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<b>Title</b>	Use of insecticides for plague locust control	<b>Version</b>	2
<b>Policy no.</b>	O-049	<b>Effective date</b>	02/01/2009
<b>Authorised by</b>	Director, Emergencies and Animal Welfare	<b>Authorisation date</b>	24/08/2009

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## 1. OVERVIEW

In NSW, there are three declared pest insects: the Australian plague locust, Spur-throated locust and Migratory locust. All three species can cause significant physical damage to pastures and crops thereby creating significant economic impacts. The Australian plague locust is the most recurrent of these three declared pest insects. When managing these pest insects a number of considerations must be taken into account, including the use of insecticides for locust control.

## 2. BACKGROUND

In NSW a number of insecticides and biological control options exist for the control of locusts. Industry & Investment NSW (I&I NSW) generally uses the insecticide known as fenitrothion. If fenitrothion becomes unavailable there are a number of registered insecticide options that can be accessed. Fenitrothion can be applied by ground and aerially. The Australian Plague Locust Commission (APLC) generally uses the insecticide fipronil (only applied aerially).

If locust control must be undertaken in or near a sensitive area the biological control agent *Metarhizium* (Greenguard ®) may be used.

## 3. SCOPE

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.

Careful pre-control planning must be undertaken to identify any sensitive sites before control commences. With any application of an insecticide, all 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 campaigns.

A risk management approach should be applied on a case-by-case basis assessing the suitability of any insecticide used for controlling locusts. Before any locust control is undertaken all reasonable care should be taken to identify all potentially sensitive areas in the control area.

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, move stock, weather conditions, etc.

All personnel involved in the transport, handling, storage, use and disposal of plague locust insecticides have responsibilities to ensure risks to other personnel and the environment are identified, assessed, controlled and monitored.

## 4. POLICY

### 4.1 Insecticide — legal responsibilities

All pesticides are registered for particular uses by the Australian Pesticides and Veterinary Medicines Authority (APVMA). All labels are approved by the APVMA, and users in NSW may only use a product in accordance with the directions on the label and permit. From time to time, APVMA approves insecticide label changes. In addition, permits may be issued to allow other uses.

People who use, store and transport agricultural insecticides or supply insecticides have legal responsibilities under the [Pesticides Act 1999](#), the [Occupational Health and Safety Act 2000](#) and associated regulations.

The [Pesticide Regulation 2009](#) requires that any person or organisation applying an insecticide in a public place to which the public have access MUST apply this insecticide as described in their Notification Plan for Pesticide Use in Public Places. Therefore, in any situation where pesticide is to be applied to public lands eg road-sides, Travelling Stock Reserves, National Parks the Public Notification must be in accordance with that land manager's Notification Plan.

Dangerous goods (e.g. insecticides) are substances or articles that pose a risk to people, property or the environment, due to their chemical or physical properties. Dangerous goods are usually classified with reference to the immediate hazard they pose rather than the long-term health effects. Therefore, any dangerous goods should be correctly stored.

Employers, employees, and users are responsible for ensuring that all activities are in accordance with relevant legislation, regulations and codes of practice including:

- Australian Dangerous Goods Code (Transport)
- [OHS Amendment \(Dangerous Goods\) Act 2003](#)
- [OHS Amendment \(Dangerous Goods\) Regulation 2005](#)
- [OHS Regulation 2001](#)
- [Pesticides Act 1999](#)
- [Protection of the Environment Operations Act, 1997](#)
- [Safe use and storage of chemicals \(including pesticides and herbicides\) in Agriculture, Code of Practice, 2006](#)
- [Storage and Handling of Dangerous Goods Code of Practice 2005](#)

#### 4.1.1 Pesticides Act 1999

The [Pesticides Act 1999](#) requires all pesticide users to only use a pesticide for the purpose for which it is registered by the [APVMA](#).

The Act requires that users undertake all activities in accordance with the label. If a user does not follow all directions on the label, they are contravening the Act. The only variation to this is if specific authorisation has been granted by the [APVMA](#) under a permit. The Act should be referred to for specific obligations required of a pesticide user.

#### 4.1.2 Occupational Health and Safety Act 2000

The [Occupational Health and Safety Act 2000](#) and the [Occupational Health and Safety Regulation 2001](#) provide general obligations for employers, self-employed persons, suppliers and employees. These obligations are intended to ensure the health and safety of all those in workplaces, including visitors.

In line with legislative requirements, the employer must ensure that their workplace is safe and without risk to health for employees, visitors and contractors by:

- ensuring that workplace substances that are provided for use by employees and other people at work are safe and without risk when properly used;
- ensuring that systems of work and the working environment of employees and other people are safe and without risks to health;
- providing adequate information, instruction, training and supervision necessary to ensure the health and safety of employees and other people at work;

- providing adequate facilities for the welfare of employees and other people at work.

#### 4.1.3 Protection of the Environment Operations Act 1997

The aim of the *Protection of the Environment Operations Act 1997* is, among other things, to protect the quality of the environment in New South Wales and prevent the degradation of the environment.

The possibility of environmental impacts must be assessed prior to any pesticide application. If impacts are identified controls must be put in place to manage the risk of these impacts.

## 4.2 Insecticide – Safety

- When transporting, storing and using insecticides, the safety of the user, the community and the environment is of the highest priority.

### **ALWAYS READ AND COMPLY WITH THE PRODUCT LABEL, PERMIT AND MATERIAL SAFETY DATA SHEET.**

- A risk assessment must be performed **prior** to insecticide use to avoid run-off and minimise spray drift to ensure that adjacent properties, people, flora, fauna and waterways are not affected. Refer to 'Environmental considerations in a locust control response' (Policy O-050).

#### 4.2.1 Health surveillance

- Under the hazardous substances section of the *Occupational Health and Safety Regulation 2001* employers are required to conduct a risk assessment when employees use a scheduled hazardous substances such as fenitrothion. If the risk assessment indicates a significant exposure risk, health surveillance should be undertaken.
- Information on how to conduct the required health assessment can be found in the '*Code of practice for the safe use and storage of chemicals (including pesticides and herbicides) in agriculture*'. Health surveillance should be undertaken in consultation with a WorkCover authorised medical practitioner (list available through WorkCover).

## 4.3 Criteria for use of insecticides and responsibility for costs

Insecticide is supplied to Livestock Health and Pest Authorities (LHPA) ratepayers for use on their properties when validated targets are verified by the LHPA ranger. The cost of supplied insecticide is funded through the Pest Insect Destruction Fund (PIDF). Application of the insecticide and any associated costs are the responsibility of the landholder.

LHPAs have mister and boomless jet units which landholders may borrow for the purpose of locust control.

#### 4.3.1 Metarhizium use

Metarhizium is to be issued where control is required in or near sensitive areas including accredited organic properties, those in the process of achieving organic accreditation, threatened species habitats, on properties of people with chemical sensitivity or at the discretion of the issuing officer. Please refer to 'Environmental considerations in a locust control response' (Policy O-050) for further information. Landholders are required to cover the cost of application.

#### 4.3.2 Insecticide for ground control

Fenitrothion EC is the preferred insecticide to be used by landholders for ground control of nymphs. This insecticide will usually be issued in a 2.4 or 5 litre container. Landholders are required to cover the cost of application.

Where a landholder cannot undertake ground control of nymph locusts they should contract someone else to undertake the control for them at their cost. If a landholder is financially unable to undertake ground control of nymph locusts on their land and timely control is required to ensure the overall success of the control program, LHPA or I&I NSW may coordinate control

with approval of the Local Coordination Centre. The landholder may be charged the cost of control (excluding insecticide cost) and will reimburse the control costs within a reasonable time as determined by I&I NSW in consultation with the landholder.

See 'Activation of ground control for plague locusts' (Policy O-047) regarding criteria for the ground control of locusts.

#### 4.3.3 Insecticide for aerial control

Fenitrothion Ultra Low Volume (ULV) is the preferred insecticide to be used for aerial control of locusts if ground control gets beyond the capability of the landholders and it is determined that effective ground control is no longer achievable. Aerial control of nymph bands and swarms is coordinated by I&I NSW. Aerial control will only occur if strict criteria are met.

If a target is not deemed suitable after inspection by a LHPA ranger and a landholder wants to undertake aerial locust control, insecticide may be supplied free of charge by their local LHPA and the cost of application is the landholder's responsibility. Insecticide will not be supplied where locusts are isolated, scattered and are not classified as a medium density swarm or higher.

See 'Activation of aerial support in a plague locust campaign' (Policy O-048) regarding criteria for the aerial control of locusts.

#### 4.3.4 Public land

Public land managers are responsible for the cost of insecticide and control on the land they manage as they do not pay a levy into the PIDF. Land managers should initially undertake ground control of locusts. If aerial control is required on public lands, approval of the Local Coordination Centre is required. Public land includes:

- National parks (Department of Environment, Climate Change and Water);
- State Forests (I&I NSW);
- Agricultural Institutes (I&I NSW);
- Travelling Stock Routes (LHPAs);
- railway lands (RailCorp and Australian Rail Track Corporation);
- general Crown Land (Land and Property Management Authority); and
- Local government managed lands.

#### 4.3.5 The APLC

The APLC is responsible for the cost of their own operations in their area of responsibility. The insecticide most commonly used is fipronil.

## 5. PROCEDURES

- [Insecticide management for plague locusts](#)

## 6. DEFINITIONS/ABBREVIATIONS

APLC	Australian Plague Locust Commission
APVMA	Australian Pesticides and Veterinary Medicines Authority
LHPA	Livestock Health and Pest Authorities (formerly Rural Lands Protection Boards)
I&I NSW	Industry & Investment NSW (formerly NSW Department of Primary Industries)
PIDF	Pest Insect Destruction Fund – a levy collected from ratepayers through the LHPA rating system to cover the costs associated with locust control

## 7. RELATED LEGISLATION

- Australian Dangerous Goods Code (Transport)
- [Occupational Health and Safety Act 2000](#)

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- [OHS Amendment \(Dangerous Goods\) Regulation 2005](#)
- [Pesticide Regulation 2009](#)
- [Pesticides Act 1999](#)
- [Protection of the Environment Operations Act 1997](#)
- [Safe use and storage of chemicals \(including pesticides and herbicides\) in Agriculture, Code of Practice, 2006](#)
- [Storage and Handling of Dangerous Goods Code of Practice 2005](#)

**8. RELATED POLICIES**

- [O-048 Activation of aerial support in a plague locust campaign](#)
- [O-047 Activation of ground control for plague locusts](#)
- [O-050 Environmental considerations in a locust control response](#)

**9. RELATED DELEGATIONS**

Nil

**10. RELATED DOCUMENTS**

- [MSDS and labels](#)
- [APVMA permits](#)

**11. REVISION HISTORY**

Version	Date	Amendments
1	2 January 2009	
2	17 August 2009	Update NSW DPI to I&I NSW; clarify sensitive area & Metarhizium use; remove licensing for DG premises; correct Protection of Environment Operations Act

**12. DATE OF NEXT REVIEW**

30 June 2010

**13. CONTACT OFFICER**

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