

VETERINARY CALL

by Bob Larson, Kansas State University

Tick Control

How producers can control the most difficult parasite.

Flies, lice, mites and ticks are all types of external parasites that affect cattle. Each of these types of parasites can cause disease and discomfort for cattle, but I would classify ticks as possibly the most important and difficult to control parasite. There are many different species of ticks — each with its own life cycle and threats to cattle health.

Generally, tick species are grouped into “hard ticks” and “soft ticks,” because some species have a hard plate on their back and other species lack this plate. When high numbers of ticks infest an animal, the ticks themselves can cause severe discomfort, especially certain species such as the Gulf Coast tick and spinose ear tick that prefer to feed in the ears of cattle. Besides their direct harm, ticks pose a serious threat as efficient spreaders of disease from one animal to another.

A disease of historical importance is bovine babesiosis (Texas cattle fever). This disease attracted a lot of attention by the mid-1800s, which led to early efforts to control the ticks that spread the disease — the cattle fever tick and the Southern cattle tick. The Cattle Fever Tick Eradication Program was started by the USDA in 1906, and through the combined effort of cattlemen, cattle producer associations and state

and federal government agencies, these two species of ticks were eradicated from the U.S. in 1943 (with the exception of a permanent quarantine “buffer” zone between Texas and Mexico). Efforts along the 500-mile zone from Del Rio, Texas, to the Gulf of Mexico continue and include the use of tick control barrier fence, livestock movement quarantines, vaccines and insecticide tick treatments for cattle and deer.

While these methods are fairly effective, the movement of deer and livestock across non-fenced properties and an increase in the overall white-tailed deer population has led to increased fever tick infestations in South Texas in recent years.

The disease anaplasmosis is present in many areas of the United States. This disease is caused by a small parasite that infects red blood cells. Although the organism can be passed by certain flies and blood-contaminated instruments, the most common method of spread is through the bites of some tick species. The ticks that can transmit anaplasmosis are common throughout most of the country and can become permanently infected with the disease-causing agent.



Tick control is difficult, but producers can use several strategies to reduce the effect of these pests. Where possible, removing woody vegetation and weeds from pastures and cattle loafing areas will eliminate habitat for ticks and for rodents and other animals that can carry ticks. Prescribed burning will reach temperatures hot enough to kill ticks as well as remove vegetative undergrowth.

Still, studies have not consistently shown longer-term benefits of burning as a tick-control strategy. Many of the same products and delivery methods beef producers use to control flies provide some control for ticks. Insecticide ear tags, sprays and dusts can all be used to apply chemicals that reduce tick numbers, but repeating treatments every 3 to 4 weeks is often needed.

Your veterinarian, who knows the specific conditions, can provide guidance for tick control in your local situation. **AJ**

Editor's note: Robert L. Larson is a professor of production medicine and executive director of Veterinary Medicine Continuing Education at Kansas State University.