



VOL. X. No. VI.
(NEW SERIES.)

TORONTO, CANADA, MARCH 31, 1873.

1.50 PER ANNUM.
SINGLE COPIES 8 CTS.

The Field.

The Oat Crop.

By Mr. Walter Riddell.

At a meeting of the township of Hamilton Farmers' Club, held at Cobourg, on March 22, 1873. Mr. John Pratt, President, in the chair. The subject was "Oats and their Cultivation," which was introduced by Mr. Walter Riddell, the Secretary; he said: The botanical name of our common oat is *Avena Sativa*. Its native country is unknown but most probably it came from Central Asia. There is no mention of oats in the Old Testament; we are told that Solomon fed his horses and dromedaries on barley. Oats were however known to the Greeks, who called them *Bromos*, and to the Romans who made use of them as provender for their horses, early in the Christian era. The oat is better suited to a moist than to a dry, and to a cool rather than to a warm climate, though their field of cultivation does not extend quite so far north as that of the coarser kinds of barley. In Scotland, oats are grown to the extreme north point; in Norway their culture extends to north latitude 56°, in Sweden to latitude 63° 30', in Russia these polar limits appear to correspond with those of rye; south of the parallel of Paris, oats are little cultivated. In Spain and Portugal they are scarcely known, yet they are grown with considerable advantage in Bengal.

The different varieties of oats are very numerous. There has been quite a rage of late years for new varieties, which have been sold at enormous prices. Of these the Surprise oat, and the Norway oat, are well known examples, both of them being now widely spread. Whether they are any better, or more prolific than the older varieties, remains to be seen when they have been longer and more generally grown, under ordinary cultivation. Some twenty years ago, there were 54 varieties of oats in the Highland and Agricultural Society's Museum, at Edinburgh. We have all heard of Dr. Johnson's defining oats as "food for men in Scotland, and horses in England," and the sarcastic comment "and where will you find such men as in Scotland, or such horses as in England?" For feeding horses, no grain is so much esteemed or so universally used for this purpose. In Scotland, Ireland, the north of England, and some parts of Germany, the oat furnishes a considerable portion of the usual food of the people.

The wide use of oats, and the ease with which they are raised on almost every kind of soil from the heaviest clay to the lightest sand, have won them a place in almost every rotation of crops grown amongst us; yet I believe there is no other cereal crop that receives so little attention from us, as our oats. Land that is too wet, or too poor, or too dirty,

or that cannot be got ready in proper season for wheat or barley, is sown with oats. They seldom get the best land on the farm. Most of us grow them because we must have them for feeding purposes, rather than for a market crop. Many of our farmers place their chief dependence upon their wheat crop, others upon their barley, and some upon peas, but none grow oats as their principal crop. Of all the plants cultivated in the field, oats are said, to have the greatest power to draw nourishment from the soil, and hence are considered as a very exhaustive crop. Some farmers on this account prefer buying all the oats they want, rather than grow them on their land. Where the soil is well adapted for growing wheat or barley, which bring a better price, this may be a judicious plan; but as a general rule it is always more profitable to raise oats for home consumption than to trust to a fluctuating market. With proper management on good land, a crop of oats may give as great a profit as any other crop—when it is considered that it requires less manure, and produces a large bulk of straw for the winter food of cattle and sheep, supplemented with turnips or other roots. In the part of Scotland where I came from, oats were the principle crop. The best crops of them were grown upon green sod, after land had lain in grass for two, three, or more years. Or if land was taken in and broken up, that had not been ploughed before, it was sown with oats, and gave generally large, bulky, crops—in some cases rather too much straw. In this part of the Province sowing oats on green sod does not seem to answer so well, probably from the dryness of our seasons; and then peas do so well on green sod, it is better to sow them on it as they are a profitable crop. Oats are generally sown here after wheat or barley. In the cultivation of oats, I have always had the best crops of grain when the land was ploughed in the fall, and sown as early as possible in the spring; but have had full as large crops of straw if the ground was ploughed in the spring, and sown rather late. If the land has been ploughed in the fall, I prefer to cultivate the ground in the spring, across the ridges, and use from two to three bushels of seed to the acre. They seldom receive any top-dressing or manure; though they would pay for either as well as any other grain crop. Though oats are harder than wheat (and will grow on soils not suitable to it), or any other grain crop; and though in mountainous sections where the soil is too cold and wet for other kinds of grain to grow, they will frequently give a good return:—yet, like all other grains, they thrive best on deep rich soils, and give the greatest returns on such soils. Oats, in whatever way they are harvested, are almost always bound up in sheaves. They are a nice clean grain to work among, pleasanter to handle than any other grain, and are all the better if cut before they are dead ripe. The straw is much better feed, the

grain is fairer, and thinner in the skin, and there is less waste in harvesting them. Oats require to stand longer in the stook than either wheat or barley, as they are very apt to heat when taken in too soon. For this reason many farmers prefer to let them lie a day or two unbound after they are cut; but the straw is better, and there is less waste of grain, if bound and set up as they are cut, and then allowed a sufficient time to dry in the stook. There is one kind of oat we are happily free from in this section; I mean the wild oat that is so common and so troublesome in some of the western counties of this Province. This weed is supposed to have been first introduced into Canada by some German emigrants; and when once they got into the ground they are very hard to get quit of. It is said they are as bad as our *charlock*. From the census returns of 1851 we learn that the quantity of oats grown in the Township of Hamilton was then 3075 acres, yielding 102,693 bushels, or an average of 33½ bushels to the acre. The county of Northumberland then returned 18,099 acres in oats, yielding 534,560 bushels, or 29½ bushels to the acre. In 1851 the Province of Upper Canada had 413,058 acres, yielding 11,391,681 bushels of oats, or 27½ bushels to the acre, and in 1861 it had 678,337 acres, yielding 21,229,874 bushels of oats, or 31½ bushels to the acre.

Go Gradually Deeper.

There can be no doubt that other things being equal, a deep soil is preferable to a shallow one, but it is quite possible to deepen the seed-bed injudiciously and injuriously. When the top-soil is a mere surface-coating, and the sub-soil hungry and barren, the deepening of the soil must be a work of time. To bury the thin stratum of good soil, under a mass of poor soil, would be most unwise; yet we have known this done, and then in view of a meagre harvest, deep ploughing has been denounced as a delusion and a snare. The true course in such a case, is to put the plough down an inch or so deeper each time, and if possible, give the land a good dressing of manure at every ploughing. In this gradual way, a deep soil and a rich one may be secured at one and the same time.

Deep ploughing secures to some extent the benefits of drainage. Nothing is more detrimental to the life and health of plants, than the continuous immersion of the roots in stagnant water. Trees are often killed in this way by the back-water of mill-dams. In wet seasons, crops on shallow soils that rest on retentive sub-soils are drowned out. The deeper down the ground is stirred, the less danger there is of this.

Deep ploughing enlarges the farm, it gives more land to the acre. The rage is usually for broad acres, but deep ones are far preferable every way. Farmers generally cultivate too much land. If they would till less and do it better, if they would go down in