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# 2021 Equine Piroplasmosis (EP) Annual Report

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## 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 2021 Testing and EP-Positive Cases

- There were 35,493 domestic U.S. horses tested for EP from January to December 2021 and a total of 36 new *T. equi*-infected horses identified in 7 states. Thirty-one (31) of these horses were Quarter Horse (QH) racehorses with iatrogenic transmission involved in the epidemiology of the infection and 5 horses (2 Andalusians, 3 QH saddle horses) were suspected or confirmed to have been illegally moved from Mexico. Fifteen (15) of the 36 EP-positive horses were found to be dual infected with equine infectious anemia (EIA),

which was likely transmitted by iatrogenic infection in the QH racehorses (12) and by natural infection in Mexico for the horses illegally moved from Mexico (3).

**2021 EP Cases by State: 36 EP-infected horses found in 7 states (Jan-Dec 2021)**

State Found	# <i>T. equi</i> -positive	# Dual infected with EIA	Risk Group
Florida	1	0	Andalusian originally from Spain, illegally moved from Mexico
Georgia	1	0	QH racehorse
Iowa	2	0	QH racehorses
Louisiana	2	1	QH racehorses
Oklahoma	1	0	QH racehorse
Tennessee	8	6	QH racehorses
Texas	21	8	17 QH racehorses in several clusters; 4 horses (1 Andalusian, 3 QH saddle horses) illegally moved from Mexico
Total	36	15	31 QH racehorses; 5 horses illegally moved from Mexico

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