Australian Government

Australian Pesticides and Veterinary Medicines Authority

TRADE ADVICE NOTICE

on Spirotetramat in the Product Movento 240 SC Insecticide

APVMA Product Number 61864

MAY 2014

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This publication is available from the APVMA website: www.apvma.gov.au.

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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.

In undertaking this task, the APVMA works in close cooperation with advisory agencies, including the Department of Health and Aging, Office of Chemical Safety and Environmental Health (OCSEH), Department of the Environment, Water, Heritage and the Arts (DEWHA), and State Departments of Primary Industry.

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 the APVMA's publication *Ag MORAG: Manual of Requirements and Guidelines*.

About this document

This is a Trade Advice Notice.

It indicates that the Australian Pesticides and Veterinary Medicines Authority (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.

Any advice the APVMA receives through this consultation which it relies on to grant this application will be noted in a subsequent Advice Summary.

Advice Summaries can be found on the APVMA website: www.apvma.gov.au

Making a submission

The APVMA invites any person to submit a relevant written submission as to whether the application to vary the registration of **Movento 240 SC 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 **Wednesday 25 June, 2014** 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. A summary of relevant comments and the APVMA's response will be published on the APVMA website.

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)***[1] 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:

Contact Officer
Pesticides Program
Australian Pesticides and Veterinary Medicines Authority
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Phone: +61 2 6210 4748
Fax: +61 2 6210 4776
Email: pesticides@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

[1] 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 Bayer CropScience Pty Ltd, to vary the registration of Movento 240 SC Insecticide to include uses on table grapes, pome fruit and stone fruit. Movento contains 240 g/L of spirotetramat as its only active constituent.

2 TRADE CONSIDERATIONS

2.1 Commodities exported

Grapes (including dried grapes), pome fruit and stone fruit are considered to be major export commodities. Animal commodities produced from animals fed feeds containing residues from the proposed use are also major trade commodities. However, estimated residues in animal feeds resulting from the proposed use (apple pomace) are below the level which would be expected to give detectable residues in animal commodities. The risk to trade in animal commodities will not be considered further in this notice.

2.2 Destination and value of exports

Table grape exports in 2010/2011 were worth A$79.5 million, with significant markets including Hong Kong ($27.1 million), Indonesia ($12.6 million), Thailand ($9.87 million), Vietnam ($7.12 million), Singapore ($6.05 million), Russia ($1.78 million), and Taiwan ($1.24 million) (Australian Bureau of Statistics).

Australian exports of dried vine fruit were worth $4.9 million during 2012–2013 (Agricultural Commodity Statistics 2013, ABARES).

Values of recent exports of Australian pome fruit are not readily available. Major markets for Australian apples by volume in 2010–2011 were Papua New Guinea, Indonesia, the United Kingdom, Sri Lanka and Thailand (Australian Bureau of Statistics). Leading markets for Australian pears in 2013 were New Zealand, Indonesia and Canada.[2]

Australia exported $1.4 million worth of apricots, $31.5 million worth of cherries, $18.2 million worth of nectarines and peaches and $7.1 million worth of plums in the 2012-2013 financial year. The major markets are summarised below:

[2] http://apal.org.au/supply-chain/trade/export-markets/

Table 1: Largest export markets by value for stone fruit in 2012-2013.

Apricots	Cherries
Destination	**Destination**
United Arab Emirates	Hong Kong
Hong Kong	Taiwan
Singapore	Singapore
Saudi Arabia	Malaysia
Netherlands	United Arab Emirates
France	Vietnam
Russia	Indonesia
Kuwait	China
Bahrain	United Kingdom
-	Netherlands
Nectarines and Peaches	**Plums**
Destination	**Destination**
Hong Kong	Hong Kong
United Arab Emirates	Singapore
Singapore	Malaysia
New Caledonia	United Arab Emirates
Taiwan	Vietnam
Saudi Arabia	Russia
Kuwait	Kuwait
Qatar	Indonesia
Malaysia	New Caledonia
Indonesia	Papua New Guinea
Source of data: Australian Bureau of Statistics	

2.3 Proposed Australian use-pattern

Table 2: Proposed use pattern

Movento 240 SC Insecticide (240 g/L spirotetramat)

Crop	Pest	Rate	Critical Comments
Table grapes	Longtailed mealybug (*Pseudococcus longispinus*), tuber mealybug (*Pseudococcus virburni*) grapevine scale (*Parthenolecanium persicae*) (suppression only)	**Dilute spraying** 40 mL/100 L + Adjuvant (9.6 g ai/100 L) **Concentrate Spraying** Refer to the **Application** section.	Monitor crops following bud burst. Commence applications at the onset of crawler emergence or when pest numbers reach an economic threshold. To ensure there is sufficient foliage for product uptake **do not apply prior to 6 leaf stage (EL 13).** **Mealybug and grapevine scale** Continue to monitor crops and apply a second

Crop	Pest	Rate	Critical Comments
	Plague thrips (*Thrips imaginis*) (suppression only), northern plague thrips (*Thrips safrus*) (suppression only)	Add adjuvant as recommended*	application 21 to 28 days after the first application. **Thrips** The peak time for thrips damage in grape vines is during flowering and berry set. To obtain optimum thrips suppression, a second application should be applied prior to the anticipated peak thrips activity. The second application should be made no less than 14 days after the initial application. Do not exceed a 28 day interval. At this longer interval, an application of a product from an alternative group chemical group will be required between Movento applications to provide continual thrips protection. **All pests** For all pests applications to an established pest population where mature adults are present and dominate the population will be ineffective. A total of two applications can be made in grapevines, with a minimum 14 days between applications. Apply thoroughly to ensure complete coverage. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. For concentrate spraying, do not use at rates greater than two times the dilute spraying rate (i.e. at a concentration factor greater than 2X) – refer "Application" section in GENERAL INSTRUCTIONS. *** Always add a specified spray adjuvant - refer "Adjuvant" section in GENERAL INSTRUCTIONS.**
Pome fruit	Longtailed mealybug (*Pseudococcus longispinus*), tuber mealybug (*Pseudococcus virburni*), woolly apple aphid (*Eriosoma lanigerum*) (suppression only)	**Dilute spraying** 40 mL/100 L + adjuvant* (9.6 g ai/100 L) **Concentrate Spraying** Refer to the **Application** section. Add adjuvant as recommended*	Monitor crops following flowering. Commence applications at the onset of crawler emergence or when pest numbers reach an economic threshold. To ensure there is sufficient foliage for product uptake; **For apples, do not apply prior to petal fall.** **For pears, do not apply prior to fruitlets reaching 10 mm in diameter.** **Mealybug and woolly apple aphid:** Continue to monitor crops and apply a second application 14 to 28 days after the first

Crop	Pest	Rate	Critical Comments
	San Jose scale (*Quadraspidiotus perniciosus*)	**Dilute spraying** 30 mL/100 L + adjuvant* **Concentrate Spraying** Refer to the **Application** section. Add adjuvant as recommended*	application. **San Jose scale:** Continue monitoring and apply further applications when new generations emerge. Do not re-apply within 14 days of a previous Movento application. **All pests** For all pests, applications to an established pest population where mature adults are present and dominate the population will be ineffective. A total of three applications can be made in pome fruit, with a minimum 14 days between applications. Apply thoroughly to ensure complete coverage. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. For concentrate spraying, do not use at rates greater than two times the dilute spraying rate (i.e. at a concentration factor greater than 2X) – refer "Application" section in GENERAL INSTRUCTIONS. * **Always add a specified spray adjuvant - refer "Adjuvant" section in GENERAL INSTRUCTIONS.**
Stone fruit	Tuber mealybug (*Pseudococcus virburni*), longtailed mealybug (*Pseudococcus longispinus*) Black cherry aphid (*Myzus cerasi*), black peach aphid (*Brachycaudus persicae*)	**Dilute spraying** 40 mL/100 L + adjuvant* **Concentrate Spraying** Refer to the **Application** section. Add adjuvant as recommended* (9.6 g ai/100 L)	Monitor crops following petal fall. Commence applications at the onset of crawler emergence or when pest numbers reach an economic threshold. To ensure there is sufficient foliage for product uptake do not apply prior to shuck fall. **Mealybug:** Continue to monitor crops and apply a second application 14 to 28 days after the first application.

Crop	Pest	Rate	Critical Comments
	San Jose scale (*Quadraspidiotus perniciosus*)	**Dilute spraying** 30 mL/100 L + adjuvant* **Concentrate Spraying** Refer to the **Application** section. Add adjuvant as recommended*	**Aphids:** Continue to monitor crops and apply a second application 14 to 21 days after the first application if required. **San Jose scale:** Continue monitoring and apply further applications when new generations emerge. Do not re-apply within 14 days of a previous Movento application. **All pests** For all pests, applications to an established pest population where mature adults are present and dominate the population will be ineffective. A total of two applications can be made in cherries, with a minimum 14 days between applications. A total of three applications can be made in other stone fruit, with a minimum 14 days between applications, provided one of the three applications is made within 21 days of shuck fall. Apply thoroughly to ensure complete coverage. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. For concentrate spraying, do not use at rates greater than two times the dilute spraying rate (i.e. at a concentration factor greater than 2X) – refer "Application" section in GENERAL INSTRUCTIONS. * **Always add a specified spray adjuvant - refer "Adjuvant" section in GENERAL INSTRUCTIONS.**

Withholding periods:
Harvest:
Grapes: Do not harvest for 28 days after application.
Pome fruit, stone fruit: Do not harvest for 21 days after application.

2.4 Results from residues trials presented to the APVMA

Grapes

Results from fourteen residues trials on grapes conducted in Australia and Europe that address the proposed use were provided. Residues of parent plus the enol metabolite in grapes 18–34 days after the final application from trials approximating the proposed use were 0.04, 0.05, 0.08, 0.09, 0.12, 0.13, 0.13, 0.13, 0.15, 0.15, 0.19, 0.24, 0.26 and 0.36 mg/kg. The data support a spirotetramat MRL of 0.7 mg/kg for FB 0269 Grapes [excluding Wine-grapes] in conjunction with a 28 day WHP.

Dried Grapes

Processing factors for residues of parent plus the enol metabolite for processing to raisins were 1.5×, 1.6×, 2.5×, 2.7× and 3.4×. Based on a highest residue of 0.36 mg/kg of parent plus enol in grapes and a highest processing factor of 3.4× the highest estimated residue in raisins for MRL determination is 1.2 mg/kg. An MRL of 2 mg/kg is proposed for spirotetramat on DF 0269 Dried grapes (=Currants, Raisins and Sultanas).

Pome fruit

Results from thirty residue trials on pome fruit conducted in Australia and Europe that address the proposed use were provided. Residues of parent plus the enol metabolite in apples and pears at 21 days after the last application from trials approximating the proposed use were 0.02, 0.02, 0.02, 0.04, 0.06, 0.07, 0.15, 0.17, 0.21 and 0.26 mg/kg. In trials involving 2 applications at 14–29 g ai/100 L (1.5 - 3×) residues of parent plus the enol metabolite at 21 days after the last application were 0.02, 0.02, 0.03, 0.03, 0.03, 0.03, 0.03, 0.03, 0.05, 0.06, 0.06, 0.06, 0.06, 0.06, 0.08, 0.07, 0.09, 0.10, 0.10, 0.11, 0.11, 0.12, 0.12, 0.17 and 0.17 mg/kg. The data support a spirotetramat MRL of 0.5 mg/kg for FP 0009 Pome fruits in conjunction with a 21 day WHP.

Apple pomace

Processing factors for residues of parent plus the enol metabolite to dry pomace were 4.3×, 7.2×, 7.9× and 11.5×. In an additional trial the processing factor for residues of parent plus the enol metabolite to wet pomace was 1.9×. Based on a highest residue of parent plus enol of 0.26 mg/kg in apples and the highest processing factor of 11.5×, the highest estimated residue in dry pomace is 2.99 mg/kg. The data support a spirotetramat MRL of 5 mg/kg for AB 0226 Apple pomace, dry.

Stone fruit

Results from forty-five residue trials on stone fruit conducted in Australia and Europe that address the proposed use were provided. Spirotetramat has systemic activity in the plant and residues in cherries were not substantively higher than other stone fruit. Following application approximating the proposed use residues of parent plus the enol metabolite 21 days after the final application in peaches, nectarines and cherries were 0.05, 0.05, 0.07, 0.07, 0.08, 0.01 and 0.11 mg/kg.

Following application approximating the proposed use but with a spray concentration of 14.4 g ai/100 L (1.5×) residues of parent plus the enol metabolite 21 days after the final application in apricots, cherries, peaches, and plums were 0.04, 0.06, 0.07, 0.08, 0.08, 0.09, 0.1, 0.11, 0.12, 0.15, 0.15, 0.16, 0.17, 0.17, 0.18, 0.2, 0.21, 0.22, 0.22, 0.22, 0.22, 0.22, 0.23, 0.23, 0.24, 0.24, 0.25, 0.28, 0.31, 0.33, 0.33, 0.33, 0.36, 0.37, 0.38, 0.39, 0.55, 0.60 mg/kg. Corrected for spray concentration the highest residue was 0.40 mg/kg.

The processing factor for residues of parent plus the enol metabolite for processing from plums to prunes was 2.0×. Based on a highest estimated residue in stone fruit of 0.40 mg/kg the highest estimated residue in prunes is 0.8 mg/kg.

The data support a spirotetramat MRL for FS 0012 Stone fruits of 1 mg/kg.

2.5 Overseas registration and approved label instructions

The applicant indicated that spirotetramat products are registered for use on fruit and vegetable crops in a number of countries including the US, Canada and the EU.

2.6 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. Spirotetramat has been considered by Codex. The following relevant overseas MRLs have been established for spirotetramat.

Table 3: Relevant Codex and overseas MRLs for spirotetramat

Commodity	Proposed[1]	Codex[1]	US[2]	Canada[2]	EU[2]	Japan[1]	Taiwan	FSANZ[1*]
	MRL (mg/kg)							
Pome fruit	0.5	0.7	0.7	0.7	1	Apple 0.7 Pear 0.7	Apple 0.7	-
Stonefruit	1	3	4.5	4.5	3	Nectarine 3 Apricot 3 Japanese plum (including prune) 5 Mume Plum 3 Cherry 3	Apricot 3 Cherry 3 Plum 3	4.5
Grape	0.7	2	1.3	1.3	2	2	2	2
Dried grapes	2	4	3	3	-	4	-	4

[1]Residue definition: spirotetramat plus enol
[2]Residue definition: spirotetramat plus 4 metabolites
* FSANZ MRLs established in response to requests from importing countries

Some countries have a more complex residue definition than Australia. From the available residue data, the highest total residues of spirotetramat and its 4 metabolites were: Pome fruit 0.27 mg/kg, Stone fruit 0.67 mg/kg, Prunes estimated 1.5 mg/kg (based on a processing factor of 2.2× for the total residue), Grapes 0.45 mg/kg and Dried Grapes estimated 1.6 mg/kg (based on a highest processing factor of 3.6× for the total residue). The trial data indicate that residues will also be below the MRLs established in countries with a more complex residue definition for spirotetramat.

2.7 Current and proposed Australian MRLs for spirotetramat

Table 4: Current MRL Standard - Table1

COMPOUND		FOOD	MRL (mg/kg)
SPIROTETRAMAT			
DF	0269	Dried grapes (=Currants, Raisins and Sultanas)	T3
MO	0105	Edible offal (Mammalian)	0.5
FB	0269	Grapes	T0.7
MM	0095	Meat (mammalian)	0.02
ML	0106	Milks	*0.005
FP	0009	Pome fruits	T0.5
FS	0012	Stone fruits	T1

Table 5: Proposed changes to MRL Standard - Table1

COMPOUND		FOOD	MRL (mg/kg)
SPIROTETRAMAT			
DELETE:			
DF	0269	Dried grapes (=Currants, Raisins and Sultanas)	T3
FB	0269	Grapes	T0.7
FP	0009	Pome fruits	T0.5
FS	0012	Stone fruits	T1
ADD:			
DF	0269	Dried grapes (=Currants, Raisins and Sultanas)	2
FB	0269	Grapes [excluding Wine-grapes]	0.7
FP	0009	Pome fruits	0.5
FS	0012	Stone fruits	1

2.8 Potential risk to trade

Export of treated produce containing finite (measurable) residues of spirotetramat 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.

The draft label includes the following advice for export of treated produce:

Growers should note that suitable MRLs or import tolerances do not exist in all markets for produce treated with Movento 240 SC. In some situations export requirements may be met by limiting application number and/or imposing a longer withholding period than specified above. If you are growing produce for export, please check with Bayer CropScience Pty Ltd or your industry body for the latest information on any potential trade issues and their management before using Movento 240 SC.

Given that Codex MRLs are established for grapes, pome fruit and stone fruit at higher levels than proposed for Australia and also that relevant MRLs are established in the US, Canada, the EU and Japan, the risk to trade associated with the proposed use is considered to be low.

3 CONCLUSIONS

Bayer CropScience Pty Ltd has made an application to vary the registration of Movento 240 SC Insecticide to include uses on table grapes, pome fruit and stone fruit. Use of the product in accordance with the proposed label instructions is unlikely to risk Australian trade as relevant MRLs are established by Codex and several major export destinations. The applicant is proposing to manage any risk through the following export advice:

Growers should note that suitable MRLs or import tolerances do not exist in all markets for produce treated with Movento 240 SC. In some situations export requirements may be met by limiting application number and/or imposing a longer withholding period than specified above. If you are growing produce for export, please check with Bayer CropScience Pty Ltd or your industry body for the latest information on any potential trade issues and their management before using Movento 240 SC.

Comment is sought on the potential for Movento 240 SC Insecticide to prejudice Australian trade when used on table grapes, pome fruit and stone fruit.