

wheat plants be thoroughly top-dressed with manure in the early part of the winter, at the opening of the spring they will take a vigorous growth; and hence new stalks will be sent forth from plants, which would have been otherwise destroyed by the grub of the Hessian fly. The foregoing information will only be interesting to those who have not made themselves thoroughly acquainted with the habits of this great destroyer of the wheat crop, and the best means of evading its ravages.

The next great enemy to the wheat plant is the *wheat fly*, which deposits its eggs on the chaff of the wheat, at the period when the grain is in its embryo state. This insect passes through only one generation per annum, and the only means yet devised to evade its depredations, is that of sowing an early variety as late as the season will admit, by which means the wheat plants would not come into head until the fly had passed through its generation. As the chance of losing the great staple crop of Canada, for a few years, has become probable with those farmers who have watched the progress of the two insects described above, in Lower Canada, the Eastern States, and other countries that have been visited by them, it is well to look the difficulty in the face, and prepare for the worst. As for a remedy, that will be found quite impracticable, unless the plans pointed out should prove as efficacious as we have all along taken for granted would be the case, from the fact, that by their adoption, both descriptions of flies would be completely evaded. If no remedy can be found, then all sensible farmers would at once see the propriety of sowing other crops that would be less hazardous. As to the character of these crops, and the best methods of cultivation, no writer on agricultural matters could submit any definite rule for general adoption, but nevertheless some very useful and practical hints might be suggested, and adopted in those cases where they would be considered particularly applicable.

Owing to the depredations of the grub of

the Hessian fly, thousands of acres of wheat in Western Canada did not average, the past harvest more than eight bushels per acre. So small a yield as this would not pay the rent of land and the cost of cultivation; and to avoid a similar calamity or loss, we would suggest that those farmers who have good reason to apprehend that their wheat crop will be seriously injured by the above cause should examine their crops early in the spring, and if they find that they have been damaged, no time should be lost in reploughing the land, and sowing or planting it with other crops that would more certainly give remunerating returns. The damage cannot be fully known until the middle of May, and by that time it will be too late to plough the land, where a large quantity has to be done, in time to sow most of the crops usually grown in this country. As for barley and spring wheat, the grub of the Hessian fly works upon these crops to as great an extent as on winter wheat, unless they be sown as late as the last week in May. Therefore it would be useless to sow the crops on winter wheat land, unless the plan suggested be practised. Oats will bear sowing late; and although they are the least profitable grain to grow, still a crop of one that would average sixty bushels per acre and upwards, would be preferable to an average of eight bushels of wheat per acre. Peas may be sown as late as the first week in June, on well-prepared land, and by sowing them as late as the period mentioned the fly that deposits its maggot in the pod when in the embryo state, will have disappeared when they come into blossom, and thus a better sample may be raised from the than from early sown, if the ground be in suitable condition to bear a full crop, which would be the case if sown upon land that had been carefully prepared for fall wheat. Of the various crops that would prove remunerating, if made to follow fall wheat that had been damaged by the grub previously described, probably Indian corn and pumpkins would be the most remunerating, managed with skill and attention. Fr