SCREENING OF RICE VARIETIES AGAINST ANGOUMOIS GRAIN MOTH, *Sitotroga cearealella* (OLIVIER) AND INTEGRATED PEST MANAGEMENT PRACTICES FOR THEIR CONTROL

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Executive Summary

Insect infestation on stored grains and their products is a serious problem not only Bangladesh but throughout the world. There are approximately 200 species of insects and mite species attacking stored grains and stored products. To find out the resistant or tolerant rice variety (s) against Angoumois grain moth and appropriate management to this pest in rice, a study was conducted in the laboratory of the Department of Entomology, Sher-e-Bangla Agricultural University during the period from November, 2016 to April, 2017to find out screening of rice varieties against angoumois grain moth, *Sitotroga cearealella* (olivier) and integrated pest management practices for their control in storage. The experiments were laid out in Completely Randomized Design (CRD) with four replications. The rice varieties tested were Bashmoti, BRRI dhan 28, Kataribhog, BRRI dhan 38, BRRI dhan 11, Haridhan and BRRI dhan 34. It was found that none of the varieties were completely immune to *S.cerealella*. But Significant differences were observed among seven rice varieties on the highest number of adult emergence occurred in BRRI dhan 11 (95±6.24) and lowest number of adult emergence was found in BRRI dhan (88.66±5.68). Adult life span of *S. Cerealella*on seven rice varieties, the highest life span was observed in Haridhan (9.66±0.57) whereas, the lowest life span were observed in Kataribhog and BRRI dhan 38 which is 4.33±0.57. Mean numbers of adult dead of *S. Cerealella*from different varieties of stored rice at different days more less same and range was 2.0±2.12 - 2.0±2.34. The highest grain content loss was observed in BRRI dhan 11 (45 %) and the lowest was Kataribhog (12 %). Among the rice varieties BRRI dhan 11 was found the most susceptible host for *S. cerealella* in respect of both growth and development and food consumption. On the other hand, Kataribhogwas the resistant variety for *S. cerealella*. Considering the percent of healthy and infested seeds by weight and number basis, percent infestation over control, the treatment T_6 (Sanitation + Application of fumigant practice with phosphine gas, aluminium phosphide) treatment was showed the best effectiveness against *S. cerealella* among all the treatments. But in the 3rd generation T_4 (Sanitation + use of insecticide in the empty bins as preventative measure + Use of dried tobacco leaves dusts @ 5.0 gm/kg) treatment was showed the best effectiveness against adult *S. cerealella* in the number of healthy seeds and infested seeds, and percent of infestation.

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