THE CANADA FARMER.

VOL. XII.—No. 9. PUBLISHED MONTHLY. } TORONTO, CANADA, SEPTEMBER 15, 1875. { $1.00 Per Annum. SINGLE COPIES TEN CENTS.

The Field.

Cultivation of Winter Wheat.

EDITOR CANADA FARMER.—The following is my favorite mode of raising Winter Wheat, and the one adopted the past season, and the result is satisfactory. I took an old timothy meadow sod, that had pretty well run out to blue-grass and red top, ploughed it immediately after harvest, turned it over well, so as to completely invert the sod, harrowed immediately after the plough, before the ground dried. This will cause it to retain moisture in a dry season. I harrowed in the same direction of ploughing, and rolled with a heavy roller. This I consider very essential in a dry season. I applied a light coat of well-rotted barnyard manure, harrowed and rolled lengthwise with the furrows, until there is no danger of tearing up the sod. I then harrowed and rolled crosswise of the furrows at each alternate working; worked over in this way four times before drilling.

I drilled one and a half bushels per acre, about the middle of September, very shallow, rolled twice after drilling. The result was that my wheat was supposed to be the best piece of wheat in the neighbourhood.

To recapitulate. It is entertaining and instructive to me, and I presume it is so with many of the readers of the FARMER, to read of experiments of others in my own particular line of business, and especially when accompanied with some philosophizing on the subject. So I will give some of my reasons for the foregoing. I prefer a sod to fallow for the reason that there will be a certain amount of space between the furrow slice and the bottom of the furrow, which will facilitate the water in passing away from the roots of the wheat plants, and prevents them from being thrown out by the action of the frost.

Harrowing and rolling while the ground is fresh from the plough will cause it to retain a more uniform degree of moisture, and, if the season is very dry, will draw more moisture and be in good condition for sowing, whereas, if not so treated, it would be hazardous to sow. My piece of about ten acres, treated as per the foregoing, was so damp when I drilled it that the soil adhered to the wheels of the drill and to the roller, and I had to remove it by force with a shovel to secure perfect working of these implements; while most of my neighbors, with equally good chances for moist earth, delayed sowing, waiting for rain.

I expect to use a clover sod for the present season's sowing. I prefer sowing about the first of September. Some say this is too early on account of the fly, but I would rather risk the fly on a good strong growth than the winter on a young and weak growth.

Wheat, when planted deep, and it grows at all, will make a set of roots at the grain and another at or near the surface—say about three roots, more or less, at each place. Then, with the freezing of the surface, and consequent raising of the same, the wheat plant with the upper set of roots is raised also, while the grain, with the lower set of roots, remain stationary. The result is, that the connection between the two broken, and the stalk is left to subsist by the three roots instead of six, losing all the nourishment which it should have from the grain and all the roots it sees fit to put forth.

Now, if the grain is planted at or near the surface it will make all the roots there, and, when the soil is raised by freezing, the grain, with all its roots, goes up with it, and, when it settles, all go back together, with little or no breaking of roots, which every one must admit would be beneficial. I don't want wheat planted deeper than an inch, would rather have it less if I can secure perfect germination.

Roll the ground and pack it as much as possible, as this will assist in resisting the action of the frost. You cannot get it too hard if you can but get the grain covered. Mine gave the best showing in the road where most of the manure was hauled over, rendering it almost as solid as the public road. The same evidence is to be seen in every field of common culture. The crop on that part of the field adjacent the turning row, whether near a fence or not, is uniformly better than that on other parts of the field. This cannot be because of better ploughing or harrowing, since the reverse is the case—it is not so well done as on other parts of the field.

Last winter was one of unusual severity, extremely hard on the wheat, which, together with the cold spell of the 15th, 16th and 17th of April, combined to give the wheat crop a hard rub.

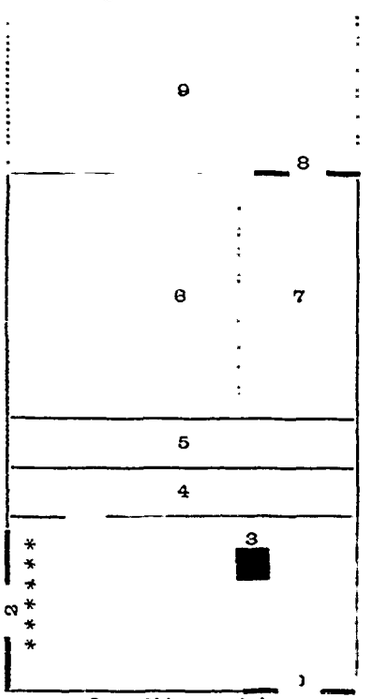
The amount of cultivation in harrowing and rolling which would be best, before and after drilling, will depend on the season and condition of the soil. If the season is dry and the soil loose, it cannot receive too much; but if wet, cultivation should be deferred. Cultivate only when the soil is in proper condition.

WM. FERRIS.

Pleasant Plain, Warren Co., O.

Plan for Hog-Pen.

EDITOR CANADA FARMER.—I enclose a plan for a hog-pen, which I hope will suit your correspondent, "J. M. R." I give the ground plan only. The builder can furnish the elevation. A balloon frame is the cheapest that can be adopted, unless in the backwoods, at a distance from a sawmill, when it might be built of logs, dovetailed at the ends and flattened on the sides. The dimensions are 30 x 20 ft., and 12 ft. high. A bearer, about a foot square, is



SCALE—10 feet to an inch.

1. Door. 2, Window. * *, Swill Barrels. 3, Furnace. 4, Feeding space, 3 feet wide. 5, Trough, 2 feet wide. 6, Bed space, 15 by 15 feet. 7, Board 6 in. high, to keep up the litter. 8, Door. 9, Yard.

to be placed across the building, fifteen feet from one end, and four feet from the floor, under which should be suspended, by strong hinges, a partition of inch boards, about 24 inches wide and 2 feet long, less the thickness of the sides of the building, which should be lined with boards.

A trough, divided into as many compartments as there are pigs to be fed, should be placed under the beam, so that the hanging partition can be pushed to the inner side of the trough, and kept there by a long wooden or iron button, whilst the food for the pigs is placed in the trough, so that the feeder need not spill the swill over the pigs' heads. The hanging partition should then be pulled to the outer side of the trough, next to the feeding passage, and kept there whilst the pigs are feeding. After they have done, it can be pushed to the inner side of the trough again, and kept there by the button, so that the pigs may have no access to the trough till the next feeding time. If this is done, the pigs are likely to get into the habit of lying quiet during the intervals of feeding, which should occur with the regularity of clock work. If the trough is always accessible, they will soon acquire a habit of rising up and going to the trough when there is nothing there for them to eat; but when they are accustomed to have as much as they can eat at regular intervals they fatten quicker.

A partition should divide the building into two parts, one 20 x 10 ft., the other 20 x 20 ft., of which 3 feet is to be allowed for a passage, 2 feet for the trough, and 20 x 15 feet for the pigs. A small doorway near one end of the compartment will allow the pigs free access to a yard behind, which is marked on the plan as 10 feet wide, although if larger it would be better.

The pig is naturally a cleanly animal, and will never dirty his bed-place if he can avoid it. This yard might be enclosed by a fence of split pickets, pointed at one end, and driven firmly into the ground by a heavy beetle. Four feet high ought to be enough, so that a waggon-load of dry loam may be occasionally thrown over into the yard, which will effectually prevent any unpleasant smell, and also increase the quantity of manure, and a basket of charcoal might be occasionally thrown into one corner of this yard.

As eight feet high inside is sufficient, joists may be laid across the frame at that height, to support a floor of rough boards, which, if covered with two or three inches of dry loam, will keep the pen warmer in winter, and also serve as a winter fowl-house, for which purpose the building should stand north and south, and a large window with a grating over it placed in the south gable, so that the fowls may have plenty of sun and air in the winter. A step-ladder would lead from the outer compartment to the fowl-house. This compartment being 20 x 10 feet, will afford sufficient room for an agricultural furnace, and also for some swill barrels, as the food is the better for standing a day or two before being given to the pigs.

A ventilator opening over the feeding passage should be carried up through the roof, with Emerson's patent cap on the outside, so that whenever there is any wind at all, there will always be a steady draught. A small shutter at the bottom may be used to regulate the draught, as I consider it a bad plan to keep store pigs in a close pen during the winter, which is often productive of disease. If they are kept dry, with a good bed, and are well fed, with a free circulation of air, no amount of cold will hurt them in the winter. A four-light sash may be placed at each end of the outer compartment. The small door leading to the yard will give light enough for the pigs; the less light fattening animals have the better. The doorways on the plan are marked so as to break the draught whenever the outer door is opened.

This plan, with some improvements of my own, I have seen in the Province of Quebec. If a winter fowl-house is not required, the frame may be 8 feet high in the clear, instead of 12 feet; and if accommodation for a larger number of pigs is required, the building may be extended to any length required, but then it should be divided into two or more compartments, so as not to have too many pigs shut up together, as the larger pigs are apt to overcrowd the smaller ones.

SARAWAK.

A WEED DESTROYED before it ripens its seeds may save the labor of destroying a hundred next year.