

## Evaluation Report for Category B, Subcategory 3.4, 3.8, 3.12 Application

**Application Number:** 2018-4784  
**Application:** Changes to product label; new site, application method and re-entry interval  
**Product:** A20259 Fungicide  
**Registration Number:** 33020  
**Active ingredients (a.i.):** Pydiflumetofen and difenoconazole  
**PMRA Document Number:** 3094498

### Purpose of Application

The purpose of this application was to add use of A20259 Fungicide on bulb vegetable crops, brassica head and stem vegetable crops, root and tuber vegetable crops, pome fruit crops, tree nut crops and stone fruit crops.

### Chemistry Assessment

A chemistry assessment was not required for this application.

### Health Assessments

A toxicological assessment was not required for this application.

The occupational exposure and risk from the expansion of use of A20259 Fungicide was assessed. No risks of concern are expected from the new use, provided that workers follow the label directions and wear the personal protective equipment identified on the label.

Residue data for pydiflumetofen were submitted to support the domestic use of A20259 Fungicide, containing pydiflumetofen and difenoconazole, on root vegetables (CSG 1A), bulb vegetables CG 3-07, *Brassica* leafy greens (CSG 4-13B), *Brassica* head and stem vegetables (CG 5-13), pome fruits (CG 11-09), stone fruits (CG 12-09) and tree nuts (CG 14-11). In addition, processing studies in treated sugar beets, apples, pears, plums, and almonds were reviewed to determine the potential for concentration of residues of pydiflumetofen into processed commodities. Residue data for difenoconazole were submitted to support the domestic use of A20259 Fungicide on radish (tops). Previously reviewed residue data from field trials conducted with difenoconazole were re-assessed in the framework of this petition.

## Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for pydiflumetofen and difenoconazole was based upon the submitted field trial data, and the guidance provided in the [OECD MRL Calculator](#). MRLs to cover residues of pydiflumetofen and difenoconazole in/on crops and processed commodities are proposed as shown in Tables 1 and 2. Residues in processed commodities not listed in Tables 1 and 2 are covered under the proposed MRLs for the raw agricultural commodities (RACs).

**Table 1. Summary of Field Trial and Processing Data Used to Support Maximum Residue Limits (MRLs) for Pydiflumetofen.**

Commodity	Application Method/ Total Application Rate (g ai/ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	Recommended MRL (ppm)
			LAFT	HAFT		
Radish tops	Foliar broadcast/ 298-305	7	0.121	5.08	N/A	10
Radish roots			0.013	0.166	N/A	0.5 (CSG 1A)
Carrot root	Foliar broadcast/ 299-309	6-14	0.015	0.102	N/A	
Sugar beet root	Foliar broadcast/ 293-311	6-28	0.016	0.135	Dried pulp: 3.9x Molasses: 0.6x Refined sugar <0.1x	
Sugar beet tops <sup>1</sup>		6-14	0.763	6.270	N/A	10
Dry bulb onion	Foliar broadcast/ 372-384	6-10	<0.010	0.121	N/A	0.2 (CSG 3-07A)
Green onion	Foliar broadcast/ 370-381	7	0.276	1.070	N/A	2.0 (CSG 3-07B)
Mustard greens	Foliar broadcast/ 398-411	0-3	0.868	28.60	N/A	50 (CSG 4-13B)
Broccoli	Foliar broadcast/ 364-386	0	0.417	1.430	N/A	3.0 (CG 5-13)
Cabbage	Foliar broadcast/ 370-376	0	0.302	0.992	N/A	

Commodity	Application Method/ Total Application Rate (g ai/ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	Recommended MRL (ppm)
			LAFT	HAFT		
Cauliflower	Foliar broadcast/ 373-377	0-9	0.039	0.365	N/A	
Apples	Foliar broadcast/ 196-207	28-32	0.015	0.112	Juice: 0.1x Canned apple: 0.03x Dried apple: 0.4x Apple sauce: 0.1x	0.2 (CG 11-09)
Pears	Foliar broadcast/ 191-207	29-31	0.019	0.115	Juice: 0.1x Canned pear: 0.1x Dried pear: 0.6x	
Cherries (sweet and tart)	Foliar broadcast/ 295-315	0-2	0.143	1.650	N/A	2.0 (CSG 12-09A)
Peaches	Foliar broadcast/ 298-317	0-3	0.089	0.782	N/A	1.0 (CSG 12-09B)
Plums	Foliar broadcast/ 302-312	0-6	0.060	0.354	Prune: 2.8x Juice: 0.02x Puree: 0.2x	0.6 (CSG 12-09C)
Almond nutmeat	Foliar broadcast/ 301-307	14	<0.01	0.032	Crude almond oil: 0.4x Roasted almonds: 0.4x	0.07 (CG 14-11)
Pecan nutmeat	Foliar broadcast/ 301-306	14-15	<0.01	0.015	N/A	

<sup>1</sup>Data from sugar beet tops were extended to garden beet tops

**Table 2. Summary of Field Trial and Processing Data Used to Support Maximum Residue Limits (MRLs) for Difenoconazole.**

Commodity	Application Method/ Total Application Rate (g ai/ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	Recommended MRL (ppm)
			LAFT	HAFT		
Radish root	Foliar broadcast/ 495-510	7	0.025	0.287	N/A	0.7 (CSG 1A)

Commodity	Application Method/ Total Application Rate (g ai/ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	Recommended MRL (ppm)
			LAFT	HAFT		
Radish tops	Foliar broadcast/ 495-510	7	0.236	3.830	N/A	8.0
Sugar beet tops <sup>1</sup>	Foliar broadcast/ 513	7	0.150 (Min)	5.2	N/A	8.0

LAFT = Lowest Average Field Trial; HAFT = Highest Average Field Trial; Min = Minimum residue; N/A = Not applicable

<sup>1</sup>Data from sugar beet tops were extended to garden beet tops

Following the review of all available data, MRLs as proposed in Tables 1 and 2 are recommended to cover residues of pydiflumetofen and difenoconazole, respectively. Residues in these crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

### Environmental Assessment

The addition of Crop SubGroups 1A (root vegetables), 3-07 (bulb vegetables), 4-13B (brassica leaf vegetables), 5-13 (brassica head and stem), 11-09 (pome fruit), 12-09 (stone fruit) and 14-11 (tree nuts) to the product label for A20259 Fungicide is not expected to result in increased environmental risk. Therefore, the risk from the environmental viewpoint are acceptable when label directions are followed.

### Value Assessment

The applicant submitted the results of sixty-nine field efficacy trials, scientific rationales and extrapolations from similar products to support the addition of a suite of disease control claims on field crops to the A20259 Fungicide label. Evaluation of this information demonstrated that claims for the control or suppression of certain fungal diseases on various bulb vegetable crops, brassica head and stem vegetable crops, root and tuber vegetable crops, pome fruit crops, tree nut crops and stone fruit crops have value.

A20259 Fungicide is a broad spectrum fungicide shown to be effective against many types of agriculturally-relevant plant disease. Registration of these new uses on the A20259 label will provide growers of widely-grown and specialty field crops with an additional tool for disease management.

### Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to add use of A20259 Fungicide on bulb vegetable crops, brassica head and stem vegetable crops, root and tuber vegetable crops, pome fruit crops, tree nut crops and stone fruit crops.

## References

### PMRA

#### Document

Number	Reference
2924321	2018, A20259 - Value Summary, DACO: 10.1
2924343	2018, A20259 - Data Summary, DACO: 10.2.3.1,10.3.2
2924563	2018, Magnitude of the Residues of A20259E (Pydiflumetofen and Difenconazole) in Root Vegetables and Sugar Beet Processed Commodities Following Applications of A20259E - Final Report, DACO: 7.4.1,7.4.5
2924564	2018, Pydiflumetofen SC (A19649B) - Magnitude of the Residues in or on Sugarbeet - Canada 2016 - Final Report, DACO: 7.4.1
2924546	2018, Pydiflumetofen SC (A19649B) - Magnitude of the Residues in Onion (Green & Bulb) Raw Agricultural Commodities Following Foliar Application - USA 2016 - Final Report, DACO: 7.4.1
2924545	2018, Pydiflumetofen SC (A19649B) - Magnitude of the Residue in or on Mustard Greens - USA 2016 - Final Report, DACO: 7.4.1
2924544	2018, Pydiflumetofen SC (A19649B) - Magnitude of the Residues in Brassica Head and Stem Raw Agricultural Commodities - USA 2016 - Final Report, DACO: 7.4.1
2924561	2017, SYN545974 SC (A19649B) - Magnitude of the Residues in or on Apple and Pear as Representative Commodities of Pome Fruits, Group 11 USA 2014 - Final Report, DACO: 7.4.1,7.4.5
2924562	2018, SYN545974 SC (A19649B) Magnitude of the Residues in or on Apple and Pear (Representative Commodities of Crop Group 11) Canada 2014 - Final Report, DACO: 7.4.1
2924543	2018, Pydiflumetofen SC (A19649B) - Magnitude of the Residues in or on Representative Raw Agricultural and Processed Commodities of the Peach Crop Subgroup (12-12B) and the Plum Crop Subgroup (12-12C) - USA 2016 - Final Report, DACO: 7.4.1
2924555	2018, Pydiflumetofen: Magnitude of the Residue on Cherry, DACO: 7.4.1
2924558	2018, Pydiflumetofen: Magnitude of the Residue on Peach, DACO: 7.4.1
2924559	2018, Pydiflumetofen: Magnitude of the Residue on Plum, DACO: 7.4.1
2924560	2018, SYN545974 SC (A19649B) - Magnitude of the Residues in or on Almonds and Pecans as Representative Crops of Tree Nuts, Group 14 USA 2014 - Final Report, DACO: 7.4.1,7.4.5
2924563	2018, Magnitude of the Residues of A20259E (Pydiflumetofen and Difenconazole) in Root Vegetables and Sugar Beet Processed Commodities Following Applications of A20259E - Final Report, DACO: 7.4.1,7.4.5

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