

TABLE 1.—Mortality of *A. taeniorhynchus* larvae exposed to FLIT MLO

Amount of FLIT MLO added	Cistern water pH 8.7, sal. 0.1	Well water pH 7.4, sal. 1.25	Sea water pH 7.6, sal. 25
0.5 g.p.a.†	100(58) [‡]	100(254)	100(126)
1.0 g.p.a.	100(129)	100(228)	100(206)
2.0 g.p.a.	100(127)	100(103)	100(127)

† Gallons per acre.

‡ Percentage mortality and number of insects tested (in parentheses).

with an adjustable conical spray nozzle, which was set to deliver a coarse spray. The required amount of FLIT MLO was added to the sprayer for a particular pool and the total volume was delivered to the pool. For the smaller pools the delivery rate of the sprayer was determined and the individual pools were treated using a timed emission of the sprayer. When treating the large pools it was necessary for the operator to walk into the pool; in these cases the operator worked from the center of the pool to the edges and in this way the oil film was not disturbed by the operator walking through it.

An immediate observation was the ability of the oil film to spread through the pneumatophores and to break up a light scum and algal growth. Post-spray checks were made at 24 and 48 hours after treatment.

The results are as follows:

SMALL POOLS. Irrespective of the type of pool, or the presence of a light scum or any algal growth, FLIT MLO at the equivalent

of 0.5 gallon per acre provided complete control. The presence of pneumatophores did not inhibit the ability of the oil to spread over the surface. In some cases a heavy scum stopped the oil spread and larvae in these areas were protected.

LARGE POOLS. FLIT MLO at 2.0 gallons per acre was necessary to provide control. The large surface area permitted the wind to shift the surface film and larvae were found in the oil-free areas. In the one-quarter acre pools, control was estimated to be 90–95 percent effective.

These laboratory and field trials show that FLIT MLO is effective for the control of *A. taeniorhynchus* larvae. In small pools 0.5 gallon per acre provided complete control; in the large pools 2.0 gallons per acre were necessary to give good control. The less effective control in the large pools was attributed to the effect of wind on the surface film of oil. FLIT MLO was equally effective in water types ranging from fresh water to sea water.

SEPARATION OF THE FEMALES OF *AEDES HENDERSONI* COCKERELL AND *AEDES TRISERIATUS* (SAY) DIPTERA: CULICIDAE BY THE TARSAL CLAWS

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Females of the treehole mosquitoes *Aedes hendersoni* Cockerell and *Aedes triseriatus* (Say) are extremely similar in

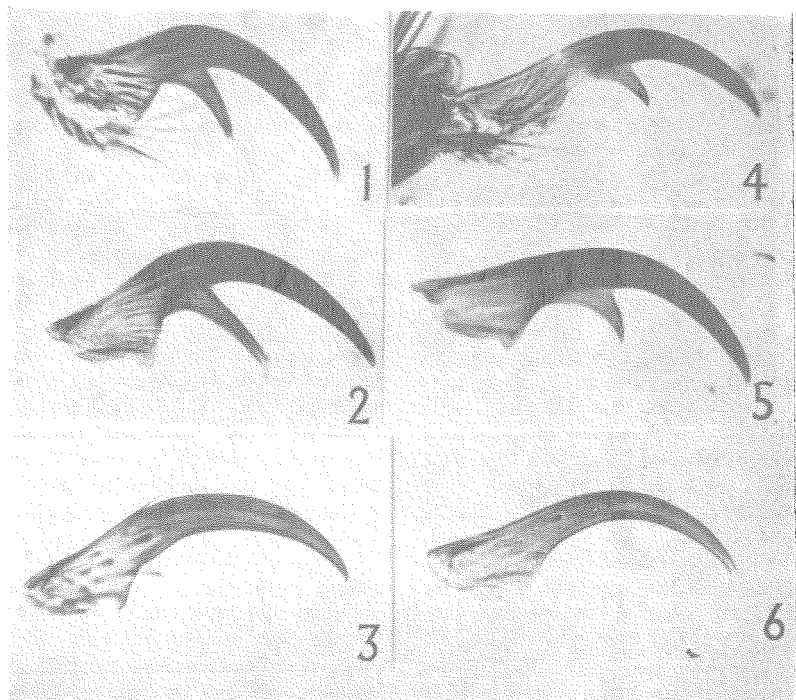
size and coloration. Where the range of these species overlaps, as in certain areas of the Midwest, identification of flight-worn or rubbed females is extremely difficult or indeed impossible on the basis of coloration alone.

In comparing specimens of *A. triseriatus*

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HENDERSONI

TRISERIATUS



FIGS. 1-3.—Female tarsal claws of *Aedes hendersoni* Cockerell; FIGS. 4-6, of *Aedes triseriatus* (Say). FIGS. 1 and 4, fore tarsal claws; FIGS. 2 and 5, middle tarsal claws; and FIGS. 3 and 6, hind tarsal claws.

from Kentucky, Georgia, Indiana, Nebraska, and Massachusetts with specimens of *A. hendersoni* from Colorado, Nebraska, and South Dakota, it was found that differences in the shape of the tarsal claws provide a positive and easy means for separating the females of these species.

In *A. hendersoni* the fore and middle tarsal claws (Figs. 1-2) are more abruptly

curved than the corresponding claws in *A. triseriatus* (Figs. 4-5). The tooth of each claw in *hendersoni* is much longer and is inserted at a more acute angle than the tooth of the corresponding claw in *triseriatus*. The hind tarsal claw of *hendersoni* (Fig. 3) is more strongly curved and more robust than that of *triseriatus* (Fig. 6).