



Atlantic Tech Transfer Team
for Apiculture



TICK SAFETY IN THE BEE YARD

As the weather warms up in the spring and into the fall, there is an increased risk of coming in contact with ticks. Ticks, like mites, are in the arachnid family and are considered external parasites. Peak tick season for nymphs usually occurs during the spring and summer months, while adults pose a greater threat in the late fall. For beekeepers, who spend a lot of time in fields and around wooded areas, the risk is even more prevalent. Ticks live in long grass, wooded areas, shrubs or leaf piles. They attach themselves to you or your clothing as you brush by. Even though they can't fly or jump, it is surprising how quickly several can get on your clothing or skin when working out in the field.

Several species of ticks live in Eastern Canada (**Figure 1**). It is important to identify which ticks have been found in your area and be aware of the diseases which may be carried by those tick species. There are several websites available for tick identification. Make sure you can recognize the varieties of ticks and be familiar with what they look like in different life stages: <https://etick.ca/>, <https://www.orkincanada.ca/pests/other/ticks/>. American dog ticks are known carriers for such diseases as Rocky Mountain spotted fever and tularemia. However, it is the blacklegged tick that is of most concern because it can carry the bacteria that can cause Lyme disease. To find out if the blacklegged tick has been found in your area, visit the following website: <https://www.canada.ca/en/public-health/services/diseases/lyme-disease/risk-lyme-disease.html#map>.



Figure 1: Tick identification (photo from <https://brittalksaboutlyme.files.wordpress.com/2016/05/ticks.png>)



Funders and Contributors:

Bleuets NB Blueberries
New Brunswick Beekeepers Association Inc.

Nova Scotia Beekeepers' Association
Wild Blueberry Producers' Association of Nova Scotia

Prince Edward Island Wild Blueberry Growers Association
PEI Beekeepers' Association

Reducing exposure to ticks is the best defence against Lyme disease and other tick-borne infections. The government of Nova Scotia recommends the following tips to reduce your risk of being bitten by a tick: (<https://novascotia.ca/ticksafety/>):

- Wear long pants and long sleeves in areas likely to have ticks
- Wear light coloured clothing – it's easier to see ticks
- Wear enclosed shoes and tuck your pants into your socks
- Walk on well-travelled paths, avoiding long grass and vegetation
- Apply insect repellents containing DEET or Icaridin (also known as picaridin) to exposed skin and clothes. Follow directions on the package carefully. Permethrin-treated clothing repels and kills ticks when they come in contact with it and is now registered for use in Canada for those 16 years of age and older.
- Check yourself and your family for ticks after being outside
- Having a bath or shower within two hours of coming inside makes it easier to spot ticks and wash off unattached ticks
- Ticks like warm places on the body. Remember to check:
 - » around ears
 - » behind knees
 - » in the hair
 - » between the legs/groin area
 - » around the waist

EXTRA TIPS FOR BEEKEEPERS:

- Keep the grass in your apiary mowed short (or lay gravel under your hives)
- Mow pathways to your apiary
- Put your hives on pallets or hive stands
- Check your bee suit thoroughly after being in your apiary
- Choose your outdoor bathroom location wisely
- Carry a tick kit with you to the field (<https://canlyme.com/product/tick-removal-kit/>)

EXTRA TIPS FOR BLUEBERRY GROWERS:

- Choose locations for bee yards away from wooded areas.
- Mow long grass in the pollination yard
- Mow pathways to bee yards as much as possible
- If the beekeeper is tending hives during pollination, check with them if they can safely access the location
- Notify the beekeeper if ticks have been found in your location

If you find a tick attached to you or your pet, there is a safe way to remove it to decrease the possibility of an infection. Follow the directions on the Public Health Services of Canada website or etick.ca. You can also submit ticks to a provincial health laboratory for identification and testing. Tick testing, however, is not done in all provinces (<https://www.canada.ca/en/public-health/services/diseases/lyme-disease/removing-submitting-ticks-testing.html>).

Mount Allison University, under the direction of Dr. Vett Lloyd, has current research projects underway on Lyme disease in humans and pets. You can also submit ticks to the Lloyd tick lab for testing. For more information, visit the following website: <https://www.lloydticklab.ca/>

There is also ongoing research on the development of alternative repellents. Dr. Nicoletta Faraone is working with Dr. Kirk Hillier at Acadia University to develop natural tick repellents (<https://atlantick.ca/pages/the-science>).

If you have been bitten by a tick and develop health symptoms, contact a medical professional right away. Symptoms can arise even after 30 days. Seek medical attention for the development of a fever, stiff neck, joint pain or muscle aches, sensitivity to light, swollen lymph nodes, or flu-like symptoms, as these symptoms may be an indication of a tick-borne disease (<https://www.orkincanada.ca/pests/other/ticks/>).

To remain safe in your apiaries, be informed, be vigilant and follow the recommendations of Health Canada and Public Health Services in your province.

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LINKS AND OTHER RESOURCES:

CBC Tick Checklist and Information: <https://www.cbc.ca/news/canada/nova-scotia/ticks-lyme-disease-nova-scotia-checklist-1.5103276>

eTick App: <https://etick.ca/>

Nova Scotia Government Tick Safety Website: <https://novascotia.ca/ticksafety/>

CBC Tick Update in New Brunswick: <https://www.cbc.ca/news/canada/new-brunswick/lyme-disease-york-county-1.4722036>

Government of Canada Tick Information: <https://www.canada.ca/en/public-health/services/diseases/lyme-disease/removing-submitting-ticks-testing.html>

Orkin Canada Tick Information: <https://www.orkincanada.ca/pests/other/ticks/>

Government of Canada Tick Information: <https://www.canada.ca/en/public-health/services/diseases/lyme-disease/risk-lyme-disease.html#map>

Canadian Lyme Disease Foundation: <https://canlyme.com/>

New Brunswick Tick-Proofing: <http://nbtick-proofing.weebly.com/>

Centers for Disease Control and Prevention- Preventing Tick Bites: <https://www.cdc.gov/lyme/prev/index.html>

Centers for Disease Control and Prevention- Diseases Transmitted by Ticks: <https://www.cdc.gov/ticks/diseases/index.html>

Atlantick: <https://atlantick.ca/pages/the-science>

LymeNB: <http://lymenb.ca/>

CanLyme tick removal kit: <https://canlyme.com/product/tick-removal-kit/>