

to run in the grass before the dew was off, or they were infested with vermin. We know of nothing so injurious to young turkeys or chickens as the morning dew.]

Notes on the Garden and Farm.

How to Save the Plums and Gooseberries.

SIR,—Some three years since Mr. William Holman, of this town, saw an advertisement in a Provincial paper of a prevention for the ravages of the Curculio on plums. He was induced to try it, and his success has been so marked that he wishes to make it known through the medium of your widely-circulated and valuable paper.

Mr. Holman has eight plum trees in his garden. In the spring of 1876, all the trees being in full blossom, he smoked one tree with smoke from gas-house tar; in the autumn this tree was loaded with fruit, while the seven trees had not a single plum on them. In the spring of 1877 he reversed his operations, and smoked the seven trees, leaving the one tree smoked in 1876 without smoke. All the trees were alike covered with blossoms, but the result showed that while the seven trees were so loaded with fruit as to require supporting, the one tree bore not a particle of fruit. His method of operating is as follows:—

Mix in an old tin pan coal tar with shavings, chips, pieces of shingle, old rags, or anything that will ignite; place the pan under the tree, keeping it moving so that the smoke will come in contact with the whole tree.

It takes him about half an hour to smoke the eight trees. The evening he thinks the best time—about sun-down, when there is no wind and the dew is falling. The smoke then adheres better to the leaf and forming fruit.

The first application of smoke must be made just as the blossom begins to fall, and must be repeated immediately after a storm of rain. Mr. Holman repeated the application at intervals of about four days in 1877, until the fruit was formed, say for three weeks. He is not sure of the necessity of doing so, although he recommends it. He is a master bricklayer, mason, &c., by trade, and in 1876, after smoking the one tree, he was obliged to leave home to perform a building contract, so that his tree had but one smoking, with the result aforesaid—no rain having fallen to wash the smoky deposit off.

Mr. Holman has been successful in endeavoring to prevent the mildew on the gooseberry. He purchased from the St. Catharines Nursery a bush of a large English variety, against the advice of the nurseryman, as it was so subject to mildew. His method is in early spring carefully to remove the surface soil from under and around the bush; then to pour the composition under and around the bush, and immediately cover the composition with the removed soil. The composition is prepared as follows:—

Mix in a pail two quarts of water, two large tablespoonfuls of salt and sufficient fresh cow dung to make thick grout.

By this method the bush has regularly borne fine large fruit, entirely free from mildew. Why it acts in this manner he leaves to scientific men to discover.

If you think the foregoing statements, which I believe are facts, worthy of your columns, please insert them; if not, consign to the waste basket.

S. ECCLES, St. Thomas.

SIR,—I see by the last ADVOCATE that "W. S.," Richwood, Ont., wants me to inform him where I procured the superphosphate of lime that I used. It was from Buffalo, price \$45 per ton. I did not use any salt with it, but I have used salt on spring wheat with good results.

I have had a letter from Peter R. Lamb, Esq., of Toronto, about his manures. I wish some of my fellow farmers would give us accounts of these manures, and inform us whether they are any good or not. I have come to the conclusion that if we want our calling to pay us we must use artificial manures, as we cannot make farm-yard manure enough to render our farms profitable.

P. S.—"T. E.," of London Township, does not say whether his grain drill sows artificial manures or not.

F. A., Caradoc.

SIR,—I want to know through the columns of the ADVOCATE if the superphosphate mines at Ottawa are worked, or if any of it can be got to use this spring; also, if any of it has been used by farmers, and if so, the quantity used per acre and the result; and what quantity would be required per acre on clay land, and if it is good for all kinds of grain, such as wheat, oats, peas and barley, and root crops.

I also want to know about salt—the quantity required per acre for clay land, and if it is good for all kinds of grain.

W. H., Watford.

[The Ottawa superphosphate mines are now worked energetically. The superphosphate is shipped to England and the United States. We do not know if any is offered for sale for home use, but if not yet, we believe it will be sold to farmers. It can be obtained from the superphosphate works at Brockville. It can be obtained from the agents at the Agricultural Emporium in this city. Salt is applied at from one to two cwt. per acre.]

SIR,—Please let me know in your April number how many pounds of millet to the acre are sown.

W. M., Wakefield.

[Millet seed is sown from one-half peck to three pecks of seed to the acre.]

SIR,—It is with pleasure I sit down to write to you for information. I want to know which is the best time to plant maple, pine, hemlock and cedar trees.

W. R., Otterville.

[Plant maples any time from the falling of the leaves till the putting on of the new ones. We have found the first days of June a good time to plant evergreens. Others have been successful in planting in the autumn and fall.]

J. M. Kimball, of Silver Hill P. O., asks what will cure or prevent a running from the nose in sheep.

Pour tar on the nose and forehead and along the trough edge, and once or twice a week put sulphur in the trough.

SIR,—Seeing in the last number of the ADVOCATE an enquiry by J. W. McF., for Hulled Barley, wishing to get some seed of it; I can spare one bushel of it. I got about half a peck of it last winter from a friend in Minden, but it was very dirty. I cleaned it thoroughly; it weighs about sixty pounds to the bushel. I will send you the bushel, which you can send to J. W. McF., or any part of it. As he has not sent his address you can let him know I have it. I don't know of anyone else having it. The price of it will be three dollars.

P. S., Cold Springs.

[Mr. Andrew, Tombury, P. O., Box 6, writes also saying that he can supply J. W. McF., with a small quantity of Hulled Barley, if it be not too late. It has, he says, been raised for 27 years in Collingwood Township. It weighs 60 pounds to the bushel.]

SIR,—I would like to hear some remarks as to the time of sowing peas as to what time of the moon or season is best to sow them, and what time of the moon or season is best to cut green spruce and bar poles for fencing.

J. R. R.

Black Point, Little Harbour.

[When on the farm we sowed peas as soon as the ground was ready. They who waited for the guidance of the moon had often no crop.]

SIR,—Can you through your paper inform your readers with reference to the Cheviot sheep, are they a profitable sheep to raise, and where can they be got. This is a sheep I never saw anything mentioned about since I have read the ADVOCATE, and what kind of cross, would they make with the Southdown. J. P., Beamsville, March 18th, 1878.

[We had a flock of Cheviots purchased from Mr. Snell. They can run and jump better, and hold their own better, against dogs than any other sheep. They are good handsome animals, and make excellent mutton.]

The Baltimore Sun says:—"The increased demand for our meat productions in Europe applies to our bacon and pork, as well as to our beef, and there is a very greatly increased demand of late for the improved breeds for dairy purposes. The Berkshires undoubtedly take the lead in this direction, and may perhaps be considered the favorites over all others; but there are two or three other breeds which also have the preference with many, these being the Essex, the Poland-China, and the Chester."

How Far Apart Shall We Plant Apple Trees.

There is a great difference of opinion on this subject. When the land is poor and thin the roots will be less numerous, and must be spread for long distances in every direction to get the nourishment needed. On poor soil it is very necessary to give the trees plenty of room. Our densest forests and thickest turf grow on soil which is very rich.

In planting an apple orchard, as in most other operations, it generally pays to do the work well. When properly taken care of, after twenty years, many varieties of apple trees will spread twenty feet in each direction, and some spread further, as noticed in the orchard of Mr. Bailey a few weeks ago. The rapidity of growth and the longevity of the trees depend much on the soil and climate as well as on the variety of fruit.

In ordinary good loamy soil, or in poor light soil the roots of an apple tree, when fifteen years old, extend at least twenty-five or twenty-eight feet in all directions. This is not a theory, but a fact, as I have repeatedly seen the roots as described while putting in tile or while digging for the purpose of examining the roots. The feeders of the roots—root-hairs—are renewed every few weeks during the growing season. The small roots from which the root-hairs grow are also often renewed. I mean these die and others take their places, or other places not far away. In this manner roots are all the time feeding on new ground. Doubtless, after a time, much ground is fed over again and again. Roots do not search for food as animals search for it, but they grow where they find the best soil, and they will there multiply in the greatest abundance.

For long lived trees, and the best results, I am satisfied that large varieties of apple trees should not be planted nearer than forty feet if they are set in squares. This gives not a whit too much air and light for the tops, and, as has been shown, the roots will soon occupy all the ground and make good use of it. While the apple trees are young, if desired, other crops may occupy the intervening spaces. I prefer to set trees in squares, because it is the simplest plan, and because it is easier for the cultivation. As mentioned, the roots will run all through the soil, even crossing one another at long distances between two trees.

If the trees are of various sizes which do not grow fast or become large, they may be planted nearer together than forty feet. If, like the Wagner, they begin to bear young, and are allowed to bear and get ready to die by the time they are fifteen years old, they may be planted only twenty or twenty-five feet apart. Trees are often injured by planting too closely; seldom by having too much room. One tree does not protect another by growing very near it. On the contrary, one robs the other. Our strongest, finest ornamental and forest trees grow in open spaces where there is plenty of room, and where the soil and climate are suited to their natures.—PROF. W. J. BEAL, in Rural New Yorker.

A BUNCH OF GRAPES.—The London Gardener's Chronicle says that a bunch of grapes, from Lady Chareville's, Kings County, Ireland, 2 feet long and 23 pounds 5 ounces in weight, is the heaviest ever grown.

Rich manure can only be made from rich food. Animals add nothing to the manure. If we feed straw, we get back as manure something less than the straw we feed, and straw alone is very poor manure. If we feed oil cake meal, corn meal, bran, and similar rich food, to mature animals, they consume the starchy and fatty portions, while much of the nitrogen and phosphates go into the manure heap along with the straw or hay eaten, which give the needed bulk to the manure. It is thus that the statement made by the chemists, that the manure made by feeding a ton of bran, or linseed, or cotton seed oil cake, is for some worth more than the seed itself, can be satisfactorily explained.

FERTILIZERS FOR FRUIT TREES.—There is nothing better than stable manure, but not enough can be had. Muck is good if we get the right kind, fibrous and not too much decomposed. It may be profitably composted with stable manure, six or seven loads to one of the latter, with ashes and with salt. The coarse grass which grows on muck swamps, if piled up with it, helps decomposition. Salt is recommended as a good fertilizer for all kinds of fruit trees. It helps to decompose plant food. Ashes are good, and leached ashes, 300 bushels per acre, are excellent on sandy soils, helping mechanical texture and furnishing needed manurial elements.—Rural New Yorker.