

## Dealing with Ticks on School Properties?

**Start by Identifying and Assessing the Pest.** Gordon Murray, IPM Coordinator at RSU 2 has successfully used a ‘tick drag’ to monitor for ticks at Hall-Dale Elementary School. In 2012, a large number of dog ticks were found on outbuildings surrounded by tall grass behind the school. Using the tick drag



he found no ticks on the playgrounds or lawns, but large numbers of the American dog tick in the tall unmown grass near forested edges of the property. Because dog ticks do not carry Lyme disease and his monitoring efforts showed the ticks were not present in the mowed lawns and playgrounds, the school took an educational approach – working with school staff to keep kids out of the unmown edge areas and informing families about the importance of tick checks at home. In May 2014, the school

nurse reported dog ticks found on students, so Gordon dragged the grass and playgrounds again. This time he didn’t find any ticks. What to do? Gordon plans to let the principals, teachers

and nurses know the RSU 2 IPM program is monitoring for ticks and following tick-safe property management protocols (see below). He’s also working with school administrators and nurses to distribute educational materials to families emphasizing personal protective actions: using repellents on clothing and exposed skin when in tick-infested areas off school grounds, as well as showering, changing clothes, and checking family members for ticks after coming indoors at home. He may mark off unmown areas at the edges of the school yard to help keep kids out of potential tick habitat, too. For now, these measures appear to be enough to effectively minimize tick threats on school properties and help families prevent tick encounters at home.

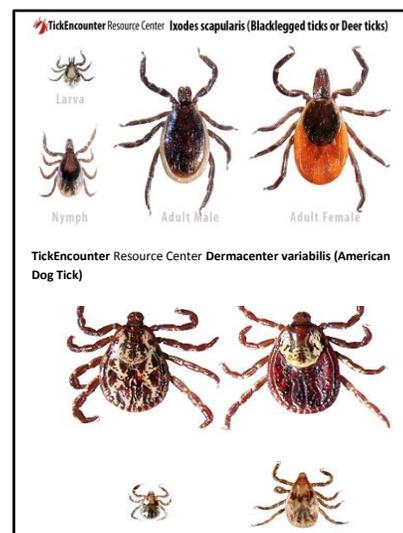
### Know Your Ticks

- **Deer Tick:** carries Lyme disease, anaplasmosis, babesiosis. Dark reddish color. Nymphs: pin-head sized. Adults: sesame seed-sized. Found in and at the immediate edge of hardwood forests.
- **American Dog Tick:** potential carrier of Rocky Mountain Spotted Fever but, to date, no Maine-acquired human cases have been reported. 3/16” to 1/2” long. Brown with silver markings. Found in unmown grassy and scrubby fields.

### Sampling for ticks. . .

A tick drag or tick flag may be used to determine if ticks are present. To construct a tick drag, attach one edge of a square yard piece of white, heavy flannel or corduroy material to a 3 foot long wooden dowel and tie a rope to each end of the wooden dowel. Curtain weights can be attached to the opposite end to help hold the cloth to the ground. Drag the cloth over the lawn and leaves for a distance of 10 meters (in heavily infested areas) to 100 meters (in lightly infested areas) and check for ticks. A tick flag, which is easier to use on vegetation, is similar to a tick drag, but is built just like a flag. Only a small proportion of the ticks present will be picked up this way, so several drags should be done before concluding there are few or no ticks. Tick drags will not work when the grass or vegetation is damp or wet. **Precautions to avoid tick bites should be taken when sampling for ticks.**

(adapted from Stafford, K. Ticks.  
[http://www.ct.gov/caes/lib/caes/documents/publications/fact\\_sheets/ticks.pdf](http://www.ct.gov/caes/lib/caes/documents/publications/fact_sheets/ticks.pdf))



## Tick-Safe School Property Management Protocols

- Keep grass mowed.
- Reduce cover for mice. Eliminate wooded, brush-covered habitat, prune lower branches of bushes, clean-up storage areas, woodpiles and junk piles. Remove vegetation and debris around stone walls.
- Remove leaf litter, brush, and weeds at the edge of the lawn.
- Keep playground equipment away from woodland edges and place them on wood-chip or mulch-type foundation.
- Use wood chips under shade trees to reduce tick abundance. Avoid groundcover plants such as pachysandra in areas frequented by people.
- Trim trees and brush to open up wooded areas in and around areas of human activity, allowing sunlight to penetrate to reduce moisture and thus reduce tick habitat.
- Move bird feeders away from school buildings.
- Reduce deer habitat or erect deer-exclusion fencing.
- Avoid landscape plantings that attract deer or use deer-exclusion fencing to keep deer off school properties.
- Create three foot or wider wood chip, mulch, or gravel border between turf and woods.
- Widen woodland trails/walkways to permit trail-users to avoid contact with woody vegetation and tall grasses.

## Personal Protection

- Avoid tick-infested areas, especially in May, June and July.
- When going outdoors, apply a tick-effective repellent to clothes and exposed skin. Repellents containing 20% DEET are effective. The [EPA Repellent Selection Tool](#) is an excellent resource for information about repellent products and their use. Wash repellents off skin after returning indoors.
- Clothing can be treated with permethrin, which kills ticks on contact. Only use products labeled specifically for treatment of clothing.
- Shower as soon as possible after being outdoors.
- [Check yourself and family members for ticks](#) after returning from potentially tick-infested areas, including your backyard. Use a mirror. Feel and look for small brown bumps on scalp, in and around ears, under arms, in belly button, around waist, between legs, and the backs of knees. See [www.cdc.gov/features/stopticks/](http://www.cdc.gov/features/stopticks/)
- Attached ticks should be removed with tweezers or tick removal device by grasping the tick close to the skin and gently pulling until it releases.

## Application of Pesticides

Schools concerned with frequent deer tick encounters on school properties may wish to consult with a licensed commercial pesticide applicator. A single spray (directed into and immediately at the edge of wooded areas in mid-May to early June) of pesticide product labelled for wide-area tick control, applied with sufficient volume and pressure to penetrate vegetation and leaf litter, has been shown to be effective in controlling ticks through the summer season. A second application in the fall to kill adult ticks will help reduce tick populations the following year. Spraying open fields and lawns is not necessary.

**FMI:**

- [Maine School IPM Tick Fact Sheet](#)
- [GotPests.org](#) (type tick) into the search bar
- [Maine Center for Disease Control and Prevention](#)
- [eXtension School IPM Action Plan for Ticks](#)
- [TickEncounter.org \(Univ. of Rhode Island\)](#)
- [University of Maine Tick Identification Lab](#)

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