

FOR FARMERS AND GARDENERS.

GRAPE CULTURE—The article published in our last, in the excellent treatise by Mr. E. Sayers, giving a descriptive history of the famed vine of Hampton Court—of which this gentleman had the care, for a series of years—was written with a design of showing forth the true and natural mode of cultivating the grape vine, in contrast with the system of pruning and general treatment of the vine in this Territory.

There are probably nearly as many different systems of pruning recommended as there are varieties of the grape. The relative merits of these systems have been tested, frequently at the expense of valuable vines.

Close summer pruning is by one amateur tenaciously held as inducing the largest yield of grapes and the healthy growth of the vine. Another, claiming equal authority, utterly ignores the practice of summer-pruning as destructive of the vine and highly detrimental to the fruit.

Two cases in point are in our mind, which we will notice, as demonstrative of what we have above stated.

Mr. J. Salter, of Rochester, N. Y.—exclusively engaged in grape raising—at a meeting of the Fruit Grower's Society of Western New York, reported in the *Germantown Telegraph*, said that his practice was very close summer pruning; raising his fruit on the spurs; training his vines all over the trellises; after the fruit has set, cutting off the vine three buds above, and keeping off all unnecessary growth of vines.

At the same meeting, Mr. J. Crane, of Lockport, said he had practiced summer pruning for fifteen or sixteen years, and had almost ruined his vines.

Others again, favor and advocate winter pruning; while others still, adhere to pruning in the spring, effectually doing away with summer pruning by cutting off the main vine.

Girdling the bearing branch of a vine just below the fruit is recommended by some. Others disapprove of it.

Now, in the midst of such a variety of conflicting opinions, what shall be done? Who shall decide, when the doctors disagree? Or, to what source shall the inquirer after knowledge in this branch of horticulture, apply? Are we all to treat the vine in the manner that seems best in our own eyes—trusting that, after years of experience and experiments, perhaps, most disastrous to our fortunes as well as our vines—we shall arrive at some definite conclusion as to the true and most profitable mode of culture? If, even then, our individual experience should lead to results no more uniform or satisfactory than that of many who profess some attainment in the science of grape-culture, we should be unfortunate indeed.

But does not nature herself furnish some solution of this question? What does she say?

In the treatment of the peach, the apple, the pear, the apricot and all other varieties of fruit-bearing trees, it is, we believe, an universally acknowledged fact that, to secure a healthy and vigorous growth, the top should be kept in just proportion with the roots—that to wantonly destroy this equilibrium is to inflict a permanent injury on the tree. To avoid this, the cutting off large and healthy branches is to be avoided. When pruning is done, it is to extend only to branches or shoots dead and utterly useless.

Now, what is the vine? Is it not a species of tree? Has it not branches and roots? May it not in nearly every respect be treated as the wise husbandman would treat his orchard. True, the grape vine is the grossest feeder. But this is direct argument in favor of our position—namely, that the roots of the vine, if so allowed, and properly sustained, will continue to spread and send forth new shoots in search of nutriment, to an almost limitless extent.

If this be the case, following the analogy already instituted, the main vine should also be permitted to expand and elongate itself in a natural manner, or to send forth its branches proportionate with its root.

But, it may be asked, is not pruning necessary to the health and vigorous growth of the vine? We say, emphatically, No! The vine itself will flourish, so long as supplied with proper nutriment, if never touched with the pruning knife. What benefit, then, is derived from pruning the grape vine? We answer, that which results from nipping off rapidly-growing shoots from the peach or checking the elongated growth of squash and other vines—namely, increasing the size and perhaps improving the flavor of the fruit—which may be done without seriously periling the health of the tree.

In like manner, also, the young wood of the previous year's growth may be judiciously pruned

from the grape vine, not only without injury, but with advantage, especially to the vine grower, in the improvement of his grapes. Small and weakly branches should also be cut off, so that the sap may flow more vigorously through the strong and healthy ones.

In the spring, as the bunches begin to form, the young shoots should be nipped off one or two eyes above the bunch of grapes. All superfluous shoots may also be removed, leaving only one to each spur, for producing the fruit.

Now, while this is admissible with all amateurs and professional horticulturists, who take pride in producing fine, large and delicious fruit, it is not by any means to be inferred that the thrifty, bearing grape vine must be cut and carved, at certain seasons, even to the dimensions of the infant vine—amputating the main branch as the butcher cuts off the limbs of a dead ox—leaving little more than the trunk or stump.

The inevitable consequence of such treatment is to render the vine short-lived, tender and puny—incapable of surviving the frosts of winter; whereas, if the main branch is allowed to put forth in its strength, the wood becomes more mature and more capable of enduring cold.

Whether the California varieties now in general cultivation here may be rendered hardy by this mode of treatment, it is not our design to discuss; but it may be safely asserted that, if it is desirable to render a vine more susceptible to injury from frost, that of annually cutting down the main wood of the vine is most likely to effect that object.

Our purpose, however, is to set forth that mode of culture which, in our judgment, is most natural and best calculated to bring the grape vine to the greatest degree of maturity and perfection.

As a fruit for the use of man, the grape is justly considered among the most delicious and most conducive to a high degree of health and longevity—the nourishing and invigorating juice, with which it richly abounds, constituting, without fermentation, an important auxiliary in supplying some of the most essential elements of physical life. The grape vine, therefore, should be extensively cultivated wherever the climate is adapted to it.

That our mountain vales will produce as fine grapes, perhaps, as any other part of the world—with proper care and cultivation, we have little doubt. It is not held, however, that they may be grown here with the same amount of labor as in other localities. The reverse, indeed, is the fact. Yet if we can arrive at a more natural mode of treatment, successfully combat against the blighting effects of a rigorous winter, and raise even a moderate supply of this wholesome fruit—notwithstanding all the disadvantages and incessant toil under which we labor—we shall have attained an object second in importance to no other in our fruit-growing department.

We recommend the attentive perusal of Mr. Sayers' article on the Hampton Court Grape Vine, the conclusion of which, with the author's views, will appear in our next.

THE BEST DOCTOR for animals, says the *Country Gentleman*, is "Doctor Nurse." This is sound sense. We have seen sick horses, stuffed with all manner of nostrums—sufficient to kill a healthy animal—when a little judicious nursing and the administering of some simply remedy—a little pulverized charcoal, for instance—would have effected a speedy and certain cure. The following opinion of an "eminent New York physician," though honest and truthful, is a concession rarely made by any of his profession. He said:

Taking medicine was always a choice of evils—that being poisonous in nearly all instances they necessarily did harm to the system, and were never to be employed unless there was a strong probability that they would benefit more than injure. This is not the rule adopted in doctoring horses, by most horse-jockies, and others having care of these animals, if we might judge from the way in which gunpowder, salts, red pepper, turpentine, whisky, corrosive sublimate, and other violent remedies, are administered at hap-hazard, increasing in nearly all cases the violence of the disease. It may be laid down as a general rule, that it is much safer to give too little than too much medicine; and that none should be given unless we know distinctly how it is to operate, and what it is for.

The *Country Gentleman* relates an instance of a horse, afflicted with a cold and severe cough, for the cure of which an "abundance of prescriptions from neighbors, of all kinds of frightful medicines," were recommended; but the writer wisely concluded to place the animal under the care of Doctor Nurse, with the following treatment:

Great care was taken never to work him to perspiration—he was blanketed whenever the weather was chilly—he was fed regularly and moderately on succulent food, all such food partaking of the character of expectorants, and favoring a free discharge from the lungs—and all his other wants were observed as well as we were able to, and promptly supplied.

And with the following result:

In six weeks he was perfectly well.

The writer adds:

Had some nostrum been employed, it might have injured him and prevented recovery; or if it had not, Dr. Nurse might not have been called in; but if he had, and the medicine had not greatly retarded his recovery, and he had got well in six months, it would unquestionably have been regarded as an extraordinary cure.

He was equally successful in the case of a mare badly sweened by hard work.

Powdered charcoal is a "powerful antiseptic (correcting putrefaction in the system), and absorbent of bad matter," while, unlike most medicines, it can scarcely ever prove injurious or irritative. Its excellence is thus attested by this journal, in the case of a fine calf of five months, which, by eating too many apples, blown down by a gale, became very much bloated:

Its sides became extended by wind to an almost incredible size; a solution of saleratus was poured down its throat repeatedly, and as often thrown out violently on account of its irritating action on the throat of the young animal. It continued for eighteen hours with little or no improvement, when a large tablespoonful of powdered charcoal mixed with half a pint of water was given. The dose was swallowed without any difficulty and in four hours the calf appeared to be perfectly well. Charcoal may be given in nearly all cases of derangement of the digestion, whether with men or beasts, with great advantage. One half to a teaspoonful is a full dose for a man, and as much for an animal as his food exceeds that of a man.

Horse doctors, or horse jockies, as a class, have about as much knowledge of the cause and cure of disease in horses, as doctors of physic generally possess of the true origin and cure of human diseases. Our judgment and experience teaches us that neither should be called upon, unless absolute and imperative necessity demand it, and then only when they are known to possess the means of affording relief, instead of aggravating the disease. It is a hope, with the majority of those who esteem themselves mortal—to die naturally. Who will say that all animals, could they respond would not utter the same sentiment? We say, then, that, unless medicine can be given understandingly, let it be discarded. In any emergency, however, Doctor Nurse can be called into requisition with perfect safety and generally with good results.

The insects, in the southern and western parts of this city, as also in some of the settlements, are doing much injury to vegetation. Grass hoppers, we understand, are making havoc in some parts.

Where the seed has been thinly sown or has not come up very thick, and the insects are destroying the plants, the *American Agriculturist* recommends to dust them with lime, wood ashes, flour, pepper, &c. Hen manure is also good. These are said to be also effectual in checking the incursions of the striped bug on cucumber and other vines.

However, with all deference to these suggestions—which will now be found timely and we trust useful to the farmer and gardener of Utah—the plan indicated in our last, namely, to put sufficient seed in the ground to feed the insects and leave a fair crop, is, in our opinion, the surest preventive. We hope that all who cultivate the soil will, next season, try the experiment. "An ounce of preventive," says an old adage, "is better than a pound of cure." Adopting the axiom, we say it is better to plant a pound of seed, fat the insects, and raise a crop besides, than to plant an ounce, starve the insects and raise nothing.

It is an acknowledged principle throughout nature that animals well fed will live on less than those scantily fed. Then, of course, if the multitude of insects that infest our climate—literally swarming in our dry and parching uplands—are liberally provided for, their ravages will not be so extended; but if stinted, they become more voracious and frequently consume all before them. In this, as in other matters, to "feed your enemy" is most efficacious.

The ants are becoming somewhat troublesome. For the benefit of those who do not wish to propagate such stock in their gardens, we furnish the following, mentioned by a correspondent of the *Genesee Farmer* as a dose sure to kill:—

"Mix equal parts of moistened loaf sugar and arsenic, and drop it near their runs."

If the above does not rid your gardens of these marauders, try the following:

Take a sharp-pointed stick or iron rod—a wagon-box rod will do—and with it make a hole two or three feet deep in the center of the ant hill, taking care, as you draw out the rod or stick, that the sides of the hole are left smooth. The ants will naturally and almost simultaneously advance to the opening and, falling to the bottom, they are "gone in" for certain.

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How Cane Sugar is Grown and Made. No. II.

TILLAGE OF THE CANE FIELDS.

The planting season extends from the first of December to the first of March, according to the latitude and circumstances of the planter. In southern Texas, it begins several weeks earlier than in Louisiana. It follows immediately upon the close of the grinding season, and it is only in case of overflow, or hindrances beyond the control of the farmer, that it is delayed later than the first of March.

The first labor after the planting, is to bring up the young cane as uniformly as possible. Though a large vigorous plant at its maturity, it is very feeble at the start, looking much like the first shoots of broom corn. As soon as occasional blades are seen in the rows, indicating that the shoots are ready to break through the soil, light harrows are drawn over the surface. This is more necessary from the fact that the soil throughout the whole sugar districts is largely mixed with clay, and bakes soon after it is stirred. The rains are frequent, and without this light harrowing, the crop starts without uniformity, and many of the shoots show themselves quite too late to be of any service.

After the blades are up a few inches, tillage commences. They first run around the crop, as it is called, by turning a furrow from the cane on each side, with a light mule plow. The hands immediately follow with hoes, brushing out the young shoots, and destroying all weeds. These hoes are very stout, clumsy affairs, weighing about three times as much as the northern hoe, and with the handle, generally a home made article, make a pretty good load for a man to carry all day, whether he hoes much or little. Though improved plows, harrows, and cultivators are multiplying upon the sugar plantations, the reign of the old hoe is undisturbed. The philosophy of this dynasty is summarily expressed in the reply we received to one of our inquiries. "Such hoes as you have at the north would not last a nigger a day." This, too, in a soil where there are no stones, and upon plantations entirely clear of roots. We could but think that we should feel better satisfied, as to the soundness of this philosophy, after seeing it tried.

The steel cultivators and horse hoes, so common at the north, are not generally known here. They are certainly well adapted to these alluvial lands, and could not fail to save at least one-fourth of the labor of tillage. This is a very large tax to pay for the want of agricultural societies, fairs and journals, of which the sugar region is very generally destitute.

About ten days after the first hoeing, the plow is again used, turning the furrow, toward the cane. The whole surface of the ground between the rows is stirred this time, either with the plow or cultivator. On the best managed plantations, the tillage is repeated at intervals of ten days to two weeks until the cane covers the ground, which is about the first of July. At each time, the soil is thrown up toward the cane, and when the cultivation is completed, the cane stands upon broad ridges, with deep furrows between, to carry off the water into the ditches which run back into the swamp. Cane requires a higher cultivation than either corn or cotton, and those planters who till most frequently and thoroughly make the best crops. When the cane shades the ground, cultivation stops, and the leisure season of the sugar planter begins. It fortunately happens that this is at the hottest part of the summer, when labor is most oppressive. These three months correspond to the Winter upon the northern farm, in the opportunity they offer to take breath and lay plans for another year. The hands are occupied in making improvements, where the planter has skill enough to devise them, and in cutting and carting wood for the sugar house, and in other preparations for

THE GRINDING OF THE CANE.

This is the harvest of the year, the most intensely laborious, and yet the most joyous time upon the plantation. It usually commences in October, and lasts until Christmas or later. Indeed we found that some had not finished as late as the tenth of February last. Where the cane is well ripened, it keeps for some weeks without any injury. As soon as heavy frosts are threatened, the cane is cut, and laid in windrows, the tops lapping over the butts so that the cold does not affect the part that is used for sugar. It is only the lower part of the stalk, about six feet in length, that matures sufficiently in this climate, to make sugar. This is stripped of its leaves, topped, and carried to the sugar house as it is wanted.

The whole force of the plantation now centers about the sugar house, and on most of the estates, the fires once lighted are kept up until the grinding is finished. They work in relays, every man being occupied eighteen hours in the twenty four; and on nine-tenths of the plantations, without any observance of the Sabbath. Notwithstanding this severe labor, the season is generally welcomed as one of general social enjoyment, and more generous fare. There is a liberal supply of sweets, and sometimes of stimulants, and, not unrequently of other rewards to draw out the largest amount of labor possible, until the work is completed.

On many of the plantations, the machinery for the manufacture of sugar is very complete, costing from fifty to a hundred thousand dollars. There are now in the country about twenty six hundred sugar plantations. On three fourths of them, at least, steam is used. The larger part of the sugar is made on about three hundred plantations, that are furnished with expensive apparatus.

The cane is dropped under a large open shed or near it. About half a dozen hands are constantly employed in feeding the rollers. The canes are carried up on an endless apron, and pass twice between very large iron rollers, which press them nearly dry. The bagasse, as the pressed canes are called, is taken on another apron as it falls from the rollers, and is carried to the top of the chimney and emptied into the furnace. This is a recent improvement, and saves more than one half of the fuel. On one of the plantations that we visited, the burning of the bagasse saved five cords of wood daily. They only used three fourths of a cord to a hoghead of sugar, in place of two and a half formerly. As wood is already getting to be a scarce article on all the large plantations, this improvement is too important a matter to be long overlooked.

With the best mills yet invented, it is said, that nearly

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