

Evaluation Report for Category B, Subcategory 3.11, 3.12 Application

Application Number: 2012-1762
Application: New or changes to product label – new pests and sites
Product: Heads Up Plant Protectant
Registration Number: 29827
Active ingredients (a.i.): Saponins of *Chenopodium quinoa* (63.02% w/w)
PMRA Document Number : 2214442

Background

Heads Up Plant Protectant is a soluble powder (63.02% saponins of *Chenopodium quinoa* w/w) intended to suppress disease caused by *Sclerotinia sclerotiorum* on dry bean and *Fusarium virguliforme* on soybean. Heads Up Plant Protectant is currently registered for the suppression of rhizoctonia canker and black scurf on potatoes and suppression of *Rhizoctonia solani* and *Sclerotinia sclerotiorum* on soybean.

Saponins of *Chenopodium quinoa* are extracted from the seeds of *Chenopodium quinoa*, a member of the Chenopodiaceae family of plants. Saponins are present in several food crops including legumes and other members of the Chenopodiaceae family including spinach and sugar beet.

Purpose of Application

The purpose of this application was to add a disease claim on soybean and to add dry beans to the Heads Up Plant Protectant label.

Health Assessments

The use of Heads Up Plant Protectant as a dry bean and soybean seed treatment is consistent with the currently registered use as a soybean and potato seed treatment. Toxicological, occupational exposure and food residue exposure assessments concluded that no further data were required to support this new use.

Value Assessment

Three trials conducted in Canada and the US in 2010 and 2011 were submitted for review. A scientific rationale was also submitted to extrapolate data reviewed on white mould of soybean from a previous submission to dry bean.

Efficacy data submitted on sudden death syndrome (SDS) on soybean demonstrated partial suppression of disease incidence and severity. Significant decreases in plants with infected roots were observed as well as significant increases in yield in one trial. Although the level of control

seems to be partial suppression, the increase in yield and reduction of root infection suggest that the claim of suppression may be appropriate. SDS is a serious disease of soybean with no currently registered fungicides. The registration of Heads Up Plant Protectant for this use has value as an initial pest management option that is appropriate for both conventional and organic growers.

The claim of suppression of white mould on soybean is currently registered on the Heads Up Plant Protectant label. Extrapolation of claims for a product that induces SAR in plants requires evidence that treatment with the fungicide incites the same metabolic processes in both crops that protect plants from the target disease. The trial submitted on dry beans demonstrated suppression of disease incidence and a significant reduction in disease severity as a result of treatment with Heads Up Plant Protectant at the same rate registered for soybean. This trial suggests that treatment with Heads Up initiates a SAR reaction in dry beans similar to that observed in soybeans. The trials on dry bean and soybean demonstrate suppression of white mould on dry bean at the rate proposed. Registration of Heads Up Plant Protectant for this disease has value as a biological option to bean growers for white mould management.

Chemistry and Environmental Assessment

Chemistry and environmental assessments were not required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided in support of the product, Heads Up Plant Protectant, and has found the information sufficient to add a disease claim on soybean and to add dry beans to the product label.

References

- 2187569 2012, Occupational Exposure for Heads Up Plant Protectant on Dry Beans and Soybeans as a Seed Treatment, DACO: 5.2
- 1978971 2010, Efficacy and Crop Tolerance of Heads Up Plant Protectant used as a Soybean Seed Treatment, DACO: 10.1,10.2.1,10.2.2,10.2.3.1,10.2.3.3,10.3.1,10.3.2(A)
- 2187568 2012, Efficacy and Crop Tolerance of Heads Up Plant Protectant used as a Seed Treatment for the Control of Sudden Death Syndrome (Fusarium) in Soybean and White Mould in Dry Beans, DACO: 10.1,10.2.1,10.2.2,10.2.3.1,10.2.3.3,10.3.1,10.4,10.5.1,10.5.2,10.5.3

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