



Addition of New Pests

Evaluation Report for Category B, Subcategory 3.11 Application

Application Number: 2006-3271
Application: New Pests
Product: Cruiser 5FS Seed Treatment
Registration Number: 27045
Active ingredients (a.i.): Thiamethoxam (47.6%)
PMRA Document Number: 1442158

Background

Cruiser 5FS Seed Treatment has been registered since June 11, 2002. Cruiser 5FS Seed Treatment currently is registered for the control of certain insect pests in wheat, barley, corn, soybeans, dry edible beans, edible-podded and succulent-shelled beans and peas, and sunflowers. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to the product label.

Purpose of Application

The purpose of this application was to amend the registration of Cruiser 5FS Seed Treatment to include a claim of protection of stored seed against insect pests of stored grain when the seed has been treated at registered application rates to control insect pests in the field. The addition of this label claim does not entail any change to the use pattern of Cruiser 5FS Seed Treatment.

Chemistry Assessment

A chemistry assessment was not required because there was no change to product chemistry.

Health Assessments

No new residue data were required to support the following amendments to the Cruiser 5FS Seed Treatment label: to add several new pests to the label claims for this end-use product. These amendments are not expected to impact the magnitude of the thiamethoxam residues in/on the registered crops, as the maximum application rate and use pattern remain the same as what is currently registered for Cruiser 5FS Seed Treatment. Therefore, no increase in dietary exposure is anticipated.

The requested uses for Cruiser 5FS Seed Treatment fit within the existing use pattern for thiamethoxam. No increase in exposure is expected to occur for commercial seed treatment workers and farmers seeding treated seeds under the proposed uses. The proposed uses are supported since the proposed changes to the label resulted in the same or lower amounts of thiamethoxam commercially treated per day or seeded per day than the registered use.

The personal protective equipment (PPE) on the label has been updated to reflect the toxicological database of thiamethoxam. The revised PPE is: all workers (treater, cleaner, repair, maintenance, bagger, sewer, stacker, forklift operator and others) must wear: coveralls over long sleeve shirt, long pants and chemical-resistant gloves. For good hygiene practice, it is also recommended to wear a NIOSH/MSHA approved dust mask during all job activities. PPE on bags of treated seeds is: wear long-sleeved shirt, long pants, and chemical-resistant gloves when handling treated seed. This updated PPE is considered adequate to address acute as well as short to long term risk.

Bystander exposure and risk during and after application of Cruiser 5FS Seed Treatment is considered negligible because the product is applied to seed in commercial facilities, bags of treated seed are adequately labelled, and treated seeds are directly seeded in the ground.

Environmental Assessment

This application for the addition of new pests does not pose an increased risk to the environment. Therefore, additional environmental data were not required in support of the label change. This proposed use pattern does not affect the assessment of risk to non-target wildlife. Environmental concerns are mitigated on the existing label.

Value Assessment

Efficacy trials were conducted against each of the storage pests proposed to be added to the label. The submitted data demonstrate that thiamethoxam seed treatments are effective against all of the proposed pests when applied at or below the range of application rates currently registered in Canada for control of insect pests in the field. This could eliminate the need for additional treatments to control storage pests when seed is treated for control of field pests.

Conclusion

The PMRA has completed an evaluation of the subject application and has found the information sufficient to amend the registration of Cruiser 5FS Seed Treatment to include a claim of protection of stored seed against insect pests of stored grain when the seed has been treated to control insect pests in the field.

References - List of Studies/Information Submitted by Applicant

- 1240893 Arthur, F.H. et al. 2004. Susceptibility of stored-product beetles on wheat and maize treated with thiamethoxam: effects of concentration, exposure interval, and temperature. *Journal of Stored Products Research* 40: 527-546. DACO: 10.2.3.3

1240892 Yue B. et al. 2003. Evaluation of thiamethoxam and imidacloprid as seed treatments to control European corn borer and Indianmeal moth (Lepidoptera: Pyralidae) larvae. Journal of Economic Entomology 96: 503-509. DACO: 10.2.3.3

1421796 / 1421812 Storage Insect Pests in Cereals. DACO: 10.2.3.2

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