

## Evaluation Report for Category B, Subcategory 3.1, 3.3 Application

**Application Number:** 2007-8839  
**Application:** Application rate increase and application number or frequency  
**Product:** Aim EC Herbicide  
**Registration Number:** 28573  
**Active ingredients (a.i.):** Carfentrazone-ethyl  
**PMRA Document Number :** 1868282

### Background

Aim EC Herbicide (Registration Number 28573) containing 240 g a.i./L carfentrazone-ethyl is registered for weed control in fallow systems, preplant burndown, hooded sprayer applications, and harvest aid applications. For specific details of listed weeds, refer to the product label.

### Purpose of Application

FMC Corporation has submitted an application to amend the label for Aim EC Herbicide regarding the directions for use for the harvest aid treatment section for potatoes.

### Chemistry Assessment

A chemistry assessment was not required for this application.

### Health Assessments

A toxicology assessment was not required since there was no change to the formulation.

Exposure during mixing, loading and applying Aim EC Herbicide to potatoes was estimated using PHED Version 1.1. Risk estimates calculated for handlers wearing long sleeves, long pants and gloves during mixing and load and wearing long sleeves and long pants during application were found to be acceptable. Post-application exposure to Aim EC Herbicide is expected to be minimal since the product is applied directly to potatoes as a harvest aid and potatoes are harvested mechanically. Therefore, exposure to residues of Aim EC Herbicide is not expected to occur in any significant amount.

No new residue data were submitted to support the present submission. Based on previously submitted residue data, the increase in the number of harvest aid applications of carfentrazone-ethyl on potatoes from one to two is not expected to result in residues in/on treated potatoes exceeding the established MRL of 0.1 ppm. In addition, the proposed use of methylated seed oil as an adjuvant at a rate of 1% v/v is not expected to impact the magnitude of residues of carfentrazone-ethyl in/on treated potatoes. Therefore, no increase in dietary exposure to carfentrazone-ethyl as a result of this use is anticipated. The proposed label amendments will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

## Environmental Assessment

Additional environmental data were not required to support the proposed changes to the use of Aim EC Herbicide on potatoes. Based on the use pattern supported by the value assessment, the buffer zone for terrestrial habitat was increased to 5 metres to mitigate increased risk to non-target terrestrial plants. There are no concerns with the increase in seasonal rate affecting other non-target organisms.

## Value Assessment

Data from 9 Canadian field trial studies conducted over 2 years (2006 and 2007) in Alberta (2 trials), Manitoba (1 trial) and Prince Edward Island (6 trials) and data from 7 US field trial studies conducted over 7 years (2000-2006) in Idaho were submitted for review to evaluate the efficacy of Aim EC Herbicide on potato as a harvest aid treatment.

Overall, by 21-24 days after the first application (11-16 days after the second application), potato dry down was complete for Aim EC Herbicide applied alone with one or two applications regardless of the application rate. By 13-17 days after the first application, potato dry down was over 80% for Aim EC Herbicide plus Reglone Liquid Herbicide & Desiccant (Registration Number 7639) tank mix treatment and by 21-24 days after the first application potato dry down was complete for the tank mix. Treatments that added methylated seed oil at 1% v/v were efficacious.

Within the data provided, none of the treatments applied Merge Adjuvant at 2% v/v nor methylated seed oil at 2% v/v. Since there was no data, the proposed label amendment to increase adjuvant rates up to 2% v/v was not supported.

Based on the available data, the following label changes were supported for Aim EC Herbicide.

- An application rate range of 233-350 mL/ha (56-84 g a.i./ha) for the first application of Aim EC Herbicide,
- an application rate range of 233-350 mL/ha (56-84 g a.i./ha) for the second application of Aim EC Herbicide,
- the use of methylated seed oil (MSO) at 1% v/v as an adjuvant with Aim EC Herbicide, and
- one application of Aim EC Herbicide at 233-350 mL/ha (56-84 g a.i./ha) tank mixed with Reglone Liquid Herbicide & Desiccant at 1.25-2.3 mL/ha (300-552 g a.i./ha).

## Conclusion

The PMRA has completed an evaluation of Aim EC Herbicide and has found the information sufficient to support the following amendments to the directions for use: a rate range of 233-350 ml/ha (56-84 g a.i./ha) for each of two applications; the addition of methylated seed oil for use as an adjuvant, and one application of Aim EC Herbicide at 233-350 mL/ha (56-84 g a.i./ha) tank mixed with Reglone Liquid Herbicide & Desiccant (Registration Number 7639) at 1.25-2.3 mL/ha (300-552 g a.i./ha).

## References

- 1534692 2007. Value Summary. DACO: 10.1
- 1534693 2007. Excel Summary of Efficacy. DACO: 10.2.3.1
- 1534694 2007. Excel Summary Frequency Distribution. DACO: 10.2.3.1
- 1534695 2000. Potato Desiccation. DACO: 10.3.2
- 1534696 2001. Potato Desiccation and Late Season Hairy Nightshade Control. DACO: 10.3.2
- 1534697 2002. Potato Vine Desiccation and Late Season Hairy Nightshade Control. DACO: 10.3.2
- 1534698 2003. Potato Vine Desiccants. DACO: 10.3.2
- 1534699 2004. Potato Vine Desiccation. DACO: 10.3.2

- 1534700 2005. Potato Vine Desiccation. DACO: 10.3.2
- 1534701 2006. Potato Desiccation Trial 2006. DACO: 10.3.2
- 1534706 2006. 2006 Canada - Preharvest Desiccation with Carfentrazone in Potatoes. DACO: 10.3.2
- 1534707 2006. Evaluation of preharvest desiccation with Carfentrazone in potatoes. DACO: 10.3.2
- 1534708 2006. Evaluation of pre-harvest desiccation with Carfentrazone in potatoes. DACO: 10.3.2
- 1534709 2006. Evaluation of preharvest desiccation with Carfentrazone in potatoes. DACO: 10.3.2
- 1534710 2006. Evaluation of pre-harvest desiccation with Carfentrazone in potatoes. DACO: 10.3.2
- 1534711 2006. Evaluation of Preharvest Desiccation with Carfentrazone in Potatoes (Shepody).  
DACO: 10.3.2
- 1534712 2006. Evaluation of PreHarvest Desiccation with Carfentrazone in Potatoes. DACO: 10.3.2
- 1534713 2006. 2006 Canada-PreHarvest Desiccation with Carfentrazone in Potatoes. DACO: 10.3.2
- 1534714 2007. AIM 2 EC For Potato Desiccation At Harvest - Canada - 2007. DACO: 10.3.2
- 1534715 2007. 2006 Canada - PreHarvest Desiccation with Carfentrazone in Potatoes. DACO:  
10.2.3.3
- 1534716 2007. 2006 Canada Metric - Preharvest Desiccation with Carfentrazone in Potatoes. DACO:  
10.2.3.3
- 1534717 2007. Non-safety Adverse Effects. DACO: 10.3

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services  
Canada 2010

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of the Minister of Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5.