

Evaluation Report for Category B, Subcategory B.3.11, 3.2, 3.3 Application

Application Number: 2011-1551
Application: B.3.11 (Changes to Product Labels-New Pests)
B.3.2 (Changes to Product Labels-Application Timing)
B.3.3 (Changes to Product Labels-Application Number or Frequency)
Product: NEU1173H
Registration Number: 29539
Active ingredients (a.i.): iron (present as FeHEDTA) (IRN)
PMRA Document Number English PDF: 2077459

Background

NEU1173H has been registered since April 14, 2010. NEU1173H is registered for application at 0.5 to 1.0 g a.i./m² (200 to 400 ml/m² of a 4% solution of 24 parts water to 1 part product) to lawn turf consisting of one or more of Kentucky bluegrass, perennial ryegrass and fescue (tall fescue, chewings fescue and/or creeping fescue) for the control or suppression of several broadleaved weeds. Prior to the subject application to amend the registration of this product, treatment was limited to turf that was established, and the number of applications was limited to a maximum of two per area per year with at least 4 weeks between applications.

Purpose of Application

The purpose of this application was to remove the value-related conditions to the registration of NEU1173H, add the option to use a lower application rate of 0.25 g a.i./m² (100 ml/m² of a 4% solution of 24 parts water to 1 part product) for the control of some weeds, include a claim of control for an additional weed (wild geranium), remove the limitation of applying only to established turf, increase the maximum number of applications to four per year, and reduce the minimum application interval to three weeks.

Chemistry Assessment

NEU1173H is formulated as a solution containing Iron (present as FeHEDTA) at a nominal concentration of 4.43 %. This end-use product has a density of 1.41 g/cm³ and pH of 5.9. The chemistry requirements for NEU1173H are complete.

Health Assessments

Health assessments were not required for this application.

Environmental Assessment

The amendments to the label of NEU1173H to add a new pest (wild geranium), a new lower rate (100 mL solution/m²), to increase the frequency from 2 to 4 applications per year and to decrease the retreatment interval from greater than 4 weeks to 3 weeks are not expected to result in an unacceptable risk to the environment. Environmental concerns have been mitigated through adequate statements on the product label.

Value Assessment

In support of removing efficacy-related conditions to the registration of NEU1173H, data were submitted from ten field trials conducted in 2010 in which the efficacy of formulated chelated iron, identified as 'NEU1173H' and applied at labelled rates, was evaluated for the control of specific broadleaved weeds. The tested formulation was applicable to NEU1173H.

The submitted data generated for dandelion, broadleaved plantain, white clover, creeping buttercup, Canada thistle, bull thistle, and moss were adequate to confirm labelled efficacy claims.

The submitted data demonstrated that application of a reduced rate of 'NEU1173H' at 0.25 g a.i./m² would often be expected to result in control of black medic, slender speedwell, wild geranium, and moss, and seedlings of English daisy, dandelion, false dandelion, and white clover. However, it was evident that a second application at this rate may be required to achieve control of these weeds.

In support of removing non-safety adverse effects conditions to the registration of NEU1173H, data were submitted from one greenhouse study and 13 field studies conducted in 2010 in which the tolerance of turf grasses to applications of 'NEU1173H' at or above labelled rates was evaluated. Studies were conducted on established turf, except for the greenhouse study in which the tolerance of seedlings of Kentucky bluegrass, chewings fescue, creeping red fescue and tall fescue that were eight weeks old at the time of initial application to 'NEU1173H' was assessed, one field study in which the tolerance of newly seeded turf (Kentucky bluegrass, tall fescue and perennial ryegrass) that was four to eight weeks old at the time of initial application of 'NEU1173H' was assessed, and one field study in which the tolerance of newly established perennial ryegrass turf to 'NEU1173H' was assessed.

An assessment of the studies submitted with the present application indicated that the tolerance of established turf consisting of one or more of Kentucky bluegrass, perennial ryegrass, and fescue (tall fescue, hard fescue, and fine fescue (creeping red and chewings)) to 'NEU1173H' applied up to four times at rates of up to 1.0 g a.i./m² with an application interval of three or more weeks can be expected to be adequate. Furthermore, the tolerance of new turf that is four or more weeks old at the time of initial application can also be expected to be adequate, as demonstrated with both greenhouse and field studies. The data consistently demonstrated that turf substantially recovered from any injury prior to the next application made three weeks later. Maximum injury to turf often occurred after the second and third applications of 'NEU1173H', where applications were made three or more weeks apart, after which injury was lower, even following a fourth application. This would indicate that injury is generally not cumulative past

the second application and that a three week application interval appears to allow sufficient time for turf to recover from any injury prior to a subsequent application, provided that turf is not environmentally stressed e.g. drought. The tolerance of turf that is less than four weeks old at the time of the initial application was not evaluated. Therefore, a cautionary statement was added to the label in which it is advised that NEU1173H should not be applied to newly seeded turf until at least 4 weeks after emergence.

Conclusion

The PMRA has completed an evaluation of the subject application and has found the information sufficient to remove the conditions to the registration of NEU1173H and to amend the registration of NEU1173H to include the option of applying to newly seeded turf that is four or more weeks old, of applying up to four times per area per year with an application interval of three or more weeks, of applying a reduced application rate of 0.25 g a.i./m² for the control of some weeds, and of including a claim of control for wild geranium.

References

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- 2038749 2011, Herbicidal activity of NEU1173H, DACO: 10.2.3.2
- 2038750 2011, Tolerance of different grass species to repeated application of NEU1173H - Spring 2010, DACO: 10.3.2
- 2038751 2010, Part 1 Field Evaluation of an Herbicide on Canada Thistle in Perennial Ryegrass, DACO: 10.2.3.2,10.3.2
- 2038752 2010, Part 2 Field Evaluation of an Herbicide on Canada Thistle in Perennial Ryegrass, DACO: 10.2.3.2,10.3.2
- 2038753 2010, Part 3 Field Evaluation of an Herbicide on Canada Thistle in Perennial Ryegrass, DACO: 10.2.3.2,10.3.2
- 2038754 2011, Research Trial Report, DACO: 10.2.3.2

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