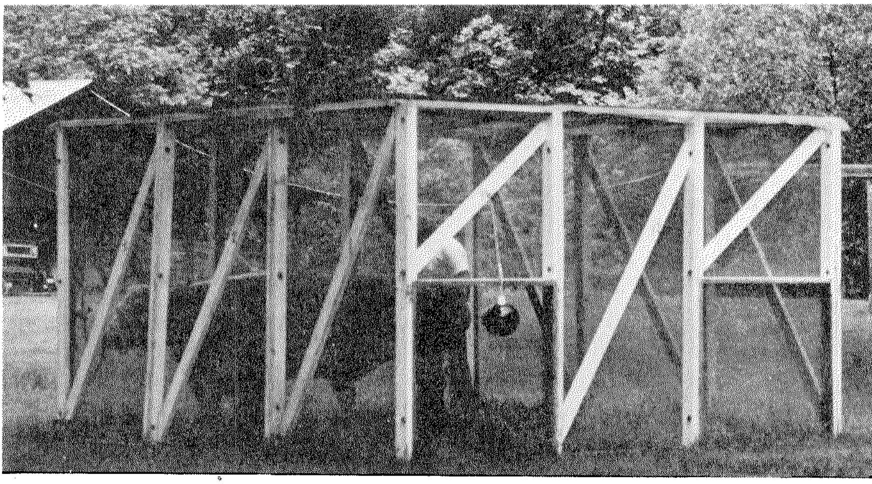

Fig. 1. Screened building for collection of engorged tabanids from a bait animal.

Tabanids that entered the building fed readily on the bait animal and when engorged flew to and rested on the screen where they were easily collected. No particular preference for resting locations by the various species was noted.

Although this technique was used for only a short period in 1975, from early May to mid June, the advantages were quite apparent. The time and labor previously involved in hand collections from a bait animal were reduced up to 90% since it was only necessary to transport the animal to the cage, leave it, and return several hours later. Then the engorged flies were collected in 10-20 min, and the animal was returned to the pasture. Also, any danger of accidents due to the animal were greatly minimized; all specimens were fully engorged; and tabanids that fed on inaccessible areas of the bait animal's body were collected.

During the limited study, over 600 engorged specimens were collected. All species determined to be present in the area by survey traps and by a few comparative hand net collections were collected by this technique.

The technique has the potential for adaptation for other studies. For example, with several such structures, insecticides could be evaluated against tabanids by comparing mortality of engorged flies from treated animals with mortality of those from an untreated animal, or repellents against tabanids could be evaluated by comparing numbers engorged on treated and untreated animals or percentage engorged of all tabanids entering the building over a specified period. Finally, the technique could be used for ecological studies or for comparing the preference of tabanids to various species of animals.

NEW HAUNTS FOR AN OLD FOE

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A new wrinkle appeared on the Morris County mosquito scene in June, 1977. That date marked the discovery of *Aedes sollicitans* larvae in our upland environment. A few stray adults have wandered up our way from tidewater areas (many miles distant) over the years but now we have had a real taste of what many of our salt marsh brethren have long been accustomed to.

What has caused this profound change in our mosquito larvae is not a cataclysmic lowering of our topography to near sea level, but the accumulation of thousands of tons of salt stockpiled in our county in preparation for its application upon our thoroughfares during the winters. Other writers have recorded the discovery of larvae in pools which are situated near salt hay (brought in to stabilize newly-graded embankments). This situation is unique, however, in that the area found breeding in the Gillette section of Passaic Township has probably had an increased saline content in the breeding areas near a highway storage yard for some time before it was discovered to be a suitable spot for egg deposition by one of our fairly rare visiting *sollicitans*.

Our crews have paid particular attention to this area and expect to have this situation under control in the future. However, the control of *sollicitans*' breeding brings a new dimension to mosquito control in upland areas as this present situation is likely to be repeated in the vicinity of many of our salt sheds. In the future, as the salt actually spread upon our roads is washed into ditches and collects in low pockets, similar breeding sites may appear along many of our highways and arterial roads.

CULISETA INORNATA IN THE METROPOLITAN MOSQUITO CONTROL DISTRICT, MINNESOTA

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In the Metropolitan Mosquito Control District we have found some interesting entomological information about *Culiseta inornata* Williston. We wonder if other areas similar to ours might show a different picture.

Ten species of mosquitoes constitute 98+% of all mosquitoes taken in bite collections. *Cs. inornata* is never among this top ten list of species. Yet, we collect many specimens in both larval and light trap collections.

This information tells us that even though *Cs. inornata* is present, it does not cause a problem. The univoltine spring *Aedes* species and *Cs. inornata* start breeding in early April. Over the years we have found the first identifiable (3rd instar or larger) *Cs. inornata* larvae in the latter half of April. Prior to this time we treat sites with larvae without checking on the species. Once the *Cs. inornata* are big enough to identify, we check to be sure there are *Aedes* larvae in the site before applying insecticide. We do not waste time and insecticide treating sites with a pure culture of the non-problem *Cs. inornata*.

We consider this information to be valuable. Using it we can keep from using insecticide unwisely. *Cs. inornata* is a part of the food chain for beneficial forms of life. Unless it proves to be a vector of disease or becomes a major problem species, we can continue to let it go untreated.

We gratefully acknowledge the suggestions of W. I. Barton for the preparation of this paper.

A COMPACT MAP-PANEL SYSTEM FOR LARGE ACREAGE[1]

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Maps are an integral part of a program for the surveillance of a mosquito problem and the solution of that problem by insecticide application or other means. For many years the New Jersey State Airspray Program has used United States Geologic Survey Maps (U. S. Geological Survey, Washington, D. C.) for the purposes of denoting areas which have been, or will be, aerially treated with insecticide. These maps are valuable in that they offer the amount of acreage concerned, the type of geologic environment, and the relationship of these areas to other physical features. Using such detailed maps, however, can be a problem. The scale of these maps (1:24,000) is such that more than one map may be necessary for an airspray area. This results in having to refer to perhaps 12 or 13 maps at a time in order to orient oneself to an airspray area and its surroundings. To gain a total perspective of the area, one must lay out the maps side by side on the floor, or other horizontal surface. The wide borders on the

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