

Residual Toxicity of Some Plant Oils and Magnesium Carbonate against, *Rhizopertha dominica* (Fab.)

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Abstract: *Wheat seeds in storage are attacked by a large number of lesser grain borer, Rhizopertha dominica (Fab.) In the present investigations the residual toxicity of two plant oils viz. neem (Azadirachta indica) seed oil, mustard (Brassica campestris) seed oil and an inorganic compound (magnesium carbonate) were evaluated against adults of Rhizopertha dominica (Fab.) in a laboratory conditions, the results reveal that Azadirachta indica seed oil and Brassica campestris seed oil and magnesium carbonate were effective for 90,90 and 75 days respectively at the doses of 0.85 ml, 0.65 ml and 10 gm/25gm*

Keywords: Azadirachta indica, Brassica campestris, Magnesium carbonate, Rhizopertha dominica (Fab.).

REFERENCES

- [1]. Shrivastava, B.P. and Dadhich, S.R. (1975). Laboratory evaluation of malathion used as protectant for the prevention of damage by pulse beetles to stored grain (Cicer arietinum) Part II. Persistence of malathion residue. *Bull. Grain. Tech.* 13 (3): 157-158.
- [2]. Ramzan, M. and Chachal, B.S. (1987). Evaluation of synthetic pyrethroids for the protection of stored wheat grains against storage pests. *International pest control*, 29 (2): 42-44.
- [3]. Dyte, C.E. (1974) Problems arising from insecticidal resistance in storage pests. *Eppo. Bull.*, 4: 275-289
- [4]. Yadav, T.D.; Pawar, C. S.; Khanna, S.C. and Singh, S. 1980 Toxicity of organophosphorus insecticides against stored product beetles. *Ind. J. Ent.*, 42 (4): 28-33.
- [5]. Brun, L.O. and Attia. F.I. (1983). Resistance to lindane, malathion and fenitrothion in coleopterous pests of stored products in New Caledonia. *Proceedings of the Hawaiian Entomological Society.* 24: 211-215.
- [6]. Golob, P. and Webley. D.J. (1980). The use of plant and animal and traditional protectants of the stored product. *Trop prod. Inst.*, 38 (3): 12-13.
- [7]. Jotwani, M.G. and Sircar, P. (1965). Neem seed as a protectant against stored grain pests infesting wheat seed. *Ind J. Ent.*, 27 (2): 160-164.
- [8]. Verma, S.P.; Singh B. and Singh, Y.P. (1983). Studies on the comparative efficacy of certain protectants against *Sitotroga cerealella* Oliver. *Bull. Grain Tech.* 21 (1): 37-42.
- [9]. Sharma, M.M.; Mathur, N.M. and Shrivastava, R.P. (1989). Effectiveness of neem kernel powder against lesser grain borer, *Rhizopertha dominica* (Fab.) and rice weevil *Sitophilus oryzae* (L.) *Ind. J. Appl. Ent.* 3: 59-60
- [10]. Dyte, C.E. (1974) Problems arising from insecticidal resistance in storage pests. *Eppo. Bull.*, 4: 275-289
- [11]. Rajak, F.L. and Pandey, N.D. (1964). Mustard oil as protectant for legumes against bruchid infestation, 20th Annual convention and symposium on oils and fats pp. 122-123.
- [12]. Ali, S.I.; Singh, O.P. and Mishra, U.S. (1983) Effectiveness of plants oils against pulse beetle, *Callosobruchus chinensis* (Linn.). *Ind. J. Ent.* 45 (1): 6-9
- [13]. Saramma, P.V. and Verma, A.N. (1971) Efficacy of plant products and magnesium carbonate as protectants of wheat seed against attack of *Trogoderma granarium*. *Bull. Grain Tech.* 9 (3): 208-210.