

**Trade Advice Note
on**

Buprofezin

in the product

**Applaud Insecticide
(APVMA Product Number 51547)**

Australian Pesticides and Veterinary Medicines Authority

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Trade Advice Note on the Product

Applaud Insecticide (440 g/L buprofezin)

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has before it an application from Dow AgroSciences Australia Ltd for the control of certain scale and mealy bug in custard apples, grapes, pears, persimmons and passionfruit. The product, Applaud Insecticide is registered for use on citrus and mangoes for similar purposes.

Residue data from supervised trials indicate that when buprofezin is applied to custard apples, residues are not expected to exceed the MRL of 0.1 mg/kg at 14 days after application at the maximum proposed rate.

Data from supervised trials of buprofezin applied to grapes indicate that residues are not expected to exceed the MRL of 0.3 mg/kg at 8 weeks for table grapes, or following last application at 80% capfall for wine grapes. An MRL of 1 mg/kg is recommended for dried grapes. No detectable residues are expected in wines.

Residues in dried grape pomace are not expected to exceed 5 mg/kg; a Table 4 entry in the *MRL Standard*, reflective of this level, will be established.

Residue data from supervised trials indicate that when buprofezin is applied to pears, residues are not expected to exceed the MRL of 0.2 mg/kg at 8 weeks after application at the maximum proposed rate.

Residue data from supervised trials indicate that when buprofezin is applied to passionfruit, residues are not expected to exceed the MRL of 2 mg/kg at 1 day after application at the maximum proposed rate.

Residue data from supervised trials indicate that when buprofezin is applied to persimmons, residues are not expected to exceed the MRL of 1 mg/kg at 4 weeks after application at the maximum proposed rate.

1. Commodities exported

With respect to the use pattern for grapes and pears, they are considered as major export commodities from Australia, as indicated in Appendix 1 Part 5B of the APVMA “Overseas Trade Aspects of Residues in Food Commodities”.

Commodities from any livestock that may be exposed to buprofezin residues from grape pomace are also considered from a trade perspective.

Custard apples, persimmons and passionfruit are not considered major export commodities. Information on production and export markets was not available at the time of assessment. Comment is requested from industry on the potential of residues resulting from the use of buprofezin on custard apples, persimmons and passionfruit to cause trade violations.

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2. Destination and Value of Exports

The major export markets for Australian table grapes are Hong Kong, Malaysia, Indonesia and Singapore. The major export markets for Australian wine are United States, United Kingdom, Canada, New Zealand, Germany, Ireland, Netherlands, Sweden and Japan.

The major export markets for Australian pears are Singapore, Malaysia, Indonesia, Canada, New Zealand and Hong Kong.

3. Proposed use pattern for custard apples, grapes, pears, persimmons and passionfruit.

Applaud Insecticide

DIRECTIONS FOR USE (All States)

RESTRAINTS:

DO NOT apply by air.

DO NOT apply more than twice per year in any crop.

Wine grapes: DO NOT apply later than 80% capfall.

Tree and Vine Crops	Insect Pest	Rate/100 L water	Critical Comments
Custard Apples	Mealy bugs Scale Insects	30-60 mL / 100 L water (13.2-26.4 g a.i./100 L)	Apply a maximum of two sprays per season, 21 days apart. Apply when significant pest infestations develop. Apply as a high volume cover spray to run-off using air-blast or high volume hydraulic nozzles.
Grapes	Mealy bugs	30-60 mL / 100 L water (13.2-26.4 g a.i./100 L)	Apply twice, 14-21 days apart, starting when the first emergence of crawlers is observed. Use the high rate when heavy infestations occur and/or where IPM systems have not effectively managed pest populations. Wine grapes: DO NOT apply later than 80% capfall.
Passion fruit	Mealy bugs Scale Insects	30-60 mL / 100 L water (13.2-26.4 g a.i./100 L)	Apply a maximum of two sprays per season, 21 days apart when significant pest infestations develop. Apply as a high volume cover spray to run-off using air-blast or high volume hydraulic nozzles.
Pears	Mealy bugs Scale Insects	30-60 mL / 100 L water (13.2-26.4 g a.i./100 L)	Apply twice, 10-14 days apart between swollen bud and the end of flowering in sufficient volume to ensure the bark is soaked, with thorough coverage to the point of run-off. Use the high rate when heavy infestations occur and/or where IPM systems have not effectively managed pest populations, particularly under harsh environmental conditions.
Persimmons	Mealy bugs Scale Insects	30-60 mL / 100 L water (13.2-26.4 g a.i./100 L)	Apply a maximum of two sprays per season, 14 days apart. Apply when the first batch of scale or mealy bug crawlers occur after winter.

Withholding periods

Passionfruit: DO NOT harvest for 1 day after application

Custard Apple: DO NOT harvest for 2 weeks after application.

Persimmon: DO NOT harvest for 4 weeks after application.

Grapes & Pears: DO NOT harvest for 8 weeks after application.

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4. Overseas Registration & Use Pattern

Buprofezin is registered in many overseas countries for use in numerous crops.

5. Codex Alimentarius Commission and overseas MRLs

CODEX has tolerances for residues of buprofezin in cucumber, oranges and tomatoes only. Canada, the UK and EU have no listings for buprofezin, Taiwan has MRLs for citrus, drupe, leaf vegetables (small and wrapped leaf versions), melons, pears (1.0 mg/kg), peas and beans, rice and tea. The USA has tolerances for residues of buprofezin in a number of commodities, including almond, banana, bean, animal commodities, citrus, cotton, grapes (0.40 mg/kg), raisins (0.60 mg/kg), lettuce, logan, lychee (0.30 mg/kg), pistachio, pulasan, rambutan (0.30 mg/kg), tomatoes and cucurbits.

Other countries with MRLs for buprofezin in grapes (only) are Israel (0.1 mg/kg), Italy (1 mg/kg) and Switzerland (0.1 mg/kg). Albania, Antigua and Barbuda, Bermuda, Cayman Islands, Haiti, Jamaica, Nevis, Sri Lanka and St Lucia recognise the MRLs for buprofezin in grapes of the relevant exporting country.

The applicant has stated that Japan has MRLs for grapes, pears and persimmons, set at 1, 2 and 0.5 mg/kg, respectively.

The USA have MRLs for buprofezin in the fat, liver and meat by-products of cattle, goats, pigs, horses and sheep. These levels are all 0.05 mg/kg. The Australian MRLs for meat and offal are *0.05 mg/kg, and the Australian milk MRL is *0.01 mg/kg.

6. Current and proposed Australian MRLs for buprofezin relevant to this application:

Code		Food	MRL, mg/kg	
Table 1			Current:	Proposed:
FI	0332	Custard Apple	-	0.1
FB	0269	Grapes (including wine)	T*0.01	0.3
DF	0269	Dried Grapes (sultanas, currants, raisins)	-	1
FI	0351	Passionfruit	T2	2
FP	0230	Pear	T*0.01	0.2
FT	0307	Persimmon, Japanese	T1	1
Table 4				
AB	0269	Grape Pomace, dry	-	5

7. Potential Risk to Trade

Export of treated produce containing detectable (measurable) residues of buprofezin 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.

Passionfruit, persimmon and custard apple are not considered major export commodities. Information on production and export markets for passionfruit was not available at the time of assessment. The risk to Australia's trade in custard apples and persimmons is not expected to be unduly large. Comment is requested from relevant industries on the potential of residues

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resulting from the use of buprofezin on passionfruit, custard apple and persimmon to cause trade violations.

Grapes are considered a major export commodity. MRLs of buprofezin in table and dried grapes are equivalent to, if not more than, MRLs for buprofezin in these commodities in other countries.

After applying a processing factor of 2.44 from data provided to the HR (0.19 mg/kg) for grapes to raisins gives 0.46 mg/kg. Consequently, the recommended MRL for dried grapes is 1 mg/kg.

Similar calculations can be made for grape juice and wine. Using the STMR (0.02 mg/kg) and the processing factor of 0.13 for grapes to grape juice or wine gives 0.003 mg/kg. This level is less than the limit of detection (0.005 mg/kg). Residues in wine are below the limit of quantitation, or 0.01 mg/kg.

For table grapes, the applicant has requested that the industry should be advised that residues of buprofezin may pose an undue risk to Australia's export trade in this commodity. Comments to mitigate this potential risk are sought from industry as a part of this Trade Advice process.

The Australian MRL for pear is less than those established in other countries. It is expected that the use of buprofezin on pears will not unduly affect exports of this produce from Australia.

The current animal commodity MRLs are adequate to cover residues in animal commodities resulting from use of treated produce (dried grape pomace) as animal feeds. The use therefore does not present any additional risk to Australian trade than currently exists from currently approved uses of buprofezin.

8. Conclusions

Residue data indicate that buprofezin residues in custard apples will be below 0.1 mg/kg, grapes below 0.5 mg/kg, dried grapes below 1 mg/kg, wine below the limit of quantitation (0.01 mg/kg), passionfruit below 2 mg/kg, pear below 0.2mg/kg and Japanese persimmons 1 mg/kg when the product is used according to label directions.

The APVMA welcomes comment with regard to whether the proposed use of buprofezin on these commodities poses an undue prejudice to Australia's trade.