Australian Government

Australian Pesticides and Veterinary Medicines Authority

Trade Advice Notice

on Vantacor Insecticide (chlorantraniliprole) for use on rice

Permit PER95824

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This publication is available from the APVMA website.

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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.

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 Trade Advice Notice indicates that the APVMA is considering an application concerning the use of a proposed agricultural 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 for a permit for use of chlorantraniliprole on rice 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 10 April 2025 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 organisation name (if relevant)
- email or postal address (if available)
- the date you made the submission.

Please note: submissions will be published on the APVMA's website, unless you have asked for the submission to remain confidential, or if the APVMA chooses at its discretion not to publish any submissions received (refer to the public consultation coversheet).

Please lodge your submission using the public consultation coversheet, which provides options for how your submission will be published.

Note that all APVMA documents are subject to the access provisions of the *Freedom of Information Act 1982* and may be required to be released under that Act should a request for access be made.

Unless you request for your submission to remain confidential, the APVMA may release your submission to the applicant for comment.

Written submissions should be addressed to:

Executive Director, Risk Assessment Capability
Australian Pesticides and Veterinary Medicines Authority
GPO Box 574
Canberra ACT 2601

Phone: +61 2 6770 2300
Email: enquiries@apvma.gov.au.

Further information

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

Further information on Trade Advice Notices can be found on the APVMA website: apvma.gov.au.

Introduction

The APVMA has before it an emergency permit application from Rice Research Australia Pty Ltd for the use of chlorantraniliprole on rice.

The proposed permit is for use in New South Wales and Victoria only, for a period of 2 years.

Trade considerations

Commodities exported

Cereal grains (including rice) are major export commodities[1], as are commodities of animal origin, such as meat, offal and dairy products, which may be derived from livestock fed feeds produced from treated rice. Residues in these commodities resulting from the use of chlorantraniliprole on rice may have the potential to unduly prejudice trade.

As no changes are required to the animal commodity MRLs, the risk to trade with respect to animal commodities is considered to be low and does not require further consideration. The risk to trade with respect to rice grain is considered below.

Destination and value of exports

In the years 2021–22, 22–23 (senate), 23–24 (senate) and 24–25 (forecast), Australia exported[2] rice valued at ($ million) 275 (158 kilo tonne), 218 (245 kt), 242 (239 kt), and 171 (267 kt) respectively.

Key Australian rice export[3] markets include the following:

- Middle East (Saudi Arabia, Israel, Jordan, Lebanon)
- Japan, South Korea, Taiwan
- Papua New Guinea, Solomon Islands, other Pacific nations.

[1] Australian Pesticides and Veterinary Medicines Authority, APVMA Regulatory Guidelines – Data Guidelines: Agricultural – Overseas trade (Part 5B), APVMA website, accessed February 2025.

[2] Australian Bureau of Agricultural and Resource Economics and Sciences, ABARES, accessed February 2025

[3] New South Wales Government, Ministerial release, accessed February 2025

Proposed Australian use pattern

Table 1: Proposed use pattern being considered by the APVMA

Vantacor Insecticide (containing 600 g/L chlorantraniliprole)

Crop	Pest	Rate	Critical comments
Rice (field grown)	Common armyworm (*Leucania convecta*)	55 - 90 mL (33 - 54 g ai/ha) + non-ionic surfactant @ 125 g ai/100 L	DO NOT apply more than two (2) foliar applications per crop, with a minimum re-treatment interval of 7 days between applications. Apply by aerial application in a minimum of 20 L/ha using aerial application – fixed-wing aircraft, helicopter or drone. Carefully monitor for eggs and small larvae by regular field scouting from the beginning of the season. Apply before, or when the pest threshold is reached, targeting sprays against newly hatched larvae. Monitoring of the crops is essential to ensure correct timing. Armyworms are best controlled when sprayed on the cool of the day (late afternoon) when larvae are most active and feeding. Target brown eggs and hatchlings (neonates or first instar) to small larvae (second instar) when they reach the economic spray threshold and before they become entrenched in the plant whorl. Follow all label recommendations and restrictions. Apply in sufficient volume to obtain even coverage and penetration of plants. Use the higher rate and short re-treatment interval for dense canopied higher pressure sites. If further treatments are required an insecticide with an alternative mode of action should be used. Larvae in entrenched feeding sites will not be controlled. Refer to the Insecticide Resistance Management (IRM) on the product label to prevent or delay the development of insecticide resistance to Group 28 insecticides. Follow the 'spray drift restrictions' on the product label. Treated water must not be released into district drainage channels for 21 days after the last application.

Withholding periods

Harvest: Do not harvest for 14 days after application.

Grazing: Do not graze or cut for stock food for 14 days after application.

Results from residues trials presented to the APVMA

The proposed use involves up to 2 foliar applications of chlorantraniliprole per crop at rates ranging from 33–54 g ai/ha with a minimum re-treatment interval of 7 days. Harvest and grazing WHPs of 14 days are proposed.

Grain

In Australian trials, chlorantraniliprole residues in rice grain following two foliar applications at ~1× the maximum proposed rate and PHIs of 12 – 14 days were 0.064, 0.57 and 1.8 mg/kg.

Overseas trials:

Eight Brazilian trials conducted on rice were presented in the JMPR 2013[4] which involved one application of chlorantraniliprole at 30 g ai/ha. Residues in rice grain were <0.01, 0.02, 0.03, 0.10, 0.13, 0.13, 0.16 and 0.16 mg/kg at a PHI of 13-15 days. Residues when scaled to 1× the maximum proposed rate (54 g ai/ha) are in rank order <0.02, 0.04, 0.05, 0.18, 0.23, 0.23, 0.29 and 0.29 mg/kg.

One trial conducted in the Philippines in 2006 found that the chlorantraniliprole residue in rice grain was 0.165 mg/kg 15 days after the last of 3 applications made at 40 g ai/ha. When scaled to the maximum proposed rate of 54 g ai/ha, the residue concentration is estimated to be 0.22 mg/kg.

The complete dataset suitable for MRL estimation including three Australian trials, the eight Brazilian trials and one Philippines trial are in rank order <0.02, 0.04, 0.05, 0.06, 0.18, 0.22, 0.23, 0.23, 0.29, 0.29, 0.57 and 1.80 mg/kg. STMR= 0.23 mg/kg. The OECD MRL calculator recommends an MRL of 3 mg/kg for the proposed use.

Based on the available information, a TMRL of 3 mg/kg for chlorantraniliprole for Rice (GC 0649) is considered appropriate in conjunction with a harvest WHP of 14 days.

Processing

Rice processing studies were available to estimate level of chlorantraniliprole in rice processed fractions (e.g. bran and hulls).

Rice Bran: Based on the highest residue (HR) in rice grain at 1.8 mg/kg and the highest processing factor of 2.5, the HR-P in rice bran is calculated to be 4.5 mg/kg. A chlorantraniliprole TMRL at 5 mg/kg is recommended for CM 1206 Rice bran, unprocessed.

[4] The Brazilian rice trials are summarised in the 2013 JMPR evaluation report: http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/JMPR/Evaluation13/Chlorantraniliprole.pdf. Accessed 22/01/2010

Animal feeds

Straw and fodder:

In Australian trials, chlorantraniliprole residues in rice straw following two foliar applications at ~1× the maximum proposed rate at PHIs of 12–14 days were 2.1, 6.3 and 7.2 mg/kg (dry wt. basis), whereas in rice forage at a PHI of 13 days residue was 3.2 mg/kg on a dry weight basis.

Based on the available information, the current temporary MRL of T10 mg/kg established for Rice straw and fodder, dry (AS 0649) remains appropriate in conjunction with a 14-day grazing withholding period.

Rice Hull: Chlorantraniliprole residues in rice hulls following two foliar applications at ~1× the maximum proposed rate were 5.1 (14 day) and 12 mg/kg (12 day).

A Table 4 entry for Rice hulls at T10 mg/kg is considered appropriate.

The proposed use does not necessitate any MRL changes to the commodities of animal origin (cattle, poultry) or their by-products for chlorantraniliprole, thus, animal commodities are not considered any further in this trade document.

Codex Alimentarius Commission and overseas MRLs

The Codex Alimentarius Commission (Codex) is responsible for establishing Codex Maximum Residue Limits (CXLs) for pesticides and veterinary medicines. 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. Chlorantraniliprole has not been considered by Codex. The following relevant Codex CXL and overseas MRLs have been established for chlorantraniliprole.

Table 2: International MRLs

Commodity	Tolerance for residues arising from the use of chlorantraniliprole (mg/kg)					
	Australia[5]	EU[6]	Japan[7]	Codex[8]	Taiwan[9]	S. Korea[10]
Residue Definition	Chlorantraniliprole (plant commodities)	Chlorantraniliprole	Chlorantraniliprole	Chlorantraniliprole	Chlorantraniliprole	Chlorantraniliprole
Rice	**T3 (proposed)**	0.4	0.05 (Brown rice)	0.4 (Rice) 0.04(Rice polished)	0.1	0.5

Current MRLs for chlorantraniliprole

Table 3: Current relevant MRLs in Table 1 of the MRL Standard

Compound	Food	MRL (mg/kg)
Chlorantraniliprole		
	All other foods	T0.1
MO 0105	Edible offal (mammalian)	0.02
PE 0112	Eggs	0.03
GC 2091	Maize cereals	T*0.01
MM 0095	Meat (mammalian) [in the fat]	0.02
FM 0183	Milk fats	0.1
ML 0106	Milks	0.02
PM 0110	Poultry meat [in the fat]	*0.01

[5] Australian MRL Standard, accessed February 2025

[6] European Commission, EU Pesticide residue(s) and maximum residue levels (mg/kg), European Commission website, accessed February 2025

[7] The Japan Food Chemical Research Foundation, Maximum Residue Limits (MRLs) List of Agricultural Chemicals in Foods, The Japan Food Chemical Research Foundation website, accessed February 2025

[8] Food and Agriculture Organisation of the United Nations, Codex Alimentarius, International Food Standards, FAO website, accessed February 2025

[9] Laws & Regulations Database of the Republic of China (Taiwan), Standards for Pesticide Residue Limits in Foods, accessed February 2025

[10] Ministry of Food and Drug Safety Korea, MRLs in Pesticides, accessed February 2025.

Compound	Food	MRL (mg/kg)
PO 0111	Poultry, edible offal of	*0.01
GC 0649	Rice	T0.3
GC 2089	Sorghum grain and millet	T1

Table 4: Current relevant MRLs in Table 4 of the MRL Standard

Compound	Animal Feed Commodity	MRL (mg/kg)
Chlorantraniliprole		
AL 0157	Legume animal feeds	10
	Maize cereals forage and fodder	T10
	Mixed pastures (leguminous/grasses)	T10
	Primary feed commodities {except Legume animal feeds; Maize cereals forage and fodder; Rice straw and fodder, dry; Sorghum grain and millet forage and fodder; Sweet corn forage and fodder}	0.5
AS 0649	Rice straw and fodder, dry	T10
	Sorghum grain and millet forage and fodder	T15
	Sweet corn forage and fodder	T10
	Rice hulls	T0.7

Proposed amendments to the MRL Standard for chlorantraniliprole

Table 5: Amendments to Table 1 of the MRL Standard

COMPOUND		FOOD	MRL (mg/kg)
Chlorantraniliprole			
DELETE:			
GC	0649	Rice	T0.3
ADD:			
GC	0649	Rice	T3
CM	1206	Rice bran, unprocessed	T5

Table 6: Amendments to Table 4 of the MRL Standard

COMPOUND	Animal Feed Commodity	MRL (mg/kg)
Chlorantraniliprole		
DELETE:		
	Rice hulls	T0.7
ADD:		
	Rice hulls	T10

Potential risk to trade

Export of treated produce containing finite (measurable) residues of chlorantraniliprole 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 proposed use on rice grain under an emergency permit requires a temporary MRL at 3 mg/kg for chlorantraniliprole. This MRL is higher than those established in major export markets as shown in the table 2. Therefore, the risk to trade arising from the proposed use is considered significant in these markets or in markets were lower or no chlorantraniliprole MRLs for rice have been established.

This trade consultation aims to engage with the relevant stakeholders to ascertain the trade risk associated with the proposed use and industry's ability to manage that risk.

Conclusion

The APVMA has before it an emergency permit application from Rice Research Australia Pty Ltd for the use of chlorantraniliprole on rice.

Comment is sought on the potential for the proposed use to prejudice Australian trade of rice and the ability of industry to manage any potential trade risk.