



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



## **Trade Advice Notice**

on glyphosate for use on maize and popcorn

Emergency use permit PER89622

June 2020

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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 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 for Permit 89622 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 18 June 2020 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 group name (if relevant)
- postal address
- email address (if available)

- submission date.

All personal and *confidential commercial information (CCI)*<sup>1</sup> material contained in submissions will be treated confidentially.

Written submissions on the APVMA's proposal to grant the application for registration that relate to the grounds for registration should be addressed in writing to:

Residues and Trade  
Scientific Assessment and Chemical Review  
Australian Pesticides and Veterinary Medicines Authority  
GPO Box 3262  
Sydney NSW 2001

**Phone:** +61 2 6770 2300

**Email:** [enquiries@apvma.gov.au](mailto:enquiries@apvma.gov.au).

## Further information

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

Further information on public release summaries can be found on the [APVMA website](#).

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<sup>1</sup> A full definition of 'confidential commercial information' is contained in the Agvet Code.

## 1 INTRODUCTION

The APVMA has before it an emergency permit application from the Maize Association of Australia for pre-harvest use of glyphosate on maize and popcorn, as a harvest aid and for weed control. The permit is proposed for all states for a period of seven months.

## 2 TRADE CONSIDERATIONS

### 2.1 Commodities exported

Maize is considered to be a major export commodity, as are commodities of animal origin, such as meat, offal and dairy products, which may be derived from livestock fed feeds produced from treated maize. Residues in these commodities resulting from the use of registered products containing glyphosate as the only active constituent, when applied under the proposed permit instructions, may have the potential to unduly prejudice trade.

As the mammalian and poultry dietary burdens through consumption of forage, fodder, grain or meal derived from treated maize and popcorn should be no greater than previously considered when the proposed maximum residue limits (MRLs) are compared to MRLs of comparable animal feeds (see Section 2.6), no changes are required to the established animal commodity MRLs for glyphosate. The risk to trade in animal commodities is unchanged and does not require further consideration.

### 2.2 Value of exports

Australian exports of corn (maize) totalled approximately 73.3 kt, 72.3 kt and 62.9 kt (value \$31.8 million, \$31.0 million and \$32.6 million) in 2016–17, 2017–19 and 2018–19 respectively<sup>2</sup>.

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<sup>2</sup> [agriculture.gov.au/abares/research-topics/agricultural-outlook/data#2019](http://agriculture.gov.au/abares/research-topics/agricultural-outlook/data#2019)

## 2.3 Proposed Australian use pattern

Table 1: Proposed use pattern

Crop	Weeds controlled	Rate	Critical comments
Pre-harvest application as a harvest aid and for weed control	Annual grass and broadleaf weeds	<u>360 g/L product</u> 1.35–2.7 L/ha (= 486–972g glyphosate/ha)	Apply a maximum of one application per crop using a boomspray.
Maize and popcorn		<u>450 g/L product</u> 1.08–2.16 L/ha (= 486–972g glyphosate/ha)	Apply to mature crops when grain moisture levels are below 35% (BBCH 89).
		<u>540 g/L product</u> 900 mL–1.8 L/ha (= 486–972g glyphosate/ha)	Apply up to 80 L/ha by ground application and at least 20 L/ha by air application.
		<u>570 g/L product</u> 853 mL–1.7 L/ha (= 486–969g glyphosate/ha)	DO NOT apply with spray droplets smaller than COARSE to VERY COARSE in accordance with nozzle manufacture specifications that refer to the ASAE S572 Standard or the British Crop Production Council guideline.

Restraint: DO NOT apply more than one treatment per crop.

Withholding period:

Harvest: DO NOT harvest for 7 DAYS after application.

Grazing: DO NOT graze or cut for stockfood for 7 DAYS after application.

## 2.4 Results from residues trials presented to the APVMA

In 21 residue trials conducted on maize in the USA in either 1993 or 1997, one application of glyphosate was made at 2.5–2.7 kg a.i./ha. Residues observed in maize grain in these trials (converted to expected residues at the 1x application rate of 972 g a.i./ha) at a six to seven day harvest withholding period (WHP) are in rank order:

<0.05 (10), 0.05 (4), 0.07 (2), 0.09, 0.10 (2), 0.24 and 1.2 mg/kg (n=21, STMR = 0.05 mg/kg).

The OECD MRL calculator recommends an MRL of 1.5 mg/kg based on this dataset.

Based on the available residues data, glyphosate MRLs of T2 mg/kg are recommended for both GC 0645 maize and GC 0656 popcorn, in conjunction with a seven day harvest WHP.

The established temporary maximum residue limit (TMRL) for GC 0080 cereal grains (except sorghum; wheat; barley) at \*0.1 mg/kg will be replaced with a TMRL for cereal grains (except barley; maize; popcorn; sorghum; wheat) at \*0.1 mg/kg.

The available residues data for corn stover (scaled HR of 36 mg/kg (fresh weight basis)) demonstrated that residues in corn fodder will be covered by the established MRL for primary feed commodities (except cotton forage; rape seed [canola] forage and fodder) set at 200 mg/kg.

## 2.5 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. Glyphosate has been considered by Codex. The following relevant Codex CXLs and overseas MRLs have been established for glyphosate.

Table 2: Overseas MRLs

Commodity	Tolerances for residues arising from the use of glyphosate in maize cereals (mg/kg)								
	Australia	EU	Japan	Codex	Canada	USA	Korea	China	Taiwan
Residue definition	For enforcement: sum of glyphosate, N-acetyl-glyphosate and aminomethylphosphonic acid (AMPA) metabolite, expressed as glyphosate	Glyphosate	Sum of glyphosate and N-acetylglyphosate, calculated as glyphosate	Sum of glyphosate and N-acetylglyphosate, expressed as glyphosate	N-(phosphonomethyl) glycine, including the metabolites aminomethylphosphonic acid, N-[(acetylamino)methyl] phosphonic acid and N-acetyl-N-(phosphonomethyl)glycine	Glyphosate (N-(phosphonomethyl) glycine and its metabolite N-acetyl-glyphosate (N-acetyl-N-(phosphonomethyl) glycine; calculated as the stoichiometric equivalent of glyphosate	Glyphosate		
Maize cereals	T2 (proposed for maize and popcorn)	1.0 (maize/corn)	5 (corn [maize, including popcorn and sweet corn])	5 (maize)	3 (field corn/popcorn grain)	0.1 (corn, pop, grain) 5.0 (corn, field, grain)	3.0 (corn)	1.0 (corn grain)	1.0 (corns)

## 2.6 Current and proposed Australian MRLs for glyphosate

Table 3: Currently established relevant MRLs—Table1

COMPOUND	FOOD	MRL (mg/kg)
GLYPHOSATE		
GC 0640	Barley	20
GC 0080	Cereal grains (except sorghum; wheat; barley)	T*0.1
MO 0105	Edible offal (mammalian)	2
PE 0112	Eggs	*0.05
MM 0095	Meat (mammalian)	*0.1
ML 0106	Milks	*0.1
PO 0111	Poultry, edible offal of	1
PM 0110	Poultry meat	*0.1
GC 0651	Sorghum	15
GC 0654	Wheat	5

Table 4: Currently established MRLs—Table4

COMPOUND	FOOD	MRL (mg/kg)
GLYPHOSATE		
AV 0691	Cotton forage	100
	Linseed meal	T7
	Primary feed commodities (except cotton forage; rape seed [canola] forage and fodder)	200
	Rape seed [canola] forage and fodder	300
	Rape seed [canola] meal	15
	Soya bean aspirated grain fractions	50
	Soya bean hulls	10
DM 0659	Sugar cane molasses	T5

Table 5: Proposed MRL Standard—Table1

COMPOUND	FOOD	MRL (mg/kg)
GLYPHOSATE		
DELETE:		
GC 0080	Cereal grains (except sorghum; wheat; barley)	T*0.1
ADD:		
GC 0080	Cereal grains (except barley; maize; popcorn; sorghum; wheat)	T*0.1
GC 0645	Maize	T2
GC 0656	Popcorn	T2

## 2.7 Potential risk to trade

Export of treated produce containing finite (measurable) residues of glyphosate 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 pattern requires the establishment of temporary MRLs for glyphosate on maize and popcorn at 2 mg/kg, which is less than the MRLs established by Codex, the USA, Canada, Japan and Korea for field corn.

All residue values except one, which were considered for MRL establishment (HR = 1.2 mg/kg, STMR = 0.05 mg/kg), were within the MRLs of 1–5 mg/kg set by Codex and various overseas markets for field corn.

## 3 CONCLUSION

The APVMA has before it an emergency permit application from the Maize Association of Australia for pre-harvest use of glyphosate on maize and popcorn, as a harvest aid and for weed control.

Prior to making a determination on issue of the permit, the APVMA must be satisfied that the proposed use does not constitute an undue prejudice to trade.

Stakeholders are requested to provide comment on industry systems that can manage any potential risks to international trade associated with the proposed use.