



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



Trade Advice Notice

on chlorantraniliprole for use on sorghum and millet

Emergency use permit PER91616

September 2021

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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 an emergency permit for use of chlorantraniliprole on sorghum and millet 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 Thursday 30 September 2021 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 3262
Sydney NSW 2001

Phone: [+61 2 6770 2300](tel:+61267702300)

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 Grain Producers Australia Limited for the use of chlorantraniliprole on sorghum and millet, for the control of fall armyworm.

The proposed emergency permit is for use in all states for a period of 3 years. It is estimated that up to 150,000 ha may be treated.

The use of chlorantraniliprole on sorghum and millet has not been previously approved by the APVMA. It is however noted that an emergency permit application for the use of chlorantraniliprole on sorghum (and maize) was previously considered and a Trade Advice Notice for that application was published in March 2020¹.

¹ Australian Pesticides and Veterinary Medicines Authority, [Trade Advice Notice on chlorantraniliprole for use on maize and sorghum](#), APVMA website, 24 March 2020, accessed 21 September 2021.

Trade considerations

Commodities exported

Cereal grains are considered to be major export commodities², as are commodities of animal origin, such as meat, offal and dairy products, which may be derived from livestock fed feeds produced from treated sorghum and millet. Residues in these commodities resulting from the use of chlorantraniliprole on sorghum and millet 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 sorghum or millet grain is considered below.

Destination and value of exports

In 2018–19 and 2019–20 Australia exported 205 kt and 72 kt of sorghum grain valued at \$78 million and \$35 million respectively³. The total production of sorghum grain in 2018–19 and 2019–20 was 1,255 kt and 1,161 kt respectively³. The major export market in 2018–19 and 2019–20 was China (188 kt and 58 kt respectively), with lower quantities going to Taiwan, Japan (both years) and New Zealand (2018–19 only)³.

The value of exports of ‘other cereals’ including millet, buckwheat and canary seed from Australia totalled \$7.2 million in 2020⁴.

Proposed Australian use pattern

Table 1: Proposed use pattern being considered by the APVMA – Vantacor Insecticide (containing 600 g chlorantraniliprole/L as the only active constituent)

Crop	Pest	Rate	Critical comments
Sorghum and millet	Fall armyworm (<i>Spodoptera frugiperda</i>)	55 to 90 mL/ha (= 33 to 54 g a.i./ha)	Apply a maximum of 2 applications per crop at a minimum retreatment interval of 7 days. Apply at the first signs of infestation. Use the higher rate under high persistent insect pressure. Apply by boom spray with ground or aerial application.

² Australian Pesticides and Veterinary Medicines Authority, [APVMA Regulatory Guidelines – Data Guidelines: Agricultural – Overseas trade \(Part 5B\)](#), APVMA website, 20 July 2020, accessed 21 September 2021.

³ Department of Agriculture, Water and the Environment, [Agricultural commodities and trade data](#), DAWE website, accessed 21 September 2021.

⁴ Trend Economy, [Annual International Trade Statistics by Country \(HS02\)](#), Trend Economy website, accessed 21 September 2021.

Crop	Pest	Rate	Critical comments
			Use a minimum of 30 L/ha for aerial application or by ground with a spray volume sufficient to ensure thorough coverage of the crop. Use a non-ionic surfactant at the rate of 125 g a.i./100 L. Use in accordance with Crop Life Insecticide Resistance Management Strategy Guidelines.

Restrictions

Do not apply more than 2 applications per season.

Do not apply less than 7 days after the initial treatment.

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

Summary results of 2 Australian trials conducted on sorghum were submitted and in addition residues data for chlorantraniliprole on sorghum grown in the USA (3 trials) are available from the 2013 JMPR⁵.

The combined dataset suitable for MRL estimation is, in rank order (and after scaling the results of the US trials to account for the Australian rate):

0.38, 0.50, 0.59, 0.67 and 0.74 mg/kg (STMR = 0.59 mg/kg, n=5).

The residue observation of 0.67 mg/kg was from an Australian trial which addressed the proposed rate and 14 day withholding period. The other 4 observations were from samples taken at 0 to 1 days after application.

It is noted that while residues data are not available for millet, the available residues data for sorghum is considered relevant to millet as both sorghum and millet are in the same commodity classification subgroup (Subgroup 020D, Sorghum grain and millet)⁶.

Based on the available information noting that samples were collected at 0 to 1 days after application for 4 of the 5 samples, a chlorantraniliprole MRL of T1 mg/kg for GC 2089 'Sorghum grain and millet', is

⁵ Food and Agriculture Organization of the United Nations, [2013 Joint Meeting on Pesticide Residues evaluation of chlorantraniliprole](#), FAO website, accessed 21 September 2021.

⁶ Australian Pesticides and Veterinary Medicines Authority, [Crop Group 020: Cereal grains](#), APVMA website, accessed 21 September 2021.

recommended for the proposed use under emergency permit, in conjunction with a 14 day harvest withholding period (WHP).

Overseas registration and approved label instructions

The applicant noted that chlorantraniliprole is registered for use in Canada, the USA and other countries for the control of fall armyworm and has submitted relevant labels from the USA and Canada. Use of chlorantraniliprole on sorghum for control of fall armyworm in Canada is allowed at 50 g to 75 g a.i./ha (3 applications per season, minimum 7 days retreatment interval and one day harvest WHP), while use in the USA is allowed at 50 g to 110 g a.i./ha (4 applications per year, minimum 7 days retreatment interval and one day harvest WHP).

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 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	EU	Codex	Japan	Korea	USA	China	Taiwan
Sorghum grain and millet	T1 (proposed)	0.02 (sorghum and millet)	0.02 (cereal grains except rice)	6 (other cereal grains)	3 (sorghum)	6 (grain, cereal, except rice and corn, group 15)	5 (sorghum)	4 (sorghum)

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

Compound	Food	MRL (mg/kg)
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
PO 0111	Poultry, edible offal of	*0.01
GC 0649	Rice	T0.3

Proposed amendments to the MRL Standard for chlorantraniliprole

Table 4: Amendments to Table 1 of the MRL Standard

Compound	Food	MRL (mg/kg)
Chlorantraniliprole		
ADD:		
GC 2089	Sorghum grain and millet	T1

Table 5: Amendments to Table 4 of the MRL Standard

Compound	Animal feed commodity	MRL (mg/kg)
Chlorantraniliprole		
DELETE:		
	Primary feed commodities {except legume animal feeds; maize cereals forage and fodder; rice straw and fodder, dry; sweet corn forage and fodder}	0.5
ADD:		
	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
	Sorghum grain and millet forage and fodder	T15

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 of chlorantraniliprole requires the establishment of a finite MRL for chlorantraniliprole on sorghum grain and millet.

Although the European Union and Codex have established MRLs at 0.02 mg/kg, lower than that proposed for Australia (T1 mg/kg), and therefore there could be a potential risk to trade to European markets and markets which defer to Codex MRLs, the significant recent export markets for Australian sorghum are China, Taiwan, Japan and New Zealand.

The major export market for sorghum of China, has recently established an MRL at a higher level (5 mg/kg) than proposed for Australia with that standard's implementation date being 3 September 2021⁷. Taiwan and Japan have also established MRLs for sorghum higher than proposed for Australia (4 mg/kg and 6 mg/kg respectively), while Korea and the USA have MRLs established at 3 mg/kg and 6 mg/kg respectively. It is also noted that the highest residue in sorghum grain observed in the Australian and USA trials was 0.74 mg/kg (STMR = 0.59 mg/kg) with 4 of the 5 samples taken at a 0 to one day WHP, rather than the proposed 14 day WHP.

Given that chlorantraniliprole MRLs have been established in China, Taiwan and Japan at levels higher than is proposed in Australia, the potential risk to trade for sorghum to those markets is considered to be low.

For millet, the export value is less than sorghum and the major export destinations could not be readily identified. The MRL established for cereals except those otherwise listed by Japan and the USA at 6 mg/kg (which should include millet) are higher than the MRL recommended in Australia.

⁷ US Department of Agriculture, [Translation of Maximum Residue Limits for Pesticides in Foods](#), USDA website, 24 August 2021, accessed 21 September 2021.

Conclusion

Grain Producers Australia Limited has applied for an emergency permit for the use of chlorantraniliprole on sorghum and millet, for the control of fall armyworm.

Comment is sought on the potential for the proposed use to cause undue risk to Australian trade of sorghum and millet and the ability of industry to manage any potential trade risk.