



## Evaluation Report for Category B, Subcategory 3.11, 3.12 Application

**Application Number:** 2012-2027  
**Application:** New or Changes to Product Labels – New pests and new site or host  
**Product:** Proline 480 SC Foliar Fungicide  
**Registration Number:** 28359  
**Active ingredients (a.i.):** Prothioconazole [PRB]  
**PMRA Document Number:** 2335093

### Purpose of Application

The purpose of this application was to expand the use of Proline 480 SC Foliar Fungicide (Registration Number 28359; 480 g prothioconazole/L) to include ground application to bushberries (Crop Subgroup 13-07B), low-growing berries (except strawberry; Crop Subgroup 13-07H), cucurbits (Crop Group 9), pearl millet, proso millet, rye, triticale, teosinte and buckwheat. This application was reviewed as a second-entry Joint Review with the United States Environmental Protection Agency.

### Chemistry Assessment

A chemistry assessment was not required for this application.

### Health Assessments

A toxicology assessment was not required for this application.

Residue data for prothioconazole in cucumber, muskmelon, summer squash, blueberry and cranberry were submitted to support the use expansion of this active on the Proline 480 SC Foliar Fungicide label. Residue data on file for cereal grains were reassessed to support the additional use on certain small acreage grains (rye, proso millet, pearl millet, triticale, teosinte, buckwheat) for Proline 480 SC Foliar Fungicide.

### Maximum Residue Limit(s)

Based on the residue data in cucumber, muskmelon, summer squash, blueberry and cranberry, maximum residue limits (MRLs) to cover residues in Crop Group 9 (Cucurbit Vegetables), Crop Subgroup 13-07B (Bushberry Subgroup), and Crop Subgroup 13-07H (Low growing berry Subgroup, except strawberry) are proposed as shown in Table 1. Residues of prothioconazole in processed commodities not listed in Table 1 are covered under MRLs for the raw agricultural commodities (RACs).

**TABLE 1. Summary of Field Trial and Processing Data Used to Establish Maximum Residue Limit(s) (MRLs)**

Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Residues <sup>1</sup> (ppm)		Experimental Processing Factor	Currently Established MRL (ppm)	Recommended MRL (ppm)
			Min	Max			
Cucumber	Drip/drench and/or foliar spray/600	7	<0.04 0	<0.1 25	Not applicable	None	0.3 For Crop Group 9 (Cucurbit Vegetables)
Muskmelon			<0.04 5	0.18 8			
Summer squash			<0.04 0	<0.0 79			
Blueberry	Foliar spray/400	7	<0.09 2	1.07			2.0 For Crop Subgroup 13-07B (Bushberry Subgroup)
Cranberry	Foliar spray/350	45	<0.04 0	<0.1 12			

<sup>1</sup> Combined residues of prothioconazole and desthio-prothioconazole in parent equivalents.

Following the review of all available data, MRLs for Crop Group 9 (Cucurbit Vegetables), Crop Subgroup 13-07B (Bushberry Subgroup), and Crop Subgroup 13-07H (Low growing berry Subgroup, except strawberry) are recommended to cover residues of prothioconazole and desthio-prothioconazole in these crops. MRLs in cereals remain unchanged. Residues of prothioconazole and desthio-prothioconazole in these crop commodities at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Proline 480 SC Foliar Fungicide for use on small grains, bushberries and cucurbits to control various diseases does not fit within the registered use pattern for prothioconazole. A quantitative occupational exposure risk assessment was conducted and no risks of concern are expected provided all label directions and statements are followed.

## **Environmental Assessment**

No additional environmental data were required for the addition of ground application of Proline 480 SC Foliar Fungicide to bushberries, low-growing berries (except strawberry), cucurbits, pearl millet, proso millet, rye, triticale, teosinte and buckwheat. Spray buffer zones are required on the product label to protect sensitive non-target terrestrial and aquatic habitats from the effects of spray drift.

## **Value Assessment**

The proposed rates (210-420 mL/ha ) coincide with those from uses that are currently registered on the Proline 480 SC Foliar Fungicide label. Currently registered Proline 480 SC Foliar Fungicide claims were used to extrapolate evidence in support of five of the new claims; i.e. suppression of fusarium head blight/scab on millet, rye, triticale, and teosinte, control of rust on the same small grains as well as buckwheat, suppression of septoria leaf spot on bushberry, suppression of blueberry leaf rust on blueberry, and suppression of septoria leaf spot on low growing berry (except strawberry). The other claims were supported by 26 field efficacy trials conducted between 2007 and 2011 in Canada and the US. Adequate levels of disease reduction by Proline 480 SC Foliar Fungicide were demonstrated against each of the tested pathogens. Some of the crops within the proposed crop groups were excluded based on non-susceptibility to disease (i.e. buckwheat and fusarium head blight) or their inability to be cultivated under Canadian field growing conditions (i.e. muntries, chayote, Chilean guava and native currant). Although some fungicides with the same mode of action as Proline 480 SC Foliar Fungicide are already registered for some of the proposed claims, registration of these new claims on the Proline 480 SC Foliar Fungicide will provide growers with access to a new end-use product to manage economically important diseases in various crops and will address some intermediate priorities listed on the Canadian Grower Priority Database. The supported rate range across all of the proposed new claims is 210-420 mL/ha with a maximum number of foliar applications of two to four for all uses (with an additional soil application for cucurbit vegetables).

## **Conclusion**

The Pest Management Regulatory Agency has completed an assessment of the information provided in support of the product, Proline 480 SC Foliar Fungicide, and has found the information sufficient to include ground application to bushberries, low-growing berries (except strawberry), cucurbits, pearl millet, proso millet, rye, triticale, teosinte and buckwheat on the product label.

## References

<b>PMRA Document Number</b>	<b>Reference</b>
2195097	2012, Proline 480 SC - Magnitude of the residue in/on bushberry (crop subgroup 13-07B), DACO: 7.4.1,7.4.2
2195099	2012, Proline 480 SC - Magnitude of the residue in/on cranberry, DACO: 7.4.1,7.4.2
2195101	2012, Proline 480 SC - Magnitude of the residue in/on cucurbit vegetables (CG 9), DACO: 7.4.1,7.4.2
2195083	2012, Proline 480 SC fungicide for management of diseases in cucurbits, bushberries, low-growing berries, cranberries, and small acreage grains. 187 pp. DACO 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2.
2195085	2012, Suppression of fusarium wilt on watermelon with Proline 480 SC foliar fungicide. 57 pp. DACO 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2.
2195086	2012, Proline 480 SC fungicide for management of diseases in cucurbits, bushberries, low-growing berries, cranberries, and small acreage grains. [Excel file for summary table]. DACO 10.2.3.1
2195087	2012, Suppression of fusarium wilt on watermelon with Proline 480 SC foliar fungicide. [Excel file for summary table]. DACO 10.2.3.1.

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