

is the best treatment we can give it. In the West, with this, as well as with the wild sunflower, we find that if summer fallowing be done early in June, or late in May, there is no trouble with them. These plants produce a great deal of sappy succulent growth, and if the land is broken up in May or June they can be eradicated easily; but if you delay summer-fallowing for only a fortnight, leaving it until late in June or July, the fallows of the land ploughed will be full of these by the end of the season. This can only be explained by supposing that the succulent condition of the plant at that time renders it more susceptible to injury, and decay sets in and the weed rots out. This plan does not succeed with us here. So it is not such a simple matter as at first seems. Not only every plant needs to be studied according to its growth and district; but plants may be pests in some places, and in other cases not be weeds at all. The farmers of Manitoba seem to have recognized this, and are now finding out all they can learn about weeds, and working according to the experience of others. This they get from the publications of specialists who have studied them.

*Nomenclature.*—An important matter I have referred to before, is the calling of weeds by their right names. It is not the unimportant matter it seems at first sight. It is important, and important for this reason, that there is a great deal published in regard to noxious weeds, and any one who requires information is referred to one of these publications, and if he does not know the right name of the weed he has to deal with, he will get the wrong information. I will give you an illustration. In the West, the grass generally called "quack" or "couch grass" is what is elsewhere called "Holy" or "Sweet" grass, the native hay from which the Indians make scented baskets. This is a very deep rooted grass and almost always called quack grass in the West. In the East we have another quack grass, too well known to us. The treatment of these is diametrically different. To get the best results, however, here we plough as near the surface as possible, getting to the roots, and throwing them on to the top of the soil to dry out. On the other hand, in the West, they would not be reached by that shallow ploughing, but simply pruned and helped in their growth, just as a worn out meadow will give good results if harrowed when you don't want to plough it until the following year.

Quack grass in the prairie provinces is far more abundant than in Ontario—and yet in Manitoba quack grass is not a weed—because there the usual method of ploughing is shallow and here we plough deep and try to go a little deeper each time, than before, and as a consequence quack grass is ploughed under and grows vigorously. The statement has been made that if you throw quack grass on a fence and leave it for a week it will grow. This is not the case. It has not much vitality, if you take it out of the soil. But our experience shows it does grow if covered up, owing to its succulent underground roots, which dry up if thrown on the surface. It is very often disseminated in a field by ploughing deep and being dragged by a harrow across the field, lying more in the head-rows and around the fields than through the crop. It is not, certainly, an easy grass to get rid of, but it is not as difficult as some of the farmers in the country think.

The different characteristics of weeds are sometimes hard to recognize, but it is well to have some knowledge of their bad points. One is that where a weed is prevalent and occurs in large numbers, even if it is not difficult to get rid of, its very abundance will make it a source of danger and loss to the farmer, particularly in the West, from absorbing the moisture from the soil, which is required for the crop; but the fact of its being in large numbers does not prove that it is difficult to eradicate. I am reminded of a little weed—the small Rag Weed of Ontario. This is not the giant Rag Weed of the West, the seed of which is well known to millers as "crown weed." In the Southern States the farmers regard consider the Rag Weed as their manure. It grows there to a height of six and eight feet, and farmers would think a man foolish who told them that the Rag Weed, with which their fields are covered, should be eradicated. They say that it is their manure and they plough it in. It is a mistaken notion for any farmer to entertain, that it will make an addition to the soil by ploughing in this weed. There is no weed, except perhaps clover, which does not take more from the soil than can be put back again by ploughing it in. It is too dangerous a thing to recommend, because farmers, and indeed everybody, is apt to choose the easy course, if two courses are open to him. It is far easier to leave weeds growing with the idea that at some future time you will plough them in, than to keep your land clean all the time particu-