BOVINE SPONGIFORM ENCEPHALOPATHY (BSE) - BURIAL PITS

- In the late 1980s it was confirmed in parliament that more than 6,000 animals infected with BSE were buried in landfill sites. Four sites in Scotland were used, each burying between 1 and 5 carcasses.
- BSE is a progressive, fatal disease of the nervous system of cattle, which has a long incubation period of between two and eight years, and occasionally longer. There is currently no treatment or vaccine against it.
- BSE is caused by the accumulation of an abnormal protein called "prion" in nervous tissue.
- Prions are infectious proteins which cause extensive brain damage once they enter the brain. Currently there is no treatment available to treat prion diseases.
- Prions are extremely resistant to inactivation and are thought to remain in the environment after burial of animal mortalities. However there is no evidence that BSE can be regenerated by this route.
- BSE researchers who studied burial pits reported their findings to Defra when the study ended in 2012, however Defra and SG officials were unsighted on the recent, open-access publication of the findings that led to newspaper coverage. SG officials are working with the researchers to promote timely communication.

Top Lines

- Prions are highly resistant to many common methods of decontamination and may persist in the environment for long periods of time.
- There are strict controls in place to protect consumers from the risk of BSE, including controls on animal feed, and removal of the parts of cattle most likely to carry BSE infectivity.
- BSE is not a contagious disease so it does not spread between live animals. Scientific opinion based on the known evidence is that it can be transmitted by infected feed, and a ban on feeding any animal protein to ruminants was put in place in 1996.

Bovine spongiform encephalopathy (BSE)

- BSE was first recognised and defined in the United Kingdom in November 1986 and was made a notifiable disease in June 1988.
- Over the following few years the epidemic grew considerably and peaked in the UK in 1992 at over 37,000 cases. There have been over 183,000 cases to date (UK-wide), of which 8,484 were in Scotland.
- BSE in UK cattle originally occurred due to the feeding of infected meat and bone meal.
- As a consequence of this outbreak, feeding any ruminant material to animals was banned in the UK. This has substantially reduced the incidence of further BSE cases in UK cattle.
- There was one confirmed Scottish case in 2018, the last previous case in Scotland was in 2008.

BOVINE SPONGIFORM ENCEPHALOPATHY (BSE) - BURIAL PITS

BSE Burial Pits

- We are aware of 4 burial sites in Scotland, most of which would be for individual animals. Carcases buried in these pits in the 1980s will be substantiality degraded by now.
- Burial would have been under official control and should have been in accordance with Environmental Regulations designed to protect watercourses and the environment.
- It might be possible to recover carcase remains but this would risk bringing any potential surviving prions to the surface where they could be ingested or carried away.
- The findings of the study are not unexpected as we know that other Transmissible Spongiform Encephalopathies (TSEs) namely Scrapie and Chronic Wasting Disease (CWD) persist in soil.
- BSE Surveillance of cattle which die on farms, aged over 48 months has been in place since 2001 to monitor for BSE, allowing officials to quickly respond if a case is discovered. Over 20,000 cattle are sampled annually in Scotland.
- To date, there has been no recurrence of disease on previously affected farms or at locations associated with burial pits.

Banning on-farm burial of fallen stock

- Since May 2003, it has been illegal to bury fallen stock on farms.
- A derogation exists for burial on farms, as a last resort, within the Highlands and Islands (except Bute and Cowal) that are classed as “remote areas”.
- Scottish Government take careful account of the scientific research in to all aspects of BSE.

Variant Creutzfeldt-Jakob disease (vCJD)

- In extremely rare cases, BSE has been passed from animals to people, through eating contaminated meat or receiving contaminated blood, causing variant Creutzfeldt-Jakob disease (vCJD).
- Reports of the disease in people remain very rare and no new ones have been reported since 2016.