

# How to use Insecticides and Fungicides.

A TABLE TAKEN FROM A BULLETIN OF THE AGRICULTURAL COLLEGE OF MICHIGAN, AND ARRANGED FOR THE PROVINCE OF QUEBEC.

Farmers and all fruit-growers begin to see the need of protecting their crops by the use of fungicides and insecticides. We have tried to condense, in a few words, the manner of preparing and using these remedies, under the form of a table easy of preservation and consultation.

**Explanatory Notes.**—Although the number of applications, here recommended, may be useful in seasons when fungous diseases, due to mildew, are more especially severe, it will often happen that a smaller number of applications will suffice.

The asterisk (\*) shows that care must be taken, when sprinkling plants or trees in bloom, not to overdo it.

The dagger (†) indicates that it is dangerous to use poison on fruit, and that at least three weeks or a month must be allowed to elapse between the application and the gathering of the fruit.

TREES OR PLANTS.	1st APPLICATION.	2nd APPLICATION.	3rd APPLICATION.	4th APPLICATION.	5th APPLICATION.	6th APPLICATION.
<b>CHERRIES</b> ..... (Lice, weevils, worms, rust, smut.)	As soon as the flower-buds show, but before they burst, Bouillie-Bordelaise; for lice, Emulsion of petroleum.	When the fruit is formed use Bouillie-Bordelaise and Paris-green. *	10 or 14 days after, if the rust appear, repeat application.	10 or 14 days after, use the ammoniacal solution of copper carbonate. †		
<b>CABBAGE</b> ..... (Worms, caterpillars, lice.)	As soon as the worms or caterpillars appear, Paris-green, petroleum emulsion or pyrethrum.	If they re-appear, Paris-green may be used, if the cabbage is not hearting.	When hearted, use salpêtre (a dessert-spoonful in a gallon of water) or pyrethrum.	Repeat, if the worms reappear; against the cabbage-grub, infusion of hellebore round the roots.		
<b>STRAWBERRIES</b> ..... (Rust.)	Before vegetation begins in spring, Bouillie-Bordelaise.	Just before the flowers open, Bouillie-Bordelaise and Paris-green.	After the fruit is formed, ammoniacal solution of copper carbonate. †	Bouillie-Bordelaise, as soon as over fruiting, if the plants are to be kept on.	Remark.—Young beds to be treated from the 2nd and 4th applications to the fruit bearing plants.	
<b>RASPBERRIES AND BLACKBERRIES</b> ..... (Rust and Anthracnose.)	Cut the stems that are badly anthracnosed. Before buds open, sprinkle with sulphate copper solution.	When new stems appear, Bouillie-Bordelaise and Paris-green.	10 to 14 days later, a fresh dose. †	After gathering fruit, cut away old stems, thin new stems, and sprinkle with Bouillie-Bordelaise if needed.	Remark.—If red-rust appear, dig up and burn the whole plant.	
<b>CURRENTS</b> ..... (Mildew, caterpillars.)	As soon as caterpillars appear on the lower leaves and inside the bush, Paris-green.	If they reappear, same treatment plus Bouillie-Bordelaise against mildew. †	If the caterpillars persist, Pyrethrum or Hellebore. †	After fruiting finished, Bouillie-Bordelaise.		
<b>GOOSEBERRIES</b> ..... (Mildews, caterpillars.)	Bouillie-Bordelaise and Paris-green, as soon as the leaves appear.	Repeat the remedies 10 or 14 days after.	10 or 14 days after sulphur of potash on the English sorts. †	Same repeated 10 or 14 days after. †	If mildew persists, after fruiting over, Bouillie-Bordelaise.	
<b>TURNIPS</b> ..... (Insects, lice, flies.)	On young plants, mixture of Paris-green and plaster; for lice, petroleum emulsion.	Repeat in 10 or 14 days.	Again, in 10 or 14 days, particularly the emulsion.	Against grub, round roots infusion of Hellebore. Pyrethrum and emulsion of petroleum on the leaves if needed.		
<b>PEARS</b> ..... (Spotted leaves, scabs, grubs, caterpillars.)	As soon as buds show, solution of sulphate of iron or of copper.	Bouillie-Bordelaise just before the flower open. *	Bouillie-Bordelaise and Paris-green the week after the flowers fall.	8 to 12 days later, the same.	10 to 16 days later, Bouillie-Bordelaise.	Again Bouillie-Bordelaise, if needed, 10 to 16 days later.
<b>POTATOES</b> ..... (Rust, scald, scab, disease, beetle)	Against scab, &c., steep seed in solution of 2 oz corrosive sublimate & 16 gals. water for 90 minutes.	Prevent the disease by 1 or 2 applications of Bouillie-Bordelaise and Paris-green when the beetles or their larvae appear.	Repeat as often as needed.	When rust in leaves, accompanies rot in tubers, Bouillie-Bordelaise.	Again in 10 days if needed.	
<b>APPLES</b> ..... (Scab or black marks, blossom-grubs.)	Sulphate of copper solution sprinkled on trees before the buds show.	When the buds show, but before they burst, Bouillie-Bordelaise. *	After the flowers fall, in the same week, Bouillie-Bordelaise, and Paris-green.	The same 10 or 14 days later.	The same 10 or 14 days later.	10 or 14 days later, Bouillie-Bordelaise. †
<b>PLUMS</b> ..... (Fungoid diseases, Curculio or weevils.)	Bouillie-Bordelaise and Paris-green when buds expand.	In the week the flowers fall, same treatment.	10 or 12 days later repeat treatment. *	10 or 12 days later, Bouillie-Bordelaise.	10 to 20 days later, use l'eau céleste, or the ammoniacal carbonate of copper solution.	10 to 20 days later repeat the treatment if needed. †
<b>TOMATOES</b> ..... (Scald, rust, rot.)	Bouillie-Bordelaise for rust or rot.	Repeat if needed.	Repeat if needed.	Repeat if needed.		
<b>THE VINE</b> ..... (Fungoid-diseases.)	Before buds open, sprinkle with sulphate of iron or of copper solution.	When the first leaves are half grown, Bouillie-Bordelaise and Paris-green.	When the fruit is set, repeat treatment. *	Same treatment 10 or 14 days later.	10 or 14 days later, if the disease still exists, Bouillie-Bordelaise.	Eau céleste, ammoniacal solution of carbonate of copper. †

## ANIMALS.—Applications to be made as often as needed.

**CATTLE**—(Horn fly)—1. Coat the horns, near the head, with grease or vaseline mixed with a little sulphur, or with a few drops of oil of tar or of carbolic acid. 2. Sprinkle the whole body of the animal with emulsion of petroleum, by means of the pulveriser. 3. Prevent the increase of the larvae by knocking-about the cow dung in the pastures, &c., to hasten its drying up.

**SHEEP AND HOGS**—(Lice, fleas and other parasites).—Emulsion of petroleum with the pulveriser.

**DOGS AND FOWLS**—(Lice fleas, and other parasites).—Blow pyrethrum powder into the nooks and crannies of the hen house with the insect-bellows. (From the French.)