

Honeybee pesticide poisoning



A risk management tool for Australian farmers and beekeepers



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Honeybee pesticide poisoning: a risk management tool for Australian farmers and beekeepers
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Products have been included on the basis that they either contain a bee related warning on the product label, or they have the same active constituent(s), active constituent(s) concentration, application rate and intended use as products which contain a bee related warning on the label.

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Foreword



An increase in the number of managed beehives available for crop pollination is crucial to the continued prosperity of the Australian horticultural industry. Further development of the managed pollination sector will provide important opportunities for the honeybee industry. Historically, a significant barrier in this regard, has been the risk that beekeepers face in relation to honeybee pesticide poisoning.

This publication will help farmers and beekeepers overcome this barrier and manage the risks, by providing a list of the broadacre and horticultural pesticides that are known to be toxic to honeybees in Australia, as well as outlining good practices and providing useful templates. Products have been included on the basis that they either contain a bee related warning on the product label, or they have the same active constituent(s), active constituent(s) concentration, application rate and intended use as products which contain a bee related warning on the label.

This project is part of the Pollination Program – a jointly funded partnership with the Rural Industries Research and Development Corporation (RIRDC), Horticulture Australia Limited (HAL) and the Australian Government Department of Agriculture, Fisheries and Forestry. The Pollination Program is managed by RIRDC and aims to secure the pollination of Australia's horticultural and agricultural crops into the future on a sustainable and profitable basis. Research and development in this program is conducted to raise awareness that will help protect pollination in Australia.

RIRDC funds for the program are provided by the Honeybee Research and Development Program, with industry levies matched by funds provided by the Australian Government. Funding from HAL for the program is from the apple and pear, almond, avocado, cherry, vegetable and summerfruit levies and voluntary contributions from the dried prune and melon industries, with matched funds from the Australian Government.

This report is an addition to RIRDC's diverse range of over 2000 research publications which can be viewed and freely downloaded from our website www.rirdc.gov.au. Information on the Pollination Program is available online at www.rirdc.gov.au. Most of RIRDC's publications are available for viewing, free downloading or purchasing online at www.rirdc.gov.au. Purchases can also be made by phoning 1300 634 313.

Craig Burns
Managing Director
Rural Industries Research and Development Corporation



Executive summary



This publication will help farmers and beekeepers manage the risk of honeybee pesticide poisoning. It is hoped that by doing so, more beekeepers will be encouraged to provide managed hives for crop pollination, and farmers and beekeepers will be able to form rewarding and mutually beneficial relationships.

In addition to providing a list of 349 broadacre and horticultural pesticides known to be toxic to honeybees in Australia, this publication outlines good practices for farmers and beekeepers to adopt, and contains a number of useful forms, contact details and other relevant information.

Only 200,000 to 220,000 of Australia's 500,000 managed beehives are currently utilised for honeybee dependent crop pollination services. If Varroa mite becomes established in Australia, it will wipe out much of the feral honeybee population and 480,000 managed hives will be required to provide pollination services every winter and spring. Furthermore, it has been estimated that peak demand could increase this figure to 750,000 hives, far outstripping current supply.

The survival of the Australian horticultural industry is dependent on hundreds of thousands of additional honeybee colonies being made available for commercial pollination, and it is hoped that this publication will play a part in achieving this.



Background



The importance of commercial pollination to the horticultural industry

In Australia, thirty five horticultural industries are reliant on pollination for most of their production, and in 2000 the value that honeybee pollination brought to these crops was estimated at \$1.7 billion. Many more crops are responsive to honeybee pollination to varying degrees, and some crops, such as almonds, apples, pears and cherries, depend almost exclusively on honeybee pollination. All up, honeybees are thought to be responsible for around one in every three mouthfuls of food that we eat.

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Due to the large number of feral European honeybees in Australia (i.e. those living in tree hollows, as opposed to managed *beehives*), the vital role of honeybee pollination is not widely recognised or valued. Only a small proportion of farmers manage the process by paying for pollination services.

As we will see, this is likely to change.



Background



The importance of commercial pollination to beekeepers

There are approximately 1530 honeybee businesses in Australia that manage 50 or more hives. Collectively, these businesses manage over 471,000 hives, and it is thought that almost half of them (approx. 765 businesses / 235,500 hives) provide pollination services of some kind. Some smaller honeybee businesses also provide pollination services.

The RIRDC report 'Analysis of the market for pollination services in Australia' contains detailed information about the pollination sector, including information about pollination related revenue and expenses.

Three quarters of all honeybee businesses involved in pollination receive payment, while the remainder provide the service either free of charge or in exchange for access to desirable *apiary* sites.



The provision of paid pollination services provides beekeepers with an opportunity to diversify their business. Diversification can be a key strategy for improving profit margins and providing a buffer against low honey yields and low prices. Varroa mite incursion will probably lead to beekeepers increasingly looking to provide paid pollination services to augment their income, especially as pollination prices rise as a result of competition for available hives. Some entrepreneurial beekeepers have already established large and successful pollination based businesses.

The report '*Analysis of the market for pollination services in Australia*' contains more detailed information about the pollination sector, including information about pollination related revenue and expenses. Hard copies can be purchased from RIRDC at the following website <https://rirdc.infoservices.com.au/items/08-058>. The document can be downloaded for free as a PDF.



Background



The future

Only 200,000 to 220,000 of Australia's 500,000 honeybee colonies are currently utilised for honeybee dependent crop pollination services, however if Varroa mite becomes established in Australia, the horticultural industry's need for beehives will increase dramatically. Varroa mite is a parasite that is currently devastating both feral and managed honeybee populations around the world, and many commentators suggest that it's not a question of *if* it comes to Australia, but is only a question of *when*.



If Varroa mite becomes established in Australia, it will wipe out much of the feral honeybee population and 480,000 managed hives will be required to provide pollination services every winter and spring. Furthermore, it has been estimated that peak demand could increase this figure to 750,000 hives, far outstripping current supply.



The reason for this booklet



The survival of the Australian horticultural industry is dependent on hundreds of thousands of additional honeybee colonies being made available for commercial pollination. This means that more beekeepers must be encouraged to provide these services, rather than relying solely on honey production.

Horticulture Australia Limited (HAL) and Rural Industries Research and Development Corporation (RIRDC) recognise that one of the barriers to beekeepers providing commercial pollination services, is the risk of pesticide poisoning of honeybee colonies. To help beekeepers and farmers manage this risk, HAL and RIRDC engaged TQA Australia to develop this booklet.

This booklet enables beekeepers and farmers to identify pesticides that are toxic to bees, and provides information that will help them manage the risk of honeybee poisoning. The booklet also contains a number of useful forms, contact details and other relevant information.

Uncommon words have been *Italicised* throughout the booklet and are defined in the glossary at the end.



The reason for this booklet



But first...

Overwhelmingly, the most important tool that beekeepers and farmers can use to ensure a long term, hassle free and mutually beneficial business relationship is communication!

Section 2 contains specific practices that farmers and beekeepers should follow, and many of those are based on good communication. We spoke to a number of beekeepers and farmers while writing this book, and it was obvious that beekeepers and farmers that understand each other's business, meet prior to hive placement and speak regularly throughout the duration of the placement, experience less stress and can save time and money by not having to look for new beekeepers / farmers next year.

Want to learn more about effective communication?

'A Guide to Communication for Farming Families' is an excellent resource developed by the Grains Research and Development Corporation, and is available to download for free from

www.grdc.com.au/uploads/documents/GRDC-CommunicationForFarmingFamilies.pdf?shortcut=1



Section 1: Pesticide toxicity



How chemicals are assessed and registered in Australia

Since July 1995, the Australian Pesticides and Veterinary Medicines Authority (APVMA) has held responsibility for the assessment and registration of pesticides in Australia. Prior to this, each state government managed its own registration scheme, which resulted in some inconsistencies in the way that pesticides were assessed, registered and labelled. Whilst all new agricultural chemicals, including herbicides, insecticides, fungicides and *adjuvants* must now be assessed and registered by the APVMA, a number of pesticides still remain on the market that have not been assessed under the new and improved regime.

Guidelines are provided for registration of agricultural and veterinary chemicals in the Manual of Requirements and Guidelines (MORAG) on the APVMA website. The applicant (e.g. a chemical product manufacturer) is required to provide specific data relating to such things as product quality, efficacy, chemical residues, toxicity and environmental impact. This is assessed by appropriately qualified scientific assessors both from within and external to the organisation.

Once registration is granted, products remain registered until they are voluntarily withdrawn from the market by the applicant, suspended subject to review or reviewed and subsequently deregistered.

The APVMA develops and maintains standards for product labels, and the requirements for labelling are provided in the MORAG. Where trial data demonstrates that pesticides are toxic to bees, this is identified on the labels under the heading 'Protection of Livestock', with suitable hazard statements and where appropriate, instructions for managing the risks. On some labels, the bee warning statement has been placed under the 'Protection of Wildlife, Fish, Crustaceans and Environment' heading.

The APVMA is working towards providing beekeepers with better access to product specific toxicity information, following consultation with honeybee industry representatives in 2011.



Section 1: Pesticide toxicity



Misconceptions

Within honeybee industry circles, it is common to read reports or hear discussions relating to pesticides used in Australia as well as other countries, being responsible for honeybee deaths overseas, particularly in the northern hemisphere. Sometimes, hysteria follows, further discouraging beekeepers from engaging in commercial pollination.

Whilst beekeepers are right to maintain an awareness of the international situation and to be on the lookout for emerging issues that may impact on their business, it is important to realise that there are a number of differences between the ways in which pesticides are used in Australia and overseas. This means that a pesticide that is causing bee deaths overseas, will not necessarily have the same impact in Australia. Such differences include product application rates and the growth period for crops.

An example of this is imidacloprid, an active ingredient that is used in a number of insecticides including Gaucho®. In Australia, imidacloprid based insecticide is commonly applied to canola as a seed treatment, at relatively low application rates. In Europe on the other hand, where imidacloprid has been widely attributed to bee deaths, it is typically applied at higher rates, throughout the season. This example illustrates a situation where the usage situation in Europe differs considerably from that in Australia, and presents a heightened risk for European beekeepers.

Whilst beekeepers are right to maintain an awareness of the international situation and to be on the lookout for emerging issues that may impact on their business, it is important to realise that there are a number of differences between the ways in which pesticides are used in Australia and overseas.



Section 1: Pesticide toxicity



The list of pesticides toxic to honeybees

One of the aims of developing this booklet, was to include information that would enable beekeepers and farmers to identify those pesticides that are known to be toxic to bees, and to provide the bee related warning statements from those labels in one convenient location.

Appendices 1 and 2 contain a list of 349 pesticides registered for horticultural and broadacre use in Australia that are known to be toxic to honeybees. Pesticides that are unlikely to affect bees in broadacre and horticultural situations, such as rodent controls, livestock treatments, home garden and domestic insect sprays, have been excluded from the list.

Products have been included on the basis that they either contain a bee related warning on the product label, or they have the same active constituent(s), active constituent(s) concentration, application rate and intended use as products which contain a bee related warning on the label. All pesticides included on the Infopest database as of July 2011 were considered. It should be noted that the list contains no herbicides, fungicides or adjuvants, as none of those products used for horticultural and broadacre applications in Australia, contain a bee related warning on the label.

It is important to note that the absence of a honeybee related warning and subsequent exclusion from the list does not mean that a pesticide is entirely safe for honeybees. As already explained, whilst all new agricultural chemicals (and their label) are assessed and registered by the APVMA, some pesticides on the market have not been assessed under the current system, and may instead have been registered under the old state based system.

Sometimes farmers and beekeepers tend to refer to a product by its *active constituent*, rather the actual product name. For this reason, the list has been provided in two formats, the first sorted in alphabetical order by active constituent name (Appendix 1) and the second sorted in alphabetical order by product name (Appendix 2). The 53 active ingredients collectively utilised by these products have also been listed separately for convenience (Appendix 3).




Section 1: Pesticide toxicity



The list of pesticides toxic to honeybees cont

The intended use and target crop of registered products are very extensive and constantly change, and for this reason such details were not included in the list. The Public Chemical Registration Information System (PUBCRIS), maintained by the APVMA, allows users to search for registered products by a range of fields, including target crop and pest, and may be a useful companion to the list provided in this booklet, especially as in many cases, the product labels are available on the database. PUBCRIS is free and can be accessed online at <http://services.apvma.gov.au/PubcrisWebClient/welcome.do>



It is important to note that the absence of a honeybee related warning and subsequent exclusion from the list does not mean that a pesticide is entirely safe for honeybees.

The Public Chemical Registration Information System (PUBCRIS), maintained by the APVMA, allows users to search for registered products by a range of fields.



Section 1: Pesticide toxicity



Other things to consider

The matter of pesticide toxicity is a complex one, with new debates emerging regularly. Whilst the list of pesticides toxic to honeybees included with this booklet will help beekeepers and farmers to identify and manage the risk of honeybee poisoning, the following information may also aid decision making.

Systemic insecticides versus contact insecticides

Most of the pesticides that are toxic to honeybees are insecticides. Insecticides generally work in one of two ways. *Contact* insecticides are designed to kill unwanted insect pests upon contact, as the name suggests, whereas *systemic* pesticides are designed to be taken-up through plant tissue, so that pest insects will ingest the poison as they eat the plant. Systemic insecticides can potentially be carried back to the hive in nectar, pollen and water collected by bees, after the application occurred.

Some people believe that contact insecticides pose less risk to bees than systemic insecticides, provided that the bees don't come into contact with wet pesticide solution. It must be understood however that contact insecticides may contaminate pollen, may remain active for several days and may be re-dissolved in dew, which bees might subsequently drink or come into contact with.

Some beekeepers have been known to try and reduce the risk of poisoning by shutting bees in their hives either using hive entrance closures, or by blocking them with damp foam or hessian (which can also provide the bees with moisture if needed). Whilst this practice may be appropriate in some circumstances, consideration needs to be given to the **high risk of overheating**, which could kill (smother) the colony.

Synergism – “chemical cocktails”

Another risk for beekeepers and farmers to be aware of, is the risk associated with combining two or more pesticides together, which although “bee safe” in their own right, may be harmful to bees when mixed with other chemicals. Applying one or more chemical products together is a common practice in some horticultural situations (e.g applying a fungicide with an insecticide in orchards).



Section 1: Pesticide toxicity



Other things to consider cont

Honeybees use an enzyme called P450 to detoxify chemicals, and if this enzyme is being used to detoxify one chemical, it may not be available to detoxify the other, resulting in poisoning.

It is difficult for beekeepers and farmers to ascertain which products will pose a threat when applied together. The simple “jar test” practiced by many farmers, only provides an indication of whether or not the combination of chemicals can be applied without solidifying and damaging equipment – it does not provide any indication of the effect that the mixture will have in terms of its efficacy or its impact on bees. In the absence of expert advice, the most responsible approach is for beekeepers and farmers to assume that chemical combinations are toxic, and to avoid this practice in situations where honeybees may be affected. Alternatively, beekeepers should consider relocating their hives to avoid the risk.

Surfactants

Pesticides are sometimes required to be mixed with an additional product known as a surfactant, which is designed to ensure that a pesticide penetrates the target plant or insect. Some evidence suggests that even those designed to penetrate woody plants for example, may also penetrate the waxy cuticle or *exoskeleton* of the honeybee, its first line of defence against such hazards.

Research conducted by R.M Goodwin and H.M McBrydie in New Zealand, showed that some surfactants were toxic to honeybees, and suggested that surfactants may be causing bee deaths in the field. Dr Goodwin pointed out that in some situations, pesticides that were labelled as being “bee safe” in New Zealand, are recommended for use with surfactants, which may result in a mixture that is no longer safe for bees.

It should be noted, that according to the APVMA, in Australia surfactants and other adjuvants are regarded as pesticides in their own right, and are subject to the same assessment, registration and labelling requirements. This is not necessarily the case in New Zealand.



Section 2: Managing the risk of honeybee poisoning



How bee poisoning occurs

Bee poisoning may occur in several ways:

- When a chemical is applied directly to a flowering crop while bees are foraging.
- When a chemical is applied to a crop that is flowering, and bees subsequently forage on contaminated nectar, pollen or water or alight on a contaminated plant part.
- When a chemical is applied to a crop not in flower, but is also applied to non-target plants that are flowering (e.g. weeds), at the same time.
- When pesticide drifts onto bees, flowering plants, hives or the bees' water source.
- When a worker bee carries contaminated nectar, pollen or water back to the hive, contaminating the colony.
- When an areas within the bees' flight path is sprayed.

Things that farmers can do to reduce the risk

- Reduce the need for chemical use by adopting *Integrated Pest Management (IPM)* principles where appropriate.
- Contact the owners of any hives in the area well before spraying, so that they have an opportunity to relocate or protect their hives. Also consider owners of hives on adjacent properties, bearing in mind that bees commonly forage within a 5km radius, sometimes further.
- If using spray contractors, inform them of the location of any hives that may be affected and ensure that they understand the importance of reducing the risk of honeybee poisoning.
- Read and comply with the chemical product label.
- Choose appropriate spraying conditions so as to avoid the chance of spray drift affecting non-target flowering crops, hives, and water sources. Use an anemometer to measure wind speed rather than estimating it.



Section 2: Managing the risk of honeybee poisoning



Things that farmers can do to reduce the risk cont

- Ensure that bees are not foraging in the target area. This is a condition of some product labels and is therefore a legal requirement. This may include bees from hives located on adjacent properties, and feral bees as well. Remember, poisoning bees reduces future pollination potential! See the table below relating to foraging temperatures.
- Understand the *residual risk* to bees. *Microencapsulated* forms of pesticides have significantly longer *residual toxicity* than other forms.
- Mow flowering weeds inside the target area to reduce the damage to bees that may otherwise forage there.
- Talk to your agronomist and apiarist to help select chemicals that pose a low risk to bees, whilst still achieving the required outcome for your business.
- Refer to the Pesticide Risk Management Plan (Appendix 4).

Outside air temperature for honeybee flight	
Known foraging range	13°C - 37°C
Optimal foraging range	19°C - 30°C
Lowest temperature at which bees will fly to collect water	8°C
Highest temperature at which bees will fly to collect water	46°C

Source: Crane, 1990.



Section 2: Managing the risk of honeybee poisoning



Things that beekeepers can do to reduce the risk

- Before placing the hives on site, work with the farmer to plan a chemical application program that works for both parties. If the farmer needs to apply chemicals, discuss when this will occur and how the risk can be managed. For example, the hives may be able to be placed on site after chemical application, or removed prior to chemical application.
- Ensure that the farmer and neighbouring landowners have your full contact details so that you can be contacted quickly. A letter has been provided for notifying neighbouring landowners (Appendix 6).
- Notify aerial operators operating in the area. In NSW and QLD, beekeepers in cotton growing districts can advise aerial operators using the Bee Alert program, available online at www.cottoncrc.org.au/industry/Tools/Bee_Alert.
- Advise other nearby land managers, such as local councils.
- Ensure that at least some of your hives are marked, or your apiary is signposted with your contact details (including your mobile phone number) so that other people can contact you urgently if required. Ensure that the lettering is large enough to be read from a distance!
- Select sheltered areas that offer some protection against spray drift. Consider the prevailing wind and seek advice from locals.
- Ensure that bees have access to clean water. Bees require a lot of fresh water, and if it isn't readily available, they may search further afield and drink chemically contaminated water from flowers and other sources.
- Identify an appropriate area nearby (but at least 3km away) that hives can be temporarily relocated to if needed.
- Inspect hives regularly so symptoms of bee poisoning can be identified early.
- Relocate hives before bees are forced to forage across a wider area than was originally intended. Bees have been known to forage up to a 12km away from hives when necessary.
- Refer to the Pesticide Risk Management Plan (Appendix 4).



Section 3: Responding to a poisoning event



Identifying the symptoms of poisoning

- Significant numbers of dead bees are found outside the hive entrance.
- In severe cases, dead adult bees will be found inside the hives as well and *brood* will die from starvation, overheating or chilling (due to inability of adult bees to feed *brood* and regulate hive temperature).
- Adult bees all die within a few days of each other.
- Most or all hives may be affected.
- Dead adult bees often have their wings unhooked and at odd angles to their body, their *proboscis* fully extended, and their hind pair of legs outstretched behind them.
- A lack of foraging bees can be observed leaving the hive.
- Live adults may look sick (e.g. move slowly, show signs of paralysis).
- Remaining bees may behave aggressively.
- *Queen failure* may occur within 30 days.
- Some pesticides, particularly systemic pesticides may affect the colony more gradually. Symptoms include reduction in adult bees, reduced *brood*, bees shaking and staggering, repeated *queen failure*.



Section 3: Responding to a poisoning event



Managing affected hives

- Move hives to a safe area.
- Remove excess supers so that colonies can stay warm.
- Consider removing pollen and honey which may be contaminated, and dispose of appropriately if necessary.
- Feed colonies inside the hive with a 1:1 sugar and water solution until recovery. This helps compensate for the lack of fresh nectar resulting from reduced bee numbers. It may also be necessary to feed either pollen or pollen substitute.
- Add sealed *brood* and adult bees from healthy hives if needed. Ensure that young bees are added as well, to assist with the feeding of *unsealed brood* in the weakened hive.
- Observe hives for signs of *queen failure* or *supersedure*, which may occur a number of weeks after the poisoning event.



Section 3: Responding to a poisoning event



Investigation and reporting

The action that a beekeeper takes will most likely be determined by the severity of the poisoning event and the beekeeper's relationship with the farmer concerned. Regardless however, it is a good idea to collect samples that can be sent to a laboratory for analysis if required. Proper investigation is important to ensure that farmers who have done the right thing, are not unfairly blamed.

There are three types of samples that can be taken:

- Dead bees from outside the hive.
- Dead bees and comb from inside the hive.
- A swab sample from the outside of the hive.

Providing a swab sample from the outside of the hive is appropriate if you suspect that a chemical has come directly into contact with the hives (e.g. spray drift or aerial application), whereas the other two sample types should be taken for all poisoning events.

The following things should be considered when collecting samples:

- Bees should be picked up with sterile tweezers or gloves, and comb should be cut with a sterile knife.
- A swab can be taken from the outside of the hive using a clean tissue or cotton wool ball.
- All samples should be contained in sterile specimen jars, such as the type commonly used for sending honey samples for laboratory testing. If such a jar is unavailable, a clean, sealable glass or plastic container can be used (e.g. snap-lock bags).
- If unable to be dispatched immediately on ice, samples should be frozen. This slows the breakdown of both dead bees and chemical residues.
- Samples should be properly labelled (e.g. "bees from outside the hive" or "20cm x 20cm swab sample from the outside of a hive"). When submitting a swab sample, it is important to advise the laboratory of the size of the area that was swabbed.



Section 3: Responding to a poisoning event



- 25-40 bees, or at least 20g, should be collected per sample.
- An area of at least 20cm x 20cm should be swabbed.
- A piece of comb at least 10cm x 10cm should be sampled.
- Refer to the handy Pesticide Poisoning Report (Appendix 5).

Contact numbers for reporting an incident

Any adverse experience should be reported either to the relevant state government agency or to the APVMA's Adverse Experience Reporting Program (AERP) on 1800 700 588. State government employees may be able to provide you with contact details for a suitable laboratory if required.

New South Wales	Department of Premier and Cabinet Office of Environment and Heritage Phone 131 555
Northern Territory	Department of Resources Phone (08) 8999 2036
Queensland	Department of Employment, Economic Development and Innovation Biosecurity Queensland Phone 132 523
South Australia	Department of Primary Industries and Resources Senior Apiary Inspector Phone (08) 8207 7975
Tasmania	Department of Primary Industries, Parks, Water and Environment Spray Referral Unit Phone 1800 005 244
Victoria	Department of Primary Industries Phone 136 186
Western Australia	Department of Agriculture and Food Plant Biosecurity Phone (08) 9368 3535



Glossary



Active constituent	The APVMA defines active constituents as the substance(s) in a chemical product primarily responsible for a product's biological or other effects. They must be approved either before, or at the same time, the product is registered.
Adjuvants	The APVMA defines an adjuvant as any substance (other than water) that is added to an agricultural chemical product to alter its physic-chemical properties and / or improve its efficacy. Adjuvants include wetters, stickers, penetrants, extenders, humectants, acidifying / buffering agents, antifoaming / defoaming agents, compatibility agents, drift reducing agents, dyes and water conditioners.
Apiary	A term used to describe both a group of beehives, and a place where beehives are located (i.e. apiary site).
Brood	A term used to refer to the eggs and developing bees (i.e. the larvae and pupae) inside a beehive.
Beehive	A manmade structure for housing honeybees. Generally consisting of a base or "bottom board", a series of "boxes" stacked on top of each other and a lid. Each box contains a number of removable frames within which the bees construct honeycomb for the purposes of raising young bees and storing honey.
Exoskeleton	The hard outer covering of the bee.
Integrated Pest Management (IPM)	A term used to describe a holistic approach to pest management, aimed at reducing unnecessary pesticide application.
Microencapsulated	In microencapsulated pesticides, the active ingredients are contained in tiny granules, rather than liquid form, providing a longer period of pesticide activity.
Proboscis	A honeybee's tongue.
Queen failure	A term used to describe a situation whereby a colony's queen dies or is killed by worker bees, in response to her falling ill or laying less eggs.
Residual toxicity	The time, from application, that a pesticide remains active or toxic for.
Residual risk	See "residual toxicity" above.
Supersedure	The term used to describe a situation whereby a colony raises a replacement queen.
Unsealed brood	Also known as "uncapped brood", this term describes brood (see above) at the egg and larvae stage, before the worker bees cap the honeycomb. Larvae transform into pupae inside the capped honeycomb cell, eventually chewing their way through and emerging as young bees.



Consultation and acknowledgements



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- Des Cannon, RIRDC Pollination Advisory Committee.
- Peter Ewington, farmer and apiarist.
- Robert Green, Oakleigh Orchards.
- Russell Goodman, Victorian Department of Primary Industries.
- Dr Mark Goodwin, Plant and Food Research NZ Ltd.
- Gavin Jamieson, Victorian Farmers Federation Beekeepers Branch.
- Danny Le Feuvre, Australian Bee Services.
- Gerald Martin, RIRDC Pollination Research and Development Committee.
- Trevor Monson, Monson's Honey.
- Patrick Seydler, Queensland Government Chemical Residue Laboratory.
- Phil Sinclair, Department of Sustainability, Environment, Water, Population and Communities.
- Des Willmott, apiarist.
- Victorian Department of Primary Industries Project Team: George Downing, Neil Harrison, Alex Fahy, Jane Rhodes and Jo Robinson.



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The NSW Department of Primary Industries www.dpi.nsw.gov.au

The Victorian Department of Primary Industries www.dpi.vic.gov.au

The Queensland Department of Employment, Economic Development and Innovation – Primary industries and fisheries www.dpi.qld.gov.au

The Tasmanian Department of Primary Industries, Parks, Water and the Environment www.dpiw.tas.gov.au

The Western Australian Department of Agriculture and Food www.agric.wa.gov.au

The Northern Territory Department of Resources www.nt.gov.au



Appendix 1



Horticultural and broadacre pesticides known to be toxic to honeybees in Australia – alphabetically sorted by active constituent

Active constituent(s) and concentration	Product name	Bee related label statement
abamectin(18g/L)	4FARMERS ABAMECTIN 18 EC MITICIDE - INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	AAKOMECTINE MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	AGRIMEC MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	AGSPRAY ABAMECTIN MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	AVID MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	AW ANNOUNCE MITICIDE / INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	BIOMECTIN MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	COUNTRY ABAMECTIN INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	CROPRO STEALTH MITICIDE AND INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	ECHEM ABAMECTIN INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	FARMALINX ABACIN 18 EC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	FARMOZ SORCERER 18 MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	FARMOZ WIZARD 18 MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
abamectin(18g/L)	GENFARM ABA 18 MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.
abamectin(18g/L)	GREMLIN MITICIDE AND INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	IMTRADE ABACHEM 18 MITICIDE/INSECTICIDE	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
abamectin(18g/L)	KILL-A-MITE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	MITE TERMINATOR	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
abamectin(18g/L)	NUFARM ABAMECT INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	RAINBOW ABAMECTIN INSECTICIDE / MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	ROTAM ACARMIK INSECTICIDE/MITICIDE EC	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	VANTAL 18 EC MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	VANTAL 18 EW MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
abamectin(18g/L)	VERTIMEC MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
acephate(750g/kg)	ERASER 750 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
acephate(750g/kg)	LANCER 750 DF INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
acephate(750g/kg)	LANCER 750 SP INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
acephate(970g/kg)	LANCER 970 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
acephate(970g/kg)	ORTHENE XTRA INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(100g/L)	4FARMERS ALPHA-CYPERMETHRIN 100 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(100g/L)	ALPHA DUOP 100 INSECTICIDE	DO NOT spray on any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	ALPHASIP DUO100 INSECTICIDE	DO NOT spray on any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	AW ALF 100 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(100g/L)	CAMPBELL ANTARES 100 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(100g/L)	CHEMFORCE ALPHA-CYPERMETHRIN 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	CONQUEST ALPHA DUO 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	COUNTRY ALPHA-CYPERMETHRIN 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
alpha-cypermethrin(100g/L)	CROP CARE DOMINEX DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	CROPRO BUZZARD INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	Dictate 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(100g/L)	DOMINEX DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	ECHEM ALPHA-CYP 100 DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	FARMALINX ALPHACYPER INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
alpha-cypermethrin(100g/L)	FARMOZ ALPHA-SCUD ELITE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	FASTAC DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
alpha-cypermethrin(100g/L)	GENFARM ALPHA DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	GENFARM CENTAUR 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
alpha-cypermethrin(100g/L)	GRASS VALLEY ALPHA-CYPERMETHRIN 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
alpha-cypermethrin(100g/L)	HALLEY ALPHA-CYPERMETHRIN 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
alpha-cypermethrin(100g/L)	IMTRADE DICTATE DUO 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	INNOVA ALPHA 100 DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	KENSO AGCARE KEN-TAC 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
alpha-cypermethrin(100g/L)	NUFARM ASTOUND DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	NUFARM FASTAC DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	OSPRAY ALPHA-CYPERMETHRIN 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	TITAN ALPHA DUO 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(100g/L)	UNITED FARMERS UNIALPHACYPER 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
alpha-cypermethrin(100g/L)	UNITOX 100 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(16g/L)	DICTATE ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(16g/L)	DOMINEX 16 ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(16g/L)	ECHEM ALPHA-CYP ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
alpha-cypermethrin(16g/L)	FARMOZ ALPHA-SCUD ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(16g/L)	FASTAC ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
alpha-cypermethrin(250g/L)	CONQUEST ALPHA FORTE 250 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(250g/L)	FASTAC XCEL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(250g/L)	GOOGLY ALPHA-DUO 250SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
alpha-cypermethrin(250g/L)	RYGEL ALPHA FORTE 250 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
azinphos-methyl(200g/L)	CAMPBELL BENTHION 200 FLOWABLE INSECTICIDE	Dangerous to bees. Will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift. Residues toxic to bees may remain for several days after application.
azinphos-methyl(200g/L)	FARMOZ GUSATHION 200 SC INSECTICIDE	Dangerous to bees. Will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift. Residues toxic to bees may remain for several days after application.
bendiocarb(10g/kg)	FICAM D INSECTICIDE DUST	Dangerous to bees. DO NOT allow this product to contact any plants in flower while bees are foraging.
bendiocarb(800g/kg)	FICAM W INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
beta-cyfluthrin(25g/L)	BULLDOCK 25 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
beta-cyfluthrin(25g/L)	BULLDOCK DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
beta-cypermethrin(100g/L)	BANSHEE EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
beta-cypermethrin(100g/L)	CHIX EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
bifenazate(480g/L)	ACRAMITE MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
bifenazate(480g/L)	DURAMITE MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
bifenazate(480g/L)	FLORAMITE MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
bifenthrin(100g/L)	4FARMERS BIFENTHRIN 100 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	AKOSTAR INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	AW AGFEN 100EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	BARMAC OUT OF BOUNDS INSECTICIDE AND TERMITICIDE	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
bifenthrin(100g/L)	CAMPBELL BIFF 100SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	CHEMAG BIFEN 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	CHOICE BIFENDOFF 100 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	COMPEL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	CONQUEST ARROW 100 EC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	COUNTRY BIFENTHRIN 100 EC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
bifenthrin(100g/L)	COUNTRY BIFENTHRIN DUO 100 EC TERMITICIDE & INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	CROPRO ZEUS TERMITICIDE AND INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	DISECT 100 EC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	FARMOZ VENOM 100 EC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	FENSTAR 100 EC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	FENTHRIN INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	GENFARM BIFENTHRIN 100 MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	INNOVA BIFENTHRIN 100 MITICIDE / INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	KENSO AGCARE TAL-KEN 100 INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	SARRITOR INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	TALSTAR 100 EC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	TITAN BIFENTHRIN 100 INSECTICIDE/ MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	UNITED FARMERS BIFENTHRIN 100 INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(100g/L)	WEBZONE TERMITICIDE & INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
bifenthrin(250g/L)	TALSTAR 250 EC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(80g/L)	AW MITEFEN 80 INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(80g/L)	CHEMAG BIFEN 80SC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
bifenthrin(80g/L)	ENVIROGUARD TURF & ORNAMENTAL RESIDUAL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	ENVIROMAX BIFENTHRIN 80SC PROFESSIONAL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	ENVIROMAX BIFENTHRIN 80SC RESIDUAL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	FARMOZ VENOM 80 SC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	GRINGO INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	MASTERGUARD INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	SCOTTS MAXGUARD 80SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	SCOTTS PROCIDE 80SC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	SENTINEL 80SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	SUREFIRE FIVESTAR INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bifenthrin(80g/L)	TALSTAR 80 SC INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
bifenthrin(80g/L)	TURF CULTURE CEASEFIRE 80 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
bioresmethrin(50g/L)+ pip.but.(400g/L)	DAVID GRAYS THERMAL FOGGING AND ULV INSECTICIDE CONCENTRATE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
carbaryl(18g/kg)	DAVID GRAYS CRICKET & GRASSHOPPER KILLER BAIT	Dangerous to bees
carbaryl(500g/L)	BUGMASTER FLOWABLE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
carbaryl(500g/L)	DAVID GRAYS CARBARYL 500 FLOWABLE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
carbaryl(800g/kg)	KENDON CARBARYL WETTABLE POWDER INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorfenapyr(360g/L)	CROP CARE SECURE 360 SC INSECTICIDE-MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorfenapyr(360g/L)	INTREPID 360 SC INSECTICIDE-MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorfenapyr(360g/L)	SECURE 360 SC INSECTICIDE-MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(250g/kg)	PYRINEX 250 WP INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(300g/L)	CYREN 300 ULV/EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(300g/L)	FARMOZ INSTINCT 300 COTTON INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
chlorpyrifos(300g/L)	PROWLER 300 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(40g/kg)	DAVID GRAYS LAWN BEETLE GRANULES	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/kg)	CYREN 500 WP INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/kg)	FARMOZ CYREN 500 WP INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/kg)	FARMOZ STRIKE-OUT 500 WP INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	4FARMERS CHLORPYRIFOS 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	AGCHEM CHLORPYRIFOS 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	AGSPRAY CHLORPYRIFOS 500EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	APPARENT CHLORPYRIFOS 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	AW CHOP 500 INSECTICIDE AND TERMITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	CHEMFORCE CHLORPYRIFOS 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	CHEMICIDE 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	CONQUEST CHLORPYRIFOS 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
chlorpyrifos(500g/L)	COUNTRY CHLORPYRIFOS 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	CYREN 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	CYREN PC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	DAVID GRAYS CHLORPYRIFOS 500	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	DAVID GRAYS PCO CHLORPYRIFOS 500	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	FARMALINX CHLORPOS INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	FARMOZ STRIKE-OUT 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	FARMOZ STRIKE-OUT PC TERMITICIDE AND INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	FORTUNE 500 MULTI-PURPOSE INSECTICIDE AND TERMITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	GENERIFOS 500EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	GENFARM CHLORPYRIFOS 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	HALLEY CHLORPYRIFOS 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	IMTRADE CHLORPYRIFOS 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	KENSO AGCARE KENSBAN 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	LORSBAN 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
chlorpyrifos(500g/L)	NUFARM CHLORPYRIFOS 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	NUFARM CHLORPYRIFOS PCO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	PIDGEON'S PEST CONTROLLER 500 TERMITICIDE AND INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	RAINBOW CHLORPYRIFOS 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	SABERO CHLORPYRIFOS 500EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	TITAN CHLORPYRIFOS 500 TERMITICIDE AND INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	UNITED FARMERS CHLORPYRIFOS 500 INSECTICIDE AND TERMITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
chlorpyrifos(500g/L)	WSD CHLORPYRIFOS 500 EC INSECTICIDE	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
chlorpyrifos(750g/kg)	LORSBAN 750 WG INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
clothianidin(200g/L)	SUMITOMO SHIELD SYSTEMIC INSECTICIDE	Dangerous to bees and will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift, and residues may remain toxic to bees several days after application. Toxic to bees for several days after application. Used on eucalypt seedlings to 1 year old.



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Active constituent(s) and concentration	Product name	Bee related label statement
clothianidin(500g/kg)	SUMITOMO SAMURAI SYSTEMIC INSECTICIDE	Dangerous to bees and will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift, and residues may remain toxic to bees several days after application. Toxic to bees for several days after application.
clothianidin(500g/kg)	SUMITOMO STEALTH SYSTEMIC INSECTICIDE	Dangerous to bees and will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift, and residues may remain toxic to bees several days after application. Toxic to bees for several days after application.
cyanamide(520g/L)	DORMEX PLANT GROWTH REGULATOR	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
cyanamide(520g/L)	DUOMAX HC520 PLANT GROWTH REGULATOR	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
cyanamide(530g/L)	CYAN PLANT GROWTH REGULATOR	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
cyfluthrin(50g/L)	BAYTHROID 50 EC INSECTICIDE	Dangerous to bees and other beneficial insects. DO NOT spray any plants in flower while bees are foraging.
cypermethrin(200g/L)	CYRUX 200 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
cypermethrin(200g/L)	FARMOZ SCUD ELITE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have a deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in early morning and late evening while bees are not foraging.
cypermethrin(200g/L)	GENFARM BOOM 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
cypermethrin(200g/L)	HALLEY CYPERMETHRIN 200 INSECTICIDE	Dangerous to bees. This product is highly toxic to bees and should not be applied while bees are actively foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
cypermethrin(200g/L)	IMTRADE CYPERSHIELD 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
cypermethrin(200g/L)	KEN-CYPER 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
cypermethrin(200g/L)	SONIC 200EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
cypermethrin(200g/L)	TITAN CYPERMETHRIN 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
cypermethrin(200g/L)	UNITED FARMERS CYPERMETHRIN 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
cypermethrin(200g/L)	WSD CYPERMETHRIN 200 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
cypermethrin(250g/L)	ARRIVO 250 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.



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Active constituent(s) and concentration	Product name	Bee related label statement
cypermethrin(250g/L)	CONQUEST CYPERMETHRIN 250 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
cypermethrin(250g/L)	CYRUX 250 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
cypermethrin(250g/L)	E-CHEM CYPERMETHRIN 250 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
cypermethrin(250g/L)	GENFARM CYPER PLUS 250 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
cypermethrin(260g/L)	4FARMERS CYPERMETHRIN 260 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
cypermethrin(40g/L)	ARRIVO 40 ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.



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Active constituent(s) and concentration	Product name	Bee related label statement
cypermethrin(40g/L)	CYPERSHIELD ULV 40 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
cypermethrin(40g/L)	CYRUX 40 ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
deltamethrin(110g/L)	DECIS 110 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(27.5g/L)	CROPRO D-SECT EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(27.5g/L)	DECIS OPTIONS INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(27.5g/L)	DELTASHIELD 27.5 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(27.5g/L)	ECHEM DELTAMETHRIN DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(27.5g/L)	FARMOZ BALLISTIC ELITE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(27.5g/L)	HALLEY DELTAMETHRIN DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(27.5g/L)	IMTRADE DELTA-DUO INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(5.5g/L)	DELTAGUARD ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(5.5g/L)	DELTASHIELD 5.5 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
deltamethrin(5.5g/L)	ECHEM DELTAMETHRIN ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
diafenthiuron(500g/L)	PEGASUS MITICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
diazinon(240g/L)	CAMPBELL PENNSIDE FLOWABLE MICROENCAPSULATED INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
diazinon(800g/L)	BARMAC DIAZINON INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
diazinon(800g/L)	COUNTRY DIAZINON 800 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
diazinon(800g/L)	FARMOZ DIAZOL 800 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are actively foraging. DO NOT spray when bees are foraging. Spray in late afternoon after bees have finished foraging.
dimethenamid-P(720g/L)	FRONTIER-P HERBICIDE	Toxic to bees.
dimethoate(0.3g/kg)	AMGROW SYSTEMIC INSECT & MITE SPRAY	DO NOT spray if bees are feeding on flowering plants. Will kill bees.
dimethoate(300g/L)	SUPERWAY DIMETHOATE 300 SYSTEMIC INSECTICIDE	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
dimethoate(300g/L)	SUREFIRE ORCHARD & GARDEN INSECTICIDE	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
dimethoate(400g/L)	4FARMERS DIMETHOATE 400 SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
dimethoate(400g/L)	AW DIMETHOATE 400 SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
dimethoate(400g/L)	CHEMAG DIMETHOATE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
dimethoate(400g/L)	CONQUEST DIMETHOATE 400 SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
dimethoate(400g/L)	CROPRO STALK INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
dimethoate(400g/L)	DANADIM INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Apply in the afternoon when bees have finished foraging.
dimethoate(400g/L)	FARMOZ DIMETHOATE 400 SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
dimethoate(400g/L)	HALLEY DIMETHOATE 400 SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Apply in the afternoon when bees have finished foraging.
dimethoate(400g/L)	NUFARM DIMETHOATE SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
dimethoate(400g/L)	ROGOR UPGRADE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
dimethoate(400g/L)	ROVER SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
dimethoate(400g/L)	SABOTEUR SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
dimethoate(400g/L)	SUPERWAY DIMETHOATE 400 SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
dimethoate(400g/L)	TITAN DIMETHOATE 400 SYSTEMIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
dimethoate(400g/L)	UNITED FARMERS UNIDIME 400 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
emamectin as benzoate(17g/L)	AFFIRM INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
emamectin as benzoate(44g/kg)	PROCLAIM INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
esfenvalerate(50g/L)	SUMI-ALPHA FLEX INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ethion(360g/L)+zeta-cypermethrin(20g/L)	MUSTANG INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
fenitrothion(1.23kg/L)	SUMITOMO SUMITHION ULV PREMIUM GRADE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenitrothion(1000g/L)	DAVID GRAYS FENITROTHION 1000	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenitrothion(1000g/L)	FARMOZ FENITROTHION 1000 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenitrothion(1000g/L)	KENDON FENITROTHION 1000EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenitrothion(1000g/L)	NEVWEB FENITROTHION 1000 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenitrothion(1000g/L)	NUFARM FENITROTHION 1000 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenitrothion(1000g/L)	SUMITHION 1000EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenthion(550g/L)	BAYTEX 550 INSECTICIDE SPRAY	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenthion(550g/L)	LEBAYCID INSECTICIDE SPRAY	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
fenthion(80g/L)	LEBAYCID FRUIT FLY & INSECT KILLER	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
fipronil(200g/L)	AW FLAK INSECTICIDE	<p>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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.</p>
fipronil(200g/L)	CAMPBELL KAISER 200SC INSECTICIDE	<p>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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.</p>



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Active constituent(s) and concentration	Product name	Bee related label statement
fipronil(200g/L)	LEGION 200SC INSECTICIDE	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
fipronil(200g/L)	NUFARM REGENT 200SC INSECTICIDE	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
fipronil(200g/L)	REGENT 200SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
fipronil(200g/L)	SUREFIRE VISTA 200SC INSECTICIDE	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
fipronil(3g/L)	ADONIS 3UL INSECTICIDE	Dangerous to bees. DO NOT apply while bees are foraging. Ensure bees are not foraging in the crop to be treated. Remove beehives from areas due to be sprayed. Ensure alternative (untreated) source of nectar is available for bees.
fipronil(3g/L)	NUFARM ADONIS 3UL INSECTICIDE	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
fipronil(8.5g/L)	ADONIS 8.5UL INSECTICIDE	Dangerous to bees. DO NOT apply while bees are foraging. Ensure bees are not foraging in the crop to be treated. Remove beehives from areas due to be sprayed. Ensure alternative (untreated) source of nectar is available for bees.
fipronil(800g/kg)	REGENT 800WG INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



Appendix 1



Active constituent(s) and concentration	Product name	Bee related label statement
gamma-cyhalothrin(150g/L)	OSPRAY TROJAN INSECTICIDE	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
gamma-cyhalothrin(150g/L)	TROJAN INSECTICIDE	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
imidacloprid(200g/L)	4FARMERS IMIDACLOPRID 200SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	AGSPRAY APHID GUARD 200 SC APHICIDE/INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	CONFIDOR 200 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	COURAZE 200 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	FARMALINX IMI 200 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	FARMOZ KOHINOR 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	IMTRADE ANNIHILATE 200 SC ALL PURPOSE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	KENSO AGCARE SAVAGE 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	MASMART IMI-FLOW 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	MERIT TURF AND ORNAMENTAL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	NUFARM NUPRID 200SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	OSPRAY COURAZE 200 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
imidacloprid(200g/L)	PACIFIC IMIDACLOPRID 200 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	PROVADO 200 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	RYGEL IMIDACLOPRID 200 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	SENATOR 200 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	SILVASHIELD INJECTABLE TREE INSECTICIDE	This product is highly toxic to bees exposed to direct treatment or residues on flowering trees and shrubs. DO NOT use on trees which are likely to be used by commercial beehives.
imidacloprid(200g/L)	SUREFIRE SPECTRUM 200SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	TITAN IMIDACLOPRID 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(200g/L)	VOODOO 200 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(350g/L)	GRANULAR PRODUCTS IMIDACLOPRID 350 SOIL INSECTICIDE	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
imidacloprid(350g/L)	NUFARM NUPRID 350SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.
imidacloprid(350g/L)	OSPRAY COURAZE CLASSIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
imidacloprid(50g/kg)	CONFIDOR GARDEN INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
indoxacarb(150g/L)	DUPONT STEWARD EC INSECTICIDE	Dangerous to bees. DO NOT apply when bees are actively foraging. Avoid direct application or drift of the spray mix onto beehives. After the spray has dried, bees can safely forage flowering crops.



Appendix 1



Active constituent(s) and concentration	Product name	Bee related label statement
indoxacarb(300g/kg)	DUPONT AVATAR INSECTICIDE	Dangerous to bees. DO NOT apply when bees are actively foraging. Avoid direct application or drift of the spray mix onto beehives. After the spray has dried, bees can safely forage flowering crops.
lambda-cyhalothrin(250g/L)	IMTRADE KUNG FU 250 INSECTICIDE	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
lambda-cyhalothrin(250g/L)	KARATE WITH ZEON TECHNOLOGY INSECTICIDE	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
lambda-cyhalothrin(250g/L)	MATADOR WITH ZEON TECHNOLOGY INSECTICIDE	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
M. anisopliae var. acridum(100g/L)	GREEN GUARD SC PREMIUM BIOLOGICAL INSECTICIDE	This product is a potential hazard to bees. DO NOT spray on plants in flower while bees are foraging.
M. anisopliae var. acridum(40000Msp/g)	GREEN GUARD SC BIOLOGICAL INSECTICIDE	This product is a potential hazard to bees. DO NOT spray on plants in flower while bees are foraging.
maldison(1150g/L)	HY-MAL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. DO NOT spray over or upwind of beehives. Remove bees from area before blanket spraying.
maldison(1169g/L)	FYFANON ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. DO NOT spray over or upwind of beehives. Remove bees from area before blanket spraying.
maldison(440g/L)	FYFANON 440 EW INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
maldison(500g/L)	FYFANON 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
maldison(500g/L)	NUFARM MALDISON 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
methamidophos(580g/L)	MONITOR INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
methamidophos(580g/L)	NITOFOL INSECTICIDE SPRAY	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
methidathion(400g/L)	AAKO RIDACIDE 400 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
methidathion(400g/L)	FARMOZ SUPRATHION 400 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
methidathion(400g/L)	SUPRACIDE 400 EMULSIFIABLE CONCENTRATE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
methiocarb(500g/L)	MESUROL 500 SC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
methiocarb(750g/kg)	MESUROL 750 BIRD REPELLENT AND SNAIL AND SLUG SPRAY	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
methomyl(225g/L)	CHEMAG METHOMYL 225 INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
methomyl(225g/L)	DUPONT LANNATE L INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
methomyl(225g/L)	DUPONT MARLIN INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
methomyl(225g/L)	FARMOZ ELECTRA 225 INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
methomyl(225g/L)	LANNATE-L INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.



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Active constituent(s) and concentration	Product name	Bee related label statement
methomyl(225g/L)	MACPHERSONS SENECA INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
methomyl(225g/L)	METHYLATE 225 INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
methomyl(225g/L)	NUDRIN 225 INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
methomyl(225g/L)	OSPRAY METHOMYL 225 INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
methomyl(225g/L)	SINMAS 225 INSECTICIDE	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
mevinphos(1110g/L)	PHOSDRIN INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
milbemectin(9.3g/L)	MILBEKNOCK MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
omethoate(290g/L)	4FARMERS OMETHOATE 290 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
omethoate(290g/L)	ALL-MITEY 290 SL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging.
omethoate(290g/L)	CHEMAG OMEN 290 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
omethoate(290g/L)	FARMALINX OMETHO-MITE 290 SL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
omethoate(290g/L)	IMTRADE OMEN 290 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
omethoate(290g/L)	LE-MAT 290 SL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
omethoate(290g/L)	MITE MASTER 290 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Active constituent(s) and concentration	Product name	Bee related label statement
omethoate(800g/L)	CHEMAG SENTINEL 800 INSECTICIDE SPRAY	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
omethoate(800g/L)	FOLIMAT 800 INSECTICIDE SPRAY	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	AMBUSH EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	AMBUSH EMULSIFIABLE CONCENTRATE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	AXE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	CROPRO POUNCE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	FARMOZ HELLFIRE 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	KENDON PERMEKIL EMULSIFIABLE CONCENTRATE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	OSPRAY PERMETHRIN 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	PERMERID 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	POUNCE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	STAKEOUT EMULSIFIABLE CONCENTRATE INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
permethrin 40:60(500g/L)	ZEEPER 500 EC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



Appendix 1



Active constituent(s) and concentration	Product name	Bee related label statement
phosmet(150g/L)	IMIDAN INSECTICIDE/MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
pyrethrins(13g/L)	PYGANIC ORGANIC INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
pyrethrins(40g/L)+pip. but.(160g/L)	KDPC PY-OMNI INSECTICIDE WITH NATURAL PYRETHRUM	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
pyrethrins(40g/L)+pip. but.(160g/L)	PY-ZAP INSECTICIDE WITH NATURAL PYRETHRUM	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
pyrethrins(40g/L)+pip. but.(160g/L)	WEBCOT S-PY NATURAL PYRETHRUM INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
pyrethrins(80g/L)+pip. but.(480g/L)	PY-BO NATURAL PYRETHRUM INSECTICIDAL CONCENTRATE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
pyridaben(250g/L)	SANMITE MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
spinetoram(120g/L)	SUCCESS NEO INSECTICIDE	This product is highly toxic to bees; will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift. Residues may remain toxic to bees for several days after application.
spinetoram(250g/kg)	DELEGATE INSECTICIDE	Bee safety: Delegate is dangerous to bees and will kill bees foraging in the crop being treated or in hives which are oversprayed or reached by spray-drift. Once the spray deposit has dried, foraging bees should not be affected when using spray volumes of 2000 L/ha or less. However, if using spray volumes greater than 2000 L/ha, it is possible that foraging bees may be affected for some days after spraying.
spinosad(0.24g/L)	AMGROW FRUIT FLY CONTROL	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
spinosad(0.24g/L)	NATURALURE FRUIT FLY BAIT CONCENTRATE	Dangerous to bees. Avoid direct application or drift of the spray mix onto beehives. DO NOT spray on plants in flower if bees are active. Once the spray deposit has dried, foraging bees will not be affected.



Appendix 1



Active constituent(s) and concentration	Product name	Bee related label statement
spinosad(240g/L)	SUCCESS2 NATURALYTE INSECT CONTROL	Dangerous to bees. Avoid direct application or drift of the spray mix onto beehives.
spinosad(800g/kg)	ENTRUST NATURALYTE INSECT CONTROL	Dangerous to bees. Avoid direct application or drift of the spray mix onto beehives. DO NOT spray on plants in flower if bees are active. Once the spray deposit has dried, foraging bees will not be affected.
tebufenpyrad(200g/kg)	SIPCAM PYRANICA MITICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
thiamethoxam (250g/kg)	ACTARA INSECTICIDE	This product is dangerous to bees and will kill any bees which are foraging in the crop to be treated or in hives which are oversprayed.
thiodicarb(375g/L)	FARMOZ SHOWDOWN 375 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
thiodicarb(375g/L)	LARVIN 375 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
thiodicarb(800g/kg)	IMTRADE CONFRONT 800 WG INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
thiodicarb(800g/kg)	LARVIN 800 WG INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
trichlorfon(500g/L)	DIPTEREX 500 SL INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
trichlorfon(500g/L)	NUFARM LEPIDEX 500 INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
zeta-cypermethrin(14g/L)	FURY 14 ULV INSECTICIDE	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



Appendix 2



Horticultural and broadacre pesticides known to be toxic to honeybees in Australia – alphabetically sorted by product name

Product name	Active constituent(s) and concentration	Bee related label statement
4FARMERS ABAMECTIN 18 EC MITICIDE - INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
4FARMERS ALPHA-CYPERMETHRIN 100 EC INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
4FARMERS BIFENTHRIN 100 EC INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
4FARMERS CHLORPYRIFOS 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
4FARMERS CYPERMETHRIN 260 EC INSECTICIDE	cypermethrin(260g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
4FARMERS DIMETHOATE 400 SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
4FARMERS IMIDACLOPRID 200SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
4FARMERS OMETHOATE 290 INSECTICIDE	omethoate(290g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AAKO RIDACIDE 400 EC INSECTICIDE	methidathion(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AAKOMECTINE MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ACRAMITE MITICIDE	bifenazate(480g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ACTARA INSECTICIDE	thiamethoxam (250g/kg)	This product is dangerous to bees and will kill any bees which are foraging in the crop to be treated or in hives which are oversprayed.



Appendix 2



Product name	Active constituent(s) and concentration	Bee related label statement
ADONIS 3UL INSECTICIDE	fipronil(3g/L)	Dangerous to bees. DO NOT apply while bees are foraging. Ensure bees are not foraging in the crop to be treated. Remove beehives from areas due to be sprayed. Ensure alternative (untreated) source of nectar is available for bees.
ADONIS 8.5UL INSECTICIDE	fipronil(8.5g/L)	Dangerous to bees. DO NOT apply while bees are foraging. Ensure bees are not foraging in the crop to be treated. Remove beehives from areas due to be sprayed. Ensure alternative (untreated) source of nectar is available for bees.
AFFIRM INSECTICIDE	emamectin as benzoate(17g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AGCHEM CHLORPYRIFOS 500 EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AGRIMEC MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AGSPRAY ABAMECTIN MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AGSPRAY APHID GUARD 200 SC APHICIDE/INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AGSPRAY CHLORPYRIFOS 500EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AKOSTAR INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
ALL-MITEY 290 SL INSECTICIDE	omethoate(290g/L)	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging.
ALPHA DUOP 100 INSECTICIDE	alpha-cypermethrin(100g/L)	DO NOT spray on any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
ALPHASIP DUO100 INSECTICIDE	alpha-cypermethrin(100g/L)	DO NOT spray on any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging



Appendix 2



Product name	Active constituent(s) and concentration	Bee related label statement
AMBUSH EC INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AMBUSH EMULSIFIABLE CONCENTRATE INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AMGROW FRUIT FLY CONTROL	spinosad(0.24g/L)	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
AMGROW SYSTEMIC INSECT & MITE SPRAY	dimethoate(0.3g/kg)	DO NOT spray if bees are feeding on flowering plants. Will kill bees.
APPARENT CHLORPYRIFOS 500 EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ARRIVO 250 EC INSECTICIDE	cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
ARRIVO 40 ULV INSECTICIDE	cypermethrin(40g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
AVID MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AW AGFEN 100EC INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
AW ALF 100 EC INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
AW ANNOUNCE MITICIDE / INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AW CHOP 500 INSECTICIDE AND TERMITICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AW DIMETHOATE 400 SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
AW FLAK INSECTICIDE	fipronil(200g/L)	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
AW MITEFEN 80 INSECTICIDE/MITICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
AXE INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
BANSHEE EC INSECTICIDE	beta-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
BARMAC DIAZINON INSECTICIDE	diazinon(800g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
BARMAC OUT OF BOUNDS INSECTICIDE AND TERMITICIDE	bifenthrin(100g/L)	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.



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Product name	Active constituent(s) and concentration	Bee related label statement
BAYTEX 550 INSECTICIDE SPRAY	fenthion(550g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
BAYTHROID 50 EC INSECTICIDE	cyfluthrin(50g/L)	Dangerous to bees and other beneficial insects. DO NOT spray any plants in flower while bees are foraging.
BIOMECTIN MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
BUGMASTER FLOWABLE INSECTICIDE	carbaryl(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
BULLDOCK 25 EC INSECTICIDE	beta-cyfluthrin(25g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
BULLDOCK DUO INSECTICIDE	beta-cyfluthrin(25g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CAMPBELL ANTARES 100 EC INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CAMPBELL BENTHION 200 FLOWABLE INSECTICIDE	azinphos-methyl(200g/L)	Dangerous to bees. Will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift. Residues toxic to bees may remain for several days after application.
CAMPBELL BIFF 100SC INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
CAMPBELL KAISER 200SC INSECTICIDE	fipronil(200g/L)	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.



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Product name	Active constituent(s) and concentration	Bee related label statement
CAMPBELL PENNSIDE FLOWABLE MICROENCAPSULATED INSECTICIDE	diazinon(240g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CHEMAG BIFEN 100 INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
CHEMAG BIFEN 80SC INSECTICIDE/MITICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
CHEMAG DIMETHOATE INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CHEMAG METHOMYL 225 INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
CHEMAG OMEN 290 INSECTICIDE	omethoate(290g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CHEMAG SENTINEL 800 INSECTICIDE SPRAY	omethoate(800g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CHEMFORCE ALPHA-CYPERMETHRIN 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
CHEMFORCE CHLORPYRIFOS 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CHEMICIDE 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CHIX EC INSECTICIDE	beta-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CHOICE BIFENDOFF 100 INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
COMPEL INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
CONFIDOR 200 SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CONFIDOR GARDEN INSECTICIDE	imidacloprid(50g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CONQUEST ALPHA DUO 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
CONQUEST ALPHA FORTE 250 SC INSECTICIDE	alpha-cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
CONQUEST ARROW 100 EC INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
CONQUEST CHLORPYRIFOS 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CONQUEST CYPERMETHRIN 250 INSECTICIDE	cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
CONQUEST DIMETHOATE 400 SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
COUNTRY ABAMECTIN INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
COUNTRY ALPHA-CYPERMETHRIN 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
COUNTRY BIFENTHRIN 100 EC INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
COUNTRY BIFENTHRIN DUO 100 EC TERMITICIDE & INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
COUNTRY CHLORPYRIFOS 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
COUNTRY DIAZINON 800 INSECTICIDE	diazinon(800g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
COURAZE 200 SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CROP CARE DOMINEX DUO INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
CROP CARE SECURE 360 SC INSECTICIDE-MITICIDE	chlorfenapyr(360g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CROPRO BUZZARD INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
CROPRO D-SECT EC INSECTICIDE	deltamethrin(27.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
CROPRO POUNCE INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
CROPRO STALK INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CROPRO STEALTH MITICIDE AND INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CROPRO ZEUS TERMITICIDE AND INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
CYAN PLANT GROWTH REGULATOR	cyanamide(530g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CYBERSHIELD ULV 40 INSECTICIDE	cypermethrin(40g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
CYREN 300 ULV/EC INSECTICIDE	chlorpyrifos(300g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CYREN 500 EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CYREN 500 WP INSECTICIDE	chlorpyrifos(500g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CYREN PC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
CYRUX 200 EC INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.



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Product name	Active constituent(s) and concentration	Bee related label statement
CYRUX 250 EC INSECTICIDE	cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
CYRUX 40 ULV INSECTICIDE	cypermethrin(40g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DANADIM INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Apply in the afternoon when bees have finished foraging.
DAVID GRAYS CARBARYL 500 FLOWABLE INSECTICIDE	carbaryl(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DAVID GRAYS CHLORPYRIFOS 500	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DAVID GRAYS CRICKET & GRASSHOPPER KILLER BAIT	carbaryl(18g/kg)	Dangerous to bees
DAVID GRAYS FENITROTHION 1000	fenitrothion(1000g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DAVID GRAYS LAWN BEETLE GRANULES	chlorpyrifos(40g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DAVID GRAYS PCO CHLORPYRIFOS 500	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DAVID GRAYS THERMAL FOGGING AND ULV INSECTICIDE CONCENTRATE	bioresmethrin(50g/L)+pip .but.(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DECIS 110 EC INSECTICIDE	deltamethrin(110g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
DECIS OPTIONS INSECTICIDE	deltamethrin(27.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.



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Product name	Active constituent(s) and concentration	Bee related label statement
DELEGATE INSECTICIDE	spinetoram(250g/kg)	Bee safety: Delegate is dangerous to bees and will kill bees foraging in the crop being treated or in hives which are oversprayed or reached by spray-drift. Once the spray deposit has dried, foraging bees should not be affected when using spray volumes of 2000 L/ha or less. However, if using spray volumes greater than 2000 L/ha, it is possible that foraging bees may be affected for some days after spraying.
DELTAGUARD ULV INSECTICIDE	deltamethrin(5.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
DELTASHIELD 27.5 INSECTICIDE	deltamethrin(27.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
DELTASHIELD 5.5 INSECTICIDE	deltamethrin(5.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
DICTATE 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DICTATE ULV INSECTICIDE	alpha-cypermethrin(16g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DIPTEREX 500 SL INSECTICIDE	trichlorfon(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DISECT 100 EC INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
DOMINEX 16 ULV INSECTICIDE	alpha-cypermethrin(16g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DOMINEX DUO INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
DORMEX PLANT GROWTH REGULATOR	cyanamide(520g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
DUOMAX HC520 PLANT GROWTH REGULATOR	cyanamide(520g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
DUPONT AVATAR INSECTICIDE	indoxacarb(300g/kg)	Dangerous to bees. DO NOT apply when bees are actively foraging. Avoid direct application or drift of the spray mix onto beehives. After the spray has dried, bees can safely forage flowering crops.
DUPONT LANNATE L INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
DUPONT MARLIN INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
DUPONT STEWARD EC INSECTICIDE	indoxacarb(150g/L)	Dangerous to bees. DO NOT apply when bees are actively foraging. Avoid direct application or drift of the spray mix onto beehives. After the spray has dried, bees can safely forage flowering crops.
DURAMITE MITICIDE	bifenazate(480g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ECHEM ABAMECTIN INSECTICIDE/MITICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ECHEM ALPHA-CYP 100 DUO INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
ECHEM ALPHA-CYP ULV INSECTICIDE	alpha-cypermethrin(16g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
E-CHEM CYPERMETHRIN 250 EC INSECTICIDE	cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: If flowering has started, application should be deferred until flowering is complete but before heads turn down. If treatment is unavoidable during flowering and bees are actively foraging in the crop, spraying must take place in the very early morning or very late afternoon.
ECHEM DELTAMETHRIN DUO INSECTICIDE	deltamethrin(27.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
ECHEM DELTAMETHRIN ULV INSECTICIDE	deltamethrin(5.5g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
ENTRUST NATURALYTE INSECT CONTROL	spinosad(800g/kg)	Dangerous to bees. Avoid direct application or drift of the spray mix onto beehives. DO NOT spray on plants in flower if bees are active. Once the spray deposit has dried, foraging bees will not be affected.
ENVIROGUARD TURF & ORNAMENTAL RESIDUAL INSECTICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
ENVIROMAX BIFENTHRIN 80SC PROFESSIONAL INSECTICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
ENVIROMAX BIFENTHRIN 80SC RESIDUAL INSECTICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
ERASER 750 INSECTICIDE	acephate(750g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMALINX ABACIN 18 EC INSECTICIDE/MITICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMALINX ALPHACYPER INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
FARMALINX CHLORPOS INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMALINX IMI 200 SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMALINX OMETHO-MITE 290 SL INSECTICIDE	omethoate(290g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
FARMOZ ALPHA-SCUD ELITE INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
FARMOZ ALPHA-SCUD ULV INSECTICIDE	alpha-cypermethrin(16g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ BALLISTIC ELITE INSECTICIDE	deltamethrin(27.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
FARMOZ CYREN 500 WP INSECTICIDE	chlorpyrifos(500g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ DIAZOL 800 INSECTICIDE	diazinon(800g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are actively foraging. DO NOT spray when bees are foraging. Spray in late afternoon after bees have finished foraging.
FARMOZ DIMETHOATE 400 SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
FARMOZ ELECTRA 225 INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
FARMOZ FENITROTHION 1000 INSECTICIDE	fenitrothion(1000g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ GUSATHION 200 SC INSECTICIDE	azinphos-methyl(200g/L)	Dangerous to bees. Will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift. Residues toxic to bees may remain for several days after application.
FARMOZ HELLFIRE 500 EC INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ INSTINCT 300 COTTON INSECTICIDE	chlorpyrifos(300g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ KOHINOR 200 INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
FARMOZ SCUD ELITE INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have a deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in early morning and late evening while bees are not foraging.
FARMOZ SHOWDOWN 375 INSECTICIDE	thiodicarb(375g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ SORCERER 18 MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ STRIKE-OUT 500 EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ STRIKE-OUT 500 WP INSECTICIDE	chlorpyrifos(500g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ STRIKE-OUT PC TERMITICIDE AND INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ SUPRATHION 400 EC INSECTICIDE	methidathion(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FARMOZ VENOM 100 EC INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
FARMOZ VENOM 80 SC INSECTICIDE/MITICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the night or early morning when bees are not actively foraging.
FARMOZ WIZARD 18 MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FASTAC DUO INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
FASTAC ULV INSECTICIDE	alpha-cypermethrin(16g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
FASTAC XCEL INSECTICIDE	alpha-cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
FENSTAR 100 EC INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
FENTHRIN INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
FICAM D INSECTICIDE DUST	bendiocarb(10g/kg)	Dangerous to bees. DO NOT allow this product to contact any plants in flower while bees are foraging.
FICAM W INSECTICIDE	bendiocarb(800g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FLORAMITE MITICIDE	bifenazate(480g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FOLIMAT 800 INSECTICIDE SPRAY	omethoate(800g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FORTUNE 500 MULTI-PURPOSE INSECTICIDE AND TERMITICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FRONTIER-P HERBICIDE	dimethenamid-P(720g/L)	Toxic to bees.
FURY 14 ULV INSECTICIDE	zeta-cypermethrin(14g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FYFANON 440 EW INSECTICIDE	maldison(440g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FYFANON 500 EC INSECTICIDE	maldison(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
FYFANON ULV INSECTICIDE	maldison(1169g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. DO NOT spray over or upwind of beehives. Remove bees from area before blanket spraying.
GENERIFOS 500EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
GENFARM ABA 18 MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.
GENFARM ALPHA DUO INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
GENFARM BIFENTHRIN 100 MITICIDE/INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the early morning when bees are not actively foraging.
GENFARM BOOM 200 INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
GENFARM CENTAUR 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
GENFARM CHLORPYRIFOS 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
GENFARM CYPER PLUS 250 INSECTICIDE	cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
GOOGLY ALPHA-DUO 250SC INSECTICIDE	alpha-cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
GRANULAR PRODUCTS IMIDACLOPRID 350 SOIL INSECTICIDE	imidacloprid(350g/L)	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
GRASS VALLEY ALPHA- CYPERMETHRIN 100 INSECTICIDE	alpha- cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
GREEN GUARD SC BIOLOGICAL INSECTICIDE	M. anisopliae var. acridum(40000Msp/g)	This product is a potential hazard to bees. DO NOT spray on plants in flower while bees are foraging.
GREEN GUARD SC PREMIUM BIOLOGICAL INSECTICIDE	M. anisopliae var. acridum(100g/L)	This product is a potential hazard to bees. DO NOT spray on plants in flower while bees are foraging.
GREMLIN MITICIDE AND INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
GRINGO INSECTICIDE/MITICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
HALLEY ALPHA- CYPERMETHRIN 100 INSECTICIDE	alpha- cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
HALLEY CHLORPYRIFOS 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
HALLEY CYPERMETHRIN 200 INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. This product is highly toxic to bees and should not be applied while bees are actively foraging.
HALLEY DELTAMETHRIN DUO INSECTICIDE	deltamethrin(27.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
HALLEY DIMETHOATE 400 SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Apply in the afternoon when bees have finished foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
HY-MAL INSECTICIDE	maldison(1150g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. DO NOT spray over or upwind of beehives. Remove bees from area before blanket spraying.
IMIDAN INSECTICIDE/MITICIDE	phosmet(150g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
IMTRADE ABACHEM 18 MITICIDE/INSECTICIDE	abamectin(18g/L)	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
IMTRADE ANNIHILATE 200 SC ALL PURPOSE INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
IMTRADE CHLORPYRIFOS 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
IMTRADE CONFRONT 800 WG INSECTICIDE	thiodicarb(800g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
IMTRADE CYPERSHIELD 200 INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
IMTRADE DELTA-DUO INSECTICIDE	deltamethrin(27.5g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
IMTRADE DICTATE DUO 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
IMTRADE KUNG FU 250 INSECTICIDE	lambda-cyhalothrin(250g/L)	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
IMTRADE OMEN 290 INSECTICIDE	omethoate(290g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
INNOVA ALPHA 100 DUO INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
INNOVA BIFENTHRIN 100 MITICIDE / INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
INTREPID 360 SC INSECTICIDE-MITICIDE	chlorfenapyr(360g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
KARATE WITH ZEON TECHNOLOGY INSECTICIDE	lambda-cyhalothrin(250g/L)	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
KDPC PY-OMNI INSECTICIDE WITH NATURAL PYRETHRUM	pyrethrins(40g/L)+pip.but .(160g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
KEN-CYPER 200 INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
KENDON CARBARYL WETTABLE POWDER INSECTICIDE	carbaryl(800g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
KENDON FENITROTHION 1000EC INSECTICIDE	fenitrothion(1000g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
KENDON PERMEKIL EMULSIFIABLE CONCENTRATE INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
KENSO AGCARE KENSBAN 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
KENSO AGCARE KEN-TAC 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
KENSO AGCARE SAVAGE 200 INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
KENSO AGCARE TAL-KEN 100 INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
KILL-A-MITE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LANCER 750 DF INSECTICIDE	acephate(750g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LANCER 750 SP INSECTICIDE	acephate(750g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LANCER 970 INSECTICIDE	acephate(970g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LANNATE-L INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
LARVIN 375 INSECTICIDE	thiodicarb(375g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LARVIN 800 WG INSECTICIDE	thiodicarb(800g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LEBAYCID FRUIT FLY & INSECT KILLER	fenthion(80g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LEBAYCID INSECTICIDE SPRAY	fenthion(550g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
LEGION 200SC INSECTICIDE	fipronil(200g/L)	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
LE-MAT 290 SL INSECTICIDE	omethoate(290g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LORSBAN 500 EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
LORSBAN 750 WG INSECTICIDE	chlorpyrifos(750g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
MACPHERSONS SENECA INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
MASMAST IMI-FLOW 200 INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
MASTERGUARD INSECTICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
MATADOR WITH ZEON TECHNOLOGY INSECTICIDE	lambda-cyhalothrin(250g/L)	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
MERIT TURF AND ORNAMENTAL INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
MESUROL 500 SC INSECTICIDE	methiocarb(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
MESUROL 750 BIRD REPELLENT AND SNAIL AND SLUG SPRAY	methiocarb(750g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
METHYLATE 225 INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
MILBEKNOCK MITICIDE	milbemectin(9.3g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
MITE MASTER 290 INSECTICIDE	omethoate(290g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
MITE TERMINATOR	abamectin(18g/L)	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
MONITOR INSECTICIDE	methamidophos(580g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
MUSTANG INSECTICIDE	ethion(360g/L)+zeta-cypermethrin(20g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
NATURALURE FRUIT FLY BAIT CONCENTRATE	spinosad(0.24g/L)	Dangerous to bees. Avoid direct application or drift of the spray mix onto beehives. DO NOT spray on plants in flower if bees are active. Once the spray deposit has dried, foraging bees will not be affected.
NEVWEB FENITROTHION 1000 INSECTICIDE	fenitrothion(1000g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
NITOFOL INSECTICIDE SPRAY	methamidophos(580g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
NUDRIN 225 INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
NUFARM ABAMECT INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
NUFARM ADONIS 3UL INSECTICIDE	fipronil(3g/L)	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
NUFARM ASTOUND DUO INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
NUFARM CHLORPYRIFOS 500 EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
NUFARM CHLORPYRIFOS PCO INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
NUFARM DIMETHOATE SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
NUFARM FASTAC DUO INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
NUFARM FENITROTHION 1000 INSECTICIDE	fenitrothion(1000g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
NUFARM LEPIDEX 500 INSECTICIDE	trichlorfon(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
NUFARM MALDISON 500 INSECTICIDE	maldison(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
NUFARM NUPRID 200SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
NUFARM NUPRID 350SC INSECTICIDE	imidacloprid(350g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.
NUFARM REGENT 200SC INSECTICIDE	fipronil(200g/L)	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
ORTHENE XTRA INSECTICIDE	acephate(970g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
OSPRAY ALPHA-CYPERMETHRIN 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
OSPRAY COURAZE 200 SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
OSPRAY COURAZE CLASSIC INSECTICIDE	imidacloprid(350g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
OSPRAY METHOMYL 225 INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.



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Product name	Active constituent(s) and concentration	Bee related label statement
OSPRAY PERMETHRIN 500 INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
OSPRAY TROJAN INSECTICIDE	gamma-cyhalothrin(150g/L)	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
PACIFIC IMIDACLOPRID 200 SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PEGASUS MITICIDE/INSECTICIDE	diafenthiuron(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PERMERID 500 EC INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PHOSDRIN INSECTICIDE	mevinphos(1110g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PIDGEON'S PEST CONTROLLER 500 TERMITICIDE AND INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
POUNCE INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PROCLAIM INSECTICIDE	emamectin as benzoate(44g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PROVADO 200 SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PROWLER 300 INSECTICIDE	chlorpyrifos(300g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PY-BO NATURAL PYRETHRUM INSECTICIDAL CONCENTRATE	pyrethrins(80g/L)+pip.but .(480g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PYGANIC ORGANIC INSECTICIDE	pyrethrins(13g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
PYRINEX 250 WP INSECTICIDE	chlorpyrifos(250g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



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Product name	Active constituent(s) and concentration	Bee related label statement
PY-ZAP INSECTICIDE WITH NATURAL PYRETHRUM	pyrethrins(40g/L)+pip.but .(160g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
RAINBOW ABAMECTIN INSECTICIDE / MITICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
RAINBOW CHLORPYRIFOS 500 INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
REGENT 200SC INSECTICIDE	fipronil(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
REGENT 800WG INSECTICIDE	fipronil(800g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ROGOR UPGRADE INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ROTAM ACARMIK INSECTICIDE/MITICIDE EC	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
ROVER SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
RYGEL ALPHA FORTE 250 SC INSECTICIDE	alpha-cypermethrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
RYGEL IMIDACLOPRID 200 SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SABERO CHLORPYRIFOS 500EC INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SABOTEUR SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SANMITE MITICIDE	pyridaben(250g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SARRITOR INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the early morning when bees are not actively foraging.



Appendix 2



Product name	Active constituent(s) and concentration	Bee related label statement
SCOTTS MAXGUARD 80SC INSECTICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
SCOTTS PROCIDE 80SC INSECTICIDE/MITICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
SECURE 360 SC INSECTICIDE-MITICIDE	chlorfenapyr(360g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SENATOR 200 SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SENTINEL 80SC INSECTICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
SILVASHIELD INJECTABLE TREE INSECTICIDE	imidacloprid(200g/L)	This product is highly toxic to bees exposed to direct treatment or residues on flowering trees and shrubs. DO NOT use on trees which are likely to be used by commercial beehives.
SINMAS 225 INSECTICIDE	methomyl(225g/L)	Dangerous to bees. DO NOT spray any plants or flowers while bees are foraging. Ensure beehives are removed from the area to be treated and from adjacent paddocks.
SIPCAM PYRANICA MITICIDE	tebufenpyrad(200g/kg)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SONIC 200EC INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
STAKEOUT EMULSIFIABLE CONCENTRATE INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SUCCESS NEO INSECTICIDE	spinetoram(120g/L)	This product is highly toxic to bees; will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift. Residues may remain toxic to bees for several days after application.
SUCCESS2 NATURALYTE INSECT CONTROL	spinosad(240g/L)	Dangerous to bees. Avoid direct application or drift of the spray mix onto beehives.



Appendix 2



Product name	Active constituent(s) and concentration	Bee related label statement
SUMI-ALPHA FLEX INSECTICIDE	esfenvalerate(50g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SUMITHION 1000EC INSECTICIDE	fenitrothion(1000g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SUMITOMO SAMURAI SYSTEMIC INSECTICIDE	clothianidin(500g/kg)	Dangerous to bees and will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift, and residues may remain toxic to bees several days after application. Toxic to bees for several days after application.
SUMITOMO SHIELD SYSTEMIC INSECTICIDE	clothianidin(200g/L)	Dangerous to bees and will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift, and residues may remain toxic to bees several days after application. Toxic to bees for several days after application. Used on eucalypt seedlings to 1 year old.
SUMITOMO STEALTH SYSTEMIC INSECTICIDE	clothianidin(500g/kg)	Dangerous to bees and will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift, and residues may remain toxic to bees several days after application. Toxic to bees for several days after application.
SUMITOMO SUMITHION ULV PREMIUM GRADE INSECTICIDE	fenitrothion(1.23kg/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SUPERWAY DIMETHOATE 300 SYSTEMIC INSECTICIDE	dimethoate(300g/L)	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
SUPERWAY DIMETHOATE 400 SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SUPRACIDE 400 EMULSIFIABLE CONCENTRATE INSECTICIDE	methidathion(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SUREFIRE FIVESTAR INSECTICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the night or early morning when bees are not actively foraging.



Appendix 2



Product name	Active constituent(s) and concentration	Bee related label statement
SUREFIRE ORCHARD & GARDEN INSECTICIDE	dimethoate(300g/L)	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
SUREFIRE SPECTRUM 200SC INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
SUREFIRE VISTA 200SC INSECTICIDE	fipronil(200g/L)	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 expected to flower within 28 days (7 days pasture 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 (7days 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 your State Department of Primary Industries/Agriculture, citing the registration number, for assistance in contacting the owner.
TALSTAR 100 EC INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
TALSTAR 250 EC INSECTICIDE/MITICIDE	bifenthrin(250g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
TALSTAR 80 SC INSECTICIDE/MITICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
TITAN ALPHA DUO 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
TITAN BIFENTHRIN 100 INSECTICIDE/ MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.



Appendix 2



Product name	Active constituent(s) and concentration	Bee related label statement
TITAN CHLORPYRIFOS 500 TERMITICIDE AND INSECTICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
TITAN CYPERMETHRIN 200 INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Sunflowers: Note: once flowering has commenced, spraying should be delayed until after flowering has ceased but before heads turn down to avoid damage to foraging bees. If treatment is unavoidable due to pest numbers apply during very early morning or very late afternoon when bee activity is minimal.
TITAN DIMETHOATE 400 SYSTEMIC INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Some repellent effect may be apparent for approximately 2 days.
TITAN IMIDACLOPRID 200 INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
TROJAN INSECTICIDE	gamma-cyhalothrin(150g/L)	Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.
TURF CULTURE CEASEFIRE 80 SC INSECTICIDE	bifenthrin(80g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the night or early morning when bees are not actively foraging.
UNITED FARMERS BIFENTHRIN 100 INSECTICIDE/MITICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
UNITED FARMERS CHLORPYRIFOS 500 INSECTICIDE AND TERMITICIDE	chlorpyrifos(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
UNITED FARMERS CYPERMETHRIN 200 INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



Appendix 2



Product name	Active constituent(s) and concentration	Bee related label statement
UNITED FARMERS UNIALPHACYPER 100 INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. To protect bees and ensure adequate pollination of sunflowers, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.
UNITED FARMERS UNIDIME 400 INSECTICIDE	dimethoate(400g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
UNITOX 100 EC INSECTICIDE	alpha-cypermethrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. This product is known to have deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in the early morning and late evening when bees are not foraging.
VANTAL 18 EC MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
VANTAL 18 EW MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
VERTIMEC MITICIDE/INSECTICIDE	abamectin(18g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
VOODOO 200 INSECTICIDE	imidacloprid(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
WEBCOT S-PY NATURAL PYRETHRUM INSECTICIDE	pyrethrins(40g/L)+pip.but .(160g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.
WEBZONE TERMITICIDE & INSECTICIDE	bifenthrin(100g/L)	Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.
WSD CHLORPYRIFOS 500 EC INSECTICIDE	chlorpyrifos(500g/L)	No bee warning statement on the label. This product has been included on the basis that it has the same active constituent(s), active constituent(s) concentration, application rate and intended use as other products which do contain a bee related warning on the label.
WSD CYPERMETHRIN 200 EC INSECTICIDE	cypermethrin(200g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



Appendix 2



Product name	Active constituent(s) and concentration	Bee related label statement
ZEEPER 500 EC INSECTICIDE	permethrin 40:60(500g/L)	Dangerous to bees. DO NOT spray any plants in flower where bees are foraging.



Appendix 3



List of the active constituents utilised by the horticultural and broadacre pesticides known to be toxic to honeybees in Australia.

abamectin	fipronil
acephate	gamma-cyhalothrin
alpha-cypermethrin	imidacloprid
azinphos-methyl	indoxacarb
bendiocarb	lambda-cyhalothrin
beta-cyfluthrin	M. anisopliae var. acridum
beta-cypermethrin	maldison
bifenazate	methamidophos
bifenthrin	methidathion
bioresmethrin+pip.but.	methiocarb
carbaryl	methomyl
chlorfenapyr	mevinphos
chlorpyrifos	milbemectin
clothianidin	omethoate
cyanamide	permethrin 40:60
cyfluthrin	phosmet
cypermethrin	pyrethrins
deltamethrin	pyrethrins+pip.but.
diafenthiuron	pyridaben
diazinon	spinetoram
dimethenamid-P	spinosad
dimethoate	tebufenpyrad
emamectin as benzoate	thiamethoxam
esfenvalerate	thiodicarb
ethion+zeta-cypermethrin	trichlorfon
fenitrothion	zeta-cypermethrin
fenthion	



Appendix 4



Pesticide Risk Management Plan

Beekeeper's contact details	
Beekeeper's name	
Beekeeper's emergency phone contact 1	
Beekeeper's emergency phone contact 2	
Farmer's contact details	
Farmer's name	
Farmer's emergency phone contact 1	
Farmer's emergency phone contact 2	
Key dates	
Hive placement (start of job)	
Hive removal (end of job)	
Has the beekeeper...	
Ensured that their contact details are displayed at the hive location and can be read from a safe distance?	
Identified neighbouring landowners / aerial spray operators who should be notified?	
Worked through a copy of this form with those neighbouring landowners / aerial spray operators?	
Considered shelter from spray drift when determining where to site the hives?	
Identified a safe area, (at least 3 kms away) that hives can be relocated to if required?	
Ensured that bees have access to a safe water source, free of chemical contamination?	
Discussed the chemical application program with the farmer?	
ATTENTION! All of the above should be actioned before hives are placed on site.	
Has the farmer...	
Advised the beekeeper of neighbouring landowners / aerial spray operators who should be notified?	
Ensured that staff, spray contractors and agronomists are aware of the presence and location of the hives and understand the points below: <ul style="list-style-type: none"> • Read and comply with the chemical product label. • Choose appropriate spraying conditions so as to avoid spray drift affecting non-target flowering crops, hives, and water sources. • Choose an appropriate time to apply chemicals. • Mow flowering weeds inside the target area to reduce the damage to bees that may otherwise forage there. • Ensure that bees are not foraging in the target area before application. 	
ATTENTION! All of the above should be actioned before hives are placed on site.	
Agreement	
I hereby declare that: <ul style="list-style-type: none"> • I have answered the above questions honestly and to the best of my ability. • I am committed to the attached Action Plan and will make every reasonable effort to reduce the risk of pesticide poisoning. • I have the authority to enter into this agreement on behalf the business that I represent. 	
Farmer's signature	
Beekeeper's signature	
Date	



Appendix 4



Action Plan			
Chemical name	Estimated application date (if known)	Actions required by farmer	Actions required by beekeeper

If any unplanned chemical applications are required or if something arises which prevents either party from adhering to the agreed actions, both parties should discuss the matter as soon as possible.



Appendix 5



Pesticide Poisoning Report

General information	
Your name	
Your phone number	
Address where poisoning occurred	
Symptoms	
Types of symptoms	Dead bees at hive entrance <input type="checkbox"/> Dead bees inside the hive <input type="checkbox"/> Dead brood <input type="checkbox"/> Lack of foraging bees seen leaving the hive <input type="checkbox"/> Reduced brood / adult bee numbers <input type="checkbox"/> Live adults slow / paralysed <input type="checkbox"/> Bees behaving aggressively <input type="checkbox"/> Queen failure <input type="checkbox"/> Other:
Number of hives affected	
Date and time that symptoms were observed	
Sample collection	
Have you collected any of the following samples for laboratory analysis: Dead bees from outside the hive <input type="checkbox"/> Dead bees and comb from inside the hive <input type="checkbox"/> A swab sample from the outside of the hive <input type="checkbox"/> Remember, samples should be dispatched on ice immediately or stored in the freezer.	
Suspected cause	
Response from witness (if you have discussed it with them)	
Response from the person you believe responsible (if you have discussed it with them)	
Your signature	
Date	



Appendix 6



Beekeeper contact details

Name:

Phone:

Mobile No:

Address:

.....

NOTIFICATION OF BEEHIVES IN YOUR AREA

Dear Landowner,

The purpose of this letter is to provide you with notification that beehives have been placed in the area, and that my bees may be foraging on your property. My hives will be placed locally between the following approximate dates:

Approximate date hives being placed: _____

Approximate date hives being removed: _____

If you are planning to use agricultural chemicals that are toxic to bees during this period, I would appreciate it if you could call me on the mobile number above, so that I can take appropriate precautions, such as relocating my hives to a safe area. If possible, I would appreciate 48-72 hours notice, because I can only move my hives at night and I may be some distance away, attending to other hives.

Rural Industries Research and Development Corporation (RIRDC), in conjunction with Horticulture Australia Limited and the Victorian Department of Primary Industries, have developed a booklet for farmers and beekeepers. Called *'Honeybee pesticide poisoning: a risk management tool for Australian farmers and beekeepers'* the booklet includes a list of the broadacre and horticultural pesticides that are known to be toxic to bees in Australia, as well as other information that can assist farmers and beekeepers with managing the risk of honeybee pesticide poisoning. **The booklet can be downloaded for free from the RIRDC website www.rirdc.gov.au.**

If you have the opportunity to discuss this matter with your neighbours, it would be greatly appreciated. Thank you for your consideration. Please don't hesitate to contact me if you have any questions.

Yours sincerely,

_____ (Beekeeper's signature)

_____ (Beekeeper's printed name)