

# BSE - from L farm to needle

Abattoirs have been an unregulated source of material for veterinary and human medicines. Farmer *Joanna Wheatley* asks whether humans caught Mad Cow Disease from the parts of the animal we don't eat

**A**s a beef farmer and one-time scientific researcher, I have been following the BSE saga with great interest - not least because of my need, as a farmer and as a mother, to find out how serious the real risks are, and act accordingly.

Most theories about BSE assume that whatever started the epidemic, it spread because infected remains were being fed to other cattle. But evidence at the BSE Inquiry showed this was not the only possible cause of the spread. The Inquiry heard evidence that cattle extracts (and

sheep extracts, too) have been injected into cattle and also used in the preparation of human inoculations.

In 1984, British doctors noticed that people given human pituitary extracts as children to help them achieve better growth were starting to come down with a form of Creutzfeldt-Jacob Disease (CJD), similar to the more recent cases of CJD linked to beef. There was also evidence from other countries that women given Follicle Stimulating Hormone (FSH), designed to help them conceive, were also at risk of developing CJD.

Similar practices were happening for cattle. FSH was extracted from cattle glands not just to help regulate cattle fertility but to provoke multiple ovulation in cattle. Multiple ovulation, combined with embryo transfer techniques, allow prize cattle to generate several offspring simultaneously, using other cows as surrogates. FSH may also be used on the surrogate mothers when the embryos are transplanted.

Vets and scientists were also developing similar growth enhancing and fertility treatments for cattle, using cattle tissue, just at the time when BSE would have been first incubated. Tests were being run on the use of the pituitary extract, Bovine Somatotrophin (BST) to stimulate growth and greater milk production. The hormone was obtained from cow cadavers, and the success of the trials led to the development of genetically engineered synthetic hormone, rBST.

What is apparent from these practices is that the risk of recycling BSE through inoculation of veterinary products was far greater than through eating beef. Tissues identified as carrying a risk of infection

were categorised as Specified Bovine Offals, and banned from the food chain *but not from the pharmaceutical chain.*

Derivatives from potentially infected glands were not banned from medicinal products. Cattle pituitary hormone extracts were licensed until 1993 with a two-year shelflife. No-one advised abattoir workers, knacker men, vets or research scientists, let alone the army of hygiene enforcers, of the transmission risks.

I rang up a man who had worked at Reading abattoir (closed 1993) who said: 'Oh yes, duck. They were taking all sorts of stuff, you know. We helped lots of vets and researchers, they used to come in from the university and research places, and down from London hospitals. It was a service we prided ourselves on, helping science and medicine.'

As some of the research laboratories were near to the abattoir, I wondered if experimental animals may have come back in to be slaughtered, potentially recycling the problem. I asked: 'What about when you supplied pituitaries and other items. Did your customers ever ask for specific animals, from a known origin?'

'No, never. We always chose the best for them. We also used to let people in for a flat charge and they could help themselves to what they wanted.'

The Department of Health was concerned that bovine blood serum was being used in routine vaccinations. They decided that the risk might be present but was low compared to the apparent benefit of the vaccination programmes. They also appeared concerned that, if they admitted to a risk, there might be a large public reaction against all vaccines.

Ironically, Britain has developed a world-leading system of traceability for its food animals. But only from July this year must pharmaceutical companies obtain their supplies from elsewhere in the world. And only from March next year does this apply for veterinary medicines.

If farmers are to produce animals destined for such high risk practices, it is my sincere belief that it is in everyone's interest that they are aware of the fact.

Better still, pharmaceutical herds should be established, and the animals raised to the standards befitting their purposes. I believe a policy of 'farm to needle' would benefit us just as much as 'farm to fork'.

■ *Joanna Wheatley* is an organic beef farmer in the home counties.

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