



Army Center of Excellence, Subsistence Food Safety Newsletter

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Quarterly food safety newsletter for foodservice personnel. Point of contact for future topics and suggestions is the Senior Food Safety Officer, ACES at DSN 687-4286 or Comm.: (804) 734-4286.

BSE aka “Mad Cow Disease”



www.geocities.com/nursing inquiry2002/darla/Darla1.html

Bovine Spongiform Encephalopathy (BSE), commonly referred to as “mad cow disease” is a progressive neurological disorder in cattle which is believed to result from the spreading of infectious/abnormal protein in the brain (known as a prion). It is similar to the disease that affects sheep and goats known as scrapie. The infectious protein causes normal protein in the brain to change their confirmation. This process continues, like a domino effect, until the brain appears to have “holes”. Hence its scientific name, bovine means cow, spongiform means sponge-like and encephalopathy means brain disease.

The disease was presumptively identified on Dec. 23, 2003 in the state of Washington. It was confirmed 2 days later on Dec 25, 2003. The infected cow was believed to have been imported from Canada. BSE was first identified in the United Kingdom in 1986. Since that time cases of BSE have been found in 20 European countries, Japan, Israel, Canada and now the United states. The disease seems to be transmitted to cattle through the consumption of contaminated feed. The infectious/abnormal protein is extremely stable and is very resistant to any food processing procedures.

It has a long incubation period and has been associated to the human version called Creutzfeldt - Jakob disease (CJD), usually in older adults (50-75 years old). CJD is a degenerative disease which results in a loss of motor functions and death. The variant CJD (vCJD) appears in adults age 30 and younger. The risk of acquiring vCJD or new variant CJD (nvCJD) from eating beef is extremely small and indecisive. Unfortunately the most definitive diagnosis of CJD can only be obtained by testing brain tissue of individuals who have died. Prior to death, many patients with the symptoms were thought to have Alzheimer’s.

This disease that causes neurological problems is not restricted to cattle (BSE) or sheep/goats (scrapie). Transmittal Mink Encephalopathy (TSE), Feline Spongiform Encephalopathy (FSE) and chronic wasting syndrome (deer & elk) also exist.

Preventative/Control measures for BSE include but are not limited to the following: banning use of specified bovine by-products, banning ruminant-derived feed; conducting mass slaughtering of infected animals, tightening slaughterhouse controls and enhancing the surveillance system. Since the December 2003 case of BSE in the United States, the USDA has instituted several new policies to safeguard against BSE. These new rules can be accessed at the FSIS website – www.fsis.usda.gov.

To tell if a cow has mad cow disease visit this website – www.cybersalt.org/cleanlaugh/madcow.htm

Sources: Center for Disease Control-www.cdc.gov & USDA-www.fsis.usda.gov

Basic “Bird Flu” (Avian Influenza) Information



Thai workers protect themselves against avian flu

www.oneworld.net/link/gotolink/addhit/51505

The avian influenza, commonly referred to “bird flu” occurs worldwide and was first identified more than 100 years ago in Italy. Wild ducks are the natural host to this disease and are therefore more resistant to the disease. Turkeys, chickens and other domestic birds are extremely susceptible to the disease. The spread of the avian flu increases via live bird markets or direct contact with live birds. It is uncommon for this disease to circulate among the human population.

The first human infection of the bird flu was identified in 1997 in Hong Kong. Of the 19 people infected, 6 died. Authorities killed approximately 1.5 million chickens in order to control the outbreak and remove the source of infection. Again in 1999, Hong Kong had 2 confirmed cases in children. China reported human infections from 1998-1999. Last year, 2003, 2 members of a Hong Kong family who traveled to China were diagnosed with avian flu. One recovered, the other died. The Netherlands in 2003 had over 80 cases with 1 death. In 2003 a child in Hong Kong was diagnosed with the infection. A more recent infection happened in January 2004 in the northern portion of Vietnam. The United States has experienced its own bout with this disease over the last several decades. In 2002, Virginia destroyed approximately 4.7 million chickens and turkeys due to an avian flu outbreak.

The symptoms of the flu when it appears in humans are generally flu-like (fever, muscle pain, cough etc). Progression of the disease can also lead to eye infections, viral pneumonia, pneumonia and respiratory distress. Drugs that are used for the treatment and prevention of this disease includes antiviral drugs. Unfortunately the drugs are expensive and limited.

Source: Center for Disease Control (www.cdc.gov).