2020 Equine Piroplasmosis (EP) Annual Report

Background

Equine piroplasmosis (EP) is a foreign animal disease in the United States and is immediately reportable to state and federal animal health officials. The disease can be contracted by any equid (horses, donkeys, mules, or zebra) and is caused by infection with blood-borne parasites, either *Theileria equi* or *Babesia caballi*. While natural tick-borne transmission of the disease is not currently present on the U.S. mainland, sporadic cases of iatrogenic transmission (human-caused by medical procedures) in high-risk populations, such as Quarter Horse racehorses, are being documented.

Unhygienic practices being used by horse owners and trainers in this high-risk population are contributing to disease spread and include the re-use of needles, syringes, and intravenous administration sets between horses, administration of illegal blood products from other countries, direct blood transfusion between horses to increase athletic performance (blood doping), and administration of multi-dose drug products that have become blood-contaminated by non-sterile handling techniques between horses. In addition to transmitting EP between horses, these practices are concurrently transmitting other blood-borne equine diseases, such as equine infectious anemia (EIA). A source of continued EP incursion into the U.S. is the illegal movement of horses from EP-endemic regions, such as Mexico.

Active surveillance for EP occurs in the U.S. through testing to enter sanctioned racetracks, export, interstate movement, and diagnostic testing. Traceback and cohort testing on all exposed horses is conducted in response to any EP-positive case found. Horses confirmed as EP-positive have the following disposition options: lifetime quarantine, euthanasia, export from the country, or long-term quarantine with enrollment in the EP-treatment program. Horses enrolled in the treatment program must be confirmed as permanently cleared of the EP pathogen and test EP-negative on all available diagnostic tests to be released from quarantine.

Summary of 2020 Testing and EP-Positive Cases

- There were 29,595 domestic U.S. horses tested for EP from January to December 2020 and a total of 23 new *T. equi*-infected horses identified in 7 states. Twenty-two (22) of these horses were Quarter Horse racehorses with suspected or confirmed iatrogenic transmission involved in the epidemiology of the infection. One horse was an Arabian stallion with a lifelong history of ownership by unsanctioned racing participants and there is evidence the horse was being used for blood doping activities involving contaminated equipment. Two (2) of the 23

EP-positive horses were found to be dual infected with equine infectious anemia (EIA) virus, which was also likely transmitted by iatrogenic infection.

2020 EP Cases by State: 23 EP-infected horses found in 7 states (Jan-Dec 2020)

State Found	# *T. equi*-positive	# Dual infected with EIA	Risk Group
Colorado	2	0	QH racehorses
Georgia	3	1	2 QH racehorses, 1 Arabian stallion with history of ownership by unsanctioned race participants
Kansas	1	0	QH racehorse; same owner as NM+
Louisiana	1	0	QH racehorse
Michigan	1	0	QH racehorse
New Mexico	1	0	QH racehorse; same owner as KS+
Texas	14	1	QH racehorses in several clusters
Total	23	2	22 QH racehorses; 1 Arabian stallion owned by unsanctioned race participants

- For questions regarding this report, please contact:

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