

Growing Smilax for Profit.

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Plants should be put in the first week in Sept. planting in rows nine inches apart and twelve inches between the rows. For training up the shoots place steel wires a few inches over the rows of young plants, fastened at each end to stout pegs; put corresponding wires over these about six feet high, then stretch directly over each plant a string of some good cord, fastening each end to the wires, making neat frames perpendicularly across the bed.

As the plants begin to grow go over them carefully each day to give the young growth a start on the cords; close the house early in the afternoon after giving the bed a good syringing. By the first of December the growth will be about six feet long; continue the syringing, but stop watering at the root, and the shoots will soon be ripe enough to cut for market. By the time the crop is cut, say four weeks from the time you begin to sell, the plants will begin to throw up a number of strong shoots and will require two strings each this time, dividing the growth equally. Give a copious watering and continue the syringing as before, and by the Easter holidays you will have another crop equal in quality and double in quantity. After this crop is cut give a good dressing of rich soil, pressing it firmly around the plants which show an inclination to get out of the ground. Treat as before, giving plenty of air in warm weather. A bed thus treated will last two years, but to have first-class strings it is better to renew the soil and replant.

Grape Vines from Cuttings and Layers.

It is supposed generally that to grow cuttings there is a deal of empiricism, and, in fact, there is; and yet the science of this operation is not well understood outside of the greenhouse. Grape cuttings may be grown from the green or the ripe wood, and it may be a question which of the two is the better plan: but I do not suppose our farmer correspondents have any idea of making green cuttings, and therefore that part of the subject may be omitted for some future time, and we will consider cuttings from ripe wood.

The proper time to take off the cuttings is soon after the fall of the leaf. The canes may be cut off any length, and tied in bundles, and put in the cellar, away from frost, and the cuttings made at leisure. The cane is cut square off below a bud, slanting out an inch above the other bud. This can be done with a pair of hand-pruning shears. This makes a two-eyed cutting. These are tied in hand bundles of about 100 each—all the short or butt ends one way. Bass matting is the best material for the tying, though other material may be used. A smooth place is made on the ground, and these little hand bundles are set on the ground, top end down, and a layer of straw is put on, and over this earth and litter, to keep out the frost. During the winter, the cuttings callous—that is, they form a small white ring about the base of the cutting, out of which comes the new roots. Early in the spring, the cuttings are put into beds, butt end down, and the tops even with the ground, and over these about half an inch of sawdust, to keep them cool and moist, and to start the roots before the leaves; for, if the leaves start first, the roots will not push. Some people put them in the beds in the fall, and cover with straw and stable litter, to keep out the frost; and this is removed about the time of early corn planting. Cuttings of this kind should be two years old before setting out in the vineyards, unless they make a vigorous growth, and then are not as good as one-year-old layers, made from old wood that has been properly cared for during the season.

Early in the spring, when the canes are tied to the stake or trellis, the extra canes, that have been reserved for layers, are pegged down on the ground along the rows, and as much out of the way of the cultivator as possible. The ground should be made smooth and mellow for the purpose. After the shoots have made three or four inches of growth, an inch or so of earth may be placed on the cane, and about the base of the shoot, which will soon induce the growth of the roots. In the fall the

cane is taken up, and the plants are separated for planting. This is the best plan for the farmer to pursue in order to grow his own vines. He gains at least one year, and at less labor and less risk of failure. Currant cuttings may be treated in the same manner as described for the grapes, and, in all cases, are better for being taken off in the fall.

A first-class one-year-old layer is worth about double that of two-year-old cuttings. In setting a vineyard, I should hardly be persuaded to set the plants from cuttings, though they cost only half as much. Most people let the layers go until the shoots are long enough to cover with earth; but it is far better to peg them down before the buds start, for then they make a vigorous upright growth, and the earth can be easily packed around the base of the plants; besides this, the contact with the earth has the effect of callousing the cane at the base of the shoot, and roots are at once pushed out on the application of the soil. Gardeners depend largely on green cuttings, which they find the most profitable; while the farmer, without skill, or bottom heat, or steam pipes, had better rely on layers.

If the writer of the above alludes to cuttings grown in thick beds, as they often are, we agree with him, but when a cutting makes four feet of wood (ripe at that) and roots a yard long, as we like to grow them, and just such we handled lately—we would as soon have them as the very best layers. But such as cannot be grown from cuttings must be layered.

Spring Culture of Tulips.

The bulbs on coming through the ground generally crack the surface all over the bed, for the rains have closed the compost so closely at the top that the spikes break it. The whole surface, therefore, should be carefully stirred up, and all lumps broken so that it can be laid evenly. It is of the greatest benefit to give the bulbs air, and also of service to the stems to place the soil closely to them. In some kinds of loam, from the swelling of the bulb and the progress of the spike through the earth, it will crack so much as to expose nearly the whole of the bulb and lay it open, not only to the vicissitudes of the weather but also to the attacks of insects, which, if the earth were laid closely to the stems, could not find their way through it. If there are vacancies where the bulbs have not started up, it is well to search for the cause. A hard lump of earth or a stone may have turned the spike to one side and impeded its progress. Remove the obstacle and the spike will soon spring up. Perhaps the leaves may have become connected and commenced to decay, as is sometimes the case. Then the decayed part must be entirely removed with a knife, and the plant laid bare to the bulb. It should then be covered for a few days with a bell-glass or a tumbler, and as it progresses the hole can be filled up with fresh sandy loam, for by no means should the old earth be returned to its place. It is a great aid in the culture of rare bulbs to use a covering of matting or old carpeting at night, and if the day is raw, cold and cloudy, it should not be removed. After the buds have formed in the spikes it is always desirable to protect them from the frost.

It has been said by English florists of olden times that tulips should never be watered. But they lived where the clouds dropped rain continually in the sea-girt isles of Britain. In our uncertain climate, if the spring months are devoid of moisture and the soil dry as dust, by all means give water to the famishing tulips. To be sure, they do not require much, but just look at the growth they will make after a warm shower, and then ask yourselves if—in the absence of rain—water is not required. There is no plant in the floral world which enjoys a gentle shower more than the tulip, and when it receives none for a considerable period it derives great benefit from a slight sprinkling all over the leaves and buds. It does not need a sufficient supply to drench the earth, for its roots go down for moisture, but its leaves and flowers are much finer for receiving it. The water, however, should not be given just as it is drawn from the pipes, but enough hot water should be added to make it about the same temperature as the air, or a little above it.—[N. Y. Times.

A writer in the *London Garden* drove off ants that he saw, by microscope, eating the flowers of pot-roses just coming into bloom, by sprinkling the plants with water just tainted with kerosene.

Unpruned Grape Vines.

Where there are but two or three vines to be cared for, it is often the case that other claims upon the attention will cause a postponing of the necessary pruning until it is too late to do it without being followed by "bleeding." True, the roots of the vine supply this watery flow of crude sap so abundantly that the loss of a portion seems to have no perceptible effect detrimental to growth, but the bark is injured by a long continued flow, and it is almost painfully unsightly. To prevent this, and at the same time to secure the advantageous effect of pruning, the following recourse is convenient: Having the vine tied in place on the trellis—separating the strong canes of last year as much as possible, and leaving the upper two or three feet of the trellis for their issue to clasp and climb over for support—rub off all small buds and all buds from small twigs, including all that should have been pruned away and all that are not likely to have full room for expansion of their leaves in full light and free air. This can be done during the latter part of April and in May in the Middle States, and rubbing out of the superabundant blossom thyrses in June will do as much more toward securing large bunches of handsome juicy berries. Still later, any redundant shoots can be suppressed by timely rubbing out or pinching, but no healthy leaves should ever be removed. The bare shoots from which the buds were rubbed off can be pruned away at any time after the leaves of the vine have fully expanded. There will be no bleeding after that. If the leaves are healthy, they give off all redundant water.—[N. Y. Tribune.

Melon Culture in Cold Climate.

A young farmer gave me a receipt when I was a boy, which as a general guide, has been of much service. It need not be strictly followed to insure success. Select light, sandy loam soil, not liable to bake in dry weather, take the best of hog manure, at the rate of at least one-half bushel to the hill, mix it finely with the soil; plant the hills from six to eight feet apart, and leave three of the most vigorous plants to grow in each hill. It is well to spread an equal quantity of manure broadcast, and mix it in the soil if the soil is not very rich, for the roots will spread as far as the vines do, and seek the best nourishment. The seed should be sprouted by mixing them in muck from a hollow apple-tree and wrapping in skunk cabbage leaves. Keep in a warm place two or three days. We don't suppose there is any special virtue in the cabbage leaves, except moisture; yet their growth indicates about the time of planting, which is near the middle of May. They can be forced by covering for a season with window-glass, sloping south, fitted over each hill. The same general method applies to musk and nutmeg-melons. There is no better variety than the "Mountain Sweet." Other good varieties are "Mountain Sprout," and "Black Spanish."

Gladioli and Oxalis.

Gladioli like a light and somewhat sandy soil. The only care needed through the summer is to keep down the weeds. Let the leaves grow as long as possible—a slight frost will not hurt the plant. As soon as the leaves show signs of withering take up the bulb; dry it in the sun and put it away for the winter in a paper bag in any dry, frost-proof place.

The summer-blooming oxalis are never-failing friends. They grow vigorously and throw out an abundance of their pretty pink and white blossoms, while at the same time their little bulbs are multiplying almost tenfold. They make a pretty edging to a flower-bed, the foliage being ornamental all the time. The flowers are profuse and last some time. The varieties are almost numberless. They need to be planted in the spring and taken up in the fall.

THE APPLE-TREE BORER should be eradicated annually—twice a season would be still better, but early in the spring at any rate. The first year he occupies in short excursions around home, and then he may be readily caught. The second year he begins taking long journeys, and he is then more difficult to dislodge. A good stout wire run into the hole will usually kill, provided the knife-blade fails to find him. Always search close to the surface of the soil, frequently about one inch below, but rarely much above. In the search for his "trail," a little bunch of reddish sawdust, in the near vicinity of a circular hole the size of a buck-shot, is a pretty certain indication that the game is not far off.—[Tribune.