

*To the Editor of the AGRICULTURAL JOURNAL.*

SIR,—I am obliged to you for the insertion you gave, in your Journal for May, to some remarks I made on the wheat fly, and my views of the probable means of exterminating it.

If my theory is correct, and I have little doubt of it, it is very essential that general action should take place to prevent, by every means in our power, the sowing of wheat before a certain period.

In your remarks upon my letter, you hold out a hope that there may be some variety of wheat obtained that may be proof against the ravages of the fly. Most of the new sorts of wheat have, in the first instance, had that quality attributed to them; but I believe that no sort that will be worth growing will ever be found, for it must be thick skinned, and dry up as quick as barley.

Then you say you did not perfectly agree with me, "that we can get rid of the fly by late sowing; we cannot account for its first appearance, and although we save our crop by late sowing, we very much doubt that we should be able to banish this destructive insect by that means, so as to sow our wheat at the period we did heretofore, previous to the appearance of the fly in Canada."

You will easily perceive that the remarks you have made do away with the great inducement to prevent parties from sowing before a certain period. Now you admit that the crop is saved by late sowing. So far good, then have you not observed, that in proportion as we ceased to sow wheat on a large scale early, that the fly diminished in quantity, so that it was reported to have nearly disappeared, and large tracts of country, some years ago, resorted again to early sowing, and the first crop was but slightly injured, but the next year brought upon them ruin by the rapid increase of the fly. Now, during those years, we nearly ceased sowing wheat; we sowed more of other grain, yet the fly nearly disappeared; but recollect, during all this time, most farmers sowed a little wheat early, as an experiment, and by it the fly was perpetuated.

Is it much more difficult to account for the first appearance of the wheat fly amongst us than for any other sort of insect? Examine a parcel of wheat that has been injured by the fly and you will find the chrysalis of the fly amongst it when threshed out, and it may be as easily put into the

bags with the wheat, and brought out into the country, as the wheat itself. Besides it appeared on Lake Champlain some years before it was observed in Canada, and as it is reported to spread about twenty miles a year, it would soon extend over Lower Canada.

For my own part, I have not the least doubt the chrysalis of the worm of the previous year will assume the perfect shape of the fly on the first, third, or fourth very hot days of summer, generally the first week of July, when early sown wheat alone will offer that soft and milky nourishment, the worm, the product of the fly, requires to sustain it through its natural life as a worm, and so as to go to the chrysalis state, to which state it must enter to preserve vitality, and continue its species by again assuming the fly state with the next great summer heat.

How long would the silk worm exist in the United States, where they are profitably raised, did they cease to furnish the silk worm with the necessary food for the twenty-six to thirty days that it must be fed? Let the parties have a supply of mulberry leaves for only fifteen days instead of thirty, and then no food for them, and the worm would die, and the parties lose the beautiful labour of these little worms, and have no silk, nor would the worm go to the chrysalis state, a state it must enter before it can become the butterfly to lay the eggs that are to produce the worms, and to continue its species.

Feed the silk worm the full number of days it requires food, and it will reward you by spinning itself up in the centre of a beautiful ball of silk, which, if you cut open or unravel out, instead of finding a green worm of  $1\frac{1}{2}$  inches long, you will find a chrysalis enclosed in a strong brown coat, in which state it remains until it bursts its shell a butterfly. So with the wheat fly; feed the worm with young wheat, and it will go to the state of chrysalis, and remain in that state until next summer. Give it no wheat, and it will starve and die on all other grain that we sow, for they dry up too soon, and we soon exterminate its species.

I am, Sir,

Your obedient servant,

R. U. H.

Vaudreuil, May 18, 1848.