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Food and Nutrition

Food Directorate Policy on Specified Risk Material (SRM) in the Food Supply

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Background

In 1996, variant Creutzfeldt-Jakob Disease (vCJD) was diagnosed in humans in the United Kingdom and linked to the consumption of products derived from cattle with bovine spongiform encephalopathy (BSE).

Prior to the finding of a cow positive for BSE in May, 2003, the Government of Canada's position was that Canada was "BSE-free." On this basis, all Health Canada policies relating to food, or other Health Canada regulated products containing bovine ingredients reflected the view that the sourcing of bovine ingredients from domestic Canadian animals posed no measurable bovine spongiform encephalopathy (BSE) risk to the health of Canadians.

Given the positive finding, the Canadian Food Inspection Agency (CFIA)¹ investigation and the International Panel² review, it is now Health Canada's precautionary assumption that there may be a low, previously undetected, BSE prevalence in Canada. This change in prevalence assumption necessitated a review of Health Canada policies relating to human health protection regarding BSE.

In an international context, many countries that have confirmed the presence of BSE in their domestic cattle population have taken the public health protection measure of requiring the removal of specific tissues from cattle of a defined age at slaughter referred to as specified risk material (SRM). These tissues have been included in our consideration based upon the Food Directorate assessment of risks to human health presented by foods containing these tissues which were derived from BSE-infected cattle. In such cattle, these tissues have been demonstrated to present a higher potential for infectivity. The precautionary measure of SRM removal represents an effective preventative action to enhance public health protection. This action is also consistent with the recommendations made by the International Panel.

The removal of SRM is consistent with the Food Directorate's position that no material derived from an animal infected with a transmissible spongiform encephalopathy (TSE) knowingly enters the food supply. TSEs are a family of related but distinct, neuro-degenerative diseases. BSE is one such disease.

Human Health Relevance of BSE

While BSE is a cattle disease, and hence an animal health issue, the human disease, variant Creutzfeldt-Jakob Disease (vCJD), has been associated with the consumption of products derived from BSE-infected cattle. vCJD is a neuro-degenerative disease that is untreatable, and is always fatal. vCJD is a related, but very distinct disease from classical or sporadic CJD.

While a great deal of scientific research has been conducted on the subject, there is no

confirmed direct link between BSE and vCJD, and the relationship between BSE and vCJD is not fully understood. There is, however, an accepted epidemiological association between BSE in animals, the exposure by humans to the BSE agent, and the subsequent development of vCJD in humans. There is debate concerning the validity and strength of the relationship.

Policy Objective

The objective of this policy is to reduce the risk of exposure through the food supply to the BSE agent by establishing a requirement that SRM be removed at the time of slaughter, and SRM be diverted away from the food supply. This action is recognized as having the most direct impact on enhancing the protection of human health.

Health Canada will continue to work with the CFIA with respect to animal health protection measures which may also have a related human health benefit. This includes enhancing feeding and rendering practices and expanding the existing surveillance to determine the true prevalence of BSE in Canada.

Policy Development

The removal of specific tissues as SRM and the age of applicability are key considerations to reduce possible human exposure to SRM. Based on our review of the current science, the removal of SRM will eliminate more than 99% of the potential infectivity from an infected carcass, preventing consumer exposure through foods.

Policy Statement

1. SRM are to be removed from all cattle at slaughter where SRM means any of
 - a. the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older;
 - b. the distal ileum of cattle of all ages.
2. All removed SRM are to be diverted away from the food supply.
3. The requirement to remove all SRM from cattle does not apply to food originating from a country that is designated as being free from BSE in accordance with the *Health of Animals Regulations*.

Policy Implementation

The SRM are those tissues that have been identified as presenting a direct public health risk from BSE-infected cattle. It is also acknowledged that there are issues related to the complete removal of some tissues, and to the potential for cross-contamination. The Food Directorate therefore recommends that guidance be provided to the industry by the Canadian Food Inspection Agency on the means of effective SRM removal via Policy Directives and/or Codes of Practice. These Directives/Codes would also serve to support Provincial/Territorial agencies in ensuring appropriate SRM removal in establishments operating under their jurisdiction.

The guidance should address the current limitations in ensuring the effective removal of SRM without creating opportunities for contamination of meat and meat products. For example, it may be necessary to remove the vertebral column to ensure the adequate removal of the spinal cord and dorsal root ganglia. Measures which industry might propose to achieve the policy objective in a manner other than that outlined in the guidance documents would be evaluated by Food Directorate and CFIA to ensure that they achieve an equivalent level of public health protection.

Consultation

Consultation on the development of this policy included the Federal Government (CFIA and Agriculture and Agri-Food Canada); Provincial/Territorial Authorities and three Federal/Provincial/Territorial committees (Federal/Provincial/Territorial Committee on Food Safety Policy, Federal/Provincial/Territorial Agri-Food Inspection Committee and the Canadian Food Inspection System Implementation Group) and the Council of Chief Medical Officers of Health. Consultation with representatives from various industry sectors (e.g. feed, seed stock, cow-calf, feedlot, primary/secondary processing, rendering, food service and retail) occurred at the National Beef Industry Value Chain Roundtable on June 23-24, 2003.

Trade and Economic Considerations

As the U.S. does not currently (as of July 21, 2003) have an SRM ban, Canada's adoption of this measure will potentially create differences between Canadian and U.S. policy. A case of BSE has not been confirmed in the U.S. However, the Harvard Risk Assessment (2001) did identify that SRM is a key factor in transmission and amplification of BSE. This fact has resulted in the U.S. authorities putting forward various options for an SRM ban for discussion. Canadian officials are working in close collaboration with U.S. officials on this issue.

Interdisciplinary Impact and General Impact

SRM removal is the first measure taken which will act as the basis of a broader suite of strategies that relate to BSE management. The suite of BSE risk management options is broken out into three principal categories: (1) SRM Removal, (2) enhanced/revisted animal feeding restrictions (and rendering), and (3) enhanced surveillance and testing. The impact of policy decisions taken for one category will impact on the discussion of the others in terms of the effectiveness and degree of intervention that is appropriate.

Regulatory amendments are being proposed to section B.01.047 of the *Food and Drug Regulations* which would prohibit the sale of foods containing SRM.

Environmental Impact

There are important considerations related to the issue of SRM and carcass disposal which are associated with the policy regarding SRM of bovine origin. These are currently being examined, and further discussions will be required between the CFIA, Environment Canada, Health Canada, provinces and territories and industry.

Resource Considerations or Constraints

The impact of the SRM policy for slaughtering establishments will be related to the removal of SRM from the food supply with larger implications for federally registered establishments due to volume. Costs associated with industry compliance will be based on the need for identification, segregation and special processing of targeted animals (i.e., those over 30 months of age). Additionally, increased costs for inspection could be incurred by the CFIA and the provinces/territories.

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¹  <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/evale.shtml>

² <http://www.inspection.gc.ca/english/animal/heasan/disemala/bseesb/internat.shtml>

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