

and where they came from has greatly improved our public image and is one of our better means of public relations.

At the end of the season the information is charted to indicate the day of the service request, the type of mosquito involved and the mean temperature for that 24-hr period. By evaluating the charts the following information was obtained for 1976.

Aedes sierrensis are not active when mean temperatures are below 60°F. Their activity starts at 60°F, and when the temperature reaches 65°F they are very persistent and aggressive in their search for blood meals. *Culex pipiens* are inactive when mean temperatures are less than 71°F. When the mean temperature reaches 73°F they are highly active. *Anopheles freeborni* generally become active when the mean temperature is 60°F or higher.

Cx. tarsalis are inactive when the temperatures are less than 67°F. When the temperature reached 70°F they were actively in search for blood meals. The charts also indicated that in southern Oregon, *Cx. tarsalis* are going into diapause on the first part of September. On a trial basis for two seasons the Jackson County Vector Control District stopped inspecting and larviciding *Cx. tarsalis* source areas the 3rd week of August. The results had no noticeable effect on the number of service requests involving *Cx. tarsalis*.

WYEMYIA HAYNEI IN MARYLAND¹

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Three larvae of *Wyeomyia haynei* Dodge were collected from a pitcher plant, *Sarracenia purpurea*, at Suitland, Prince George's Co., MD on July 22, 1977. These specimens were distinguished from *Wy. smithii* (Coquillett) by the possession of 2 pairs of anal gills with the dorsal gills much reduced, only ca. 1/3 the size of the ventral pair. *Wy. smithii* has only 1 pair of very

bulbous anal gills. Through the courtesy of Dr. Ronald A. Ward, Medical Entomology Project, Smithsonian Institution, the Suitland specimens were compared with specimens of both species identified by Dodge (1947).

We are certain that previously reported records of *Wy. smithii* from Maryland are correct (Bickley et al. 1971). Adult specimens from Anne Arundel, Dorchester and Worcester counties have brown scales on the mid-lobe of the scutellum characteristic of *Wy. smithii*, and larvae from these localities have only 1 pair of anal gills.

As a result of the collection reported here the known distribution of *Wy. haynei* is extended northward. It appears that Maryland is the only state where both *haynei* and *smithii* are known to occur (R. F. Darsie, unpublished).

References Cited

- Bickley, W. E., S. R. Joseph, Jerry Mallack and R. A. Berry. 1971. An annotated list of the mosquitoes of Maryland. *Mosquito News* 31:187-190.
Dodge, H. R. 1947. A new species of *Wyeomyia* from the pitcher plant. *Proc. Entomol. Soc. Wash.* 49:117-122.

INSECTICIDE STRAINER FOR ULV FOG GENERATORS¹

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One of the recurring problems in the operation of our ULV machines, (Leco® Model HD) has been debris in the insecticide line. This dirt is usually introduced into the system by carelessness when the insecticide container is being filled from 5-gal cans. The dirt lodges in the smallest orifices in the insecticide line—the flow control valve and the flowmeter. When this occurs, the flowmeter must be disassembled and cleaned in order to restore correct operation.

In an effort to eliminate this problem, we installed a strainer assembly in the insecticide line between the tank and the flowmeter. This

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¹ Maryland Department of Agriculture Contribution No. 12.

assembly was used on a trial basis on several of our machines during the summer of 1977. The results were favorable, and we plan to install the strainer assembly on all units serviced by our shop. Use of the strainer does not eliminate the need for periodic flushing of the insecticide lines; it only strains out foreign objects which would clog the narrow orifices. The strainer itself must be cleaned occasionally, but this can be done in the field in minimal time. Do not use paper gasoline filters as they will impede the flow of insecticide.

The strainer assembly we used consisted of the following parts:

- (1) Fuel strainer, shallow bowl type, no shut-off valves, with fine mesh bronze screen (Approx. 120 micron size), Napa Balkamp # 730-2355
- (2) Brass adapter fittings, 1/8" NPT (male) to 1/4" NPT (female), White head #3200 x 4 x 2
- (2) Male connectors, 1/4" Tube x 1/4" NPT, Leco #90387
- (1) Piece of strap iron, 1/2" x 1" x 6" - 8" long. Length will be determined by fuel strainer used.

The approximate cost of these parts amounted to \$5.00 per unit.

To assemble and install this strainer assem-

bly, we used the following procedure. Shape the strap iron into a U with sharp corners. The base dimension of the U is the width of the fuel strainer, measuring from the inlet across the strainer to the outlet. The arms of the U should be 2" in length. Drill 1/8" holes near the ends of the arms and two 1/4" holes in the base of the U. Place the fuel strainer between the arms, and screw the adapters through the 1/2" holes into the inlet and outlet holes of the strainer. Install a connector in each of the adapter fittings.

Locate a convenient spot on the machine and mount the strainer assembly by bolting through the holes in the base of the U. We choose to mount ours on the rack which holds the insecticide tank. Cut the tube which carries the insecticide from the tank to the flowmeter. Connect the portion from the tank to the inlet side of the strainer assembly and the other cut end to the outlet side. The assembly is now ready for use.

When selecting a fuel strainer, we recommend getting one with a cork gasket under the bowl. Cythion® swells a rubber gasket, and it would have to be replaced every time the strainer is cleaned. We also recommend a glass bowl so that the amount of dirt strained out can be determined without disassembling the strainer. When the accumulation warrants, remove the bowl and screen, clean and replace.

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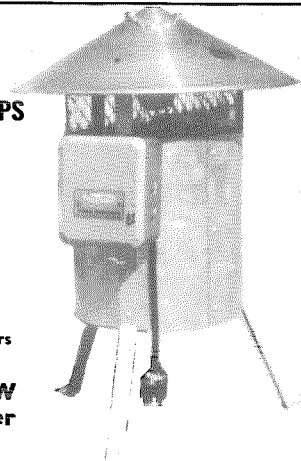
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