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Cc: Brett DeBruycker

Most of what is known about BSE as far as transmission and spread is based upon circumstantial and theoretical science, not on hard scientific fact. This is mainly because this is a very hard disease to reproduce and therefore to study. Abnormal protein fragments called “prions” are thought to be the cause. It is theorized that there is a genetic susceptibility in cows to the disease. It is also theorized that the quantity of prions in a cow are directly related to the infectivity of the disease in the cow. In other words, the more prions, the more chance that the disease could be passed on to other cows via feed supplements (which have been illegal in the U.S. since 1997) or to humans via the eating of brain or other CNS tissues. Since BSE and the multiplication of prions is known to be very slow developing, it is theorized that young cattle would be unable to pass on the disease. That is, they are not infective because there are not enough prions. The arbitrary age for this non-infectivity, or ability to transmit enough prions in feed supplements or in CNS tissue, is set at 30 months.

Sisson’s “Anatomy Of The Domestic Animals”<sup>1</sup> is, and has been, the recognized authority on the anatomy of cattle for 60-70 years based on hard scientific facts. Cattle, like most animals, are born with, or develop, baby teeth (deciduous teeth). These shed as the animal grows older. In cows we measure their age by the eruption of the permanent incisor teeth on the bottom jaw (none on top in cattle). There are four pairs of incisors. These teeth erupt as pairs, usually together or maybe a week or two apart. There are eight permanent incisors all together. The first pair of incisors comes in at 18-24 months of age (two teeth). The second pair come in at 24-30 months of age (four teeth), the third pair at 30-36 months, etc. At 30 months of age most cattle, based on Sisson’s “Anatomy Of The Domestic Animals”, should have at least four incisors (two pair) of teeth. The arbitrary rule of the USDA is calling any bovine with three permanent incisors 30 months old. We have observed cattle with known birth dates that are 24 months old to already have all four permanent incisors. Because of this arbitrary rule of the USDA many cattle are being judged 30 months when they are probably 24 months or less. The 30 month rule should, in the very least, be based on four permanent incisors but more factual according to known science, not theory, would be four permanent incisors and the eruption of the third set which would be five to six teeth instead of three.

This misuse of scientific information, media exaggerations and emotional coverage is even more ironic when you consider that, according to Sunday’s Great Falls Tribune, there have been only 153 known deaths in the world caused by the human form of BSE (Creutzfeldt-Jakob). Again, this is only theorized to come from prions of CNS tissue of cattle. Compare this to 35-40 thousand deaths from influenza last year alone.

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<sup>1</sup> “Anatomy Of The Domestic Animals”, by Septimus Sisson, S.B., V.S., D.V. Sc., Copyright 1910, Revised 1953 by James Daniels Grossman, G.P.H., D.V.M.