

Locusts

Australian plague locust

Chortoicetes terminifera

Migratory locust

Locusta migratoria

Spur-throated locust

Nomadacris guttulosa

Yellow-winged locust

Gastrimargus musicus

Distribution

All locusts are only occasional pests, usually coming from outside cane areas. Australian plague locust can occur in southern districts, migratory locust can occur in northern and central areas, spur-throated locust can occur as far south as Bundaberg, and yellow-winged locust can occur in all districts.

Damage

Adult locusts and hoppers (young without wings) chew the leaves of sugarcane so that only the midrib is left. Weeds then grow because the cane canopy is lost.

Description

Locusts are grasshoppers which can breed up into large numbers in particular areas and band into dense swarms capable of moving great distances.

Adults of Australian plague locust have red shanks on the hind legs and black tips on the otherwise clear hindwings. They are smaller than other locusts (less than 3 cm). Hoppers are grey with mottled black markings.

Adults of migratory locust are brown when in swarms and green when on their own. They are thick set with brown or green hind legs (Photo 1). Hoppers are black and tan when in groups and green or grey when alone.

Adults of spur-throated locust are pale brown with a cream-yellow stripe down the back (Photo 2). They have a spur between the front legs. Hoppers are green or brown with a black stripe down the back. Older hoppers also have the spur. Adults of yellow-winged locust are brown or green and have a large yellow patch edged with black on the hindwing.



Photo 1: Migratory locust.



Photo 2: Spur-throated locusts.

They make a clicking noise when flying. Hoppers are green, grey, brown or black.

Biology

Locusts group together to lay batches of eggs in pods in the soil, usually in hard, bare areas. On hatching the hoppers cast off tiny white skins, which can be seen scattered on the soil surface. There are five or six hopper stages.



Locusts usually live as scattered individuals. Sometimes, with the right conditions of food and soil moisture, they build up into large numbers, forming hopper bands and adult swarms. When in swarms or bands they do economic damage.

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Adult Australian plague locusts sometimes appear in early summer, carried in on a cold front. They can go through 2-3 generations each summer. Eggs stay in the soil over winter. Infestations in sugarcane usually last only 1-2 generations before dying out.

Migratory locust swarms usually originate on the Central Highlands. They have 3-4 overlapping generations each year. The hopper stage lasts only 4 weeks in summer. Adults lay soon after maturity and continue to do so for 1-2 months. Young hoppers can move into and feed on cane.

Swarms of adult spur-throated locusts may appear in coastal areas during October-November. They have only one generation per year. Eggs are scattered in cultivated fields or grass, but many are laid in fallow fields under legume cover. Hoppers hatch in early to mid-February, and usually eat grasses in weedy fields before feeding on cane. The hoppers grow to adults by mid-April. Adults then overwinter in large cane and scrub before laying eggs in October-November.

The yellow-winged locust has two generations per year. In the summer eggs hatch in 17 days to produce hoppers in November-December. These mature to adults in February-March. The eggs laid by these adults don't hatch until August onwards. This second generation is mature in November-December. Egg pods contain about 60 eggs and are laid in cultivated fields, hard bare soil or the forest floor.

Management

Good kills of eggs can be achieved by cultivating the egg beds before the hoppers hatch.

Generally locusts are not worth trying to control with insecticides. The long-term damage they do to cane is usually small and infestations die out within a couple of generations. Because hoppers usually group together they are easier to spray than adults. Chlorpyrifos (500 EC) and diazinon (800 EC) are registered to control spur-throated locust, Australian plague locust and migratory locust in sugarcane in Queensland.