

Blackleg May Be A Concern In Drought Conditions



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With the drought conditions that cattlemen are currently dealing, one should remain mindful of potential herd health problems with blackleg. As cattle graze on shorter and shorter forage, the chances of picking up soil-borne pathogens that cause blackleg will increase. Blackleg is a disease that affects cattle worldwide and is caused by the infectious bacteria *Clostridium chauvoei*.

Cattle may become exposed to blackleg from contact with bacterial endospores in the soil. Although blackleg can occur in very young calves, the disease typically affects animals between six months and two years of age. Rarely, losses may also be seen in adult cattle. Blackleg generally affects calves that are in good condition and growing rapidly. Animals infected with this disease die rapidly without any outward signs of illness. However, clinical signs that may be noted very early in the disease include lameness, loss of appetite, fever and depression. Animals quickly die within 12 to 48 hours after contracting the disease. Although treatment usually fails, if attempted, appropriate doses of penicillin may prove helpful. If an animal does survive, it will likely suffer from a permanent deformity.

Blackleg may be more prevalent on farms where excavation has recently occurred or in areas that have been either drought-stressed or flooded. (This allows the spores to rise to the surface of the ground.) Post-mortem lesions associated with blackleg include characteristic swelling at the area of the affected muscle tissue (legs, neck, hip, chest, shoulder, back or elsewhere). The swelling is due to fluid accumulation as well as gas buildup, which are produced by the infectious bacteria. When pressure is applied to the affected areas, gas can often be felt

moving while producing a crackling sound under the skin. Affected muscle tissue will contain dark areas of dead tissue, hence the name blackleg. This affected tissue may also have a foul odor (usually described as rancid butter).

It is virtually impossible to prevent contact with the infectious agent, so vaccination becomes the only way to effectively control this disease. It is generally recommended that calves be vaccinated between two and three months of age. Before this period, calves should be protected through passive transfer of antibodies in the dam's colostrum. A regular vaccination protocol should be followed around weaning. Calves should receive two doses of the vaccine during this period. The second dose should be administered three to six weeks following the first dose. Two vaccinations given in this manner provide the best protection. If an outbreak of the disease has occurred, a producer should contact his/her local veterinarian so that a proper diagnosis is reached. The veterinarian will probably recommend that all animals receive immediate vaccination and follow-up boosters. Further losses may occur for a two-week period until the animals develop ample immunity against the disease.

Always be sure to read and follow the instructions on the label when using a vaccine. Blackleg vaccine should be administered subcutaneously (under the skin) in the neck area. The common blackleg vaccines are referred to as "7-way" because they protect against other clostridial diseases such as malignant edema, black disease, enterotoxemia, etc. Carcass disposal should be done carefully after an outbreak of the disease occurs. If possible, bury carcasses deeply where they lie, so they will not be dragged across the pastures contaminate more ground. Δ

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