

## Evaluation Report for Category B, Subcategory 3.1 Application

**Application Number:** 2013-2960  
**Application:** Category B, subcategory 3.1  
**Product:** Proline 480 SC Foliar Fungicide  
**Registration Number:** 28359  
**Active ingredients (a.i.):** Prothioconazole  
**PMRA Document Number:** 2346065

### Background

Proline 480 SC Foliar Fungicide has been registered since November 15, 2006 and is registered for the control or suppression of certain diseases in: barley, borage, canola, chickpeas, crambe, corn, flax (linseed), lentils, lowbush blueberry, oats, oriental mustard, peanut, rapeseed, soybean, sugar beet and wheat. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to product label.

### Purpose of Application

The purpose of this application was to amend the registration of Proline 480 SC Foliar Fungicide to reduce the application rate from 200 g a.i./ha to 150 g a.i./ha for control of the registered foliar diseases on corn (common and southern rust (*Puccinia sorghi*, *Puccinia polysora*); eyespot (*Kabatiella zae* or *Aureobasidium zae*); and Northern blight (*Setosphaeria turcica*). The product is intended for a single application at a rate of 315 ml of product/ha (150 g a.i./ha) and a minimum pre-harvest interval of 14 days.

### Chemistry, Health and Environmental Assessments

A chemistry assessment was not required since there was no change to product chemistry. Health and environmental assessments were not required since the only change to the use pattern is a decrease in application rate, the rest of the use pattern, including the host crop and timing of the product remained unchanged.

### Value Assessment

A total of six small-scale field trials were conducted to support the use of Proline 480 SC Foliar Fungicide on corn at a reduced rate of 150 g a.i./ha (315 mL/ha) for control of listed foliar diseases. The trials demonstrated that the percentage damage observed with common rust, eyespot, and northern leaf blight following a single application of Proline 480 SC applied at 150 g a.i./ha with or without a non-ionic surfactant was comparable to that obtained with Proline 480 SC applied at the currently registered rate of 200 g a.i./ha and with the commercial standard. The addition of a non-ionic surfactant numerically and in some occasions, significantly increased the

efficacy of Proline 480 SC. The scientific rationale to extrapolate the reduced rate to all types of registered corn is acceptable. In addition, the scientific rationale to extrapolate the use of common rust (*Puccinia sorghi*) data to support a claim of control of southern rust (*Puccinia polysora*) is also acceptable. The proposed rate reduction is supported based on the value information provided by the applicant. The label will recommend the use of a non-ionic surfactant under high foliar disease pressure.

The effect of application volume was investigated with Proline 480 SC applied at 150 g a.i./ha with or without a non-ionic surfactant using a spray volume of 50 L/ha (aerial application simulation) and 180 L/ha (conventional ground application). No significant increase in the percentage damage caused by these three diseases was observed when the spray volume was reduced from 180 L/ha to 50 L/ha. Therefore, aerial application with a carrier volume of 50 L/ha is supported.

The value of applying a lower rate of Proline 480 SC, which was demonstrated to be as effective as the registered rate, will be to decrease the cost of pesticide application and also the amount of active ingredients put into the environment.

## **Conclusion**

The PMRA has completed an evaluation of the subject application and has found the information sufficient to amend the registration of Proline 480 SC Foliar Fungicide to reduce the application rate for control of the following registered foliar diseases on corn (common and southern rust (*Puccinia sorghi*, *Puccinia polysora*); eyespot (*Kabatiella zae* or *Aureobasidium zae*); and Northern blight (*Setosphaeria turcica*).

## References

- 2312610 2013, Proline 480 SC Foliar Fungicide - Control of foliar diseases in corn with a reduced rate of 150 g a.i./ha, DACO: 10.1,10.2.3.1,10.2.3.3(D)

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2014

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.