

Grape Culture in the Northwest.

Read by Mr. A. Eckert, of Detroit, Wash., at the recent meeting of the Pacific Coast Association of Nurserymen.

About the year of 1878 Lambert B. Evans, of Florida, settled on Stretch island, one of the numerous islands on Puget Sound, and planted a vineyard of fifteen or twenty vines, which produced their fruit about 1883, having grown his vines from cuttings. They matured their fruit perfectly for which he found a ready sale in the various logging camps in his vicinity. In the fall of 1889, intending to go to California to engage in horticulture which has always been a pet hobby with me, I visited Mr. Evans at his island home and was surprised to learn that he successfully grew grapes, which I had been many times informed was one of the very few things that could not be grown in this wonderful country; except in California. Mr. Evans supposed he was growing the Concord and Isabella, with the latter his favorite. This caused me to decide at once where to locate, and I purchased a tract of land, from and adjoining him, particularly adapted for vineyard purposes, settled thereon with my family in the spring of 1890. In the fall of that year we planted about four acres of what were considered standard favorites in the state of New York, my former home, also planting one vine of many different varieties to learn what varieties were best adapted to this country. The encouragement I received on all hands was that I was a greater variety of a fool than I had planted varieties of grapes, but never for one moment became discouraged, knowing that if Mr. Evans could mature the Isabella as he was growing them, between four stakes about five feet high with a strip nailed from one to another forming a square of about three feet with the vine hanging over the top, I could mature any variety as they were grown in New York, on a vine trellis. When the first fruit ripened on Mr. Evans' vines I found that the Isabella was the Concord, and his Concord the Hartford Prolific, the latter perhaps the poorest grape in the catalogue. I did not meet with entire success nor a total failure. Many varieties on which I had placed great hopes proved complete failures. The Concord, Moore's Early, Delaware, Niagara, Worden and Diamond proving a complete success. I regretted very much that the several varieties of "Rogers" were all failures, and did not the Niagara mature perfectly, would say that all the hybrids were a failure here, as is well known they do not succeed as generally as seedlings. We had many visitors, who, seeing the vigorous growth of the vines expressed a desire for vines if we were successful in ripening the fruit.

This led me to induce my eldest son, then a lad of 14 years, to start a grape nursery, giving him the whole proceeds therefrom, by advertising and canvassing. The business grew to such an extent that in 1901 with the youngest son becoming of age, we formed the Eckert Fruit Company. Our trade with the various nurseries of the Pacific Northwest became so large that we abandoned the retail part of the business and catered to the nursery trade only. Since our vineyard was started we have tested every new variety of promise and many of the older ones and hope, soon, to make several additions to our list.

We think that our success has been largely due to offering only such varieties as we know by actual trial were adapted to our climate and to our instructions how to grow or care for them. There are many

people who still believe that the grape cannot be grown here, who would be glad to plant them could they be assured that they would mature, and I would suggest that you instruct your salesmen to offer only such as have proven entirely successful. What we consider a success as a grape, is one that will be satisfactory under ordinary cultivation and handling. One that requires the care of an expert will be a failure with the average grower and will invariably prove injurious to the introduction of the grape on the coast. The salesman should be able to tell how to plant, train, and prune.

We have two ways of training that are very satisfactory; one is to have a center leader (or a trellis of three vines) with three arms on each side about four feet long. The other is to train in open fan shape, having the main stem about one foot high, with from four to six leaders spread on the three vines or trellis, renewing the leaders each season. When growing with the center leader and arms, the arms should be renewed ever two or three years, pruning to two buds on the spurs. On looking over several vineyards in New York, on my visit there in 1901, I found the fan shape the prevailing system of training. In the nursery the Moore's Early is the most difficult to grow. A liberal estimate would be 25 per cent. making suitable stock, yet this is the variety we recommend for west of the Cascades. It has never failed us, and has a large berry, black, good quality, and the very earliest. If given good cultivation in fairly good soil the yield is satisfactory. The Diamond is the last to recommend.

The quality is fine, it is as late as the Concord, shell easily and is rather slow grower. The Niagara is the reverse, except in quality. It is generally considered that a special knowledge is required to grow grapes. This is not true. No tree, bush or vine, will live under more abuse than the grape. One very important factor in its cultivation is to avoid an excess of nitrogenous fertilizer, as excess means all wood and little fruit, and what fruit there is will be later in ripening, inferior quality and inclined to rot before fully ripe. It does require plenty of potash. This makes the fruit sweeter and prevents shelling, unless the variety is naturally inclined to shell. Any high, dry and light soil, no matter how stony; side-hill or level, except a northern slope of exposure, will grow the grape. Low places, cold clay or wet land are to be avoided. It requires clean, but shallow cultivation. We advise two-year-old plants with good, strong roots, pruning to two buds at planting; at the end of the first season, cutting back to two buds against a strong well established stock. The third year we begin to train as we wish the vine to grow. If to a leader with the side arms, we grow the leader to the top wire and pinch it there, forming the arms gradually so as not to overtax the vine. It is much better for the future vigor of the vine not to allow it to bear any fruit until the fourth year. So far we have not been troubled with any insect pest or fungus trouble of any kind, and have had no occasion to spray for any purpose.

Fowls must have good hard sharp grit and a lack of sufficient quantity will cause a derangement of the digestive apparatus which results in numerous diseases. Many a flock is kept confined in runs where the natural supply of grit has long been exhausted and the fowls fail to lay and die off, with the owner in ignorance of the cause.

Grasshoppers.

There are many remedies that may be used to advantage against grasshoppers. Which is best to use in a given case depends upon circumstances. It may be best often to use a combination of remedial or preventive measures.

The best of all artificial remedies, where it can be used, is plowing deeply late in the fall or early in the spring all the ground where the eggs are abundant. Even the young hoppers, when very small, may be turned under quite successfully in this manner and destroyed.

Where plowing cannot be resorted to, a thorough harrowing, especially with a disk harrow, will do much to destroy the eggs. Some will be crushed, others will succumb to the freezing and thawing and dying when separated from the egg mass. These remedies must be applied before the young hoppers hatch.

Burning—when the grasshoppers are quite small and travel slowly, they may be killed along ditch banks and in other places where they are abundant by covering the ground with straw and then burning it.

Poisoning—Young hoppers may also be poisoned in large numbers by thoroughly spraying the young weeds and other vegetation on the waste land where they are hatching in large numbers with any of the arsenical poisons, as paris green, arsenite of lime, arsenate of lead, etc. The poisons should be used rather strong. Later, when the hoppers get into the crops, they may be poisoned quite successfully by the use of arsenic-bran mash. Mix a pound of paris green or white arsenic with about twenty pounds of bran, moisten enough with water so that the particles will adhere together in a crumbly mass, and then sow broadcast where the hoppers are most abundant. Do not use this where chickens feed.

Bandages—To keep grasshoppers out of trees, bandage the trunks with cotton batting or printer's ink or axle grease. If either of the last two named substances is used do not put it upon the bark of the tree, but upon heavy paper which is first whapped about the trunk. If the hoppers jump or fly into the trees, using poisonous sprays or wriving with whips will have be resorted to.

Hopper-dozers—For open fields the hopper-dozers or catches are probably our best remedy after the grasshoppers have hatched. A cheap and simple hopper-dozer may be made of a shallow sheet iron pan of any desired length, the back of which is extended by means of upright stakes and a strip of muslin. In the pan is placed a quantity of kerosene or crude petroleum, or a small amount of water with oil upon the surface and the pan or dozer is then drawn over the field by hand or by means of a couple of horses kept well apart so as to collect the hoppers. If the horses are in front of the middle of the pan, many of the hoppers will jump out at the sides and escape the pan. Every hopper that gets wet with the oil dies. Many will jump into the oil and jump out to die. When they become abundant in the pan, they should be thrown out. Another type of hopper-dozer which is much liked by many who have used it catches the grasshoppers alive in a box.

"Don't you go and git sorry fer yerself. That's one thing I can't stand in nobody. There's always lots of other folks you kin be sorry fer 'stid of yerself."—Mrs. Wiggs.