



The Field.

The Grain Crop, and when it should be Harvested.

Autumn has come again with its rich store of golden grain to cheer the heart and compensate the toil of the husbandman; and from each waving field is heard the hum of the reaping machine, and the cheerful voices of the "bone and sinew" of the land engaged in securing the crops.

Our accounts from all sections of the country are very encouraging to the farmer, for while in a few districts the fall wheat is not so good, and while in the most favored sections it was partially winter-killed on heavy clay lands, yet we are assured that fall wheat all over will be considerably above an average crop, while spring grain of all kinds will be heavy. On the whole, appearances indicate a prosperous year for our Canadian farmers. Our personal observations go to show that where the fall wheat has been winter-killed it is due in a very large majority of instances to the want of shelter, caused by the indiscriminate cutting down of the woods when farms were being cleared or reclaimed from the forest; and we would fain hope that in the many new districts in which the same process is now going on, due regard will be had to this most important point, and that belts or groves of timber will be left standing to shelter the neighboring fields from the chilling northern and western winds of our Canadian winters. A farm protected by woodland from the north and west is, under circumstances otherwise equal, worth several dollars more per acre than a farm exposed in these quarters. Our American neighbors in the older settled states are becoming alive to this fact; hence we hear of an extensive amount of tree-planting in these states, and of pecuniary inducements offered from public and local funds for its encouragement.

While it is gratifying to find a steady advancement not only in the cultivation but also in the harvesting of the crops, we yet fear that a large number of farmers do not pay sufficient regard to the proper season for cutting grain. If it is true that "knowledge is power," it is no less true that knowledge in this particular is wealth. It is well known that wheat, for instance, if cut too early shrinks and becomes shrivelled, and will consequently command a less price than when well filled and plump; and it should be equally well known that if left standing uncultured too long it deteriorates in quality, and the farmer thus loses in the quality of the grain in addition to the loss from shelling out incident to over-ripe grain. It has been found that the proper time to cut is at the period when the grain can receive no more growth from the root. It then contains the largest amount of nutriment, but it is very difficult to determine when that precise period arrives, and

it varies with the different varieties of wheat, and is so much affected by a wet or dry season as well as by a moist or dry soil, that it is impossible to lay down any definite rule for it. When it is found that round the outside of the field the grain has become of a white straw color, and shells readily when rubbed in the hands, and that the kernel when crushed with the nail discloses a powdery, starchy appearance without being pasty, it is then time to cut it down. The hardening and a considerable portion of the ripening should take place in the shock. What has been said of wheat is true in a greater degree of spring grains, especially oats, in which there is a large waste from shelling out if cut too ripe.

Another noticeable feature is the extent to which, of late years, machinery has taken the place of manual labor. The *cradle* has, in the older settled districts, become a thing of the past, and a field which under its *regime* required six cradles, six rakers and binders, and a man to shock, can now be cut down in the same time by one reaping machine and five binders. We speak now of the average cradler. We have heard of cradlers who claimed to cut four acres and upwards in a day; but while we do not dispute the existence of such, they were like angels' visits, few and far between, and our experience leads us to the belief that half that quantity is much nearer the *average* day's work. The use of the reaping machine is an important aid to the farmer in shortening his harvest, thus enabling him to cut his crops at the proper season. In a dry hot season crops ripen very quickly, and two or three days will seriously injure them; and it was no unusual thing for a farmer to commence cutting with the cradles when his grain was in splendid condition, and yet from a scarcity of hands have a considerable portion of it too ripe before it could be harvested.

A comparison of the cost of harvesting under both systems will however show that the machine is in itself a profitable investment from a direct pecuniary point of view. Thus, in cradling 60 acres of grain, the cost would be somewhat as follows:—

5 cradlers, 5 days @ \$1 75 per day.....	\$43 75
5 binders, 5 " @ 1 75 "	43 75
1 shocker, 5 " @ 1 75 "	8 75

Or about \$1 60 per acre..... \$96 25

And with the reaping machine—

1 driver, 5 days @ \$1 75 " day..	\$ 8 75
5 binders, 5 " @ 1 75 "	43 75
1 shocker, 5 " @ 1 75 "	8 75

Or about \$1 02 per acre..... \$61 25

Showing a balance in favor of the machine of \$35, being nearly one-fourth of its cost, or an interest of about 22 per cent. on the amount invested.

PARIS GREEN in water, put on with a wisp of hay, is the method the Michigan Agricultural College is pursuing for destroying the potato bugs, and with the best results.

Destroying Weeds.

Weeds are the common enemy of every cultivator of the soil, no matter how limited or how extended his operations. They are arrayed against us as a formidable army, ready at all times to make a raid upon our fields; they come by night and by day, stealthily and almost unobserved, to pillage, plunder and lay waste our crops. A war of extermination should be declared against them, and fought out on every farm the coming season.

Weeds consist of a variety of kinds—annuals, biennials and perennials, many of which are native, but the majority are imported, and being as a general rule of a more succulent growth than most of our crops, they at once appropriate the fertilizing properties of the soil, the dew, and the air, to the manifest detriment of our crops; consequently every weed that grows is a tax upon our industry and our profits. The old maxim, "one year's seeding makes seven years' weeding," is one which it would be well to heed, and now, in making preparation for seed time, be particular that all seed grain is properly cleaned, and free from fowl seeds. Run it through the fanning mill until it is perfectly clean. The same care should be exercised with grass seed when stocking down, also to have the manure thoroughly decomposed so that as few seeds as possible may be left to vegetate from this source. Proper care in these initial matters will save trouble and expense.

Plant weedy fields with hoed crops after thorough ploughing and harrowing, and keep well tilled during the season. Pull up all weeds from the fence corners if there are any, such as thistles, burdocks, cocklebur, etc., dry and burn them. Weeds can be destroyed at a small expense of time and labor when just appearing above ground, but if suffered to grow till partially mature, the expense is very largely increased, and the damage to the crops proportionally greater. There is no work more necessary, or that pays better, than the prompt destruction of weeds, and a little labor at the right time properly directed, often makes just the difference between a crop that barely pays expenses and one that insures a good profit. Make clean work of the weeds in all cultivated fields; do not cover them up and attempt to smother them, and have them spring up in a few days with renewed freshness; but cut them up thoroughly, leaving them on the top of the soil to wit and die; remembering always that extreme vigilance is the price of good crops.

Every farmer should study the habits of weeds, so as to be able to subdue them with the least outlay of labor; this is almost as necessary as to know the habits of the crops we cultivate. Different kinds of weeds require different treatment; what will kill one only serves to spread another.—*Cor. Country Gentleman.*