



Title	Activation of ground control for locusts	Version	2
Policy no.	O-047	Effective date	02/01/2009
Authorised by	Director, Emergencies and Animal Welfare	Authorisation date	24/08/2009

1. OVERVIEW

In NSW, there are three declared pest insects (Australian plague locust, Spur-throated locust and Migratory locust) under the *Rural Lands Protection Act 1998* which require control. All three can cause significant damage to pastures and crops, thereby creating significant economic impacts. When managing these pest insects a number of considerations must be taken into account. Controlling locusts on the ground is the most efficient and effective way to control locusts and is critical to effective control.

2. BACKGROUND

Locust control in NSW is the responsibility of the land manager. However, sometimes control is beyond the capability of the land manager due, for example, to the size of the infestation. Livestock Health and Pest Authorities (LHPAs) or Industry & Investment NSW (I&I NSW) may undertake ground control, or contract ground control services, to assist land managers in controlling locusts. LHPAs and I&I NSW as land managers may also be required to control locusts on land they manage, such as Travelling Stock Reserves and Agricultural Institutes.

Ground control is preferred as it is more cost effective and safer to undertake than aerial control. It is also often more effective because ground control has lesser buffer distances for protecting environmentally sensitive areas than aerial control. Aerial control is a last-resort control measure.

The purpose of this policy is to outline the arrangements for activation of ground control of locust nymphs and roosting adults by LHPAs or I&I NSW.

3. SCOPE

This policy relates to ground control undertaken by LHPA staff or coordinated by LHPAs or I&I NSW using contractors in support of land managers in NSW. It does not relate to ground control undertaken by private or public land managers on their own land, including LHPAs and I&I NSW.

This policy is issued with the concurrence of the Director-General of I&I NSW under Clause 6.2 of the Memorandum of Understanding between the Director-General of I&I NSW and State Management Council of the Livestock Health and Pest Authorities.

4. POLICY

Ground control of nymphs and roosting adults

Ground spraying of nymphs or roosting adults by LHPA staff or by contractors coordinated by LHPAs or I&I NSW commences when ground control of nymph bands or roosting adults is beyond the capability of the landholder and they pose a threat to other properties.

- Nymphs should be banded (80 or more per square metre) to warrant spraying. However, sub-bands (31-80 per square metre) may be considered as a target if they are mixed in with bands and their extent poses a considerable risk to other properties.
- Roosting adults should be at least medium density (11-50 per square metre) to high density (greater than 50 per square metre) to be classified as a suitable target. Low density targets

(4-10 per square metre) may be considered if they cover significant areas, the conglomeration of which would pose a considerable risk to other properties. Random small areas of low density roosting adults are not reasonable targets.

- An LHPA senior ranger, or, once a Forward Command Post is established, the Officer-In-Charge, may request ground control of bands if they detect (through surveillance) significant bands that cannot be physically ground-controlled by landholders (significant numbers) and are likely to affect other properties.

Landholders should request assistance from their LHPA **as soon as possible** if it is likely that an infestation of plague locusts is beyond the landholder's capability.

Ground control by contractors is assessed and undertaken according to the procedure Engaging contractors for ground control of plague locusts. Landholders must assist LHPA personnel and contractors in locust control on their land.

Risk assessment

A risk assessment must be conducted for the proposed use of ground control. Once the **trigger points** for the deployment of ground control have been met a risk management approach must be undertaken before ground control activities commence. A risk management approach should be applied on a case-by-case basis, assessing the suitability for the ground control of locust nymphs and roosting adults.

Considerations with minimum requirements include:

a) Safety of contractors and staff: safety is of paramount importance. The I&I NSW Expression of Interest stipulates that contractors must meet specific requirements before they or their ground rigs will be considered. These include meeting occupational health and safety requirements and licensing requirements. Only personnel trained in insecticide use are to undertake ground control.

b) Local hazards: there are a number of local conditions that must be considered. These can include, but are not limited to, the type of terrain that ground rigs will be operating in, how familiar the operator is with the area and presence of overhead powerlines, cables or old telephone wires.

c) Environmental considerations: environmentally sensitive areas include watercourses (including dry watercourses), crops (stage and type), organic farms, aquaculture operations, threatened species, houses, urban areas, apiary sites, areas identified by the occupier or neighbouring occupier as a concern and any other areas as identified (such as school bus runs, dwellings). Please refer to the Environmental Considerations in a Locust Control Response Policy.

d) Weather conditions: weather conditions should be checked prior to conducting any control activities. The weather conditions, for example thunder storms, can impact on safety while conditions such as wind (spray drift) and rain can impact on spraying.

e) Potential impact to other lands: ground control services will be used if the control of locusts on the ground is becoming beyond landholder control and the locusts are going to move and impact on other properties or regions. Instances where this can occur include:

- bands moving from property to property
- bands reaching fledging stage, when they will soon mature into adults and migrate to other properties/regions thereby causing damage in other areas
- roosting adults that may migrate to other properties/regions thereby causing damage in other areas and potentially laying again, extending the length of the control program and increasing costs substantially

Therefore, there may be a need to involve ground control contractors to reduce the likelihood of these events occurring.

The impact on adjacent lands of locust control insecticides used for ground control operations also needs to be considered. Ensure that no insecticide drifts onto a neighbour's property.

f) Insecticide type: the insecticide of choice for ground control is Fenitrothion. In circumstances that prevent the use of chemical insecticides, Metarhizium (Green Guard®) is the alternate choice. Metarhizium is a biological control agent that can be used in environmentally sensitive areas. When using any insecticide ensure that the requirements of the label, Material Safety Data Sheet and the permit are strictly adhered to. Operations must be conducted in accordance with the [Pesticides Act 1999](#), the [Protection of the Environment Operations Act 1997](#) and current guidelines.

It is an offence under section 15 of the *Pesticides Act 1999* to contravene the insecticide label requirements.

When conducting any locust control there are a number of aspects to be considered. Under the *Rural Lands Protection Act 1998*, the Crown, the Minister and other persons are not liable for compensation or damage arising from plague locust control unless damage or loss is caused wilfully, negligently or maliciously.

There will be instances where locust control will not be feasible due to restrictions. There will also be cases where control may be deferred by a few days to allow the removal of bee hives, harvest of a crop, weather to pass etc.

Careful pre-control planning must be undertaken to identify possible spray targets and sensitive sites before control commences. Potential off-site impacts should be considered when deciding when and where to undertake control. There are legislative requirements that must also be taken into consideration when planning and conducting locust control.

5. PROCEDURES

- [Environmental considerations in a locust control response](#)
- [Ground control of plague locusts](#)
- [Insecticide management for plague locusts](#)
- [Surveillance of plague locusts](#)
- [Engaging contractors for ground control of plague locusts](#)

6. DEFINITIONS (ABBREVIATIONS)

LHPA	Livestock Health and Pest Authorities (formerly Rural Lands Protections Boards)
MSDS	Material Safety Data Sheet
I&I NSW	Industry & Investment NSW (formerly NSW Department of Primary Industries)

7. RELATED LEGISLATION

- [National Parks and Wildlife Act, 1974](#)
- [Occupational Health and Safety Act, 2000](#)
- [Pesticides Act, 1999](#) and [Pesticides Regulation, 2009](#)
- [Protection of the Environment Operations Act, 1997](#)
- [Rural Lands Protection Act, 1998](#)
- [Threatened Species Conservation Act, 1995](#)

8. RELATED POLICIES

- A-038 Occupational Health and Safety
- [O-070 Occupational health and safety in emergency management](#)
- [O-050 Environmental considerations in a locust control response](#)

9. RELATED DELEGATIONS

- Nil

10. RELATED DOCUMENTS

- [Australian Plague Locust, Landholder Control Strategies for NSW](#)

- [SAFEMEAT brochure 'Plague locusts, wingless grasshoppers and livestock residues'](#) and its supplement.

11. REVISION HISTORY

Version	Date	Amendments
1	2 January 2009	For approval
2	17 August 2009	Update NSW DPI to I&I NSW; detail on engaging contractors

12. DATE OF NEXT REVIEW

30 June 2010

13. CONTACT OFFICER

Manager, General Emergency Preparedness & Response (Emergencies & Animal Welfare Branch).