

AGRICULTURAL.

[FOR THE BEE.]

PRACTICAL OBSERVATIONS ON THE STATE OF AGRICULTURE IN NOVA SCOTIA, AND THE MEANS OF ITS IMPROVEMENT.

No. 9.

METHOD OF MANAGING MANURE TO THE MOST ADVANTAGE.

MR. DAWSON.—Sir, The preparation and application of manure, may be said to be a desideratum in farming. As it is of such consequence to the success of the business, I shall be at particular pains in pointing out what I conceive to be the most advantageous method. A good many of those from the old country, think because it cannot be managed exactly in the same way as there, that it cannot be managed right; this is a hasty conclusion;—by varying our plan to suit circumstances, we may derive all the benefit from manure here, that can be had in any country. During the winter season, we may make as much from a given stock and heap; but there is a falling off in summer, from the cattle running at large. This, as yet, cannot be altogether obviated, but it might be partly so by housing the cows and work cattle during the summer months. Those who can manage to have a shed over the dunghill, will find it an advantage; those who cannot should have it put up as compactly as possible in a heap, and the situation ought to be such, as that there be no stream of water either to or from it. If it can be done conveniently, it is best in most cases to mix the different kinds of dung as they come from the hovels; if this cannot be done, care should be taken that the horses dung do not ferment excessively; if it does, open it out to let it cool when it gets white and dry it is almost useless. The dung heaps should be turned over in the beginning of April, or as soon as they can be worked with a grubbing hoe and dung fork, and the ice and snow thrown to one side, or on the top where it will soon thaw; though this is additional labour now, it will do more than save as much after;—it will then be easier filled into the carts and spread upon the land, at the same time in better order. If it ferments a little, it will be nothing worse, but a great degree is hurtful.

The quantity of manure may be increased by having a space beneath the floor of the hovels, one and a half or two feet deep, filled once a year with old straw, dry earth, or any other absorbent. There may likewise be a pit below the dung heap, filled with rotten potatoe tops, or any thing of the kind to absorb the sap that sinks from the dung which is in many cases lost. Some keep their dung over the year that they may get it composted. I tried the plan, but do not approve of it; there is a loss of at least 20 per cent, and all that is gained is the destruction of the seeds of weeds, which may be done by a cheaper method, as will appear after. It is during the process of fermentation or decomposition that the nutritious part of dung flies off in the form of gas. If this happen before being applied to the soil, it is dissipated in the air and mostly lost; whereas if applied in a green or unfermented state, the soil or crop growing there absorbs the gases as they evaporate, being their proper aliment. All putrescent matter that can be got, such as fish guts, bones, &c., are valuable manure.

In the application of manure, it should be studied to give cold heavy land that which will ferment the most readily, and dry sandy or gravelly land, that which takes the longest time to rot. There is a great loss often from not attending to this: when half rotten dung is put into a warm dry soil, the process of decomposition is over before the crop comes to maturity, and it is stunted or dies for lack of food, on the contrary, when green dung is applied to cold stiff clay, the decomposition may be so slow that the crop will not receive proper nourishment, and a failure ensues.

I come now to speak of stimulants, the uses of

which seem not to be well understood by some farmers. I have heard some say if they had plenty of lime they would not care much about dung. If they try the experiment they will soon be undeceived to their cost. An analytical illustration of the way in which stimulants (lime for instance,) act upon the soil, might not answer so good a purpose as a familiar simile. This we have in a healthy person who is fed upon plenty of good rich victuals, and who drinks pretty freely of the stimulant brandy; he soon gets fat whereas the same quantity of brandy drunk by a hard-working man, fed upon poor diet, would soon reduce him to a skeleton. In like manner, any stimulant applied to land that has plenty of dung, either put along with, or in the soil before, will be reduced to a skeleton. I have tried lime upon a limited scale, and have seen it tried on a more extensive one, without having that salutary effect looked for. This I could not account for in a satisfactory way until I recollected that heat has the same effect in the decomposition of most substances as alkaline matter, so that our warm summers do the same thing to us as lime to those where such a degree of heat does not prevail.

Yours truly,

OLD RUSTICUS.

No. 10.

PLOUGHING.—As I differ in opinion from a great many farmers about ploughing, I shall state my reasons for so doing as I go along. The most seem to think that if it be a straight and fine square furrow, that it is right; but a square furrow in every case is not the best. It is impossible to lay down any general rule that will hold good in every case. There are a good many things to be taken into consideration:—the exposure of the field—the kind of soil and subsoil—the season of the year—the intended crop, &c. If the field has a north exposure, to lay off the ridges from north-east to south-west will answer two good purposes, the plough will be easier drawn than to go fair up and down hill—and when rain falls it will not run too rapid in the furrows; fall ploughing should in general be deeper than spring, if the soil be poor and thin, it may be deepened by raising part of the sub soil and applying dung in the spring for beans, potatoes, or turnips; in ploughing grass land, if not very tough it ought to be flattened over with the sward side down, this will prevent the grass from growing, draw up moisture from the sub-soil, and leave no spaces between the furrows for mice or other vermin, and there can be a good deal more done, as, if the furrow be five or six inches deep it may be a foot broad. Again, in ploughing stubble land in the fall for green crop the ensuing season, it ought to be ploughed deep, and the furrows not very wide, say seven inches deep and nine wide, so that the furrows may sit on edge, in this way the water will sink to the bottom, the frost will act powerfully on the furrows, and it will be in good order for putting on the harrow when dry in the spring. In every case the ploughman should walk erect; if he stoop, it will bear weight on the handles of the plough and make it harder to draw; the land or left hand side of the plough, should form a right angle with the surface of the field, as in this position the plough is the easiest drawn, and the work the most neatly executed.

HARROWING.—Although harrowing is generally considered but of minor importance in the operations of husbandry, yet I have little doubt but loss is as often sustained from its not being rightly performed, as a failure in ploughing. Land should never be harrowed wet if it can be possibly avoided; neither should it be too dry in heavy land, or it will not pulverize properly. In harrowing old tough lea, the harrow should never be drawn at right angles to the line of the furrows: in angling the land the best direction is about 45°. It is a practice with some to give the land a single time of the harrow before sowing, this I do not approve of except where the land is very rough and holes between the furrows, there is little risk of

the seed being put too deep, and its growing in lines or seams will be no disadvantage—rather a benefit, as it will allow a current of air to pass along the field through the grain. In harrowing mellow land it is not enough to have the surface smoothed over, the teeth of the harrow should go nearly as deep as the plough. The more the direction is varied, the greater the execution will be from a given quantity of labour. I would say that three double times of the harrow is needed in most cases, and in some it is not enough.

Yours truly,

OLD RUSTICUS.

I regret that in the arrangement of my plan, I had not the selection of grain for seed to appear before the time of sowing. I would recommend to every farmer to be particularly careful in this respect: the soundest cleanest grain of every description ought to be chosen for seed. It is a trite saying that like produces like, this is applicable to the case in hand. Grain may vegetate that will not bring to maturity; hence smut in wheat and other diseases in the various kinds of grain. O. R.

PRUNING APPLE TREES.—It is a common practice to neglect, almost totally, apple orchards after they have been planted; and in consequence of this neglect, the growth becomes crooked and irregular—branches incline upon the ground, and become so numerous and dense as almost completely to shut out the sun and air,—they become stunted, and often become covered with moss, and the fruit small and of inferior quality.

Moderate and judicious pruning would contribute essentially to prevent this evil, and even to recover trees which have not too far advanced in this unthrifty state; but where they have long existed without care, and have grown old and become diseased, it is cheapest to remove them at once, and plant young and vigorous ones in their places. Doctoring diseased old trees is never to be recommended, except they are of some favorite, or choice variety.

It is not advisable to prune very freely, but to commence before the trees become very large, and by a frequent and moderate trimming, prevent the growth of a thick and crowded top. The operation should be so performed that the straightest and most thrifty branches may remain; and their distance asunder be such as freely to admit light and air.

In pruning, branches should be cut off as closely as possible, provided it does not occasion two broad a wound. The place is then sooner covered with a new growth of wood. In general, wounds more than an inch in diameter, should be protected from air and moisture. If not, they become dry and crack, and let in the rain and rot, or admit insects. Tar, mixed while heated with a quantity of whiting or pounded chalk sufficient to prevent its running, is an excellent application. Or nearly the same purpose is effected if brick dust, or even fine sand, be substituted for whiting.

Pruning apple trees may be advantageously performed any time during winter.—*Genesee Farmer.*

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[December 30.]