Beneficial Nematodes - A quick lesson

Beneficial Nematodes – A quick lesson. First and foremost thank you for taking the time to watch this video.

This is designed with the homeowner in mind so we will start with What are beneficial nematodes? Why NIC’s In vivo nematodes are superior and the differences that set us apart from all the others.

So let us first talk about nematodes:

Nematodes are everywhere in the world they are the most numerous multi celled animal on earth! They are microscopic worms that live in the soil. The strains that NIC produces are specifically chosen because of their hunting abilities. NIC is the 1st Canadian company to isolate a Canadian nematode. Previously all nematodes were imported from overseas (Europe, USA).

By isolating a Canadian nematode this means that the nematode is:

a) accustomed to Canadian environmental conditions;

b) works best on Canadian pest; and

c) are more cold tolerant – work and can be applied at lower temperatures.

Our nematodes are live host raised which means:

a) bred to work best on live insects;

b) stronger more potent nematode – raised the way Mother Nature intended – only the strongest survive;

c) quality control assured; and

d) Aligned from birth with targeted pest, resulting in more effective control.

e) Have higher bacterial counts (it is the bacteria that is the killing agent)

f) Larger energy reserves meaning longer retention in the soil

Once again we are the ONLY Canadian company doing this. As you can imagine live host raised versus being developed in a test tube means a stronger, healthier product.

There are over 20,000 types of nematodes in the world, some of which are more aggressive in their hunting for pest grubs and others that are more efficient in their kill, yet are less aggressive hunters.

NIC includes mixes of nematode strains within our products that best suit’s the pest that is being controlled. The strain ratio in all NIC nematode products comes from an understanding after many years of research into what is the most effective product that can be brought to market.

All NIC nematode products are a mix of two (2) or more species from the Heterorhabditis and Steinernema strains. We have chosen and isolated strains from northern Ontario and Vancouver.

So we know they work in our climate and on our pests! This can not be said for our competitors.
Our nematodes are the freshest on the market and like anything else in this world the fresher the better. No jet lag suffered here, our Nematodes are ready to go as soon as you get them and they are all in the hunting stage of their life cycle which is “IJ” or infected juvenile.

So for those of you who are scientific or at least inclined that way here is a quick break down on how it works.

It is a non-feeding infective (juvenile) nematode that seeks out an insect host and releases its bacteria to initiate an infection in the host. The resulting infection causes the insect to die and the nematodes to feed and reproduce. Nematodes using their symbiotic bacteria kill insect hosts within 24-48 hours. The nematodes then reproduce within the cadaver until they have filled the space and thousands of infective juveniles are released to hunt down grubs. The second wave of nematodes do the most damage to the grub population. Through exponential growth each time the nematodes infect a grub and their population expands it facilitates the control of the pest, so it REALLY makes a difference how fresh and strong your nematodes are when you apply them.
**When is the best time of year to apply nematodes** this will depend where in the country you are located? If you are on the West Coast close to the ocean it is a micro system that is unlike the rest of Canada and therefore you will be applying in late July early August.

A quick side note for anyone with sandy soil, Wassaga comes to mind, add one (1) tablespoon of non-antibacterial soap (we have used ivory snow with good results) this is to prevent the nematodes from washing out of the soil.

For everyone else the BEST time to apply is the fall:

- Beetles lay their eggs in the summer they hatch into grubs in the fall.
- At this time they are small and easier to control.
- You can get them at the beginning of there life cycle.
- You can get them before they cause damage to your lawn.
- This will prevent damage in the fall and the spring.

Application should be done every fall if you want to keep control and prevent damage to your lawn in the fall and the following spring.

The next best application time is spring this is when you will see the damage and want to do something about it, a spring application will mean less grubs turning into beetles. Fewer adults fewer babies if you That being said if you were to only do one application a year, fall is always optimall

- Apply in the spring only if you see grubs in the ground.
- This is the time to get them before they pupate and turn into egg laying adults.
- Prevent spring damage.
- Apply in the fall to get any grubs that have just hatched.
- Ongoing - apply every fall to keep control, spring application should not be needed unless you see the grubs.

At both of these times of year the soil temperature has to be above 10°C, otherwise the nematodes go into a hibernation state.

**FREQUENTLY ASKED QUESTIONS**

1. Are they safe?
   - Yes they are fully organic and will not harm people pets or other insects, even your earthworms are safe. Nematodes only infest targeted pests.

2. Where do they go after killing grubs?
   - They stay until the food source is finished then remain in the soil in a stasis state until more grubs arrive.
3. Will they travel away from my yard?
   - Some of the nematode species are aggressive travelers and will actively seek out grubs to infect, but your neighbor’s lawn is the equivalent of walking to Australia.

4. How do they find the grubs?
   - They can sense carbon dioxide to a distance of ten feet, they would then use the water channels to travel to prey hence it is important to make sure soil has been watered prior to using nematodes.

5. How many are needed?
   - It is recommended to apply 10 million to 3,000 sq feet

We have created a video on how to apply nematodes. It is as simple as going to your –tube and punching in NIC nematodes.

Thank you for your interest and if you have any questions please feel free to contact us any time.

www.naturalinsectcontrol.com

Natural Insect Control (905) 382-2904