

Lethal Effects of Nine Herbicides and Seventeen Insecticides on the Earthworm *Bimastus parvus* Eisen and *Pheretima* sp.

Yih-tyang Huang¹⁾ and Teng-chih Kuo²⁾

Summary

Nine herbicides and seventeen insecticides were tested in laboratory during 1984-1985 to study their lethal effects on the earthworm *Bimastus parvus* Eisen and *Pheretima* sp. Herbicides evaluated were 41% Glyphosate, 5% Butachlor, 23.5% Oxyfluorfen, 17.5% Fluazifop-Butyl, 10% Quizalofop-Ethyl, 50% Atrazine, 10% Bensulfuron-Methyl, 34% Pendimethalin and 45.1% Alachlor. No lethal effect of these herbicides on earthworms was observed. Insecticides tested were 2.8% Bifenthrin, 2.8% Cyhalothrin, 25.3% Mevinphos, 20% Fenvalerate, 10% Permethrin, 22.5% Chlorphrifos, 2% Abamectin, 50% Phenthoate, 3% Carbosulfan, 3% Isoxathion, 10% Oxamyl, 4% Padan, 43% Profenofos, 50% Methamidophos, 5% Cypermethrin, 2.8% Deltamethrin, 50% Malathion. Besides 20% Fenvalerate and 2% Abamectin, significant toxic effects of most insecticides on earthworms were observed.

Key Words: Lethal effect, Herbicides, Insecticides, *Bimastus parvus* Eisen, *Pheretima* sp.

1) Research Fellow, Taoyuan District Agricultural Improvement Station.

2) Professor, National Hsinchu Teachers College.