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Sir F. G. Banting Research Centre
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TO: IMPORTERS, DOMESTIC PRODUCERS AND DISTRIBUTORS

SUBJECT: PACKAGING AND STORAGE OF FRESH MUSHROOM

The Canadian Food Inspection Agency (CFIA) has recently recalled both vacuum-packed fresh Shiitake mushrooms and fresh Enoki and Oyster mushrooms packed in plastic bags with no perforations, imported from the Republic of China. Health hazard alerts were also published, warning the public not to consume such products due to the potential presence of *Clostridium botulinum*.

Fresh mushrooms can contain spores of *C. botulinum* bacteria. In the absence of oxygen, as when packaged with a hermetic seal or in a non-oxygen permeable film, *C. botulinum* can grow and produce toxin before visible signs of spoilage appear. *C. botulinum* is the bacterium responsible for botulism, a life-threatening illness in humans.

The CFIA is reminding all importers, domestic producers and distributors of packaged fresh mushrooms of their responsibility, to ensure that their products are in compliance with Section 3.1 (1) of the *Fresh Fruit and Vegetable Regulations*¹ and satisfies the requirements of the *Food and Drug Act* and its *Regulations*, particularly Section B.27², as appropriate.

Fresh mushrooms stored in a hermetically sealed package, must be kept refrigerated at 4°C or less from the time of packaging. The label must state "Keep Refrigerated" and "Garder au froid" on the consumer-size package, as well as on the original shipping container. Health Canada also requires that a clear "Best Before" date be affixed on the outside of the package indicating the end of the expected shelf-life.

¹ <http://laws.justice.gc.ca/en/C-0.4/C.R.C.-c.285/23459.html#rid-23527>

² http://www.hc-sc.gc.ca/food-aliment/friia-raaii/food_drugs-aliments_drogues/act-loi/e_index.html

However, these requirements do not apply to fresh mushrooms which are packaged in a container that is visibly perforated to allow free access of air to the mushrooms.

Those importers, domestic producers and distributors wishing to use packaging that results in a non-oxygen permeable, hermetic seal must consider the following: before the stated shelf-life of the product can be accepted and the product is offered for sale, importers, domestic producers and distributors must generate or obtain a full evaluation of the product, including the production, packaging, transit and storage parameters (for example, temperature after harvesting, during transport, during storage; expected shelf-life; type of packaging; use of preservatives or modified atmosphere using oxygen, carbon dioxide, nitrogen, etc.). The data from this evaluation must be submitted to Health Canada for assessment at the following address:

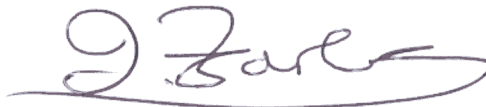
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For more information on Health Canada's position and advice regarding the packaging of fresh mushrooms, please see the attached document entitled: "Health Canada Advisory concerning the Packaging of Fresh Mushrooms".



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