

# Asian Longhorned Tick and *Theileria orientalis*

## A Growing Risk for PA Cattle

### Asian Longhorned Tick

(*Haemaphysalis longicornis*; also known as ALT)

- Invasive species first recognized in the United States in 2017
- Prefers feeding on livestock
- Females reproduce without a male, so a single tick can start a new population
- The population is nearly 100% female, so all ticks can lay eggs, resulting in massive population explosions



Photo credit: CDC

### *Theileria orientalis* genotype Ikeda

- Blood-borne parasite of cattle transmitted by ALT
- Infected cattle often show no signs of disease, but some will develop severe anemia causing weakness, jaundice, and pale gums
- Clinical signs are the same as those of anaplasmosis

### Preventing *T. orientalis* Transmission

1. If the established herd is *T. orientalis*-negative, test new cattle before entry to avoid purchasing positive animals
2. Treat new cattle with antiparasitics to reduce entry of new ticks
3. Ensure proper nutrition to strengthen immunity and prevent clinical disease

### Tick Management

1. Eliminate or fence off tall grass and brushy areas on pasture to reduce tick exposure
2. Send ticks or photographs of ticks to the Insect Identification Lab at Penn State
3. Talk with your veterinarian about using systemic parasite control products for better coverage

### Testing

1. Knowing herd status will allow for easier decisions when moving cattle
2. Work with your veterinarian to test animal status by PCR at the PA Animal Diagnostic Laboratory System

**No treatment available, and infection is considered lifelong;  
supportive care may help recovery**

Identify  
a tick.



Ask about  
testing today!



# Asian Longhorned Tick and *Theileria orientalis*

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### Considerations for buying and selling safely

With *T. orientalis* genotype Ikeda, buying a positive animal can sometimes pose risks but at other times can be the safer choice. Use the guide below to help you decide.

**Established Herd: NEGATIVE**

**Newly Purchased Animal: NEGATIVE**

1. **This is a SAFE movement of cattle**

2. A quarantine is still recommended
3. Discuss retesting with your veterinarian if the source herd has any *Theileria*-positive animals
4. Treating purchased animals with parasiticide may help reduce the risk of ALT entry

**Established Herd: POSITIVE**

**Newly Purchased Animal: POSITIVE**

1. **This is a SAFE movement of cattle**

2. A quarantine and/or additional testing is still recommended for other diseases
3. Discuss herd parasiticide treatments with your veterinarian to help manage ALT populations

**Established Herd: NEGATIVE**

**Newly Purchased Animal: POSITIVE**

1. **There is an INCREASED RISK in this movement of cattle**

2. The established herd is at risk of disease
3. If any of the following are present, *Theileria* could spread quickly in the herd:
  - ALT present and cattle on pasture
  - Needles are used on multiple animals before being discarded
4. The following reduce the risk of disease transmission:
  - ALT not present or cattle kept in confinement
  - Strict single-use of needles

**Established Herd: POSITIVE**

**Newly Purchased Animal: NEGATIVE**

1. **There is an INCREASED RISK in this movement of cattle**

2. The newly purchased animal is at risk of disease
3. If any of the following are present, *Theileria* could spread quickly in the herd:
  - ALT present and cattle on pasture
  - Needles are used on multiple animals before being discarded
4. The following reduce the risk of disease transmission:
  - ALT not present or cattle kept in confinement
  - Strict single-use of needles

### Resource

Rainey T, Occi JL, Robbins RG, and Egizi A. "Discovery of *Haemaphysalis longicornis* (Ixodida: Ixodidae) parasitizing a sheep in New Jersey, United States." *Journal of Medical Entomology* 55 (3): 757–759.

Prepared in collaboration by Penn State Extension and the Pennsylvania Department of Agriculture.

3/27/26 PA Performance Tested Bull Sale- Theileria Status Update

Lot #	LEC Number	Theileria Orientalis
1	205	Negative
2	215	Negative
3	302	Negative
4	111	Negative
5	134	Positive
6	322	Positive
7	415	Negative
8	122	Negative
9	346	Negative
10	307	Negative
11	321	Positive
12	123	Negative
13	110	Negative
14	309	Negative
15	212	Positive
16	135	Negative
17	414	Positive
18	325	Negative
19	421	Positive
20	101	Negative
21	413	Positive
22	121	Negative
23	220	Negative
24	214	Negative
25	323	Negative
26	233	Positive
27	119	Negative
28	206	Negative
29	231	Negative
30	308	Negative
31	137	Negative
32	107	Negative
33	330	Negative
34	132	Positive
35	335	Negative
36	116	Negative
37	108	Negative
38	318	Positive
39	120	Negative
40	117	Negative
41	427	Negative
42	247	Negative
43	403	Negative

Lot #	LEC Number	Theileria Orientalis
44	331	Negative
45	336	Positive
46	242	Positive
47	218	Negative
48	237	Negative
49	317	Negative
50	202	Negative
51	109	Negative
52	313	Negative
53	420	Positive
54	314	Negative
55	402	Negative
56	102	Negative
57	201	Negative
58	342	Positive
59	246	Negative
60	118	Negative
61	432	Positive
62	319	Positive
63	131	Negative
64	211	Negative
65	315	Negative
66	126	Negative
67	416	Negative
68	418	Negative
69	429	Negative
70	129	Positive
71	311	Negative
72	438	Negative
73	238	Positive
74	240	Positive
75	405	Negative
76	303	Negative
77	127	Positive
78	223	Negative
79	226	Negative
80	306	Positive
81	305	Positive
82	208	Negative
83	435	Negative
84	424	Negative
85	423	Negative