

insecticides as well as by poisons. It is advisable to make the emulsion shortly before it is used.

Whale-oil soap spray is prepared as follows: Dissolve it in hot water if wanted quickly. For aphids and other common sucking insects use 1 pound of soap to 5 to 8 gallons of water. In using any of the insecticides, especially contact sprays, it is important to apply the solution in as fine a mist as possible. For house plants, a syringe that has a very fine opening may be used. For the garden, use a pump and hose to which is attached a very fine nozzle through which the solution is forced in the form of a mist. The leaves should be sprayed on both surfaces and all other parts of the plants as well, to make sure of hitting all of the insects.

Cutworms.—These have been grouped with the insects with mouth parts formed for biting. Owing to the fact that these insects feed on that portion of the plant which is below or just at the surface of the ground, the usual means of applying poisons are not effective. In poisoning cutworms in the garden the following mixture will be effective:

Bran or middlings	50 lbs.
Paris Green	1 lb.
Corn Syrup	2 lbs.
Water enough to moisten	

The bran or middlings are thoroughly mixed with the Paris Green while dry, then the syrup is dissolved in a gallon of water and the mixture is moistened until, when pressing a handful firmly, a slight amount of water may be squeezed out. Apply the mixture at once to the surface of the ground around the plants in the infested area. Apply it broadcast in the evening, and work it into a half inch of the surface soil with a garden rake. This will give better satisfaction than applying to the surface, because the majority of the cutworms in this province feed just below the surface of the ground, and unless the poison is worked into the surface soil, little or no injury is done them.

Proper cultural methods are very important in combating all insects. A thorough cleaning up of the ground each fall after the crops are removed will be found to be beneficial. All dead leaves, diseased plants, etc., should be raked into piles and burned. Then the ground should be plowed to a depth of six or seven inches and harrowed. Such treatment in the garden when associated with a short rotation of crops will insure to a marked extent freedom from insect pests.