

# Managing the Asian Longhorned Tick: Checklist for Best Management Practices for Cattle Producers

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## Introduction

Large numbers of the Asian longhorned tick (ALT, Fig. 1) on cattle can reduce herd health and possibly spread disease. Managing the ALT can be very difficult because this tick spends most of its life on the ground off the host. ALT also reproduces without mating. The following recommendations are suggested to help reduce the impact and spread of ALT and protect your herd.



Figure 1. Asian longhorn tick (Eric Day, Virginia Tech).

## Inspection

- Regularly inspect cattle for ticks. The ALT is small and may go unnoticed with only a quick look. Focus on the head and the neck, but also check the flanks and back, the armpits and groin, and under the tail. Tick larvae, nymphs, and adults may all be found at the same time on a single animal.
- Cattle with low weight gain, are lethargic or anemic, have patchy hair or generally look unthrifty should always be inspected for ticks.
- Animals may have large numbers of ALT, but only a few ALTs may be sufficient to transmit cattle disease. Submit tick samples to your local extension agent for species confirmation.
- Once ALT is confirmed on your animals, you should assume it is established in the area and that management for this tick will be an on-going process from now on.

## Chemical Control

- There appears to be a high risk of cattle disease transmission by ALT in February-March and August-September. Tick control is highly recommended during these time periods, but ALTs are active during much of the year. Consider chemical control for ALT from March into November.
- A single pesticide application method may not be fully effective against ALT. Consider using pesticide-impregnated ear-tags along with backrubbers and other devices.
- Ear tags: Use abamectin or beta-cyfluthrin ear tags for low numbers of ticks. Dependency on permethrin ear tags may accelerate pesticide resistance in ALT. Rotate pesticide classes of ear tags to slow the development of resistance.
- Follow all label instructions for pesticide-impregnated ear tags. Use the number of ear tags

per animal specified on the label for tick control. Tag both adults and calves if label allows. Check labels for any limitations for beef or dairy cattle. Replace ear tags following the label recommendations. Keep records of when tags were placed so you know when to replace them.

- Use backrubbers and siderubbers (“bullets”) or similar devices charged with phosmet or permethrin. Hang rubs in such a way that cattle must contact the rub as they move past, spreading the pesticide along the top of their bodies. Vertical strips hung from a backrubber help apply material to the head and flanks as the cattle move past. Bullets also distribute pesticide along the head and flanks.
- Pinch points: Place backrubbers, bullets, and similar devices in a pinch point (e.g., gateways, between posts, entry to creep feeders, etc.) where cattle are forced to walk under or past on a daily basis, such as to visit a water source. Rubs hung in front of mineral feeders are helpful, but cattle do not visit these feeders every day.
- Recharge devices regularly following the pesticide label. ALT management may require recharging devices every 2-3 weeks.
- Pour-ons: Use pour-ons for heavy or extreme tick numbers. Use ivermectin at the rate of 1 ml per 22 pounds of body weight. Apply along the topline of the animal in a narrow strip. Be aware that heavy rain may wash pesticides off the animal. Increased fly burdens at several days after a heavy rain may indicate the need to retreat the animal.
- Treat all animals in a herd for ticks at the same time. Apply formulations specifically labeled for tick control. Follow all label recommendations for all pesticides (including ear tags, backrubbers, pour-ons, etc.) used, including time to retreat, withdrawal periods, beef vs. dairy, lactating vs dry, use of personal protection, etc.
- Chemical treatment of pastures is not recommended except when tick populations are extremely large. Carbaryl (Sevin) labeled for use on pastures should be restricted to sections of the pasture with the highest number of ticks. Pasture

treatments should be used in conjunction with other treatments.

- Chemical control greatly reduces tick burdens on animals but does not eliminate the chance of ticks, tick bites, or acquiring tick-borne diseases.

## Herd Management

- Inspect purchased cattle for ticks and treat if found before adding to the established herd.
- Consider having animals tested by a vet for tick-borne disease if ticks are found on them, especially if the cattle are not gaining weight, have patchy hair, appear lethargic, or show symptoms of anemia.
- Keep pastures mowed short as long grass and brush enhance tick survival. Leaving pastures ungrazed will not control ticks as they can survive about a year without feeding. Wildlife in the ungrazed pastures will support tick survival in the absence of cattle, too.
- Mow pastures short before rotating stock back into them, even if the cattle have been treated for ticks.
- Keep cattle out of wooded areas. If possible, fence cattle 20 feet away from wooded areas.
- Wildlife, such as deer, small mammals, and birds, can serve as alternative hosts for ticks and assist their spread.
- Check pets if any ticks are found on cattle.
- People working in areas infested with ticks of any species should inspect themselves regularly for ticks.

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