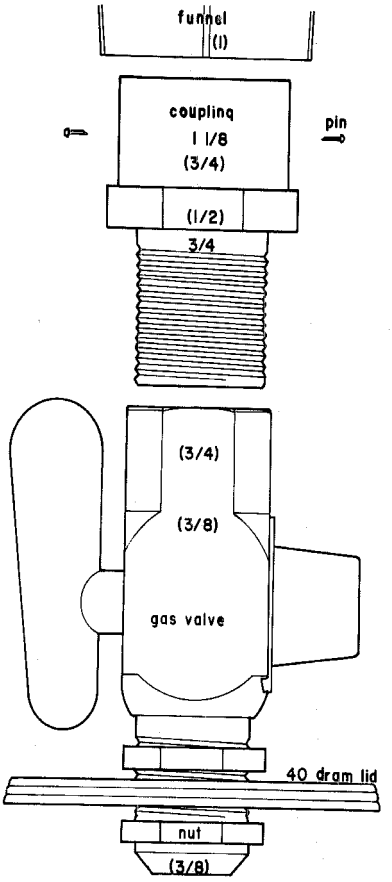

FIG. 2.—Details of valve and coupling assembly.

lodge in the coupling, but not penetrate its interior. Before insertion the pins are heated red hot. The gas valve is screwed on while the coupling is held firmly by a wrench. The valve should screw in until it seats firmly at the constriction point for the change from ¾ in. to ⅜ in. Some trimming of the threaded coupling tip may be necessary for a tight fit. At the bottom of the valve the plastic lid of a 40 dram vial is held by two nuts after being punched through by a cork borer.

OPERATION. The funnel portion is easily handheld by the rim and the dipped aquatic sample can be completely dumped into the large 10.5 in. opening. The 80 mesh screens are staggered so that centrifugal motion, when applied to the concentrator, will cause the water to be expelled under force. This does not damage the organisms and they are rapidly swirled as a bulk to the bottom of the funnel. Rapid release by the gas valve dumps the material into the 40 dram vial. A brief, forceful spray of 95 percent ethyl alcohol from a plastic wash bottle results in complete cleaning of the concentrator and yields a sample of 30 ml at about 40 percent EtOH concentration. This quickly narcotizes the specimens while color and form can be retained if the capped vial is placed in an ice chest. The sample should be analyzed within 72 hours or more preservative must be added.

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LARVAL REARING TECHNIQUE FOR *CULISETA INORNATA* (Will.) [1]

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J. McClintock (1952) stated that the greatest obstacle to the continuous rearing of *Culiseta inornata* in the laboratory was the lack of a suitable technique for the rearing of larvae. Fier, Lengy and Owen (1961) used a technique, modified from that of McClintock, incorporating commercial dog biscuit for whole wheat bread in the diet of the larvae. The main disadvantage of this

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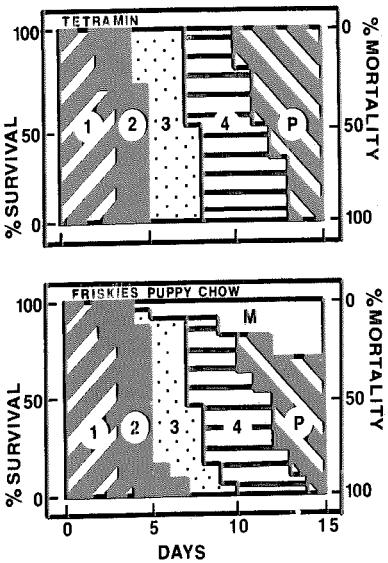

FIG. 1.—Survival and mortality of *C. inornata*. Numbers 1 to 4 designate appropriate larval stages. P=Pupa, M=Mortality.

technique was the formation of a surface pellicle on the larval medium. The purpose of this study was to compare the method of Fier, *et al.* (1961) to a technique utilizing Tetramin®, a commercial fish food. The latter has been used to rear *Aedes stimulans* and *A. vexans* (Kardatzke and Liem, 1972).

The mosquitoes used in this study were obtained from a colony formerly maintained by Dr. W. B. Owen at the University of Wyoming. Two hundred larvae were reared in 4 pans containing deionized water at a depth of 35 mm. One half of this group was fed Tetramin®: a maximum of 100 mg/50 larvae/day. The remaining larvae were reared using the technique described by McClintock (1952) with the modification of Fier, *et al.* (1961). This consisted of using Friskies Puppy Chow® as the larval food. Larvae were reared at 20° C with continuous light.

Bionomic charts, as used by Kardatzke and Liem (1972), were used to represent these data. As Figure 1 indicates, no mortality occurred with the use of Tetramin. In comparison the use of dog food resulted in 28 percent mortality. Both methods yielded similar results through the second instar. Beginning at day 5, mortality progressively increased in the group which was fed dog food. Along with increased mortality, the larvae fed dog food did not transform from one instar to the next as uniformly as the larvae fed Tetramin. This is especially evident in larval instar 3. The fact that the larval medium becomes progressively fouled as dog food is added may be the stressing factor which caused these results.

The advantages of the Tetramin method are: 1) the larval medium does not have to be changed during the larval growth period, 2) a surface pellicle does not have to be removed from the larval medium, and 3) negligible larval mortality occurs.

ACKNOWLEDGMENT. The author wishes to thank Dr. W. R. Horsfall for suggesting the use of Tetramin and for providing space to maintain this colony.

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