

EFFICIENT FARMING

MY EXPERIENCE WITH TILE.

A few seasons ago I handled a farm where the land was of good quality and reasonably fertile. No man will be able to produce maximum crops on that farm until the owner is willing to put a few hundred dollars in the farm in the way of proper drainage. The owner is cheating himself out of the full benefit of his farm year after year, while a tiling system would pay for itself in one or two seasons. No one can get anything out of his farm if he isn't willing to put something in. Halfway methods in tile drainage will get halfway results. It does not cost any more in proportion to tile the farm thoroughly at one time. Proper drainage keeps the soil loose and conserves fertility, makes it possible to get the ground in shape for seeding at the proper time, causes it to warm up earlier in the spring, thus lessening the danger of early and late late frosts, and stimulates plant growth. These advantages will be realized each season. When the season is cold and backward during the early spring, I have found the advantage of tile drainage even more noticeable.

With our rather heavy black level soil, which has a tendency to hold water for long periods during wet weather, we have to drain at least every two rods to get uniform results. On more rolling or gravelly land it is not necessary to drain quite this close.

Tile should be deep enough that it will not be disturbed by the deepest plowing. It is better if the drains have sufficient fall to carry the water out rapidly, as they will drain the soil quicker, and the force of the water

will carry away sediment, keeping the tile clean. Owing to too much or too little fall it is sometimes necessary to lay the head of the drain rather shallow. It is not always possible to get below the frost line. For this reason we have found cement tile preferable to clay, despite the slight extra cost, as they are not injured by the action of frost.

The old method of digging the trench and leveling and laying tile was a slow, back-breaking, and expensive task when elbow grease was the motive power used to get the work done. We find that a machine ditcher does as good or better work, and is less expensive and less disagreeable than the old method. The machine can work better in dry weather than in wet, as the leveling is done by survey instead of by water. A competent operator should be in charge of the machine, and the owner of the farm should inspect frequently. A very slight mistake may make an entire drain worthless.

What is the use of paying high taxes and making other improvements on land that will not produce good crops owing to lack of drainage? This is about the only improvement on the farm that is permanent. We have to paint, build fences, buy new machinery, build new buildings, restore the fertility of the soil, and do other things of like nature several times in the course of a natural lifetime. The farm, once properly drained, is drained to stay, and the work that has been done goes on making money for its owner day and night, and will do so for future generations with little attention, if the work is done properly.—D. P.

The Dairy

To get the maximum production it will be necessary to provide feeding-stuffs that have a high per cent. of protein. I have found that by grinding barley, oats and wheat, equal parts by weight, and feeding one pound of grain per day for every four pounds of milk produced, I get a good liberal flow of milk and by feeding all the alfalfa hay the cows will eat, the ration is a fairly well balanced one.

However, to make the cows produce to their capacity one can undoubtedly get an increased yield by adding two pounds of cottonseed or oil meal per day. One can stimulate many cows to still further increased production by feeding more of the high concentrates, cottonseed or oil meal. But this increase should be carefully done by adding no more than a half-pound extra per day and carefully watching each cow to make sure that the concentrates are not bringing on an unfavorable reaction.

Selection of Seed Improvement.

Different selections of seed of various classes of grain have been carefully tested at the Ontario Agricultural College for from six to nine years. The average results show that even one year's selection of seed grain has a marked influence on the resulting crop. In every instance, the large plump seed gave a greater yield of grain per acre than medium sized, small plump, shrunken or broken seed. In the average of the six classes of grain, the large plump surpassed the small plump in yield of grain per acre by 19 per cent., and in the average of the three classes of grain, the plump seed gave a yield over the shrunken seed of 20 per cent. It should be understood that equal numbers of seed were used in this experiment. The results throughout show that a large plump seed will produce a larger, more vigorous and more productive plant than is produced from a small plump or from a shrunken seed.

Sewing Grain Sacks.

A bodkin or needle suitable for use with string or twine can be readily made from one of the openers that are used to open tin containers. The wire opened is straightened out and the ends rounded up with a file or on the grindstone that they may pass freely through the open weave of the sacking. This simple modification is so easy that a few of the openers can be put aside until such time as the bodkins are needed, when one or more may be straightened up and pointed for use. This is a simple detail. However, it is most necessary when sewing the sacks, and is a hint worth remembering for this need.

If a ewe loses a lamb, use her for a nurse in raising the orphan lamb.

Sheep Notes

A great deal of success in raising early lambs lies with the care and feeding of the ewes during the time just previous to and just after the lambs are born. A sheep is not a difficult animal to raise or feed when the proper management is followed, in fact, I know of no animal that requires so little attention for the net return received for both the feed and labor put into it.

One practice we have always tried to follow with the breeding ewes was to provide them with pastured all through the winter. They do not do so well when kept housed all winter. They require plenty of exercise in the open to properly develop the fetus, but we always provide shelter for them during rainy and snowy weather or extremely severe cold. That is just as essential as keeping them out in the open in good weather, for if the fleeces get very wet and they are then housed they take very heavy colds from which they do not quickly recover.

If the stalk pasture is good they require little else except plenty of salt and perhaps some clover hay. We feed very little if any corn, because it produces excessive fat, limiting any grain feeding to oats. Ewes in thin flesh, however, need some corn or sufficient other grain to put them in good flesh, and plenty of clover hay. Sheaf oats is an excellent winter feed for sheep.

Two or three weeks before the lambs are due to arrive we like to give a good feed of oats to the ewes each day so that they will provide plenty of milk for the new-born lambs which, if they happen to be twins or triplets, will demand a great deal of milk to start them off right. We have never found any feed that would answer this purpose so well as oats, because of their combined bulkiness and protein content. Then they also help to develop a strong lamb which will require little close attention after it has received its fifth or sixth meal. I would rather feed corn after the lambs arrive than before, though if too much is fed it has a tendency to make them lose their wool.

A Place for Grain Bags.

One of the big expense items of the farm is the replacing of grain bags destroyed by mice and rats. Many farmers have no regular place for their grain bags; they are lying around here and there, and usually when wanted are found to have holes made by mice and rats in trying to get at the few pieces of grain left in them.

Have a place for your grain bags and keep them there; you will then know where to find them and will also know they will be in good condition to use.

Make a box about three feet each dimension. Put a partition in it so there will be a place for the best bags and one for the others that are not so good. This saves much time in sorting when wanted for use. Quite often you can get from the junk dealer a piece of screen or woven wire cloth that has been used in an old grain separator. This is usually heavy metal with small, round-hole perforation, or heavy wire woven together, but with small enough openings so mice cannot get through. Put one piece on each of the two sides or ends of the box; this will let air circulate and keep the bags from molding or rotting. Make the box of inch boards; also make it tight, so that no mice or rats can enter. Put on hinges and a rasp hook to the cover.

A Protected Ax Handle.

How many of us have had the experience of breaking or splitting our ax handle when chopping a limb or splitting a block of wood?

Here is a plan I use; and I find that it lengthens the life of a handle several times. Get a spool of copper wire, twenty-gauge preferably, and wind eight or ten inches of the handle next to the ax tightly with it, as that is where most ax handles are broken.

Drive a small nail in the handle, the distance you wish to wrap it, to a depth of half an inch, then withdraw the nail and cut off half an inch of the nail. Now put the end of the wire in the nail hole and drive the piece of nail in flush with the handle.

Wrap the wire tight and close toward the ax, first having made a hole clear through the handle close to the ax. When the wire reaches the hole cut it off long enough to put the end through the hole.

Frozen Ground Pipes.

To thaw water pipes in frozen earth, dig off a few inches of dirt and pour in unslaked lime. Pour over some water and cover immediately with canvas or bricks or stone to keep out the wind. In the morning the ground will be thawed for two feet.

Invest in a few smiles daily and you will always have interest in return.

Dave's Hired Men

BY J. E. RUSSELL.

"How is it, Dave, that you never seem to have any trouble with your hired men?" inquired a city cousin who had driven out to the farm for the day. "There is your neighbor, Tom, down the road. I was chatting with him this morning, and he was in a terrible grouch about the hired help question. He says he has had four different men this season. They stay a month or so and off they go. You've had the same man for two or three years, and as long as I have known you, I've never heard you complain about your help. How do you explain it?"

"Why, I don't know," said Dave. "Of course there are all sorts of hired men. You spoke of my neighbor. He has had men around for weeks that I wouldn't have let them sleep in a bed in my home unless their clothes had been fumigated, and they had had a bath. I've always been particular about the men I hired. I like best to get some young fellow I've known for years and his folks before him. I don't want any chap around who hasn't good principles, not only because of my children, but for the sake of the cows and pigs. I saw one of Tom's hired men pounding a cow with a fork handle a while ago. That fellow couldn't come here."

"How about wages?" inquired his cousin.

"Well, answered Dave, 'wages are pretty high, of course, but I've always calculated to pay my men good wages. When it comes to a show-down, what is \$5 or \$10 a month extra on a hired man's wages? If a man thinks he is underpaid, he can easily shirk enough to more than equal the extra money he thinks he ought to have. It is a great thing to have a hired man feel he is doing well, and that he has a good place. He'll be extra careful not to do anything which might make him lose his job."

"I notice that you take your hired man in as one of the family," remarked the cousin.

"Yes, I do," resumed Dave. "I remember that when I was eighteen I

left home to work out. Well, sir, I had a pretty tough nine months from the first of April to the last of December, but I stuck it out. They gave me the poorest room in the house, a little seven by eight cubby-hole, where I couldn't stand up straight even on the high side without bumping the ceiling. It was boiling hot in summer and freezing cold in winter. The bed was hard. The quilts were ragged and none too clean. The family gave me to understand that my room was better than my company about the house, and I hardly knew what to do evenings. I ate with the family unless there was company, and then they didn't call me to supper until the others had eaten. I had to take what was left, and sometimes it was pretty slim pickings. They never asked me to go anywhere with them. Sunday they generally went off visiting and left me to look after things.

"I made up my mind that if I ever had a farm of my own and kept a hired man, I'd treat him as I'd like to be treated. My hired man has as comfortable a bedroom as there is in the house. He sits at the table with us, company or no company. I get up just as early as he does and work just as late. When night comes, we make him at home in the sitting-room with papers, books and games. The man I have now has a good voice, and we generally have a sing once or twice a week. I always go to church Sundays, and the hired man goes with us and sits in our pew. If there is a Sunday School picnic or a community party, we all go together. My man plays first base on the neighborhood ball team, and I try to get the work caught up so he can get away for a game Saturday afternoon. Sometimes, instead of going to town myself, I send him off with the folks after an early supper, and tell them to stay down at night to the movies and that I will do the milking."

"I get you, Dave," said his cousin, as the farmer paused. "I believe the main reason you don't have any hired help problem is just because you remember that hired men are human beings."

MAKING A START WITH ASPARAGUS

Asparagus is unquestionably the most important of our edible stemmed plants. It is one of the hardiest vegetables, and although the initial preparation of the bed requires to be thoroughly and carefully carried out, yet, when properly made, it may last a lifetime, always provided that due attention be devoted to it, so that noxious weeds will never be allowed to take up their habitation among the roots.

The gardener will be well repaid for keeping the bed scrupulously clean and free from weeds at all times. This necessitates occasional cultivation during the summer months, though cultivation may be dispensed with by giving the bed a good mulch of manure immediately cutting is finished for the season. After the tops have been cut down in the fall the mulch can be worked into the soil between the rows; or this may be done early in spring.

Asparagus can be successfully grown in almost any soil, provided the preparation of the bed is given proper attention. First-class "grass" is cut from quite light sandy soils, as also from land that is very heavy, though the most suitable medium is a good friable loam having a porous sub-soil; a wet retentive soil from which water is slow in getting away should be avoided unless it be first drained.

PREPARING THE BED.

Instead of beginning with seed, the amateur will be well advised to purchase one or two year old roots, though even then it is not advisable to cut from the bed until the third spring from planting, and only for a limited period then.

It is always well to have the bed prepared in the fall, when a three-inch layer of fresh manure or its equivalent in leafy mold is spaded or plowed in very deeply, and a dressing of lime and wood ashes put on. The surface is then left rough over winter. When the ground has dried off in the spring the furrows are drawn out and good plump roots are then planted.

When the ground has to be prepared in the spring well-rotted manure should be used. The rows should be at least three feet apart; four feet is better. The soil must be thoroughly pulverized, adding coarse bone meal after the manure has been turned under. The coarse bone meal may be applied directly in the broad furrow which will be made, using a large handful to each yard of furrow and touching it into the soil with the rake. Furrows are drawn out with the

plow or spade, eight inches deep, three to four feet apart and nine to twelve inches wide. The roots are set eighteen inches apart. Make sure that the crown of the roots is in the centre of the furrow. When in position the roots are covered with two inches of fine soil, made firm so that it will not dry out quickly. The furrow is gradually filled up as the season advances and should be quite level by late summer. The reason we cover the roots so lightly to begin with is to give them a chance to become somewhat established before they are buried deeply. Cultivation is then started as soon as the spikes appear.

The beds should be so rich in plant food that growth will be steady, but if the tops at any time appear to be checked a light application of nitrate of soda will be beneficial. It should be given preferably in showery weather or following a rain; never apply it when the ground is dust dry unless it be followed with a copious watering.

Do not cut down the tops until after the berries are red in the fall or the foliage has turned brown. Should insects or disease be suspected the tops should be burned.

The bed is now dressed with partly decayed manure, which in the spring is dug in between the rows. The plants should be allowed two years to become established before any shoots are cut, and all cutting should cease around the end of June. Late cutting weakens the growth of the plants. Beds in bearing will be greatly assisted by applying a little nitrate of soda during the cutting season.

When cutting is over for the season the entire bed, without regard to the rows, should have a thorough cultivating to a depth of three inches. Then mulch with manure, and there will be little further trouble from weeds.

Live Stock Sales and Prices.

From January 1 to 24 inclusive the sales of cattle at the five leading markets of the country, according to Dominion Live Stock reports, were 47,207 compared with 46,416 in the same period last year, of calves 7,362 compared with 6,827, of hogs 88,431 compared with 91,043, and of sheep 20,985 compared with 25,662. A decrease is indicated in every instance excepting of sales of cattle and calves, of which there is a slight increase. Of hogs and sheep there is a noticeable decrease both in sales and billings through. Top prices for butcher steers at Toronto and Montreal were 50c better, and calves 50c and a dollar up, for the week ending January 24 this year compared with the corresponding date last year. Select bacon hogs showed an improvement over the previous week. Lambs were the same at all markets excepting at Toronto, where there was a rise of \$1.50.