

would become cooled and moistened before reaching the growing crops and the strong currents of wind would thereby be kept above us, while sufficient circulation would be felt on the surface of the soil to keep it properly aerated. In the winter there would be but few snow drifts, and the snow would lie more evenly over the fields, and not as now, when nearly all the snow becomes piled around by the fences. Then, to, there will be no more snow in the roadways than in the fields, provided the old rail fences on either are replaced by wire fences or something equivalent thereto.

The Farm.

A Leading Township Agricultural Society.

Despite the attempts which are being made by interested parties to centralize our agricultural exhibitions as much as possible, thereby weakening the influence of local exhibitions, we find many of the latter in a more flourishing condition than ever, the stringency of the times notwithstanding.

One of our most stable and influential societies is the Ameliasburgh Township Agricultural Society, of which Mr. H. Wellbanks is President and Mr. Edward Roblin, Secretary. We have just received a report from the Secretary, which represents a good showing. About \$560 were expended in prizes at their last exhibition, and it appears to us that they have been distributed with better judgment than those distributed at more pretentious exhibitions. We wish long life and prosperity to our township agricultural exhibitions.

Specially noteworthy in the Ameliasburgh Society is the tendency to greater independence which it is exhibiting. The Secretary informs us that the organ agricultural papers, which were at a premium last year, are now at a discount, and he calls the ADVOCATE their "old stand-by." This exhibition of independence is worthy of this honorable body of farmers; they will find the ADVOCATE stand by them and fight their battles so long as they persevere in the same honorable and independent course which has characterized them in the past.

How to Manage the Manure.

How to manage our manure in winter, so as to save labor and prevent loss of valuable qualities, has been a study with me all my life, and I am coming nearer solving the problem each year that I farm. I think that there are few farms on which there is not a great waste of manure from leaching or fire fanging, and also a waste of labor in drawing the manure to the fields when the land is soft and the wheels cut down, so that even with a half-load the horses are over-worked and the land damaged. On most farms the manure from the stables is thrown out of a high window and allowed to accumulate against the building, greatly to its damage, and if not under the eaves it heats and fire fangs until most of the ammonia is driven off, and if under the eaves the soluble parts are leached out and carried away.

There are a few things easily understood which are necessary to the successful and economical management of manure. I enumerate as follows: (1) To make the manure most valuable the liquid should all be saved with the solid, and to do this requires plenty of absorbents. (2) Fermentation is necessary to prepare the manure for use, and this fermentation must be under control, for, if excessive, the nitrogen will be driven off

and the value of the manure greatly reduced. (3) The agencies which cause fermentation are air and moisture, and to get the best results these must be under our control. (4) An intelligent choice of the time of hauling manure will greatly reduce the expense of taking it to the fields. Half the farmers through the great wheat-growing belts leave more or less of their straw in the wood lots or fields, instead of bringing it to the barn yard, to be mixed with the manure and save the liquid.

The plan which I have adopted in the management of my manure is this: I have three stables, each 30 feet long, in the basement of my barn. The middle stable is occupied by the horses, and has a double floor, so that no liquid can escape. The outer or north stable has no stalls, but can be divided into four equal apartments, or box stalls, with movable bars, which can be put in or taken out in less than five minutes. It has double doors at each end, so that we can drive through it to take out the manure, and at the side opposite the horse stable a manger extends the entire length, and hay or fodder is dropped into it from above. The horses stand with their heads from this stable, and every morning the manure and soiled bedding is thrown from the stalls into it. What stock is kept in this stable—which we call the manure stable—is loose. If we have only spring calves, they can all run together with the partitions out, or if we find some of them drive the others from the feed, two minutes' time will put in a partition. When the partitions are all in we have four box stalls, 7½x10 feet, each of which will accommodate two colts or four spring calves. The manure from the horse stalls is scattered in this shed every morning, and the stock keep it tramped so solid—that it does not heat and give off ammonia. We can use this shed from four to six weeks when we have four horses and ten calves stabled, before it gets so full that it must be cleaned. If I was building again I would make this stable sixteen feet wide instead of twelve.

We manage to clean out this stable when the ground is frozen, and usually take it out and spread it directly from the wagon on the field. This saves one handling, and as there is little evaporation in winter, the rains and snows take the soluble parts right down to the soil. I think we get the full benefit of it in this way with the least trouble. If the manure is needed for some special crop, such as sweet potatoes, or to manure in the hills for melons or cucumbers, we pile it at the side of the field where it will be wanted, and fork it over after it has heated once, so as to get it fine and uniform.

A manure heap should always be made flat on the top, when it is designed to get it fine for garden use, and in this way the heat will be uniform. The manure from the cow stable is wheeled out every day and scattered around the straw stack, so that it will be mixed and incorporated with the straw pulled down by the cattle, and all the corn-stalks from the mangers are also distributed over the barn yard. As this barn yard is so arranged that no water can flow into it, either from the roof or from the adjoining land, there is no loss from leaching. The cattle are kept at the stack on all pleasant days and they tramp the corn-stalks all to pieces, and always keep enough straw pulled down from the stack to give them a dry bed. If we find toward spring that they are not likely to use up the straw stack, we

cut down a small section at a time and scatter over the barn yard; or if we have room in the barn we take the last of the stack in to be used for bedding for the horses during the summer. But we aim to have the material in the barn yard ready to turn and compost by the time the stock goes to pasture. This manure is turned and rotted so as to be ready to top-dress the wheat land for the next crop, and by this means we have very little manure to haul over soft, wet land in the spring.

We find it a help in getting this "long" barn-yard manure in shape to feed our hogs on it for a little time in the spring, as they will work the surface over and put it in condition to rot. There is not a foot of our barn yard but is coated so thickly with straw and stalks as to prevent any loss of urine, and with from twelve to twenty head of cattle and horses we manage to work in to manure the straw from four to six hundred bushels of wheat and oats, and the waste from twelve to twenty acres of corn fodder, and to make near a hundred loads of manure a year; and as we also sow twenty acres or more of clover each year, we are keeping our land at a high state of productiveness, without buying fertilizers of any kind, unless it is an occasional sack of some brand of commercial fertilizer to experiment with, and compare the effects with our barn yard manure.

I often see on farms where corn-fodder is fed largely the stalks are left over a year or more before they would rot so as to be fit for manure, but if, instead of allowing them to accumulate at one side of the yard, they are spread and mixed with the straw and manure, they can be worked up as quickly and easily as straw. I have fed out twenty acres of heavy corn-fodder in a winter, and had all the manure in the barnyard where the waste was thrown ready for the field by the middle of April, and in nice condition at that.

In turning manure to rot and fine it, the more it is shaken apart and loosened the better it will heat, as it is air and moisture which cause fermentation, which is a slow combustion; and if at any time the heat becomes too great, so that ammonia is escaping, or there is danger of the heap fire fanging, it can be checked by tramping the surface solid, just as sure as the fire in the stove can be controlled by closing the damper. When handling horse manure, which heats quickly and violently, keep the heap perfectly flat and trample as solid as possible, but the barnyard manure, which consists largely of straw and broken stalks, and the manure from cattle is of a colder nature, and should at the first forking be thrown up in loose conical heaps or ridges, and as soon as fairly hot turn again into broad flat heaps or beds. Usually two ridges can be turned together to form one heap.

There is no work on the farm that pays better than that which is done to increase the quantity and improve the quality and condition of the manure; and when we realize the importance of this work, and give it the attention it demands, we shall be able to dispense largely with commercial fertilizers.—[WALDO F. BROWN in National Stockman and Farmer.]

A French writer says:—"Few colts are born with defective hoofs, and if, in riper years, such appear, the cause must be attributed to the farmer's vicious handwork. It may arise from his ignorance in this respect. The first shoeing ought to be done by an experienced farrier, one not likely to coerce or torture the colt, and so have an unhappy influence on its temperament forever."