

interesting breeding place was recently uncovered. To the collection of scrap rubber, large numbers of automobile tires are allowed to stand outside of garages. One such pile was recently inspected and it was found that the rain water in these old shoes was actually breeding mosquitoes.

The tin can and cesspool situation has been adequately dealt with in previous articles but households are urged to watch several other breeders. Uncovered rain barrels and cisterns, for instance, always breed mosquitoes. They should be covered or screened. Ornamental urns should be emptied after every storm. Water in bird baths should be changed every three or four days. Ornamental pools should be emptied or stocked with fish. Inspect roof gutters for stoppages and those which prevent water from flowing freely.

Owners and tenants are urgently requested to heed by the messages contained in these appeals and help the Mosquito Commission to control this most annoying insect, remembering that the Commission, like most other enterprises, is working under difficulties and will be seriously handicapped for the duration of the war.

#### Pyrethrum Shortage and the New Jersey Mosquito Larvicide

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Since pyrethrum was temporarily placed by the W. P. B. (War Production Board) under complete allocation control by general preference order M-170, anxiety has been aroused among mosquito control workers concerning the possibility of obtaining pyrethrum extract for the New Jersey mosquito larvicide in the future. The order provides that no pyrethrum may be delivered without express authorization of the director.

of Industry Operations. The director may also decide the use for which pyrethrum is considered essential in our war effort.

Now, mosquito eradication is of vital importance from the standpoint of both health and disease, especially in areas of army camps, naval bases, aviation training schools, etc., where soldiers and their visitors from malarial states in the south (many of whom may be carriers of the malarial parasites) may spread malaria among the troops as well as among the civilian population in non-malarial states, wherever A. quadrimaculatus or other Anopheline species of mosquitoes, capable of transmitting malaria breed.

In the general program of temporary mosquito control, the application of pyrethrum larvicide has become definitely established wherever mosquito oil is objectionable, and in protecting outdoor audiences from mosquito annoyance. At present there is no other material available which could completely replace pyrethrum in its combined properties of being highly toxic to mosquitoes and at the same time non-injurious to man, higher animals and plants. Thus, pyrethrum is an essential and non-replaceable ingredient in the larvicide and mosquito control workers should encounter no extraordinary difficulties in either obtaining pyrethrum extract for preparing the larvicide or the finished concentrated larvicide.

Furthermore, as the writer has emphasized in previous publications, the pyrethrum larvicide cannot effectively replace petroleum oil on all kinds of mosquito breeding waters. Its application should be limited to such areas where mosquito oil is really objectionable from the standpoints of (1) injury to fish, water fowl and Aquatic plants; (2) destruction of ornamental vegetation and marrying scenery in residential sections, ponds, swimming pools, etc.; (3) where fire hazards exist, and (4) in protecting outdoor gatherings. On all other types of

breeding areas, and especially where penetration and lasting properties of a quick-killing surface film are required, a suitable grade of fuel oil or "mosquito oil" should be used in preference to the larvicide, thus conserving our present supply of pyrethrum.

PUBLISHED ARTICLES OF INTEREST

From the Evening Star,  
Washington, D. C.  
Tuesday, June 23, 1942.

Allies in Africa Fight Gen. Malaria  
and Mosquito Army

One in Ten Who Visits Swamp Area Gets  
Dread Disease

By Edward Kennedy.

SOMEWHERE IN AFRICA, June 23 - Rommel is not the only enemy general in Africa, nor is his Nazis the only hostile army. Far more firmly entrenched on this continent, and as difficult to deal with, is "Gen. Malaria" with his countless millions of mosquitoes.

He doesn't operate on the main battlefield, since that is desert and "Gen. Malaria" prefers swamps. The western desert is full of flies which make life almost unbearable and spread dysentery, but fortunately has hardly any mosquitoes and consequently little malaria.

But one of the main connecting links between the Middle East arena and the United States is the airline which crosses Africa and runs through the worst malarial country in the world.

Though it takes but a few days to traverse the