

An Academic Theory on a Sustainable Evaluation of Achatina Fulica Within ethekwini, KwaZulu-Natal

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Abstract : Dependency on chemicals has had many disadvantages in pest management control strategies. Such genetic rodenticide resistance and secondary exposure risk are what is currently being experienced. Emphasis on integrated pest management suggests that to control future pests, early intervention and economic threshold development are key starting points in crop production. The significance of this research project is to help establish a relationship between Giant African Land Snail (*Achatina Fulica*) solution extract, its shell chemical properties, and farmer's perceptions of biological control in eThekweni Municipality Agri-hubs. A mixed design approach to collecting data will be explored using a trial layout in the field and through interviews. The experimental area will be explored using a split-plot design that will be replicated and arranged in a randomised complete block design. The split-plot will have 0, 10, 20 and 30 liters of water to one liter of snail solution extract. Plots were 50 m² each with a spacing of 12 m between each plot and a plant spacing of 0.5 m (inter-row) and 0.5 m (intra-row). Trials will be irrigated using sprinkler irrigation, with objective two being added to the mix every 4-5 days. The expected outcome will be improved soil fertility and micro-organisms population proliferation.

Keywords : giant african land snail, integrated pest management, photosynthesis, genetic rodenticide resistance, control future pests, shell chemical properties

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