

## A RESUME OF THE PAPERS PRESENTED AT THE ANNUAL MEETING OF THE FLORIDA ANTI-MOSQUITO ASSOCIATION

DUKE PETERS

The last meeting was held in 1942. The following years the meetings were abandoned because of the curtailment of civilian travel and also the shortage of hotel accommodations. A great many of our Directors were in service and not available. The information on mosquito control was changing so fast in that period that we felt we would like to wait until they got back. Our recent meeting bore out our judgment because we did have an excellent meeting from the standpoint of interest of those present as well as information given.

The opening day, after the usual invocations, addresses and responses, our first paper was presented by our President, Mr. Ruth. Perry spoke on the assets of organization. The paper was very well received and out of that you will have a great many more members from the Florida group.

Mr. Dorset of the Agricultural Research Information Bureau gave some facts on recent developments in salt marshes. His paper provoked a great deal of discussion and he was very capable in replying to these questions.

Among the most interesting things were the reports of the existing mosquito control districts during this wartime period. Conditions had changed fast and there was much questionable work being done during that period; but from these reports we found that the boys were still working and keeping up with current affairs to the extent that rather than lose ground during this period we gained ground.

Mr. Dorset told us some facts about Virginia. That to us was very interesting because when you go into mosquito control work you tell about some of your own experiences.

As you might expect, our program dealt largely with DDT. We had not had a

meeting since before DDT came into common use and the whole theme of the meeting was DDT. Before the war most of our efforts were expended toward controlling mosquitoes in the larval stages. Now we are about to forget about that and are working on adults. There were men there who had considerable war experience. They brought to us the types of work done overseas in the different areas and the mosquito control work that was done in actual combat. They told at length of the work they had done and the significance the work has in our future program.

On the other side of the picture, we had a paper from the Executive Vice President of the Florida State Chamber of Commerce. His theme was coordination and promotion of mosquito control efforts in Florida. He brought to us the enthusiasm and the cooperation of the State Chamber of Commerce and their desire to assist in any way possible in the promotion of mosquito and sand fly control work in Florida. He said that any time we wanted publicity or any laws changed they will take care of the ground work. That to us was one of the things we had been working for for many years, to get statewide appreciation and support.

The Army and the Navy were not overlooked. Some Navy personnel explained airplane treatment.

Another panel discussion was put on by the returned veterans who were in air control work. These fellows expect to carry on a great deal of our work from now on. The information they learned can be converted to our peacetime use.

The last day of the meeting was rather interesting as the Agricultural Research Administration, Bureau of Entomology and Plant Quarantine, USDA, Orlando came up with lots of equipment and per

sonnel. They not only explained the use of their equipment but actually demonstrated it. Took it to the airport and demonstrated uses of equipment and something of the reason for building up the type of equipment.

I have given the highlights of our

meeting and in conclusion I want to extend an invitation to all of you to come down. If we can't tell you anything about mosquitoes we can at least show you what we have and make an attempt to show you something interesting while you are down there.

## POSSIBLE UTILIZATION OF THE NEWLY DEVELOPED AEROSOL METHODS IN APPLYING THE NEW JERSEY MOSQUITO LARVICIDE FOR OUTDOOR PROTECTION FROM ADULT MOSQUITOES \*

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Even in areas where mosquito control work has been systematically conducted for many years it has not been possible with our present means and methods completely to eradicate the mosquito. Under conditions favorable for its rapid development, such as during summers of abundant rainfall, the mosquito seriously interferes at times with human comfort. Of course, under otherwise similar conditions, the discomfort is much worse in areas where no mosquito control extermination work is carried out than in areas where control work is in operation. Complete elimination of mosquitoes indoors can be readily accomplished by proper screening, spraying or fumigating. On the other hand, protection from mosquito annoyance outdoors constitutes a difficult problem.

During the last 12 years an oil pyrethrum emulsion which became known as the New Jersey (2, 3, 4) Mosquito Larvicide, proved an effective spray in protecting outdoor audiences from mosquito

annoyance. It has the following composition: 66 per cent kerosene or similar light petroleum distillate; 0.07 per cent pyrethrins (equivalent to extract of 1 pound of flowers, analyzing 0.9 per cent pyrethrins, per gallon of kerosene); 33.5 per cent water; and 0.5 per cent of a neutral emulsifier, such as commercial sodium lauryl sulfate. The concentrated larvicide is diluted with 10-12 parts of water and sprayed on the area where the gathering takes place. In this case the larvicide performs two functions. It prevents outside mosquitoes from coming into the protected area while the adult mosquitoes within the sprayed area are either killed or paralyzed to such a degree that for several hours they remain inactive. When sprayed as directed, the larvicide causes no injury to grass, shrubs, trees, ornamental plants, man and higher animals. Since 1935, when this spray was first introduced, numerous outdoor evening concerts, carnivals, church parties, community gatherings, lawn parties, and similar small and large groups of people have been protected from mosquitoes. Extensive experiments conducted by the

\* Journal Series paper of the New Jersey Agricultural Experiment Station, Rutgers University, Department of Entomology.