



Presentation to the Kawartha Lakes Environmental Advisory Committee

Dan Urquhart

Owner/Operator/President Weed Man & Mosquito Hero
Kawartha Lakes, Peterborough, Port Hope/Cobourg

February 20, 2025

Presentation to the Kawartha Lakes Environmental Advisory Committee

- Agenda

- Intro to Dan Urquhart and my family business
- Weed Man History in Canada and Kawartha Lakes
- Pesticide Regulations in Canada and Ontario
- Weed Man Lawn Care Services and Safety of Applications
- Mosquito Hero Mosquito and Tick Control Services and Safety of app's
- Bee Safety
- Q&A

About Dan Urquhart and my Family Business

- Dan is a Ryerson business grad with a 4 year honours business degree
- 37 year career with IBM Canada - 34 years in Management & Executive positions
- Dan and Maureen bought Weed Man Kawartha Lakes in 2017 and operate as a Customer&Community-Centric business
 - Highest Customer Loyalty in Weed Man Canada in both 2024 and 2023
- We hire locally and support local businesses and our community including;
 - A Place Called Home - Dan is the Treasurer
 - Camp Kirk
 - St. Mary's Church
 - The United Way
 - and more...

About Dan Urquhart and Our Family Business



2022 Customer Service Excellence Award

- ▶ Celebrates exemplary customer service, customer retention and customer relationship management.
- ▶ The award acknowledges a business that is committed to best customer service practices.
- ▶ This business is reputed for being customer centric and the efforts stand out clearly and contribute to our community offering.

About Dan Urquhart and Our Family Business



Key Donor

A Place Called Home

In 2021 Weed Man Kawartha Lakes committed to donating \$10,000 over three years to A Place Called Home

Dan's #1 Priority is Family

Family in Our Business:

- Dan & Maureen - owners since 2017
- Children: Scott, Kellyanne, Shannon, Matthew (summer), Mike (son-in-law)
- Siblings: Kathleen, Jody, Colin
- Pets: 2 dogs, 3 cats

Maureen and I have 5 children and 6 grandchildren so far...

All of our family work for and/or use Weed Man and Mosquito services on their personal properties

I would never allow anyone to put products on our properties that I have any concern about possibly harming my family and their pets

Weed Man History in Canada and our Community

- Weed Man is a Canada's largest lawn care company and is over 55 years old starting in 1970. Mosquito Hero is a sub brand of Weed Man since 2020.
- The Weed Man office opened in Lindsay in 1985, serving all of Kawartha Lakes.
- Weed Man Kawartha Lakes is locally family owned and operated by Dan Urquhart and his family.



Pesticide Regulation in Canada

The primary objective is to prevent unacceptable risks to people and the environment from the use of pesticides.

Canada regulates pesticides for human safety through **Health Canada's Pest Management Regulatory Agency (PMRA)** under the **Pest Control Products Act (PCPA)**. Key measures include:

- 1. Product Registration & Risk Assessment** – Pesticides must pass rigorous health risk evaluations before approval, considering residential exposure (e.g., children, pets).
- 2. Approved Active Ingredients** – In Ontario, lawn care and mosquito control applications are further regulated under the Pesticides Act and Regulation 63/09, which is administered by the Ontario Ministry of the Environment, Conservation and Parks (MECP).
- 3. Application Restrictions** – Includes buffer zones, re-entry intervals, and protective measures to minimize exposure.
- 4. Public Notification & Transparency** – Some municipalities require advance notice before pesticide applications in public spaces.
- 5. Re-Evaluation & Incident Reporting** – Continuous monitoring ensures compliance and identifies any new risks.

Key Regulatory Aspects in Ontario

2009 - Cosmetic Pesticide Ban across Ontario

- **Historical and potentially harmful pesticides such as 2,4-D banned for residential lawn care and many commercial applications**

Licensing and Certification:

- **Commercial Applicators:** Individuals or businesses applying pesticides must obtain the appropriate category of License (e.g., Industrial Vegetation, Landscape, Structural or Mosquito Biting Fly).
- Certification involves passing an examination and adhering to specific training requirements and Integrated Pest Management (IPM) practices.
- **Lawn Technicians:** Those assisting licensed exterminators must complete designated training programs and operate under supervision of a licensed Pesticide Manager.

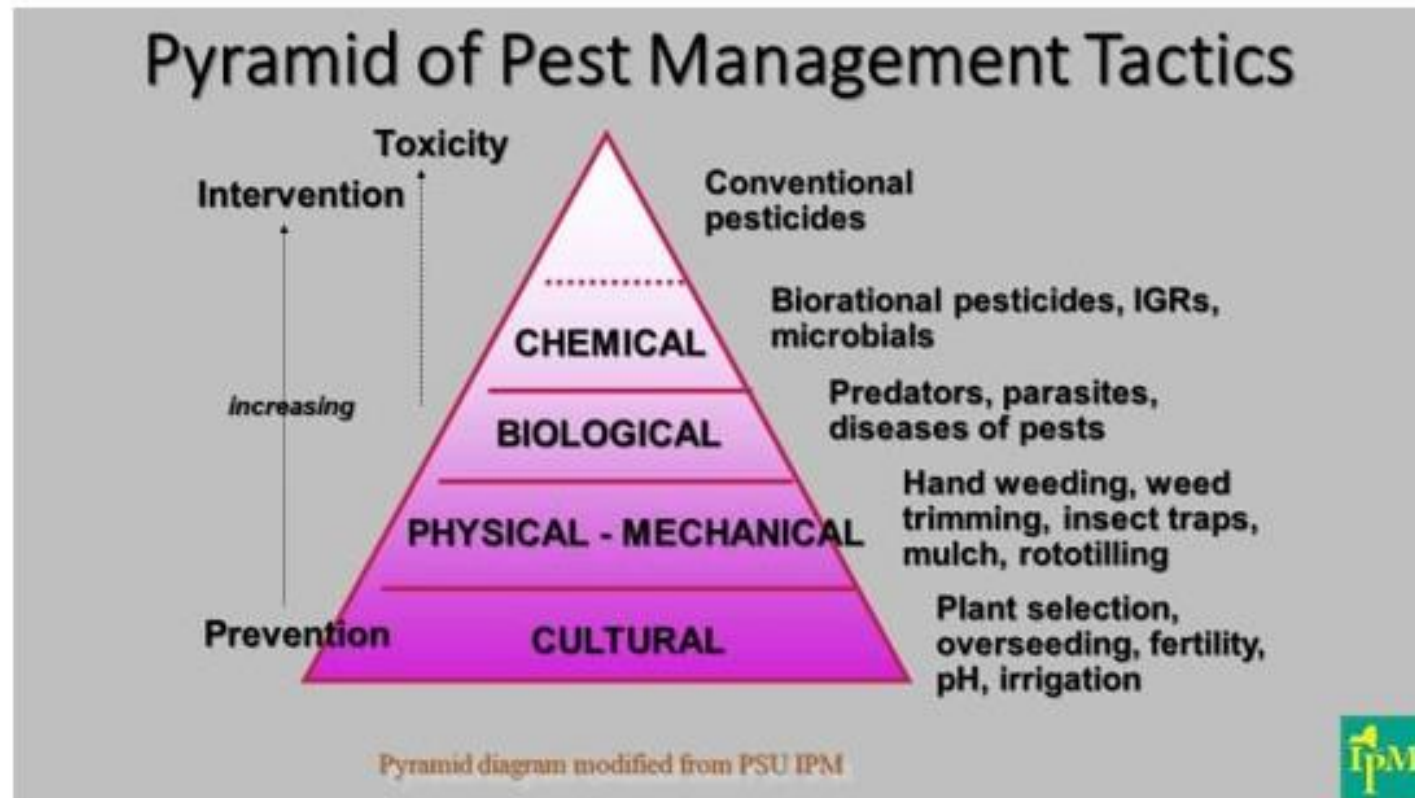
Public Health Exceptions:

- The Cosmetic Pesticides Ban significantly restricts pesticide use for aesthetic purposes but provides exceptions for public health and safety. This includes controlling disease-carrying insects like mosquitoes.

Compliance and Enforcement: The MOE enforces compliance of safe storage and applications through inspections and monitoring. Non-compliance can result in penalties, including significant fines or suspension of licenses.

Integrated Pest Management

- Integrated Pest Management (IPM) is a process that uses all necessary techniques to suppress pests effectively, economically and in an environmentally sound manner, including best practices for mowing, watering, fertilizing, aerating, and seeding.



The Environmental Benefits of Lawns

- **Why lawn care?** Lawns play an important role in the environment beyond just being aesthetically pleasing. They provide numerous ecological benefits, including acting as a huge carbon sink, improving air and water quality, reducing heat, and supporting biodiversity.
- **Lawns as a Carbon Sink:** One of the most significant environmental benefits of lawns is their ability to **capture and store carbon dioxide (CO₂)** from the atmosphere. **Regular Growth and Regeneration:** Unlike forests that release carbon when trees decay or are cut down, well-maintained lawns continuously absorb CO₂.
- **Creates Oxygen:** A typical healthy residential turfgrass lawn creates enough oxygen for a family of 4.

Weed Man Lawn Care Services

- Lawn care applications encompass an **Integrated Pest Management** approach. **Weed Man focuses on partnering with our customers in creating a healthy lawn that will reduce weeds by thickening it up using slow-release fertilizer, core aerating, overseeding, and education on proper watering and mowing practices by the homeowner.** Note: Weed Man proprietary slow-release fertilizer does not contain phosphorus, which can cause water quality issues.
- Weed Man uses **Fiesta Herbicide** which is a selective, iron-based weed control product developed and registered in Ontario as an alternative to traditional synthetic herbicides.
- **How it Works:** Fiesta Herbicide contains iron (FeHEDTA) as its active ingredient. This form of iron is absorbed quickly by broadleaf weeds, leading to oxidative stress and cellular damage within hours. Note that soil tests of Fiesta treated lawns indicate no negative effects to micro-organisms living in the soil.



Safety of Fiesta Herbicide



Government
of Canada

Gouvernement
du Canada



What does LD₅₀ mean?

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LD stands for "Lethal Dose". LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. The LD₅₀ is one way to measure the short-term poisoning potential (acute toxicity) of a material.

LD50 is usually Measured in mgs per kg of body weight

Safety of Fiesta Herbicide Applications

LD50 Scale Quiz:

- Rank the below common substances by LD50 Toxicity
- Highest Toxicity Down to Lowest

In Random Order Below:

- Nicotine
- Vitamin C
- Fiesta Herbicide
- Caffeine
- Aspirin
- Table Salt

Safety of Fiesta Applications

LD50 Scale Answer:

Ranked Highest Toxicity down to Lowest:

- Nicotine - Higher
- Caffeine
- Aspirin
- Table Salt
- Fiesta Herbicide
- Vitamin C - Lower

Mosquito Hero Services

- Mosquito control encompasses an IPM approach
- Inspection, education, monitoring, prevention cultural/landscape modification (ex. Reduce standing water), treatment.
- Mosquito Hero uses Suspend Polyzone (deltamethrin) and/or Dragnet (permethrin) for treatments targeted at reducing adult mosquitos where they rest on foliage, under decks, etc.



Why Mosquito Control?

THE LINDSAY
Advocate

Kawartha Lakes
WEEKLY

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Health News Briefs

Positive West Nile Virus case detected in the City of Kawartha Lakes

By Lindsay Advocate September 5, 2024



The Haliburton, Kawartha, Pine Ridge District Health Unit (HKPR District Health Unit) is notifying the public that an American crow found in Dunsford, City of Kawartha Lakes, has tested positive for West Nile Virus (WNV). This is the first confirmed positive case of WNV in the district area this season.

HKPR District Health Unit actively monitors WNV activity throughout the summer by conducting mosquito surveillance across the district. While no positive human cases were detected last year, the presence of the virus in a bird serves as a reminder of the ongoing risk.

"Finding West Nile Virus in a



Why Control Mosquitoes?

- Mosquitoes carry viruses (Zika, West Nile, etc.)
- Mosquitoes are a primary cause of canine heartworm in dogs
- Mosquitoes are a nuisance

Safety of Suspend Polyzone Applications

LD50 Scale Quiz:

- Rank the below common substances by LD50 Toxicity
- Highest Toxicity Down to Lowest

In Random Order Below:

- Table Salt
- Gravol
- Suspend Polyzone
- Caffeine
- Aspirin
- Ethyl Alcohol

Safety of Suspend Polyzone Applications

LD50 Scale Answer:

Ranked Highest Toxicity down to Lowest:

- Caffeine - Higher
- Gravol
- Aspirin
- Table Salt
- Ethyl Alcohol
- Suspend Polyzone - Lower

Comparison of Toxicity to Mosquito-Less

1. Higher LD50 means lower toxicity per exposure.

1. Suspend PolyZone, when applied at **0.03%**, is far less toxic in real-world use compared to the garlic-based product.

2. Garlic oil at 0.6% is significantly more toxic than Suspend PolyZone.

1. The LD50 of garlic oil is much lower (indicating higher acute toxicity) when applied at its recommended rate.

3. Implication:

1. People often assume **natural** products are always safer, but in this case, **the applied concentration of garlic oil makes it more toxic than Suspend PolyZone.**
2. The principle "**the dose makes the poison**" holds true—just because something is natural doesn't mean it's inherently safer.

Bee Safety

- Weed Man and Mosquito Hero prioritize reducing any impacts on the Environment and ensuring the health of pollinators.
- Mosquito Hero has a pollinator policy in place to guide its decision-making process on the products it uses and how they are used.
- Mosquito Hero's licenced technicians will always "Scout the Property" when applying insecticides. Before treating a landscape with an insecticide, we survey the property for the presence of flowering plants and weeds that are attractive to pollinators, and we avoid applications to those plants.
- We always know how a pesticide works and how to properly ensure the safety of using them to avoid possible injury to non target insects.

Mosquito Hero Tick Control Services

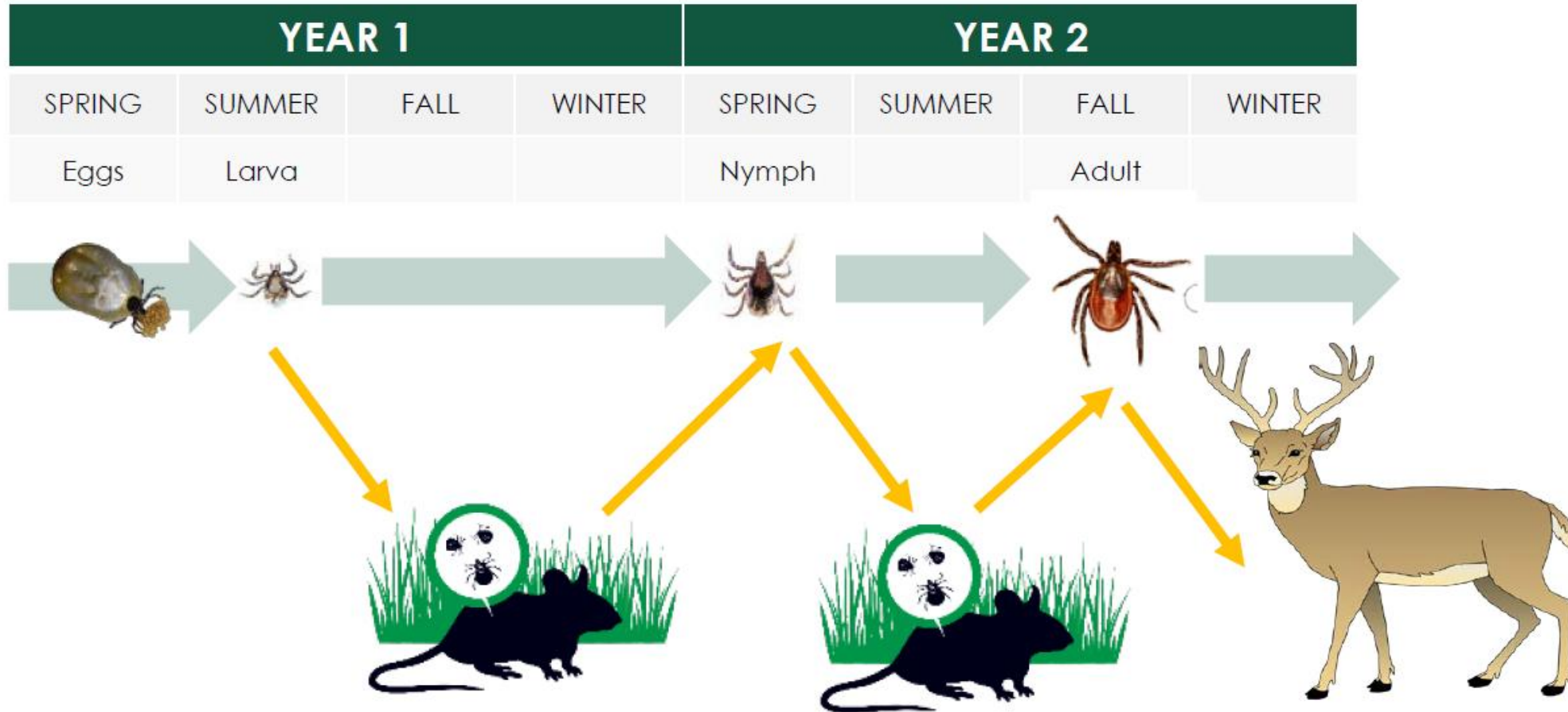
- Tick control also requires an IPM approach.
- Inspection, education, monitoring, prevention cultural/landscape modification, treatment.
- Targeted treatments along the perimeter of the property, around structures, around walkways, stone walls and other harbourage areas using Tick Tubes with permethrin.
- Mice carry the permethrin that kills nymph stage ticks, but the very low doseage does not affect mice predators.
- Reduces exposure to black legged ticks that can carry lyme disease.
- Program is normally two treatments per year.

Lyme Disease

Immature ticks feed on mice



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

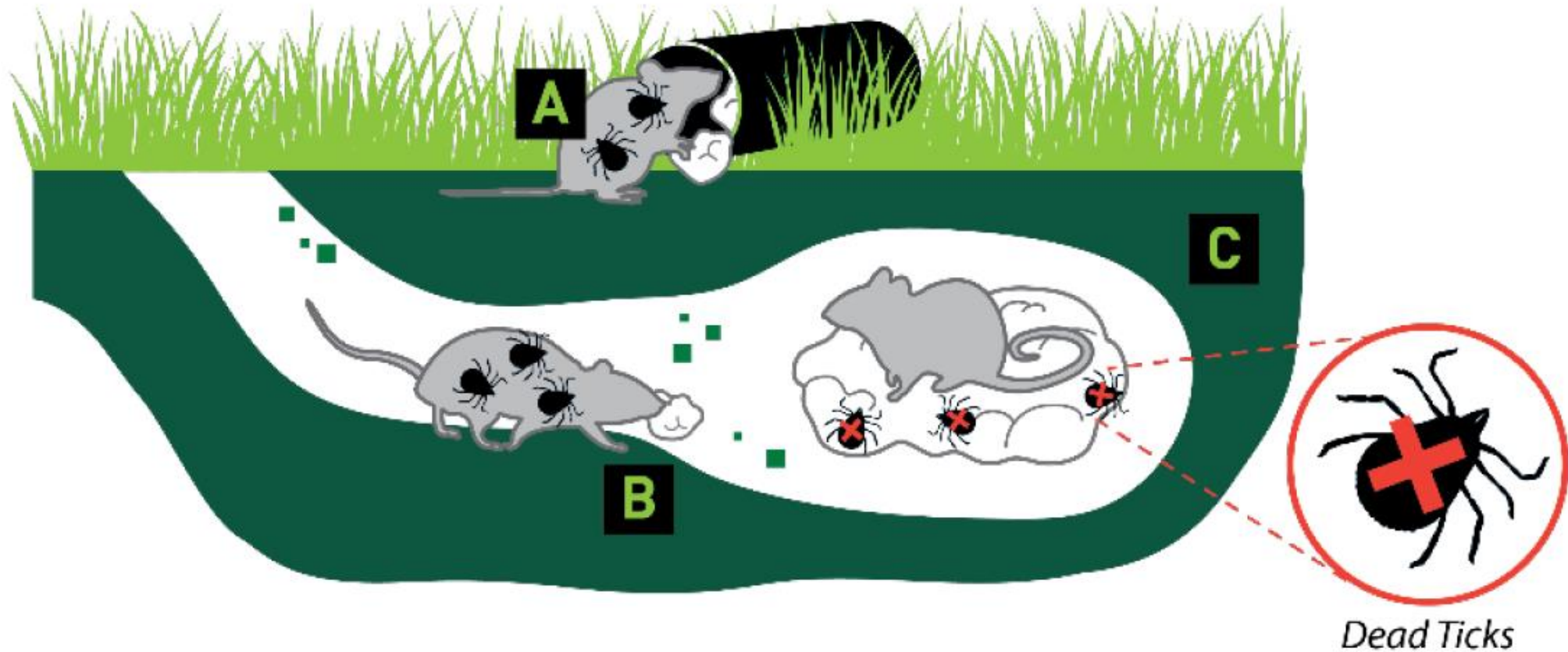


Tick Control Tubes

How they work

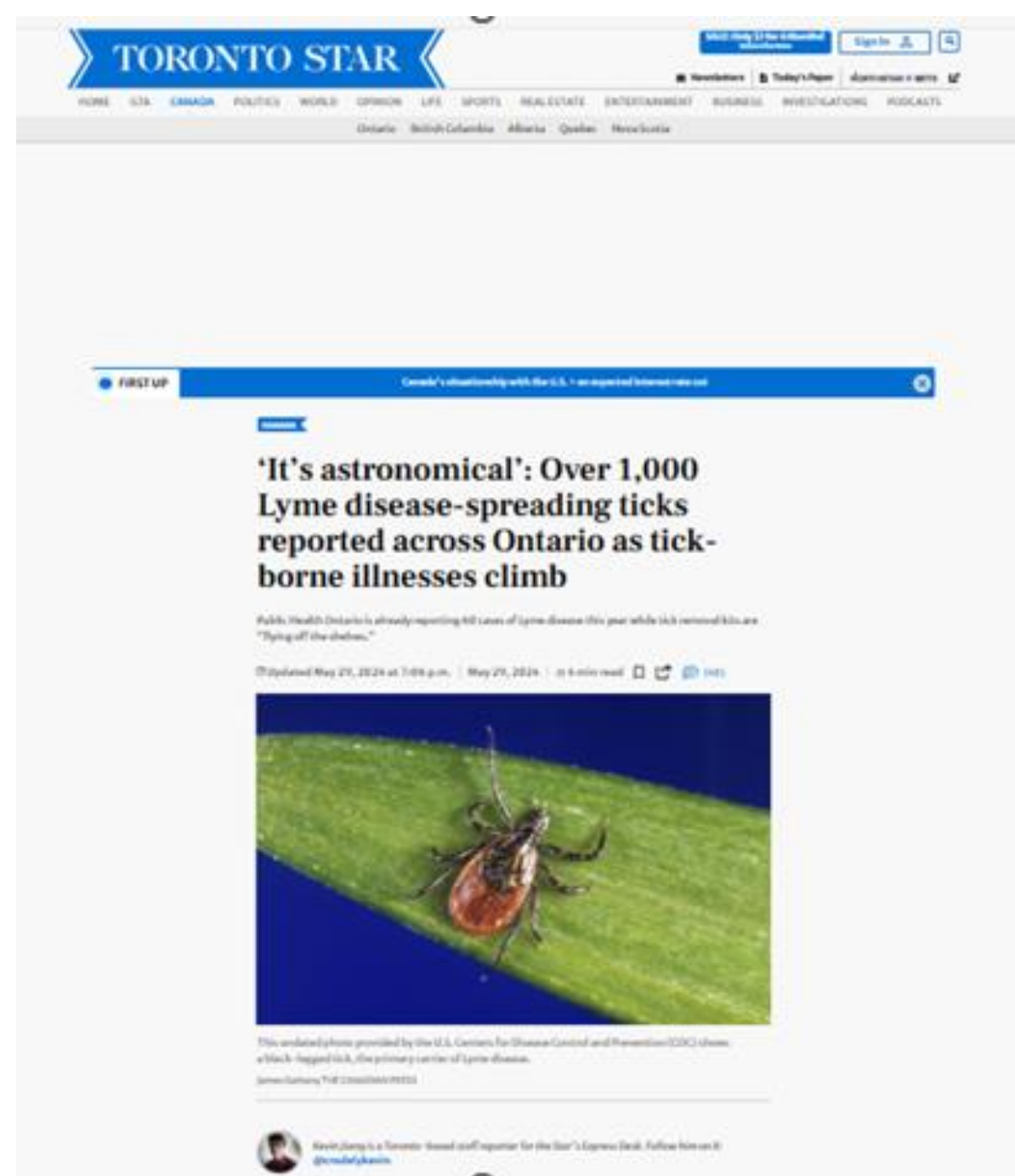


Tick Control Tubes turn mice from tick hosts into tick killers



Why Tick Control?

- **Health Risk:** Lyme disease is a serious illness caused by the bacteria *Borrelia burgdorferi*. It's transferred to humans through the bite of infected black-legged ticks (often known as deer ticks).
- **Protection:** Regular Tick Control measures reduce the risk of tick bites, ensuring families remain healthy and active without the worry of Lyme Disease.



The image is a screenshot of a news article from the Toronto Star website. At the top, the 'TORONTO STAR' logo is visible in a blue banner. Below the logo is a navigation menu with links for HOME, GTA, ENRAGE, POLICE, WORLD, OPINION, LIFE, SPORTS, REAL ESTATE, ENTERTAINMENT, BUSINESS, INVESTIGATIONS, and PODCASTS. There are also links for 'Sign in' and 'Subscribe'. The article title is "'It's astronomical': Over 1,000 Lyme disease-spreading ticks reported across Ontario as tick-borne illnesses climb". The byline reads 'Public Health Ontario is already reporting 40 cases of Lyme disease this year while tick removal kits are "flying off the shelves."'. The article is dated 'Updated May 27, 2024 at 7:09 p.m.' and 'May 27, 2024'. The main image shows a close-up of a black-legged tick on a green leaf. Below the image, there is a caption: 'This website photo provided by the U.S. Centers for Disease Control and Prevention (CDC) shows a black-legged tick, the primary carrier of Lyme disease. (www.cdc.gov) (4/22/2015)'. At the bottom, there is a small profile picture and text: 'Kevin Jones is a Toronto-based staff reporter for the Star's Express Desk. Follow him on @kevinjones'.

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Q & A

