



UNITED STATES ANIMAL HEALTH ASSOCIATION

2016 Resolution

120th Annual Meeting

October 13-19, 2016 ~ Greensboro, NC

RESOLUTION NUMBER: 44

APPROVED

SOURCE:

COMMITTEE ON PARASITIC AND VECTOR BORNE DISEASES

SUBJECT MATTER:

Development of Cattle Fever Tick Prevention and Treatment Methods for Both Livestock and Wildlife

BACKGROUND INFORMATION:

The Texas Cattle Fever Tick Eradication Program (CFTEP), established in 1906, is the oldest livestock pest eradication program in the nation. CFTEP's mission is to eradicate fever ticks through the management of a permanent quarantine zone, as well as through temporary quarantine areas created to address the presence of fever ticks outside the permanent quarantine zone. Since the onset of the Program, the required 100% treatment of cattle has been the most effective method of eradicating ticks from infested premises. The 100% treatment requirement, while primarily responsible for the successful eradication of fever ticks from the U.S. in 1946, creates a burden for producers by increasing gathering frequency and handling of cattle.

Treatment for cattle fever ticks has historically been accomplished by the application of acaricides through the use of swim vats. Multiple acaricides have been used over the years. Due to environmental concerns and tick resistance issues, coumaphos is the only remaining, licensed topical acaricide for use in eradication efforts and has a required treatment interval of 7-14 days. Doramectin is the only approved systemic acaricide and has a required treatment interval of 25-28 days. Systematic treatment of infested cattle must occur at the frequency prescribed by one of the two treatments for the duration of the quarantine period. Quarantine periods for infested cattle can last nine months or longer.

Moving forward, the key to mitigating the risk of fever tick incursions from Mexico and reducing the size of cattle fever tick outbreaks will be development and implementation of preventive therapies such as vaccines. A recently developed fever tick vaccine is now in use in beef cattle in the permanent quarantine zone and temporary preventive quarantine areas. The vaccine will be a valuable tool in eradication efforts. While it is highly efficacious against the *Rhipicephalus annulatus* tick, it has only moderate efficacy against the *R. microplus* tick, the species of fever tick involved in the current large outbreaks.

Wildlife, such as white-tailed deer, and exotic wildlife, such as red deer, elk, and nilgai antelope, are also very competent fever tick hosts. Expanding populations of these wild and exotic hosts have led to, and are continuing to be major contributors to, fever tick outbreaks outside of the permanent quarantine zone. The most recent of these includes

the current outbreak in Cameron and Willacy counties in Texas. An approximately 223,000 acre temporary preventive quarantine area was established in October 2014 in Cameron County after the discovery of infested cattle on three premises outside of the permanent quarantine zone. Since October 2014, the number of infested premises in Cameron and Willacy Counties has risen to nearly 40 and the number of quarantined acres has risen to nearly 360,000. Approximately two-thirds of the currently infested premises are attributed to infested nilgai antelope, demonstrating that the species is an important contributor to the northern movement of the cattle fever tick. Similarly, wildlife hosts are contributing to an increase in fever tick infestations in the permanent quarantine zone as land use transitions away from cattle ranching and into wildlife only operations. There is no current treatment method for nilgai antelope or other exotic wildlife hosts, and only one approved treatment for white-tailed deer.

The diminishing number and short treatment interval of approved treatments, the limited number of new treatment and prevention mechanisms for cattle, and the limited to non-existent treatment and prevention methods for wild and exotic hosts are putting fever tick eradication efforts at risk. Additionally, as the current fever tick outbreaks spread, cattle producers are being forced to assume the additional costs of increased gathering and treatment of cattle when there is no available effective mechanism to treat infested wild and exotic hosts. The only current mechanism for control of infested exotic wildlife hosts is lethal removal.

RESOLUTION:

The United States Animal Health Association urges the United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS) to collaborate with the USDA-Agricultural Research Service to prioritize research projects to:

- 1) develop, and gain approval for use of new, systemic cattle fever tick treatment products with longer treatment intervals for cattle;
- 2) develop, and gain approval for use of new cattle fever tick treatment products for wildlife, especially nilgai antelope; and,
- 3) develop, and gain approval for use of improved cattle fever tick preventive therapies, such as vaccines, for both cattle and wildlife hosts.

Further, the United States Animal Health Association urges the USDA-APHIS to prioritize resources for cattle fever tick eradication efforts through increased support of the USDA-APHIS-Veterinary Services-Cattle Fever Tick Eradication Program.