Journal of Farm Sciences **1(1)** : 59-60, 2011

Short Note

Record of cigarette beetle *Lasioderma serricorne* F (Coleoptera : Anobiidae) on onion seeds

SUBHASH CHANDER VERMA

Department o Environmental Science
Dr YS Parmar University of Horticulture and Forestry, Nauni 173230, Solan,HP

The seed moisture content, storage temperature, relative humidity, oxygen level and above all , carried over diseases/ pests affect the seed viability of any crop. It is stipulated that 80.7 per cent of the certified seeds produced in India require storage for one planting season and 20 per cent of the seed is carried over for sequential sowing (Bal 1976). It has been observed that onions lose seed viability within 6-12 months (Doijode 2002) under ambient storage conditions. Seed is exposed to an array of pests and pathogens during its storage and in field life, significantly affecting its quality.

Hence, it becomes pertinent to check the insect-pest infestation associated with the seed during storage. Freshly harvested seeds of onion cv Nasik Red were stored in plastic containers of half kg capacity and were tightly covered with lid and kept at room temperature in the laboratory at Nauni, Solan. After 6 months of storage the seeds were taken out for observance of any insect-pest infestation. It was observed that large number of cigarette beetles (*Lasioderma serricorne* F) emerged from the onion seeds. For calculating the percentage seed damage, the damaged and undamaged seeds were counted and converted into per cent seed damage. In the present observations it was found that 12.33 per cent seed was damaged within six months of storage. Ever since the pest was detailed by Fabricius in 1792 from North America (Powell 1931), infestation on many substrates such as tobacco, bread crumbs, wheat, aniseed, arecanut, carobs and garlic reported by Runner (1919), Strong (1920), Haris (1939), Lefkovitch (1968), Dobie (1978) and Niito (1984). Howe (1957) in his extensive study on the biology and literature survey of *Lasioderma* recorded a list of hosts including bamboo, beans, biscuits, cassava, chickpea, cocoa, coffee beans, copra, coriander, cotton seed both before and after harvesting, cotton seed meal, atta, cumin, dates, dried banana, dried cabbage, dried carrot, drugs, flaxtow, flour, ginger, grain groundnut, herbs, herbaceous specimens, insecticides containing

pyrethrum, juniper seed, liquorice root, nut meg, raisins, rhubarb, rice, seeds of bauhinia, yeast, tobacco, dried fish, fish meal, meat meal, leather and stored wax of cocos and caronda were infested with this beetle.

ACKNOWLEDGEMENT

Author is thankful to Dr V V Ramamurthy, Incharge, identification cell, Division of Entomology, Indian Council of Agricultural Research, New Delhi for identification of the specimens.

REFERENCES

Bal SS 1976. Magnitude and types of seed storage need in India. Seed Research **4**: 1-5.

Dobie P 1978. The effects of a previous field infestation upon *Ephestia cautella* (Walkers) and *Lasioderma serricoryne* (F) infesting carobs. Journal of Stored Products Research **14**: 35-39.

Doijode SD 2002. Seed storage of horticulture crops. CBS Publishers and Distributers. New Delhi, India, pp 168-210.

Haris WV 1939. Entomologists report-1938, Entomological Leaflets- Department of Agriculture, Tanganyika **17**: 5.

Howe RW 1957. A lab study of the cigarette beetle, *Lasioderma serricoryne* (F) (Coleptera : Anobiidae) with a critical review of the literature and its biology, Bulletin of Entomological Research **48**: 9-56.

Lefkovitch LP 1968. Interaction between four species of beetles in wheat and wheat feed. Journal of Stored Products Research **4**: 1-8.

Niito C 1984. Ecological study of tobacco beetle, *Lasioderma serricorne* (F) II- Growth of tobacco beetle fed on bread crumbs. Japanese Journal of Applied Entomology and Zoology **28**: 209-216.

Powel TE 1931. An ecological study of the cigarette beetle (*Lasioderma serricorne* F) with special reference to its life history and control. Ecological Monographs **1**: 333-393.

Runner GA 1919. The tobacco beetle: An important pest in tobacco products. USDA Bulletin, No 737.

Strong LA 1920. Quarantine service. Report for the month of October 1920. Bulletin of California Department of Agriculture **9**: 724-727.

Received : 13.6.2010 *Accepted :14.10.2010*