Bovine Spongiform Encephalopathy (BSE) –
Advisory notes for farmers
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BSE was first confirmed in 1986 in the UK and was made a notifiable disease in June 1988. There have been over 180,000 cases to date. The epidemic in cattle peaked at over 37,000 cases in 1992, but the number of new cases is currently at the lowest level since recording started in 1988 (just over 600 confirmed cases in 2003). A major active surveillance programme based on European Union (EU) legal requirements is now in place, generating important supplementary information on the declining epidemic of BSE in cattle.

Domestic feed controls, which became fully effective from August 1996, prohibit the feeding of meat-and-bone meal derived from mammals to all farm animals. In addition, EU controls, which came into effect in 2001, ban, with minor exceptions, all animal protein from feed for all farmed livestock. These controls prevent cattle from being exposed to BSE. However, the normal range of the incubation period makes it possible that further cases, which were infected before the enhanced measures became effective, will be confirmed in the future. In addition, there may still be small numbers of further cases that were born after August 1996.

The epidemic in cattle peaked at over 37,000 cases in 1992, but the number of new cases is currently at the lowest level since recording started in 1988 (just over 600 confirmed cases in 2003).

BSE has caused a harrowing fatal disease for humans, as well as bearing heavily on people involved in livestock farming. Everything possible should be done to ensure the continued reduction and eventual eradication of BSE in cattle. Although the disease is declining rapidly, it is crucial that all animals showing signs of BSE are reported. These notes explain what you should do if you think you have a BSE suspect.
What to do if you have a BSE suspect

How to recognise BSE

Most cattle with BSE show a gradual development of signs over a period of several weeks, or even months, although some can deteriorate very rapidly. Most suspects will show several of the signs listed below, although some signs may also be seen in other diseases. BSE should be considered in any animal, usually over 20 months old, which shows changes in behaviour or signs of nervous disease, where other causes cannot be identified. If you have any doubt you should consult your own vet.

Mild signs may go unnoticed but stress appears to cause more rapid development of signs in some animals, particularly when they are brought in before calving or if they are transported.

The domestic active surveillance programme involves the testing of all fallen stock and cattle subject to casualty slaughter aged over 24 months. Significant numbers of healthy cattle aged over 30 months are also tested at slaughter, as are all offspring of BSE cases and all animals slaughtered under the Beef Assurance Scheme (BAS) (see page 14). This strategy has identified BSE in animals in which the disease had not previously been suspected. Testing throughout Europe has shown that BSE is detected more frequently in casualty animals and fallen stock than in healthy animals.

Summary of signs

- apprehension
- nervousness (flighty)
- reluctance to cross concrete/turn corners/enter yards/go through doorways/permit milking
- (occasionally) aggressive to cattle and humans
- manic kicking when milked
- head shy, with head held low
- high stepping, particularly of hind legs
- difficulty in rising (“downer cows”)
- tremors under the skin
- loss of condition, weight or milk yield
- excessive nose itching

You must by law report a BSE suspect case immediately, by contacting your local Divisional Veterinary Manager (DVM). If, however, you are unsure, you may wish to take advice from your vet who will notify the DVM if he suspects BSE. After receiving notification, a Government Veterinary Officer will then visit you and examine the animal as soon as possible.

Don’t delay!

Early reporting
- allows more thorough clinical examination
- improves your chances of compensation
- reduces stress on suspect animal
- reduces risk of injury to handlers

IF IN DOUBT, CALL US OUT

There is no charge, and we would rather visit for a false alarm than not be called out.
What the Government will do

**Negative diagnosis**

If the Veterinary Officer does not suspect BSE, no restrictions will be served on your animal. You should then contact your vet to discuss an alternative diagnosis, treatment or possible slaughter. If you retain the animal and are still concerned about the possibility of its being affected with BSE because of further developments in its symptoms, you should again report your suspicions to the DVM.

**Suspected cases of BSE**

If the Veterinary Officer suspects that your animal may be suffering from BSE he will serve you with a restriction notice (Form A). This will prohibit the movement of the animal from your farm. If the animal is still producing milk, this may not be sold or supplied for human consumption, or fed to any animal other than the cow’s own calf. The suspect animal will also be valued.

Depending on the nature and severity of the signs, it may be necessary for the Veterinary Officer to visit the animal more than once before being confident that the signs suggest a clinical diagnosis of BSE. During this time the responsibility for the animal, including treatment, rests with you and your own vet.

However, for the majority of animals the decision on whether or not the animal is suffering from BSE is taken at the first visit.

If at any time the Government Veterinary Officer is able to rule out BSE as the cause of your animal’s signs, the restrictions will be lifted by serving you with Form B.
Once the officer believes that the animal is affected by BSE a “Notice of Intention to Slaughter” (Form C) will be served, and the slaughter and disposal of the animal will be arranged as soon as possible, at our expense. Compensation will be paid to you.

**Slaughter on welfare grounds**

If the animal has to be slaughtered urgently on welfare grounds, before a Veterinary Officer is certain that BSE exists, Form C will not be served. This applies particularly to downer cows and may affect the amount of compensation payable (see the later section on compensation).

It is, therefore, important that any suspicion of BSE is reported to your local Animal Health Office as quickly as possible.

**Death while under restriction**

If an animal dies after you have received Form A, it must be reported to the DVM immediately. He/she will dispose of the carcase (at Government expense) and, providing you have already received Form C, compensation will be paid as if the cow had been slaughtered by the Government. If no Form C has been served, compensation will need to be discussed with the DVM (see the section below on compensation).

Don’t forget that if the animal dies or is slaughtered on farm, you should return the passport and/or the Certificate of CTS Registration (CoR), completed with the date of death, to British Cattle Movements Service (BCMS) within 7 days of the death occurring.

(For more on cattle passports and CTS – the Cattle Tracing System – please see pages 13-15.)
Slaughter while under restriction

If an animal is under restriction (with Form A served), but Form C has not been served, you may, if you so wish, have the animal slaughtered on the farm, but only after receiving permission to do so from your DVM. We will dispose of the carcase, which cannot be sold. We will examine the brain of the animal, but the question of compensation will need to be discussed with the DVM (see the section below on compensation).

It is an offence for you, or your own vet, to slaughter and dispose of such an animal without the permission of the DVM.

Compensation

Once Form C has been served, you will be entitled to compensation for the animal concerned.

When a restricted animal is slaughtered without Form C being served, there is no automatic right to compensation. The matter should be discussed with your DVM. No compensation will be paid until laboratory results are known. Full compensation may be paid if BSE is subsequently confirmed. If it is not, however, any compensation will be limited to a maximum of £50.

Since the laboratory examination to determine whether an animal is suffering from BSE may take some time, you must expect some delay before the payment of any compensation in these circumstances. Different arrangements apply to suspects identified at slaughterhouses. Details are available from your DVM.
Valuation

This is generally carried out at the first visit by agreement between the Government Veterinary Officer and yourself or your agent. If a value cannot be agreed, and is likely to be below the Government’s compensation limit, independent valuers can be appointed at our expense.

For valuable animals, which exceed the compensation limit, the Veterinary Officer will simply state on the valuation form that the value is in excess of the maximum. If a valuer is employed to determine an accurate value in excess of the maximum for insurance purposes, we will not be responsible for his fees.

The limits used to calculate compensation payable for an animal are those published for the month in which the animal is valued, irrespective of when it is slaughtered.

Health and safety

The Health and Safety Executive have produced guidelines on the management of BSE suspects and on general good practice in the handling of livestock.

Copies of this guidance can be obtained from your local Health and Safety Executive Office. See Health and Safety Executive in your local telephone directory.

Breeding

Experiments to show whether or not BSE can be transmitted from a BSE infected cow to her calf suggest that although this may be possible, it is probably not common. If it does occur, it is most likely to happen when a calf
is born after its mother starts to show signs of clinical BSE or within the previous six months. If maternal transmission does occur, it will not affect the overall decline in epidemic or the eradication of the disease.

**What is the offspring cull?**

Although the transmission of BSE from an infected dam to its calf has not been definitely proved, it is nevertheless a possibility. In view of this, all of the offspring born after 1 August 1996 of cows with BSE are slaughtered under the offspring cull. Furthermore, the establishment of an offspring cull was a pre-condition of the resumption of beef exports under the Date Based Export Scheme (DBES).

The offspring cull began on a voluntary basis in August 1998 in anticipation of the EC Decision on the DBES and was made compulsory on 4 January 1999.

**How does the offspring cull work?**

Where there is a newly reported case of BSE, State Veterinary Service Officers will contact the owners of the affected farm to inspect birth and movement records. This will enable us to identify any offspring that are still on that farm, serve a restriction notice on them and take their passports. The BSE case will then be traced to any previous farms where she may have produced a calf within the specified period. We will also trace the forward movements of any offspring.

Any offspring found alive will be placed under movement restriction (form OC1) and their passports held. If BSE is confirmed in the suspect cow, notice of the intended slaughter of its offspring will be served (form OC2) and arrangements
made, in each case, for slaughter on farm and the removal of the carcase to an incinerator. If BSE is not confirmed in the cow, the movement restrictions on the offspring will be lifted and the passports returned.

**Offspring cull compensation**

Compensation for offspring slaughtered under the offspring cull is calculated in two ways. All productive adult animals and registered pedigree animals will be individually valued and compensation paid at the market rate. “Productive” will be taken to mean female animals in milk or in-calf (including in-calf heifers) and males used for breeding. Other stock (young, non-pedigree animals and animals being reared for slaughter as beef) will be valued according to a scale linked to market prices for these animals. The scale will be adjusted monthly to take account of price fluctuations.

**Calving**

As soon as a Government Veterinary Officer is certain that an animal is affected with BSE, Form C will be served and slaughter arranged. Slaughter will not be postponed to allow a suspect cow to calve normally, and you are strongly advised not to attempt to have a calf delivered prematurely by Caesarean section.

Suspect animals which do calve must be housed whilst calving and for 72 hours afterwards. An isolation box for calving must be approved by a Veterinary Officer beforehand, and must, after calving, be disinfected with chlorine based disinfectant diluted to give 2% available chlorine. After the box has been thoroughly cleaned, the placenta (that is the afterbirth or “cleansings”), the discharges and the bedding must be buried or burnt. However, under the provisions of the EU Animal By-products Regulation, which came into force on 1 May 2003, this material cannot be buried or burnt on-farm but must be disposed of elsewhere at an incinerator or
rendering plant that complies with the Regulation. **This restriction applies to all calvings, not just to those of BSE suspects or cows which have been confirmed as having BSE.**

If calving has to be assisted, wear washable protective clothing, arm length gloves and face protection to avoid splashing of eyes and mouth. Always avoid direct handling of the placenta. If unable to do so, wear gloves. This is sound advice when dealing with cattle, whether or not they are BSE suspects.

**Records**

Our investigations into suspect animals require considerable detail of breeding and management history. This not only assists the continuing study of the spread and control of the disease, but is essential for accurate certification and tracing. Record keeping is mandatory, and your co-operation in providing this information will be appreciated.

The legal requirements are to record:

- movements within 36 hours of their occurrence
- births of dairy calves within 7 days
- births of other calves within 30 days
- the identity (ear tag number) of the mother and other individual animal data such as breed and sex
- deaths within 7 days
- replacement ear tags within 36 hours

**These records must be kept for 10 years.**
Tagging

Cattle born after 1 January 1998 must have a Defra approved eartag in each ear (double tagging). The tags must have the same unique number. Animals will be identified throughout their lifetime by this unique number. Animals born or imported into Great Britain before 1 January 1998 may continue to be identified by a single eartag. Cattle born after 1 July 2000 must be identified by all numeric tags.

All cattle must be tagged with an approved eartag in each ear within 20 days of birth. In the case of dairy animals at least one of the tags must be fitted within 36 hours of birth. Except for dairy cattle, both primary and secondary tags must be applied at the same time.

Until eartagged, animals cannot be moved from the holding of birth. It is an offence to remove, alter or deface an approved identification mark.
Cattle passports

All cattle born in, or imported into, Great Britain before 1 July 1996 must have a certificate of CTS registration.

- until 27 September 1998, the passport was a blue-green single-page document. Animals with these passports should also have a Certificate of CTS Registration;
- on 28 September 1998, when the Cattle Tracing System (CTS) was introduced, the passport format changed to a chequebook style passport.

The movements of all cattle, no matter what their age, must be reported to the British Cattle Movement Service (BCMS), the organisation which runs the CTS, as well as being recorded in the passport and on farm registers.

Movements can be reported to the BCMS using post-cards detached from the passport or Certificate of CTS Registration or by CTS Online or by email using the Standard Interface Specification system (SIS).

Cattle passports are issued by the BCMS. When a farmer orders eartags, this triggers the automatic dispatch of passport application forms to the farmer. Passports must be applied for within 7 days of the animal having been tagged.

There are three methods for applying for passports. You can:

- complete and send the relevant application form to the BCMS, or, for calves still on the holding of birth
- apply by e-mail, using the SIS system.
- apply via CTS Online
If you are unable to obtain a passport before you wish to move a calf under 27 days old, you can use the application form as a temporary calf passport. This allows up to two movements. The calf passport should be sent to the BCMS before the animal is 27 days old for a full passport to be issued.

Failure to obtain a valid passport may result in a fine of up to £5000 and the animal will not be eligible for slaughter for human consumption. It cannot move from the holding except to a hunt kennel or knackeryard, and then only under a special licence.

If an animal aged over 24 months with a cattle passport dies or is killed on your farm or in transit, this should be reported to the BSE surveillance Fallen Stock Helpline who will arrange for its carcase to be collected free of charge and tested for BSE. Any bovine on-farm casualty aged over 30 months, provided it is not suffering from a condition which would otherwise render it unfit for human consumption, may be entered into the OTMS Casualty scheme. In both cases the passport should go with the carcase and the collection contractor must return it to BCMS. If the animal is under 24 months of age, you should arrange for the carcase to be disposed of in accordance with the Animal By-Products Regulations 2003. Permitted disposal routes include rendering, incineration, or sending the carcase to approved knackers’ yards, hunt kennels or maggot farms. The passport should be returned by the keeper. In all cases, the death must be reported to BCMS within 7 days.

**TSE testing – active surveillance**

Under EU Regulation 999/2001 (as amended), the UK is required to test (UK estimated figures per year in brackets):

(i) All cattle for human consumption over 30 months of age
    (currently less than 250 Beef Assurance Scheme (BAS) cattle only)
(ii) All casualties aged over 24 months (over 120,000)
(iii) All fallen stock aged over 24 months (80,000)
(iv) All OTMS cattle born after July 1996 and aged over 42 months
(v) A sample of 10,000 other OTMS cattle born before 1 August 1996

Two further categories of cattle are also being tested:

(vi) BSE offspring – testing of offspring (aged over thirty months) of confirmed BSE cases began on 10 September 2001
(vii) Birth cohorts of BSE cases born after 1 August 1995 where cattle within the cohort are born after 1 August 1996 – cohorts are cattle born within one year of a BSE case, or reared with a BSE case in the first year of its life, that may have been exposed to the same source of infection. These cattle are being identified and, if sent for slaughter, will be tested for BSE.

The fallen stock are collected directly from farms. To arrange collection of fallen cattle aged over 24 months you should contact the Fallen Stock Helpline (Freefone 0800 525890).

If you are interested in learning more about this active surveillance work, please contact:
BSE Testing Section
Defra
(020) 7904 8158

**Feed ban**

Effective controls on livestock feed are the key to ensuring the continued successful decline and eventual eradication of BSE. The level of compliance with BSE-related feed controls continues to be very high throughout the feed and livestock industry. However, bearing in mind that the dose required to infect a bovine animal is very small (0.01 gram of brain material), there can
be no room for complacency. The domestic feed ban will continue to be rigorously enforced. Tough action will be taken in all cases, especially if there has been any deliberate disregard of the ban or a lack of care or diligence.

Problems can be avoided if farmers continue to exercise vigilance and to implement effective procedures on-farm. It is crucial that livestock feed is stored and used completely separately from prohibited products, and that clear guidance is given to all farm staff. A good example is the storage and use of petfood intended for working dogs or domestic pets present on farm. These products must be kept and used entirely separately from areas where livestock feed and livestock are present. The use and storage of certain specified protein products, or feed containing them, which are derogated for use in non-ruminant feed but banned from ruminant diets, must also be handled with care to ensure effective and complete separation.

There are also registration/authorisation requirements for home-compounders using derogated protein products in the preparation of their own feeds, both for non-ruminant livestock farms only, and on farms with mixed ruminant/non-ruminant livestock.

Current information is available in the Animal Feeding Guidance Note for the TSE Regulations. See Advice Note 11 for on-farm storage and use and Advice Note 13 for registration or authorisation procedures. If you have access to the Internet this Guidance is available at:


Advice or copies of the current guidance are also available from the feed controls section of Defra’s BSE Division, Telephone 020 7904 6284.
**Further information**

If you have further questions not already covered by this leaflet, please discuss them with the Department’s Veterinary Officer dealing with your case, or with the Divisional Veterinary Manager. Contact details can be found on the Defra website at:


Alternatively, look in your local telephone directory.

Additional information on record keeping and cattle passports can be obtained from Rural Payments Agency Offices in England, Divisional Offices in Wales, and Area Offices in Scotland:


Further guidance on Health and Safety can be obtained from your local Health and Safety Executive Office. See under Health and Safety Executive in your local telephone directory.

**Defra website**

If you have access to the Internet, you can view the latest BSE information on Defra’s internet website, at the following location:


This website provides further details on areas such as research, clinical signs, incidence, surveillance and public and animal health controls, and many other subjects.
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