

Seasonable Hints.

In order to grow good fruit we need only repeat in a general way that trees require as much food as a crop of corn or potatoes; but it is very important to keep the feeding roots at the surface, and therefore that the very best way to manure fruit trees is by surface dressing.

Manuring of grapes should be regulated by the nature of the soil. If it be damp—in most cases a bad condition for grape growing—stable manure in great quantities means diseased vines. In dry ground it has a beneficial effect. Many persons on small places have grapes in damp ground, or can have none. They must take care to keep the roots near the surface; never crop the ground about them to destroy the small fibres, if it can be avoided; and even good may often follow, when the vines seem failing, to carefully follow up the roots, lift near the surface, and encourage, as much as possible, those remaining there. Wood ashes, bone dust and such like fertilizers are best for grape vines in low ground.

All fruit trees like a rather dry, rich soil. On a cold, clayey bottom, diseases are usually frequent. Do not plant deep; cut off tap roots, and do all you can to encourage surface fibres. Surface manuring is the best way of doing this after the tree is planted. Do not allow anything to grow vigorously around your trees the first year of planting, nor allow the soil to become hard or dry. Let trees branch low, and prune a little at transplanting.

Pruning of fruit trees, when required, should be proceeded with at favorable opportunities. We write "when required," for in our climate more injury is done by the knife than by the neglect to use it. Gooseberries, for instance, are usually ruined by pruning. In Europe it is customary to thin out the centre well to "let in the sun and air." Here it is the sun and air that ruin them by inviting mildew; and so the more shoots the better. Our country farmers are the best gooseberry growers, where weeds run riot and grass and gooseberries effect a close companionship. Wherever, in fact, the gooseberry can find a cool corner, well shaded from the sun, and with a soil which is never wet, and yet by no means dry, there will gooseberries be produced unto you. The English kinds mildew so universally as to be almost gone out of cultivation south of the St. Lawrence. Nor, indeed, is it to be so much regretted, since the improved seedlings of large size and fine quality, raised from the hardier American species, are becoming known and their merits appreciated by growers.

The rule, in pruning grape vines, is to shorten the shoots in proportion to their strength; but if the advice we have formerly given has been attended to, there will be little disproportion in this matter, as summer pinching of the strong shoots has equalized the strength of the vine. Those who are following any particular system will, of course, prune according to the rules comprising such system. As a general rule, we can only say excellent grapes can be had by any system of pruning, for the only object in pruning in any case is to get strong shoots to push where they may be desired, or to increase, with the increased vigor of the shoot, which pruning supposes will follow the act, increased size in the fruit it bears.

Perhaps no insect has given the apple orchardist so much trouble as the codling moth, and any tactics that will give victories over this long triumphant enemy will be hailed with shouts all along the line. Hear what Mr. A. G. Tuttle, for many years President of the Wisconsin State Horticultural Society, and a leading nurseryman of that State, says. Mr. Tuttle is testing over 100 varieties of Russian apples; and what he says is that he has discovered a remedy—or rather a trap—for the moth, that has proved to be a complete success. This is the trap:—

Take shallow pans or saucers, and place some strong apple vinegar in them, and hang among the branches of the trees. The smell of the vinegar attracts the moth, and they are caught and drowned in the same.

Mr. Tuttle says he has caught over forty codling moths in one of these pans in a single night. He counts it a great success. He says he notified C. Downing, the leading authority on fruit in this country, of this matter, and of this success; and that Mr. Downing advised him to disseminate the information through the medium of the press, as it would be of immense benefit to the fruit growers of the country. Certainly this is important, if true.—*Coleman's Rural World*.

The Value of the Earth-Worm.

The common earth-worm, though apt to be despised and trodden on, is really a useful creature in its way. Mr. Knapp describes it as the natural manurer of the soil, consuming on the surface the softer part of decayed vegetable matters, and conveying downwards the more woody fibres, which there molder and fertilize. They perforate the earth in all directions, thus rendering it permeable by air and water, both indispensable to vegetable life. According to Mr. Darwin's mode of expression, they give a kind of under tillage to the land, performing the same below ground that the spade does above for the garden, and the plow for arable soil. It is, in consequence chiefly, of the natural operations of worms that fields which have been overspread with lime, burnt marl, or cinders, become, in process of time, covered by a finely-divided soil, fitted for the support of vegetation. This result, though usually attributed by farmers to the "working down" of these materials, is really due to the action of the earth-worms, as may be seen in the innumerable casts of which the initial soil consists. These are obviously produced by the digestive proceedings of the worms, which take into their intestinal canal a large quantity of the soil in which they feed and burrow, and then reject in the form of the so called casts. "In this manner," says Mr. Darwin, "a field manured with marl has been covered in the course of eighty years, with a bed of earth averaging thirteen inches in thickness."—*Encyclopedia Britannica*.

How Grapes Feed.

A curious, interesting and suggestive experience is thus recorded in *The Country*—the attractive journal of rural pastimes and pursuits lately started under the editorship of Wm. M. Tileston:

We had planted a row of Delaware vines, one of which was placed about three feet from a hole in which a quantity of bones had been buried. The vines all made a healthy growth, but the one referred to was specially vigorous. This, however, we attributed to its general vigor, and not to any special influence, having forgotten all about the buried bones. But one day, after digging near this hole, we noticed that our healthy, vigorous vine was wilting, and in a few hours it was completely wilted as if it had been pulled up by the roots and exposed to a hot sun. Unable to account for this strange circumstance, and suspecting some new enemy, we dug it up, carefully following all the roots to their extremities.

To our surprise, however, there was only one root of any consequence, and this led directly to the aforesaid hole. Following it up, we came to where we had cut it, and there taking up the severed end and following that, we found that the pit full of bones was one mass of roots. It was evident, therefore, that when first set out one of the roots had pushed off in the direction of the bones, and on reaching them it had found such a supply of nutriment that it alone was competent to carry to the vine all the food it wanted. The other roots therefore dwindled away, or at least made but a trifling growth, and the vine, depending wholly upon the single root just described, perished when it was cut off.

We may add that the root was almost bare of fibrils or branches in its course from the vine to the bones, but once there it divided and branched in every direction, running into the interior of the hollow bones and clasping both internal and external surface with a perfect network of fibrils. To us it showed several points. Bones are evidently one of the best manures for the vine, and as we wish them to last for years, they need not be broken up. As it is well to have the roots of the vine spread over a considerable space, bones or other very rich manure should not be placed in holes, but distributed through the soil.

Destroying Tent Caterpillars.

As the season is near at hand when the caterpillars or apple-tree worms will hatch out, build their tents in the crotches of the apple and other fruit trees, and be ready to feed on the tender leaves and shoots as they come out, I propose to give your readers the cheapest, simplest and most efficient remedy for their destruction. A close observer may now find the eggs of these insects—no larger than mustard seeds—in little rings or patches on the limbs of the trees, where they were deposited by the parent butterfly last summer; but most people will be likely to overlook them until

after they hatch out and form nests in the crotches of the branches or limbs of the trees. In this, their caterpillar form, the best time to find their homes and to find them at home is in the early morning, before they start on their daily tramps up the limbs to feed, and when the dew on their nests gives them a sparkling appearance.

Having found them, make a moderately strong solution of soap or soapsuds, using a quart of soft soap to two gallons of water; or, if soft soap is not at hand, use its equivalent in dissolved bar soap, lye or potash. Apply this solution to the nests or tents of the worms with a swab of rags tied to a pole of suitable length for reaching them. With care the nests can, in most cases, be broken open at the top and filled with the suds or lye-water from the drippings of the swab. By this method all the worms, which lie closely nested there, will get soaped before they get out. Or the nests may be wiped out with the wetted swab, and such worms as have not been touched may be given a dose—a drop is sufficient for each—and it may be applied at any time and under all circumstances.

The more freely this wash is used about the trunks and limbs of apple trees, the better for them; worms or no worms. No man who tries this method of ridding his trees of these disgusting and destructive insects, will ever be guilty of using burning straw, paper, kerosene oil, or any of the injurious means commonly resorted to.—*H. S., in Country Gentleman*.

Reply to J. L., Hamilton post-office, Ontario.—Grafting wax is made of wax three parts, resin three parts, tallow two parts. These are to be melted together in an iron vessel kept for the purpose, at as low a temperature as will serve. It may be applied with a brush to wounds. When used in grafting it is more convenient on cloth. Old cotton, calico or other fabric that will tear readily, is torn into strips, made into rolls, soaked in the hot wax until thoroughly penetrated; the excess of wax is then drained off, and when cool is ready for use.

Poultry Yard.**Guinea Fowls.**

At a late meeting of the American Institute Farmers' Club a talk was had regarding the Guinea fowl.

J. S. Scoville, Hadley, Saratoga Co., N. Y., sent word to the club how to get rid of the potato bug. He said: Let every farmer keep Guinea hens. They will destroy all of the bugs. They eat them as fast as hens eat corn, and furthermore, will keep all bugs and insects of every kind off garden vines. Mr. Scoville estimated that one hen to the acre will protect the potatoes. He also argued in favor of these fowls that they will not scratch like other kinds, or harm the most delicate plant. Their eggs are valuable, and they lay oftener than the common hen; and lastly, they are valuable as a weather indicator, for just before a storm they set up a terrible screeching, which is kept up until the storm is upon them.

President Ely corroborated what had been said about the Guinea fowl, so far as their not harming the garden is concerned, and added that many farmers prized them because their screechings kept hawks away from the poultry yard.

Dr. Heath concluded the evidence regarding these fowls' harmlessness to plants, etc., by calling attention to the fact that large flocks of them are kept in Central Park. He thought if it is indeed true that they will dispose of potato bugs, the statement should be promulgated throughout the country. He said that the bugs had made their appearance in large numbers on Long Island, and that many of the farmers are apprehending unpleasant circumstances. He hoped farmers having any information on this subject would send in further testimony.—*Coleman's Rural*.

EGGS ALL THE YEAR ROUND.—Give your hens a reasonable share of attention; furnish suitable accommodations; get and keep the right breed; save only the earliest hatched pullets for laying; furnish as great a variety of food as possible; feed as much as they will eat; give green and animal food of some kind in winter; keep the hens quiet and comfortable; don't allow them to be worried or frightened; keep clean and fresh water at hand always. These rules intelligently applied, says Prof. Corbett, will secure an abundant supply of eggs the year round.