

FARMING

VOL. XVI.

AUGUST 8th, 1899.

No. 49

Growing Fall Wheat

While the Ontario farmer may never be able to successfully compete with his brother farmer in the great West in the growing of wheat, yet he does and will, doubtless, for some years to come, continue to grow more or less of it. The changed conditions, however, of recent years make it more profitable for the farmer in this part of Canada to confine his operations largely to some other line of farming in which the Western farmer is not so strong a competitor. This he has in a system of farming that has as its chief feature the raising of good horses, cattle, sheep, and swine, and giving special attention to the dairy and poultry branches of his business. By turning his attention in this direction and by making stock-raising, dairying, etc., the main feature of his farming operations, and not secondary in any sense as many do we believe the farmer in the older sections of Canada will reap greater annual profit and at the same time very much improve the condition of his land than in making grain-growing his main object.

But, be that as it may, the fact remains that nearly all, if not all, of our farmers are still growing wheat, and will likely continue to do so in a greater or less degree for many years to come. If such be the case, then it is of the utmost importance that the crops should be grown in the very best way. It is much better to grow ten acres well prepared than thirty or forty acres half prepared and not in proper condition to insure a good crop. For the purpose of gathering some information in regard to the fall wheat crop that would be helpful we wrote to a number of farmers and fall wheat growers, submitting the following questions:

- (1) What do you consider to be the best preparation of the land for fall wheat?
- (2) Have you used commercial fertilizers on this crop, and, if so, with what result?
- (3) What do you consider to be the best time for sowing fall wheat?
- (4) What kind of wheat has given you the best results?
- (5) Do you, as a rule, sow your own seed, or purchase new?
- (6) What will be the probable yield of the 1899 crop of fall wheat in your district?

We have received a good many replies to these questions, containing a lot of practical information which we think it will pay our farmers to carefully read. Some of these replies are published in our correspondence column this issue, and the balance will appear in succeeding issues. Information of this character, coming from practical farmers who have grown wheat for many years, is of the most valuable kind. We have aimed, as far as possible, to get information covering, so far as possible, the leading wheat-growing sections of the province. We would also be glad to hear from others who would care to give us their views on this subject for publication.

Destroying Grasshoppers

The letter of "Canadian" in our issue of July 25th, drawing attention to the visit of grasshoppers or locusts to the southwestern part of Manitoba, emphasizes the necessity of adopting preventative measures, should there be any likelihood of this pest spreading over the Northwest. In many of the Western States the grasshopper often does serious harm to large sections of country when allowed to increase in large numbers and to spread over the country. So much so is this the case that considerable attention is given

to preventative measures and methods for the destruction of locusts. The Nebraska Agricultural Experiment Station has recently issued a press bulletin on the subject, from which we take the following:

"During normal conditions of weather, etc., the insects of any region are kept within bounds by means of their natural enemies, and no dire results follow. When these conditions are disturbed in any way and restraining influences are withdrawn, the more hardy species increase very rapidly. Such increase in numbers, of course, means the requirement of an increased amount of food and we see the result more plainly. Some kinds of locusts prefer different haunts and food plants from what others do, and hence the seeming difference in the amount of harm done by each.

"When the natural checks upon locust increase fail, and these insects multiply abnormally, it is necessary to use artificial means for reducing their numbers. It is chiefly to suggest what can be done in this direction that the present circular has been prepared."

First of all, I wish to suggest that our native birds be protected, since nearly all of them are especially fond of locusts as a diet during the summer months. When our prairie chickens and other grouse were still numerous no harm whatever was reported as coming from "native grasshoppers." Quails, plovers, blackbirds, sparrows, hawks and even ducks are known to feed largely upon these insects. A single bird of any of these species will destroy thousands of them. Where the birds are destroyed the extra thousands of locusts soon increase beyond the normal and injury results. Year after year the gap is made wider and the possibility for harm increases. Even frogs, lizards, snakes and other animals that come under our ban destroy many of these destructive locusts, and every time we thoughtlessly kill one of them we make it possible for their natural food to do us harm.

Only a few weeks ago the writer saw dozens of birds engaged in feeding upon the young of the migrating locust in Sioux county, where the insects had hatched in one of the valleys by millions.

Aside from the birds, reptiles and some of the smaller mammals that habitually feed upon locusts these insects are attacked by numerous kinds of other insects. These latter of course increase and decrease accordingly as their food increases or decreases, but they also are affected by climatic conditions. Conditions that are unfavorable to the increase of these enemies do not seem to appreciably affect the 'hoppers, hence the frequency with which the latter become destructive does not seem to be materially affected by parasitic and predaceous insects.

When we have removed about the only check to the increase in destructive numbers of the locusts we most naturally seek relief artificially.

Thus far we have been only partially successful in our attempts at destroying grasshoppers by the use of fungus diseases. Unlike the chinch-bug fungus the one that attacks locusts in North America is comparatively slow in its action and only appears to take hold of the insects after they are about half grown. This being true we must look elsewhere for a means of warfare.

If we carefully watch where eggs are deposited in rather large numbers we can destroy these by harrowing or discing the ground and exposing them to the drying influence of the sun or to the keen eyes of birds. Deep plowing, during fall and early spring will bury locust eggs so deeply