

An oil burning heating unit is located in a basement beneath the office and space is provided in the basement for the storage of records.

Union County, N. J., Acquires New Quarters

by Ralph J. VanDerwerker

The Union County Mosquito Extermination Commission moved on July 1, 1940 to a new headquarters at 324 East North Avenue, Cranford, N. J. The property is 145 feet wide and 200 feet deep located in the center of Union County. State Highway Route #28 passes the front of the property and the Central Railroad of New Jersey passes the rear. A neat looking two room office building 14 feet by 38 feet with a finished basement for records provides excellent office facilities. A garage building 26 feet by 88 feet provides stalls for nine trucks or cars. There is a 2 story corrugated building 36 feet by 44 feet used for mixing and storing larvicides, tool room and equipment storage.

MOSQUITO CONTROL AND NATIONAL DEFENSE

Mosquitoes and National Defense

by Thomas J. Headlee, Entomologist

For the second time in the history of New Jersey mosquito work this country has had to undertake an intensive national defense program. National defense involves mosquito control, in the first place, because mosquitoes are the demonstrated vectors of the disease of malaria and, in the second place, because pest mosquitoes interfere seriously with the performance of labor involved in national defense.

In early times New Jersey was subject to one or more of the types of malaria but with the passage of time mosquito screening received wide

adoption and in the latter years the control of mosquito production became a definite and effective project and as a result malaria became scarce until now it occurs rarely, even sporadically.

Within recent years, however, there occurred a sporadic outbreak of malaria in the region of Pennsauken Township of Camden County and 110 cases developed. This last outbreak which occurred in 1935 is sufficient to show that this disease is capable at any time under proper conditions of becoming a menace to the health of the people of this state.

The proper conditions are the presence of individuals in whose blood the malarial organism is present and the presence of an adequate number of the particular mosquito species which carries it. Put these two sets of conditions together and add to them a non-immune population and we have the conditions that are necessary for an outbreak.

In a defense effort, such as was carried on during the first World War and is now in process of development during this war, soldiers and civilian employees are shifted all over the United States and stationed in many cases in American tropics and sub-tropics, where the tropical malaria parasites abound. The chances, therefore, for the tropical malaria as well as other types to be carried within human carriers into areas such as New Jersey, where malaria is extremely rare or practically unknown, greatly multiply. It is definitely known that the species of mosquito which carries malaria from infected to uninfected is present in varying numbers more or less throughout the State. It is perfectly possible for the required conditions of the combined presence of human malaria carriers, mosquito vectors and a non-immune population to occur many times and at many places in New Jersey.

Since we have no means by which the malaria organism can be eliminated with certainty from the blood of infected persons, the only method of preventing the spread of malaria into New Jersey, by such means as above set forth is to cut down the malaria carrying mosquitoes to the lowest possible point.

Pest mosquitoes originating on the great salt marshes, fresh water swamp mosquitoes coming from the overflow lands on the upland and house mosquitoes breeding in polluted waters in populated districts are capable under proper conditions of becoming sufficiently abundant materially to interfere with the work and recreation of troops and workers in naval bases, forts, arsenals and defense industries.

This being the case what should New Jersey mosquito fighters do to prevent the development of malaria and to preserve the human health and comfort of New Jersey citizens, visitors and of bodies of men stationed at naval bases, forts, and arsenals within New Jersey's borders? The fact that in the first World War, in spite of what appeared to be favorable conditions, no outbreaks of malaria occurred in New Jersey is an entirely unsafe indication of what may occur this time because we have all of the conditions set for the propagation of the disease of malaria. Escaping an outbreak is just plain luck.

Considering that most of the naval bases, forts, arsenals, and defense industries occur within that portion of the state where anti-mosquito work has been pursued for many years, it is evident that the first procedure should be to continue the regular mosquito control program in those areas. Any change in the program should be a matter of intensification for the purpose of cutting down the mosquitoes occurring therein to a still lower point than

has hitherto been reached. In addition, plans for still more effective control of the mosquito pest, both from the health and pest angles, within naval bases, forts, arsenals and defense industries, as well as their environs, should be prepared and made ready for use whenever additional monies become available for carrying them out. In areas within this state where camps, forts, and defense industries are located in territory not served by active mosquito commissions plans should be set up as rapidly as possible for taking care of the health and pest situation within and throughout the environs of such camps, forts, and defense industries.

Some Federal monies have already been set aside for work of this kind throughout the United States and it is not unlikely that more will be provided if needed.

Mosquito control workers should, therefore, be on their toes ready and willing to go into the performance of duty of this character.

DEVELOPMENTS IN MOSQUITO CONTROL

Hudson County Dredging Operations

by L. DeWitt McCarter

The Hudson County Mosquito Extermination Commission, in the spring of 1940 placed into operation in Saw Mill Creek a hydraulic dredge. The dredge is a six (6) inch suction and six (6) inch discharge machine completely equipped with deck house, gasoline powered ladder, cutter, swinging rig, and spuds, and discharges thru an eight (8) inch pontoon and shore pipeline. The hull is welded steel construction, thirty-one (31) feet long, fourteen (14) feet wide and three (3) feet deep, made up in two (2) longitudinal sections and bolted together. The cutter ladder is designed for