

tion could possibly destroy them; and in our judgment there are only three means by which their depredations could be prevented.

1st. By sowing lime and hard wood ashes, broad-cast on the plants of the young wheat, at the periods when the fly is about depositing its eggs; possibly such a treatment might save the crop. This, of course, would have to be done both spring and autumn.

2nd. When the insect is newly formed, and before it has done much damage to the plants, by passing Crosskill's clod-crusher over the field, not only this, but, insects of all kinds would be destroyed, and if an implement of this kind had been extensively used in those portions of Canada where the wheat crops have received most injury from the Hessian fly, it would doubtless have been a means of saving many fields from harm, which have turned out an entire failure.—For drawing and full description of this machine the reader will refer back to the *B. A. Cultivator*, new series, vol. 1, page 329.

3rd. The next and most feasible means of evading the attack of the Hessian, as well as the wheat fly, is to sow a very early variety of spring wheat at as late a period as the first week in June. Both these destructive insects by this treatment may be most effectually set at defiance, provided that the soil be well prepared, and the variety of wheat sown should be calculated to ripen in 90 days from the period of sowing. As the ravages of these two insects, in all probability, will completely destroy the hopes of many of our best wheat growers, we would recommend all who have sustained considerable loss, to put the foregoing methods to a test. We do not wish to be understood, to advise parties who have sustained serious damage from one or both of the wheat flies, to entirely despair of growing wheat in future years; but judging from analogy, the inference may be pretty fairly drawn, that, the destruction from these insects will yearly increase, until the entire wheat crops become destroyed.

Those of our farmers whose loss has become so considerable, that they have just grounds to apprehend that the business of wheat growing to them will no longer be a profitable one, will doubtless turn about in their mind's eye, with a view of ascertaining whether a profitable substitute for the wheat crop could not be cultivated. To render some little assistance to such as may be thus situated, we shall as briefly as possible point out a few operations on the farm, which if judiciously carried into practice,

will remunerate the cultivator quite as liberally as that of cultivating wheat.

It is obvious that those who cannot profitably grow wheat, will cultivate other crops. The first great interest to be attended to is, to cultivate such crops as will answer as a substitute for wheat, with a view of supplying the deficiency in sustaining animal life. These, in our judgment, may be placed in the following order:—An early variety of maize, oats, rye, barley, peas, buckwheat, and rice. The whole of these crops may be cultivated with nearly a certainty of success; provided that a new tribe of insects should not make their appearance, and thus destroy them, as has been partially done in the case of the wheat and potato crop. In proportion as the wheat plants become more difficult to cultivate, from the causes previously alluded to, will be the desire on the part of the cultivators to substitute the cultivation of other crops, which will be profitable and wholesome in sustaining the wants of the human family. Those that we have pointed out may be cultivated on every quantity of soil, and in every township in the Province, and the only thing required, to secure a large and profitable return from the land, is to study the habits and wants of each, and to adopt such a rational system of cultivation, that the laws and requirements of each plant may be supplied by art, wherein there may be a radical deficiency on the part of nature. If our apprehensions regarding the failure of the wheat crop should ultimately prove correct, and our farmers should find a necessity of turning their attention more largely to the cultivation of other crops; it is obvious that the wants of the country demand that we must not be satisfied, as were the Lower Canadian farmers under a similar calamity, with simply vegetating. But we should produce from our lands sufficient to pay a large proportion of the imports of the country. Either this will have to be done, or else the inhabitants of the country will be obliged to adopt the simple and economical habits, that were characteristic of this country upwards of 40 years ago, when imported luxuries were used only by a few individuals, and the great bulk of the population were satisfied with what they produced on their own farms. It is not in unison with the spirit of the age to recede,—man is a progressive being, and we live at a period of the world's history when the rays of science and civilization shines more conspicuously upon the human intellect than at any previous period. It therefore does not seem rational for man in