had bought two millions of acres in Michigan and was planting it all to Concord grapes, and that they had felled all the nurseries in the land of Concord plants.  
The Concord is king of all grapes, it being the grape that most all of the commercial grape juice comes from.  
For a grape for this climate, it needs a favorable location, as it is a little late in getting ripe some seasons. The Campbell's Early is a seedling of the Concord, but ripens two weeks earlier.  
The juice factories buy them at the same price as Concord, as the aroma is identically the same. I have the King and McPike grapes, both seedlings of the Concord, but much larger. In a former article I stated that the McPike excelled as a novelty; but the last three years it has come through with a good satisfactory crop, and I mean to plant more as soon as I can get plants, but will have to propagate them myself, as the demand has sent the price 500 per cent higher than usual.  
I have been asked times without number which is the best grape for eating.  
With my grapes, the one that is best of all is the one you have in your hand.  
The Concord will keep until

Christmas, but to grow a grape for long keeping requires a little additional treatment more than it does to dump them on the market at picking time.  
Some of the advantages of growing grapes for profit over other small fruits are:  
The plant is long lived; perhaps about 25 years.  
The plants do not winter kill in this climate. I don't think I lost a single plant last winter.  
There are no off years. There was one season several years ago when we had a heavy frost in September that got almost the entire crop.  
As for harvesting, one man can pick one ton per day in a good vineyard.  
The McPikes are as large as common cherries.  
The Eclipse is the earliest grape of the Concord type, and very sweet; unfortunately it makes a poor looking bunch.  
The Green Mountain is the earliest of all white grapes and very good; but it was another grape I turned down as undesirable in my earlier experience.  
But I am informed by grape specialists that it overbears when young to such an extent that it is almost worthless unless it is restricted. Since I learned to prune heavy it delivers the fine goods.  
Moore's Diamond is perhaps the most desirable white grape, always on the job with fine bunches, but a poor keeper.

## SALEM MAY BECOME THE WESTFIELD OF OREGON

And the Country Surrounding This City May Become the Chautauqua Grape Belt of the Pacific Coast—This District Can Grow the Right Kind of Grapes

(By Jesse Huber)  
What use do I intend to make of the grapes when my vines shall begin bearing the tempting clusters?  
That question should be decided by the grower before the plants are set. There are hundreds of varieties of grapes, each having some distinct use. There is no one variety that can be used for all the purposes to which this delicious fruit may be put.  
Here, in the Willamette valley, we have favorable conditions for growing successfully only a few of the varieties of grapes.  
Ours is a region in which the so-called American grapes produce well. Among these are the Concord, Campbell, Niagara and Worden.  
The Concord is still the premier grape of this and other regions where the summer heat is insufficient to produce some of the more delicately flavored fruit. It is the variety that is grown extensively and successfully in the region of the Great Lakes, in New York and in some sections in New England.  
Good Commercial Variety  
The Concord may be turned into several valuable commercial products. It is a good table grape. It is used extensively in manufacturing jelly and grape juice. Probably 85 per cent of the commercial grape juice on the market is extracted from the Concord grape.  
The Worden and Campbell grapes are closely allied to the Concord and differ only in their period of ripening.  
These three varieties can be grown as successfully here as in any of the older eastern regions. If planted extensively on our well drained, alluvial soils, they would produce a sufficient bulk of delicious, vinous fruit to form the basis of a new industry.  
Grape Juice is Popular  
Grape juice is now an established commodity. With the Concord vines burdened, each autumn, with enticing clusters, there is no reason why it should not be planted sufficiently extensively to supply the grapes for a pressing and bottling plant in Salem in which this delicious beverage

may be prepared for the market.  
Travelers, returning from Westfield, New York, state that for a radius of 20 miles around that city the bottom land, level stretches and hill-sides are covered with the prolific vines of the Concord grape, the fruit from which is nearly all sold to the manufacturer of the well-known Welch grape juice located in that city.  
Might not Salem become the Westfield on the Pacific coast, if the acreage of grapes were sufficiently extensive? Indications are that this possibility might be developed into a reality if serious consideration were given it.  
Completion is Limited  
Many efforts have been made to utilize the several varieties of grapes grown in California in the manufacture of grape juice. But the quality of the product is such that it has never met with the general favor accorded the sprightly flavor of the drink extracted from the Concord grape. Competition from that source would, therefore, be negligible.  
Not a New Industry Here  
Grape culture is not new and untried in the Willamette valley. Individual vines are doing nicely here and there on the farms. A number of small vineyards near Salem are yielding heavily.  
Several rather extensive plantings of grapes are found near Forest Grove and at Mount Angel. The Benedictine fathers at the latter place have been carrying forward grape culture under European methods of cultivation for a number of years with most encouraging results.  
Best Soils for Grapes  
The grape will grow on many kinds of soils, but for best results, the conditions exacted by their best fruitage must be fairly met if the highest success is expected.  
Generally speaking, soils of a porous or sandy nature have the proper texture. If the necessary elements of fertility are not present, these should be supplied by enriching the soil by the usual methods recommended for any of the other fruit bearing vines or trees.

## JIM LINN HAS A BEAUTIFUL LITTLE VINEYARD NEAR SALEM

He Grew Grapes in Competition With Jack London When He Was a Youngster, and He Thinks He Put It All Over the Great Story Writer

J. R. ("Jim") Linn of Salem is interested in a good many things, including hops, prunes, loganberries, general farming and stock raising, hotels, the state fair, politics, etc.  
But he takes as much personal interest in his young vineyard, four miles south of Salem, in the Liberty district, as he does in anything else.  
When Mr. Linn was a number of years younger than he is now, he was on the payroll of the state of California, working at the home for the feeble-minded children at Glen Ellen, in the Sonoma valley. He then had the care of the vineyard of that institution, and the vineyard that he attended was across the road from the one on the farm of Jack London, the great novelist, and near one owned by Dr. Donnelly, mayor of San Francisco and whilom candidate for governor of California.  
There was a good deal of rivalry between Mr. Linn and Jack London for the great story writer thought he knew all about grape growing, and he took great delight in the arts of horticulture.  
But Mr. Linn made a study of the science, too, and he worked hard, and he thinks he put it all over Jack London in the quality and quantity of grapes grown.  
Mr. Linn says the grape land of the Sonoma valley district is like the Polk county hills, only rougher.  
He says the rough rocky land of the Willamette valley, with south slopes to get the best advantage of the sunshine, is the best for grapes in the country around Salem.  
His Own Vine and Fig Tree  
Mr. Linn's own vineyard is a four-acre patch of land that was formerly grown up to oak grubs and wild things of the woods.  
He set out his grape vines in the spring of 1915, (Concord and Worden) which he got from New York. The Wordens are of the Concord family, only larger and finer. He set his vines eight feet apart; set them like hop vines.  
There are three ways to cultivate grapes; the stump system, the trellising system, and the layering system. The grower can produce more grapes to the acre with the layering system than with either of the other two; some Hungarians and Germans in Marion county are producing 10 tons

## FIFTY YEARS OF GRAPE GROWING IN OLD POLK

If Mr. Ruble Had to Give Up the Growing of All Fruits But One, He Would Stick to Grapes—Some of the Advantages of Grape Growing

(D. R. Ruble, who lives across the Willamette river from Salem, over in Polk county, was asked for an article on grape culture—and when his reply arrived, promptly, the Salem sagan editor was sure he had made no mistake in choosing grape growing as one of the 52 most important basic industries for Salem and the country surrounding this city. Following is the reply:

Grape Culture in the Willamette Valley  
(By D. R. Ruble, Salem, Ore.)  
Fifty years ago I was in the primary class of grape culture in Polk county, Ore. Some grapes that did well in those days have lost their prestige owing mainly to mildew that did not exist in those days.  
I have been growing grapes for the last 20 years on a side line, but I now realize that it is a poor side line but a very good main line.  
If I was compelled to give up all fruits but one for cultivation it would surely be the grape I would hold to. But just why I am not growing grapes on a larger scale is from the fact that the mildew commenced its destructive work a few years ago, and about three years ago I got an idea from some one that the mildew could be controlled and I am now satisfied that

it is no serious trouble if one will only do his part.  
I use dry sulphur once in the bloom and about twice after the berry is formed.  
A new idea dawned upon me last season. I found I could keep grapes of certain kinds all winter long and have a few culls by Christmas. And the thought of putting my grapes on the market in March looked better than a gold mine.  
But I hesitate just now, for the idea seems to have somewhat of a tendency to backfire, as people are not in the habit of buying many grapes after Christmas.  
I have at this writing (April 25), the Agawam grapes in my fruit house that have kept good and sound all winter, but some are wilted. I suppose people would think the goods too old to be good. But such is not the case with a tough skinned grape. If they were shipped to Central America and sent back as new goods, I doubt not but they would be in great demand. However, such grapes would be in demand in the months of November and December at double the price at harvest time.  
Are Grapes Profitable to Raise?  
With the right kinds, the right location and proper man to back it up, it should be equal to any kind of

to the acre with the layering system. But that system takes the most labor of all.  
Then there is the trellising system—described in this issue by Professor Brown, of the Oregon Agricultural college.  
Mr. Linn uses the stumping system.  
He says this is the system used in California for large acreage. It makes for easy cultivation and harvesting.  
The stumping system is like this: The second year tie up the first year's growth to a stake 18 inches high which makes the stump of the vine. Each year after that cut back the season's growth to about two eyes. Thus the new growth will branch out and make a bush high enough to carry the fruit off the ground. When the vines produce fruit, to get perfect fruit pinch back the vines about the first of July to two joints—in order to throw the growth into the fruit.  
Another advantage, this will make the winter pruning much less.  
Mr. Linn says that while he set his grapes about like hops, deeper holes are better.  
He says that a grower here may safely count on an average of three tons to the acre, under the stumping system; a well tended trellised vineyard will produce five tons to the acre, and a layered vineyard may bear 10 tons to the acre.  
The price should be at least \$100 a ton, in normal years.  
He says the jelly and jam plants will need all that is grown or may be grown for a long time, hereabouts: for grape jelly is a standard product in demand everywhere.  
The Layering System  
The layering system is rather hard to describe without a picture. But the principle is the growing the year before of two or three vines about six feet long, from the parent stump; then the covering of these vines with soil for about two feet, supporting the rest of the vines with stakes. The part of the vine under the soil grows rootlets and gets sustenance from the soil to put growth into the grapes on the part of the vine exposed to the sunlight on the stake—and the result is a great crop.

and the Sweetwater have been observed to be very good yielders. The preference for any one of these varieties for table purposes is of course a personal one, but experience has shown that the Niagara is a favorite and the Worden is also in very much demand. Both of these are much sweeter than the Concord, which excels for juice and preserve making.  
The limiting factor in the production of grapes in the past has been the market problem.  
The advent of the juice and preserving plants in this community should now create a demand and take care of all production. Diseases which may be limiting factors in other sections are not so prevalent here, and the only one of any serious nature is mildew. We have not been materially afflicted with this pest at the hospital, but it seems to be in evidence in other vineyards. Dusting with sulphur two or three times during the season will effectively control this situation. An application of Bordeaux 4-4-50 just after the berries have set is very effective.  
Just a word with reference to pruning of American varieties is altogether different from that of the European varieties. We practice the Kniffin system or modifications of this system, here at the hospital. Pruning must be done during the winter or very early in the spring to avoid unnecessary bleeding due to wound made after the sap has started to flow. Do not begin pruning, however, before the vine is entirely dormant in the fall. December is a good time to start if it is a mild winter. The Kniffin system consists in allowing one arm of last season's growth to be trained along the trellis wire in opposite directions. Either the single or double method may be employed, that is a pair of arms on the upper wire or a pair on both upper and lower wires, depending on the vigor of the vines.  
Two to four buds are left at the juncture of stem and new arm for the renewal arms of next year.  
Grapes are borne on this year's wood, and it is essential that enough of this wood be produced and still not too much.  
The tendency of most growers who have a few vines for home consumption seems to be to leave too many arms which develops an excessive amount of wood, sapping the life of the vine and producing a poor quality of grape. Experiments carried out here at the hospital have proven that it is not policy to snip back too heavily the shoot growth through the summer, but allow plenty of leaf surface to develop on the arms used for this year's supply of bearing wood. Snipping back to any excessive degree reduces the leaf surface and inhabits the power to manufacture starches and sugars necessary for fruit development.  
In our experiment we kept two rows snipped back very closely similar to the method employed on Eu-

## ONE OF MOST DELICIOUS FRUITS THAT GROWS HERE

The Grape Does Not Receive the Attention It Deserves—Set Grapes Deep, Like Trees, and Cut Them Back Every Year, and Keep Suckers Broken Off

Editor Statesman:  
Replying to your request on grape culture, will say that one of the most delicious fruits that grows does not receive the attention that it deserves.  
There are few localities in this world that it does not thrive. Being a deep rooted plant, if given a fair chance to make a start, it will pay well. In this section of the United States it has not been grown extensively enough to give real data as to its possibilities. I have only about one-twentieth of an acre. The price I sold them at to the Pheasant company (5 cents per pound), would have brought me, had I an acre, over \$700. No doubt this is much more than one could count on year by year.  
I am somewhat partial to the Concord grape, as it is one of the best commercial varieties.  
However, there are lots of good varieties to suit all tastes.  
One very essential thing to remember, if one wishes good, strong, vigorous vines, is to set the plants out deep. It will not be a success if planted shallow. Dig a hole like

you were going to set a tree and use the same methods. Put the top soil in the bottom in filling up. Another thing perhaps more important is to cut them back every year. For the first three years cut back to two or three buds. This will insure thick, sturdy stocks after which more buds can be left to produce fruit.  
Unlike other fruits, the grape produces fruit on growing wood. Apples, pears, cherries, etc., form their fruit spurs and buds the year before fruiting, but not so the grape, and unless it is cut back to a few buds, there will be too many bunches formed and the fruit will be small and inferior, or there will be no fruit at all. Soon after a grape bud starts to grow generally two bunches start at the same time; soon the vine is several inches long and more bunches set, and often a third set of bunches appear and as the vine grows longer suckers will form and grapes will form on them, though good grape growers break the suckers off to give the bunches formed the full strength of the vine.  
—A. E. Zimmerman,  
Salem Or., Rt. 9, Apr. 26.

## STATE OF OREGON RAISES SOME VERY GOOD GRAPES

F. Howard Zinser, Horticulturist at the Oregon State Hospital (Asylum for the Insane), Writes Very Instructively and Entertainingly of His Methods—Good Yields, Too

(The following by Mr. Zinser, horticulturist of the Oregon State Hospital (asylum for the insane), is commended to the readers of The Statesman as a very well considered and written article on grape culture for this district.)  
**Some Grape Growing Experiences.**  
Perhaps there is no place outside of the famous grape growing section of New York, which holds such possibilities for the culture of the American varieties of grapes as does the country immediately surrounding Salem.  
The climate, soil, conditions and market all combine to form an almost ideal situation.  
The sloping red hills or the level black valleys all hold possibilities for profitable vineyards.  
The European varieties so widely grown in California do not do well this far north, so we can only deal with those more hardy varieties native to America. I have been particularly interested to note the safety with which these varieties have withstood the freeze of last winter. There seems to be very little injury, which is another point in favor of viticulture in this locality, viz. hardiness.  
The varieties proving very successful at the Oregon State Hospital for the past few years are: Moore's Early, Worden, White Niagara, Concord and one red variety the name of which seems unknown. It resembles the Delaware somewhat, so for the sake of conformity we call it the Delaware. Campbell's Early

ropean varieties with the result that the berries were tasteless and hard and unfit for consumption.  
We assume that this practice, therefore, is not wise. I am told, however, that the Campbell's Early and Sweetwater will stand this practice with greater success than other varieties.  
Yields attained here at the hospital have been very satisfactory. Last year on 3.9 acres we produced an aggregate of 20,380 pounds. At the prevailing market price of 5 cents per pound this yields a gross return of \$1019. Mr. C. Lanke reports a return of \$300 on three rows of Sweetwaters about 1250 feet long. These yields show a very interesting possibility with reference to considerable acreage and prove the value of the fertility and addition to the list of successful fruits, nuts and berries peculiarly adapted to this valley of the Willamette.  
—F. Howard Zinser.

## SCHOOL MONEY IS INVOLVED

Gehlhar's Contention Concerns \$50,000 Annually; Case May Go to Court

An estimated \$50,000 a year for the irreducible school fund of the state is involved in a question which District Attorney Max Gehlhar of Marion county has placed before the state land board, and which the board now has under advisement.  
Mr. Gehlhar informs the board that since a royalty payment of 10 cents a cubic yard is being assessed by the state against dredging concerns taking sand and gravel from the Willamette river for use on county highways the dredging concerns are off-setting the charge by raising the price of their service to the county by 10 cents a yard. His contention is that the companies are really agents for the county and that under the act of 1919 providing for the royalty payments they should be exempt from the royalty charge, since the law provides that counties are not required to pay the royalty.  
The board's contention is that this applies only in cases where the counties are owners of the plants.  
The extra cost to Marion county under the board's interpretation of the act will be about \$5000 this year. All counties on the Willamette river, many of those on the Columbia and some in other parts of the state are affected.  
Whether the question will be taken into court is problematical.  
But we do not understand that Mr. Gehlhar pretends to be able to summon the spirits of the dead. That is the stuff that interests so many in this vale of tears.

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