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Influence on certain herbicides for the control of water hyacinth (*Eichhornia crassipes* (Mart.) Solms) and its impact on fish mortality

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An experiment was conducted at Annamalai University, Experimental farm, Annamalai Nagar on the bio-efficacy of certain herbicides for controlling water hyacinth (*Eichhornia crassipes*) and its impact on fish mortality. The experiment was laid out in a randomized block design with three replications. Water hyacinth was introduced into cement tank of dimension 2ft breadth 2.5ft length and 2ft depth having $\frac{3}{4}$ th of water column. Three herbicides (Fernoxone at the rate of 1.50 kg ha⁻¹, Glycel and Round up at the rate of 2.50 kg ha⁻¹ and Gramoxone at the rate of 1.50 kg ha⁻¹) were tried, all are foliage applied herbicides. Spray fluid required of 500 litre ha⁻¹ was made and applied, through knapsack sprayer fitted with flood jet deflector nozzle. In each treatment ten fish fingerlings of size of 10 cm length were introduced, three different species tested viz., common carp, mrigal and rohu. Among the treatments, glyphosate caused maximum reduction of plant height of 0.50, 1.00 and 1.00 cm; 2.75, 6.98 and 10.00 g of biomass were obtained at 50 DAS on small, medium and large statures of *E. crassipes*. The cent percent chlorophyll content was recorded compared to control treatment at 28 DAS, whereas it cent percent mortality of *E. crassipes* at 35 DAS on small, medium and large statures of the weed. Similarly the same herbicides caused the least mortality percent of fishes 23.30, 16.60 and 20.00 on common carp, mrigal and rohu at 32 DAS respectively, compared to other herbicides treatment.

Biography

S Deivasigamani has submitted his Ph.D. thesis at the age of 29 years from Annamalai University, Tamilnadu. He is the senior researchers of NAIP-ICAR-Research project, Department of Agronomy, Faculty of Agriculture, Annamalai University. He has published more than 7 papers in reputed journals and participated in several national and international conferences.

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The relationship between the infection levels of *Nosema apis* parasites and epithelial cells of mid-gut of honeybee

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This study was conducted at Faculty of Agriculture, South Valley University, Qena Government, Egypt during the seasons 2011, between two hybrid of the Carniolian bee race and second hybrid of the Italian bee race to study the relationship between the infection levels of *Nosema apis* spores and epithelial cells of midgut of honeybee.

The results showed that there were high significant differences between the average numbers of spores; where the numbers of spores in Carniolian bee race higher than the Italian bee race (20467.26-11402.03) respectively during the study period.

On the other hand histological section showed that heavy infection lead to the disintegration of epithelial cell walls, striated border, and fragmentation of peritrophic membranes. Also, destruction of the muscle layer and basement membrane, while in the case of moderate cells infection appeared semi-decomposed compared to healthy cells.

The research recommends to intensify the care and treatment programs during months of heavy infection (January, February, March), in the southern states.

Biography

Karem Mohamed Mohanny has completed his Ph.D. at the age of 44 years from Cairo University. He is the Head of Plant Protection Department, Faculty of Agriculture, South Valley University. He has published more than 15 papers in reputed journals.

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