

by a little care and expertness, protect our small fruit from their insect enemies. But we advise those who will not take the pains to cultivate their fruit gardens properly to grub them at once. Neglected they will be but an eye-sore and entail a loss on the owner. They should be pruned annually, manured in the fall with good compost, and we have found a top dressing of coal ashes in the spring of great advantage. Mulching is more necessary for gooseberries even than for currants. Heavily covering the ground about the roots during the heat of summer is said to be a good preventative of the mildew that prevents our growing the superior varieties of English gooseberries.

The Rains of 1875.

The steamship Moravian, from Londonderry, Aug. 27th, reported on her arrival at Quebec that in a fog she came into contact with a large iceberg in the Straits of Belle Isle, on the 2nd of September. The Straits exhibited proof of the unusual severity of last winter in the very great number of magnificent icebergs still proudly towering throughout their entire length. The unusual rainfall of the season, extending over the whole continent, is attributed to the presence of those enormous fields of ice drifting from the Arctic seas to the Atlantic, freed, probably, from their winter confinement by a milder season than is usual in those regions. These icebergs, drifting with the current into more southern latitudes, have been rapidly thawing, and the vapors ascending from them and attracted landward, have fallen in the abundant rains that have generally been so beneficial to the farmer, though in places it has swelled the rivulets into torrents that in their resistless force have devastated many fertile valleys, sweeping away the crops and houses of thousands, and in not a few instances causing loss of life, as well as property. It is thought the rain may continue some time longer, as the icebergs are still thawing in the vicinity of our shores, and we need not expect unbroken fair weather till the icebergs have all melted or drifted farther north.

To the same cause is attributed the cool, pleasant weather that has made the summer of '75 so very enjoyable. The season, though far from being as humid, has resembled somewhat our old country summers, at least the driest and clearest of them. Though the harvest has been, for Canada, a wet one, there has been very little, if any, damage done to the crops. Barley and oats are reported to be darkened in color in some places, and nothing more. The rain has been a blessing to the country; to this our granaries and root crops bear testimony, and to the dairy especially it has been a source of profit. Nor are its advantages yet over. The springs are full. The soil is in much better condition for the fall crop. To use a farmer's expression—there is blood in the soil. We hope for a rapid and healthy germination of the seed, and this is in itself a good omen for the succeeding crop.

Summer Fallows.

We have had many queries as to the best mode of extirpating such annuals as wild mustard, wild clover, etc., and replies recommending—some a bare fallow, and some a half fallow. As the subject of fallowing is by this means causing no little attention among our readers, we give a little space to the subject, first, of bare fallows, and then of fallowing in connection with grass crops.

Among the many changes and improvements in agriculture, even within the memory of many of our readers, not the least is in bare fallows. Until very lately, a summer fallow was generally deemed necessary to the production of a good crop of wheat. If the root crop, when there was one

in the farm rotation, was stored in good season, fall wheat usually followed, but neither a large yield nor good quality was expected from any but the fallow ground. In the state of agriculture then practised, it was a necessary part of the system, but it has now given place to a half fallow (called by some pin-fallow), a change connected with the other great changes in agriculture. The introduction of the four-years rotation, with turnips as a farm crop, into Norfolk, first taught farmers to rely less on the bare fallow. To this may be added the other great improvements in culture—drainage, subsoiling and the introduction and more general use of commercial fertilizers and green manuring.

The bare fallow, though not generally accounted an essential of good farming now, is even still admitted to be requisite under certain circumstances. In heavy clay lands it is necessary sometimes to expose the rough clods to be baked by the summer's sun. This burns up the weeds, a task not always to be otherwise accomplished in the stiff clay; it also mellows the clay soil better than any other process can. It requires, no doubt, a good crop of wheat to pay the two year's rent, or interest on purchase, and the cost of labor, but a good crop is expected from it; besides, the advantages from the fallow are not limited to one year.

If ground designed for bare fallows be infested with weeds—annuals, as wild oats or mustard, it is advisable to plow shallow in the fall, or, better still, to cultivate, so that the fallen seeds may germinate and be destroyed. Otherwise bare fallows are brought into their best condition by commencing the plowing in spring. Plow with a strong, deep furrow. In about two months afterwards the weeds will have pretty good growth, and then plow again, reversing the furrows. This will suffice till midsummer; this is the time for the third or cross plowing. In this let the land be laid up rough, so as to be thoroughly scorched and to receive the ameliorating influence of the air. The rough ridges of stiff clay are afterwards broken down with cultivators and harrows, and having been mellowed by the cultivation and the summer dews and showers, they are in the very best condition for a seed bed to which a heavy clay soil is capable of being brought.

The beneficial results of a good bare fallow on such soils is experienced for some years. They are more easily cultivated, more permeable to light and heat and air, and consequently more productive. From a good wheat soil so cultivated, sixty bushels per Imperial acre were an ordinary crop, and much more has been realized.

Two objects, as we have seen, are to be obtained by the bare fallow, but only on heavy clay soil. On other soil the one object was the destruction of weeds, annuals and perennials; and of this the extensive cultivation of roots, with the accompanying half fallow, has obviated the necessity. The root crop is in reality a fallowing crop, with the additional advantage that no loss of a season's crop is incurred by it, as in the bare fallow. It cleanses the land from weeds, and renovates it. In order to obtain a good root crop, the land should have, when infested with weeds, a light fall plowing or cultivating. For spring plowing and culture there is ample time before the seeding, and after the seeding a summer cultivation is continued. So there is a fallow-culture progressing throughout. This, with the manure for the crop, must bring the soil into the very best condition. If we cannot at all times, after the root crop, have the land prepared in good season for fall wheat, the land will be in good order for spring seeding—wheat, or barley, or oats, as may be deemed best. In such instances, it is well to take the plow into the field and run furrows at a regular distance

apart, if nothing more, so that the water may run off early in spring, and an early seeding may be had. Land is greatly injured by stagnant water being allowed to remain on it for any length of time.

Besides the bare fallow and the half fallow mentioned, there is a method somewhat different. By it there is, with the fallowing, the growing between the times of plowing of such crops as, being plowed under, will ferment and decompose in the soil, being thereby good fertilizers. For this purpose the ground is thoroughly plowed in the autumn, that by the influence of the atmosphere and frost, it may be brought into as good state of tilth as possible. Some crop, such as rye or peas, is sown early in the spring. When this has grown to a good height, it is plowed under—it is not allowed to come to seed. Another crop is then sown—Hungarian grass, buckwheat, millet—whatever will make rapid growth and cover the ground. This is also to be plowed down as soon as it blossoms. By this method the land is freed from weeds and enriched by the green manuring, and is in good order for a fall crop; from it more than from the bare fallow you have no crop for the season. Both systems are designed to improve the soil and prepare it for future crops.

Rye for Soiling.

For soiling in whole or in part, the first consideration is how to provide sufficient green forage for the stock of the farm in the first weeks of the summer. By that time the stores laid up in the fall for the winter feeding are nearly or altogether exhausted, and it is necessary that cattle have some green food. If there be pasture enough for the stock, it is very injurious to it to be trodden down by cattle early in the season, and the young tender shoots of grass and clover plants, if eaten down in their first springing up, will not yield so much feed during the succeeding months. And letting cattle stroll on the roads and commons, searching for a scanty subsistence, will make dairying and stock-raising a losing business.

To provide food for stock for that season, which is the most trying time of the year, there must be some green crop for soiling, and in this climate the best, if not the only one, is rye. In Great Britain winter tares (or vetches) afford good cuttings early in May, but our climate compels us to use some hardier plant for early soiling.

Rye has peculiar value as a soiling crop. It is very hardy. It will stand the Canadian winters better than any other cereal. It grows rapidly, earlier in the spring than almost any other grass or cereal, and is earlier fit for cutting. It can be mown in the middle of May, and will give a welcome supply of nourishing food for the cattle—most needed by the milch cows. It gives a very heavy yield of fodder, growing from four to five feet high before it becomes at all too hard for soiling.

In order to obtain the earliest supply for soiling, rye should be sowed in September, but if this has not been done, it may be sowed in this month. It will not be quite so early as if sowed earlier, but it will give good soiling later in May, and where there are stock to be fed, an acre or a few acres will be a very profitable crop. If the rye crop for soiling be found to be more than is needed, it can be harvested and will pay as well perhaps as any other crop on the farm. Rye in the New York market brings a price not much lower than wheat, and if sowed on a good soil and with as much care, will produce a far higher yield than wheat.

To prevent horses' feet from cracking or scalding in summer, and enabling the shoes to be carried a longer time without injury, the French practice is to coat the hoofs once a week with an ointment composed of equal proportions of soft fat, yellow wax, linseed oil, Venice turpentine and Norway tar; the wax is melted separately before mixing.