

head nets (for sentries at night) and the use of prophylactic medication. The Public Health Service is now engaged in adopting the New Jersey pyrethrum larvicide to use in hand spray pumps and in testing other insecticides and repellents for possible use in protecting groups at fixed stations briefly occupied at night, such as anti-aircraft gun crews, and bivouac encampments. This protection is of course against adult mosquitoes.

It is believed that all of these measures will greatly reduce the annoyance from mosquitoes and will hold the malaria rates to a low figure among the trainees.

Camp Raritan New Jersey

By E. D. Potter

At Camp Raritan a project of large size has been in operation since the first part of June. This calls for 90 laborers and 10 inspectors and oilers. Because of the shortage of labor we have been operating with only 30 laborers and at the present writing only 12½% of the area has been reconditioned. To prevent emergence of mosquitoes we are spraying with New Jersey larvicide both by hand and by power sprayer supplied by the W.P.A. This unit is mounted on a small flat car with a 250 gallon tank in which the emulsion is mixed with water taken from the ditches. Two hoses are run from this pump each one being 150' in length so both sides of the track may be treated at the same time. The entire unit is pulled by a small engine supplied by the U. S. Army and is doing very efficient work.

DEVELOPMENTS IN MOSQUITO CONTROL Middlesex County Spray Unit

By Wm. Thom

For sometime past, the Middlesex County Mosquito

Extermination Commission has been concerned with the heavy infestation of mosquitoes in the vicinity of Farrington Lake and this year, after consultation with municipal authorities and owners of industries in the communities adjacent to the lake who offered financial support, made a survey of the lake area to determine the best means of relieving the situation.

Farrington Lake, which lies between East and North Brunswick Townships, is a narrow body of water about ten miles long. It is an artificial lake confined by masonry dams to five levels in the deep gully formed by Lawrence Brook. It receives its water from the flat swampy areas of South Brunswick and serves as a water supply for the city of New Brunswick.

Some parts of the lake are quite shallow and there are a number of coves too shallow to float a boat. In other parts the shores of the lake are very steep and overgrown with brush.

As breeding was found pretty generally along the shore of the lake it was decided to spray the surface of the lake along the shore line periodically with New Jersey larvicide for a width of 30'. The problem was to find equipment flexible enough to be used either in a small boat or in a truck and light enough to be readily transported by hand.

The pump selected was furnished by the Trench and Marine pump Company, Inc., of 126 West 22nd Street, New York City, and is known as their Trench-Marine #357-E portable pressure pumper, two stage design, self priming with 1 1/2" suction and discharge, bronze fitted, ballbearing equipped with single cylinder air cooled Briggs and Stratton Gasoline engine developing 1.8 H.P. direct connected through flexible coupling, mounted on steel base with tubular carrying handles. It weighs about 175 pounds which makes it easy for two men to carry. It has a capacity of 30 gallons per minute when

discharging through two ten foot lengths of 1" hose fitted with $\frac{1}{4}$ " nozzles and under a working pressure of 25 pounds will throw a solid stream about thirty feet.

In addition to the $\frac{1}{4}$ " suction pipe there is a $\frac{1}{4}$ " connection into the suction chamber valve controlled, through which the larvicide concentrate is drawn and thoroughly mixed with lake water in its passage through the pump chamber.

In operating on the large open areas of the lake, the pump is mounted on a 24" flat bottomed scow propelled by an outboard motor. Water is pumped directly from the lake and larvicide drawn from a 55 gallon drum.

At other levels of the lake a 14' rowboat is used and larvicide is then drawn from a 5 gallon can. On other parts of the lake, the pump is mounted on a light pick-up truck in which case, the larvicide is mixed and drawn from a 55 gallon drum and pumped through about 150 feet of garden hose to the shore line.

This equipment has been found very satisfactory and is similar to that used by the T.V.A. though we have been given to understand that it is a more recent design and shows a better performance.

Union County Spray Unit

By R. Vanderwerker

The Union County Mosquito Commission has acquired a Hardie trailer spray unit for larvicide spraying. This unit is attached beyond any of several trucks and hauled to the various jobs. A dual wheel rubber-tired chassis, carrying gasoline engine, 3 cylinder pump, 250 gallon tank with agitator, makes this a complete and effective unit. It pumps 15 gallons per minute at 400