C I B A

CIBA of India Limited **Pesticide Department**

Post Box 479 Bombay 1

DIMECRON

Systemic insecticide on the base of Phosphamidon

Active ingredient:

Dimecron contains as active ingredient 2-chloro-2-diethylcarbamoyl-1-methylvinyl-dimethyl phosphate, for which the common name is Phosphamidon.

Dimecron is available commercially as

Dimecron 100, a solution containing 1000 g of Phosphamidon per litre (approx. 10 lbs per imperial gallon).

How to apply Dimecron:

Dimecron is primarily a stomach poison. It is highly effective against sucking, chewing and mining insects, as well as against sucking instars of spidermites.

Dimecron is well tolerated by all plants and is completely odourless and colourless. It does not taint even delicate crops, and can therefore be used on all kinds of cultures, such as Fruit trees, Olives, Citrus, Bananas, Sugar-cane, Cotton, Tobacco, Tea, Cocoa, Vegetables, Sugar-beets, Potatoes, etc.

Excellent results have so far been achieved against the following pests or groups of insects:
Aphids, Psyllids, Woolly apple aphid.
Leafhoppers (Jassids), White Flies, Thrips, Capsids,
Fruit Flies, Codling Moth, Sawflies.
Leafminers and Stemborers.
Leaf-feeding Caterpillars and Beetles such as Fall webworm, Gypsy Moth,
May-Beetles, etc.
Bollworms on Cotton.
Grasshoppers.
Spidermites.

Spraying intervals:

Due to the rather rapid decomposition of Phosphamidon, treatments with Dimecron should be repeated according to the reappearance of pests. Spraying intervals have to be determined considering the development of the particular insects. They may vary from 10 to 20 days.

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Rate of application:

The following concentration is applicable in case of a normal spray with 100-125 gallons per acre (high volume), according to the strength used and the various pests to be controlled:

	Sucking insects	Chewing and mining insects
Dimecron 100	(0,02 %) 1 oz per 30 imp. gals (20 cc/100 litres)	(0,03%) 1 oz per 20 imp. gals (30 cc/100 litres)

Against the individual pests on Cotton, Tea, Coffee, Cocoa, Rice, Wheat and other Cereals, Tobacco, Sugar-cane, Potatoes, Beets, Vegetables, Hops, Foddercrops, Ornamentals; Fruit-trees, Olives, Citrus, Vine, the following quantities of active ingredients, irrespective of the formulation used, should be applied:

3½ oz of Phosphamidon per acre against sucking insects, such as: Aphids, Psyllids, Wolly Aphids, Leafhoppers (Jassids), White Flies, Spidermites.

4½ to 6 oz of Phosphamidon per acre against chewing and mining insects, such as: Fruit Flies, Codling Moth, Sawflies, Leafminers, Stem and Twigborers, Leaf-feeding Caterpillars and Beetles, Grasshoppers.

For dusting it may be indicated under certain conditions to increase the application rate upto 9 oz per acre.

Insecticidal action and degradation on the surface and inside the plants:

Phosphamidon is a systemic insecticide. It is taken up by all parts of the plant and is carried by the sap. The translocation takes place from the roots to the leaves and from the leaves to the fruit. Thus, an effective and lasting distribution of the active ingredient within the plants is ensured.

The absorption of Phosphamidon through the roots takes place over a prolonged period. The highest concentration of the active ingredient is reached some 3-5days after sprinking. It then decreases rapidly and falls below 1 part per million after 10 days. After spraying, the greater part of Phosphamidon is absorbed by the leaves within 1-3 hours. The concentration inside the plant diminishes quickly and reaches 0.1-0 parts per million some 8-10 days later. Part of the active ingredient absorbed is also translocated from the leaves into the fruits; there a temporary increased concentration can be noticed during the first 4 days after spraying. Because of this delayed translocation of some additional Phosphamidon into the fruits the decrease of the amount deposited is also somewhat delayed. Here again, however, the residues decompose rapidly. They are below 1 part per million after 8-10 days and disappear completely after 15-20 days. Due to the fast decomposition of Phosphamidon, the last spraying may, if necessary, be carried out as late as 8-10 days prior to harvest.

On various crops (cotton, potatoes, straw-berries) a considerable increase of yield has been observed. This increased production seems to be due - apart from the insecticidal effect - to a growth-stimulating influence of Dimecron.

Precautions:

When handling Dimecron, the standard precaution is necessary, which are normally indicated when phosphoric esters are applied. Contact with the skin, as well as eating and smoking during work should be avoided. Accidental splashes should be washed off with soap. Due to the rather low percutaneous toxicity of Dimecron, its application can be considered as rather safe. Whenever poisoning symptoms occur, a physician should be called immediately.

Antidote: Atropine.

Dimecron is harmless for fish. Since it is however poisonous to bees, spraying of plants in bloom should be avoided.

GNJ:KVS

Pest/2/7/63.

Dilution table for dry & liquid preparations.

Dry Products

%	for 100 litres spray solution.	for 100 imp.gallons spray solution.
0.5%	½ Kg	5 Kgs.
1%	1 Kg	10 Kgs.
2%	2 Kg	20 lbs.

1 Kg = 1000 grammes
1 lb.= 454 grammes

Liquid Products:

%	for 100 litres spray solution	for 100 imp.gallons spray solution.
0.02%	20 cc.	3 Fl.oz.
0.03%	30 cc.	5 Fl.oz.
0.04%	40 cc.	6 Fl.oz.
0.1%	100 cc	16 Fl.oz.
1%	1000 cc.	1 imp.gallon.

1000 cc. = 1 litre
1 Fl.oz. = 28.4 cc. Approx.
1 imp. gallon = 4.5 litres (4500 cc) approx.