

SCREWWORM

1. BIOLOGY, DISTRIBUTION AND IDENTIFICATION



Adult screwworm flies and larvae at a wound.

Cochliomyia hominivorax

Chrysomya bezziana



- After emerging from puparium, adult burrows to soil surface, where wings extend fully. Adult then flies away.
- Up to 10 mm long.
- Various colours from metallic blue to bluish purple or blue-green.
- Eyes reddish in colour.
- Live for about 2 weeks.
- Harmless apart from their ability to lay eggs on the wounds of animals.



- Adults mate within a couple of days after emerging from the soil.
- Males:
 - sexually mature within 24 hours.
 - may mate five to six times.
- Females:
 - sexually mature within 2 or 3 days.
 - generally mate only once.



- Each female capable of laying several egg masses during her lifetime.
- Egg masses laid on or near an open wound of a living animal.
- 100 to 300 eggs per egg mass.



- Mature third instar larvae exit wound and drop to ground, usually at shaded places, where animals rest during the day.
- Larvae burrow 2 - 3 cm below soil surface.
- Larva develops into a pupa inside the darkening larval skin (puparium).
- Puparia are brownish in colour approximately 10 mm long.
- Pupal period depends on temperature, from 7 days in warm conditions to 65 days in winter.



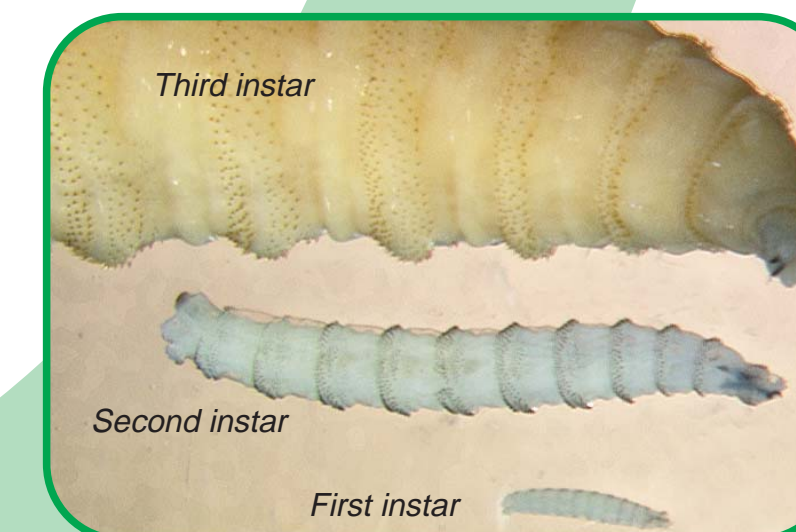
- Laid in a pattern like roof-tiles.
- White, cigar-shaped, approximately 1 mm long.
- Hatch 10 - 12 hours later.



- Larvae form dense aggregations.
- Larvae feed with their heads buried downwards in the wound.
- Only posterior larval ends exposed to the surface.
- Spiracles on the posterior end used to obtain oxygen from the air.
- 'Myiasis' is a term used to refer to the presence of fly larvae in a wound.



- Head of mature third instar larva with dark mouth hooks.
- Mouth hooks used to tear at the host tissues during feeding.



- After hatching from the egg, three stages or instars of larvae (also known as maggots).
- First instar larvae are white, small (up to 3 mm long); crawl into the wound and start feeding on living tissues; duration: 1 day.
- Second instar larvae are white to cream in colour, (up to 7 mm long); continue eating on living flesh; duration: 1 day.
- Third instar larvae are white to cream in colour, when mature change to pinkish colouration, (up to 17 mm long); further enlarge the wound; duration: 3 - 5 days.

