

part of a farm the advantage of being occasionally pastured.

8. To commence a lease with a meliorating system, but during the remainder of the term, to crop the land in such a manner, as to reap in moderation the advantage of the improvement that has been made. In farming a rotation, therefore those articles should be included, which are the most likely to afford a profitable return to the farmer.

These "maxims" which originally resulted for the most part, from practical observations and experience, are in many points, well supported by the more precise chemical results of our own day, and are well worthy of the attentive consideration of every farmer.

Communications.

PRACTICAL HINTS ON TILES AND TILE DRAINING.

BY ALFRED C. THOMAS, ESQ.

Windsor, Jan. 25, 1868.

MY DEAR SIR,—I understand you wish for information respecting the cost of tiles imported by me from New Brunswick. I have not Mr. Lee's list at hand just now, but as far as I can recollect it is as follows:—

1½ inch	\$8 per M.
2 "	9 " "
3 "	10 " "

I am not quite sure about the three inch being ten or eleven dollars, but I am of the smaller sizes. I have been hitherto using two inch; the freight costs me \$2½ per thousand. I have supplied a few out of my own lots to people about Windsor, and charged them 1¼ cents, or 20 cents per rod; this includes everything, and half a dollar for breakage.

As I have drained pretty much all the clay land with a sound clean cutting subsoil, I considered it necessary to lay tiles and collars for the future. I accordingly proceeded to New Brunswick on purpose to make arrangements with Mr. Lee to manufacture them for me, and I hope to get sufficient to finish my farm. I think if large quantities were ordered Mr. Lee would reduce his price still further. He also stated that if sufficient encouragement were given him, he would move his machine over to Nova Scotia and manufacture a certain quantity, and leave them with an agent to be sold. I think that when we come to consider that the tile yard is some miles out of St. John, and the tiles are all twice handled before they can be shipped, also the expense of wood near a large city, it is creditable to the manufacturer's enterprise, that after starting this business such a short time, that he can turn them out so reasonably.

Perhaps it is necessary that I should say something about the quality of the

tile, as objections have been made to them on that ground before. As regards the material, nothing can be better; they are completely burned, and very hard. The first lot turned out did not compare favourably for straightness with the Elmsdale tiles, and Mr. Lee acknowledges that they cannot make the round ones as symmetrical in form as he could wish, but he has succeeded in making the flat-bottomed ones beautifully straight. As I intend to use all the round ones, with collars, it does not matter if they are slightly misshapen.

With regard to digging the ditches, if you cannot succeed in getting them dug very narrow, one great advantage of tiles is lost. I have had some difficulty in getting the proper tools, and had it not been for the kindness of a gentleman who imported English tools and scoop, and lent them to me for patterns, my work would have been seriously delayed. Ordinary tools will do for all but the last spitting, but for that a peculiar spade and scoop are required. A four feet ditch should only be 1 ft. 6 in. wide on top, and slope accurately to about two inches in the bottom; many good ditchers make them narrower. I pay eighteen-pence a rod for digging and filling a four foot ditch. This is the New England average price. I may give a word of encouragement to intending drainers, that out of eighteen thousand feet of tile drain that I have laid, there has not been a single instance of failure; and wherever we have cut into old drains they have all been running, perfectly free of sediment.

I have made this longer than I intended, but my excuse must be the importance of the subject. I may have something to communicate this winter about the distance drains should be placed apart, and depths, strictly as applied to this climate.

Yours, very truly,

ALFRED C. THOMAS.

[We have to return our best thanks to Mr. Thomas for his valuable communication, and shall be glad to hear from him again, on the subject of distances and depths.]

To the Editor of the Journal of Agriculture.

S O O T.

SIR,—How often we find people otherwise well informed, who think to put seeds or plants into the ground is all that is needed; and how often I have been told, that the seeds purchased from me came up very well, then languished and died,—the fault always attributed to the seeds or the vendor, parties themselves not dreaming that a little care and attention on their parts would have saved them a disappointment. Thousands, aye millions, of plants are lost annually, for want of a little attention on the part of the grower.

I wish to call the attention of your readers to a substance, which, if rightly used, is one of the best protectors of seeds and plants. The substance I allude to is Soot; and no one who values his own success as a cultivator, will throw away any of this precious article. It is not only a protector of seeds and plants, but it is also a stimulant to the plant if used when growing. It is true it will hinder the vegetating powers of seed, if put in too close proximity of them, but, if judiciously used, it is invaluable. In the first place, to protect seeds from the numerous insects that infest most soils, give the ground a coating of Soot just before sowing the seed, and work it in well with a fork, rake, or cultivator, before the ground is made fit for the reception of the seed; by doing so the Soot will be so well incorporated with the soil, that there will be little danger of its affecting the seed, and it is so obnoxious to insects that they will beat a hasty retreat.

As the young plants appear above the earth, a slight sprinkling of Soot on a dewy morning, or just before rain, helps them to grow strong and robust looking.

The Brassica tribe, or "cabbage family," is very subject to having their roots what is termed "clubbed," and thus thousands of plants are lost yearly which would be saved by mixing equal quantities of soot, cow dung, and clay, with water, until they form the consistency of thick paint, in which dip the roots of cabbages before planting. This is what the market gardener round London calls "puddling," and will prevent the club.

Turnips can be saved from the "fly," by sowing Soot over them on a moist day, when they are an inch or so above the surface, and forming their first leaves.

Soot is invaluable for carrots. Six bushels to the acre, where only twenty-three tons were grown without it, thirty-four tons were obtained by its use.

Sown over the tops of potatoes, and worked into the ground between the rows, it is one of the most useful manures, and fifteen bushels to the acre increased the crop one-third.

Soot, from twelve to twenty bushels per acre, is good for all cereal crops when growing—six quarts of Soot to a hoghead of water. Two hundred and fifty gallons to the acre, diluted in this way, is a good invigorator to the grass crop when in a growing state; but there is no manure equal to fine coal ashes for this purpose.

Soot sown upon wheat or barley on a moist day and immediately harrowed in, especially if it be weak, or if from the wetness or coldness of the season it has a yellow cast; the stimulating powers of the Soot soon improves the colour, and the plant will soon tilt out and furnish the ground.

The best time to sow it is in the evening, when the weather is calm, and