patnawomenscollege.in/journal

Zoology
Explore, 2010, Page No. 11-15
Vol. II No. I

Biological Control of Stored Grain Pests

Hansa Singh*, Afreen Kausar*, Shehnaaz Dilkash*, Joyita Das**
*B.Sc. III (2007-10) Department of Zoology, Patna Women's College, Patna University, Patna

**Lecturer, Department of Zoology, Patna Women's College, Patna University, Patna

The present study has been carried out to evaluate the efficacies of some plant products and spices in stemming damages to rice and dal caused by some grain pests. Samples of equally weighed three different grains were taken, namely Usna rice, Arwa rice and Moong dal (Green grams), each containing 20 pests. They were treated with some common herbs- Neem, Tulsi and Curry leaves and spices - Turmeric, Black pepper and Dry ginger (Saunth). They were dried, weighed and used in the grains. The dozes were given and their effects were observed at fixed intervals of 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 - Sitophilus granarius in Usna rice, Rhizopertha dominica in Moong dal and Tribolium castaneum in Arwa rice. The controls of the three grains showed an increase in the number of pests and a 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, Curry leaves proved to be the most effective followed by Neem and then Tulsi. Among the spices, Black pepper was found to be more efficacious than Turmeric and Ginger. The combined treatments of the selected herbs as well as those of spices were more efficacious than the individual treatments. The order of resistance of the pests to these treatments were as Tribolium > Sitophilus > Rhizopertha.

Key words :- *Pests, stored grains, biological control, plant parts and products (herbs and spices)*