

The Farmers Aids in Contending with Destructive Insects.

The great and increasing hordes of voracious insects that the farmer has to contend with for the products of the soil are unfortunately too well known to us. During the entire year the utmost vigilance on his part is often powerless to secure the fruits of his labors from vermin. Happily, however, he is not left to wage the war alone. So valuable has been the assistance given him by birds that the legislatures of every country have wisely enacted laws, imposing penalties for their destruction. We already begin to feel the beneficial effects of the protection extended here to our feathered friends. Again, we hear more frequently their cheerful song; we see them lighting upon forest trees, and we find insects sensibly decreasing.

We must remember that all insects are not of injury to us. On the contrary, some of them are highly beneficial, and aid in the extermination of those with which we are forced to contend for the means of subsistence. The locust, grass-hopper and potato beetle have each their parasite, that adhering to them draw from them the nourishment for themselves, thereby taking away their life.

Neither parasitic animals nor birds are more serviceable as aids than bats. We can have no conception of the numbers of insects and vermin they free us from. Their whole summer is an incessant campaign against them. As we see them on wing on a June evening we hardly think that they are then aiding us as they are.

It is our interest as well as our duty to protect these serviceable little creatures, and one protection they need is a due care not to disturb them in their winter quarters. The old nursery rhymes enumerate the bat among those animals whose winter is one unbroken sleep. And this enumeration is correct. When in that sleep they can bear any degree of cold without being injured, but if disturbed from that state extreme cold is fatal to them. Last winter a number of dead trees were felled in the Thier Garten of Berlin. They were, for the most part, hollow, and the abode of bats in their winter sleep, awaiting the return of spring to renew their campaign against insect-vermin. The consequence of their being driven from the old trees was that they perished. Another instance is told us by the same authority. In a forest belonging to the crown, in accordance with an order issued some time previously to fell some oak trees for naval purposes, they were felled in the depth of winter, and thousands upon thousands of bats that had there made their winter quarters died from disturbance and exposure. The final result was the entire destruction of the whole forest, for in the second year after the death of the bats the damage done by caterpillars had become so great as to render the cutting down of the whole plantation necessary. As long as the bats were undisturbed in their winter quarters they pursued their usual industrial pursuit in spring and summer and the ravages by caterpillars was so insignificant as to be unnoticed; but the bats perished, the caterpillars multiplied, and the forest was destroyed.

Canadian Horses in England.

In a previous number of the FARMER'S ADVOCATE we spoke of the breeding of horses for export to England as likely to prove to Canadian farmers a profitable agricultural pursuit were they to embark in it. We pointed out its eventual success from two arguments:—First, From the increasing sources of supply of breadstuffs to European markets, it is very unlikely that wheat will in the future bring such high prices [as it had hitherto

brought, and we should, therefore, have a greater diversity in our farm products; and second, There is a constantly increasing demand for good horses in England, and throughout all Europe. We subsequently published a communication from one of our contributors on the same subject. It is a subject well deserving the attention of our agricultural readers. If grain brings so low a price as to leave little or no profit to the producer, why not turn the attention to some other branch of agricultural enterprise. Any one seeing the very superior horses driven by the farmers of Canada needs not to be told that the country is well adapted to the raising of horses suitable for every purpose. We have no doubt that horses bred and fed in the Dominion would be found superior to any other American horses for general purpose. Climate, feeding, training, are all in their favor. The following communication, from a London correspondent of the *Globe*, tells us what reception a first speculation of the kind has met in England:—

"A number of Canadian horses purchased in the neighborhood of Toronto and Montreal have been brought over to England with perfect safety and with a very profitable and encouraging result. I went down to Worcester Park, a charming suburban village in Surrey, a few miles from London, where the stables are situated in which the horses are located. They were all in what I call capital condition, a little 'above themselves' perhaps, but not so fat as horses are generally made in England by the dealers before sale. The importation was a private speculation, and the importer intends to sail for Canada to purchase another lot in three weeks' time. Almost all this first lot have found purchasers very readily here, although the market for horses is falling a good deal from prices of last three or four years. The animals were suitable to all purposes, and were all warranted sound and quiet to ride or drive. The average cost price in Canada was \$120, and the selling average here has been £55, or \$275. The price there is hardly a criterion of what a horse would fetch here, but of this lot only a dozen remained unsold when I visited Worcester Park yesterday, though many of the sold lots still remained at the stables. One fine upstanding bay horse that was bought for \$102 near Toronto, had been sold yesterday to a gentleman for a brougham horse for £63. He was, in horsedealer's slang, the 'pick of the basket,' and made the top price. He looked very much like taking to the timber business if properly schooled for a hunter. All the sales had been made to private buyers.

"The horses were shipped from New York, owing to the Dominion line boat from Montreal breaking down; they came in the Wyoming, of the Guion line, without a scratch, in a patent apparatus, which economizes room on shipboard and secures safety to the animals. The cost was \$50 a head from Montreal to London, including every expense.

"It is the opinion of many judges who have seen this lot of horses that Canadian bred animals are better suited to the English market than Kentucky horses. As they are the first lot of American horses ever landed in London, they have been visited by many persons interested. The Glasgow tramway cars have been partly horsed by American bred cattle, but none of these horses are yet employed by the General Omnibus Company, who are ready to buy to any extent if the right sort are offered them at the right price. The company have for three or four years past been paying £35 per head for horses of a rough and useful wear and tear stamp. Such was the interest felt in this consignment that the Agricultural Hall management wished to have them on view at their great establishment. Owing to the horse show, however, this was impracticable till most of the lots had found purchasers. It is, however, very likely that the next arrivals will be shown there.

Paraffine as an Insect Destroyer.

There is not a crop of the farm or garden that is not subject to the attack of some enemy. The old-time farmer had had no such struggle to maintain possession of the fruits of his labors. He cultivated his soil, sowed his seed, and harvested his grain, and pitted or stored his roots, without the incessant contest he is now engaged in with

winged and creeping plunderers. One great object now with agriculturists is to discover the best measures for the defensive warfare that the farmer is forced to wage. We learn from our British exchanges that paraffine is used as a bug destroyer and, it is said, very successfully. A writer in a British journal says that his onion crop was every year attacked by maggots and his turnips by the fly. He now, as soon as the vermins make their appearance, waters between the rows two ounces of paraffine oil to six gallons of water. The maggot and fly instantly disappear. This year's crops, he says, have been excellent in quality and quantity. He has also used paraffine as a protection of his seed peas and beans, and has been equally successful. His garden had suffered from rats and mice and was forced betimes to sow peas and beans two or three times. He now steeps them, preparatory to sowing, in paraffine; the consequence is that not one has been touched, and he had an enormous crop. The *Farmer* (England), remarking on paraffine as a protective against vermin and insects and a fertilizer, expresses a doubt of its value as a fertilizer and says:—"The heavy crops that have followed its application must be attributed solely to any virtue it may have in ridding the young plants of the minute little creatures that prey upon them in the early stages of their growth."

We think it would be well were some of our Canadian agriculturists to try the experiment on a small scale; the cost would be a mere trifle, and if it succeeds, even only as a bug destroyer, it would prove very useful to the country. It might, notwithstanding the adverse opinion of good authority as that of the *Farmer*, be of service to the growing crops, by stimulating their early growth, and this of itself is no slight advantage.

The Yields of Our Food Staples that We Get and the Yields that We Might Get.

Under this heading the *Ohio Farmer* points out the great loss, not only to the producers themselves, but to the whole country, arising from the ordinary farming of America. The subject is equally deserving our attention in Canada, and we reproduce the calculations from which he reasons with his readers, though the average yield of all the crops is much below ours. He takes his figures from official documents.

"The wheat crop of the United States is estimated to average from 12 to 15 bushels per acre, while the possible yield has been shown to be over 70 bushels.

"The yield of hay for the whole country is not much over one ton per acre, on a general average, against a possible yield of five tons and over, as shown by various successful farmers.

"The average product of potatoes is not far from 75 bushels per acre, with occasional yields that prove a possibility of eight or nine hundred bushels.

"There are some root crops that produce on an average less than 200 bushels per acre, which, according to authentic records, have occasionally yielded over sixteen hundred bushels.

In the case of Indian corn, the great staple of the country, the average product is not more than 35 bushels per acre, though crops of 150 bushels and over have been well attested.

PROFITABLE YIELDS IN REACH OF ALL.

"Now the great fact we wish to emphasize here is this: Somewhere between the extreme figures given above there is a paying yield which, though not startling in amount, is far better than the present average, and entirely possible to ordinary farmers. But what is still more important, the same facts are equally true in regard to the cost of production.

"The corn crop of this country costs the producer, on an average, over 50 cents a bushel in the Eastern States, and under 25 cents in the West. Yet cases of cost have been reported from Western prairies even lower than 7 cents a bushel,