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In Union Is Strength

FOR IMMEDIATE RELEASE

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ASPARAGINASE, A GENETICALLY-MODIFIED ENZYME, SHOULD NOT BE APPROVED AS A FOOD ADDITIVE, SAYS NFU

Asparaginase, a genetically-modified enzyme currently used as a chemotherapy drug to treat leukemia, should not be approved as a food additive by Health Canada, says the National Farmers Union (NFU).

In December, 2009, Health Canada posted a notice on its website of a proposal to amend the federal *Food and Drug Regulations* to permit the use of the genetically-modified enzyme, Asparaginase, in food products. [<http://www.hc-sc.gc.ca/fn-an/consultation/init/2009-asparaginase/prop-asparaginase-eng.php>] Public response to the proposal was limited to a 75-day, website-only “consultation” period, which expired February 21, 2010.

The NFU sent a letter to Health Canada on February 18, 2010, recommending that Asparaginase not be approved as a food additive. The NFU also called on Health Canada to undertake independent testing to determine the long-term health effects of Asparaginase as a food additive, to extend the consultation period, and to allow additional public input on the issue.

NFU Alberta Coordinator Margo Staniforth said there is significant potential public risk associated with the use of Asparaginase as a food additive, while the proposed benefits are negligible.

While Health Canada claims there are no public health or safety concerns associated with Asparaginase, that assessment is based on information submitted by the manufacturers of the enzyme. Two companies, Novozymes and DSM, own the intellectual property rights for this form of Asparaginase, and have begun marketing the compound in the US, Australia and other countries where it is already approved for use as a food additive. Asparaginase is claimed to reduce the likelihood of the formation of acrylamide in baked or fried food products.

Synthetic acrylamide is a carcinogen which is widely used in industrial processes like cement-making, pulp and paper, oil drilling, ore processing, permanent-press fabrics and dye manufacturing. It is present in tobacco smoke, and is also used as a “soil conditioner”

in conjunction with many herbicides. At high levels, such as those found in industrial uses, acrylamides have been found to cause cancer.

The presence of acrylamide in food was first detected in 2002, but it is unknown if this “naturally-occurring acrylamide” has always been present in foods. In addition, the levels of acrylamide in baked or fried foods vary widely. Starchy foods such as French-fries and highly-processed potato chips are the most likely to be affected, but even in these foods, the levels are extremely low. Injecting Asparaginase into foods is claimed to “reduce”, but not eliminate, the risk of acrylamide formation.

However, Asparaginase itself is risky, as Margo Staniforth points out. “Asparaginase is not a benign or harmless substance. The most widely-prescribed form of this compound is an anti-cancer drug that is marketed under the trade name of Elspar and manufactured by the pharmaceutical giant, Merck and Co. The drug is used to treat leukemia and works by starving tumour cells of needed nutrients and slowing tumour cell growth.” She said Asparaginase is a drug intended for a specific purpose – namely to combat leukemia and other lymphatic cancers. “The risks associated with this drug are many and potentially very serious. However, the drug is justified when it’s administered under highly-controlled conditions, to combat a deadly disease like cancer.”

She said the approval of genetically-modified Asparaginase as a food additive is not justified, given that the levels of acrylamide formation in food are extremely low. She urged Health Canada to undertake further research into the origins of acrylamide formation in food, and to study whether any links exist between acrylamides in the environment and polyacrylamides contained in herbicides such as glyphasate.

Staniforth said Health Canada should adopt the “precautionary principle” and not approve any drug or food additive that has not been thoroughly proven safe. “The onus should not fall on the public to prove that the drug or food additive being considered is dangerous or harmful,” she concluded.

The NFU letter to Health Canada is available on the NFU website at www.nfu.ca/briefs/2010/NFU%20Comments%20regarding%20Health%20Canada's%20proposal%20to%20permit%20the%20use%20of%20asparaginase.pdf

The NFU website can also be accessed at <http://www.nfu.ca> and click on “Briefs and Policy”.

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