

(I.) A dry application :

One part of Paris Green may be mixed with from 25 to 50 of land plaster or common flour. This is useful on all plants of which the foliage is not used as food.

(II.) A liquid application :

(a.) For Codling Moth, Plum Curculio and the young Canker-worm, not more than from 2 to 4 oz. in a barrel of water (40 gallons) or in smaller quantity, $\frac{1}{8}$ to $\frac{1}{4}$ oz. in a pail of water. To be applied as a fine spray by means of a force pump. The foliage must not be drenched, but the spray should only be allowed to fall upon the trees until it begins to drip from the leaves.

(b.) For general use on mature foliage :—

$\frac{1}{2}$ lb Paris Green,
50 gallons water.

Or in smaller quantities the following formula may be used, which is almost in the same ratio as the above :—

$\frac{1}{2}$ oz. Paris Green.
1 pailful of water.

First mix the Paris Green separately with a small quantity of water, then add to the whole supply. All washes containing Paris Green must be constantly stirred to keep it in suspension or it will sink to the bottom.

For the Codling Moth, liquid application (a) should be sprayed upon the trees as soon as all the petals have fallen from the flowers. For the Canker-worms the eggs of which hatch out during a comparatively long period, two applications should be given of liquid application (a), one before the buds open, and the other as soon as the petals have fallen. For the Plum Curculio, liquid application (a) should be sprayed over the trees as soon as the young plum has formed. This may be repeated a fortnight later.

With the above, as with all attacks by injurious insects, the great secret of success is prompt action, and when making trial of this remedy let the spraying be done exactly at the time, and in the manner recommended. The spring applications are of the greatest importance. Prof. S. A. Forbes, State Entomologist of Illinois, who was one of the first to systematically investigate these remedies, in comparing his operations for 1885 and 1886, writes to me: "Our work of 1886 differed in the time and number of applications from one to three, early in the season. The general result was almost the same as the year before, going to show that these early applications are the only ones that are effective and necessary."

Frequent enquiries are made, and occasionally misstatements appear, as to the possible danger of poisoning the consumers of fruit and crops, protected with these arsenical poisons, which it is urged may be absorbed by the plants. These statements are however quite inaccurate as a very elementary knowledge of vegetable physiology will show. The two plants most frequently enquired about are the potato when treated for the Colorado beetle, when it is suggested that the tuber may absorb arsenic from the soil; and the apple when treated for the Codling Moth, when fear is expressed that the poison may be absorbed through the stigma and laid up in the seeds. With regard to the first it must be borne in mind that the tuber of the potato is not a root, but a repository of prepared nutriment for feeding the next year's growth, in fact a winter bud, a form of consolidated vegetation found in many plants as a means of carrying them over the winter. The starch with which it is stored is not laid up from anything that can be taken in through the roots; but is manufactured in the leaves from the liquid and gaseous food of the plant taken in through the roots and leaves, and is then passed down again through the tissues of the plant and laid up as starch in the tubers.

With regard to the second statement, it should be remembered that the stigma of a flower is without any epidermis and is exceedingly delicate, so that any corrosive poison like arsenic, in even a very weak solution, would be much more likely to injure the stigma than to be absorbed, and further than this, even in the natural operation of fertilization, the stigma is a passive member and absorbs nothing. The activity is on the part of the pollen which pushes out its fovilla bearing