

SALEM DISTRICT INDUSTRIES

The Statesman will publish and award a prize each week for the best essay submitted by a grade school pupil on the industries scheduled on this page.

SIXTH CONSECUTIVE YEAR

THE DAILY STATESMAN dedicates one full page each week in the interests of one of the fifty-two basic industries of the Salem district. Letters and articles from boosters are solicited. This is your page. Help boost Salem.

For instance: Salem district has two counties growing the sacred myrtle—the only place it grows on this continent. What unique fact do you know about the district? Address articles to Slogan Editor, care Statesman.

THE PLACE FOR GRAPES, BY PROF. C. E. SCHUSTER OF THE COLLEGE

Campbell's Early Is Best for Our Conditions—Best White and Red Varieties and European Kinds—Planting, Pruning and Training Systems, and General Care and Harvesting

Editor Statesman: Grapes are among the easiest and most satisfactory fruits grown for home use, but unfortunately about the last one to be considered by the majority of people. The grape has a definite place in every home orchard, where the location is such that grapes will thrive and should be included in the list of fruits when any one is planting a home orchard.

More emphasis will be laid on the use of the grape in the home orchard than for commercial purposes. Except for rather limited acreage in a few local places, grape growing in the Willamette valley should not be entered into very extensively. A small patch of grapes where the fruit is handled properly will, near many of the valley towns, return good profit, but any large increase in acreage will soon swamp the market and break the price. The shipping of grapes, except for very short distances, will hardly prove satisfactory. California can produce grapes so cheaply that where any great shipping expense enters in, the competition will be too great for local grapes.

Grapes should be sheltered as much as possible from the effects of possible frost. Where the home orchard is located in a rather frosty location, the placing of the grapes adjacent to buildings or other sheltered locations, especially the south side of the buildings, will often aid in not only protecting them from the frost, but bring out better quality of fruit due to the added heat of such places. A frost that will not endanger other fruits is often disastrous to the tender foliage of the grapes. It is a frequent occurrence to have the first growth of grapes hit by a frost, and then the secondary growth come out and develop normally, with the exception that the set of fruit is very light.

If possible, the location should be such that good air drainage could be had for the grapes. Especially in this necessary in a large or commercial plantings. Sloping tracts of land in which the cold air is drained away to lower levels will afford the maximum protection against frost. Warmer slopes are advisable in growing of this fruit. Unless the heat is sufficient to raise the sugar content of the grape up to the normal amount, the quality of the fruit is inferior.

For best results, deep, well drained, friable soil is desirable. Grapes are deep rooted, so a soil 4 to 6 feet deep or deeper is satisfactory. The lower soil need not be of the same character as the upper soil, but a type through which the grape roots can readily

penetrate. With a deep roll is associated good drainage, as a high water table renders the soil shallow. For this reason, it is not recommended that grapes be planted on a slope through the standing water. Deepness of an extensive character is just as detrimental as is the high water table. While the soil should be of a character that holds moisture well throughout the season, it should not be one that is at all water-logged. At times artificial drainage for the home planting will pay, but in view of the large amount of land naturally well drained, it would hardly seem advisable to drain land for commercial planting. Where good air drainage is secured, good soil drainage is usually found, though many exceptions are to be noted. The very richest soils are not necessary for grapes. Soils with medium fertility, deep and well-drained prove satisfactory. Of course, soils can be too poor for the best growth of grapes. The exact kind of soil is not a determining factor in most cases, provided it meets the above requirements.

A fact often of more importance to growing of grapes than fertility of the soil is one of the moisture content in the soil. In order, in many cases, to maintain the moisture where it should be it is necessary to keep the soil fairly well filled with humus, and this in most cases necessitates manuring or the growth of cover crops. If, with the use of these materials, the soil is kept in good condition, so far as the humus content is concerned, the plant food content of the soil will generally be taken care of. Moisture is more apt to be a limiting factor in more soils than the fertility, so that if the moisture content is kept up by the use of cover crops or manure, the soil fertility itself will be handled.

The Willamette valley is pretty closely limited to the growing of American grapes. These varieties will grow and mature fruit in the cool climate of this valley, while most of the European varieties will not thrive, with the exception of one or two of the very earliest varieties of European grapes. The European grape demands a long growing season with the maximum heat and sunshine. We find that many of the varieties commonly grown in California fail to mature under Oregon conditions, many of them not even showing any indication of sugar by the time the fall rains begin, or the frost catches them.

Campbell's Early Best Of the long list of American grapes to choose from, the Campbell's Early is undoubtedly the best for both commercial and home use. This is the best early

grape we have, and, due to its earliness, it will mature well where the Concord, which is somewhat later, will fail to mature properly. Although the Concord is one of the most popular varieties in the western part of the United States, it has not been as successful in Oregon as the Campbell's Early, but can be used as a later grape. The Campbell's Early is a good grape for handling on the market, as it has a relatively tough skin, and though considered by some not quite so high in flavor as other varieties, it is a very satisfactory grape. It can be picked at the regular time and still will keep as long as the Concord or some of the later varieties. The variety advertised extensively as the Island Belle is without question the Campbell's Early, introduced under the name of Island Belle.

A better quality grape for home use is the Worden. This can hardly be recommended for commercial planting, as the berry is so tender that any handling at all will break the berry, pulling the skin open, making it unsatisfactory for commercial purposes. It is just a little later than the Campbell's Early. Due to the tender skin, it will not stand adverse seasonal conditions, as frequently are met in this section, being susceptible to injury from rain.

Best White and Red For white grapes the Niagara is undoubtedly the best, but it has about the same ripening time as the Concord, making it a little late for many sections. Where well ripened, it has a most excellent flavor and really should be included in any of the home plantings.

For red grapes we have none that are satisfactory from a commercial standpoint, but a few that are very good for home use. The Delaware bears rather light, has small bunches of very small berries, but of excellent quality. The Agawam develops very poor bunches, but it bears heavily and has also good quality.

The European Kinds For those people who desire the flavor of European grapes, we found the Sweetwater and Golden Chasselas to be the most satisfactory in general. This is a white or green grape that matures about the same time as the Concord, or possibly a little later, but often fails to develop the quality that it should. In cool seasons, or when early fall rains come, it does not develop the sugar content desired. In some of the more protected places we find varieties like the Muscat Hamburg or Rose of Peru doing very well, but these cannot be generally planted with the expectation of being successful with them. On the experiment station grounds the Chasselas, Rose Royal and the Chasselas Rouge have proven nearly as successful in maturing a crop as the Golden Chasselas, but do not bear any ways nearly as heavily.

The regular wine grapes and raisin grapes of California cannot be considered for this district, as they demand a long, warm season for maturing the crop. Many of these varieties are under test

THIS WEEK'S SLOGAN

DID YOU KNOW that in the Salem district grapes of the Concord (American) grape family can be grown to perfection in immense quantities; that we have tens of thousands of acres of cheap lands suitable for grape growing; that Salem ought to be the Westfield of Oregon, and the Salem district the Chautauqua grape belt of the Pacific Coast; that Salem ought to have great jelly and jam plants, using an immense annual tonnage of grapes; that there is and will be money in grape growing, and a very great industry in this line is within the grasp of Salem and surrounding country, and that there is now more interest here than ever before in the industry?

Dates of Slogans in Daily Statesman

(In Twice-a-Week Statesman Following Day)

(With a few possible changes)	Sugar Beets, Sorghum, Etc., May 6, 1926
Loganberries, October 1, 1925	Water Powers, May 18
Prunes, October 8	Irrigation, May 20
Dairying, October 15	Mining, May 27
Flax, October 22	Land, Irrigation, Etc., June 3
Pilberis, October 29	Floriculture, June 10
Walnuts, November 5	Hops, Cabbage, Etc., June 17
Strawberries, November 12	Wholesaling and Jobbing, June 24
Apples, November 19	Cucumbers, Etc., July 1
Raspberries, November 26	Goats, July 8
Mint, December 3	Schools, Etc., July 22
Beans, Etc., December 10	Sheep, July 29
Blackberries, December 17	National Advertising, August 5
Cherries, December 24	Seeds, Etc., August 12
Pears, December 31	Livestock, August 19
Gooseberries, January 7, 1926	Grain and Grain Products, August 26
Corn, January 14	Manufacturing, September 2
Celery, January 21	Automotive Industries, September 9
Splanch, Etc., January 28	Woodworking, Etc., September 16
Onions, Etc., February 4	Paper Mills, Sept. 23, 1926
Potatoes, Etc., February 11	
Bees, February 18	
Poultry and Pet Stock, Feb. 25	
City Beautiful, Etc., March 4	
Great Cows, March 11	
Paved Highways, March 18	
Head Lettuce, March 25	
Silos, Etc., April 1	
Legumes, April 8	
Asparagus, Etc., April 15	
Grapes, Etc., April 22	
Drug Garden, April 29	

at the experiment station, and most of them fail to even show any degree of maturity in the average season. In the season of 1922, when more varieties ripened than ever before, but very few of them attained the quality desired for these grapes, while most of them never even ripened enough for picking from the vines.

The Planting Methods Grapes are generally planted 8 feet apart in the rows with 8 feet between the rows. This gives sufficient distance for the development of the vines and affords ease in cultivation. The earlier grape vines can be planted in the fall and winter, the better they will be, as it will give the vines a chance to establish a root system during the winter season. Avoid planting late in the spring, as this does not give the vine a good chance to establish itself before the hot weather comes on. After the vines are set out, about the only thing necessary the first season is thorough, consistent cultivation to prevent the excessive loss of moisture from the soil.

At the beginning of the second season the general practice is to cut the vine back to two buds. The idea of it is to prevent the canes of the previous season bearing any fruit but rather devoting the energies of the plant more or less to the establishing of a root system and growing a vigorous healthy cane for the coming season. Although only one cane will be allowed to grow after this season, two are permitted the second season for the simple reason that one of them may be destroyed and this will not set the plant back a year in establishing the frame work.

At the beginning of the third season, the stronger and better cane is selected and cut at the height desired, which will be determined by the pruning system, which will be followed in the planting. All other canes or growths are removed, leaving the single cane to form the main stalk of the plant.

Heavy Pruning Best After the vines become mature the annual pruning is a very drastic, heavy cutting, as over 90 percent of the previous season's wood is removed each pruning season. The best fruit and the finest bunches are grown on the vines that are heavily pruned. More bunches might be produced on vines if more wood could be

Running from the cane each way on each wire will be left one cane or arm. The total number of buds desired to leave for the individual vine is distributed evenly over the four arms.

Aside from the four armed Kniffen system, we find the Munson system giving excellent success. This is a three wire system in which the lower wire is placed 3 1/2 to 4 feet from the ground with the two upper wires one foot higher, and at the outer edge of an 18 inch cross piece. The main stalk is trained to the lower wire and then two or four canes are trained along this lower wire. As the buds break and the new shoots develop, they will be upright for a short time, but gradually droop over, and in this way lay over the two upper wires. This system of training is more expensive to establish in the first place, but is more easily handled during picking. The bunches all hang free and are not entwined by the growing canes or the tendrils of the vines. Also, it allows more circulation of air, tending to reduce the possibility of disease.

General Care, Harvesting The general care of the grape vine is the same as for any other fruit tree. Thorough, consistent cultivation is advisable for the best results. However, it is noticeable at times to what degree the grape vines can be neglected and still bear a certain amount of fruit.

From observation during the past two seasons it would seem that a few remarks about the harvesting of grapes would not come amiss. Grapes do not develop their full quality of flavor when they first change color. With a grape like Campbell's Early, the quality is not developed for some time after it turns dark. If picked in the green stage, they do not have a pleasant flavor and will certainly not appeal to the customer. If left until fully developed, the quality is sure to be excellent and the grapes will keep better than when picked green.

In picking the grapes, use clipper or knives to cut off the bunches. Handle the bunches as little as possible in order to leave the bloom on the berries. If picking during the heat of the day, better success will be had in avoiding the shelling of the berries from the bunches. The stalks of the clusters will be more or less wilted at that time while the grapes will be dry in the bunch. Grapes picked moist will soon develop decay.

C. E. SCHUSTER, Corvallis, Oregon. (Mr. Schuster is associate professor of pomology of the Oregon Agricultural college, and his is high authority in his field. He is the author of Station Circular 43, of the Oregon Agricultural College experiment station on "Grape Growing in Oregon," which contains illustrations on training and pruning American grapes.—Ed.)

Training Camp Reports Show Gains for Students

WASHINGTON—The thirty odd thousand youngsters who attended army Civilian Military Training camps last year are credited with an average gain of several pounds in weight and almost an inch in chest measurement as a result of their month's experience in the "school of the soldier."

Official reports from corps area commanders, compiled in the Surgeon General's office, note that there was a great loss of weight among the stout lads who turned out for intensive drill and a corresponding upward jump for under-nourished boys, "whose appetites were stimulated by the beneficial results of exercise in the open."

The Plattsburg Barracks camp had the prize fat specimen and trimmed him down twenty-nine pounds. It also built up an under-nourished lad eighteen pounds. The highest average gain in weight was reported from Camp Lewis, Wash., with five pounds per man in 646 boys, while the smallest average gain was at Fort Douglas, Utah, with 0.7 pounds.

Congressional committees have been told by army experts that there is little difficulty with discipline at the summer camps.

Eugene—Through freight terminal on Southern Pacific moved here; several miles of new terminal track already laid.

GRAPES FOR THE HOME. BY A GOOD AUTHORITY ON HOW TO PRODUCE THEM

No Other Fruit Crop More Easily Grown, Few That Give More Satisfactory Returns—The Labor Is Not Excessive—How to Start Them, and How to Do the Pruning and Training—The Best Varieties for This Section

Editor Statesman: There is no other fruit crop that is more easily grown than the grape, and few crops that will give any more satisfactory returns. The labor required for growing grapes is not excessive, and much of it can be done before the season when other crops begin to require attention. A number of varieties do well in the valley, and the kind of grapes grown can be governed by personal requirements. Among the good varieties are Campbell's Early, Moore's Early, Concord, Sweet Water, Niagara, Verdun, Delaware and Agawam. The Concord is an excellent grape and has long been our standard as a table grape as well as for commercial production and because of its splendid qualities will continue to be a popular variety. For a white variety the Niagara is standard wherever grapes are grown. The Verdun and Delaware are red grapes of very good quality and Moore's Early is probably the best of the early varieties.

How They Are Started Grapes are started by cuttings, layering, grafting and from seeds, but for our purpose the first needs to be considered, it being an easy and ready means of getting the young plants. The cuttings should be made soon after the vines become dormant in the fall. These should be from 8 to 20 inches long and made from young, well matured wood. On the lower or butt end make a slanting cut close to the bud and on the upper or top end leave about an inch of wood above the bud. There are two ways in which the cuttings can be handled, one being to put them out where the permanent vines are to be. The better way is to tie the cuttings into small bundles with the butt ends together and place them in soil with the butt ends up, and cover them over with 3 to 6 inches of dirt. Handled in this way the butt ends, from which the roots will be produced, form a callous, while the top portion is kept in a dormant condition. Then when the cuttings are set out in the spring, the calloused end is ready to produce strong roots at once and before the buds develop sufficiently to take up the sap and plant food stored in the cutting. In the spring put the cuttings in a nursery row or in the garden in good soil and where they can be kept well cultivated and hoed during the summer. The following spring they should be set out in the permanent location.

The planting distance depends upon the vigor of the plant, soil conditions, and the kind of pruning. The strong growing varieties can be set 10 by 10 feet, although a planting distance of 12 and 16 feet between the plants will be found satisfactory. This will give the necessary growing space for the roots and good circulation of air for the vines. After planting, keep well cultivated so as to produce as strong and vigorous a plant as possible the first year. During the succeeding years constant and thorough cultivation is necessary until the vines reach the bearing age, and the same systematic and thorough tilling of the soil must be followed up each year thereafter in order to produce well matured fruit, because the grape does not do well in soil, and weeds must be kept down in order to conserve moisture.

Like all other fruit crops, the grape requires a well drained soil of good depth and should have plenty of organic matter. Barnyard manure is excellent to supply and maintain the needed humus, but should never be applied too frequently or in excessive amounts unless the soil is very poor and deficient in the needed organic matter. Commercial fertilizers give good results, the amount used being varied to suit local conditions. The quickly available nitrogens are the most satisfactory either in the form of

nitrate of soda or sulfate of ammonia. These should be applied at the rate of about 200 pounds per acre and can be used to supplement the barnyard manure, but neither of these fertilizers furnishes organic matter.

Pruning and Training Pruning and training is probably the most difficult part for the amateurs in the care of the grape. This first year no support or pruning is necessary, although the young canes may be tied to a stake to get them out of the way for cultivation. The following winter the vines should be pruned and staked, using stakes five or six feet long. The amount of pruning done will depend upon the growth. If small growth has been made, remove all but the strongest cane and cut this back to two eyes. If one strong well ripened cane has been produced, cut this back to the height at which the head is to be formed (about 54 inches) and tie securely to the stake, removing the other canes. In the first case mentioned, both buds should be allowed to develop, so that the plant will not be set back by the accidental removal of one. All growth starting from adventitious buds should be removed so as to concentrate all the growth activities into the two canes, one of which is to become the trunk of the vine the succeeding year. By the third year the vines should have erect straight stems, with two or more canes for the head and from which the vine can be removed each year.

Different Pruning Systems In the pruning of bearing vines there are several different systems some of which are more or less complicated and require a lot of trellis, and some that require much time for cutting and tying. Whatever system is employed, it is important to keep in mind that the fruiting branches are always produced on last season's growth, that is, one year old canes. The condition and also the vigor of the plant should be taken into consideration when pruning. One system often used in commercial vineyards and well adapted for the small home planting is what is known as the four cane Kniffen system. With this a trellis of two wires is used, the bottom wire about 30 inches above the ground and the top wire about 54 inches. The cane to form the main trunk of the vine is carried up to the top wire and two canes are trained along each wire, making four canes for each vine. Each year's pruning consists in cutting away all the tops except the four most vigorous canes produced the preceding season, and results in the removal of practically 90 per cent of the one-year-old wood. With well established vines these are shortened back so as to allow about 10 buds to each of the upper canes and 5 buds for the lower ones, for vigorous growing kinds like the Concord, while less vigorous growing varieties like the Delaware, should be pruned so as to leave a smaller number of buds. Other canes coming out near the main trunk can be cut back to two buds, that is, spurs, for the purpose of getting new canes for the next season's fruiting wood. The canes left should be carried along the wires and secured to them by tying with string, precaution being taken not to tie too tightly so as to check the flow of sap, as the cane enlarges with growth. The advantage of this system is that it requires only a limited amount of time, and the pruning and training are easily and quickly done.

Time for Pruning In this valley the vines can be pruned any time after the dormant season, which would be after the first of December. Where possible the pruning should not be done later than the middle of the following month. After about that time the so-called "bleeding" of the vines occurs at all cut surfaces; and while this

(Continued on page 9)

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