

RESEARCH ARTICLE

Efficacy of edible and non-edible oils against pulse beetle *Callosobruchus chinensis* L. in stored chickpea

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ABSTRACT

The experiment was conducted at laboratory in the Department of Entomology, College of Agriculture, IGKV, Raipur during 2009- 2010 with eight treatments and four replications. While testing the effectiveness of some edible and non-edible oils, minimum number 10.70 (eggs) of fecundity was recorded on 0.25 ml/100g neem oil treated seeds. In 0.25ml/100g karanj oil treated seed larval-pupal period was longer than control. Higher incubation period (8.13 days) was recorded in neem oil with lower incubation period of 5.39 days, in sunflower oil treated with 0.25 ml/ 100g seed. Adult longevity (5.75 days) was shortest on neem oil at 0.25ml/ 100g seed and longest (7.94 days) on nilgiri oil at 0.25ml/ 100g seed. Seed damage in coconut oil treated seeds at 0.25 ml/ 100g seed was found highest (20.50 and 43.79 per cent) while lowest (9.25 and 30.39 %) in karanj oil treated seeds 0.25ml/100g seeds after 45 days and 90 days, respectively. Lowest (8.06 and 23.73) weight loss was recorded on karanj oils treatedwith 0.25ml/ 100g seed and highest (16.34 and 35.14 %) was recorded on coconut oil treatedwith 0.25 ml/ 100g seed after 45 days and 90 days. Control of pulse beetle in chickpea with insecticide grain protectants can be dangerous due to its residual effect. Application of edible and non-edible oils to chickpea seeds for storage of the chickpea especially in months of infestation can be an effective alternate.

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