

FRUIT.

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better. Be patient
as other things.—

bs. to the cubic foot;
ckory, 52 lbs.; birch,
ow pine, 38; white
ater, 62.

HONEY LOCUST FOR HEDGES.

The honey locust as a hedge plant is here becoming quite popular, being readily propagated, very hardy, of strong, vigorous growth, roots growing straight down, and adapted to varied soils. It makes a cheap, durable, efficient fence, always in repair, proof against our severest winters, and, well trained, adds largely to the beauty of the farm.

The seed should be gathered in the fall as soon as ripe, from trees only that bear thorns. When the ground will work well in spring, sow in drills 3½ feet apart, having previously put boiling water on the seed and let stand, well covered, for twenty-four hours. Most of the seed will grow the first season. All weeds must be kept down, and the ground well tilled (as the first few seasons will greatly determine the value of the hedges), using a good cultivator between the rows. The plants should be set when from one to four years old. In the fall, where the hedge is to be set, plough a good back furrow wide enough to run a cultivator on both sides of the hedge.

The following spring, when the ground is suitable, and before their leaves appear, the plants should be set. Turn a straight deep furrow; place a quantity of plants in a vessel of very muddy water, having cut the roots with a hatchet to six or eight inches long; now one holds the plant in place in the furrow, close to the land side—taking care to select those bearing thorns, and avoid bending the roots—while another shovels enough fine earth about it to hold it in position—the man who shovels can level up while the other prepares another quantity. We set them eight or ten inches apart, and the two men in this way can set well about fifty rods per day.

After setting, cut back to two or three buds, and when hoed once or twice, they should be mulched with straw. From this season, good culture, protection from animals, and proper cutting will insure a good thick hedge in five or six years. I should prune closely the first three or four years—once early in spring, and again about July 1st. Many, impatient and unreasonable with this, as with other matters of the farm, allow the plants to grow tall and tree-like; but such a hedge will not turn sheep and hogs, and is quite unattractive. We have set young fruit trees two rods apart in the line of our hedges, which grow up with and do not disturb them, while they look well and pay well, but a hedge will not do well near a large tree. All ants' nests should be destroyed, or the hedge will be.—D. M. in Country Gentleman.

REMEDIES FOR THE CANKER WORM.

The following remedies against this insect are given in the order in which they are to be applied, commencing with the appearance of the moths in the spring.

1st. Prevent the passage of moths up the trees. The most approved plan heretofore used is to put a canvass or other cloth band, six inches or more wide, around the trunk and besmear it with tar, or a mixture of tar and molasses, applied every other day. Roofing felt besmeared with refuse printers' ink has been recently suggested as preferable. The method suggested in this report is to put a band of rope or closely twisted hay around the trunk, and over this a tin band about four inches wide, placed so that the rope shall be at the middle of the tin, making a closed cavity below and a free edge of the tin above. The time to use these appliances is, mostly, in the month of March; but also at other times when the weather is sufficiently open to permit the insects to run.

2nd. If the moths are prevented from ascending the tree they will deposit their eggs below the obstruction, and for the most part near to it. These eggs can be destroyed by a single application of kerosene oil.

3rd. If the moths are not prevented from ascending the tree they will deposit their eggs mostly upon the under side of the loose scales of bark on the upper part of the trunk and the large branches. Many of them can be destroyed by scraping off and burning the scales.

4th. If all precautions have been neglected, and the eggs have been permitted to hatch, then, as soon as the worms are large enough to be easily seen, jar them from the trees and sweep them away with a pole, as they hang by their threads, and burn or otherwise destroy them. Strong washes

such as Paris Green water, or suds made from the whale oil soap, thrown upon the trees with a garden syringe, will also materially check their depredations.

If the worms have matured and gone into the ground for winter quarters, plow the ground late in the fall, so as to expose the pupae to the frost and the action of natural enemies. The effectiveness of the plowing will be increased if a few handfuls of corn be plowed in under each tree, and the hogs be permitted to have the range of the orchard.

TRAINING GRAPE VINES.

It is a pleasant thing to note that in farm and garden operations attention is more freely given to displaying a little taste in the arrangement of one's work than formerly. No one wants to see convenience sacrificed entirely to beauty. At least no one in this part of the world, for we believe we did once note a project that was popular in Boston to make the public streets and roads winding, because the curve was the line of beauty. But it is a good thing always to aim at neatness, even at some effort, for it not only adds a great deal to the enjoyment of life, but cultivates a disposition to do things well, which generally ends in pecuniary profits as well as mental pleasure.

This idea occurs just now in view of the vines on my frame barn. In almost all cases where grapes are grown in this way, the branches are tacked in anyhow or anywhere, wherever a place is open. The sort of random way which is taught soldiers in Indian fighting—"wherever you see a head, hit it." In this case there is just a place for every shoot, and every shoot finds its place. The way it was done was thus: After the vine was a year or two planted—in the centre of the garden end of the barn the vine was pruned back and thus made to throw out three strong branches; two of these branches were then led along, one in each direction, about one foot from the ground, horizontally. The other was nailed straight up to about twelve feet from the other one, when it was headed off. The next year two branches were taken laterally from the top of this one, each branch diverging as before, near the ground. When the new growth pushes, thus there is a space of about twelve feet between the spreading branches above and those below, and the vines are driven just under the upper "arms" and "just above the lower arms," about one foot apart, and strings are fastened on just as is so often done for morning glories before the cottage door. The vines take hold of these strings and go straight up, and the whole makes a picture of order and neatness truly pleasing. Our friend is quite sure that "his plan," as he fondly calls it, he really saves time; and that it does not take near as long as where one does not know exactly where to nail, but has to spend half the time in hunting for an opening. And we believe this the more readily because we know that those people who, in any walk of life, habituate themselves to order and method, always get through more work than those who have no particular system to live up to.

We might add that in the fall of the year he cuts away every alternate cane to near its starting point. It then makes another one, which bears next year. The one not cut is of course the fruit-bearing one for the time being. There has been many "systems" of pruning and training grape vines given in books, all with more or less merit; but many of them require more brain and time to master than they are worth, or least than more people have to give. But this is very simple and easy for any to understand.—Germania Tel.

SUMMER PRUNING THE GRAPE.

As to the value of summer pruning, some are inclined to think it unnecessary and useless labor; but I find it one of the most important, as well as profitable, items connected with grape culture. Summer pruning does not mean a general pruning—cutting off large quantities of wood and stripping the foliage. Such would be disastrous to the top. What is generally termed summer pruning is what I call summer dressing of the vines. And this dressing is done without the knife. It is simply the removal of a superabundant growth—of weak and useless wood, which, if left on the vines, would greatly injure their vigor, and to a great extent impair the full development of the fruit. Of this I am perfectly convinced from the size of the berries on some vines I did not summer prune last season.

Last summer was noted as one of our driest and hottest; not only in one locality, but almost through the entire south. I commenced about the 10th of May and gave the vines a thorough cleaning of all the surplus growth, leaving no shoots but those that were to take the place of the old wood that was to be cut in the winter pruning. All the other growth was disbudged or rubbed off, leaving the young and healthy shoots as near as possible to take the place of the old and weak wood. The

bearing shoots were stopped without any regard to the number of leaves on each. All were kept tied in as they advanced in growth. The crop ripened well, and there were not many green berries to be found on either the Concord or Ives, and all brought a fine price in the New Orleans market.

I have here stated the mode of summer pruning that I have always followed, and found it to be successful with all varieties. On this mode of pruning, the crop is a sure one, provided it is taken in time. If the work is deferred, it would be better not to do it at all, as the wood commences to harden, and in trying to rub off the shoots the vines are injured to some extent.

Cutting off large canes of the current season's growth and stripping off the foliage that the sun may have fair access to the fruit, are practices that are reprobated by all good cultivators. Superfluous growth should be checked by pinching when it first manifests itself, and the direct rays of the sun should never reach the fruit.—Cor. Rural Alabamian.

THE CUCKLEBURR.

"Farmer and Granger" inquires how he may kill out the cuckle burr. I have had some experience with them, but they are not very plenty on my farm. If the weeds are not numerous pull them up. If they are, seed in timothy and clover and mow in July before going to seed, and mow again in September, and be careful that not a burr ripens sufficiently to grow. This process may need to be continued two or three years, as the seed is said to retain its vitality in the ground, or on the ground, for that length of time. Some advise pasturing closely with sheep. The weed is a terrible bore. Two good crops of them are more exhaustive to the soil than ten crops of corn, and will make the land so poor that a plow sometimes will not scour. The weeds need to be legislated against like the Canadian thistle, for the burrs travel to seed and too far, from farm to farm, in cows' tails and on rabbits' backs. Every farmer should, by law, be compelled to prevent these burrs from coming to seed, and in case of neglect the proper authorities should hire help and exterminate them at the expense of the land owner. I believe nothing short of the vigorous execution of such a law will save the whole sections of our estate. A. J. B. Iowa Homestead.

CURCULIO ON FRUIT TREES.

WASHINGTON, D. C.

Years ago a premium was offered for a remedy against the ravages of the Curculio on apricot, plum, nectarine and peaches. I had suffered much from their depredations—never had nectarines ripen until I pastured my orchard with hogs and sheep. Observing that when property changed hands, and plum trees were included in the stock-yard, they ripened their fruit untouched by the curculio.

I planted a small orchard of plum, apricot and nectarine trees, adjoining my barnyard, and pastured it with hogs, and ewes and lambs—(the lambs bark the trees)—driving strong locust posts around the young trees, to prevent injury by the hogs rubbing against them. The result was, that the fruit ripened untouched by the curculio. I offered this to the Ohio Horticultural Society for their premium of \$100.—Their reply was through the *Western Horticulturalist*, edited by D. Wadler, that there was nothing new in it but the use of sheep. A lady whose mother had a fine green house, the plants of which had been much injured by insects, which she could not get rid of until she used sheep manure, which completely drove them off.

Such had been my experience when the buds of grafts were eaten up by insects. The application of sulphur, soot, snuff, &c., had no effect, but on applying powdered sheep manure on the buds and grafts when moistened from dew, and coarse manure around the small trees at the ground, the insects disappeared immediately. The oil left on the body of the trees by the sheep rubbing against them, the effluvia from the sheep and their manure is offensive to many insects, and then feeding the grass close to the ground, gives the buds a better chance to feed on the insects and exterminate them. Their manure and that of the hogs produces a healthy growth of the trees—the hogs destroy insects in the grub—premium for reclaiming old orchards.

If of inferior fruit, one-third of the top may be taken off and grafted in the spring or fall, with a healthy annual bearing kind, and next year then an other third of the top grafted, and the third year the under third may be grafted in this way, and you will soon have bearing trees. If the trees are of fine varieties of fruit, shorten the old and feeble branches, and encourage young shoots. For this mode, Forsyth, of England, received a pension from his government, and from several of the Continental governments. This system of renewing old orchards was termed Forsything. The ground may be plowed shallow, and subsoiled deep—with the coulter plow, shortening the outer roots somewhat, but not destroying the rootlets under the tree.—Joseph L. Smith, in Fruit Recorder.

TRANSPLANTING FOREST TREES.

When a tree of any considerable size—a tree of a suitable size for planting for shade purposes, for instance is removed from where it grew, there is excessive curtailment of the roots, especially if the tree be taken from the forest; for the fibrous roots are in this instance at a greater distance from the stem, than they would have been if the same trees had grown upon open land; and in this, the tree will be found to have a long, upright stem with the foliage principally near the extremity, varying with the density or openness of the forest.

On the other hand, trees taken from openings will be found to be furnished with plenty of fibrous roots, the root feeling surfaces, distributed more equally throughout the extent of the root surface; the tree will be spreading and the branches will make their appearance near the ground; the foliage will present a large surface, and this again in proportion to the roots; for the quantity of roots will be in proportion to the leaf surface, for the reason that this leaf surface stimulates root growth and vice versa; and the more fibrous roots the tree contains, the less necessity will their be for close pruning.

We hold, and experience has shown the correctness of our position, that the top ought not to be severely trimmed; because, without leaf surface, the root must die; but if plenty of leaf surface be present to evaporate the sap, and plenty of additional roots will be induced, and the tree becomes more quickly established than when cut to bare poles. In fact this severe cutting of the top was originally inculcated from the fact that trees taken from the thick forest had their tops already forced so high as to be entirely unsuited for the purposes of shade; and, consequently, the trunk had to be shortened and then forced to form a new leaf surface from the dormant or secondary buds that always exist. The readiness with which this is accomplished under ordinary circumstances has led many planters into error.

Although trees excessively cut may live and make fair growth, they are always feeble in comparison with that of trees from the nursery, or openings, while the young sapplings have been, able to develop themselves nominally, and in the end it will always be found that such trees although smaller at the time of transplanting than those from the thick forest, will soon catch up with their larger relatives, and at the end of ten years far outstrip them other things being equal.

We do not advocate the planting of large trees, say from four to eight inches in diameter, except when immediate effect is wanted; and then only when they can be had from open ground, and be transplanted with a large ball of earth entire. The size of the tree suitable for planting must, however, be determined by the variety. Elms, maples, and other trees having an abundance of fibrous roots, may safely be transplanted of much larger size than black walnut, butternut, chestnut, etc., so that may these trees that will readily grow from cuttings, as cottonwood, poplar and the willows, be transplanted when of large size. But with any trees that are intended for removal after they are well grown, it is always a good plan to trench about them a year before transplanting, filling in with good earth to induce the formation of fibrous roots near the tree, and when moved keep the ball intact.

To sum up the whole subject of transplanting, we may say:—The smaller the tree, of whatever variety, the more certain are the chances of its living. The greater the top, the better will the root be furnished with fibres, and as a matter of course, the more certain will the tree be to make immediate growth. In trimming, seek to equalize the top to the root; that is if there be a fair proportion of root, simply shorten in the top, and cut away such branches as would carry the tree out of its proper balance, always being sure to leave top enough. Generally as a matter of economy, planters prepare to dig the tree in the Fall; if this be done, keep the roots protected from the sun and air, and always moist. Trim the tops, and cut away torn portions of the roots. Set the trees upright, in trenches, as near together as possible, the earth from the first trench being thrown at the back of the first line of trees, and the soil from the succeeding trenches furnishing material for covering the roots of the preceding ones. Thus you will have the trees so thickly together that they will brace and protect each other; this plan is for large trees.

For smaller ones, or such as are usually obtained from nurserymen, the roots may be laid in the trenches and the tops inclined at an angle of 45°. Cover in every case with fine earth thoroughly packed about the roots, and extending well up along the stems. By this means the roots will be found in the Spring perfectly calloused and sometimes indications of the new root growth will appear. In all trees having naturally, plenty of fibrous roots, or those making their roots near the surface, as elms, maples, linden, etc., those from five to fifteen feet in height, will be found to transplant kindly. Other trees not so well furnished, including the black walnut, butternut, chestnut, and white wood or tulip tree, *Liriodendron tulipifera*, should not be transplanted