Rabies in Bovine — What you need to know

- The K-State Rabies Laboratory is the primary rabies diagnostics laboratory for Kansas and Nebraska.
- Skunks are the primary terrestrial reservoir of rabies in the Midwest.
- Approximately 4% of Bovine submissions are unsuitable, providing an inconclusive result, due to decomposed tissue or incorrect sampling of the brain tissue. (See bottom diagram)

- As rabies positive skunk numbers increase, so do those of farm animals.
- Rabies symptoms in cattle can vary greatly. Examples: Sudden change in behavior, progressive paralysis, ataxia, abnormal bellowing, hypersensitivity, paralysis of the throat, drooling, etc.
- According to ACIP persons at frequent or high-risk of potential rabies exposures, such as veterinarians, should have their rabies titer checked **every two years!**

According to the National Protocol for the Diagnosis of Rabies in Animals, the appropriate sample for rabies diagnosis must include a **full cross-section of FRESH, UNFIXED** brainstem and cerebellum. Without this sample, we must report it as **UNSUITABLE**, even if all other tissue available for examination is negative. Because we now know that rabies antigen can occur unilaterally and be sparsely distributed especially in large animals, the previous practice of submitting only one-half of a sagitally-sectioned brain fresh for rabies diagnosis and the other half fixed for histopathology will not satisfy the new minimum standard for rabies diagnosis. If fixed tissue is to be submitted for other diagnostic workup, please collect the sample for rabies diagnosis as in the figures above prior to fixation of the rest of the material.

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**Figure 1.**

**Figure 2.**

CEREBELLUM

BRAIN STEM