

IMPORTANCE

The Australian plague locust (*Chortoicetes terminifera*) is an important recurrent insect pest of pastures and crops. Moderate outbreaks occur in most years, and locusts were at major outbreak to plague levels nine times in the past 25 years. During plagues serious damage can occur. In 1984 estimated crop loss was \$5 million; without control losses could have been \$103 million.

IDENTIFICATION

The Australian plague locust is relatively easy to identify in the adult stage. The main characteristics are a dark spot at the tip of the hindwings and red shanks on the hindlegs. The female locust is approximately 4 cm long while the male is usually shorter (3 cm). The nymphs (hoppers) are more difficult to identify. If a large mass (band) of nymphs is found however, it is likely to be plague locust.

LIFE CYCLE

Eggs

Female locusts lay eggs in pods in the soil usually at a depth of 2-5 cm. When locust numbers are high, they lay in eggbeds with densities of 5-50 pods/m². Each pod contains 30-50 pale yellow banana shaped eggs, 5-6 mm long. Eggs develop according to temperature and moisture. In summer for example, eggs will hatch within 14-16 days of laying. In winter in southern N S W eggs laid in autumn will not hatch until spring. Females may lay up to 4 pods in a month before dying.



Nymphal growth stages

Real size



1st instar nymph



2nd instar nymph



3rd instar nymph



4th instar nymph



5th instar nymph



PLAGUE DYNAMICS

Most outbreaks of the Australian plague locust originate in the arid grasslands of south west Queensland and adjacent areas of South Australia, New South Wales and the Northern Territory. Large locust populations can develop following localised rainfall in this region. If undetected, swarms may migrate into the agricultural areas of NSW, SA, Qld and Vic.



CONTROL

The APLC only undertakes aerial control against substantial targets of bands and swarms. The chemical used is fenitrothion, which is of moderate toxicity to humans and animals. The Ultra Low Volume technique is used to apply 210–300 mL of fenitrothion per hectare. The low volume sprayed, short residual life of fenitrothion and low frequency of spraying in any one area from season to season, limits any effect of spraying on the environment. Ground control by landholders is most effective when the locust is in the nymphal (band) stage. A variety of equipment and registered chemicals can be used. Your local Department of Agriculture or Rural Lands Protection Board should be consulted for further details.



THE ROLE OF APLC

The APLC was established in 1974 to overcome difficulties which had been encountered controlling insects that migrate hundreds of kilometres and move interstate. There are 18 permanent officers responsible for monitoring, control and research of 3 locust species within an area of 2 million square kilometres. There are 3 field bases at Narromine, Broken Hill and Longreach, with headquarters in Canberra. Funding comes from the Commonwealth (50%), NSW (32.5%), Victorian (10%), South Australian (5%) and Queensland (2.5%) governments.

The APLC's role is to:

- control outbreaks of the Australian plague, spur-throated and migratory locusts which could pose a threat to agriculture interstate;
- collect and collate data on these locusts;
- forecast changes in populations;
- monitor the effects of control;
- improve survey and control methods.

Since the APLC is only permitted to control locusts that pose a threat to agriculture in another State, it can only undertake aerial control of spur-throated and migratory locusts found in the area bounded by Charleville, Roma, Dalby, Narrabri and Bourke.

The Australian plague locust is a more frequent and widespread pest than the spur-throated and migratory locusts. The Commission's Charter states that if faced with high numbers of all three locusts, the Australian plague locust must take priority.

Reporting locusts

It is important that landholders report the presence of locusts as soon as they are seen. Reports can be made either to the APLC (toll free on 1800 635 962) or to the relevant state department. For further information see our web site: www.daff.gov.au/aplc.

