B-97 : EFFECT OF PADDY HUSK ASH ON SURVIVAL, EGG LAYING CAPACITY AND POPULATION BUILD-UP OF *Callasobruchus chinensis* (PULSE BEETLE) ON GREEN GRAM (*Vigna radiata*) SEEDS

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White ash obtained by burning paddy husk (by-product in processing paddy) was evaluated for its biological activity against the pulse beetle, *Callasobruchus chinensis* infesting stored green gram seeds. Ash mixed green gram seeds reduced the egg laying capacity of the insects significantly. Mean number of eggs laid on 100 g green gram seeds treated with 1, 2, 3, 4, and 5% ash were 30, 24, 19, 15, and 7 respectively,

compared to a mean number of 85 eggs on untreated seeds in the control. At ash levels above 4% the seeds were free of damage holes made by larval feeding compared to a mean number of 65 damage holes in the untreated control. This indicates a total failure of larval development on treated seeds. Treatment with this ash reduced the survival of adult insects and the population build-up on the insect.

As mixed ash could be easily removed by washing prior to cooking for human consumption, it will not have any effects on consumers. Paddy husk ash is freely available and this will be a good and safe alternative to toxic insecticides to protect