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# FIELD EVALUATION OF DIFFERENT LARVICIDES AGAINST *ANOPHELES* AND *CULICINE* MOSQUITOES

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Fenthion, Abate, Primiphosemethyl, Mosquito larvicidal oil and Pyrosine oil have been evaluated as a larvicide against *Anopheles* and *Culcine* mosquitoes.

Fenthion and Abate have proved to be highly effective against the aquatic stages of mosquitoes by Wattal *et al.* (1975). Kaul *et al.* (1980) reported that Abate and Fenthion were most effective against the Masonia mosquitoes. A number of alternate larvicides belonging to organophosphorous (O.P.) group and [illegible] were evaluated against *Culex* and *Anopheles* breeding in Gurgaon urban.

The Gurgaon urban is having a population of 88220 situated 35 km away from Delhi. The breeding sites consisted pits, drains, wells, over-head tanks and reservoirs with moderate to heavy organic pollution. Abate was used only in drinking water while Fenthion in grassy pits and ponds. Mosquit larvicidal oil was used in standing water where layer of oil was possible and Pyrosine oil in breeding places with high organic pollution. Weekly larval collections were made from all the breeding places of the town. The post spray larval and pupal density was checked after 24 hrs of treatment.

The result tabulated showed that among organo-phosphorous larvicides, Primiphosomethyl was most effective. It produced 100% larval kill at 12.5 g actual ingredient per hectare of water surface. Pyrosine oil was found to give larval kill when applied at 40 litre of emulsion concentrate/hectare. The trial showed that larvicides could effectively control the breeding of *Anopheles* and *Culicine* mosquitoes The poor impact of larvicides on adult densities was due to the large indoor water collection being left unsprayed.

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Table—I. Field evaluation of larvicides against the mosquito larvae at Gurgaon.

| Dosage i./hectare | Water temp.(°C) | pH | Pre Spray density* | | | | | Post Spray density* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | larval instars | | | | pupae | larval instars | | | | pupae |
| | | | 1 | 2 | 3 | 4 | | 1 | 2 | 3 | 4 | |
| Fenthion (1000% E.C.) 140.0 | 26,4 | 7.5 | 20 | 16 | 18 | 12 | 4 | 9 | 12 | 14 | 7 | Nil |
| Abate (500% E.C.) 25.0 | 25.3 | 7.5 | 13 | 14 | 16 | 11 | 2 | 5 | 6 | 8 | 9 | Nil |
| Primiphoso-methyl 250% E.C. 12.5 | 27.8 | 8.0 | 15 | 10 | 19 | 8 | 3 | Nil | Nil | Nil | Nil | Nil |
| Mosquito-larvicidal oil 200 litres | 25.6 | 8.5 | 19 | 12 | 15 | 7 | 2 | 10 | 4 | 7 | 2 | Nil |
| Pyrosine oil 225 litres | 24.8 | 7.0 | 21 | 18 | 22 | 12 | 1 | 4 | 8 | 6 | 4 | Nil |

*Average of five dips.