



**Australian Government**  
**Australian Pesticides and  
Veterinary Medicines Authority**



## TRADE ADVICE NOTICE

on acetamiprid and pyriproxyfen in the product Trivor Insecticide for use on  
wine grapes and table grapes

APVMA product number 80807

DECEMBER 2018

© Australian Pesticides and Veterinary Medicines Authority 2018

ISBN: 978-1-922188-88-5

ISSN: 2200-3894

### **Ownership of intellectual property rights in this publication**

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Australian Pesticides and Veterinary Medicines Authority (APVMA).

### **Creative Commons licence**

With the exception of the Coat of Arms and other elements specifically identified, this publication is licensed under a Creative Commons Attribution 3.0 Australia Licence. This is a standard form agreement that allows you to copy, distribute, transmit and adapt this publication provided that you attribute the work.



A summary of the licence terms is available from [www.creativecommons.org/licenses/by/3.0/au/deed.en](http://www.creativecommons.org/licenses/by/3.0/au/deed.en). The full licence terms are available from [www.creativecommons.org/licenses/by/3.0/au/legalcode](http://www.creativecommons.org/licenses/by/3.0/au/legalcode).

The APVMA's preference is that you attribute this publication (and any approved material sourced from it) using the following wording:

*Source: Licensed from the Australian Pesticides and Veterinary Medicines Authority (APVMA) under a Creative Commons Attribution 3.0 Australia Licence.*

In referencing this document the Australian Pesticides and Veterinary Medicines Authority should be cited as the author, publisher and copyright owner.

### **Use of the Coat of Arms**

The terms under which the Coat of Arms can be used are set out on the Department of the Prime Minister and Cabinet website (see [www.dpmc.gov.au/pmc/publication/commonwealth-coat-arms-information-and-guidelines](http://www.dpmc.gov.au/pmc/publication/commonwealth-coat-arms-information-and-guidelines)).

### **Disclaimer**

The material in or linking from this report may contain the views or recommendations of third parties. Third party material does not necessarily reflect the views of the APVMA, or indicate a commitment to a particular course of action.

There may be links in this document that will transfer you to external websites. The APVMA does not have responsibility for these websites, nor does linking to or from this document constitute any form of endorsement.

The APVMA is not responsible for any errors, omissions or matters of interpretation in any third-party information contained within this document.

### **Comments and enquiries regarding copyright:**

Director Public Affairs and Communication

Australian Pesticides and Veterinary Medicines Authority

PO Box 6182

KINGSTON ACT 2604 Australia

Telephone: +61 2 6210 4988

Email: [communications@apvma.gov.au](mailto:communications@apvma.gov.au)

This publication is available from the APVMA website: [www.apvma.gov.au](http://www.apvma.gov.au).

---

## CONTENTS

---

<b>PREFACE</b>	<b>IV</b>
<b>About this document</b>	<b>iv</b>
<b>Making a submission</b>	<b>iv</b>
<b>Further information</b>	<b>v</b>
<hr/>	
<b>1 INTRODUCTION</b>	<b>6</b>
<b>2 TRADE CONSIDERATIONS</b>	<b>7</b>
<b>2.1 Commodities exported</b>	<b>7</b>
<b>2.2 Destination and value of exports</b>	<b>7</b>
<b>2.3 Proposed Australian use-pattern</b>	<b>7</b>
<b>2.4 Results from residues trials presented to the APVMA</b>	<b>10</b>
<b>2.5 Codex alimentarius commission and overseas MRLs</b>	<b>11</b>
<b>2.6 Proposed Australian MRLs</b>	<b>12</b>
<hr/>	
<b>3 CONCLUSIONS</b>	<b>14</b>

## PREFACE

The Australian Pesticides and Veterinary Medicines Authority (APVMA) is an independent statutory authority with responsibility for assessing and approving agricultural and veterinary chemical products prior to their sale and use in Australia.

The APVMA has a policy of encouraging openness and transparency in its activities and of seeking stakeholder involvement in decision making. Part of that process is the publication of Trade Advice Notices for all proposed extensions of use for existing products where there may be trade implications.

The information and technical data required by the APVMA to assess the safety of new chemical products and the methods of assessment must be undertaken according to accepted scientific principles. Details are outlined in regulatory guidance published on the APVMA website.

## About this document

This is a Trade Advice Notice.

It indicates that the APVMA is considering an application to vary the use of an existing registered agricultural or veterinary chemical. It provides a summary of the APVMA's residue and trade assessment.

Comment is sought from industry groups and stakeholders on the information contained within this document.

## Making a submission

The APVMA invites any person to submit a relevant written submission as to whether the application to vary the registration of Trivor Insecticide should be granted. Submissions should relate only to matters that the APVMA is required by legislation to take into account in deciding whether to grant the application. These grounds relate to the trade implications of the extended use of the product. Submissions should state the grounds on which they are based. Comments received outside these grounds cannot be considered by the APVMA.

Submissions must be received by the APVMA by close of business on 23 January 2019 and be directed to the contact listed below. All submissions to the APVMA will be acknowledged in writing via email or by post.

Relevant comments will be taken into account by the APVMA in deciding whether to grant the application and in determining appropriate conditions of registration and product labelling.

When making a submission please include:

- contact name
- company or group name (if relevant)
- postal address
- email address (if available)
- the date you made the submission.

All personal and confidential commercial information (CCI)<sup>1</sup> material contained in submissions will be treated confidentially.

Written submissions on the APVMA's proposal to grant the application for registration that relate to the grounds for registration should be addressed in writing to:

Residues and Trade

Scientific Assessment and Chemical Review

Australian Pesticides and Veterinary Medicines Authority

PO Box 6182

Kingston ACT 2604

**Phone:** +61 2 6210 4701

**Email:** [enquiries@apvma.gov.au](mailto:enquiries@apvma.gov.au)

## Further information

Further information can be obtained via the contact details provided above.

Further information on public release summaries can be found on the APVMA website: [www.apvma.gov.au](http://www.apvma.gov.au)

---

<sup>1</sup> A full definition of 'confidential commercial information' is contained in the Agvet Code.

## 1 INTRODUCTION

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has before it an application from ADAMA Australia Pty Ltd to register a new use of Trivor Insecticide (containing 186 g/L acetamiprid and 124 g/L pyriproxyfen), on wine and table grapes for the control of various insect pests.

In this Trade Advice Notice the potential for residues arising from the proposed use on grapes to unduly prejudice trade is discussed. No amendments to the current acetamiprid and pyriproxyfen mammalian commodity MRLs (established at LOQs) are recommended as finite residues are not expected following feeding of grape pomace derived from treated grapes. Trade aspects relating to animal commodities remain unchanged and are not discussed here.

## 2 TRADE CONSIDERATIONS

### 2.1 Commodities exported

Grapes (including dried grapes) and wine are considered to be major export commodities<sup>2</sup>.

### 2.2 Destination and value of exports

Grapes are a significant export, particularly as wine, although table grapes and dried fruit are also exported. In 2016–17 Australia exported 789 ML of wine worth \$2366 million. Australia exports wine to China, USA, EU, Canada, New Zealand, Hong Kong, Singapore, Malaysia and Japan.<sup>3</sup>

A smaller volume of table grape exports are predominantly to Asian markets. Dried grapes are exported worldwide. In 2016–17 Australia exported 4.5 kt of dried vine fruit worth \$19 million.<sup>3</sup>

### 2.3 Proposed Australian use-pattern

#### RESTRAINTS

DO NOT apply by air.

DO NOT apply if rainfall that is likely to produce runoff is forecast within 48 hours.

DO NOT apply TRIVOR during flowering.

DO NOT apply more than 1.6 L/ha of TRIVOR® per season in grapevines.

---

<sup>2</sup> APVMA Regulatory Guidelines—Data Guidelines: Agricultural—Overseas trade (Part 5B)

<sup>3</sup> Australian Commodity Statistics 2017

## TRIVOR INSECTICIDE (CONTAINING 186 G/L ACETAMIPRID AND 124 G/L PYRIPROXYFEN)

CROP	PEST	RATE	CRITICAL COMMENTS
Grapevines (table grapes and wine grapes)	Light brown apple moth ( <i>Epiphyas postvittana</i> )	40 mL/100 L or 800 mL/ha	<p>Apply up to two applications of TRIVOR<sup>®</sup> per season targeting pre-flowering infestations of light brown apple moth. TRIVOR<sup>®</sup> should be applied as part of a monitoring and spray program commencing 14 degree-days after light brown apple moth are detected in traps. <b>Wine grapes: DO NOT apply after E-L 31.</b></p> <p><b>Table grapes: DO NOT apply after E-L 25.</b></p> <p>Continue to monitor crops and apply additional insecticide applications on a 7-14 day spray interval. Each application of TRIVOR<sup>®</sup> must be applied in alternation with a light brown apple moth insecticide from a different mode of action group. Use alternative mode of action insecticides from the commencement of flowering through to bunch closure to prevent light brown apple moth bunch infestations.</p> <p><b>Application</b></p> <p>Apply TRIVOR<sup>®</sup> as a dilute (high volume) spray to the point of runoff, ensuring thorough coverage. If concentrate spraying, ensure suitable equipment is used to achieve coverage of foliage and fruit.</p> <p><b>DO NOT</b> apply TRIVOR<sup>®</sup> at more than 800 mL/ha per application.</p>
	Grapevine scale ( <i>Parthenolecanium persicae</i> )  Long tailed mealybug ( <i>Pseudococcus longispinus</i> )		<p>Monitor crops from budburst and apply up to two applications of TRIVOR<sup>®</sup> when crop monitoring indicates the onset of crawler release. For best results, apply TRIVOR from early in the season when crawlers are active and good coverage can be achieved. <b>Wine grapes: DO NOT apply after E-L 31.</b></p> <p><b>Table grapes: DO NOT apply after E-L 25.</b></p> <p>Do not target TRIVOR<sup>®</sup> applications on populations that are well-established where mature adult insects dominate the population. After application, continue monitoring crops. If additional insecticide treatments are required, apply an alternative mode of action insecticide after a minimum spray interval of 21 days and prior to applying a second TRIVOR<sup>®</sup> spray.</p> <p><b>Application</b></p> <p>Apply TRIVOR<sup>®</sup> as a dilute (high volume) spray to the point of runoff, ensuring thorough coverage. Concentrate spraying is not recommended when targeting grapevine scale and/or mealybug as thorough coverage is critical for control.</p>

CROP	PEST	RATE	CRITICAL COMMENTS
			DO NOT apply TRIVOR® at more than 800 mL/ha per application.

Withholding periods:

Harvest: NOT REQUIRED WHEN USED AS DIRECTED.

Grazing: DO NOT GRAZE OR CUT TREATED AREA FOR STOCKFOOD.

## 2.4 Results from residues trials presented to the APVMA

The proposed use of acetamiprid and pyriproxyfen on grapes involves up to two foliar applications administered per season at spray concentrations up to 40 mL/100 L (7.44g ai/100L acetamiprid and 4.96g ai/100L pyriproxyfen or 800 mL/ha (148.8 g ai/ha acetamiprid and 99.2 g ai/ha pyriproxyfen) at growth stages up to E-L 31 for wine grapes and E-L 25 for table grapes, with 7–14 day re-treatment interval. A harvest WHP of “Not required when used as directed” and a grazing restraint of ‘DO NOT graze or cut for cut treated areas for stockfood’ is proposed.

A total of six decline trials were conducted in Australia on both table (1 trial) and wine grapes (5 trials) in 2014–2016 growing seasons at 1X and 2X the proposed rate. Acetamiprid and pyriproxyfen residues were determined in grapes and its processed products raisins, juice, wine and pomace.

### *Acetamiprid*

At commercial harvest, residues of acetamiprid in wine grapes (n=5) following two foliar applications with 7 day re-treatment interval, with final application administered at E-L 31 for wine grapes at spray concentrations of ~1x the maximum proposed were in rank order <LOQ (0.01 mg/kg, n=2), 0.015, 0.026 and 0.027 mg/kg. (STMR =0.014 mg/kg).

At commercial harvest, residues of acetamiprid in table grape (1) and wine grapes (5) following two foliar applications with 7 day re-treatment interval, with final application administered at E-L 25 at spray concentrations of ~1x the maximum proposed were <LOD (5) and 0.013 mg/kg.

Based on the available information, an acetamiprid MRL of 0.05 mg/kg for grapes (FB 0269) is considered appropriate for the proposed wine and table grape uses in conjunction with a harvest WHP of ‘not required when used as directed’.

### *Processing*

Residues of acetamiprid in wine when the last application was made at E-L 31 at 1X the proposed spray concentration were below the LOQ of 0.01 mg/kg (n=3). In grape juice, acetamiprid residues were below the LOD of 0.003 mg/kg (n=4) and 0.01 mg/kg (n=1). Residues of acetamiprid arising in wine and juice will be covered by the recommended grape MRL.

Dried grapes: The observed residue in dried grapes following application at E-L 25 was 0.05 mg/kg. Based on the highest processing factor of 3.8 in raisins, the HR-P (based on HR of 0.027 mg/kg) is estimated to be 0.11 mg/kg. A Table 1 MRL of 0.2 mg/kg for DF 0269 Dried grapes (sultanas, currants, raisins) is considered appropriate to cover the residues in dried grapes.

### *Pyriproxyfen*

At commercial harvest, residues of pyriproxyfen in wine grapes following two foliar applications with the final application administered at E-L 31 at spray concentrations of ~1x the maximum proposed were in rank order <LOD, <LOQ (2), 0.010 and 0.011 mg/kg (STMR = 0.01 mg/kg).

At commercial harvest, residues of pyriproxyfen in table grape (1) and wine grapes (5) following two foliar applications with 7 day re-treatment interval, with final application administered at E-L 25 at spray concentrations of ~1x the maximum proposed were <LOD (6).

Based on the available information, a pyriproxyfen MRL of 0.02 mg/kg for grapes (FB 0269) is considered appropriate for the proposed wine and table grape uses in conjunction with a harvest WHP of 'not required when used as directed'.

### Processing

Residues of pyriproxyfen in wine when the last application was made at E-L 31 at 1X the proposed spray concentration were below <LOD (n=3). Residues of pyriproxyfen in grape juice were <LOD (0.003 mg/kg, n=6) at 1x and 2x the proposed rate. The recommended grape MRL will cover the residues in juice.

Dried grapes: The observed residue in dried grapes following application at E-L 25 was 0.023 mg/kg. Based on the highest processing factor of 2.3 in raisins, the HR-P (based on HR of 0.011 mg/kg) is estimated to be 0.023 mg/kg. A Table 1 MRL of 0.05 mg/kg for DF 0269 Dried grapes (sultanas, currants, raisins) is considered appropriate to cover the residues in dried grapes.

## 2.5 Codex alimentarius commission and overseas MRLs

The Codex Alimentarius Commission (Codex) is responsible for establishing Codex Maximum Residue Limits (CXLs) for pesticides. Codex CXLs are primarily intended to facilitate international trade, and accommodate differences in Good Agricultural Practice (GAP) employed by various countries. Some countries may accept Codex CXLs when importing foods. Acetamiprid in grapes has been considered by Codex. The following relevant Codex CXLs and overseas MRLs have been established for acetamiprid and pyriproxyfen.

### Acetamiprid

COMMODITY	TOLERANCE FOR RESIDUES ARISING FROM THE USE OF ACETAMIPRID (mg/kg)				
	AUSTRALIA <sup>4</sup>	EU <sup>5</sup>	JAPAN <sup>6</sup>	CODEX <sup>7</sup>	USA
Residue Definition	P	P	P		
Grapes	0.05 (PROPOSED)	0.5	5	0.5	

<sup>4</sup> [www.legislation.gov.au/Details/F2018C00780](http://www.legislation.gov.au/Details/F2018C00780)

<sup>5</sup> [ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=1807](http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=1807)

<sup>6</sup> [db.ffcr.or.jp/front/pesticide\\_detail?id=3100](http://db.ffcr.or.jp/front/pesticide_detail?id=3100)

<sup>7</sup> [www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/pesticide-detail/en/?p\\_id=246](http://www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/pesticide-detail/en/?p_id=246)

## Pyriproxyfen

COMMODITY	TOLERANCE FOR RESIDUES ARISING FROM THE USE OF PYRIPROXYFEN (mg/kg)				
	AUSTRALIA	EU	JAPAN	CODEX	USA <sup>8</sup>
Residue Definition	P				
Grapes	0.02 (PROPOSED)	*0.05	0.5		2.5

## 2.6 Proposed Australian MRLs

Proposed MRL Standard - Table 1

COMPOUND	FOOD	MRL (mg/kg)
Acetamiprid		
ADD:		
DF 0269	Dried grapes (=Currants, Raisins and Sultanas)	0.2
FB 0269	Grapes	0.05
Pyriproxyfen		
ADD:		
DF 0269	Dried grapes (=Currants, Raisins and Sultanas)	0.05
FB 0269	Grapes	0.02

Proposed MRL Standard -Table 4

COMPOUND	ANIMAL FEED COMMODITY	MRL (mg/kg)
ADD:		
Acetamiprid		
AB 0269	Grape pomace, dry	2
ADD:		
Pyriproxyfen		
AB 0269	Grape pomace, dry	1

<sup>8</sup> [www.ecfr.gov/cgi-bin/text-idx?SID=a853f2401a94d8f689f322656ac9ef99&mc=true&node=se40.26.180\\_1510&rgn=div8](http://www.ecfr.gov/cgi-bin/text-idx?SID=a853f2401a94d8f689f322656ac9ef99&mc=true&node=se40.26.180_1510&rgn=div8)

### *Potential risk to trade*

Export of treated produce containing finite (measurable) residues of acetamiprid and pyriproxyfen may pose a risk to Australian trade in situations where (i) no residue tolerance (import tolerance) is established in the importing country or (ii) where residues in Australian produce are likely to exceed a residue tolerance (import tolerance) established in the importing country.

An MRL of 0.05 mg/kg is recommended for grapes for acetamiprid which is significantly lower than those established in the Codex and the EU (0.5 mg/kg) and Japan (5 mg/kg). Acetamiprid MRLs are not currently established for grapes in China or the USA. The processing studies shows that residues of acetamiprid did not concentrate in wine and were below the LOQ of 0.01 mg/kg and the potential risk to trade of wine is considered to be low. Residues did concentrate in dried grapes thus a separate acetamiprid MRL for dried grape at 0.2 mg/kg is recommended.

For pyriproxyfen, the proposed MRL for grapes is 0.02 mg/kg which is significantly lower than those established in Japan (0.5 mg/kg) and the USA (2.5 mg/kg). Pyriproxyfen MRLs for grapes have not been established by Codex or China. The processing studies shows that residues of pyriproxyfen did not concentrate in wine and were below the LOQ of 0.01 mg/kg and the potential risk to trade of wine is considered to be low. Residues did concentrate in dried grapes thus a separate pyriproxyfen MRL for dried grape at 0.05 mg/kg is recommended.

The following statement is recommended to mitigate risk for produce destined for export:

*'Before using TRIVOR on crops destined for export it is essential to consult your exporter or ADAMA to ensure that an appropriate MRL is in place in the importing country'.*

### 3 CONCLUSIONS

Adama Australia Pty Ltd have made an application to vary the registration of Trivor Insecticide containing acetamiprid and pyriproxyfen.

Comment is sought on the potential for Trivor Insecticide to prejudice Australian trade when used on wine and table grapes according to the proposed label directions.