

the prohibition of the imports of cattle and certain other articles of commerce from those provinces is rescinded. The exemption, however, it is distinctly stated, does not extend to Steppe cattle.—*Paris paper.*

TREES IN PASTURES.

A dairyman, who had a fine farm, without a tree in meadow or pasture, said to us last summer, when we asked him what had become of his shade trees, and why he did not plant some for his stock, that it was all nonsense to talk about the humanity, and especially the profit, of shade trees in pastures. He had shade trees in his pasture, but he cut them down. He found cows spent too much time standing in their shade whisking their tails when they should be feeding. Now they had nothing else to do but feed. Just then we called his attention to the liveliest manner. We asked him what that meant. He didn't know! We did. They were almost mad with the heat, and wild from the torments of the gad fly, from which they were trying to escape. Of course they became more heated from this lively exercise, and the milk, when drawn, was not in a healthful condition; nor was the quality of his cheese anywhere near first-class in reputation among buyers. And no wonder!—*Rural New Yorker.*

PLEURO-PNEUMONIA.

Holland has suffered rather severely from this malady during the last spring. In four weeks, up to the middle of April, between four and five hundred cases of the disease were reported to have occurred in different parts of the kingdom, principally among stalled animals. The measures adopted to arrest the progress of the disease are very stringent. All diseased animals are slaughtered, and those which have been herded with them are inoculated and isolated. If the owner objects to inoculation, he is compelled to keep his cattle from association with others for a long period, under the observation of the authorities. In Great Britain there has been no important change in the state of prevalence of the disease since the last report.

FOOT-AND-MOUTH DISEASE.

This affliction still prevails in Hamburg and its vicinity, and diseased animals have been landed in England during the last month from Antwerp, Boulogne, Bremen, Bremen, Copenhagen, Coruna, Dantzic, Dunkirk, Hamburg and Rotterdam. Fresh outbreaks have occurred in Norfolk, Kent, Cumberland, and some parts of Scotland.

Horticultural.

STIRRING THE SOIL.

There is considerable emphasis put upon the benefit of stirring the soil; but there is an equal amount of incredulity connected with it, so that we see more weeds than clear soil; even in our corn fields, at harvesting, this is the case. The truth is, we work the soil as little as possible. There are some, however, who make it a business to do over it. These have not only clean land that does you good to look at, and really clean grain and grass, but heavier crops. They not only have grain and grass in the place of weeds, but the yield is much larger. To test this matter thoroughly, we applied unstinted cultivation to the garden. Omitting the manure (which was yearly applied), we relied upon the hoe and other implements for this purpose. There was a constant play with the soil when the weather permitted, and it permitted it most of the time, as the season was one of drought. A fine, heavy, moist condition of the ground was the result, without the first sign of a weed or grass spire. It was soil, like sand or ashes, and vegetables. There was a steady growth, elaborating perfectly as it went; the hot sun, instead of hurting, favored the growth and quality of the plant. The plant food had acquired age and ripeness. The result was earlier maturity, and a greater growth than the years before and that of the neighbouring gardens; and this, let it be understood, with a light, sandy soil (on the border of the north woods of the Empire State), having not sufficient fertility for a fair crop under ordinary treatment. It was entirely satisfactory. Next, shrubs of various kinds, including the grape vines, berry bushes, young trees (ornamental and otherwise), were tested. The soil was subjected to the same treatment as in the garden. The effect was almost magical—an increase in growth carried on vigorously, and ripening well both wood and fruit. Whether the soil thus freshly thrown to the air had an increase in attraction for the fertilizing matter in it, or gave more chance for the air to circulate through it, or both, and whether there were

other causes, certain it is that there was an effect, and a most decided one. We computed the worth of the labor, and compared it with the estimated increase of fruit and improvement of quality, and we became satisfied there was a balance in favor of the work. This, where hand instruments were used—how, then, where horse labor is applied, as in field culture? We have seen corn tested in this way, by keeping (in a drought) the land almost constantly stirred, leaving occasionally rows for ordinary culture. The difference was equally decided with that of the garden and the shrubs. And the English accounts of cultivating wheat between the rows, prove that grain is not an exception. These tests but carry out the doctrine that working the soil is manure.

Horticultural Notes.

THE CURRANT WORM.

The *Boston Journal of Chemistry* says:—We are informed by Dr. E. Worcester, of Waltham, that the currant worm, so destructive to a favorite fruit, may be fully and almost immediately destroyed by the use of carbolate of lime. The doctor tried the powder in many instances during the past summer, and found that while it was full as effective as hellebore, it was less disagreeable, less costly, and perfectly safe. The method of using it is to sprinkle it over the vines as soon as the worm makes its appearance, bringing it well in contact with the leaves; and soon the pest is destroyed. It needs but two or three applications. In this way, for a few cents large quantities of currant bushes may be saved and the fruit allowed to mature, and no danger whatever be incurred. Nature, the foliage or the fruit is in any way injured by the carbolate of lime. It will be well for our readers to remember this now.

THE ROSE SLUG.

Among the many uses which may be made of Paris green for the destruction of insects, there is none more successful than its application to rose bushes that are affected with the slug. Last year we applied it mixed with plaster, when the bushes were wet, and succeeded in saving our roses, but not until the foliage was much injured. This season we had watched carefully for the coming of this miserable pest, and had hoped to have escaped its depredations; but one sunny morning, after two days of constant housework, which had kept us entirely from the garden, we found it had commenced its deadly work on some choice perpetual roses and one beautiful young climbing rose which we had tended with special care. In our impatience we could not wait for rain or dew, but immediately put a tablespoonful of Paris green in a watering pot, added four quarts of water, and sprinkled the bushes thoroughly; after this applied Paris green and flour mixed in the same manner as for potato beetles; the following day repeated the same operation; twenty-four hours afterward not a slug could be found. The bushes are now covered with luxuriant foliage and perfect flowers.

The Horse.

FEED FOR HORSES.

It is remarkable that while agricultural societies have offered premiums to encourage the improvement of everything, from a rat-trap to a threshing machine, forage and root crops have been almost overlooked. Yet their importance is scarcely second to that of the human food supply, for without our domestic cattle we would be badly off indeed. Of forage crops their culture is comparatively simple, and returns reasonably certain. Their yield is enormous; and where they form an important portion of the winter's food, the number of animals which can be sustained on a given area is very largely increased. Lucerne can be mown over from three to four times each season; we saw some fields in Great Britain on which twelve to fifteen tons to the acre of cured hay had been cut each season. Roots as a food for stock are not only so recommended as one of the cheapest articles within the reach of our farmers, but because they maintain the animal system in that condition of perfect health, enable it to assimilate with greater profit and success the other and heartier foods which, under any system, will be given in greater or less quantities. As to their cheapness, those who have given the subject much thought, and who have had an experience which qualifies them to judge, range in their estimates from 5 to 6½ cts. per bushel of 60 lbs.; which does not seem im-

probable, considering that from 1,000 to 2,000 bushels per acre can be produced.

Most farmers will also find cattle in summer to be very advantageous, especially where land is very high. It is not half the trouble most people imagine it to be. Fall sown rye, sown twice as thick as ordinary and in rich ground, will give a supply of rich food early in the spring, till orchard grass and clover, mixed, are ready for mowing. Oats should also be sown, four bushels to the acre, as early as the ground will admit, to come in after the first cutting of grass, and before the sown corn. This latter will be found to be the great staple crop of the soiling system. The first sowing in drills, 3 feet apart and at the rate of 3 bushels to the acre, should be on or before the first week of May, and successive sowing should be made 10 days or 2 weeks apart. Sown Indian corn is a wonderful provision of nature as food for stock. An immense weight of it can be grown on an acre; it is eaten greedily and is most nutritious, promoting the secretion of milk more than any other kind of food. It abounds in saccharine matter. Any excess of it, not consumed by the cows green, can be cured for winter provender, and is better than any kind of hay.—*Stock Journal.*

CARE OF HORSES.

All horses must not be fed in the same proportions, without regard to their ages, their constitutions, and their work; the impropriety of such practice is evident. Yet it is constantly done, and is the basis of disease of every kind. Never use bad hay on account of the cheapness, because there is no proper nourishment in it. Damaged corn is exceedingly injurious, because it brings on inflammation of the bowels and skin diseases. Chaff is better for old horses, but do not give the latter alone, because it makes the horse chew his food more and digest it better. Hay or grass alone will not support a horse under hard work, because there is not sufficient nutritive body in either. When a horse is worked hard its food should be chiefly oats—if not worked hard, its food should be chiefly hay—because oats supply more nourishment and flesh-making material than any other kind of food; hay not so much. For a saddle or coach horse, half a peck of sound oats and eighteen pounds of good hay are sufficient. If the hay is not good, add a quarter of a peck more oats. A horse which works harder may have rather more of each; one that works little should have less. Rack feeding is wasteful. The better plan is to feed with chopped hay, from a manger, because the food is not then thrown about, and is more easily chewed and digested. Sprinkle the hay with water that has salt dissolved in it, because it is pleasing to the animal's taste, and more easily digested. A teaspoonful of salt in a bucket of water is sufficient. Oats should be bruised for an old horse, but not for a young one, because the former, through defective teeth, cannot chew them properly; the young horse can do so, and they are thus properly mixed with saliva, and turned into wholesome nutriment.—*London Horse Book.*

WATERING HORSES IN WARM WEATHER.

There is a warm controversy coming up in regard to the watering of horses in warm weather. At present this controversy is as a cloud no larger than a man's hand; but we are sadly mistaken if it do not come to be one of the most stirring questions of the day; one in the face of which even "Drilling versus Hilling Corn," "Deep Plowing," or any other illustrious subject of the past, will pale. Several writers have of late suggested that watering horses while they are warm in summer is a very bad thing; others say that more suffer and are injured for the want of water in summer than from too much of it. The great centre of attack in this new line of thought is not Joseph Harris, although he is but one of several who has taken in hand the reformation of horse manners and customs in reference to drink. The theory of horsemen in general is, that it is an evil to perspire freely in warm weather, and that if little water be given them, they can perspire but little. "The more water we give them the more they sweat." On the other hand, the laboring man in the open fields tells us he is never so comfortable at work as when he is perspiring freely, and he takes his glass of cool spring water as often as he pleases. The argument from this is that what is good for the man is good for the beast. Perhaps so. We suppose the truth lies midway between these opposing forces. At any rate, the discussion will do no harm to the poor dumb beasts in-

terested. Our own experience has been adverse to excessive watering. Even in the harvest-field we think moderation is advisable.—*Germantown (Pa., U.S.) Telegraph.*

AN EXPERIMENT IN FEEDING HORSES.

The London Omnibus Company use six thousand horses. To economize in feed is an important matter, and has led to several tests, the result of which is recorded as follows:—

To each of three thousand of their horses they gave a daily allowance of ground oats sixteen pounds, ground hay seven and one-half pounds, and cut straw one and one-eighth pounds—the hay and straw being cut into pieces about half an inch long, and well mixed with oats in a little water, and so making twenty-six pounds of food for each horse. And to each one of their other three thousand horses they gave a daily allowance of whole or uncut or whole hay or straw thirteen pounds, without any water, in our old fashioned way, making thirty-two pounds of this food for each horse. And what was the result? Why, it was soon discovered that the horse who was fed on the twenty-six pound of ground oats remained in as good a condition and could perform just as much work and do it just as well, too, as the horse who consumed thirty-two pounds of food as aforesaid—thus showing a saving of six pounds of food per day in favor of bruised oats and cut hay.

SHOEING HORSES.

The *Colonial Farmer* gives the following good advice on this subject:—

It is almost impossible to get a horse shod without having the frogs cut away. All veterinary surgeons, all horsemen, all leading blacksmiths agree that the frogs should not be pared the particle—not even trimmed. No matter how soft and pliable the frog is, cut it away smooth on all sides, and in two days it will be dry and hard as a chip. You might as well cut off all the leaves of a tree and expect them to flourish as to bare away the frog and have a healthy foot. The rough spongy part of the frog is to the foot what leaves are to the tree—the lungs. Never have a red-hot shoe put upon the foot to burn it level. Employ a blacksmith that is mechanic enough to level the foot without red-hot iron. The burning process deadens the hoof and tends to contract it. If you do not think so, try the red-hot poker on your finger nail, and see how it will effect the growth of that. There are many important points in shoeing horses, but these two are of more importance than all the rest, level to the apprehension of men not skilled in horses, and the two most disregarded.

LOOK TO YOUR HORSES' FEET.

Few men who handle horses give proper attention to their feet and legs. Especially is this the case on farms. Much time is frequently spent marring the hair on the hips and sides, and it is seldom the feet are examined and properly cared for. The feet of the horse need more attention than his body. All the grooming that can be done will not avail anything if the horse is forced to stand where his feet will be filthy. In such case the feet will become disordered, and then the legs will get out of fix, and with bad feet and legs there is not much else of the horse fit for anything. Stable persons generally are terribly severe on the feet and legs of horses, and unless a horse can have room to walk around in the stable, he had better be turned loose in the pasture.

HEAVES IN HORSES.

A Michigan correspondent of the *Rural Home* gives the following remedy for heaves in horses:—Give once daily a teaspoonful of aqua fortis, prepared as follows: Mix it with a teaspoonful of sour or skimmed milk, and mix this with bran, and the bran with the grain feed. The catarrhal affections of the throat make rapid amendment under this treatment, and the correspondent referred to says he has known a number of cases cured by it. It should be continued, if necessary, until a pound of acid is given. Some of our subscribers have horses suffering from heaves; they may easily try the above, and report the result.