



The Field.

The Potato Crop and the Colorado Beetle.

The eastward advance, during the past year, of this most destructive insect has quite justified our former predictions and warnings respecting it. We have very little doubt that there will be hardly a single county in Ontario free from its presence this year. Where it comes for the first time, its ravages will be but slight in extent and little noticed perhaps; but in all that western portion of the Province where the pest is now thoroughly established, we shall no doubt hear of its causing frightful annoyance and loss.

From the report of the Entomological Society of Ontario, we gather the following information respecting the progress of the Colorado Beetle during the past year. We reproduce an illustration of the insect in all its stages, in order that our numerous new subscribers may have an opportunity of recognizing the pest when it invades their fields, if they are not already only too well acquainted with it:

"During the past year we looked forward with considerable anxiety to the effect that the Colorado Beetle would produce on the potato crop; we were glad to be able to report that on the whole, less mischief has been done than we anticipated. It is somewhat difficult, however, to arrive at an accurate estimate. The Bureau of Agriculture forwards every year to the Secretaries of the Electoral Division Agricultural Societies a printed circular requesting a detailed return of the crops in each district; and if these returns were properly made they would afford much valuable information. It is to be regretted that they are not more universally attended to. So far as we can learn only 40 of these returns have been made for 1872, and it is on these partial details that we must base our analysis for the Potato crop. While, however the ravages of the beetle have been somewhat less than we expected, its increase in numbers and onward progress have yet been such as to cause not only a material effect on the crop, but also to maintain a good deal of alarm amongst the farming community. A comparison of the crop returns for the two past years fully confirms the statement made in our former reports, that the second and third years of appearance of the beetle are worse than the first.

A few statistics may not be out of place here. In 1871, 45 Agricultural Societies sent in returns showing an average crop of 131 bushels per acre. In the past year, 1872, only 40 Societies reported, with an average of 118 bushels per acre. In 1871 only 14 societies reported the presence of the beetle, while 33 were free from it, and none badly affected. In 1872, 26 societies report injury from the beetle, and 8 report very serious damage, in some cases almost total destruction, and only 14 appear to be free. It is to be noticed that all the western places which in 1871 were the most badly affected, were in 1872 far

more seriously attacked. In no one place do we find that the beetle after making its appearance one year, has not reappeared in the following season. In London the beetles literally swarmed, and thousands were daily trodden down on the sidewalks and streets, and we look for a still further increase next year.

It would be very desirable to obtain statistics of the various sorts of potatoes grown, as we are quite satisfied from our own experience that some varieties are much more subject to attack than others, and we would beg respectfully to suggest to the Commissioner of Agriculture the propriety of obtaining such information during the coming season.

From the monthly reports of the agricultural department published at Washington, we obtain some information respecting the ravages of the Colorado Potato Beetle in the United States. The returns of



Colours—(a) deep orange; (b) and (c) venetian red, inclining to cream colour; (d) and (e) cream colour and black.

their correspondents show that the crop of 1872 was less than that of 1871, by about six millions of bushels. This, however, comprehends "sweet potatoes" as well. The western States, in which the potato crop had suffered for several years past from the ravages of the Colorado beetle, reported diminishing losses from that cause, and were the only States, North Carolina and Texas except, reporting increased production. In Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Nebraska, Missouri, Kansas, California, and Oregon, the average yield was only 98 bushels to the acre, while the average price on December 1, 1872, was 50 cents per bushel.

We give these statistics as it is from the Western States that the Colorado Beetle has worked its way, and they show to some extent what effect has been produced by its ravages for some years past.

The only sure remedy for the pest, besides hand-picking, which answers very well at first, is Paris green, mixed with fifteen to twenty parts of flour,

or thirty to forty of plaster of Paris; the latter mixture is highly recommended by our friend Mr. Saunders, of London—no mean authority on such a subject.

Where the insect is likely to be abundant, our farmers should not attempt to grow a larger crop of potatoes than they can properly attend to, and exercise a constant vigilance over

Beet Roots for Sugar.

We seek to induce our farmers to produce for the sugar refiner, a rough sweet, made from the juice of the beet. The farmer can grow such an article as will in the hands of the sugar refiner at once produce the finest loaf, and other sugars, whilst the farmer retains on his farm, the refuse of the roots for feeding and fattening cattle. This refuse keeps well,—it has only to be stored in pits in the ground, like potatoes, and it can be preserved to the following summer, when it will be found a most valuable adjunct to the food of stock, particularly to milk cows during the season of scarcity of fodder. Keeping renders the refuse more palatable to the stock, and also more nutritive than it is when first produced. It does not give a bad taste to either milk or to butter, and when preserved it comes in when the pastures are dried, and the cows fall off in their produce from scarcity of food.

The cultivation of the beet-root has a happy effect on the soil of the farm, and its various refuses afford the means of making so much manure, that in all the districts where beet-root is cultivated, the amount of wheat is often doubled, and in some instances more than doubled. We speak of the produce of the districts in which the root is cultivated and is grown upon as great a scale as the necessary rotation of crops will allow. The quantity of rough crude sugar produced per acre where the best sorts of beet are grown, is fully one eighth of the weight of the crop of beets raised. If the farmer sells his roots, and they are of the best quality, he will receive for them from the person who reduces the roots to syrup, about four dollars per ton. If the farmer himself reduces the roots into syrup, he will make from them (according to the skill and care used) from seven to eight dollars per ton, leaving for his expenses in addition the leaves as green food, and also the pulp and other refuse. The leaves should be ploughed under as manure for the succeeding crop.

Before all however it is necessary that the kind of beet sown should be of the richest and sweetest nature, and seed of this kind can only at present be obtained from the great seedsmen in London, England, and from the continent of Europe. Carter's nursery prize sugar-beet as grown at Lavenham, Sussex, England, has produced as much as thirteen and a half per cent. of refined sugar, and the kind known as "Vilmorins" has produced as much as fifteen per cent.; and we have seen accounts of even more. To show the care with which this seed is