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Update: Information for Canadians with Mustard Allergy

August 22, 2019



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Summary

In February 2016, Health Canada published a document, "[Information for Canadians with Mustard Allergy](#)" which described the possibility that a proportion of certain cereal grains could be cross-contaminated with low amounts of mustard, a priority food allergen in Canada. At that time, the Department committed to conducting further research into this issue in order to define what potential health risk this finding represented. New scientific data have since confirmed that it is a related plant species, canola, rather than mustard that is detected at low levels in some cereal grains.

As canola is not considered to be a priority food allergen, this new information does not support the continued use of precautionary labelling for mustard on grains and grain-derived foods.

Background

Health Canada's 2016 publication "Information for Canadians with Mustard Allergy" indicated that cereal grains such as wheat, oats and barley could contain low levels of mustard due to the way these grains are grown, harvested, transported and stored. This advice was based on survey results, obtained using a standard analytical method, that detected low levels of mustard in a significant number of samples, including various flours (barley, buckwheat, kamut, oat, quinoa, rye and wheat) as well as bread, cake, breakfast cereals, cookies, crackers and pasta. Health Canada also indicated that it was gathering additional data on potential levels of mustard in cereal grain flours and would use this data to assess the risk to mustard-allergic consumers.

Since that time, Health Canada determined that the standard analytical test method for mustard protein, enzyme-linked immunosorbent assay or ELISA, cross-reacts with plant species from the same family as mustard, including canola. Because of this, a new analytical method using liquid chromatography-tandem mass spectrometry (LC/MS/MS) was developed which is capable of distinguishing between different species of the *Brassicaceae* plant family, including mustard and canola.

Health Canada has re-analysed many of the above samples with this new method to see whether or not the positive results were due to the presence of mustard or another species.

The more recent results using the new LC/MS/MS method indicate that what was previously thought to be mustard is actually canola. This conclusion is consistent with visual observations of cereal grains gathered in the field in Canada as well as with the fact that the amount of canola grown in Canada is much higher than for mustard.

Canola is predominantly grown for its seeds. Canola seeds are typically not used as a food or food ingredient but are used to produce canola oil, which has widespread uses as a cooking oil and as a food ingredient.

As some proteins in mustard are very similar in composition to proteins in canola it may be possible for someone with a mustard allergy to also have an allergic reaction to canola. However, Health Canada is not aware of any reported adverse reactions due to the adventitious presence of canola or mustard in food products. The risk of mustard-allergic consumers reacting to levels of adventitiously present canola in finished cereal based-products is considered low. More information on canola and the risk for people with mustard allergy is available in the Health Canada publication "[Mustard – A priority food allergen](#)".

Based on this information, mustard allergic consumers should be aware of the following:

- Canola may be present at low levels in a certain percentage of cereal grains and cereal-derived foods.
- There may be a potential for those with mustard allergies to also react to canola protein.
- Health Canada will continue to seek out and consider any new scientific information that could provide further insight to this potential risk.
- Based on the information available at this time, HC considers any risk to mustard allergic consumers from adventitiously present canola in finished cereal grain products to be low.

Labelling Implications

With respect to the labelling of prepackaged grain-based foods, the available evidence is indicative of the adventitious presence of low levels of canola in cereal grains and not mustard. Therefore, it is not appropriate for food manufacturers to use precautionary labelling such as “may contain mustard” on wheat flour and other grain-based foods.

Additionally, due to the lack of any reported adverse reactions associated with the adventitious presence of canola in cereal grains and the fact that the survey only detected low levels of canola in the samples that were tested, Health Canada does not recommend the use of any other precautionary statement such as “may contain canola” in the case of adventitious presence of canola in cereal grains. The use of precautionary labelling for mustard is appropriate for those specific situations where there is a known potential for cross-contamination such as when a food product is manufactured in a plant that also manufactures other products which contain mustard and cross-contamination is possible, despite reasonable efforts being made to avoid it.

Contact Information

If you wish to contact the Food Directorate electronically, please use the words "**Mustard Allergy**" in the subject line of your e-mail.

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