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Pesticidal Effect of Different Botanicals and Chemical against Anguimous grain moth (Sitotroga cerealella)

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A lab experiment was conducted during June to October 2021 at Bangladesh Rice Research Institute (BRRI), regional station Rangpur, to assess the effectiveness of some botanicals i.e., neem (Azadirachta indica), tulsi (Ocimum tenuiflorum), and ginger (Zingiber officinale) as compared to a chemical (naphthalene) for the management of Anguimous grain moth (Sitotroga cerealella) of rice. The experiment was carried out in a Complete Randomized Design (CRD) with nine treatments (T1=Control, T2=5 whole dried neem leaf, T3=0.25 ml neem oil, T4=0.25 g ginger powder, T5=0.25 g neem leaf powder, T6= 0.25 g mixture of neem leaf powder and ginger powder, T7=0.25 g Naphthalene, T8= 5 whole tulsi leaf and T9= 0.25 g neem seed powder) and three replications. Study among the nine treatment indicated that T7 (0.25 g naphthalene) showed better performance in case of insect mortality and no F1 emergence followed by T3 (0.25 ml neem oil), T9 (0.25 g neem seed powder) and T6 (0.25 g mixture of neem leaf powder and ginger powder). Moderate performance was found in T5 (0.25 g neem leaf powder), and T2 (5 whole dried neem leaf) in case of insect mortality and number of F1 emergence. But in case of seed germination, T5 (0.25 g neem leaf powder) showed better performance followed by T7 (0.25 g naphthalene), T9 (0.25 g neem seed powder), T6 (0.25 g mixture of neem leaf powder and ginger powder) and T3 (0.25 ml neem oil). So, naphthalene, neem oil, neem seed powder and neem leaf powder considered as the best treatment among nine treatments for the management of the most destructive Anguimous grain moth (Sitotroga cerealella).

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