

Pests and diseases associated with fruit and vegetables

Lepidoptera

(from the Greek **Lepidos** = scale and **Pteron** = wing)

180 000 known species divided between 126 families ~10% of all know insect species

<2.5mm – 45 cm wingspan, average 2.5cm

2 pairs of membranous wings

Wings & body covered in scales

Adults –Sucking/lapping mouthparts

Larvae (caterpillars) chewing mouthparts.

Most (99%) are plant feeding.. But there are also detritivores, parasites and predators



Caterpillars - Most frequently encountered life stage – Main focus

Noctuidae



Sphingidae



Shape and structure

Number of prolegs

Hairy, smooth

Spiny (spiculated)

Warty, bumpy

Hairs in clumps or covered all over

How active?

Colour, patterns ?

Tortricidae



Lymantridae



Nolidae (*Earias* spp)



Pyralidae/Crambidae



Geometridae



Lycaenidae



Signs of caterpillar infestation

Caterpillars = eating machines (Mouth > Gut > Anus)

Damage and frass (excrement) deposits are often the most visible indication of the presence of caterpillars

- Defoliation

- Windowing
- Skeletonization

- Webbing & leaf rolling

- Mining



- Linear
- Blotch

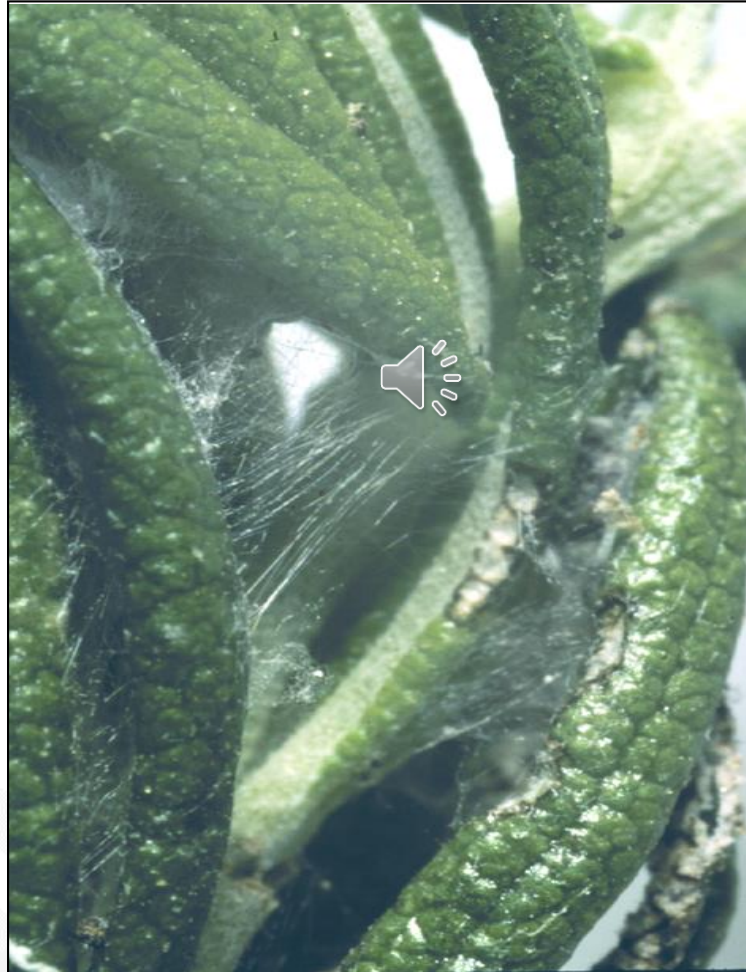
- Bore holes (tunnelling)

- Frass

Signs of infestation - Windowing and skeletonization

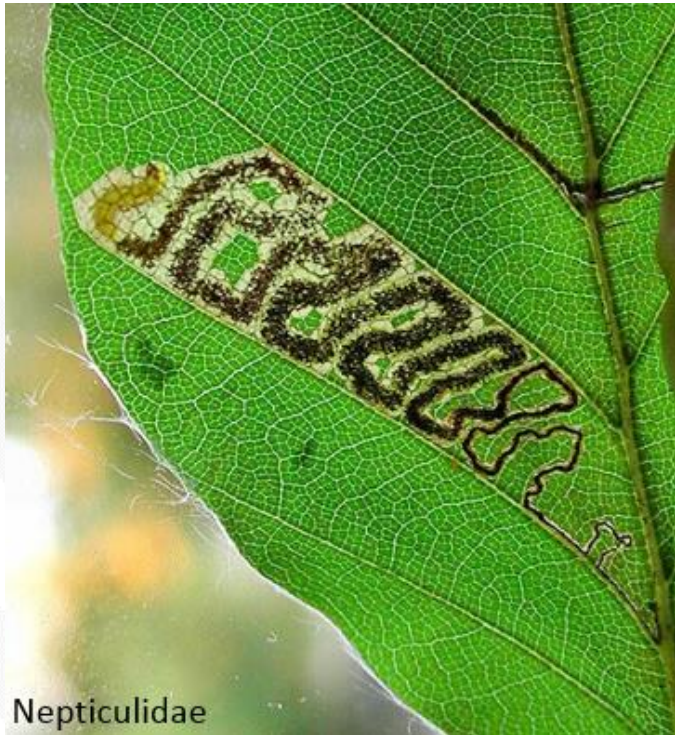


Signs of infestation – Webbing & leaf rolling



Signs of infestation - mining

Linear



Blotch



Signs of infestation – boring & tunnelling

