



Farm Animal Council of Saskatchewan Inc.

Anthrax 2006 Summary and What Lies Ahead

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In the summer of 2006 north eastern Saskatchewan experienced the largest outbreak of anthrax in the province's history. The first case of anthrax was diagnosed at the end of June north of Melfort and over the next two months cases were identified in 43 Rural Municipalities in north east and east central Saskatchewan. The last case was reported on September 21, with the majority of cases occurring between July 1 and August 15. The total death loss was 806 animals on 153 premises. Cattle (493) and bison (254) accounted for the majority of the deaths, however losses were also reported in horses, pigs, sheep, goats, and white tail deer.

Anthrax is not a new disease in Canada. Saskatchewan veterinary laboratory reports dating back to 1912 reveal that the disease has been diagnosed in almost every decade of the last century. In the past 10 years there have been 8 outbreaks of anthrax in western Canada. None, however, have involved such a large geographic area or such a large number of animals. Historically anthrax is reported to occur in the following conditions: 1) during periods of drought, 2) during dry periods following flooding and soil saturation, and 3) in areas where there have been recent excavations. In all three situations *bacillus anthracis* spores that have lay dormant deep in the soil are unearthed and subsequently

exposed to grazing animals. In the fall of 2005 and the spring of 2006 the north east and east central areas of the province experienced higher than normal snow fall and rain, as a result pastures and fields were flooded in many areas. It is likely that this flooding and soil saturation brought anthrax spores to the soil surface. As the water receded and the soil dried the spores were left on the surface of the soil. This fact will have ongoing implications for livestock producers for the next several years. It is understood that the *bacillus anthracis* spores can survive buried deep in the soil for decades and can survive on the surface of the soil for 3 or more years. If environmental conditions return to normal in the years following an anthrax outbreak there will be a period of at least three years when any animals grazed on a contaminated pasture will be at risk of ingesting these spores. If extremely wet or extremely dry conditions occur even more spores could potentially be exposed. CFIA recommends that all animals that are to be grazed on a contaminated pasture be vaccinated and that vaccination should be done for a minimum of three years following an outbreak. There is no way to predict where the spores may have been deposited from animals that died many years ago therefore producers that did not have losses due to anthrax this past summer, and that are located in the area of the province that experienced flooding in 2006 should consult with their veterinary practitioner on the risks that may exist for their herd.

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