

the Army, and a Walt Disney animated cartoon on malaria called "Winged Scourge" issued by the U. S. Public Health Service, were shown at the meeting. There were also three excellent exhibits on malaria and mosquito control; one by the Army, one by the U. S. Public Health Service, and one by the Marine Corps—(which exhibit was prepared by Camp Lejeune, New River, N. C.)

**BRIEF ACCOUNT OF THE JOINT MEETINGS OF THE AMERICAN  
ASSOCIATION OF ECONOMIC ENTOMOLOGISTS AND  
ENTOMOLOGICAL SOCIETY OF AMERICA**

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**Attendance at Meetings**

The meetings were held at the Deschler-Wallick Hotel, Columbus, Ohio, December 7-9, 1943, and were well attended—250 to 300 people being present.

**Scope of Discussion**

The meetings were divided into two parts; the first part dealt with Medical Entomology in wartime and the second part with Agricultural Entomology in wartime. The discussions on the whole tended to give a broad picture of the work being done by various agencies and individual groups in protecting the health of the soldier and civilian populations and in providing adequate insect control for agricultural crop pursuits.

**Medical Entomology in Wartime**

A copy of the printed program follows this account. Several additional papers were given in addition to discussion from the floor.

Instead of attempting to present a resume of each paper, some of the high lights and impressions left by the sessions, will be discussed here.

Malaria is recognized as the principal disease which the armed forces must combat. Mention was made of the effectiveness of the malaria survey and control units of the Sanitary Corps within the army camps and overseas and the control work performed in the neighborhood of camps in this country by the U. S. Public Health Service. The military units make most effective use not only of the customary control measures but also have adopted such recent developments as, improved larvicides, aerosols to kill adult mosquitoes in enclosed spaces and more effective repellents to prevent biting of mosquitoes in the field. It was interesting to note the common acceptance and apparent regard which the use of repellents has taken as one of the means of reducing the risk of contracting malaria. Although the malaria rate is admittedly high in some sections of the overseas war areas, the speakers intimated that all possible measures were being taken to control this disease.

Of great interest was the proposed plan, originated by Dr. L. L. Williams and advanced by Dr. Mountain at a recent conference on malaria, to eliminate malaria as an economic disease from the Americas. This plan, admittedly bold in its concept and scope, is proposed as a means of eliminating the danger of spreading the disease by infected troops returning from abroad. The plan is based on the principle that in any locality there is usually only one chief malarial vector. It is also known that a very small percentage of the possible vectors are infected. It is, therefore, proposed to reduce the principal malaria vectors to a low enough number to make the odds too long for transmission of the disease and thus reduce malaria to a point where it is not economically important. Pest mosquito control or control of non-Anopheles mosquitoes under this program will only be incidental to the main problem of malaria elimination. *Anopheles quadrimaculatus*, *Anopheles freeborni* in the United States and *Anopheles albimanus* in Central America region are considered the chief malaria vectors for these areas.

In addition to malaria other diseases carried by mosquitoes and other pests were mentioned and discussed. Of the mosquito borne diseases yellow fever, filariasis, and dengue are predominant. Mention was also made of the other pest carried diseases such as typhus, trench fever, plague, dysentery and leishmaniasis.

The use and development of apparatus to handle methyl bromide was discussed as an outstanding advance over World War I method of lice infestation of barracks bags and troops' equipment. Methyl bromide has been found highly effective for this purpose under all sorts of conditions. Coupled with the use of methyl bromide is a personal issue of a powder to kill lice. The powder is dusted into the clothing by the soldier when fumigation cannot be resorted to. The lice powder originally consisted of pyrethrins, synergist, anti, oxidant, ovicide, and carrier. It is understood that recent developments have substituted a new powerful insecticide, known as DDT, as the toxic ingredient in this lice powder.

T. C. Allen of Wisconsin presented a paper on use of an insecticide of vegetable origin, Sabadilla, as a toxic ingredient in fly sprays. Although reference to Sabadilla can be found in entomological literature, Allen claims that a four fold increase in toxicity can be obtained by extracting the seed at 150°C. with kerosene as compared to a kerosene extract at room temperature.

Throughout the session there was continual reference to the high degree of cooperation existing between the U. S. D. A., particularly the Bureau of Entomology and such agencies as the Surgeon Generals Office, U. S. Public Health Service, Sanitary Corps and State Experiment Stations.

#### **Agricultural Entomology in Wartime**

Although the interest of the majority of the readers of this account lies mainly in the topics discussed in the Medical Entomology section, a few words will be given here on Agricultural Sessions.

Of the many chemicals tried by the Bureau of Entomology and Plant Quarantine as possible insecticides, the chemical DDT (Dichlorodiphenyl Trichloroethane) was outstanding. Other materials have been found as toxic for specific pests or groups of pests but DDT seemed to be best for a wide range of insects and from over-all considerations. Considerable work has been done with it although none of the details have been released as yet. The Bureau hopes to publish a resume of this work in the February Journal of the American Association of Economic Entomologists.

Another new "find" is said to be a mixture of dichlorpropylene and dichloropropane, known as "DD" used as a soil fumigant.

In general it is hoped that the supply of insecticides during the coming year will be about the same as during 1943 or perhaps a little better. There was some indication that there would be a greater proportion of material released in small packages for the small crop producer. An estimate was presented indicating that Victory gardeners had produced over a billion dollars worth of vegetables and fruits. In towns and cities they had produced 17% of the total vegetables consumed.

### **ANTI-MOSQUITO GROUP FORMED**

#### **Ten Counties Represented at Session**

The Florida East Coast Mosquito and Sand Fly Control Association was organized at a meeting here today of representatives of 10 counties along the East Coast from St. Augustine to Miami.

The group was set up to plan a co-ordinated attack on mosquito and sand fly problems.

Garnett Grant of Vero Beach was elected temporary president, and E. G. Thatcher was named secretary-treasurer. Each county will be represented in the association by two delegates. These were designated as follows:

Dade County, M. P. Lowery and Fred H. Stutz; Broward County, Ella Jo Stolberg and another to be designated; Palm Beach County, delegates to be named later; Martin County, Valentine C. Bartlett and John Michaelson; St. Lucie County, E. L. Taylor and Norman Platts; Indian River County, Garnett Grant and W. D. Cox; Volusia County, Elmer H. Blank and V. S. Minnich.

Delegates from Brevard, St. Johns and Flagler Counties will be named later. Steps will be taken immediately to fill the vacancies in the list of dele-