



ASSESSMENT OF RISK FROM UNDER THIRTY MONTH BEEF-ON-THE BONE

ISSUE

1. Under EU TSE regulations, the vertebral column of cattle aged over 12 months is classified as specified risk material (SRM). Whilst this applies to most European countries, the UK currently has a derogation whereby the vertebral column is only classified as SRM for any cattle aged over 30 months. The Commission has indicated that the UK would have to adopt the same rules as other member states, in the event that the beef ban is lifted and the UK is able to trade on the same basis as other member states (except that the UK have agreed that UK cattle born before August 1996 will remain permanently excluded from the food chain).
2. In the light of increased scientific knowledge, the Food Standard Agency (FSA) have commissioned DNV Consulting to conduct a risk assessment. This will quantify the significance of any change in risk to the UK population that would result from making vertebral column SRM from 12 months of age.

BACKGROUND

3. Since the controls on SRM were first introduced (The Bovine Offal (Prohibition) Regulations, 1989) they have been regularly reviewed and strengthened on the basis of developing scientific evidence. Most recently, EU wide rules to control the use of certain risk materials from cattle, sheep and goats have been introduced.
4. Dorsal root ganglia (DRG), which are associated with the spinal column, may enter the food chain if vertebral column is not removed from the cattle carcasses. Current EU and UK rules designate vertebral column from UK cattle as SRM at 30 months of age, allowing it to remain in the carcass meat from younger animals when sold "bone-in" as a discreet product. For all other

member states except Sweden, vertebral column is designated as SRM in cattle aged over 12 months.

5. This UK derogation was authorised on the grounds that the UK had demonstrated the effectiveness of the restrictions placed on animal feed. The Commission has indicated that the UK would have to adopt the same rules as other member states, in the event that the beef ban is lifted. However, all UK cattle born before August 1996 would be permanently excluded from the food chain. Harmonisation of the rules on the age limit for vertebral column may be essential for the UK to enable exports to resume.
6. Removal of the current UK derogation and harmonisation at 12 months would mean that beef on the bone, such as T-bone steaks, could no longer be produced from animals between 12 and 30 months.
7. However, the Commission may review its rules on the age limit for vertebral column. The European Food Safety Authority (EFSA) has been asked for an opinion on the appropriate age for removal of SRM generally and for a quantitative risk assessment on vertebral column. The Commission has indicated that it could support a harmonised measure to increase the age limit and will ask EFSA for a specific opinion on T-bone steaks. The timing of EFSA opinions is uncertain, but the first is expected in the next few months.
8. FSA commissioned DNV Consulting to conduct a risk assessment on the under thirty month beef on the bone. The aim of the risk assessment is to quantify the significance of any change in risk to the UK population that would result from reducing the age limit for vertebral column as SRM from 30 to 12 months of age. The intention is to submit the DNV analysis once reviewed by SEAC, through the Commission, to EFSA so that it can be factored into their quantitative risk assessment.

PREVIOUS SEAC CONSIDERATION OF THE FOOD SAFETY RISKS OF DRG

9. In 1997, SEAC considered an assessment of risk from possible BSE infectivity in DRG. The risk assessment examined the level of risk to the human population from the possible infectivity in the DRG from cattle under the age of 31 months. The possible infectivity in these tissues was demonstrated by a cattle

pathogenesis study. SEAC advised that there was a small risk that the infective form of prions could be transmitted to humans through consumption of DRG. As a result the beef on the bone ban was imposed on 16 December 1997 by the UK Ministry of Agriculture, Fisheries and Food.

AIM AND APPROACH OF THE DNV ANALYSIS

10. The aim of the DNV Consulting risk assessment is to quantify the significance of any change in risk to the UK population that would result from reducing the age threshold for vertebral column as SRM from 30 to 12 months of age (Annex 1).
11. The study builds on the previously published work (Annex 2), commissioned by the FSA, as part of the review of the OTM rule. The current data on BSE infectivity (Annex 3) have been reviewed and updated and combined with new data on butchery practices and their impact on the removal of DRG. These data have been combined in a risk assessment model that has been evaluated using a probabilistic approach.
12. The DNV risk assessment concluded that making the vertebral column SRM from 12 months of age would result in a negligible reduction in risk to the population of the UK.

ADVICE SOUGHT FROM THE COMMITTEE

- The Committee is asked to comment on the scientific validity of the approaches used, and assumptions made, in the risk assessment.
- Members are invited to comment on the findings of the risk assessment.



SEAC'S PAST ADVICE

1. On 24 June 2003 Defra asked SEAC to provide scientific advice on the animal health implications of proposed changes to UK fertiliser controls. SEAC agreed that the proposed use of ash from the incineration of meat and bone meal (MBM) derived from category 2 and category 3 material without restriction on land would not result in significant additional risk to animal health. SEAC confirmed its earlier advice that mammalian MBM should not be permitted in fertilisers likely to be spread on agricultural land or land where animals may graze.

EUROPEAN FOOD SAFETY AUTHORITY (EFSA) OPINION

2. EFSA reconsidered the risks from organic fertiliser containing Category 2 or 3 animal by-products in their opinion adopted on 3 March 2004, where it stated:

"There are no scientific data available defining the fate of prions following application to land, pasture or directly into the soil. It remains accepted that TSE agents are cleared very slowly from the environment, however a definite period after which TSE agents can be considered to have been completely cleared, based on scientific evidence, cannot be established.

The Scientific Panel on Biological Hazards concludes that if appropriate control measures and appropriate heat treatment (as laid down by legislation) applying to category 2 and 3 animal by-products are in place, no waiting period in addition to the one (3 weeks) already defined in the legislation and based on Good Agricultural Practice is necessary. In that case, the animal by-products of category 2 and 3 are safe to be used for spreading on pastureland."



Comer PJ and Huntly PJ. (2004) Exposure of human population to BSE infectivity over the course of the BSE epidemic in Great Britain and the impact of changes to the Over Thirty Month Rule. *J Risk Res.* 7(5), 523-43



Ferguson NM and Donnelly CA. (2003) Assessment of the risk posed by bovine spongiform encephalopathy in cattle in Great Britain and the impact of potential changes to current control measures. *Proc R Soc Lond B Biol Sci.* 270(1524), 1579-84.