

## Evaluation Report for Category B, Subcategory 3.1, 3.12 Application

**Application Number:** 2021-4079  
**Application:** Changes to Product Labels – Rate Increase or Decrease and New Site or Host  
**Product:** INTEGO Solo Fungicide  
**Registration Number:** 31324  
**Active ingredient (a.i.):** Ethaboxam  
**PMRA Document Number:** 3457208

### Purpose of Application

The purpose of this application was to add claims for the use of INTEGO Solo Fungicide to control seed rot/pre-emergence damping-off (*Pythium* spp.) on alfalfa and to amend the registered application rate range for cereal grains.

### Chemistry Assessment

A chemistry assessment was not required for this application.

### Health Assessments

The seed treatment use of INTEGO Solo Fungicide on alfalfa, and the higher maximum application rate of 7.5 g a.i./100 kg seed for small cereal grains in Crop Group (CG) 15, represents an expansion of the use pattern for ethaboxam from an occupational exposure perspective. The current seed treatment risk assessments (commercial, on-farm and planting) for ethaboxam were updated. No health risks of concern were identified for workers treating commercially or on-farm or during planting of INTEGO Solo Fungicide treated seed, if workers wear the appropriate personal protective equipment and follow all label directions.

No new residue data for ethaboxam in alfalfa and the specified cereal grains were. Previously reviewed radiotracer, livestock metabolism and field trial data were re-assessed in the context of this application. The requests to increase the maximum seed treatment rate on the specified cereal grains and to add alfalfa to the INTEGO Solo Fungicide label is not expected to impact dietary exposure and as such, there are no health risks of concern identified for any segment of the population, including infants, children, adults, and seniors.

A toxicology assessment was not required for this application.

## **Environmental Assessment**

Use of INTEGO Solo Fungicide for seed treatment of cereal grains at the higher rate of 7.5 g a.i./100 kg seed, and for the treatment of alfalfa seeds at the same rate, are within the registered use pattern from an environmental perspective. Therefore, no additional risk is expected when INTEGO Solo Fungicide is used in accordance with the label, which includes statements to mitigate risks to the environment.

## **Value Assessment**

A rationale extrapolating evidence of efficacy of the seed treatment INTEGO Solo Fungicide against seed rot/pre-emergence damping-off caused by *Pythium* spp. on canola to the same disease on alfalfa as well as canola and alfalfa trials substantiating the extrapolation were submitted. The submitted value data demonstrated that the performance of INTEGO Solo Fungicide against seed rot/pre-emergence damping-off on alfalfa was similar to that provided to alfalfa by a registered commercial standard and by the same application rates of INTEGO Solo Fungicide on canola.

Wheat field trial results were submitted to support an increase of the upper application rate of the registered range for cereal grains. Wheat trial results showed a linear increase in efficacy at tested rates from 2 to 10 g ai/100 kg seed, which established that the proposed rate of 7.5 g ai/100 kg seed can be expected to provide increased efficacy compared to the previously registered upper rate, 6.5 g ai/100 kg seed.

Metalaxyl, the main fungicide used to manage *Pythium* disease on seeds and seedlings, is at a high risk for resistance development. The use of INTEGO Solo Fungicide on alfalfa and cereal grains will permit growers to integrate ethaboxam with metalaxyl-containing seed treatments so as to improve fungicide resistance management in *Pythium* spp. populations.

## **Conclusion**

The Pest Management Regulatory Agency has completed an assessment of the information provided and has found the information acceptable to amend the INTEGO Solo Fungicide label product label.

## References

<b>PMRA Document Number</b>	<b>Reference</b>
2111203	2011, Value Summary for V-10208 3.2 FS Fungicide (Ethaboxam), a Seed Treatment Providing Systemic Fungicide Protection Against Seed and Seedling Diseases Caused by Pythium, Phytophthora, and Aphanomyces Across a Wide Range of Crops, DACO: 10.1,10.2,10.2.1,10.2.2,10.2.3,10.2.3.1,10.2.3.2,10.2.3.3,10.3,10.3.1,10.4,10.5,10.5.1,10.5.2,10.5.3,10.5.4
3261332	2021, Value Summary for INTEGO Solo Fungicide (Ethaboxam) - Label Expansion for Alfalfa and Cereal Grains, DACO: 10.1,10.2.1,10.2.2,10.2.3.1,10.3,10.4,10.5.1,10.5.2,10.5.3,10.5.4
3373461	2022, Value Deficiency Response for INTEGO Solo Fungicide (Ethaboxam) Label Expansion for Alfalfa, DACO: 10.1,10.2.3.3
3373462	2022, MS Excel Spreadsheet: Trial Data for "Value Deficiency Response for INTEGO Solo Fungicide (Ethaboxam) Label Expansion for Alfalfa", DACO: 10.2.3.3

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