European ban on bovine growth hormones should continue: expert

Despite the "small risk" that bovine growth hormones may contribute to certain types of cancer in humans, a member of the independent scientific committee that is reviewing the literature surrounding the hormones for the European Union says Europe should continue to ban them.

Dr. Annie Sasco, acting chief of the World Health Organization's Program for Cancer Control, says that "most probably the risk is small because the quantities are small, but what is the benefit to consumers?"

She says the extensive literature review by the 9 committee members supports the need to adopt the precautionary principle developed during the 1992 Health Summit in Rio de Janeiro, which stated: "Sometimes we should not wait for absolute certainty to take measures to protect health." Canada is a signatory.

"This is our philosophy," Sasco told participants at the World Conference on Breast Cancer held in Ottawa this July. "We have sufficient evidence to say it's better to abstain [from ingesting these hormones]."

Sex hormones, including testosterone and 5 others, increase cattle's weight by about 10%, making North American meat cheaper to produce. Europe has banned use of the hormones over fears that they pose a health risk; it has subsequently banned imports of hormone-treated Canadian and US meat. In 1997 the World Trade Organization (WTO) ruled against the ban, and Europe paid sanctions and fines to keep North American meat out. In 1998 the WTO gave Europe 15 months to develop data about its concerns. This summer, a full-scale trade war threatened to break out over the issue, with the US imposing huge retaliatory tariffs on many products from Europe.

The committee found that the highest rates of hormone-dependent cancer, such as cancer of the breast, endometrium, ovary, prostate, testes and colon, are found in North America. "One cannot fail to note that these are also countries where hormone-treated meat consumption has been considerable in the last 20 years," states Sasco, who also heads the Unit of Epidemiology for Cancer Prevention at the International Agency for Research on Cancer.

Attendees also heard about the alleged hazards of recombinant bovine somatotropin (rBST), which increases the production of milk in dairy cows by about 10%. Dr. Samuel Epstein, a professor of occupational and environmental medicine at the School of Public Health, University of Illinois Medical Center, alleged that rBST in milk is "a grave hazard." Although the growth hormone is used in the US, Canada extended its moratorium on the use of rBST last January.

Epstein said the growth hormone increases the cow's level of insulin-like growth factor 1 (IGF-1), which is easily absorbed by the intestine and selectively accumulates and concentrates in breast cells, where it stimulates growth. "Women with breast cancer have high level of IGF-1," he added.

Epstein cited "clear-cut epidemiological evidence" from the Harvard Nurses Health Study. He says participants with higher IGF-1 levels in their blood had a breast cancer rate 7 times higher than the norm. "Next to genetic determinants, there is no more potent indicator of breast cancer than IGF-1," he said. — *Barbara Sibbald*, CMAJ

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Detail from Life Quilt for Breast Cancer, on display at the recent World Conference on Breast Cancer in Ottawa