

Dissolve the copper sulphate (by suspending it in a wooden or earthen vessel containing 4 or 5 or more gallons of water). It will dissolve more quickly in warm water than in cold. Slake the lime in another vessel. If the lime, when slaked, is lumpy or granular, it should be strained through coarse sacking or a fine sieve. Pour the copper sulphate solution into a barrel, or it may be dissolved in this in the first place; half fill the barrel with water; dilute the slaked lime to half a barrel of water, and pour into the diluted copper sulphate solution then stir thoroughly. It is then ready for use. (Never mix concentrated milk of lime and copper solution.)

A stock solution of copper sulphate and milk of lime may be prepared and kept in separate covered barrels throughout the spraying season. The quantities of copper sulphate, lime and water should be carefully noted. Bordeaux mixture deteriorates with age and should be used as soon as made.

To test Bordeaux mixture, let a drop of ferrocyanide of potassium solution fall into the mixture when ready. If the mixture turns reddish-brown, add more milk of lime until no change takes place.

For poisoning the mixture when using it for the potato beetle use 6 lbs. of copper sulphate, 8 ounces or more of Paris green, or 4 lbs. of paste arsenate of lead; or preferably 8 ounces of Paris green and  $1\frac{1}{2}$  pounds of powdered arsenate of lead to 40 gallons of water.

#### POISONED BRAN MIXTURE. (For Cutworms and Locusts.)

Bran. . . . .	20 lbs.	Paris green. . . . .	$\frac{1}{2}$ lb.
Molasses. . . . .	1 quart.	Water. . . . .	2 to 3 gallons

Mix the bran and Paris green thoroughly in a wash tub, while dry. Dissolve the molasses in the water and wet the bran and poison with the same, stirring well so as to dampen the bran thoroughly.

For cutworms a simple formula for small gardens is one quart of bran, one teaspoonful of Paris green and one tablespoonful of molasses, with sufficient water to moisten the bran.

Shorts or middlings in place of bran are also useful for cutworm control. For locusts excellent results have been obtained with sawdust used as the carrier for the poison.

#### FOR KILLING INSECTS.

##### KEROSENE EMULSION:

Kerosene (coal oil) . . . . .	2 gallons.
Rain water. . . . .	1 gallon.
Soap. . . . .	$\frac{1}{2}$ pound.

Heat the water, cut the soap into fine shavings and add them to the water stirring till all is dissolved, then pour this into the kerosene and churn the whole violently with a syringe or force pump for about five minutes or until a thick creamy emulsion is produced. This makes the stock solution which as it cools thickens into a jelly-like mass. When required for use dilute with nine times its measure of warm water. The stock solution when properly made will keep for months if kept from the air.

When only a small quantity of kerosene emulsion is required for immediate use, the following mixture is recommended.

Kerosene. . . . .	1 quart.
Flour. . . . .	8 ounces.
Water. . . . .	2 gallons.

Stir together the flour and kerosene, then add the water and churn briskly for five minutes. Should be used at once.