



Evaluation Report for Category B, Subcategory 3.2, 3.8, 3.12 Application

Application Number: 2023-1283
Application: Changes to Product Labels - Application Timing; Re-Entry Interval; New Site or Host
Product: Magister SC Miticide
Registration Number: 34544
Active ingredient (a.i.): Fenazaquin
PMRA Document Number : 3607541

Purpose of Application

The purpose of this application was to add the use on Crop Group 14-11 (Tree nuts), hops and mint to the product label of Magister SC Miticide. In addition, new postapplication activities of leaf removal for Crop Subgroup 13-07F (Small fruits vine climbing, except fuzzy kiwifruit) with a 7-day restricted-entry interval (REI), and fruit turning for table grapes with a 22-day REI, were added to the label.

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

A toxicology assessment was not required for this application.

The amendments to the label of Magister SC Miticide, which include the addition of hops, mint and tree nuts as new target crops, as well as the addition of leaf removal as a postapplication activity for CSG13-07F with a 7-day REI and the addition of fruit turning as a postapplication activity for table grapes with a 22-day REI, represent an expansion of the use pattern for the active ingredient fenazaquin. Therefore, updated mixer/loader/applicator and postapplication worker risk assessments were conducted. With revised use instructions and restricted-entry intervals, no health risks of concern are expected, provided workers wear the appropriate personal protective equipment and follow all label directions.

A metabolism study in lettuce, representing the leafy vegetable crop category, was submitted in support of the current application and was found to be scientifically acceptable. Metabolism studies in the crop categories of fruit (apple, grape, orange) and cereal/grass crops (field corn) have been previously reviewed (PRD2022-11, *Proposed Registration Decision, Fenazaquin, Magister SC Miticide/Fungicide, and Magus SC Miticide*). As similar metabolism (similar metabolic pathways and resulting metabolites) has been demonstrated in three dissimilar crop categories, the metabolism data can be extended to all plant commodities.

Residue data from field trials conducted in the United States were reviewed to support the use of Magister SC Miticide on hops, mint and tree nuts in Canada. Fenazaquin was applied to hops, mint, almonds and pecans at label rates, and harvested according to label

directions. In addition, a processing study in treated mint was reviewed to determine the potential for concentration of residues of fenazaquin into oil. The storage stability data (on almond nutmeat, a high oil content and high protein content commodity, and on hops dried cones, a high oil content commodity) submitted to complete the data on file for fenazaquin were deemed to be scientifically acceptable.

Maximum Residue Limits

The recommendation for proposed maximum residue limits (MRLs) for fenazaquin was based upon the submitted field trial data, and the guidance provided in the [OECD MRL Calculator](#). MRLs to cover residues of fenazaquin in/on crops and processed commodities are proposed as shown in Table 1. Residues in processed commodities not listed in Table 1 are covered under the proposed MRLs for the raw agricultural commodities (RACs).

TABLE 1. Summary of Field Trial and Processing Data Used to Support Maximum Residue Limits (MRLs)							
Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	Currently Established MRL (ppm)	Proposed MRL (ppm)
			LAFT	HAF T			
Almond nutmeat	Foliar/498.2-526.4	7	<0.01	0.011	Not required	None	0.02
Pecan nutmeat	Foliar/492.8-512.2	6-7	<0.01	0.014	Not required	None	Tree nuts (crop group 14-11)
Hops dried cones	Foliar/499.5-526.4	7	0.725	11.7	Not required	None	30 Hops (dried cones)
Mint tops	Foliar/492.8-515.2	7	0.571	5.34	No concentration in oil	None	10 Dried peppermint leaves; dried spearmint leaves; fresh peppermint leaves; fresh spearmint leaves

ppm = parts per million; LAFT = Lowest Average Field Trial; HAFT = Highest Average Field Trial

There are no livestock feed commodities associated with the uses in this application.

Following the review of all available data, the MRLs proposed in Table 1 are recommended to cover residues of fenazaquin. Dietary risks from exposure to residues of fenazaquin in these crop

commodities at the proposed MRLs were shown to be acceptable for the general population and all subpopulations, including infants, children, adults and seniors. Thus the foods that contain residues as listed in Table 1 are considered safe to eat.

Environmental Assessment

The use pattern for the new crops is within the currently registered use pattern for fenazaquin. Therefore, no additional risks to the environment are expected. The addition of hops, mint, and tree nuts at the label use rate is acceptable from an environmental perspective when the product is used in accordance with the label directions.

Value Assessment

Efficacy trial results and scientific rationales demonstrated that Magister SC Miticide would control various spider mites on hops, mint, and tree nuts, suppress powdery mildew on hops, and control powdery mildew on almonds when applied in accordance with label directions. The active ingredient fenazaquin provides a new mode of action for all of these new uses of the product.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information acceptable to support the amendments to the product label of Magister SC Miticide.

References

PMRA Document Number	Reference
2996753	2019, Value summary to register the new products, MAGISTER™ SC Miticide / Fungicide and MAGUS™ SC Miticide / Fungicide, both containing the active ingredient, fenazaquin, for broad-spectrum control of listed insect and mite pests and powdery mildew in cucurbit vegetables, fruiting vegetables, hops, legume vegetables, succulent and dried shelled peas and beans, berries, mint, pome fruits, grape, stone fruits, corn (field and sweet), ornamentals, and greenhouse vegetables in Canada, DACO: 10.1, 10.2, 10.2.1, 10.2.2, 10.2.3, 10.2.3.1, 10.3, 10.3.1, 10.3.2
2996759	2010, Control of two spotted spider mite on hops with GWN-1708, DACO: 10.2.3.3(C)
2996760	2015, Evaluate the optimal rate of GWN-10250 that will give combined control of Powdery Mildew and Two Spotted Spider mite in hops, DACO: 10.2.3.3(C)
2996762	2015, Does fenazaquin control both mites and powdery mildew in hops?, DACO: 10.2.3.3(C)
2996763	2018, Evaluation of fungicides for hop powdery mildew, DACO: 10.2.3.3(C)
2996764	2010, Determine the efficacy of various miticides on mint grown in the Columbia Basin, DACO: 10.2.3.3(C)

PMRA Document Number	Reference
2996788	2013, Control of Powdery Mildew in Cherry, DACO: 10.2.3.3(C)
2996789	2015, Evaluate labeled rates for mite control and powdery mildew in Cherries and record the residual control of both pests., DACO: 10.2.3.3(C)
2996790	2016, Tree Fruit Disease Management Trials, DACO: 10.2.3.3(C)
2996805	2013, GWN-10250 / Powdery Mildew / Apple, DACO: 10.2.3.3(C)
2996806	2016, Efficacy of GWN-10410 Against Pacific Spider Mite in Almond, DACO: 10.2.3.3(C)
2996807	2017, GWN-10409/Almond/TSSP, DACO: 10.2.3.3(C)
2996808	2009, GWN 1708 Walnut Mites, DACO: 10.2.3.3(C)
2996809	2016, Efficacy of GWN-10410 Against Two-Spotted Spider Mite in Walnuts, DACO: 10.2.3.3(C)
2996810	2007, New Mexico Corn Miticide Trial, DACO: 10.2.3.3(C)
2996811	2009, Early Season Backpack Application of GWN-1708 to Grain Corn to Determine Efficacy Against a Beginning Population of Spider Mites, DACO: 10.2.3.3(C)
2996812	2009, GWN-1708 Sweet Corn - Mite Control, DACO: 10.2.3.3(C)
2996814	2009, Determine the Effectiveness of GWN 1708 Applied on Field Corn to Control Mites., DACO: 10.2.3.3(C)
2996815	2016, Gowan Spider Mite Trial 2013, DACO: 10.2.3.3(C)
2962780	2010, Magnitude and Decline of the Residue of Fenazaquin and Fenazaquin Dimer in or on Tree Nuts Raw Agricultural Commodities Following One Application of GWN-1708--2008: Final Report., DACO: 7.4,7.4.1
2962781	2010, Magnitude of the Residue of Fenazaquin and Fenazaquin Dimer in or on Hops Raw Agricultural Commodities Following One Application of GWN-1708--2008: Final Report., DACO: 7.4,7.4.1
2962788	2015, Residues of Fenazaquin in or on Hops Following One Application of GWN-1708 (2014): Final Report., DACO: 7.4,7.4.1
2962798	2010, Magnitude and Decline of the Residue of Fenazaquin and Fenazaquin Dimer in or on Mint Raw Agricultural and Processed Commodities Following One Application of GWN-1708--2008: Final Report., DACO: 7.4,7.4.1,7.4.5
3449713	2022, GWN-8033: Metabolism in Lettuce, DACO: 6.3
3509986	2015, Residues of Fenazaquin in or on Almonds Following One Application of GWN-1708 1.67 SC (2012), DACO: 7.3
3509987	2015, Residues of Fenazaquin in or on Hops Following One Application of GWN-1708 (2012), DACO: 7.3

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