

price in powder is of water, which, quantity of water. well when it will ments" which we ve to show what he upper hand of berry saw-fly has 1869, and in our the currant and part of summer, oses of hellebore, g omitted inspec- in; and this time t another prompt bushes entirely ew there, and we uring the middle a few days when, foliage remaining some misgiving s pest as we had mixed about 1½. Selecting a leaf inhabitants, and above and below, d the mixture of three-quarters of t first had forty- e unable to eat, ained three, but as strewed with d on this means re, or we should that, excepting n for repeating

which the greatest ore was applied, ave been sprin-k- e, is found over of the leaf thus but in this in- must have mate- ulted from their showed symp- of soft exuvia,

ments was well ally with those rst observed at such cases, the not water sug- also an article such an appli- a watering can e affected bush, ickly letting go

their hold fell to the ground. After the excitement produced by the sudden heat was over they remained quiet for a time, as if wishing to "cool off," before commencing work again; some few did not recover from the application, but most of them were soon as active as ever. We would not suggest this remedy as a substitute for hellebore, but where this latter cannot be procured at once, the hot water may be temporarily used with advantage, and when once on the ground, the larvæ may have the life trodden out of them with the foot, or beaten out with the spade, or some other implement; in any case, many of them would never reach the bushes again, for when off their beaten track, enemies beset them on every side. It was interesting to see how busy a colony of ants were, which had a home at the base of a tree near by; lugging these large caterpillars along, a single one of which would take three or four of them to manage. The worms were twisting and writhing as if wondering whose hands they had got into, while the ants were hanging on with their sharp jaws, and slowly dragging their prey along; until by and by they had quite a little pile accumulated, which would no doubt furnish them or their progeny, with a feast of fat things for some time to come. Then there are the tiger beetles, (*Vicinidelidae*), and the *Carabs* large and small, with a host of others, ever running about, looking for stray objects of this sort on which to make a dainty meal.

It has been urged against hellebore that it is poisonous, and great outcries have been made against it on this account; chiefly by parties interested in the sale of other articles, and the public have been cautioned against using the fruit after such an application. It is quite true that the hellebore is poisonous when taken internally, in quantities; but if used in the manner we have indicated, no fear need be entertained of the slightest injury resulting from it. Examined immediately after a thorough sprinkling with the hellebore mixture the quantity on any bunch of fruit will be found to be infinitesimal, and the first shower of rain would remove it all. If it be found necessary at any time to apply the mixture to bushes where the fruit is ripe, and just ready to be picked, it might then be washed in water before using, which would readily remove every trace of the powder. During the past ten years, many thousands of pounds of hellebore have been used in Europe and America, for the purpose of destroying this worm, and we know of no case on record where injury has resulted from its use.

Carbolate of lime has also been recommended as a remedy for this insect pest. This is a dark-coloured powder, with a strong smell of coal tar, and seems to be very variable in its composition, as prepared by different manufacturers. While we are not prepared to reject all such preparations as worthless for this purpose, still, from the experience we have had in their use, we hold them in but little esteem, ranking them very far below hellebore in effectiveness and in economy also; for although the carbolates are sold at a less price per pound, it takes so much more to go over the same number of bushes that it is really far more costly than the hellebore. The following experiments which we made with carbolate of lime during the past summer will show what success we had with it:—On the 24th of May we found the saw-fly larvæ plentiful on some gooseberry bushes, so, selecting a bush to experiment on, we first sprinkled it well with water, then, having marked one of the branches we counted the number of larvæ on it, and found them to number thirty; this branch was then well dusted with the carbolate. It was now evening. The next morning we examined the branch, and found 24 on it still feeding. We then gave it a second dusting, and during the day twelve of their number fell to the ground, but they were still living and crawling about. We then gathered the remaining twelve, and placed them in a glass with the dusted leaves, but they all survived, and soon went into the chrysalis state. This powder being so variable in its composition, it is possible that some may succeed better with it than we have done. All we can say is, that we got the best we could find, and conducted the experiments fairly; the results speak for themselves. Our own view is, that while so safe, economical and speedy a remedy as hellebore is to be had, it is not worth while wasting time in applying preparations so much inferior.

*Hand-picking.*—This, although almost a hopeless task when the larvæ have attained to any size, and have scattered, may be very advantageously followed while they are young, and feeding in groups of from 20 to 40 on a leaf. An experienced eye will soon detect them, usually on the lower leaves on the bushes, the little holes they eat in the leaves serving as a ready means of discovering their location. Many a brood may thus be destroyed, and one has the satisfaction of knowing that when taken in this young state, the evil they would otherwise accomplish is "nipped in the bud."