

On Draining.

For the Farmer's Advocate.

In tile draining, it is very important that the bottom should be made on an even grade, whatever the fall may be. If some places are flat, with little or no fall, and other places further up the drain are steep, the sediment, or sand, will wash down and lodge in the flat places, thereby choking up the tile. Col. Waring, in his work on draining, says, "If the upper end of the drain has 6 inches to the 100 feet; no 100 feet below should have less." If the nature of the ground at the outlet requires that the bottom be very flat, say 2 or 3 inches per foot, make the grade very equal and use rather large tile; the size depending on the length of drain, and the amount of water to be carried. Then if the ground rises 30 that the grade of the bottom must become greater, say 6 inches per 100 feet, which is very frequently the case, there should be a sand basin made below the bottom of the drain, at the point where the grade changes. The size of this will depend upon the danger from sand wash. If the danger is not much, it may be made very easily by taking four bricks, and beveling the corners, so that they will, when set on edge, form a square, supporting each other when packed behind, and so on with the other four. If this is made 12 or 15 inches below the tile and 2 or 3 above, covered with a flat stone, and the place marked so that it may be examined and cleaned out occasionally, it will save a great deal of trouble. Of course the tile carrying in should be a little higher, than the one carrying out, and may be considerably smaller.

An excellent plan to make an even grade in the bottom, is to put up horizontal sights say five feet above where the bottom of the drain is intended; this is very easily done by getting a few strips of board 8 feet long and nailing them between stakes at each side of the drain at any desired intervals, keeping the upper edge level, and just five feet above the bottom. Carry the drain between the stakes and below the board, and with a measuring stick five feet long, frequently try the bottom, it being right when the top of the stick is level with the sights. In this way more work can be done with less trouble; and in draining too great care and pains cannot be taken to do good work.

F. MALCOLM.

Innerkip, March 3rd, 1875.

We would advise stretching a line over the horizontal strips which would be parallel with the line of the drain. In this case the strips should be high enough so that the line would clear the ditches head, say six and one-half feet high. Then with a rod of that length the ditch could be tried at any point.

Correspondence.**Change of Seed.**

SIR,—It is not very creditable to the intelligence of the farmers of Ontario that so few of them are aware of the great importance of a change of seed. It is well known, as a general rule, that the same wheat, the same barley, the same oats and the same peas raised on the farm are sown from year to year and for many years in succession. And, although the farmer plainly sees that his crops are getting lighter from time to time, it never seems to enter into his brain that sowing the same seed on the same ground repeatedly is one of the causes of failure.

The vegetable world, to a certain extent, is governed by the same rules as the animal one. A farmer, in this enlightened age, who would be found breeding his stock what is called in-and-in for a great many years in succession, would be reckoned a fit inmate for a lunatic asylum. In no instance should the same grain be sown for more than two or three years on a farm. It would be no great hardship, and not even attended with any great expense, for a farmer to purchase a fresh supply of seed. There are now plenty of reliable seedsmen who would furnish good seed for a small advance over what a farmer could sell his own for. There is one thing of very great importance to be observed in renewing seed, and that is, never get it from a warmer, but always from a colder climate than where it is to be sown. If proofs were necessary, the writer could quote various instances where a judicious change of seed nearly doubled the crop the first year.

EASTERN CORRESPONDENT.

Maitland, March, 1875.

[Our Eastern Correspondent's remarks on the necessity of changing seed are important and well-timed. Were confirmation needed, we could from many instances within our experience confirm his observations. Some objections may be taken, perhaps, to remarks about in-and-in breeding, but on this, too, there are differences of opinion. We shall always be well pleased to hear from our Eastern Correspondent.—Ed.]

Growing Turnips.

SIR,—One of the best crops of Ruta Bagas (Swedish turnips) I ever raised was in 1873, in the following manner:

The ground was sandy loam, oat stubble; gang-plowed early in the fall about three inches deep, and harrowed; the same again before winter; collected all the manure from stables and other sources up to Christmas, and spread on the surface; gang-plowed again in the spring, and harrowed. About the 12th of June I threw it in drills about 30 inches apart, then manured what was not done in the fall, the manure falling mostly in the furrows. I then split the drills and sowed with a good one-horse drill, sowing two rows at once; about two-thirds of the ground was sown with probably not more than 1½ lbs. per acre. The drill, by mistake, not being regulated to sow 2 pounds, as I intended, the remainder was sown at the rate of about 2½ pounds per acre.

They came up and grew well, those that were thinly planted being much the best plants. They were thinned out to 18 inches in the drill, and the ground kept clean and well worked. There was on the average about 700 bushels per acre, the best part of the field, or that which was thinly sowed, yielding about 800 bushels per acre, with a very heavy crop of tops. The leaves on many of them, when they were pulled, would spread a distance of four feet.

From my experience with this crop, I am deeply impressed with the importance of thoroughly working the surface, especially when the crop is growing. I also think this crop would not have been as good if the land had been plowed deep in the spring. In fact, as will be seen, all the plowing it got after the oats came up was with a gang of four plows about the depth above stated.

F. MALCOM.

Innerkip, March 1st, 1875.

[Mr. M.'s article on "Soiling Cattle" is unavoidably crowded out; it will appear in our next issue.—Ed.]

Disease in Sheep.

SIR,—In your issue of February I see an account of an infectious disorder amongst sheep, as described by a subscriber from Brailieboro, and in compliance with your wish, I will endeavor to describe an infectious disorder that has been in my flock of sheep from the 1st of October to January of the present year. About the 1st of October I was trimming before washing for the fall show; I observed three of the ewes running at the eyes, one in particular running considerable. However we trimmed and washed and paid little attention to them until show day; still their eyes kept running and getting more gummy.

After being shown in their class, I called the attention of the judges to the diseased ewes, and they were all of opinion that it was caused by a chill in washing in cold water. That, however, could not be, as their eyes were running freely before washing at all; however, next morning after the show, when let out of the pen, one of the ewes was blind as a bat, and remained so for three weeks.

The disorder by degrees went through my whole flock, although affecting my lambs and some newly imported ewes I had very little, none going blind. My breeding ewes suffered most; the majority went totally blind, others only partially so, owing to one eye getting a little better before the other was at its worst. I took in 20 ewes to my buck, and some would not be 24 hours on the premises until they showed symptoms of blindness. By taking in ewes and selling shearing and ram lambs the disorder has got well spread in this locality.

The only party I have heard of treating the disease successfully was Mr. Jas. Dobie, of Brock Township, by bleeding below the eye. The first four ewes went blind, and he bled them under the eye, say below the centre of the eye and cut to

wards the nose; he bled them freely, and they soon recovered. Before the next four ewes went blind, as an experiment he bled one eye in each ewe, and the eye bled never went blind but got better, while the one not bled went blind in each instance.

I never noticed, as mentioned by "Subscriber," a speck on the left eye. They all run at the nose more or less; some will run a week at the eye before going blind. After running at the nose, and particularly at the eye a few days, the eye became glassy, then a film spread over it, and the third day a thick skin of a blue color covered it, hence total blindness.

RICHARD PIET.

Ashworth P. O., Feb'y 22nd, 1875.

[This letter from our correspondent of Brock Township is such as must prove of value to sheep feeders. The affection of his sheep's eyes seems to be different from that of Mr. Fisher's sheep, as he has not seen any white specks on any of their eyes. But his accurate description of the eye disease and of the method of treatment give a value to his communication greater than any mere theory.—Ed.]

Queries.

SIR,—Will you please answer me the following questions through your paper:

How much Hungarian Grass seed to sow per acre, and will it do well on an old sod, or what kind of preparation should the ground have for it.

How early in the spring can an old orchard be trimmed to do well?

How much corn does it require per acre, put in with a drill, for feed or soiling?

A SUBSCRIBER.

Norwich, Feb'y 18th, 1875.

REPLY.—Of Hungarian Grass we sow one peck of seed per acre. If the season be moist, it may succeed on old soil, as you say, but we would not expect as good a crop from it under such circumstances as if the ground were in a good state of cultivation. All grass seeds do better, germinate with greater certainty and grow more luxuriantly if the soil be in good tilth. On the old sod more seed also would be required—say half a bushel.

Of corn to be sown in drill for soiling, about 2½ bushels per acre is the proper quantity. A Pennsylvania farmer's letter in this number of the ADVOCATE will repay our correspondent for perusal.—Ed.

Disease in Fowls.

SIR,—My fowls lose the use of their legs, stagger about and die in about five or six weeks. I have different kinds; the Black Spanish variety are the most affected by it. Could you or any of your readers please give me a remedy?

JAS. SHERLOCK, Thamesford.

[This disease in fowl may be caused by too close confinement, dampness of the fowl house, and perhaps too rich food. We would be obliged to any of our subscribers who have had experience in such matters to write to us on the subject.—Ed.]

Cocksfoot Grass.

SIR,—I see in your March number a cut of Cocksfoot grass; I have sought in vain for three years to find that plant, as I cultivated it for 20 years in England to great advantage. Please inform me in the April number where the seed can be had, and the price; also whether Italian, English or Scotch rye grasses will answer in this climate, and if English two-rowed barley will answer.

CHAS. HONEY, Warkworth.

New Grain.

SIR,—Knowing the interest you take in all kinds of new grain, I will tell you of a kind of wheat that I found in a field of Farrow wheat. It first attracted my attention by its long beard and heavy head, which, when ripening, bends over with its own weight. The straw is perfectly clean and very yellow; the grain is of a yellowish color, but longer than any spring wheat that I ever saw.—The head yielded 18 grains, which I dibbled singly in a row between other wheat, and while the other

wheat was badly the least. These or an average of Now, can you it came from?

Your paper is it.

Glenallan P. O.

[I send you a compare with you ent variety I don raising it until y it tried by other any better than good quality, yo for your pains. you could call it name you choose a few grains after —Ed.]

Ad.

By A.

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