

THERMACELL®

TICK CONTROL TUBES



Professional Overview

2021



Company Background



Thermacell Mosquito Repellent introduced in 1999

Thermacell Tick Control Tubes introduced in 2017

Sales in 30+ Countries

The New Normal

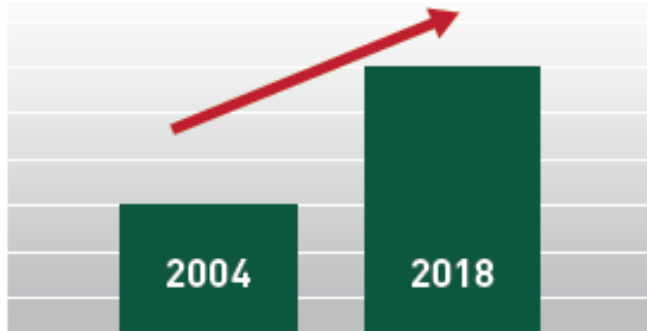
- People are spending more time at home and want a safe backyard
- Residential Pro sales are up on average 20+%



Tickborne Diseases On the Rise

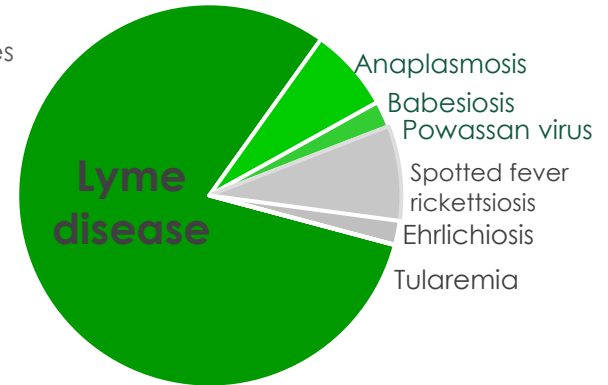


1 Tickborne diseases are up 100%

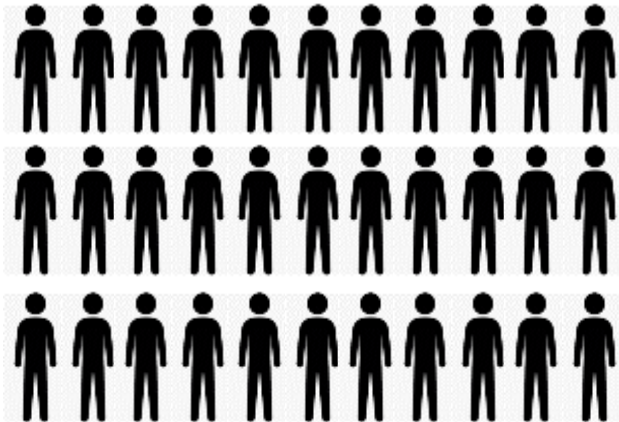


2 Deer ticks cause 89% of tickborne diseases

Tickborne Diseases
2004-2018



3 Lyme infects 300,000 people a year



4 Most people get Lyme in their backyard



Industry Trends

Lyme Disease



Most people get Lyme disease from a nymphal tick they never see.



**Nymphal
Deer Tick**



**Nymph
actual size
1.3mm – 1.7mm**

**Adult
Deer Tick**



**Adult
actual size
3mm – 4mm**

*Source: <http://www.cdc.gov/lyme/stats/humancases.html>

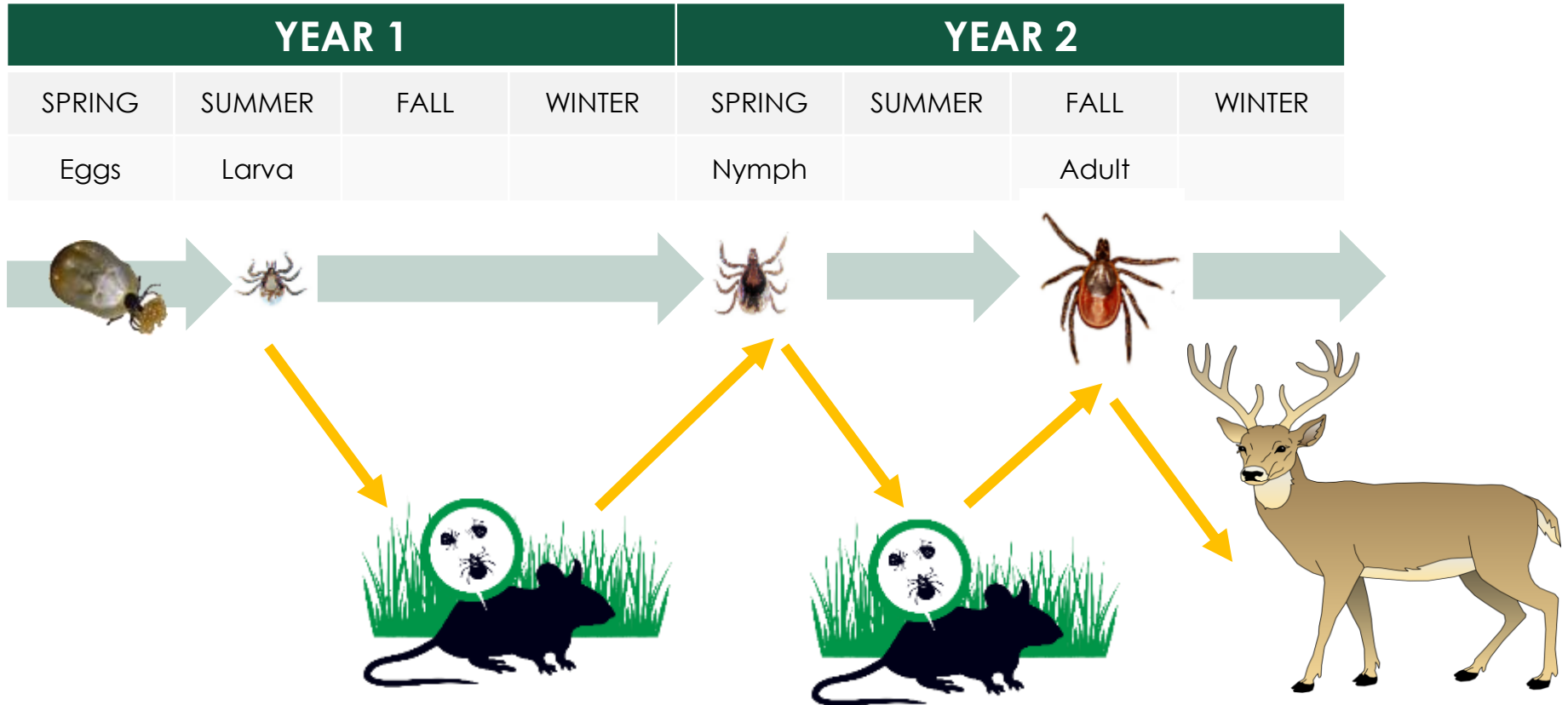
** <http://www.cdc.gov/lyme/stats/graphs.html>

Lyme Disease

Immature ticks feed on mice



Larval and nymphal ticks feed primarily on mice.
Adult ticks feed primarily on deer.

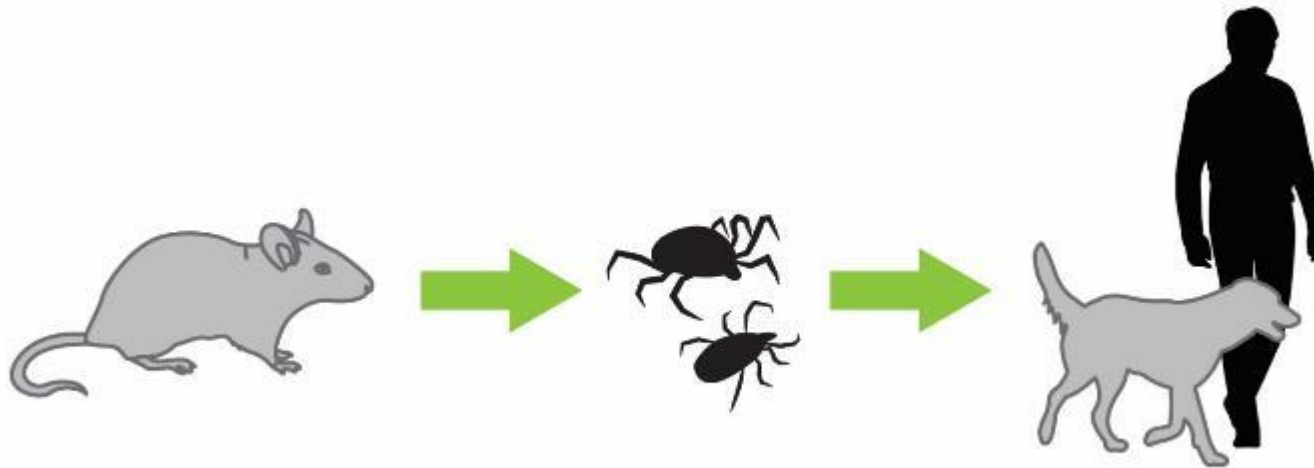


Lyme Disease

Mice are the problem



Mice are the primary source of Lyme disease infected ticks on a property. And these infected ticks pass Lyme on to people and pets.

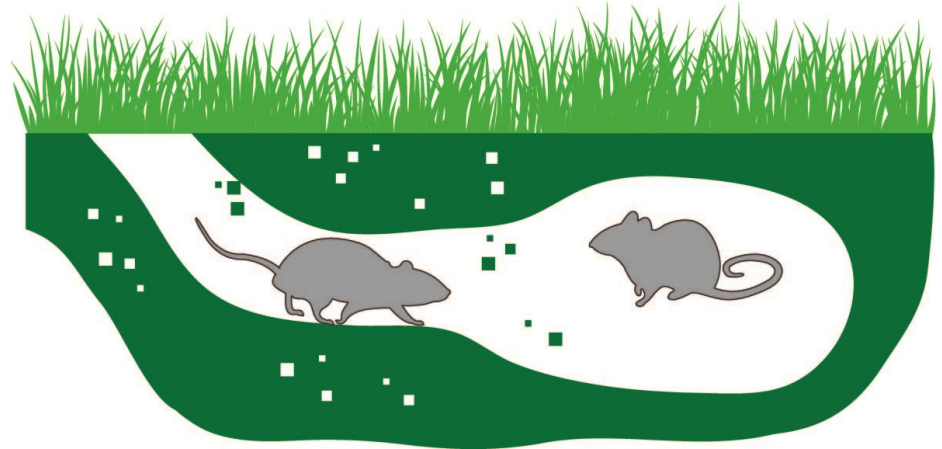


Sprays Don't Reach Mice...



Sprays treat the yard perimeter but they don't kill deer ticks feeding on mice.

- Mice are nocturnal foraging for food at night
- Mice sleep underground
- Mouse burrows can be outside the sprayed area



Lyme Disease

Sprays Don't Kill Ticks Feeding on Mice



Ticks with diseases remain in the backyard





Sprays don't kill all the backyard ticks. A 2019 field study by Tick Encounter Resource Center at the University of Rhode Island showed sprayed yards still have ticks feeding on mice.



The continued presence of ticks on mice in sprayed yards allows Lyme disease to remain in the backyard putting people and pets at risk of contracting tickborne diseases












Lyme Disease

Sprayed yards still have ticks feeding on mice



2019 Field tests by the University of Rhode Island show:

1 Sprayed yards **still have ticks** feeding on mice

Treatment	Average Ticks per Mouse	Maximum Ticks per Mouse
Cedar Oil	      5.6	87
Bifenthrin	   2.6	41



2 Ticks in the yard = diseases in the yard



Source: Field study by the University of Rhode Island Tick Encounter Resource Center, 2019

Tick Control Tubes

A New Solution



Tick Control Tubes strengthen backyard protection by killing ticks feeding on mice where sprays can't reach

- Contain 7.4% permethrin, an insecticide that kills ticks
- Developed by Harvard University researchers
- EPA registered
- Recommended by experts



Integrated Pest Management

IPM Institute Recommendations



US experts agree an IPM program works best against ticks. The IPM Institute of North America created IPM best practices which include:

1

SPRAY

2

TICK TUBES

3

LANDSCAPE
MANAGEMENT

TICK MANAGEMENT OPTIONS

There are several options for tick reduction and the tactics used depend on local factors. Currently, there is ongoing research into management programs that use a combination of strategies, called Integrated Tick Management. The below information focuses on current practices and research for the North Central and North Eastern regions of the United States. Always follow label directions for all pesticide products.

TREATMENT	BEST USE	TARGET AND GUIDELINES	COST
Spray application: Pyrethroids (bifenthrin, cyfluthrin, pyrethrin, permethrin); Met52 (Metarhizium anisopliae); Leovla (plant oils)	The most effective way to reduce blacklegged (deer) ticks in a yard is by insecticide applications to the perimeter, shady perennial beds or along trails and paths in woods. Treatment is usually NOT needed on open/sunny lawns.	Target: Kills ticks that are not attached <ul style="list-style-type: none">Based on limited research and practitioner experience, one spray with a pyrethroid in early spring may be effective. It may be helpful to add one fall treatment in the first year, timed to coincide with the emergence of adult-stage ticks.Pyrethroid products should NOT be applied near standing water, rivers or streams.Apply acaricides with high pressure close to the ground.Protect pollinators by avoiding spraying flowers and applying early or later in the day when pollinators are less active.Do not apply when raining or within a few hours of rain. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5788731/ http://www.tickencounter.org/prevention/perimeter_spray	Spray applications can be the most effective and least expensive management option. Cost of application will vary depending on the material sprayed, the professional service provider and the region.
Thermacell® Tick Control tubes or Damminix® Tick Tubes (permethrin)	Kills ticks feeding on mice, the primary source of the most common infections (Babesiosis, Anaplasmosis, Lyme, Powassan virus) for immature blacklegged ticks.	Target: Kills ticks attached to nest-building small rodents (mainly mice) <ul style="list-style-type: none">Tick Control Tubes contain cotton material treated with permethrin. Mice collect this material for their nests and rub the insecticide on their fur. Ticks die when exposed to permethrin-treated rodents.Apply tubes twice a year, ideally in April and July prior to immature black-legged tick emergence. Place tubes every ten yards in places mice frequent such as flowerbeds, bushes, woodpiles, stone walls and sheds. Replace tubes when empty.If a tube hasn't been touched, move to an area where mice have already removed cotton.Tick tubes don't treat chipmunks, which are important disease reservoirs in some regions of the United States.Permethrin is not labeled for homeowner construction of tick tubes and it is illegal to use the product in this manner. https://tickencounter.org/prevention/mouse_targeted_devices http://www.ticktubes.com/ https://www.thermacell.com/products/tick-control-tubes	A typical 1/4-acre yard (assuming half the area is taken up by the house footprint and lawn) will require 6 tick tubes twice a year. A 12 pack of Tick Control Tubes costs approximately \$45.

9/20/2018

Public Tick IPM Working Group

THERMACELL
TICK CONTROL TUBES



IPM
IPM Institute
of North America

Tick Control Tubes

How they work



THERMACELL®
TICK CONTROL TUBES



Product Overview

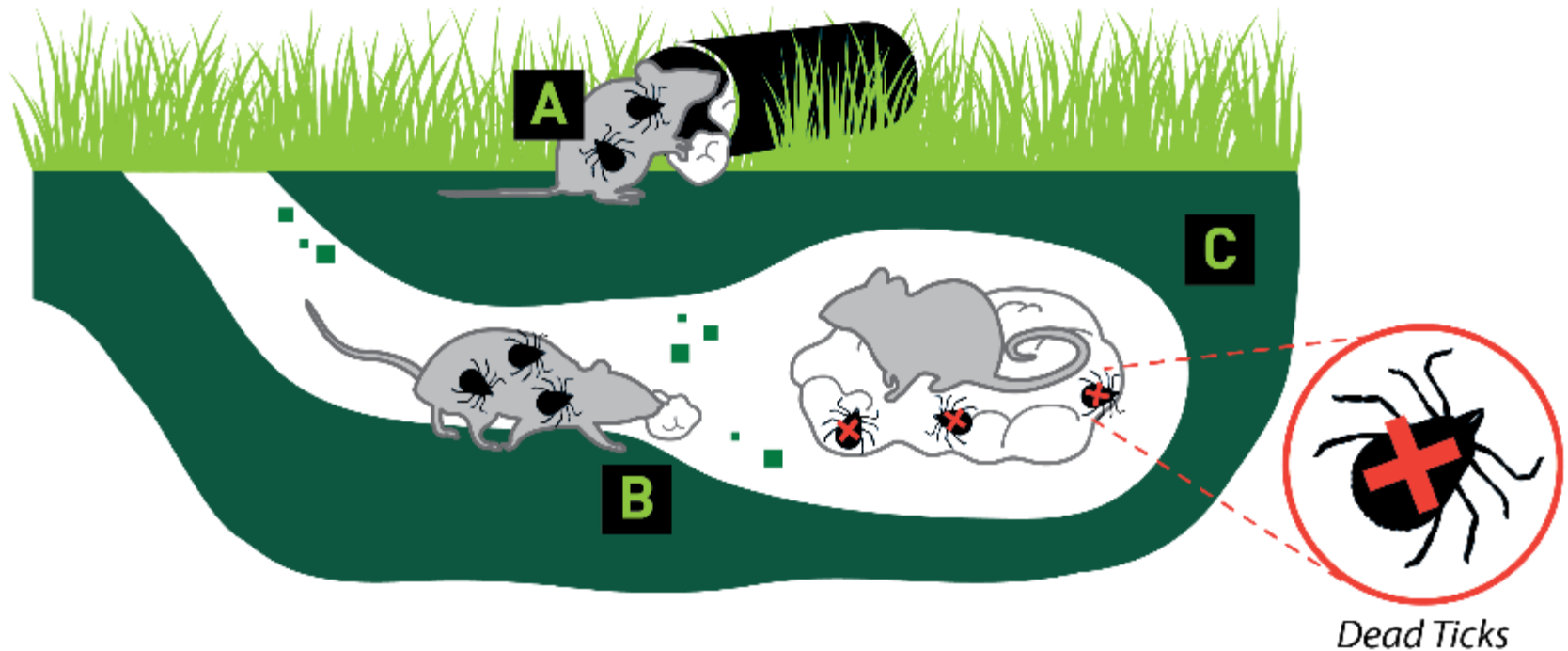
<https://www.youtube.com/watch?v=-9jgb-2DoKY>

Tick Control Tubes

How they work



Tick Control Tubes turn mice from tick hosts into tick killers



Tick Control Tubes

Key Benefits



Strengthen protection

Kills immature ticks where sprays don't reach



Increase Revenue

Adds recurring \$\$
Complements spray programs



Easy Application

Apply 2x a year in minutes
No equipment needed



Environmentally Friendly

Doesn't harm kids, pets or the environment

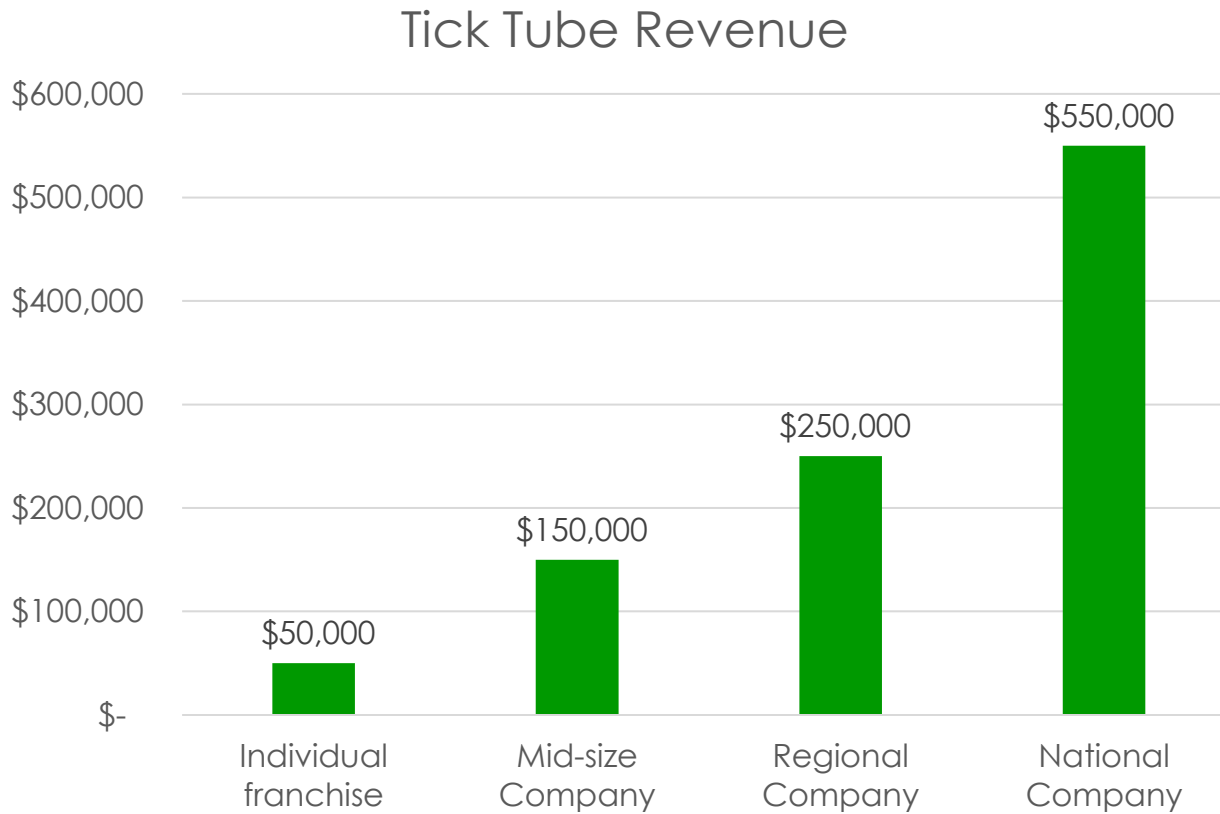


Tick Control Tubes

Economics



Tick Control Tubes can add significant incremental revenue to a PCO business.



Tick Control Tubes

Questions?



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