

The Second Crop.

It is a mistake to suppose that land recuperates by leaving it in bare stubble during the autumn months. We usually have a spell of hot weather after the cereal crops are harvested, and this is the time when more fertility is usually lost than at any period during the growth of the crop. When the weather is warm a fertilizing class of salts called nitrates is formed from the organic matter in the soil, and unless a crop is on the land these salts will be washed away in the drainage water. If a plentiful crop of grass or weeds spring up this loss will, to a large extent, be averted, and the soil will be protected from the scorching rays of the sun, but the injurious effects of the weeds on the succeeding crop necessitates their destruction at the earliest possible moment after the removal of the crop. These facts prove the advantage of late-growing crops, such as roots, which have their longest period of growth after other crops are taken off. This end can only be attained on stubble land by the raising of second crops, such as winter rye, millet, etc.

Millet rotates well after early oats; and, in a favorable season, will be sufficiently mature for cutting in six or seven weeks, after which, under the best system of farming, fall wheat may be sown. But the farmer says that the season is usually too dry, and that millet is an exhaustive crop. Both of these objections are arguments on the other side of the question; if the season is hot or dry so much greater is the necessity for soil protection, and an exhaustive crop is invariably more profitable than a crop that is easy on the soil, there being little nutriment in a crop that takes little fertility out of the soil.

Of course in such a case the soil needs liberal manuring, but this is another source of profit. The sowing of millet would be a risky adventure if the mere value of the crop as fodder is taken into consideration. If the crop is a failure so far as its usefulness for fodder is concerned, there still remains a gain; for in addition to its value as a soil protector, the grass may be eaten off by the stock or plowed under as green manuring.

Most farmers must have already found out that, with the present high prices of land in Ontario, it does not pay to depend upon grazing alone as a means of producing the best dairying or beefing results in summer. It is not advisable to make a sudden leap from the pasturing to soiling, but a compromise should first be made, that is the retaining of a pasture, say one or two acres for each animal, making up the deficiency of grass by soiling. Now is the time to take this question into consideration for next summer. Winter rye should be sown before the fall wheat, but in case of a push of work it may be sown after. It may be eaten off by the stock in late autumn or early spring. During the following summer it may be cut early for soiling at intervals of three or four weeks, or may be plowed under in spring as green manuring, and any other crop sown on the land. Some farmers have tried winter rye with unsatisfactory results, because they have fed it exclusively to the stock. The failure was due to a lack of the knowledge of feeding. Rye contains an excess of fat-forming substances, and consequently cannot safely be

fed alone for any considerable length of time. In spring it may be fed for a few weeks until the clover comes in, rye and clover making an excellent ration for all kinds of stock. Farmers who will give this question careful thought and trial will soon find that the objection of "no time" is very weak, so long as help can be procured.

Winter Wheat.

Which is the best variety to sow? is now the question. Sow the variety that is answering best in your locality, on land of similar quality to your own. On light, sandy, or early maturing lands, the white varieties, such as the Clawson, and even the Diehl wheat, have advantages, and are yielding well; but on the heavy clay, or later maturing lands, the Scott and Democrat appear to give better satisfaction than the white wheats, and answer as well on the light lands.

The midge appears to be increasing in its ravages, and seems to be pretty general over the western part of Ontario, and has done considerable damage to some fields. Some varieties appear to have suffered from its ravages more than others. The variety known as the Michigan Amber, which had grown into great favor in many localities, and was thought to have been tolerably exempt from its attacks, has suffered very severely this year. This wheat is known in different parts of Canada under different names: for instance, it is called Egyptian in some places, in others the Reliable, but we believe it was first introduced as the Michigan Amber. The Democrat appears to withstand the attacks of the midge the best of any variety we have examined. We have seen many pieces in different counties, but our principal observations have been in the townships nearest to our office. The test field of Pearce, Weld & Co. furnishes a valuable guide. They have a very large variety of new wheats sown in blocks, which give an excellent opportunity for seeing the natures of the different kinds. The land on which they have their tests is a loamy clay, having a stiff clay subsoil. Their fall wheats were sown rather late. Every variety of wheat was more or less rusted, some were damaged much more by the midge than others. The three best varieties in the experimental plot of fourteen, which they say are the newest sorts, were the Democrat, Martin's Amber and Landreth.

The Democrat is now well tried, and we feel that we did a good service when we went into Ohio and purchased that wheat. We believe every one who procured our four ounce packages of that wheat and took care of it, has been amply rewarded, and the gain to the country from its introduction has been and must be something enormous. There is no wheat that we can commend to you in stronger terms for sowing this fall, on either clay or sandy soils. The Scott wheat we also look upon as one of our children; in some respects it has its advantages. These two varieties on strong wheat land we consider have yielded the best during the past year, and we believe we are right in commending them to those who are undecided which variety to sow. Those who wish to raise a whiter wheat, and have land suitable for the

growth of the Diehl and Clawson varieties, we would not advise to abandon the white wheats. Even the old hardy Mediterranean wheat is still doing good service, and for hardiness is not easily surpassed; in some localities it is still preferred. The new Hybrid Mediterranean appears to be a wheat of promise. It is our opinion that some of the old varieties that have gone out of use will come to the front again, perhaps under some new name, and will be again in demand. Our wheats appear to require a constant change, as it is only for a few years that any variety appears to stand the tests. Why we should need such a constant change in Canada is remarkable, as the same wheats continue to be sown in Europe perhaps for a century without diminution in yield or quality; with us it is strange how soon varieties run out or degenerate. We might say—our fathers, where are they? Or our old wheats, or old potatoes, where are they?

There never have been any wheats equal to the old Soules and old Blue Stem we used to grow forty years ago, and no potatoes better than the old Pink Eye that used to be grown at that time. Where are they? The young farmers of the present day may ridicule these remarks if they choose, but the old farmers of Canada will bear us out in our assertion.

Of the new wheats recently introduced, the Martin's Amber appears to be the most promising. Although not quite as early as the Democrat or Clawson, we feel confident in recommending it for trial to all, and on early wheat land we think many will find it more profitable than either the Diehl or Clawson.

Do not think of wasting time and energy about testing all the varieties that are sent out. The seedsmen will do that, and have agents all over the world to procure the best. Canadian, American, English and German seedsmen are at that business. When any variety has been brought out by either hybridizing or importing, tested and commended by reliable men, then we deem it our duty to call your attention to it, more particularly so when we have seen it growing. The Martin's Amber has passed through the ordeal, and can now be commended for more general use. We have seen several fields of it, and each looked remarkably well on both heavy clay and light soils, and is the most promising of the new varieties. Still we do not know that it will excel the Democrat or the Scott wheats.

We took a trip through Markham, Pickering and Whitby, calling on many of the leading farmers, of which we intend to write in future issues. We also called at Mr. W. Rennie's seed farm, in Markham, of which we also intend to make remarks in a future number. In regard to the winter wheats, we find the Democrat and Scott varieties in favor through these townships; but on Mr. Rennie's farm, among his numerous test varieties, we see the Valley wheat, which appears a highly commendable variety. It has not yet been grown in any quantity in Canada. Mr. Rennie considers the Bonnel, also called Landreth, the Valley and the Martin's Amber the three best varieties to sow this fall.

How to save elbow grease—Keep your tools sharp and free from rust.