

# QUESTION AND ANSWERS

## Grasshoppers

### What is the estimated area of impact?

Widespread occurrence of grasshoppers has been reported throughout 13 shires of central-western and north-western Queensland:

- Winton
- Flinders
- Richmond
- McKinlay
- Longreach
- Barcaldine
- Barcoo
- Blackall/Tambo
- Diamantina
- Boulia
- Cloncurry
- Burke
- Carpentaria.

Major grasshopper impact is being observed throughout the shires of Winton, Flinders, Richmond, McKinlay and Longreach.

Localised areas of significant grasshopper impact have occurred in the Barcaldine, Barcoo, Blackall/Tambo, Boulia, Cloncurry, Burke and Carpentaria shires.

Locusts are also being observed in Barcaldine, Barcoo, Blackall/Tambo and Diamantina shires.

### What species are the grasshoppers?

Several native grasshopper species have been identified from the genera *Peakesia*, *Novum*, *Lagoonia*, *Stropis*, *Yrrhapta*, *Buforania* and *Austoicetes*. Little is known about the life cycles or ecology of these species, although all of these have the ability to increase in number very quickly under the right conditions.

There are approximately 500 native grasshopper species in Australia, some of which can develop large, localised infestations. The major difference between locusts and grasshoppers is that locusts have the ability to swarm and fly large distances, while grasshoppers do not.

Producers are strongly encouraged to complete the [2021 grasshopper impact survey](#) to help The Department of Agriculture and Fisheries identify the current species, relative densities and distributions, and assess the extent of damage.

### What is the government doing about the grasshoppers?

The Department of Agriculture and Fisheries has formed the Grasshopper Working Group including representatives from the Australian Plague Locust Commission and the National Drought and Flood Agency.

The working group is coordinating the response to the current grasshopper activity to provide consistent information, ensure producers have legal access to chemical control options, and to plan actions and research to assist with prediction and management in the future.

The department is meeting with producers on-the-ground to learn how we can provide support and improve our knowledge on best management practice.

### **How can I manage the grasshoppers?**

At this stage, we are investigating options to best manage the grasshoppers in western Queensland.

While there is solid knowledge about locusts, there is much to be learnt about grasshoppers, including their ecology and lifecycles, and how to control them.

One option being considered is the use of chemicals. This may achieve favourable results when used strategically on areas of pasture heavily affected with young grasshoppers early in their life cycle.

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has issued two Emergency Use Permits for the use of chemical products containing fenitrothion and fipronil as control **options** for grasshoppers on pastures of the Mitchell grass bioregion.

The permits will allow landholders to legally use the specified chemical in accordance with the approved instructions on the permits and product labels, noting it is a legal obligation to follow the permits and label instructions.

**Affected landholders will need to carefully assess the benefit and risks of applying the chemicals, taking into account the direct cost of the chemical, cost of applying the chemical, the expected benefit from treatment, withholding periods for livestock and potential ecological influence.**

### **Fenitrothion**

#### **Rate**

Ground Application Equipment:

270 – 550 mL / Ha

Aerial Application:

270 – 350 mL / Ha

#### **Spray volume**

Not specified

#### **Restrictions**

DO NOT apply more than 3 applications per paddock per year.

DO NOT apply less than 7 days after the initial treatment.

The table below outlines critical application guidelines including buffer distances when using fenitrothion.

Do not apply within the following distances to sensitive areas including but not limited to natural streams, rivers, waterways, human dwelling or neighbouring properties.

Application type	Rate	Buffer distance (m)
Aerial application	Up to 350 ml/ha	At least 300
Ground application—boom sprays and electrostatic	Up to 350 ml/ha	At least 50
	350-550ml/ha	At least 100
Ground Application—Misters and air assisted	Up to 350 ml/ha	At least 100
	350-550ml/ha	At least 300

Withholding Periods (WHP) and Export Slaughter Intervals (ESI) apply to this use.

### Withholding Periods

Where stock have not been over sprayed, do not graze for 7 days after application, or withhold stock for slaughter for 14 days after applications, whichever is appropriate. Where stock have been over sprayed, do not slaughter for 14 days after application.

### Export Slaughter Interval

#### RECOMMENDED EXPORT INTERVALS

Chemical	Export Animal Feed Interval (EAFI) <sup>1</sup>	Export Slaughter Interval (ESI) <sup>2</sup>	Export Grazing Interval (EGI) <sup>3</sup>
<b>Organophosphate or carbamate products</b> registered for locust and/or wingless grasshopper control			
Fenitrothion	14 days	EGI applies	14 days

Definitions 1. Export Animal Feed Interval (EAFI): The minimum period that must elapse between the application of a chemical and grazing or harvesting the crop/pasture for animal feed. 2. Export Slaughter Interval (ESI): The minimum period that must elapse between removal of grazing livestock to clean pasture or feed and slaughter, where the livestock have been grazing the crop/pasture prior to expiry of the export animal feed interval. 3. Export Grazing Interval (EGI): The minimum period that must elapse between the application of a chemical and slaughter of the stock, where grazing has continued on the crop/pasture from the time the chemical was applied.

The product is toxic to bees so do not spray near flowering plants when bees are foraging.

### Fipronil

#### Rate

200 g/L fipronil products: 6.25 mL/ha

800 g/kg fipronil products: 1.5 g/ha

#### Restraint

DO NOT apply less than 14 days after the initial treatment.

#### Spray volume

Use a minimum spray volume of 20 L/ha by air or 50 L/ha by ground rig.

### Withholding Periods

Grazing: Do not graze or cut for stock food for 14 days after application. Withhold stock from slaughter for 21 days after application, where stock were present in pasture at time of application.

Chemical	Chemical Export Animal Feed Interval (EAFI) <sup>1</sup>	Export Slaughter Interval (ESI) <sup>2</sup>	Export Grazing Interval (EGI) <sup>3</sup>
Fipronil — 200 SC & 800 WG	14 days	14 days	21 days

Definitions 1. Export Animal Feed Interval (EAFI): The minimum period that must elapse between the application of a chemical and grazing or harvesting the crop/pasture for animal feed. 2. Export Slaughter Interval (ESI): The minimum period that must elapse between removal of grazing livestock to clean pasture or feed and slaughter, where the livestock have been grazing the crop/ pasture prior to expiry of the export animal feed interval. 3. Export Grazing Interval (EGI): The minimum period that must elapse between the application of a chemical and slaughter of the stock, where grazing has continued on the crop/pasture from the time the chemical was applied.

### Bees

Please note: Fipronil is dangerous to bees. DO NOT apply where bees from managed hives are known to be foraging, and crops, weeds or cover crops are in flower at the time of spraying, or are expected to flower within 28 days (7 days for pastures and sorghum).

Before spraying, notify beekeepers to move hives to a safe location with an untreated source of nectar, if there is potential for managed bees to be affected by the spray or spray drift. If an area has been sprayed inadvertently, in which the crop, weeds or cover crop were in flower or subsequently came into flower, notify beekeepers in order to keep managed bees out of the area for at least 28 days (7 days for pastures and sorghum) from the time of spraying.

Where the owner of managed hives in the vicinity of a crop to be sprayed is not known, contact the Department of Agriculture and Fisheries on 13 25 23.

### Are organic control options available?

Green Guard<sup>®</sup> is a bio-insecticide that contains a naturally occurring Australian fungus, *Metarhizium*.

Three Green Guard<sup>®</sup> products are registered for use in Queensland for pest grasshoppers: Green Guard<sup>®</sup> SC, Green Guard<sup>®</sup> Premium, Green Guard<sup>®</sup> ULV.

All three products have instructions for control of pest grasshoppers on pastures and have been used extensively where there are land use limitations on chemical pesticides such as near waterways, wetlands or certified organic production properties.

Locusts or grasshoppers sprayed with Green Guard<sup>®</sup> usually die within 8-21 days after treatment; mortality occurring more quickly during summer than in cooler temperatures. The product is most effective when targeting less-mobile nymphal stage grasshoppers.

Please note, the product is potentially toxic to bees so do not spray near flowering plants when bees are foraging.

5m buffer zone to waterbodies applies.

Re-entry\* period of 24 hours.

\*In relation to the use of a chemical product in a particular place (including the use of a product in relation to a crop or pasture in that place), re-entry means the period after that use during which it is unsafe for a person to enter the place without wearing appropriate protective clothing or equipment, or both.

### **What else can producers / landholders do?**

Producers and landholders are strongly encouraged to complete the [2021 grasshopper impact survey](#) to help DAF identify the current species, relative densities and distributions, and assess the extent of damage.

Producers and landholders are also encouraged to collect photos of grasshoppers on their property and report sightings to DAF on 13 25 23 or to their local DAF officer.

**ENDS**