

PARTMENT, CIVIL OR MILITARY, TO GRANT APPROPRIATIONS FOR THE PURCHASE OF MECHANICAL EQUIPMENT.

IN A CIVILIAN POPULATION OF 100,000 MOSQUITOES CAN BE CONTROLLED FOR 25c PER CAPITA PER YEAR; IN A MILITARY AREA THE COST SHOULD BE LESS. HUMAN LIFE CAN NOT BE MEASURED IN DOLLARS AND CENTS ESPECIALLY WHERE IT INVOLVES THE NATION'S MOST PRECIOUS POSSESSION, THE YOUTH OF OUR COUNTRY.

ANILINE DYE DUSTS

In far flung projects in the tropics where new species of mosquitoes are encountered, or species of which the habits are little known, aniline dye dusts may be used to study flight range, longevity and other habits.

At present the Des Plaines Valley Mosquito Abatement District is carrying on a series of staining experiments to determine the day-to-day movements of mosquitoes in a limited area, following the initial long flight immediately after emergence of a brood at a marsh, takes place.

This method of staining is described in the Proceedings of the New Jersey Mosquito Extermination Association, 1937, under "New and Significant Experiences in Mosquito Control in the Des Plaines Valley Mosquito Abatement District," also in the 1943 Proceedings of the New Jersey Mosquito Extermination Association entitled "Flight Range and Longevity of Mosquitoes Dusted with Aniline Dye."

CRUDE OIL USED FOR MOSQUITO CONTROL

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Crude oil is being used successfully for the control of mosquitoes at the U. S. Naval Air Training Center, near Corpus Christi, Texas.

According to Ginsburg and Rudolfs (1941)*, the ideal mosquito oil should contain enough of a low boiling petroleum fraction to insure quick penetration into the tracheal system and rapid kill of larvae and pupae; and a sufficient quantity of a high-boiling fraction to leave a lasting film.

Tests were made on this oil and the results as compared with the "ideal oil" as recommended by Ginsburg and Rudolfs are as follows:

	Ideal Oil	Crude oil used by U. S. N. A. T. C.
Type	Distillate fuel	Crude - distillate
Gravity (A.P.I.) 60° F.	27 - 33.....	42.5
Flash	130° F. or higher	100° F.
Viscosity at 100° F.	35 - 40.....	34
Odor	none offensive.....	same
Distillation	90% at 630°	590° F.
	10% at 430° - 450° F. ..	444° F.
	50% at 510° - 550° F. ..	497° F.

This crude oil is obtained from an oil company adjacent to the Naval air Station and offers the solution to our mosquito oil problem. The oil is highly toxic to the larvae and pupae, spreads rapidly and has a lasting film on either the fresh or saline water that is present.

For the distribution of this oil, a decontamination unit, that was not being used by the Chemical Warfare Department, was adapted for mosquito control. The unit consists of a solution tank, pump, and motor. The tank is constructed of wood with steel rims. It has a five hundred gallon capacity. The three cylinder pump operates under a recommended pressure of 400 pounds