

Trade Advice Note

on

Indoxacarb

in the product

**DuPont Avatar Insecticide
(APVMA Product Number 52546)**

**Australian Pesticides and Veterinary
Medicines Authority**

For further information contact:

**Rod Edmundson
Insecticides Program**

**Ph: 02 6272 3898
Fax: 02 6272 3218**

Trade Advice Note on the Product

Dupont Avatar Insecticide

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has before it an application from DuPont (Australia) Limited to vary the label approval of this product to include use on leafy vegetables, nashi pears and table grapes. This involves approving a varied product label and the establishment of Maximum Residue Limits for food commodities (MRLs) for indoxacarb. DuPont Avatar Insecticide (Avatar) is currently registered for use on various other horticulture crops, including head lettuce and brassica vegetables, wine grapes, apples and pears.

The proposed uses of Avatar on leafy vegetables and nashi pears were considered in the initial trade advice notice for this application (see Gazette Notice 6 January 2004). All trade issues for leafy vegetables and nashi pears have been satisfactorily addressed, and accordingly, no further comment is sought for uses on these commodities.

This *revised* trade advice notice is only seeking comment for the proposed use on table grapes. This is in response to issues raised in submissions received for the initial trade advice notice. The Applicant has also provided additional data which have been included in the revised trade assessment.

1. Proposed use of Dupont Avatar Insecticide (indoxacarb)

The proposed use pattern on grapes (wine and table) is presented below. This is identical to the use registered for wine grapes.

Crop	Rate	Comments
Grapes (wine and table)	Dilute spraying: 17 g/100 L (6.8 g indoxacarb/100 L equivalent to 5.1 g S-isomer/100 L)	Apply by dilute or concentrate spraying with a maximum of 3 applications with 2 at flowering and fruit set (depending on pest pressure). Do not re-treat within 10 days. A final application may be made at bunch closure. DO not apply after bunch closure. Concentrate spraying: do not apply in volumes less than 250 L/ha.

Withholding periods:

Harvest: Do not harvest for 8 weeks after application

Grazing – All treated crops

Do not allow livestock to graze crops or vegetable waste (except tomato pomace) that has been treated with Avatar Insecticide.

2. Commodities exported

Table grapes

In 2002/03 Australia exported approximately 40,000 tonnes of table grapes, valued over \$95m. Major export markets were Hong Kong (~15.1 ktonne), Singapore (~5.3 ktonne), Malaysia (~6.3 ktonne) and Indonesia (~5.8 ktonne).¹ Production in 2004-2005 is estimated to be ~130,000 tonnes and exports of ~50,000 tonnes². The current export markets include Hong Kong (26%), Indonesia (15%), Malaysia (14%), Thailand (9%), Europe (8%), Singapore (8%) and New Zealand (6%).

Dried grapes

Exports of Australian dried vine fruit (currants, sultanas, raisins) in 2002 was ~7.4 ktonne, valued at \$20.1m. Major markets were Germany (3.6 ktonne, \$6.7m), UK (2.0 ktonne, \$4.8m), New Zealand (0.8 ktonne, \$1.9m), Canada (0.9 ktonne, \$1.9m), Japan (0.7 ktonne, \$1.5m) and Italy (0.5 ktonne, \$1.1m)¹. Other markets included Netherlands, Belgium, Malaysia and Taiwan.

3. Overseas Registration & MRLs

The Applicant advised that indoxacarb is registered for use on table grapes in many European countries, including Germany, France, Hungary, Italy, Austria and Greece. A use on grapes has also been established in New Zealand.

The following overseas MRLs have been established for indoxacarb.

Commodity	Country	MRL, mg/kg
Grapes (W=wine, T=table)	Austria	0.5 (W & T)
	Cyprus	0.5 (W), 1 (T)
	France	0.2 (W & T)
	Germany	0.5 (W)
	Greece	0.3 (W & T)
	Hungary	0.5 (W), 1 (T)
	Italy	0.5 (W & T)
	New Zealand	0.5 (W & T)
	Spain	0.5 (W & T – import only)
	Switzerland	0.5 (W)

4. Codex Alimentarius Commission MRLs

No Codex standards are established for indoxacarb. The Joint FAO/WHO Meeting on Pesticide Residues (JMPR) met in September 2005. The report of the JMPR recommends that the Codex Committee on Pesticide Residues (CCPR) establishes new Codex MRLs for indoxacarb at the next meeting in March 2006. The recommendation includes a Codex CXL of 2 mg/kg for grapes and 5 mg/kg for dried grapes.

5. Current and proposed Australian MRLs and permitted limits in importing countries

The following indoxacarb MRLs are proposed for grapes:

Table 1

¹ Source: The Australian Horticultural Statistics Handbook 2004.

² Horticulture Australia Limited levy data, 2003-05

Compound	Food	MRL (mg/kg)
Indoxacarb DELETE	FB 1235 Wine grapes	1
ADD:	DF 0269 Dried grapes	2
	FB 0269 Grapes	0.5

Table 4

Feed commodity	MRL (mg/kg)
AB 0269 Grape pomace, dry ¹	3

¹ Existing MRL.

Summary of the APVMA’s assessment of the application in accordance with sections 29(1)(e) and (f) of the Agricultural and Veterinary Chemicals Code (the ‘Agvet Code’) scheduled to the Agricultural and Veterinary Chemicals Code Act 1994

The APVMA has evaluated the application and in its assessment in relation to human and environmental safety under section 29(1)(e) of the Agvet Code, it proposes to determine that:

6. Trade Evaluation

The APVMA is satisfied that the use of this product would not present an undue hazard to the safety of people consuming table grapes treated with this chemical.

The APVMA has completed an evaluation of the data and has supported the proposed MRLs and Withholding Periods for this product and use patterns. It should be noted that the additional data provided by the applicant supported a lower MRL for grapes (0.5 mg/kg) than what was originally proposed (2.0 mg/kg).

Export of treated produce containing finite residues of indoxacarb 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.

Table grapes

In residues trials conducted on wine grapes, indoxacarb residues in harvested fruit collected after an 8 week withholding period in ranked order were: 0.015, 0.02, 0.04, 0.04, 0.08, 0.09, 0.1, 0.12, 0.18, 0.21, 0.23, 0.23, 0.33, 0.35, and 0.37 mg/kg. The highest residue (HR) of 0.37 mg/kg was from a NZ trial conducted at 2× the proposed spray concentration and using high spray volumes (>1800 L/ha). These data are acceptable to extrapolate to table grapes, and support the establishment of a grape MRL of 0.5 mg/kg.

Product evaluation trials performed on commercially grown vines show that residues on grapes harvested after 8 weeks following treatment were <0.04 (7), 0.05 and 0.12 mg/kg. Detectable residues were only found in 2 of the 9 samples collected from the trials, and the

HR was 0.12 mg/kg from a trial conducted in NSW. These data support the proposed MRL of 0.5 mg/kg.

Details of import tolerances/MRLS for table grapes and dried fruit in major trading countries, particularly in SE Asia were not available. Adequate import tolerances/ MRLs therefore may not exist in these countries and any residue detection has the potential to prejudice Australian trade.

CCPR is scheduled to review indoxacarb at the next meeting in March 2006. It is expected that indoxacarb will be entered in the Step process (provisional Codex MRLs) and will include a provisional MRL for grapes. As the Australian MRL is lower than the JMPR recommendation to Codex, the likelihood of a trade risk in a country that recognise Codex MRLs will be minimised.

To indicate the potential of a trade risk, the current export statement remains appropriate and should be clearly visible on the label:

EXPORT STATEMENT: Import tolerances for produce treated with Avatar may be pending in some countries. Consult with your exporter or DuPont before applying Avatar to export crops.

Dried grapes

Processing studies indicate that indoxacarb residues are $\sim 2.7 \times$ higher in the processed dried fruit compared to fresh fruit. Based upon the highest residue found in grapes, the expected highest residue in dried grapes is ~ 1.0 mg/kg. These data support an MRL of 2 mg/kg for dried grapes.

The impact upon major export markets of dried grapes to Germany, UK and NZ is considered negligible as these countries have similar use-patterns and MRLs established for grapes. Codex may also consider CXLs for dried grapes at the next meeting. The Australian CXL is likely to be comparable to or lower than the Codex standard.

Animal commodities

The current product label has a grazing restriction which applies to all treated crops:

Grazing – All Treated Crops

DO NOT allow livestock to graze crops or vegetable waste (except tomato pomace) that has been treated with Avatar Insecticide.

Accordingly, the grazing of treated vineyards is not permitted. Therefore, the estimated livestock exposure to indoxacarb residues is not expected to increase as a result of the proposed uses of Avatar Insecticide on grapes. In addition, the existing Table 4 Animal Feed MRL of 3 mg/kg for grape pomace is adequate to account for residues in this commodity.

The risk to Australia's trade in animal commodities is not expected to alter significantly from the current situation, and the potential risks are expected to remain low.

7. Conclusions

Quantifiable residues of indoxacarb may occur in table grapes and dried grapes when treated with DuPont Avatar Insecticide. This has the potential to cause trade issues, particularly in countries which have no appropriate tolerances/MRLs. However, provisional Codex MRLs are expected to be established in March 2006 and this will mitigate any potential trade issues

in major export markets. The APVMA welcomes comment on any aspect of the residues in trade evaluation for table grapes.

8. Other Criteria

Additionally, the APVMA is addressing the following criteria during the evaluation of this application:

Chemistry and Manufacture
Toxicology
Occupational Health and Safety
Environmental Safety
Target Species Efficacy and Safety

9. Submissions

Comments relating to the **trade implications** of the proposal to grant this application for variation of registration should be addressed in writing to:

Rod Edmundson
Pesticides Program
Australian Pesticides and Veterinary Medicines Authority
PO Box E240
KINGSTON ACT 2604

Phone: (02) 6272 3859
Fax: (02) 6272 3218
Email: rod.edmundson@apvma.gov.au