

6. Spiny pod borer, *Etiella zincknella*, Phycitidae, Lepidoptera

Symptom of damage: Entrance hole in the green pod disappears and leaves little evidence that the pod is infested. In pods, the larva devours many seeds. The pod always contains a mass of frass and held together by a loosely spun web.

Nature of damage: Young larva bores into floral parts, making rough and irregular incision.

Egg: Laid singly or in small groups on immature pods either along the midrib or on the calyx. Freshly laid eggs are glistening white and adhere securely to whatever they touch.

Larva: Dorsal surface of mature larva is reddish pink, while the pleural and ventral surfaces of the body are pale-green or creamy-white.

Pupa: Light green in colour changes to light brown or amber. Pupates in the ground at a depth of 2 to 4 cm.

Adult: Greyish brown moth, distinct pale-white band along the costal margin of the forewings, hind wings are semi-transparent with a dark marginal line. Orange coloured prothorax.

7. Field bean pod borer, *Adisura atkinsoni*, Noctuidae, Lepidoptera

Symptom of damage: Affected pods and flowers have irregular bore holes.

Nature of damage: Young larva bores into floral parts and pods and feeds on it.

Egg: Small, spherical, laid singly on tender pods or buds.

Larva: Robust, green, resemble gram pod borer except for the presence of dark brown lateral stripe on each side and the humped segment.

Pupa: Pupates in soil or on flower spikes

Adult: Yellowish has light brownish forewings with V-shaped specks and pale brown markings on hind wings.

8. Redgram podfly/ 'Tur' podfly, *Melanagromyza obtusa*, Agromyzidae, Diptera

Symptom of damage: Shriveled pods and seeds. Damaged seeds become unfit for consumption and also do not germinate. However, the attack of the fly remains unnoticed by the farmers due to the concealed mode of life of this insect within the pods.

Nature of damage: Young maggot attaches itself on the immature seed inside the pod. In the beginning it feeds on the surface and thereafter mines into seeds and makes galleries just under the seeds epidermis, causing a ring like track. (One seed is enough for the development of a maggot. It never leaves the pod in which it enters once and completes its maggot stage)

Egg: Freshly laid eggs are white, broad and round at its posterior end which is embedded in the tissues of the pod and narrowed anteriorly into a somewhat elongated egg sheath.

Maggot: Freshly hatched maggot is white with dark-brown mouth hook. Full-grown maggot is cylindrical in shape and is narrower at the head end, which bears black mouthparts. It is creamy white but acquires a yellowish tinge just before pupation.