



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



**Trade Advice Notice**

on azoxystrobin and tebuconazole in the product Veritas Opti Fungicide for use on  
adzuki beans, mung beans and navy beans

APVMA product number 89698

February 2021

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## Contents

|   |          |
|---|----------|
| <b>Preface</b>  | <b>1</b> |
| <b>About this document</b>  | <b>1</b> |
| <b>Making a submission</b>  | <b>1</b> |
| <b>Further information</b>  | <b>2</b> |
| <b>Introduction</b>   | <b>3</b> |
| <b>Trade considerations</b>   | <b>3</b> |
| <b>Commodities exported</b>   | <b>3</b> |
| <b>Destination and value of exports</b>                                       | <b>3</b> |
| <b>Proposed Australian use pattern</b>  | <b>4</b> |
| <b>Results from residues trials presented to the APVMA</b>                    | <b>5</b> |
| Azoxystrobin  | 5        |
| Tebuconazole  | 6        |
| <b>Codex Alimentarius Commission and overseas MRLs</b>                        | <b>6</b> |
| <b>Current and proposed Australian MRLs for azoxystrobin and tebuconazole</b> | <b>8</b> |
| <b>Potential risk to trade</b>  | <b>9</b> |
| <b>Conclusion</b>   | <b>9</b> |

## List of tables

|  |   |
|--|---|
| Table 1: Major export markets for Australian pulse crops   | 4 |
| Table 2: Proposed new use pattern: Veritas Opti Fungicide containing 222 g/L azoxystrobin and 370 g/L tebuconazole | 4 |
| Table 3: Current and proposed Australian and overseas MRLs/tolerances for azoxystrobin                             | 7 |
| Table 4: Current and proposed Australian and overseas MRLs/tolerances for tebuconazole                             | 7 |
| Table 5: Current MRL Standard – Table1 azoxystrobin  | 8 |
| Table 6: Current MRL Standard – Table1 tebuconazole  | 8 |
| Table 7: Current MRL Standard – Table4   | 8 |



## 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 to vary the use of an existing registered agricultural or veterinary 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 Veritas Opti Fungicide 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 26 February 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  
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## 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](http://apvma.gov.au).

## Introduction

Adama Australia Pty Limited has applied for approval of a new product Veritas Opti Fungicide (containing 222 g/L azoxystrobin and 370 g/L tebuconazole) for use on mung beans, adzuki beans and navy beans for the control of powdery mildew. Veritas Opti Fungicide is a high load formulation compared to the currently registered referenced product Veritas Fungicide (P82348).

Veritas Fungicide is registered for use on barley, wheat, canola, peanuts and on specified pulses (chickpeas, vetch, faba beans, broad beans, lupins, lentils and field peas) with use patterns equivalent to those registered uses are proposed for the new product label. For the current application, new uses on adzuki beans, mung beans and navy beans are proposed as these pulse crops are not specified on Veritas Fungicide label.

The new uses of azoxystrobin and tebuconazole on adzuki beans, mung beans and navy beans will be discussed in this Trade Advice Notice.

## Trade considerations

### Commodities exported

Mung beans and navy beans are considered to be major export commodities<sup>1</sup>, as are commodities of animal origin, such as meat, offal and dairy products, which may be derived from livestock fed feeds produced from treated mung beans, adzuki beans and navy beans forage and/or stubble. Residues in these commodities resulting from the use of Veritas Opti Fungicide may have the potential to unduly prejudice trade.

As the mammalian and poultry dietary burdens from consumption of forage, fodder/stubble or grain derived from treated mung beans, adzuki beans and navy beans is estimated to be no greater than previously considered, no changes are required to the established animal commodity maximum residue limits (MRLs) for azoxystrobin and tebuconazole. The risk to trade in animal commodities remain unchanged for azoxystrobin and tebuconazole and does not require further consideration.

### Destination and value of exports

The total exports for Australian mung beans for 2018 to 2019 was ~46,000 tonnes. The major export destinations for Australian mung beans in 2018 to 2019 were Vietnam and China followed by Indonesia, the Philippines, India, Sri Lanka and Taiwan<sup>2</sup>. Total pulse exports were valued at \$1.026 billion, in 2018 to 2019, with the most significant export commodities being chickpeas (336 kt, \$282 million), lupins (288 kt, \$157 million) and field peas (82.8 kt, \$48.6 million) (ABARES). Major export markets for Australian pulse crops are presented in Table 1.

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<sup>1</sup> Australian Pesticides and Veterinary Medicines Authority, [APVMA Regulatory Guidelines—Data Guidelines: Agricultural—Overseas trade \(Part 5B\)](#), APVMA website, 20 July 2020, accessed 22 January 2021

<sup>2</sup> Personal Communication – Australian Mungbean Association

**Table 1: Major export markets for Australian pulse crops**

| Crop       | Major destinations  |
|------------|---|
| Beans, dry | Saudi Arabia, Sri Lanka, Egypt, Philippines                       |
| Chickpeas  | Bangladesh, India, Pakistan, United Arab Emirates, United Kingdom |
| Faba beans | Middle East, Southern Europe, Southeast Asia                      |
| Lentils    | Pakistan, Sri Lanka, Bangladesh, Egypt                            |
| Mung beans | India, Indonesia, Sri Lanka, Thailand, Vietnam                    |
| Peas, dry  | India, Malaysia, Sri Lanka, Bangladesh                            |

## Proposed Australian use pattern

**Table 2: Proposed new use pattern: Veritas Opti Fungicide containing 222 g/L azoxystrobin and 370 g/L tebuconazole**

| Crop                                    | Pest  | Rate/concentration   | Critical comments   |
|---|---|--|---|
| Adzuki beans, mung beans and navy beans | Powdery Mildew ( <i>Erysiphe polygoni</i> or <i>Podosphaera xanthii</i> ) | 160 mL to 320 mL<br>Up to 71g ai/ha azoxystrobin and up to 118g ai/ha tebuconazole | Apply at the first sign of disease or when conditions favour disease development. Use the higher rate of VERITAS® OPTI if conditions favour infection and/or if the crop canopy is dense.<br><br>Apply up to three applications per season on a 10 to 14 day interval. Ensure thorough coverage of all foliage to achieve good control. |

RESTRAINTS: DO NOT apply more than 1.08 L/ha of VERITAS® OPTI per season to pulses.

Withholding periods:

Harvest: DO NOT HARVEST GRAIN FOR 4 WEEKS AFTER APPLICATION.

Grazing: DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 4 WEEKS AFTER APPLICATION.

### APPLICATION

In each situation, use a spray volume to ensure good coverage for the canopy size and crop growth stage. Where a spray volume range is recommended, use the higher volume in the range to improve coverage and efficacy, particularly at later growth stages and with dense crop canopies.

### Ground

Apply product using a spray volume of 70 to 100 L/ha and a MEDIUM spray quality as defined by the ASABE S572 Standard.

## Aerial

Aircraft should fly as low as possible under the prevailing conditions to minimise drift. Aerial application MUST BE carried out with closed mixing/loading. Apply product using a minimum spray volume of 20 L/ha and a MEDIUM spray quality as defined by the ASABE S572 Standard.

## SPRAY DRIFT RESTRAINTS

DO NOT apply with spray droplets smaller than a MEDIUM spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the BCPC Guideline.

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour as measured at the application site.

DO NOT apply during surface temperature inversion conditions at the application site.

Trade advice: MRLs or import tolerances do not exist in all markets for produce treated with VERITAS<sup>®</sup> OPTI, or livestock that have been grazing on treated crops. If you are growing produce or grazing livestock destined for export, please consult with Adama Australia for the latest information on MRLs and import tolerances before using VERITAS<sup>®</sup> OPTI.

## Results from residues trials presented to the APVMA

For the current assessment, new uses on the additional pulse crops of adzuki beans, mung beans and navy beans that are not currently registered on the Veritas Fungicide label are proposed. The proposed application rates for adzuki beans, mung beans and navy beans are lower (0.6x) than the maximum registered rates on chickpeas, vetch, faba beans, broad beans, lupins, lentils and field peas. One new residue trial on mung bean grain is available in addition to relevant pulse data which was previously considered for Veritas Fungicide<sup>3</sup>.

No changes are recommended to the current Table 4 entries for animal commodity MRLs with the associated use therefore residues aspects relating to animal feeds and animal commodity MRLs are not considered here.

## Azoxystrobin

Residues of azoxystrobin in mung beans following 2 foliar applications at a rate of 72 g ai/ha was 0.16 mg/kg at a 28 day PHI. The combined data set for azoxystrobin in pulse grain including the new mung bean trial together with the previously considered data for chickpea (5), faba bean (2) and lentils (2) scaled to the proposed rate of 71 g ai/ha suitable for MRL determination is <0.01, 0.01, 0.03, 0.04, 0.05, 0.06, 0.06, 0.07 and 0.16 mg/kg. The OECD MRL calculator recommends an MRL of 0.3 mg/kg, the Supervised Trial Median Residue (STMR) is 0.05 mg/kg.

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<sup>3</sup> Australian Pesticides and Veterinary Medicines Authority. [Trade Advice Notice on Azoxystrobin and Tebuconazole in the Product Veritas Fungicide for use on Canola and Pulses](#), Published 3 September 2018, accessed 20 January 2021

Based on the available information, the current group MRL for pulses (VD 0070) established at 0.3 mg/kg remain appropriate including new uses on mung beans, adzuki beans and navy beans in conjunction with a 4 weeks harvest WHP.

### Tebuconazole

In total, 15 relevant Australian tebuconazole trials on pulses [chickpeas (5), faba beans (1), lentils (2), mung beans (3), soya beans (4)] are available in addition to 5 overseas trials (on dry peas and beans).

The combined data set for tebuconazole in pulse grain which has been scaled to the proposed rate where required and is relevant to the proposed 28 day withholding period is <0.01(4), 0.02, 0.02, 0.03, 0.05, 0.05, 0.06, 0.06, 0.08, 0.08, 0.09, 0.09, 0.14, 0.16, 0.17, 0.25 and 0.48 mg/kg. STMR=0.06 mg/kg. The OECD MRL calculator recommends an MRL of 0.6 mg/kg, the STMR is 0.06 mg/kg.

Based on the available information, the current MRL of 1 mg/kg remain appropriate for VD 0070 Pulses [except soya bean (dry)] including new uses on mung beans, adzuki beans and navy beans in conjunction with a 4 weeks harvest WHP. It is noted that this MRL is currently required for the registered use on other pulses at a higher rate as well as a minor use permit (PER82104) for use on mung beans, adzuki beans and navy beans at the same rate but a shorter withholding period (21 days).

### 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. Azoxystrobin and tebuconazole has been considered by the Codex. The following relevant Codex CXLs and overseas MRLs have been established for azoxystrobin and tebuconazole.

Table 3: Current and proposed Australian and overseas MRLs/tolerances for azoxystrobin

| Commodity                   | Tolerance for residues arising from the use of azoxystrobin (mg/kg) |                    |                 |   |  |  |
|-----------------------------|---|--------------------|-----------------|---|--|--|
|                             | Australia   | Codex <sup>4</sup> | EU <sup>5</sup> | Japan <sup>6</sup>  | Taiwan <sup>7</sup>  | USA <sup>8</sup>   |
| Residue definition (plants) | Azoxystrobin  | Azoxystrobin       | Azoxystrobin    | Azoxystrobin  |  | Sum of azoxystrobin and the Z-isomer of azoxystrobin           |
| Pulses                      | 0.3 (established for pulses)  | 0.07               | 0.15            | 0.5 (beans, dried; peas; broad beans; other legumes/pulses) | 0.05 (adzuki bean, broad bean (dry); mung bean)<br>0.5 (chickpea; pea; peas and beans) | 0.5 (pea and bean, dried shelled, except soybean, subgroup 6C) |

Table 4: Current and proposed Australian and overseas MRLs/tolerances for tebuconazole

| Commodity                   | Tolerance for residues arising from the use of tebuconazole (mg/kg) |                    |  |   |                      |                      |
|-----------------------------|---|--------------------|--|---|----------------------|----------------------|
|                             | Australia   | Codex <sup>9</sup> | EU <sup>10</sup>                                   | Japan <sup>11</sup>   | Taiwan <sup>12</sup> | USA <sup>13</sup>    |
| Residue definition (plants) | Tebuconazole  | Tebuconazole       | Tebuconazole                                       | Tebuconazole  |                      | Tebuconazole         |
| Pulses                      | 1 (established for pulses except soya bean (dry))                   | 0.3 (beans (dry))  | 0.3 (beans)<br>0.2 (lentils, peas, lupins, others) | 0.5 (beans, dried; peas; broad beans; other legumes/pulses) | 0.5 (dry beans)      | 0.1 (Bean, dry seed) |

<sup>4</sup> Codex Alimentarius, [pesticides database search for azoxystrobin](#), accessed 20 January 2021

<sup>5</sup> Official website of the European union, [European commission pesticides residues search for azoxystrobin](#), accessed 20 January 2021

<sup>6</sup> Japan Food Chemistry Research Foundation [Pesticide search](#), accessed 20 January 2021

<sup>7</sup> Food and Drug Administration Taiwan, [Standards for Pesticide Residue Limits in Foods](#), 20 May 2020, accessed 20 January 2021

<sup>8</sup> Electronic Code of Federal Regulations, [azoxystrobin: tolerances for residues](#) June 13 1997, accessed 20 January 2021

<sup>9</sup> Codex Alimentarius, [pesticides database search for tebuconazole](#), accessed 20 January 2021

<sup>10</sup> Official website of the European union, [European commission pesticides residues search for tebuconazole](#), accessed 20 January 2021

<sup>11</sup> Japan Food Chemistry Research Foundation [Pesticide search](#), accessed 20 January 2021

<sup>12</sup> Food and Drug Administration Taiwan, [Standards for Pesticide Residue Limits in Foods](#), 20 May 2020, accessed 20 January 2021

<sup>13</sup> Electronic Code of Federal Regulations, [tebuconazole: tolerances for residues](#) August 3 1994, accessed 20 January 2021

## Current and proposed Australian MRLs for azoxystrobin and tebuconazole

Table 5: Current MRL Standard – Table1 azoxystrobin

| Compound            | Food                          | MRL (mg/kg) |
|---------------------|-------------------------------|-------------|
| <b>Azoxystrobin</b> |                               |             |
| MO 0105             | Edible offal (mammalian)      | 0.03        |
| MM 0095             | Meat (mammalian) [in the fat] | 0.02        |
| ML 0106             | Milks                         | 0.005       |
| PM 0110             | Poultry meat                  | *0.01       |
| PO 0111             | Poultry, edible offal of      | *0.01       |
| VD 0070             | Pulses                        | 0.3         |

Table 6: Current MRL Standard – Table1 tebuconazole

| Compound            | Food                            | MRL (mg/kg) |
|---------------------|---------------------------------|-------------|
| <b>Tebuconazole</b> |                                 |             |
| MO 0105             | Edible offal (mammalian)        | 0.5         |
| PE 0112             | Eggs                            | 0.1         |
| VP 0060             | Legume vegetables               | 0.5         |
| MM 0095             | Meat (mammalian)                | 0.1         |
| ML 0106             | Milks                           | 0.05        |
| PM 0110             | Poultry meat                    | 0.1         |
| PO 0111             | Poultry, edible offal of        | 0.5         |
| VD 0070             | Pulses {except soya bean (dry)} | 1           |
| VD 0541             | Soya bean (dry)                 | T0.1        |

Table 7: Current MRL Standard – Table4

| Compound            | Food                     | MRL (mg/kg) |
|---------------------|--------------------------|-------------|
| <b>Azoxystrobin</b> |                          |             |
| AL 0157             | Legume animal feeds      | 50          |
| <b>Tebuconazole</b> |                          |             |
|                     | Primary feed commodities | 50          |

## Potential risk to trade

Export of treated produce containing finite (measurable) residues of azoxystrobin and tebuconazole 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.

For the new uses on mung bean, navy bean and adzuki bean, the current azoxystrobin pulse group MRL established at 0.3 mg/kg and the current tebuconazole MRL for pulses {except soya bean (dry)} established at 1 mg/kg are considered appropriate.

The current Australian MRL for azoxystrobin on pulses is higher than tolerances established in some overseas markets. However, the STMR in the available trials when scaled to the proposed rate was 0.05 mg/kg, which is below the MRLs established in EU, Japan and the USA and by Codex.

The current Australian MRL for tebuconazole on pulses [except soya bean (dry)] is higher than those tolerances established overseas. However, the STMR in the available trials was 0.06 mg/kg, which is below the MRLs established for pulses by the EU, Japan and the MRLs established for dry beans by Codex, Taiwan and the USA.

The risk to international trade associated with azoxystrobin and tebuconazole residues within the current pulse group MRLs for azoxystrobin and tebuconazole have been managed for other pulse grains for which registered uses at higher rates exist. This risk to trade has also been managed for adzuki bean, mung bean and navy bean as a similar use but with a shorter withholding period (21 days) has been issued under permit (PER82104) since November 2016.

## Conclusion

Adama Australia Pty Limited has applied for approval of a new product Veritas Opti Fungicide (containing 222 g/L azoxystrobin and 370 g/L tebuconazole) for use on mung beans, adzuki beans and navy beans for the control of powdery mildew.

Comment is sought on the potential for Veritas Opti Fungicide to prejudice Australian trade when used on mung beans, adzuki beans and navy beans according to the proposed label instructions.