

Japan's first BSE case fuels fears elsewhere

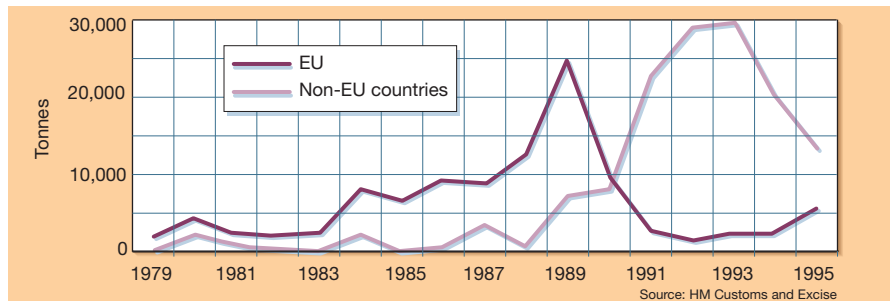
David Cyranoski, Tokyo

East Asian countries are bracing themselves for a possible wave of mad cow disease, after the first case of bovine spongiform encephalopathy (BSE) was confirmed in an animal born in Japan (see *Nature* 413, 240; 2001).

The source of the infection is thought to be cattle feed containing animal parts, which British farmers dumped in the region when demand slumped in Europe in the early 1990s (see graph). Thailand and Indonesia were among the heaviest importers.

"If BSE got into cattle feed in Asia at that time, it's about time for the disease to show up," says Sumolya Kanchanapangka, associate professor of veterinary anatomy at Bangkok's Chulalongkorn University and adviser to Thailand's food-safety agency.

If the region has underestimated the risk of BSE, experts point out, its people could



UK exports of flours, meat pellets and meat offal, unfit for human consumption, during 1979-95.

be at risk of developing new variant Creutzfeldt-Jakob disease (vCJD), the neurodegenerative disease thought to be caused by eating brain, spinal cord and other organs from BSE-infected cattle. Workers in Thai slaughterhouses don't seem very thorough about removing these, says Kanchanapangka. In Korea, where "cow brain is a delicacy and every part of the cow is eaten, reports of BSE would lead to panic", says an agriculture ministry representative there.

Japanese government and industry officials previously argued that Japan was at little risk of BSE because the imported British meat and bone-meal was fed only to pigs and chicken, not to cattle. Japanese cattle are normally raised on beer and soy-based feed. But the confirmed case shows that this was not always so.

Earlier this year, when reports circulated that a European Commission study group was poised to report that Japan was at high risk of the disease, Japan stopped

cooperating with the study, effectively blocking it, according to a European official.

Other Asian animal-health officials still say that the animal feed was not given to cattle. Thai and Korean officials say that only pig and chicken farmers could afford the imported feed. But the European official, who declined to be identified, said that experience in Europe suggests that such restrictions don't always work.

Korean and Thai officials point out that, unlike Japan, their countries have no documented cases of scrapie, a disease of goats and sheep that is thought to be related to BSE. And the procedure of reprocessing animal parts for feed is rare in the region, they say.

Korea, Singapore and other neighbouring countries have responded to the Japanese case with immediate bans on the import of Japanese beef. Japan, meanwhile, says it will run BSE tests on one million cows, at a cost of some ¥3 billion (US\$25 million). ■



Grave disclosure: Japan's agriculture minister, Tsutomu Takebe, breaks the news.

Transgenic corn found growing in Mexico

Rex Dalton, San Diego

Genetically modified corn (maize) has been found growing in Mexico, raising sensitive environmental and cultural issues in the part of the world where the crop was first cultivated centuries ago.

Transgenic corn is widely sold for consumption in Mexico, where more than five million tonnes of corn are imported annually from the United States. But none of the corn is grown commercially there following a 1998 government moratorium.

The disclosure of scattered plots of transgenic corn in the states of Oaxaca and Puebla was made by a government official earlier this month. A research team at the University of California at Berkeley, which is preparing work on the topic for publication, has subsequently accused the official of breaching confidentiality by his disclosure. Preliminary results from a government study appear to confirm the transgenic corn.

Oaxaca, a rural southern state where maize is revered by indigenous people, is the global centre of corn diversity, and the place of origin of strains grown commercially around the world. Environmentalists claim that the arrival of transgenic strains there could disrupt the genome of naturally bred corn.

Reports released in Mexico City last week say that the existence of growing genetically modified corn was discovered by a team led by Ignacio Chapela, a plant molecular biologist from the University of California at Berkeley who has long worked in Oaxaca. A native of Mexico, Chapela confidentially shared preliminary results of his research earlier this year with Mexican government officials. The officials then set up a research team to conduct similar studies.

On 4 September, at a subcommittee meeting of an international food-safety

organization, the Codex Alimentarius Commission, Chapela's discovery was revealed publicly by Fernando Ortiz Monasterio, director of Mexico's biosafety commission. Within days, the information had reached the Mexican Congress and the press.

Chapela says he had told Ortiz and other Mexican officials that he was planning to publish his research, and that public disclosure would undermine this. He adds that Ortiz's "breach of confidentiality" will "degrade the quality of information" his team was compiling.

Ortiz denies breaching confidentiality, but acknowledges that he did reveal Chapela's research results in a public forum.

On 17 September, the Mexican environment ministry released partial results of its own study, which revealed that transgenic corn was found in 15 of 22 areas tested in Oaxaca and Puebla. ■