

Scientific Notes

The Lethal Effects of Carbofuran on the Earthworm *Bimastus parvus* Eisen under Different Soil Conditions

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Summary

Tests were conducted to study the lethal effects of carbofuran on the earthworm *Bimastus parvus* Eisen. The lethal effects of carbofuran on earthworms were significantly affected by the soil substrates, age of worms and different sources of organic fertilizers. Significant difference in toxic effect of carbofuran to earthworms in the six soil substrates was observed. The highest mortality for mature worms was found in Houlung sandy loam soil, next were Taofeng loam soil, Wufung sandy loam soil, Hsinpu clay loam, Chupei sandy loam soil, respectively, and Chungli loam soil exhibited the lowest mortality. Intermediate worms exhibited significantly lower mortality ($p \leq 0.05$) than small and mature worms. Mortality fluctuation due to carbofuran was also affected by organic fertilizer treatments, application of 25t/ha cattle manure exhibited the highest mortality, next were rice straw at 2t/ha, pig manure at 15t/ha and then check treatment, YC compost at 2t/ha and chicken manure at 3t/ha, respectively.

Key words: Carbofuran, Earthworm, *Bimastus parvus* Eisen, Lethal effects.

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