

ミジンコ致死試験による農業地帯を流下する 河川水の毒性評価

Effects of River Water Discharged from Agricultural Area
Around Lake Biwa on *Daphnia magna* mortality

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ABSTRACT

The effects of river water discharged from agricultural region around Lake Biwa on *Daphnia magna* mortality were investigated in this study. Water samples were collected from six sites periodically for one year, starting in April 1997 and continuing until April 1998. The toxicities of water samples are observed in all sites. The samples collected from June to August are more toxic than those taken at the other seasons. Four kinds of pesticides were detected from the river water by chemical analysis, and the relevance to toxicity and agricultural activity was indicated. In single toxicity tests, the toxicities are not observed for all pesticides except diazinon. Detected toxicity depends mainly on diazinon. It was guessed that the unknown water quality component was concerned in the toxicity by contrast between single and compound toxicity of the standard pesticides and the toxicity of the environmental sample.

Key Words: Agricultural chemicals, *Daphnia magna*, Lake Biwa, Mortality, Toxicity