

## Evaluation Report for Category B, Subcategory 3.3, 3.4, 3.11 and 3.12 Application

**Application Number:** 2015-0831  
**Application:** Changes to product labels: New pests, new site or host, application number or frequency, and application method  
**Product:** Revus Fungicide  
**Registration Number:** 29074  
**Active ingredients (a.i.):** Mandipropamid  
**PMRA Document Number :** 2608013

### Background

Revus Fungicide (Registration Number 29074; guarantee 23.3% mandipropamid) was first registered for use in Canada in 2008. Revus Fungicide is currently registered for the control or suppression of certain foliar diseases in vegetable crops, grapes and hops. It is registered to be applied by ground, aerially or in greenhouses

### Purpose of Application

The purpose of this application was to expand the Revus Fungicide label to add a new use on greenhouse peppers and to expand the existing use on fruiting vegetables (CG8-09) and cucurbits (CG9) to allow soil (in-furrow and drip (trickle) chemigation) and foliar applications.

### Chemistry Assessment

A chemistry assessment was not required for this application.

### Health Assessments

A toxicology assessment was not required for this application.

A human health risk evaluation was completed for Revus Fungicide for use on cucurbits, tomatoes (field and greenhouse), and fruiting vegetables including greenhouse peppers as a foliar or soil application. Revus Fungicide is not expected to result in risks of concern when the product is applied according to label directions and all precautionary statements are followed.

Residue data from trials conducted in Canadian greenhouses were submitted to support the foliar use of Revus Fungicide on greenhouse peppers. Mandipropamid applied to greenhouse bell peppers at 1-fold GAP, and harvested according to label directions, did not exceed the established MRL in peppers. In addition, previously reviewed residue data from field trials conducted in/on fruiting vegetables (CG8-09) and cucurbit vegetables (CG9) were reassessed in

the framework of this petition to allow for both soil and foliar type applications. Residues 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.

### **Environmental Assessment**

As the new use pattern is within the currently registered application method and application rates, the exposure of non-target organisms in the environment to Revus Fungicide is not expected to be increased. The risk to non-target organisms in the environment is acceptable.

### **Value Assessment**

Data from 15 efficacy trials were submitted to support claims of suppression of phytophthora foliar blight, root and crown rot (*Phytophthora capsici*) in cucurbits, greenhouse peppers, greenhouse tomatoes, and field tomatoes. A scientific rationale was submitted to support the addition of soil application, in-furrow and drip (trickle) chemigation. Data demonstrated that Revus Fungicide applied by foliar and soil application provided suppression of phytophthora blight, crown and root rot in certain cucurbit and fruiting vegetables. The value information provided was sufficient to support the new disease claims and addition of soil application. The expansion of the Revus Fungicide label will provide an alternative product for Canadian vegetable producers that can be included in a fungicide resistance management strategy. In addition, it addresses a priority need for phytophthora diseases for cucumber, muskmelon and squash growers.

### **Conclusion**

The PMRA has completed a review of all available information in support of Revus Fungicide and found it sufficient to support the following changes to the label: 1) adding a new use on greenhouse peppers and, 2) expanding the existing use on fruiting vegetables (CG8-09) and cucurbits (CG9) to allow soil (in-furrow and drip (trickle) chemigation) and foliar applications.

### **References - Applicant Submitted**

<b>PMRA Document Number</b>	<b>Reference</b>
2506944	2015, Value Summary, DACO: 10.1,10.2.2,10.2.3.1,10.3.1,10.3.2
2506946	2006, Evaluation of cultural practices and fungicides for managing Phytophthora fruit rot of watermelon, 2006, DACO: 10.2.3.3
2506947	2007, Evaluation of fungicides for control of Phytophthora blight of yellow squash grown on raised plant beds, 2007, DACO: 10.2.3.3
2506948	2008, Evaluation of fungicides and resistant cultivars for control of Phytophthora crown rot of bell pepper, 2008, trial 2, DACO: 10.2.3.3
2506949	2008, Evaluation of Presidio for control of the aerial phase of Phytophthora blight in bell pepper fruit, 2008, DACO: 10.2.3.3

2506950	2006, Efficacy of fungicides for management of the soil phase of Phytophthora blight on pepper plants, 2006, DACO: 10.2.3.3
2506951	2009, Evaluation of fungicide drenches and resistant cultivars for control of Phytophthora crown rot of pepper, 2009, DACO: 10.2.3.3
2506952	2010, Evaluation of fungicides for control of the aerial phase and crown rot phase of Phytophthora blight in bell pepper, 2010, DACO: 10.2.3.3
2506953	2007, Evaluation of fungicides for control of Phytophthora blight of yellow squash in fumigated beds, 2007, DACO: 10.2.3.3
2506954	2007, Effect of potassium phosphite and fungicides on Phytophthora crown and fruit rot of summer squash, 2007, DACO: 10.2.3.3
2506955	2008, Evaluation of cultural practices and fungicides for managing Phytophthora fruit rot of watermelon, 2008, DACO: 10.2.3.3
2506956	2008, Evaluation of cultural practices and fungicides for control of Phytophthora blight of watermelon, Kinston 2008, DACO: 10.2.3.3
2506957	2009, Evaluation of fungicides for control of downy mildew, Phytophthora crown, fruit, and root rot, and Pythium fruit rot of cucumber, 2009, DACO: 10.2.3.3
2506958	2013, Using Soil-Applied Fungicides to Manage Phytophthora Crown and Root Rot on Summer Squash, DACO: 10.2.3.3
2506959	2006, Efficacy of fungicides for control of Phytophthora blight in pepper on crown rot tolerant and susceptible cultivars, 2006, DACO: 10.2.3.3
2506943	2012, Mandipropamid SC (A12946B) - Residue Levels on Greenhouse Peppers from Trials Conducted in Canada During 2008 and 2009, DACO: 7.4.1

### References – Additional Information Considered

2443435	C. Palmer, E. Veal, 2010, IR-4 efficacy data summary for phytophthora, DACO: 10.2.3.3(D)
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ISSN: 1911-8082

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