Insecta 285

Epilachna spp.

Common name. Epilachna Beetles (E. varivestis is known as the Mexican Bean Beetle)

Family. Coccinellidae

Hosts (main). Cucurbits, and Solanaceae; in USA, beans (Phaseolus spp.).

(alternative). Maize, sorghum, finger millet, rice, wheat, cotton, sesame, lettuce; soybean and cowpea in N. America; and solanaceous weeds.

Damage. Both adults and larvae feed on the leaves and fruits of cucurbits and other crop plants. The leaves are eaten between the veins, sometimes being completely stripped to the midrib. Stems are often gnawed and holes are eaten in the fruits.

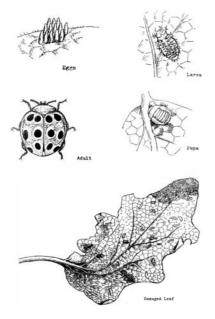
Pest status. A quite serious pest of many crops in Asia and Africa, and the Mexican Bean Beetle is a serious pest of various legumes in N. America.

Life history. The eggs are pale yellow, elongate-oval, with comb-like hexagonal sculpturing, and are 0.5 mm long. The eggs are laid in clusters, usually on the underside of the leaves and placed vertically. Each female lays on average 12 clusters, each with 20-30 eggs (up to 50). Incubation takes 4-5 days.

The larvae are pale yellow, covered with delicate spines when first hatched. The young larvae start feeding soon after hatching, making rows of small windows in the leaves. Fully grown larvae are dark yellow, broad, with a dark head, and strong branched spines, and 6-7 mm long. Larval development takes about 16 days.

Pupation takes place on the leaves of the host plant, and the pupa is dark yellow.

Fig. 9.164. Epilachna sp.; Kenya.



The adult beetles are oval, 6-8 mm long, reddish to brownish-yellow, but colour is variable. Each elytron is marked with a series of black spots. The adults look like typical 'Ladybirds' but have the distinction of being the only phytophagous representatives of this family; they are strong fliers.

The whole life-cycle takes about 35 days, and in Africa there are five generations per year.

Distribution. There are many species of *Epilachna* known, but the most important are:

E. chrysomelina (F.) - Europe, Asia and Africa (CIE map no. A409).

E. similis (Thnb.)

 Africa E. fulvosignata Reiche

E. sparsa (Hbst.) - S.E. Asia

E. spp. – India, S.E. Asia, USA

E. varivestis Muls. - Mexican Bean Beetle (CIE map no. A46).

Control. Sprays of dieldrin, carbaryl, methomyl, parathionmethyl, toxaphene or malathion are said to be effective against these pests.

