



Biological control of some pests of Pulses and Cereals

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Abstract : *The present study has been carried out to evaluate the efficacies of some plant products and spices in stemming damages to pulses and cereals caused by some pests of stored grains. Samples of equally weighed three different grains were taken, namely Matar (*Pisum sativum*), Moong dal (*Vigna radiata*), Wheat (*Triticum aestivum*), each containing 20 pests. They were treated with some common herbs namely- Bael (*Aegle marmelos*), Amla (*Emblica officinalis*) and Eucalyptus and spices-Dhania (*Coriandrum sativum*), Badi Elaichi (*Amomum subulatum*) and Kala Til (*Sesamum**

orientale). These herbs were dried, ground, weighed and used in the grains to prevent their damage by pests. The doses were given and their effects were observed after 10, 20 and 30 days. Pests in isolated condition were also treated to confirm the efficacy corresponding to the control ones. The three pests were *Callosobruchus chinensis* in Matar and Moong dal and *Rhizopertha dominica* and *Tribolium castaneum* in Wheat. The controls of the three grains showed an increase in the number of pests and considerable damage and contamination of the grains. In the treated group, the pest population was decreased and damage to the grains was significantly less. Among the herbs, Amla leaves proved to be most effective followed by Eucalyptus and Bael. Among the spices, Dhania was found to be most effective followed by Kala til and Badi Elaichi. The combined treatments of the selected herbs as well as spices showed greater efficacy than the individual treatments. The order of resistance of the pests was as follows i.e. *Tribolium castaneum* > *Rhizopertha dominica* > *Callosobruchus chinensis*.

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