

FREQUENTLY ASKED QUESTIONS

1) What other animals frequent the devices?

Raccoons, squirrels, mice, chipmunks, turkeys, blue jays and other birds frequent the device. Hundreds of hours of 24-hour infrared videotape recordings documented by the ARS indicate that besides the deer, raccoons are the only animals to contact or rub the treated rollers. Because raccoons are also good hosts for ticks, those raccoons that do receive sufficient treatment will also kill appreciable numbers of ticks.

2) How do we know how much corn a deer will eat?

The devices are intended to 'bait' the deer and not 'feed' them. For that reason only clean whole kernel corn should be used for bait. Several studies have shown that, in the presence of abundant natural browse, corn is a self-limiting diet for white-tailed deer. Thus, when an abundance of other natural food is available, a white-tailed deer will eat approximately 1 to 1 1/2 pounds of corn per 100 pounds of body weight per day.

3) Is the pesticide permethrin dangerous?

Permethrin is approved by the EPA for use on beef, dairy cattle and swine; it is used in shampoos to treat lice on humans and for fleas and tick on pets. It is in sprays to apply to clothing for use as a tick repellent. Permethrin has been classified by the EPA as a 'caution level', the least toxic of all pesticides. As with any pesticide, care must be taken in its handling.

This informational flyer has been written and distributed by the
Shelter Island Deer and Tick Committee
www.shelter-island.org/deerandtick/

Informational forum
Sunday, May 7, 2006
3:00 pm
High School Auditorium

Ticks are the Problem

by the Shelter Island Deer and Tick Committee

The 4-Poster System is the Solution



The population of ticks on Shelter Island has greatly increased in recent years causing a lot of serious illnesses in people of all ages. Tick populations of both the lone star tick and the blacklegged tick, previously called the "deer tick," continue to spread throughout much of the country. As tick populations increase so does the occurrence of tick-borne infections affecting humans. Most of these diseases are carried by species of ticks which feed on deer, such as the lone star and the deer tick. The deer tick is primarily found in the woods where it waits on leaves or brush for its host to brush up against before it attaches to the host. The lone star tick, relatively new on Shelter Island, can live in the woods or lawns. The lone star tick is much more aggressive than the deer tick and will track its host up to 30 feet. Tick-borne disease is a costly problem and one published study has estimated that Lyme disease alone may cost society over two billion dollars a year. It is now clear that controlling the tick population is by far the most effective way to reduce human tick-related illnesses.

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HERE'S HOW SHELTER ISLAND CAN GREATLY REDUCE TICK-BORNE DISEASES

The Shelter Island Deer and Tick Committee was appointed to study the problems of tick-related diseases. This committee has determined that the tick-borne illnesses on our island can be dramatically reduced by reducing the tick populations. One way to do this is by using the '4-Poster' baiting stations to treat the deer with Permethrin, which will kill ticks on deer.

THE '4-POSTER'

The '4-Poster' device is specifically designed to kill species of ticks that feed on white-tailed deer. In this regard, two primary target species for '4-Poster' technology in the U.S. are the (1) black-legged tick (deer tick) that transmits agents causing *Lyme Disease*, *human granulocytic ehrlichiosis* (HGE) and human *babesiosis*, and (2) the lone star tick that transmits the agent causing *human monocytic ehrlichiosis* (HME), as well as a newly identified Southern Tick Associated Rash Illness (STARI) that has symptoms like Lyme Disease.

The '4-Poster' consists of a central bin containing clean whole kernel corn used as a bait and 2 sets of applicators located at each end of each feeding station. As deer feed on the bait (corn), the design of the device forces them to rub against Permethrin-impregnated applicator rollers that look similar to paint rollers. The applicators in turn apply a 10% Permethrin product, Tickicide, to their ears, heads, necks, and shoulders where most of the feeding adult ticks are attached. This is extremely effective because almost 95% of the female adult ticks take their blood meal on a deer prior to laying their eggs. The Northeast study shows that if the lone star or deer ticks can be killed on the deer at this point in their life-cycle, then 86 to 99% of these ticks could be killed over a 3 to 4 year period.

The Deer and Tick Committee is recommending the use of '4-Posters' across the island in order to rid this island of ticks and debilitating tick-borne illnesses. If this system is used, a licensed and trained individual would maintain the '4-Poster' stations. There would be approximately one '4-Poster' baiting station for every 50 acres or approximately 100 '4-Posters' placed on the island. Each '4-Poster' would be attended to at least weekly.

PERMETHRIN

Permethrin is a very effective pesticide against lone star and black-legged ticks and when used properly can reduce tick numbers drastically. Some of the other uses for Permethrin and the strengths are:

The State of New York has approved (10%) Permethrin to be used in baths for beef cattle even on the day of slaughter and for dairy cattle even when they are being milked.

Orvis is only one of several companies that offers outdoor clothing for

hunters and hikers which contains (.5%) Permethrin. Military uniforms are often treated with (1%-40%) Permethrin to protect our soldiers from all kinds of pests.

Children's heads are washed with a (1%-5%) Permethrin-based shampoo to rid them of lice.

Permethrin is applied monthly to the necks of dogs to protect from ticks and fleas. (45%-63%)

Many homeowners have hired companies to spray their individual properties for ticks using Permethrin. Spraying adds more Permethrin to the environment than does the targeted application of the '4-Poster'. If the '4-Poster' System is implemented and successful, then spraying of properties to eradicate ticks may be greatly reduced or no longer be necessary at all.

Some of the hunters have raised questions about the safety of the meat of a treated deer. The Permethrin treatment is not known to permeate the hide of the deer, it stays on the fur and skin. The DEC recommendations for skinning deer should be followed which includes the practice of wearing gloves.

THE NEW YORK DEC

At this time, the New York State Department of Environmental Conservation (DEC) has not given approval to the use of '4-Poster' deer feeding stations and Tickicide for two reasons. The DEC has made it illegal to feed deer because they are concerned with the spread of illness within the deer herds and because they have not yet approved the use of the Permethrin on the deer. New York State happens to be the state with the most cases of tick-borne diseases and the only state in the lower 48 that does not allow the '4-Poster' system. The Deer and Tick Committee believes that the methodology developed for the '4-Poster' system is valid and a safe and appropriate response for tick-borne disease reduction on Shelter Island.

