

Project Title: Study of the chemical control of the vector of Japanese Encephalitis and West Nile fever ( *Culex tritaeniorhynchus* ) —Larval control

Project Number: DOH96-DC-2004

Excuting Institute: Centers for Disease Control Taiwan, R.O.C.

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Abstract:

In order to prevent the Japanese encephalitis and West Nile fever invaded to Taiwan, the CDC has already carry out 「The SOP of Japanese encephalitis chemical control」. The purpose of this project is to evaluate the susceptibility of *Culex tritaeniorhynchus* to larvicide and select the best active ingredient in 4 district, respectively.

The results showed that, organophosphates and Bti had the highest effect to kill the larval of *Culex tritaeniorhynchus*, also the pyrethrin and organophosphates larvicide had persistent effect. According to the experiment cypermethrin 1.0% 、temphos 1.0% 、temphos 1.5% and clorpyrifos 1.0% has the best efficacy to larval of *Culex tritaeniorhynchus* in Beitou 、Chang-hua 、Hualien and Pingtung district, respectively.

Key word: *Culex tritaeniorhynchus* 、 Japanese encephalitis 、 West Nile fever 、 Efficacy test