



VOL. XI. No. III.  
(NEW SERIES)

TORONTO, CANADA, FEBRUARY 2, 1874.

\$1.50 PER ANNUM.  
SINGLE COPIES 8 CTS.

## The Field.

### Abandonment of the Furrow.

It seems that the introduction of steam in England as a motive power for the tillage of the soil, is resulting very extensively in the abandonment of the furrow system of culture, and the substitution for it of a system of soil-stirring, similar to that produced by the sub-soiler. In other words, the steam-plough is bringing about the abolition of ploughing. In all stubble and fallow work, a deep-tined grubber or cultivator is used instead of the share, and the soil is torn up and loosened without being reversed. The tillage is deep, but the soil is kept at the top, and the sub-soil is simply loosened where it lies. By this means, the chief advantages of deep ploughing are secured without their attendant evils. The soil is opened to the action of the air and moisture, is well drained and protected against drought, without the richer surface soil being buried away out of reach of the influence of sun and air, and of contact with plant roots. It is a common-sense and effective system of cultivation, and one which is worthy of experimenting on in horse as well as steam tillage. More power is needed to overturn and reverse the position of the soil than is requisite merely to stir and loosen it up, while it is manifestly of advantage to retain the best soil near the top, so as to promote the early and rapid growth of the young crop. We believe that much of the difference of opinion as to the comparative merits of deep and shallow ploughing, may be traced to diversity of methods. To bury a rich top-soil below a hungry, barren subsoil, can only result in disappointment and loss, and this is why so many who have tried it report against deep ploughing. They have embalmed the wealth of the land, but put it out of reach for present use. But deep tillage by means of grubbing, tearing and loosening the soil must be beneficial, and the more the land can have of it the better.

### Ploughing in Winter.

Our newspapers have recorded several instances of ploughing in January the present season. This is unusual for a climate like ours. No doubt most people regard such cases of winter ploughing as mere feats to brag about. But the fact is, it is desirable to plough in winter, if it can possibly be done. A correspondent of the *Country Gentleman* gives his experience and views on the subject of winter ploughing in a recent number of that journal, as follows:—  
"It is not often that winter ploughing can be practiced in this (43d) latitude. But when it can I have found it to be of the greatest advantage, especially if, as now, it is preceded by frost penetrating the arable soil. It is sure to come up mellow, unless unusually heavy and compact, and then greatly ameliorated. The advantages beside this mellow con-

dition, are not a few, some of which cannot be obtained otherwise. The ground is freshly thrown up to the cold air, or at least cold enough to chill and benumb what vermin may be exposed; the frosty nights alone would do this. The seeds of weeds that had some protection in the deep soil are now fully exposed, the frost, rains and snows having a great influence. Then this fresh soil, disintegrated by plow and frost, is thus laid open through its pores to the immediate influence of the elements, which further disintegrate and mellow it. Besides, there is less snow to pack now, part of the winter having passed. The plowing is between the fall and spring plowing, and partakes of the nature of both, getting the full benefit of both in addition to its own special advantages. There is, to a greater or less extent, the looseness of the soil deep down which we get in spring plowing, also the absence of grass and weeds which get started in fall plowing, especially when early performed. The gain in work which we get in fall plowing is also secured in winter plowing, a time when there is no farm work done, unless specially favored with mild weather. The gain, therefore, at a time when labor is worth little, is considerable. The land newly and loosely thrown up will also take in the rains and melted snows, and gradually pass them off instead of keeping the more compact body of the soil wet, sometimes visible on the surface. Fall plowing will show this in the spring very frequently. It is seldom seen on land plowed in the spring or winter, particularly late winter. Further, there is no evaporation of the fertilizing gases of the soil, which the direct heat of the sun in summer produces. The fertility of the rains and snows is retained.

"I have had the chance offered me several times during the course of my life for plowing in winter. Uniformly, the results have been good. Perhaps we ought to expect some wet places, which plowed at any time, without under treatment, would have done poorly. But, in the main, there was a mellow opening in the spring, and an earlier chance for working—the soil being porous, and drained beyond what was usually its condition, so that it was fit for the harrow several days (and possibly a week) earlier than would have been the case with fall plowing. This is the land for seeding down. It can be done early and on the best of seed beds. The grass seed or clover brushed in, there can be no failure if the ground is rich enough. If not rich enough, manure may be drawn on it and spread immediately after plowing. This may also be done on any plowed land open in winter, and it should be done then if neglected in the fall.

"Our summer was a cold one. The cold continued through the fall and into December, and in addition to the snow gave us a full winter in effect. If there is a law of compensation in the weather, the rest of our winter, or a part of it, ought to be mild, so also prophecy and scientists. Already this seems to have taken place. To-day, December 12th, the snow, which was two feet in depth, has about all disappeared, and there is little frost left in the ground. There is, therefore, a prospect for an open and mild winter. It needs not many favorable days to prepare the ground for the plow. Farmers should keep themselves in readiness to test the matter should the weather favor them. Land plowed early in the fall may be re-plowed now to advantage, if the weather admit. But in no case plow if the land is not dry enough. Do not think the frost will remedy it. It will do it only in a measure—not sufficiently to counterbalance the hurt. If it comes up mellow, or loosened of sód and not greasy, it is in the right condition for the plow. Plow as deep as the land will bear."

### Premium Potato Growing.

Last spring, the Messrs. Bliss and Sons, prominent seedsmen in New York City, being anxious to disseminate some new varieties of potatoes, and at the same time show what good cultivation would do, offered \$500 in premiums for the largest yield of the Early Vermont and Compton Surprise, two recent seedlings of considerable promise. The conditions were, that the competitors should make oath as to the accuracy of their statements respecting mode of culture and quantity of product; also, that they had resorted to no other mode of propagation than that of planting in the usual way—no forcing or propagation by means of slips having been resorted to.

The results have been published, and are certainly most remarkable, as proving what high and skillful culture would do in so old and worn a rut of husbandry as potato-raising. We are indebted to the *New York Tribune* for the following account of the best yields obtained in this important contest.—

#### EARLY VERMONT.

First premium, \$100, to J. I. Salter, St. Cloud, Stearns county, Minn., 609 pounds.

Second premium, \$75, to H. C. Pearson, Pitscain, St. Lawrence county, N. Y., 437 pounds.

Third premium, \$50, to J. L. Perkins, Little Sioux, Harrison county, Iowa, 393½ pounds.

Fourth premium, \$25, to Thomas J. McLeod, Black Brook, Clinton county, N. Y., 380 pounds.

#### COMPTON'S SURPRISE.

First premium, \$100, to Abednego Robinson, New Market, Rockingham county, N. H., 511½ pounds.

Second premium, \$75, to H. C. Pearson, Pitscain, St. Lawrence county, N. Y., 450 pounds.

Third premium, \$50, to J. I. Salter, St. Cloud, Stearns county, Minn., 394 pounds.

Fourth premium, \$25, to Franklin A. Smith, Stone Church, Northumberland county, Penn., 375 pounds.

The most conspicuous of the competitors who just failed of securing the premiums, but whose success was highly creditable and deserving of honorable mention, are included in the following list:—

#### POUNDS.—Early Surprise prize

A. W. Titus, Wilmington, Windham Co. Vermont.....	251	370
Saml. Neal, Wycocena, Columbia, Co. Wis.	320	276
E. S. Brownell, Essex Junction, Chittenden Co., Vermont.....	335	368½
Leonard Wood, Morrisville, Lamoille Co., Vermont.....	223½	320½
H. P. Sharpless, Fairville, Chester Co., Pa.		333½
Eugene E. Graves, Black River, Jefferson Co., N. Y.....		325½
James K. Aten, Belvidere, Warren Co., N. J.....		350
David R. Wood, Morrisville, Lamoille Co. Vermont.....		369½
Fred K. Seiler, Verona, Essex Co., N. J.....	131	384½
H. S. Goodale, South Egremont, Berkshire Co., Mass.....		319½
Robt Sutor, Brady, Indiana Co., Penn.....		336
Chas. Whiting, Jasper, Steuben Co., N. Y.		397

We have evidence here of what may be accomplished in the way of increasing production by selecting choice seed, manuring well, with suitable fertil-