Australian Government

Australian Pesticides and Veterinary Medicines Authority

Trade Advice Notice

on chlorantraniliprole in the product Vantacor® Insecticide for use on cereal crops

APVMA product number 89966

July 2025

ISSN 2200-3894 (electronic)

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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 Australian Pesticides and Veterinary Medicines Authority (APVMA) is considering an application to vary the use of an existing registered 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 to vary the registration of Vantacor® 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 21 August 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

PO 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 Australian Pesticides and Veterinary Medicines Authority (APVMA) has before it an application from FMC Australasia Pty Ltd, to vary the registration of Vantacor® Insecticide to extend the use to lucerne, maize (for grain and silage), popcorn, teosinte, rice, sorghum, millet and sweet corn.

Chlorantraniliprole has previously been considered for use on maize cereals, rice and sorghum/millet under various minor/emergency use permits.

The use of chlorantraniliprole in maize cereals (including maize, popcorn and teosinte) under PER91386 (06/09/2021 – 30/06/2026) allows up to two chlorantraniliprole applications at 24 – 33 g ai/ha at a minimum re-treatment interval of 7 days and with harvest and grazing withholding periods of 14 days each.

The use of chlorantraniliprole in rice under PER95824 (06/05/2025 – 31/05/2027) allows up to two foliar applications of chlorantraniliprole per rice crop at rates ranging from 33 – 54 g ai/ha with a minimum re-treatment interval of 7 days in conjunction with a harvest withholding period of 14 days and a grazing withholding period of 14 days.

The use of chlorantraniliprole in sorghum and millet under PER91616 (05/10/2021 – 31/10/2025) and sorghum for seed production only under PER94975 (12/11/2024 – 30/11/2025) permit up to two chlorantraniliprole applications at 33 – 54 g ai/ha at a minimum re-treatment interval of 7 days, in conjunction with a harvest withholding period of 14 days and a grazing withholding period of 14 days.

Chlorantraniliprole is registered for use on sweet corn under various products (for e.g. Kenso Agcare Prevaken 200 SC Insecticide, P93440). The registered use allows a maximum of three applications at 20 g chlorantraniliprole/ha, with a minimum spray interval of 7 days and harvest and grazing withholding periods of 7 days each.

Trade considerations

Commodities exported

Cereal grains (maize, rice and sorghum) are considered to be 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 commodities. Residues in these commodities resulting from the use of Vantacor® Insecticide may have the potential to unduly prejudice trade.

Destination and value of exports

Cereal grains

According to the Australian Bureau of Agricultural and Resource Economics and Statistics[2],

In 2023-24, Australian maize exports were ~86 k tonne valued at AUD 66.9 million.

In 2023-24, Australian rice exports were ~267 k tonne valued at AUD 414 million.

In 2023-24 (Apr-Mar year), Australian sorghum exports were 1876 kt, valued at AUD 886 million.

Table 1: Largest export markets by value for cereals (2023-24) (in approximate order of value)

Cereal grains	Major Destinations
Maize	South Korea, United Arab Emirates, Philippines, Papua New Guinea, Guatemala
Rice	Japan, Saudi Arabia, Israel, Jordan, United States of America
Sorghum	China, Japan, Taiwan

Beef, Sheep and pig meat and offal

The significant export markets for Australian beef, sheep, pig meat and offal are listed in the *APVMA Regulatory Guidelines – Data Guidelines: Agricultural - Overseas trade (Part 5B)*.

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

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

Proposed Australian use pattern

Table 2: Proposed use pattern

Crop	Pest	Rate/concentration	Critical comments
Rice A maximum of two (2) applications can be applied to any one crop per season. Further treatments should be made with alternative mode of action insecticides. Use enough water to ensure thorough coverage of the crop. Target a minimum of 100 L/ha by ground rig and a minimum of 30 L/ha by aircraft using a medium spray quality. Use in accordance with Crop Life Insecticide Resistance Management Strategy guidelines.			
Rice	Cotton bollworm (*Helicoverpa armigera*) Native armyworm complex (*Leucania convecta, Persectania ewingii*)	40 mL (24 g ai/ha) + non-ionic surfactant @ 125 gai/100 L	Regularly scout crops to monitor for larvae. Target sprays against larvae#. Apply as larvae reach threshold numbers. Larvae in entrenched feeding sites will not be controlled. 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.
	Fall armyworm (*Spodoptera frugiperda*)	55 or 90 mL (33 or 54 gai/ha) + non-ionic surfactant @ 125 gai/100 L	Regularly scout crops to monitor for egg masses and early stage feeding damage from neonate to 2nd instar larvae. Target hatching to 2nd instar larvae before they become entrenched in the plant whorl. 3rd instar stage larvae onwards are dangerous from a rice damage point of view. Large larvae entrenched deep in whorl will not be controlled. Use the high rate under moderate to high insect pressure and when conditions are conducive for rapid population development. Use the low rate under low and patchy insect pressure and when conditions are less conducive for rapid population development.
Maize, grain and silage Millet Sorghum, grain and forage A maximum of two (2) applications can be applied to any one crop per season. Further treatments should be made with alternative mode of action insecticides. Use enough water to ensure thorough coverage of the crop. Target a minimum of 100 L/ha – preferably 250 – 400 L/ha by ground rig and a minimum of 30 L/ha by aircraft using a medium spray quality. Vantacor® can also be applied by chemigation in these crops. Refer to “Application by chemigation” section on this label.			

Crop	Pest	Rate/concentration	Critical comments
Use in accordance with Crop Life Insecticide Resistance Management Strategy guidelines.			
Maize, grain and silage Popcorn Teosinte Millet	Corn earworm (*Helicoverpa armigera*)	By ground boomspray or aerial: By ground or aerial: 40 mL or 90 mL (24 or 54 g ai/ha) +non-ionic surfactant @ 125 gai/100L By chemigation: 40 mL or 90 mL	Regularly scout crops to monitor for larvae. Target sprays against larvae#. Apply as larvae reach threshold numbers. Larvae in entrenched feeding sites will not be controlled. #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 cobs. Use the high rate under high insect pressure on large crops at silking and cob development stage.
	Fall armyworm (*Spodoptera frugiperda*)	55 mL or 90 mL (33 or 54 gai/ha) +non-ionic surfactant @ 125 gai/100L By chemigation: 55 mL or 90 mL	Regularly scout crops to monitor for egg masses and early stage feeding damage from neonate to 2nd instar larvae. Target hatching to 2nd instar larvae before they become entrenched in the plant whorl. 3rd instar stage larvae onwards are dangerous from a maize damage point of view. Two sequential applications applied ~7 days apart perform best. Large larvae entrenched deep in whorl will not be controlled. Use the high rate under moderate to high insect pressure and when conditions are conducive for rapid population development. Use the low rate under low and patchy insect pressure and when conditions are less conducive for rapid population development.
Sorghum, grain and forage	Corn earworm (*Helicoverpa armigera*)	By ground boomspray or aerial: 40 mL (24 g ai/ha) +non-ionic surfactant @ 125 gai/100L By chemigation: 40 mL	Regularly scout crops to monitor for larvae. Target sprays against larvae#. Apply as larvae reach threshold numbers. Larvae in entrenched feeding sites will not be controlled. #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 seed heads.
	Fall armyworm (*Spodoptera frugiperda*)	By ground boomspray or aerial: 55 mL or 90 mL (33 or 54 gai/ha) +non-ionic surfactant @ 125 gai/100L By chemigation: 55 mL or 90 mL	Regularly scout crops to monitor for egg masses and early stage feeding damage from neonate to 2nd instar larvae. Target hatching to 2nd instar larvae before they become entrenched in the plant whorl. 3rd instar stage larvae onwards are dangerous from a sorghum damage point of view. Two sequential applications applied ~7 days apart perform best.

Crop	Pest	Rate/concentration	Critical comments
			Large larvae entrenched deep in whorl will not be controlled. Use the high rate under moderate to high insect pressure and when conditions are conducive for rapid population development. Use the low rate under low and patchy insect pressure and when conditions are less conducive for rapid population development.
Sweet corn A maximum of three (3) and no more than two (2) consecutive applications can be applied to any one crop per season. Further treatments should be made with alternative mode of action insecticides. Use enough water to ensure thorough coverage of the crop. Target a minimum of 100 L/ha – preferably 250 – 400 L/ha by ground rig and a minimum of 30 L/ha by aircraft using a medium spray quality. Vantacor® can also be applied by chemigation in these crops. Refer to "Application by chemigation" section on this label. Use in accordance with Crop Life Insecticide Resistance Management Strategy guidelines.			
Sweet corn	Corn earworm (*Helicoverpa armigera*)	By ground boomspray or aerial: 40 mL or 90 mL (24 or 54 g ai/ha) +non-ionic surfactant @ 125 gai/100L By chemigation: 40 mL or 90 mL	Regularly scout crops to monitor for larvae. Target sprays against larvae#. Apply as larvae reach threshold numbers. Larvae in entrenched feeding sites will not be controlled. #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 silks and cobs. Use the high rate under high insect pressure on large crops at silking and cob development stage.
	Fall armyworm (*Spodoptera frugiperda*)	By ground boomspray or aerial: 55 mL or 90 mL (33 or 54 g ai/ha) +non-ionic surfactant @ 125 gai/100L By chemigation: 55 mL or 90 mL	Regularly scout crops to monitor for egg masses and early stage feeding damage from neonate to 2nd instar larvae. Target hatching to 2nd instar larvae before they become entrenched in the plant whorl. 3rd instar stage larvae onwards are dangerous from a sweet corn damage point of view. Two sequential applications applied ~7 days apart perform best. Large larvae entrenched deep in whorl will not be controlled. Use the high rate under moderate to high insect pressure and when conditions are conducive for rapid population development. Use the low rate under low and patchy insect pressure and when conditions are less conducive for rapid population development.

Crop	Pest	Rate/concentration	Critical comments
Lucerne – Seed and hay	Cotton bollworm (*Helicoverpa armigera*) Native budworm (*Helicoverpa punctigera*)	40 mL (24 g ai/ha) + non-ionic surfactant @ 125 gai/100 L	A maximum of two (2) applications can be applied to any one crop per season. Further treatments should be made with alternative mode of action insecticides. Regularly scout crops to monitor for larvae. Target sprays against larvae#. Apply as larvae reach threshold numbers. Larvae in entrenched feeding sites will not be controlled. Use enough water to ensure thorough coverage of the crop. Target a minimum of 100 L/ha by ground rig and a minimum of 30 L/ha by aircraft. Use in accordance with Crop Life Insecticide Resistance Management Strategy guidelines. #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 flowers or pods.
	Lucerne seed web moth (*Etiella behrii*)		Regularly scout crops to monitor for moths and egg lays. Target sprays against egg lays or egg hatching. Larvae in entrenched feeding sites will not be controlled. Use enough water to ensure thorough coverage of the crop. Target a minimum of 100 L/ha by ground rig and a minimum of 30 L/ha by aircraft.
	Fall armyworm (*Spodoptera frugiperda*)	55 or 90 mL (33 or 54 gai/ha) + non-ionic surfactant @ 125 gai/100 L	Regularly scout crops to monitor for egg masses and early stage feeding damage from neonate to 2nd instar larvae. Target hatching to 2nd instar larvae before they become entrenched in flowers and pods. Use the high rate under moderate to high insect pressure and when conditions are conducive for rapid population development. Use the low rate under low and patchy insect pressure and when conditions are less conducive for rapid population development. Use in accordance with Crop Life Insecticide Resistance Management Strategy guidelines.

Withholding periods:

Harvest: DO NOT harvest for 14 days after application.

Grazing: DO NOT graze or cut for stockfood for 14 days after application.

Restraints:

DO NOT apply if heavy dew is present on crops, or if rainfall is expected within 2 hours of application.

DO NOT make more than 3 applications per Cotton crop per season, and no more than 2 consecutive sprays per field per season.

DO NOT make more than 2 applications per any other listed crops per season. Applications must be a minimum of 7 days apart.

LIVESTOCK DESTINED FOR EXPORT MARKETS

The grazing withholding period only applies to stock slaughtered for the domestic market. Some export markets apply different standards. To meet these standards, ensure that in addition to complying with the grazing withholding period, the export slaughter interval is observed before stock are sold or slaughtered.

EXPORT SLAUGHTER INTERVAL: Livestock that has grazed on or been fed treated crops should be placed on clean feed for 9 days prior to slaughter.

Trade advice:

EXPORT STATEMENT: Import tolerances for produce treated with Vantacor® 600 SC insecticide may be pending in some countries. Consult with your exporter or FMC before applying Vantacor® 600 SC to export crops.

Results from residues trials presented to the APVMA

Maize grain and silage, popcorn and teosinte

The proposed use of chlorantraniliprole in maize, popcorn and teosinte involves a maximum of two aerial, ground or chemigation applications at up to 54 g ai/ha + a non-ionic surfactant at 125 g ai/100L, in conjunction with harvest and grazing withholding periods of 14 days each.

In support of the proposed use the applicant has submitted Australian maize (4) and overseas corn (7) residue trials. Maize is the representative for popcorn and teosinte. Australian Sweet corn trials are also considered in relation to forage and fodder.

Maize grain

In the 2021-22 Australian maize trials, no quantifiable residues of chlorantraniliprole were observed in maize grain following two applications at ~1× the maximum proposed rate, at a pre-harvest interval (PHI) of 14 days <Limit of Detection (<LOD, <0.003 mg/kg; n=3) and <Limit of Quantitation (<LOQ, 0.01 mg/kg; n=4).

In the 2007 US/Canadian field corn trials, chlorantraniliprole residues in corn grain following two applications at ~2× the maximum proposed rate, at a PHI of 13 – 15 days, in rank order, were: <LOD (<0.003 mg/kg; n=5), 0.005 and 0.012 mg/kg (n=7). After converting to the maximum proposed rate, chlorantraniliprole residues in corn grain equate to: <0.003 (6) and 0.006 mg/kg (n=7).

The combined dataset for Maximum Residue Limit (MRL) estimation is, <LOD (9), 0.006 and <0.01 mg/kg (n=11). Supervised Trial Median Residue (STMR) = 0.003 mg/kg.

Based on the available information and noting that quantifiable residues are not expected in maize grain as a result of the proposed use (<0.01; n=11), the current chlorantraniliprole MRL of T*0.01 mg/kg for [GC 2091] Maize Cereals remains appropriate to cover the residues of chlorantraniliprole in maize, popcorn and teosinte grain for the proposed use in conjunction with a harvest withholding period of 14 days.

It is recommended to establish a permanent chlorantraniliprole MRL at the same limit as the current temporary MRL (TMRL) of *0.01 mg/kg for Maize cereals.

Maize forage

In the 2021-22 Australian maize trials, chlorantraniliprole residues in maize forage (dry weight) following two applications at ~1× the maximum proposed rate, at a PHI of 10-14 days, in rank order, were: 1.50, 5.30, 6.00 mg/kg (n=3). In the 2023 Australian sweet corn trials, chlorantraniliprole residues in sweet corn forage (dry weight) following two applications at ~1× the maximum proposed rate and 13 days after the last application, in rank order, were 15 and 24 mg/kg (n=2).

The combined dataset suitable for MRL estimation, in rank order, is: 1.50, 5.30, 6.00, 15 and 24 mg/kg (n=5). The OECD (Organisation of Economic Co-operation and Development) MRL calculator estimates a MRL of 50 mg/kg, noting high uncertainty due to small dataset. STMR = 6.0 mg/kg.

Based on the available information, a chlorantraniliprole MRL of 50 mg/kg for Maize cereals forage is recommended to cover chlorantraniliprole residues in maize forage as a result of the proposed use, in conjunction with a grazing withholding period of 14 days.

It is recommended that to delete the current chlorantraniliprole MRL of T10 mg/kg for Maize cereals forage and fodder.

Maize straw and fodder

In the 2021-22 Australian maize trials, chlorantraniliprole residues in maize stubble (dry weight) following two applications at ~1× the maximum proposed rate, at a PHI of 14 days, in rank order, were: 0.13, 0.14, 0.40 and 3.9 mg/kg (n=4).

In the 2007 US/Canadian field corn trials, chlorantraniliprole residues in corn stubble (dry weight) following two applications at ~2× the maximum proposed rate, at a PHI of 13 – 15 days, in rank order, were: 2.73, 5.36, 5.63, 6.79, 9.21, 9.84 and 11.07 mg/kg (n=7). After converting to the maximum proposed rate, chlorantraniliprole residues in corn stubble equate to 1.37, 2.68, 2.82, 3.40, 4.61, 4.92 and 5.54 mg/kg (n=7).

In the 2023 Australian sweet corn trials, chlorantraniliprole residues in sweet corn stubble (dry weight) following two applications at ~1× the maximum proposed rate and 14 – 15 days after the last application, in rank order, were 8.5 and 14 mg/kg (n=2).

The combined dataset for MRL estimation is 0.13, 0.40, 1.37, 1.40, 2.68, 2.82, 3.40, 3.9, 4.61, 4.92, 5.54, 8.5 and 14 mg/kg (n=13). The OECD MRL calculator estimates a MRL of 20 mg/kg. STMR = 3.40 mg/kg.

Based on the available information, a chlorantraniliprole MRL of 20 mg/kg for Maize cereals straw and fodder, dry is recommended for Maize cereals fodder to cover chlorantraniliprole residues in maize cereals fodder as a result of the proposed use, in conjunction with a grazing withholding period of 14 days.

It is recommended to delete the current chlorantraniliprole MRL of T10 mg/kg for Maize forage and fodder.

Sweet corn

The proposed use of chlorantraniliprole involves a maximum of three, and no more than two consecutive aerial, ground or chemigation applications at up to 54 g ai/ha + a non-ionic surfactant at 125 g ai/100L, in conjunction with harvest and grazing withholding periods of 14 days each.

In support of the proposed use of chlorantraniliprole in sweet corn, the applicant has submitted a study report comprising of four residue trials conducted in Australia.

Sweet corn cobs

In the 2023 Australian sweet corn trials, no quantifiable chlorantraniliprole residues were observed in whole sweet corn cobs following two applications at ~1× or ~2× the maximum proposed rate, at 7 Days after the last application (DALA) or 15 DALA (<LOD = 0.003 mg/kg; n=4).

Based on the available information, the current Chlorantraniliprole MRL of *0.01 mg/kg for [VO 0447] Sweet corn (corn-on-the-cob) remains appropriate to cover chlorantraniliprole residues in sweet corn cobs as a result of the proposed use in conjunction with a harvest withholding period of 14 days.

Sweet corn (corn-on-the-cobs) is currently classified under Crop Group 020: Cereal grains, Subgroup 020F, Sweet Corns. Therefore, it is recommended to amend the commodity code from [VO 0447] to [GC 0447] for Sweet corn (corn-on-the-cobs) in the MRL Standard.

Sweet corn straw and fodder

In the 2023 Australian sweet corn trials, chlorantraniliprole residues in sweet corn stubble (dry weight) following two applications at ~1× the maximum proposed rate and 14 – 15 days after the last application, in rank order, were 8.5 and 14 mg/kg (n=2).

In the Australian maize trials, chlorantraniliprole residues in maize stubble (dry weight) following two applications at ~1× the maximum proposed rate, at a PHI of 14 days, in rank order, were: 0.13, 0.40, 1.40 and 3.9 mg/kg (n=4).

In the US/Canadian corn trials, chlorantraniliprole residues in field corn stubble dry weight) following two applications at ~2× the maximum proposed rate, at a PHI of 13 – 15 days, in rank order, were: 2.73, 5.36, 5.63, 6.79, 9.21, 9.84 and 11.07 mg/kg (n=7). After converting to the maximum proposed rate, chlorantraniliprole residues in corn stubble equate to 1.37, 2.68, 2.82, 3.40, 4.61, 4.92 and 5.54 mg/kg (n=7).

The combined dataset for MRL estimation, in rank order, is 0.13, 0.40, 1.37, 1.40, 2.68, 2.82, 3.40, 3.9, 4.61, 4.92, 5.54, 8.5 and 14 mg/kg (n=13). The OECD MRL calculator estimates a MRL of 20 mg/kg. STMR = 3.40 mg/kg.

Based on the available information, a chlorantraniliprole MRL of 20 mg/kg for Sweet corn fodder is recommended to cover chlorantraniliprole residues arising in sweet corn fodder as a result of the proposed use in conjunction with a grazing withholding period of 14 days.

It is recommended to delete the current chlorantraniliprole MRL of T10 mg/kg for Sweet corn forage and fodder and add the recommended permanent MRL of 20 mg/kg for Sweet corn fodder.

Sweet corn forage

In the 2023 Australian sweet corn trials, chlorantraniliprole residues in sweet corn forage (dry weight) following two applications at ~1× the maximum proposed rate and 13 days after the last application, in rank order, were 15 and 24 mg/kg (n=2).

In the Australian maize trials, chlorantraniliprole residues in maize forage (dry weight) following two applications at ~1× the maximum proposed rate, at a PHI of 10-14 days, in rank order, were: 1.5, 5.3, 6.0 mg/kg (n=3).

The combined dataset for MRL estimation, in rank order, is 1.5, 5.3, 6.0, 15 and 24 mg/kg (n=5). The OECD MRL calculator estimates a MRL of 50 mg/kg. STMR = 6.0 mg/kg.

Based on the available information, a chlorantraniliprole MRL of 50 mg/kg for Sweet corn forage is recommended to cover chlorantraniliprole residues arising in sweet corn forage as a result of the proposed use in conjunction with a grazing withholding period of 14 days.

It is recommended to delete the current chlorantraniliprole MRL of T10 mg/kg for Sweet corn forage and fodder and add the recommended permanent MRL of 50 mg/kg for Sweet corn forage.

Rice

The proposed use of chlorantraniliprole in rice involves a maximum of two applications at up to 54 g ai/ha + a non-ionic surfactant at 125 g ai/100L, in conjunction with harvest and grazing withholding periods of 14 days each.

In support of the proposed use in rice, the applicant has submitted 29 rice trials, Australian (3), Brazil (8), Philippine (1) and US (17). The US trials were seed treatment trials and are not considered relevant to the proposed use pattern. However, two trials were used in a rice processing study which is considered in this evaluation.

Rice grain

In the 2020-21 Australian rice trials, chlorantraniliprole residues in rice grain following two applications at ~1× the maximum proposed rate and 12 – 14 days after the last application, in rank order, were 0.06, 0.57 and 1.80 mg/kg (n=3).

In the 2009-10 Brazilian rice trials, chlorantraniliprole residues in rice grain following a single application at ~0.55× the maximum proposed rate and 15 days PHI, in rank order were: <0.01, 0.02, 0.03, 0.10, 0.13, 0.14, 0.17 (2) mg/kg (n=8). After scaling to the maximum proposed rate, chlorantraniliprole residues in rice grain, in rank order, were: <0.01, 0.04, 0.05, 0.18, 0.24, 0.25, 0.31 (2) mg/kg (n=8).

In the 2006 Philippines trial, chlorantraniliprole residues in rice gain following three applications at ~0.74× the maximum proposed rate, at 10 days re-treatment interval and 15 days PHI, were: 0.17 mg/kg. After scaling to the maximum proposed rate, chlorantraniliprole residues were: 0.23 mg/kg (n=1).

The complete dataset suitable for MRL estimation in rank order, is, <0.01, 0.04, 0.05, 0.06, 0.18, 0.23, 0.24, 0.25, 0.31 (2), 0.57 and 1.80 mg/kg (n=12). The OECD MRL calculator estimates a MRL of 3 mg/kg. STMR = 0.24 mg/kg.

Based on the available information, the chlorantraniliprole MRL of T3 mg/kg for [GC 0649] Rice recommended for permit 95824/147293 should be replaced with a permanent MRL at 3 mg/kg in conjunction with a harvest withholding period of 14 days.

Rice forage

According to the OECD feed calculator, rice forage is not considered an animal feed in Australia. However, considering a worst-case scenario and consistent with the current MRLs, a Table 4 entry is considered here for rice forage.

In the 2020-21 Australian rice trials, chlorantraniliprole residues in rice forage (dry weight) following one application at ~1× the maximum proposed rate and 7 days PHI, in rank order, were 1.0, 2.0 and 3.2 mg/kg (n=3).

The OECD MRL calculator estimates a MRL of 7 mg/kg, noting high uncertainty of MRL estimate due to small dataset. STMR = 2.0 mg/kg.

Based on the available information and noting the limited data availability (a single chlorantraniliprole application at 7 days PHI), a chlorantraniliprole MRL of 15 mg/kg for Rice forage is recommended (in line with rice straw and fodder below) to cover chlorantraniliprole residues arising in rice forage as a result of the proposed use in conjunction with a grazing withholding period of 14 days.

Rice straw and fodder

In the 2020-21 Australian rice trials, chlorantraniliprole residues in rice straw (dry weight) following two applications at ~1× the maximum proposed rate and 12 – 14 days after the last application, in rank order, were 2.1, 6.3 and 7.2 mg/kg (n=3). The OECD MRL calculator estimates a MRL of 20 mg/kg, noting high uncertainty due to small dataset. STMR = 6.3 mg/kg. The OECD MRL calculator estimates an unrounded MRL of 16 mg/kg.

Based on the available information, a chlorantraniliprole MRL of 15 mg/kg for [AS 0649] Rice straw and fodder, dry is recommended to cover chlorantraniliprole residues arising in rice straw and fodder in conjunction with a grazing withholding period of 14 days.

It is recommended to delete the current chlorantraniliprole TMRL of 10 mg/kg for [AS 0649] Rice straw and fodder, dry.

Rice processing

Based on the highest residue (HR) in rice grain at 1.8 mg/kg and the highest processing factor (PF) of 2.5× in rice bran determined in the USA residues study, the HR-P in rice bran is calculated to be 4.5 mg/kg. The STMR-P is 0.24 mg/kg × 2.5 = 0.6 mg/kg. The current chlorantraniliprole MRL at T5 mg/kg remains appropriate for [CM 1206] Rice bran, unprocessed as recommended for permit 95824/147293.

It is recommended to replace the TMRL with a permanent MRL at the same limit.

Based on the HR of 1.8 mg/kg in the rice grain and the highest PF of 5.3× in rice hulls determined in the USA residues study, the HR-P in rice hulls is calculated to be 9.54 mg/kg.

In the 2020-21 Australian rice trials, chlorantraniliprole residues in rice hulls following two applications at ~1× the maximum proposed rate and 12 – 14 days after the last application, in rank order, were 5.1 and 12 mg/kg (n=2).

Based on the available information, a chlorantraniliprole MRL of 15 mg/kg for Rice hulls is recommended to cover chlorantraniliprole residues in rice hulls as a result of the proposed use in conjunction with a harvest withholding period of 14 days.

It is recommended to delete the current chlorantraniliprole MRL of T10 mg/kg for Rice hulls.

Sorghum and millet

The proposed use of chlorantraniliprole in sorghum and millet involves a maximum of two aerial, ground or chemigation applications at up to 54 g ai/ha + a non-ionic surfactant at 125 g ai/100L, in conjunction with harvest and grazing withholding periods of 14 days each.

In support of the proposed use of chlorantraniliprole in sorghum and millet, the applicant has submitted four Australian sorghum trials and three US sorghum trials. It is noted that sorghum is the representative crop for millet.

Sorghum grain

In the 2020-21 Australian sorghum trials, chlorantraniliprole residues in sorghum grain following two applications at ~1× the maximum proposed rate and 15 days after the last application were 0.50 mg/kg (n=1).

In the 2021-22 Australian sorghum trials, chlorantraniliprole residues in sorghum grain following two applications at ~1× the maximum proposed rate and 14 days after the last application were 0.29 mg/kg (n=1).

In the 2009 US trials, chlorantraniliprole residues in sorghum grain following two applications at ~2× the maximum proposed rate, at 1 day PHI, in rank order, were: 0.83, 1.21, 1.52 mg/kg (n=3). After converting to the maximum proposed rate, chlorantraniliprole residues in sorghum grain were: 0.42, 0.61 and 0.76 mg/kg (n=3).

The combined dataset suitable for MRL estimation, in rank order, is: 0.29, 0.42, 0.50, 0.61 and 0.76 mg/kg (n=5). The OECD MRL calculator estimates a MRL of 1.5 mg/kg. STMR = 0.50 mg/kg.

Based on the available information, a chlorantraniliprole MRL of 1.5 mg/kg for [GC 2089] Sorghum grain and millet is recommended to cover chlorantraniliprole residues in sorghum and millet grain arising as a result of the proposed use in conjunction with a harvest withholding period of 14 days.

It is recommended to delete the current chlorantraniliprole TMRL of 1 mg/kg for [GC 2089] Sorghum grain and millet and establish a permanent MRL at 1.5 mg/kg for [GC 2089] Sorghum grain and millet.

Sorghum straw and fodder

In the 2020-21 and 2021-22 Australian trials, a gradual decline in chlorantraniliprole residues was observed in sorghum stubble at all three treatment levels.

In the 2020-21 Australian sorghum trials, chlorantraniliprole residues in sorghum stubble (dry weight) following two applications at ~1× the maximum proposed rate and 15 days after the last application were 7.9 mg/kg (n=1).

In the 2021-22 Australian sorghum trials, chlorantraniliprole residues in sorghum stubble (dry weight) following two applications at ~1× the maximum proposed rate and 14 days after the last application were 0.28 mg/kg (n=1).

In the 2009 US trials, chlorantraniliprole residues in sorghum stover (15-20% moisture content) following two applications at ~2× the maximum proposed rate, at 1 day PHI, in rank order, were: 3.57, 4.77 and 6.90 mg/kg (n=3). After scaling to the maximum proposed rate, chlorantraniliprole residues in sorghum stover were: 1.79, 2.39, 3.45 mg/kg. After scaling to dry weight, using 20% moisture content, chlorantraniliprole residues in sorghum stover equate to 2.23, 2.98 and 4.31 mg/kg (n=3).

The combined dataset suitable for MRL estimation, in rank order, is: 0.28, 2.23, 2.98, 4.31 and 7.9 mg/kg (n=5). The OECD MRL calculator estimates a MRL of 15 mg/kg. STMR = 2.98 mg/kg.

Based on the available information, the current chlorantraniliprole MRL of T15 mg/kg remains appropriate for Sorghum and millet forage and fodder to cover chlorantraniliprole residues arising in sorghum and millet forage and fodder as a result of proposed use in conjunction with a grazing withholding period of 14 days.

Sorghum forage

In the 2020-21 and 2021-22 Australian trials, a gradual decline in chlorantraniliprole residues in forage samples was observed at all treatment levels except for T16 (2× 106.0 g ai/ha) in Trial S20-06941-02, chlorantraniliprole residues declined from 12 mg/kg (0 DALA) to 1.9 mg/kg (15 DALA), however, increased to 4.9 mg/kg at 25 DALA.

In the 2020-21 Australian sorghum trials, chlorantraniliprole residues in sorghum forage (dry weight) following two applications at ~1× the maximum proposed rate and 13 or 14 days after the last application, in rank order, were 5.3 and 6.0 mg/kg (n=2).

In the 2021-22 Australian sorghum trials, chlorantraniliprole residues in sorghum forage (dry weight) following applications at ~1× the maximum proposed rate and 14 or 15 days after the last application, in rank order, were 1.2 and 3.4 mg/kg (n=2).

In the 2009 US trials, chlorantraniliprole residues in sorghum forage following two applications at ~2× the maximum proposed rate, at 1 day PHI, in rank order, were: 2.95, 3.53 and 4.72 mg/kg (n=3). After scaling to the maximum proposed rate, chlorantraniliprole residues in sorghum stover were: 1.48, 1.77 and 2.36 mg/kg. According to the OECD feed calculator, sorghum forage comprises 35% of dry matter. After scaling to dry weight, chlorantraniliprole residues in sorghum stover equate to 4.23, 5.06 and 6.74 mg/kg (n=3).

The combined dataset for MRL estimation, in rank order, is: 1.2, 3.4, 4.23, 5.06, 5.3, 6.0 and 6.74 mg/kg (n=7). The OECD MRL calculator estimates a MRL of 15 mg/kg. STMR = 5.06 mg/kg.

Based on the available information, the current chlorantraniliprole MRL of T15 mg/kg remains appropriate for Sorghum and millet forage and fodder to cover chlorantraniliprole residues arising in sorghum and millet forage and fodder as a result of proposed use in conjunction with a grazing withholding period of 14 days.

It is recommended to establish a permanent chlorantraniliprole MRL at the same limit as the current TMRL of 15 mg/kg for Sorghum and millet forage and fodder.

Lucerne

The proposed use of chlorantraniliprole in lucerne involves a maximum of two applications at up to 54 g ai/ha + a non-ionic surfactant at 125 g ai/100L, in conjunction with harvest and grazing withholding periods of 14 days each. It is noted that lucerne seed is not considered to be a human food and there are no current Table 1 entries in the MRL standard. The intention also does not appear to be to harvest alfalfa sprouts (VL 1020). The harvest withholding period is not considered to apply to lucerne.

In support of the proposed use, the applicant has submitted two reverse decline lucerne trials conducted in Australia. Two residue trials on lucerne are not sufficient to establish a MRL in lucerne. Therefore, previously submitted pulse forage and fodder data is considered here as supporting data.

In the 2021-22 Australian lucerne trials, following two applications at ~1× the maximum proposed rate, chlorantraniliprole residues in lucerne forage at 13 DALA, in rank order, were: 5.4 and 8.1 mg/kg (n=2).

In the 2021-22 Australian lucerne trials, following two applications at ~1× the proposed rate, chlorantraniliprole residues in lucerne stubble at 14 or 16 DALA (or later if higher residues were observed), in rank order, were: 5.4 and 8.6 mg/kg (n=2).

In the previously considered Australian faba bean and field pea trials, chlorantraniliprole residues in hay/ fodder (dry weight) after two applications at approximately ~1× the maximum proposed rate at 14-15 DALA were, in rank order: 0.08, 0.13, 0.14, 0.18 and 0.21 (2) mg/kg (n=6).

In the previously considered Australian chickpea, mungbean and soyabean trials, chlorantraniliprole residues in trash (dry weight) after two applications at approximately ~1× the maximum proposed rate at 14 DALA were, in rank order: 0.53, 0.82, 0.90, 1.72, 1.81, 2.03, 2.74, 3.33, 8.25 and 10.5 mg/kg (n=10).

It is noted that the residue potential of chlorantraniliprole in lucerne forage is similar to stubble. Due to limited lucerne forage and fodder data, the available pulse hay/fodder/trash data is considered suitable for this assessment.

The combined dataset suitable for MRL estimation, in rank order, is: 0.08, 0.13, 0.14, 0.18, 0.21 (2), 0.53, 0.82, 0.90, 1.72, 1.81, 2.03, 2.74, 3.33, 5.4 (2), 8.1, 8.25, 8.6 and 10.5 mg/kg (n=20). The MRL calculator estimates a MRL of 20 mg/kg (STMR = 1.76 mg/kg).

Based on the available information it is recommended to amend the current Chlorantraniliprole MRL of T10 mg/kg for Mixed pastures (leguminous/grasses) to 20 mg/kg to cover chlorantraniliprole residues arising in lucerne forage and fodder as a result of the proposed use in conjunction with a grazing withholding period of 14 days.

Residues in animal commodities

Mammalian livestock burden

According to the APVMA stock feed guidelines, grass and legume pasture (Lucerne), cereal grains, cereal forage and fodder and oilseed forage may comprise up to 100% of the diet of Australian cattle. However, according to the OECD feed calculator, lucerne, maize/corn forage and sweet corn forage comprise up to 60%, 80% and 40% of the diet of Australian dairy cattle, respectively.

Table 3: The maximum dietary burdens calculated using the OECD livestock feed calculator for beef cattle

Beef cattle – for MRLs							
Commodity	CC	Residue (mg/kg)	Basis	DM (%)	Residue dw (mg/kg)	AU diet content (%)	AU residue contribution (ppm)
AU							
Maize field forage/silage	AF/AS	24	HR	100	24.0	100	24.0
Total						100	24.0

Table 4: The maximum dietary burdens calculated using the OECD livestock feed calculator for dairy cattle

Dairy cattle – for MRLs							
Commodity	CC	Residue (mg/kg)	Basis	DM (%)	Residue dw (mg/kg)	AU diet content (%)	AU residue contribution (ppm)
Maize/corn, field forage/silage	AF/AS	24	HR	100	24.0	80	19.2
Alfalfa forge	AL	10.5	HR	100	10.5	20	2.1
Total						100	21.3

In the submitted dairy cattle transfer study, the relationship between feeding level and residues was linear for tissues, fat, milk and cream. Calculated residues of chlorantraniliprole in animal tissues for the new maximum feeding level of 24.0 ppm for beef cattle and 21.3 ppm for dairy cattle are shown in the tables below.

Table 5: Required mammalian commodity MRLs – Beef cattle

Tissue	Linear Equation relating residues as a function of feeding level	Calculated residue (mg/kg) (based on 24.0 ppm feeding level from consuming only maize forage	Current MRL in the MRL Standard	Proposed MRL
Liver	y = 0.0026x + 0.0023	0.0647	0.02	0.1
Kidney	y = 0.0013x + 0.0028	0.034	0.02	
Muscle	y = 0.0004x + 0.0016	0.0112	0.02	No change
Fat	y = 0.0028x + 0.0006	0.0678	0.02	0.1

Table 6: Required mammalian commodity MRLs – Dairy cattle

Tissue	Linear Equation relating residues as a function of feeding level	Calculated residue (mg/kg) (based on 21.3 ppm feeding level from consuming maize and lucerne forage	Current MRL in the MRL Standard	Proposed MRL
Whole milk	y = 0.0013x + 0.0028	0.030	0.02	0.05
Skim milk	y = 0.0011x + 0.0017	-	-	-
Cream	y = 0.0034x + 0.0046	0.077	0.1	0.2

The calculated maximum level of chlorantraniliprole in milk fat is 0.22 mg/kg based on the residue for chlorantraniliprole in cream and assuming a 35% fat content.

The calculated maximum chlorantraniliprole residues in milk fats at 0.22 mg/kg present a worse-case scenario and chlorantraniliprole residues in milk fats are not expected to exceed the proposed chlorantraniliprole MRL of 0.2 mg/kg for Milk fats, because:

- Chlorantraniliprole treated lucerne and maize/sweet corn forage is unlikely to be fed to dairy cattle at the same time.
- bulking and blending of milk for pasteurising and processing will also potentially reduce chlorantraniliprole residues in milk fats; and
- the animal transfer study also presents worst-case scenario, where the animals were dosed with chlorantraniliprole daily for 28 days. Following a 14-day grazing withholding period after the last treatment, it is expected that chlorantraniliprole residues will decline in forage. Additionally, the depuration study demonstrated that 1 day post dosing at 50 mg/kg, total chlorantraniliprole residues

in milk were 0.048 mg/kg and no quantifiable chlorantraniliprole residues were detected in milk at 3 days after the chlorantraniliprole feeding ceased.

The data indicates that chlorantraniliprole residues may exceed the currently established mammalian commodity (offal, fat, milk and milk fats) MRLs as a result of the proposed use. It is therefore recommended to amend the mammalian commodity MRLs as follows:

[MO 0105] Edible offal (mammalian)	0.1 mg/kg
[MM 0095] Meat (mammalian) [in the fat]	0.1 mg/kg
[ML 0106] Milks	0.05 mg/kg
[FM 0183] Milk fats	0.2 mg/kg

The lactating cow study demonstrated that no quantifiable residues were observed in the animal tissue following a 9-day depuration period after feeding at 50 ppm. The recommended 9-day ESI will ensure there are no detectable residues in animal tissues for export.

Poultry livestock burden

According to the APVMA poultry feed guidelines, grains from rice, maize/corn and sorghum may comprise 100% and oilseed grains may comprise 30% of the diet of poultry. Processed grain fractions (excluding grain dust) may form up to 20% of the diet of poultry.

The estimated maximum dietary burdens for Australian poultry as a result of the proposed uses is calculated as 0.5 mg/kg. A feeding study involving dosing at 4.8 ppm indicates current chlorantraniliprole residues in poultry commodities remains appropriate as a result of the proposed use. The risk to trade in poultry is the same as previously considered acceptable.

Overseas registration and approved label instructions

The applicant indicated that chlorantraniliprole is registered in many countries for many crops and different pests. Various label extensions are pending around the world for a variety of extensions and new uses.

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. Chlorantraniliprole has been considered by Codex. The following relevant Codex CXLs and international MRLs have been established for chlorantraniliprole.

Table 7: Current and proposed Australian and overseas MRLs/tolerances for chlorantraniliprole

Commodity	Tolerance for residues arising from the use of chlorantraniliprole (mg/kg)							
	Australia[3]	Codex[4]	EU[5]	China[6]	Japan[7]	South Korea[8]	Taiwan[9]	USA[10]
Residue Definition	Commodities of plant origin and commodities of animal origin other than milk: chlorantraniliprole Milk: sum of chlorantraniliprole, 3-bromo-N-[4-chloro-2-(hydroxymethyl)-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-	Chlorantraniliprole	Chlorantraniliprole	Chlorantraniliprole	Chlorantraniliprole	-	-	Chlorantraniliprole

[3] Australian MRL Standard, accessed May 2025

[4] Food and Agriculture Organisation of the United Nations, Codex Alimentarius - International Food Standards, accessed May 2025.

[5] European Commission Pesticide residue(s) and maximum residue levels (mg/kg), accessed May 2025

[6] USDA - National Food Safety Standard for MRL – 03-27-2023, accessed May 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 May 2025

[8] Ministry of Food and Drug Safety Korea, MRLs in Pesticides, accessed May 2025

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

[10] Code of Federal Regulations (eCFR)- USA National Archives accessed May 2025

Commodity	Tolerance for residues arising from the use of chlorantraniliprole (mg/kg)							
	Australia[3]	Codex[4]	EU[5]	China[6]	Japan[7]	South Korea[8]	Taiwan[9]	USA[10]
	carboxamide, and 3-bromo-N-[4-chloro-2-(hydroxymethyl)-6-[[(hydroxymethyl)amino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, expressed as chlorantraniliprole							
Maize	T*0.01 (CURRENT) *0.01 (PROPOSED)	0.02 (Cereal grains)	0.02	0.02	0.6 (maize, including popcorn and sweet corn)	0.05 (corn)	0.02 (other cereal and crops except sorghum)	0.04
Rice	T3 (CURRENT) 3 (PROPOSED)	0.02 (Cereal grains)	0.4 (rice)	-	0.05 (brown rice)	0.5	0.1	0.15
Sorghum and millet	Sorghum grain and millet T1 (current) 1.5 (PROPOSED)	0.02 (Cereal grains)	0.02 (sorghum, millet)	-	6 (other cereal grains)	3.0 (sorghum) 0.05 (millet)	4.0 (sorghum)	6.0 (Grain, cereal, except rice and corn, group 15)
Edible offal (mammalian)	0.02 (CURRENT) 0.1 (PROPOSED)	0.2	0.2	-	0.3 (liver) 0.2 (kidney) 0.2 edible offal	-	0.07 (except kidney) 0.05 (kidney)	0.5
Meat (mammalian) [in the fat]	0.02 (CURRENT) 0.1 (PROPOSED)	0.2 (meat) 0.2 (fat)	0.03 (muscle) 0.2 (fat)	-	0.2 (muscle) 0.3 (fat)	-	0.02 (muscle) 0.08 (fat)	0.5 (cattle fat) 0.1 (cattle meat)

Commodity	Tolerance for residues arising from the use of chlorantraniliprole (mg/kg)							
	Australia[3]	Codex[4]	EU[5]	China[6]	Japan[7]	South Korea[8]	Taiwan[9]	USA[10]
Milk	0.02 (CURRENT) 0.05 (PROPOSED)	0.05	0.05	-	0.05	-	0.02	0.1
Milk fats	0.1 (CURRENT) 0.2 (PROPOSED)	0.2	-	-	-	-	-	-

Current and proposed Australian MRLs for chlorantraniliprole

Table 8: Current MRL Standard – Table1

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
PO 0111	Poultry, edible offal of	*0.01
GC 0649	Rice	T3
CM 1206	Rice bran, unprocessed	T5
GC 2089	Sorghum grain and millet	T1
VO 0447	Sweet corn (corn-on-the-cob)	*0.01

Table 9: Current MRL Standard – Table 4

Compound	Animal Feed Commodity	MRL (mg/kg)
Chlorantraniliprole		
	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
	Rice hulls	T10
AS 0649	Rice straw and fodder, dry	T10
	Sorghum grain and millet forage and fodder	T15

Compound	Animal Feed Commodity	MRL (mg/kg)
	Sweet corn forage and fodder	T10

Table 10: Proposed MRL Standard – Table1

Compound	Food	MRL (mg/kg)
Chlorantraniliprole		
Delete:		
MO 0105	Edible offal (mammalian)	0.02
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
GC 0649	Rice	T3
CM 1206	Rice bran, unprocessed	T5
GC 2089	Sorghum grain and millet	T1
ADD:		
MO 0105	Edible offal (mammalian)	0.1
GC 2091	Maize cereals	*0.01
MM 0095	Meat (mammalian) [in the fat]	0.1
ML 0106	Milks	0.05
FM 0183	Milk fats	0.2
GC 0649	Rice	3
CM 1206	Rice bran, unprocessed	5
GC 2089	Sorghum grain and millet	1.5

Table 11: Proposed MRL Standard – Table 4

Compound	Animal Feed Commodity	MRL (mg/kg)
Chlorantraniliprole		
DELETE:		
	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
	Rice hulls	T10
AS 0649	Rice straw and fodder, dry	T10
	Sorghum grain and millet forage and fodder	T15
	Sweet corn forage and fodder	T10
ADD:		
	Maize cereals forage	50
	Maize cereals straw and fodder, dry	20
	Mixed pastures (leguminous/grasses)	20
	Primary feed commodities {except Legume animal feeds; Maize cereals forage; Maize cereals straw and fodder, dry; Mixed pastures (leguminous/grasses); Oilseeds forage and fodder; Quinoa forage; Quinoa straw and fodder, dry; Rice forage, Rice straw and fodder, dry; Sorghum grain and millet forage and fodder; Sweet corn forage; Sweet corn fodder}	0.5
	Rice hulls	15
	Rice forage	15
	Rice straw and fodder, dry	15
	Sorghum grain and millet forage and fodder	15
	Sweet corn forage	50
	Sweet corn fodder	20

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.

No quantifiable chlorantraniliprole residues are expected in maize grain as a result of the proposed use. Chlorantraniliprole MRL for maize is proposed at LOQ (*0.01 mg/kg). Overseas chlorantraniliprole MRLs in maize are established at higher than proposed levels for the international export markets and there is no significant risk to trade arising from the proposed use in maize.

The proposed chlorantraniliprole MRL for rice is higher than established by the EU, South Korea and Codex. Therefore, the risk to trade arising from the proposed use is potentially significant in these markets or in markets were lower or no chlorantraniliprole MRLs for rice have been established. It is noted that the proposed rice MRL is at the same level as the temporary MRL recommended for permit 95824/147293 which was approved after a trade consultation. Comment is sought from industry groups on the risk to trade in rice from the proposed uses.

The proposed chlorantraniliprole MRL of 1.5 mg/kg for sorghum grain is higher than the overseas MRLs established by Codex and the EU at *0.02 mg/kg. Japan and the US have established chlorantraniliprole MRLs for sorghum at 6 mg/kg. Taiwan and South Korea have established chlorantraniliprole MRLs for sorghum at 4 mg/kg and 3 mg/kg respectively. Therefore, the risk to trade arising from the proposed use is potentially significant in the other major market China where no chlorantraniliprole MRL for sorghum has been established. Comment is sought from industry groups on the risk to trade in sorghum from the proposed uses.

The proposed chlorantraniliprole milk MRL of 0.05 mg/kg is equivalent to or lower than that established by the Codex, EU, Japan and the US (0.1 mg/kg) and higher than the milk MRL established by Taiwan at 0.02 mg/kg. Internationally, only Codex has established chlorantraniliprole MRL for milk fats at 0.2 mg/kg which is equivalent to the proposed milk fats MRL.

The proposed animal commodity MRLs are equivalent or lower than those established by the Codex, EU, Japan and US. China and Korea have not established animal commodity MRLs for chlorantraniliprole. In the absence of an established MRL some Asian markets use default MRL of 0.01 mg/kg. However, it is worth noting that the current Australian chlorantraniliprole MRLs for animal commodities are established at finite limits. The Australian chlorantraniliprole residue definition for milk is, '*sum of chlorantraniliprole, IN-K9T00 and IN-HXH44 expressed as chlorantraniliprole'*, whereas internationally it is parent chlorantraniliprole only.

In a lactating cow study, no quantifiable chlorantraniliprole residues were observed in animal tissues following a 9-day depuration period after feeding at 50 ppm. For the livestock destined for export markets that do not have established animal commodity MRLs or default to 0.01 mg/kg in the absence of a MRL, a 9 day export slaughter interval is considered appropriate to mitigate the trade risk in animal commodities other than milk products.

The applicant has the following trade advice notice on the current and proposed label which is considered acceptable.

Trade advice information:

EXPORT STATEMENT: Import tolerances for produce treated with Vantacor® 600 SC insecticide may be pending in some countries. Consult with your exporter or FMC before applying Vantacor® 600 SC to export crops.

Conclusion

FMC Australasia Pty Ltd have applied to vary the registration of Vantacor® Insecticide which contains chlorantraniliprole as the only active constituents to extend the use to lucerne, maize (for grain and silage), popcorn, teosinte, rice, sorghum and millet and sweet corn.

Comment is sought from relevant industry groups on the potential risk to trade of maize, rice, sorghum and millet and animal commodities and the ability of industry to manage any potential trade risk.