A study on polyculture of juvenile giant fresh water prawn (*Macrobrachium rosenbergii*) and medical herbs (Aloevera and Fennel) using Aquaponic method

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Abstract

In this study the possibility of polyculture of juvenile Fresh water prawn and herbs, aloe vera and fennel, using aquaponic method was studied. The research carried out with two treatments and three replications in July 1390. 200 pieces of fresh water prawn (*Macrobrachium rosenbergii*) with a mean weight 0.13 gr were randomly deployed in six aquariums. Results showed there were significant differences in growth parameters such as final body weight, weight gain increment, specific growth rate, survival rate and some physicochemical parameters like NH3, NO_2 and PH respectively ($P<0.05$) There were no significant differences among biochemical composition and other physicochemical parameters such as water temperature and dissolve oxygen of control sample and treatments The results of this study showed the growth of prawn in polyculture method significantly was higher than control and indicated the supporting role of Aquaponic method with herbs, Alovera and Fennel to increase growth of these aquatic animals in polyculture system.

Key words: Polyculture, Fresh water prawn, Aquaponic, Herbs.