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Proposed Maximum Residue Limit

PMRL2016-51

Tolfenpyrad

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) is proposing to establish maximum residue limits (MRLs) for tolfenpyrad on various commodities from the United States, as well as tea from Japan, to permit the import and sale of foods containing such residues.

Tolfenpyrad is an insecticide not currently registered for use in Canada.

The PMRA must determine the quantity of residues that are likely to remain in or on the imported food commodities when tolfenpyrad is used according to label directions in the exporting country, and that such residues will not be a concern to human health. This quantity is then legally established as an MRL on the corresponding imported commodity. An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for tolfenpyrad is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by Canada's Notification Authority and Enquiry Point.

The proposed MRLs for tolfenpyrad are as follows.

Table 1 Proposed Maximum Residue Limits for Tolfenpyrad

| Common Name | Residue Definition | MRL (ppm) ¹ | Food Commodity |
|-------------|---|------------------------|--|
| Tolfenpyrad | 4-chloro-3-ethyl-1-methyl-N-[[4-(4-methylphenoxy)phenyl]methyl]-1H-pyrazole-5-carboxamide | 70 | Citrus oil |
| | | 30 | Leafy vegetables, except <i>Brassica</i> (Crop Group 4) - except spinach; tea (dried leaves) |
| | | 3.0 | Dried prune plums |
| | | 2.0 | Stone fruits (Crop Group 12-09) |
| | | 1.5 | Citrus fruits (Crop Group 10R) |
| | | 0.7 | Undelinted cotton seeds |
| | | 0.05 | Tree nuts (Crop Group 14-11) |
| | | 0.01 | Potatoes |

¹ ppm = parts per million

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada’s website.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International Situation and Trade Implications

Table 2 presents the differences between the MRLs proposed for tolfenpyrad in Canada with the corresponding American tolerances and Codex MRLs.¹ Except for Crop Group 4, all other proposed Canadian MRLs are the same as the corresponding American tolerances, which are listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. In addition, except for tea which is established at the same Codex MRL as the corresponding Canadian and American values, there are currently no MRLs listed for tolfenpyrad in or on any other commodity on the Codex Alimentarius Pesticide Residues in Food and Feed webpage.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)

| Food Commodity | Canadian MRL (ppm) | American Tolerance (ppm) | Codex MRL (ppm) |
|--|---------------------------|---|------------------------|
| Leafy vegetables, except <i>Brassica</i> (Crop Group 4) - except spinach | 30 | 30 (Leafy vegetables, except <i>Brassica</i> (Crop Group 4)) | Not established |

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for tolfenpyrad up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

¹ The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Appendix I

Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Residue data from the United States for tolfenpyrad on potatoes, leaf lettuce, head lettuce, celery, citrus fruits (oranges, grapefruits and lemons), stone fruits (sweet cherries, peaches and plums), tree nuts (almonds and pecans), and cotton, as well as residue data from Japan on tea, were reviewed to support maximum residue limits on imported food crop commodities. In addition, processing studies in treated plums, potatoes, oranges and cotton seeds were assessed to determine the potential for concentration of residues of tolfenpyrad into processed commodities.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for tolfenpyrad was based upon the residues observed in crop commodities treated according to label directions and exaggerated rates in the exporting countries, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data used to calculate the proposed MRLs for the various imported crops.

Table A1 Summary of Field Trial and Processing Data Used to Support MRLs

| Commodity | Application Method/Total Application Rate (g a.i./ha) ¹ | Preharvest Interval (days) | Lowest Average Field Trial Residues (ppm) | Highest Average Field Trial Residues (ppm) | Experimental Processing Factor |
|------------------------------------|--|----------------------------|---|--|---|
| Potatoes | Ground foliar broadcast/ 451–477 | 13–14 | <0.01 | <0.01 | No quantifiable residue in both the raw agricultural commodities and processed fractions (flakes & chips) |
| Leaf lettuce | Ground foliar broadcast/ 451–461 | 1 | 0.873 | 13.3 | Not required |
| Head lettuce (with wrapper leaves) | Ground foliar broadcast 447–470 | 1 | 0.122 | 3.58 | Not required |
| Celery | Ground foliar broadcast/ 451–463 | 1 | 0.279 | 5.33 | Not required |
| Oranges | Ground foliar broadcast/ 588–613 | 14 | 0.189 | 0.828 | Juice: No concentration Citrus oil: 82x |

| Commodity | Application Method/Total Application Rate (g a.i./ha)¹ | Preharvest Interval (days) | Lowest Average Field Trial Residues (ppm) | Highest Average Field Trial Residues (ppm) | Experimental Processing Factor |
|------------------|--|-----------------------------------|--|---|---------------------------------------|
| Grapefruits | Ground foliar broadcast/ 589–613 | 14–15 | 0.073 | 0.326 | Not required |
| Lemons | Ground foliar broadcast/ 590–603 | 14 | 0.319 | 0.539 | Not required |
| Sweet cherries | Ground foliar broadcast/ 607–616 | 14 | 0.267 | 0.896 | Not required |
| Peaches | Ground foliar broadcast/ 548–636 | 13–14 | 0.140 | 0.689 | Not required |
| Plums | Ground foliar broadcast/ 612–625 | 14 | 0.124 | 0.929 | Prunes: 2.9x |
| Almonds | Ground foliar broadcast/ 605–617 | 13–14 | <0.01 | 0.027 | Not required |
| Pecans | Ground foliar broadcast/ 610–618 | 13–14 | <0.01 | <0.01 | Not required |
| Cotton | Ground foliar broadcast/ 454–470 | 13–14 | 0.012 | 0.411 | Refined oil: No concentration |
| Tea ² | Ground foliar broadcast/ 300–600 | 14 | 3.77 | 14.12 | Not required |

¹ g a.i./ha = grams of active ingredient per hectare

² Tolfenpyrad residue levels from tea trials conducted with an application rate below the Japanese registered rate were scaled based on the proportionality concept.

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of tolfenpyrad. Residues of tolfenpyrad in these imported crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.