

# Effect of ricin and atropine containing baits on the biochemical parameters in the ovo-testis of freshwater harmful snail *Lymnaea acuminata*

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## Abstract

In the ovotestis of the snail *Lymnaea acuminata*, the effects of sub-lethal feeding of bait formulations including molluscicides (ricin, atropine, and their binary combinations) on specific biochemical parameters were investigated. A variety of binary combinations (1:1 ratio) of amino acids (Proline, Serine, Alanine, Glycine 10 mM) + carbohydrates (Starch, Glucose, Maltose, Sucrose 10 mM) in 100 mL of 2% agar solution + sub-lethal (20% and 60% of 24h LC50) doses of various molluscicides were used to create snail attractant pellets with bait formulations. In the ovotestis of the snail *Lymnaea acuminata*, feeding this bait formulation resulted in the greatest significant reduction in protein, free amino acids and nucleic acid (DNA, RNA) level, respectively.

**Keywords:** Molluscicides, amino acids, carbohydrates, *Lymnaea acuminata*, biochemical changes, bait formulation