

insectivorous birds and also to those of other insects which prey upon them. After a short time the land may be ploughed deeply so as to bury them so deep down that the flies will be unable to work their way up out of the ground.

In Miss E. A. Ormerod's "Manual of Injurious Insects and Methods of Prevention," a most excellent little work published in London, England, the following paragraph appears at page 81:—

"In Canada it is considered a complete cure to turn down the surface of the field with the Michigan plough, which, with the first turn-furrow, takes off about two inches of the surface, together with the weeds and stubble and the insect vermin in the roots, and deposits them at the bottom of the furrow, whilst the second turn-furrow raises another land slice, and, depositing it over the previous one, buries it several inches deep. If the course of agriculture allows this to be left untouched till after the usual time of appearance of the Wheat Midge in the following year it is found to completely destroy the maggot."

A remedy which has sometimes been attended with much success is to give up the sowing of fall wheats, which come into flower early, and sow instead spring wheat at such a time that it will not come into ear until after the midges have deposited their eggs. This they must do soon after they appear. With very little trouble and observation, the time of the appearance of the perfect midges in any one locality, can be discovered, and when this is known some variety of wheat must be chosen which does not come into ear at this period. Of the different varieties of fall wheat which are recommended for their immunity from the attacks of the midge "The Democrat" is one of the most highly esteemed, Mr. George Casey, M.P. for West Elgin, even going so far as to say that where this wheat has been grown in the same field with other varieties, it is exempt from attack whilst the others are destroyed. There are other varieties, varying in quality, which are more or less exempt from the attacks of this insect, but so far no first-class variety has been discovered. Many years ago, when the midge was very destructive in Canada, Mr. Arnold produced what was known as "Midge Proof Wheat." This was of poor quality, and he was undertaking a series of experiments in hybridizing it with better varieties when the attacks of the Midge ceased to be troublesome, and he carried the experiment no further. There is a "Midge Proof Wheat" grown in Nova Scotia by some farmers now, and Mr. James Clark, of Tatamagouche, N.S., who has now grown it for five years, finds it very satisfactory. He says, "it has given me the best satisfaction of any variety I ever had, never having been infested with either midge or rust, both of which are very common here. I know of no other variety which is altogether midge and rust proof."

The adoption of "Midge Proof Wheat," even if a variety of good quality could be produced, would not effect the total extermination of this pest by starving it out, for although it will by preference lay its eggs in wheat when it can be found in the proper condition; if this should not be available, it will lay and can pass all its stages in several of our native grasses, particularly "Couch Grass" (*Triticum repens*, L.), sometimes called "Twitch," "Quack," or "Skutch." This grass is botanically closely allied to the wheat plant. As the insect attacks grasses, it is clear that wherever they grow, around fields and in fence-corners, they should be cut down and all weeds kept under.