

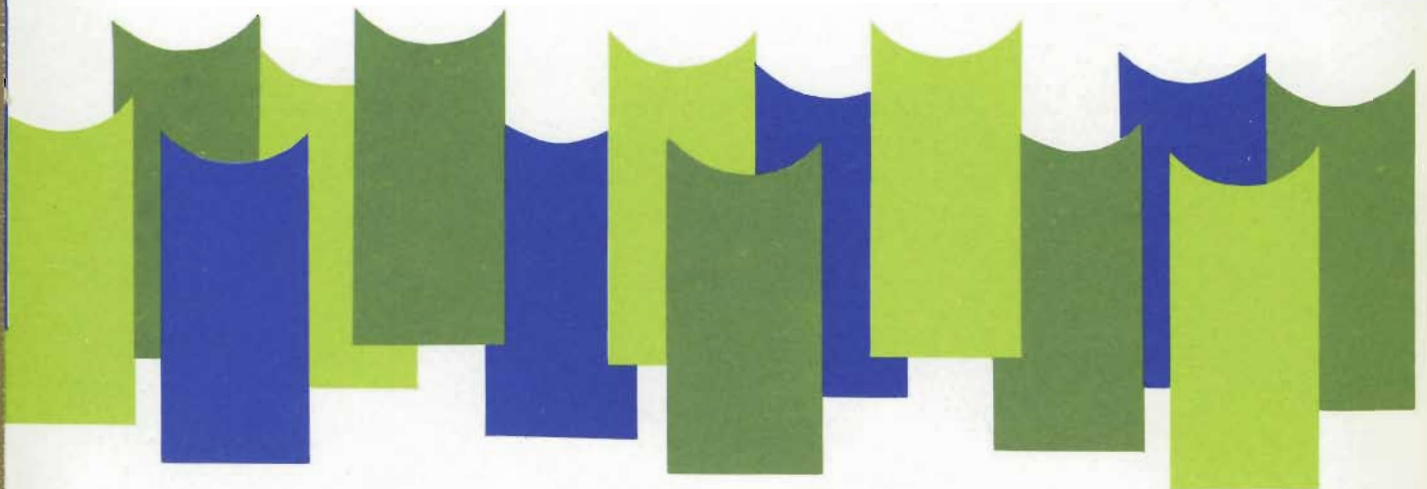
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AQUATIC TOXICITY TESTS:

**Comparative assessment of four acute tests
and their potential application in New Zealand**



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**Aquatic Toxicity Tests: comparative assessment of four acute tests and their potential application in
New Zealand**

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ABSTRACT

Four acute aquatic toxicity tests were evaluated for possible use in New Zealand. Of these, three are recommended for incorporation into a first tier aquatic toxicity testing package. These tests are:

- (i) the Beckman Microtox system,
- (ii) the *Daphnia magna* 24 hr immobilization test, and
- (iii) the *Selenastrum capricornutum* 96 hr growth inhibition test.

A range of toxicants and industrial samples were examined. The accuracy of results was demonstrated by the extremely satisfactory responses obtained with proposed reference toxicants. No single test was consistently the most sensitive, adding weight to the theory that, for a thorough assessment of toxicity, a battery of several tests should be used.

A recommendation is made to establish a central aquatic ecotoxicology laboratory. The application of data obtained from such a laboratory to water quality management is discussed.

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