

B-100: Use of Water Hyacinth leaf extract to control the pulse beetle, *Callosobruchus maculatus* (F.) on green gram *Vigna radiata* seeds

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Petroleum ether extract of Water Hyacinth *Eichhornia crassipes* (Mart), was evaluated for its biological activity against the pulse beetle *Callosobruchus maculatus* (F.), on green gram *Vigna radiata* seeds.

Egg laying capacity on treated seeds was significantly reduced, where only 284, 247, 215, 59 and 50 eggs were laid by 20 female beetles on 20 g of seeds treated with 0.125 g, 0.25 g, 0.3 g, 0.5g and 1.0 g of the leaf extract respectively. The number of eggs laid on 20 g of untreated seeds was 792. Hatchability of laid egg was reduced by 65% in seeds treated with Water Hyacinth leaf extract at doses of 0.5 g and 1.0 g per 20g of seeds. Significantly high mortality too was observed in adult beetles confined to treated seeds.

As Water Hyacinth is reported to be non-toxic to higher animals and as it grows as a troublesome weed in waterways, Water Hyacinth proves to be a plant with potential for use as a botanical insecticide.