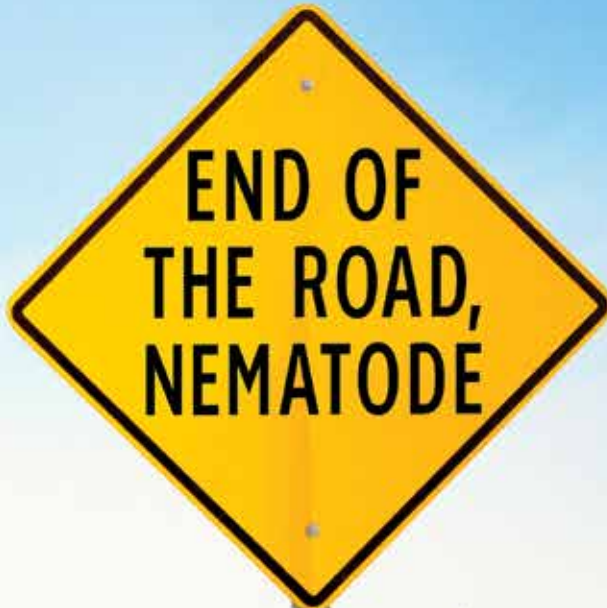




Indemnify[®]



*TAKE YOUR
TURF BACK.*

TAKE YOUR TURF BACK.

// Mode of Action

Indemnify contains the active ingredient Fluopyram.

Fluopyram is a succinate dehydrogenase inhibitor (SDHI) that paralyzes and eventually kills nematodes by blocking cellular respiration. Fluopyram is a contact nematicide with acropetal (upwards) movement.

The effect on nematodes is initially paralysis and this effect begins once the nematicide makes contact. In general, visual improvement to damaged turf occurs four weeks after application.

Effects of improved turfgrass quality can last between two to six months. The exact duration is dependent on several factors including, but not limited to, nematode species and turfgrass type.

“Indemnify basically allows us to spray any day of the week, whereas previous programs we have been restricted on the days we can spray, so ease of application is really beneficial.”

Anthony Mills, Superintendent, The Lakes Golf Club



Nematodes under microscope



TAKE YOUR TURF BACK.

Indemnify® represents a new cornerstone in integrated nematode management programs for turfgrass.

Indemnify is a next-generation, easy-to-use nematicide that controls key plant parasitic nematodes and improves root growth and turfgrass health resulting in better playability with improved wear tolerance.

// Features

- New mode of action delivering fast, effective, long term control of plant parasitic nematodes
- Advanced formulation technology with soil penetrating surfactants
- Not a scheduled poison and minimal PPE requirement for application
- White to beige suspension concentrate (SC) formulation with low use rate

// Benefits

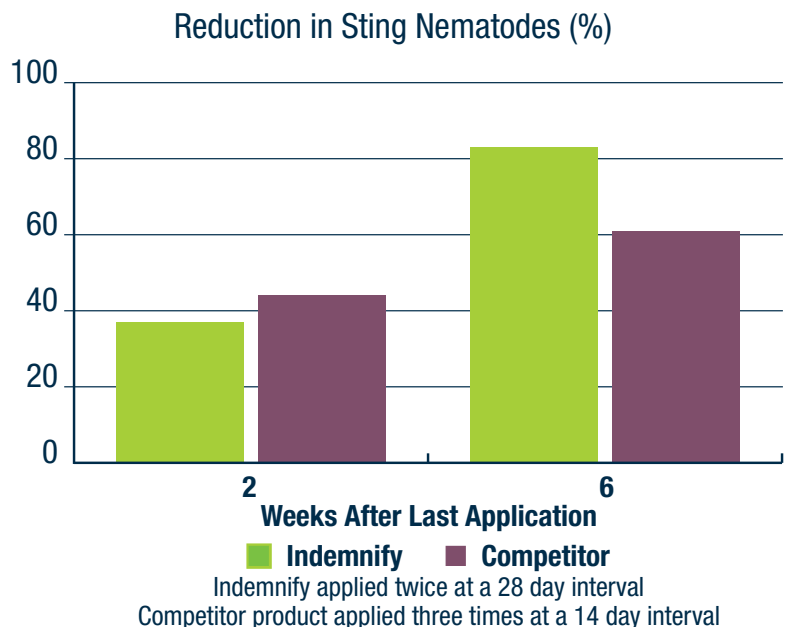
- A tool to strengthen integrated nematode management programs
- Improved root growth and turf health
- Turf that is more resilient to stresses of climate and traffic
- Improved playability of sports turf surfaces
- Easier to get active ingredient to the target root zone without the need for invasive practices or heavy irrigation/rainfall
- Low health risk to applicators and people playing on treated turf
- Easy to mix and store. Sprays clear and is non-staining

“We do experience high numbers of sting nematodes in all of our greens. It’s always a huge benefit for our operators as they don’t have to be exposed to the chemicals. We do a lot of golf here, around 75,000 rounds of golf a year, so it is important for us to be able to go out there and spray without affecting the golf.”

Greg Stynes, Superintendent, Nelson Bay Golf Club



Sting Nematode Trial, Bentgrass Golf Green, NSW 2018



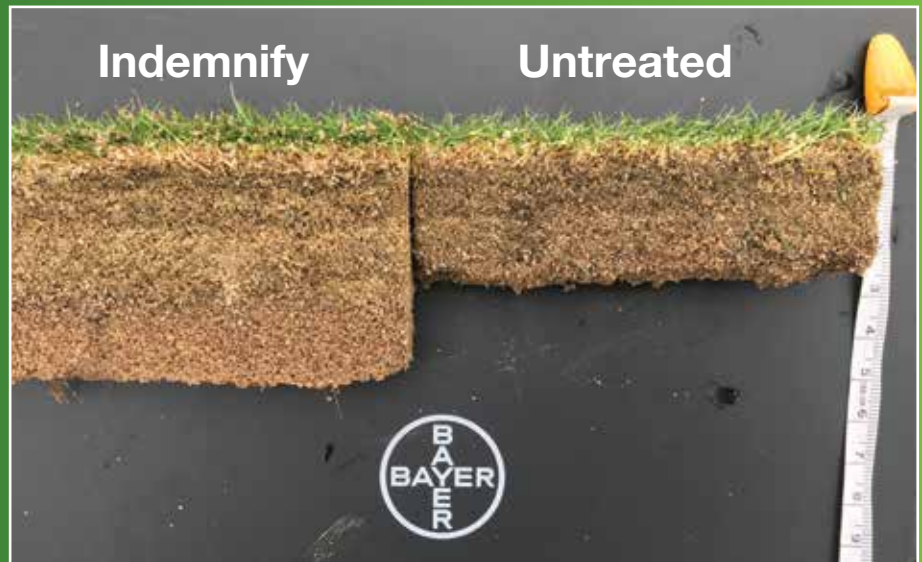
// Reduced summer hand watering

// More summer aeration

// Reduced root diseases

// Improved surface quality

// Better surface stability



// What are plant parasitic nematodes?

Plant-parasitic nematodes are a group of nematodes which feed on plant roots and can cause economic damage to crops including turfgrass. Plant-parasitic nematodes are defined by their habitat; ectoparasites feed on cells near the root surfaces and endoparasites enter the host roots and feed inside the root tissue. Both endo and ectoparasitic nematodes may be migratory or sedentary.

// Symptoms of nematode damage in turf

Symptoms of nematode damage in turf can initially be mild and easily overlooked. Changes in the visual health of turf such as slowing growth, thinning of coverage and increased sensitivity to stress, particularly when not corrected by good cultural practice can be the first sign that plant-parasitic nematodes might be active. Such decline can then predispose turf to attack by other pathogens or result in unsightly damage and costly repairs. Nematode damage can destabilize the root mass and therefore the playing surfaces of sports grounds.

Symptoms of plant damage include galled roots, presence of cyst bodies, declining and discolored root system, root tissue growing strangely, inhibition of root growth or death of cells on which they feed. Above-ground symptoms are often found in a random patchy pattern and include chlorosis, wilting, reduced growth and vigor, stunting, thin, weak, or dead areas. Symptoms are more apparent when turf is stressed by high temperatures, a lack of moisture and poor soil fertility.

If nematodes are suspected, a soil test should be conducted to use as a guide for making control decisions.

// Optimum timing for the application of Indemnify

Indemnify should be applied as a preventative treatment when conditions are favourable for root growth, before nematode populations build up to damaging levels. The population build-up of some key species such as sting nematode often occurs during or following a period of root growth, so optimum timing of application, while situation-dependent, will often be just prior to periods of peak root growth. For cool-season turf this timing is typically early spring and autumn and for warm-season turf this timing is spring and autumn.

// Indemnify use restrictions

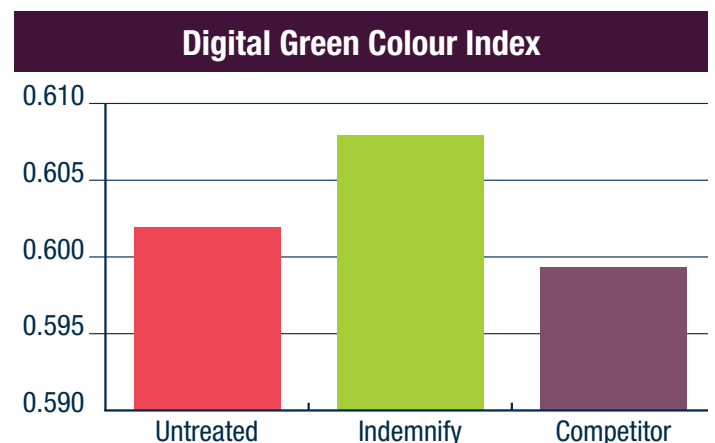
Do not apply if there are sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat within 5 metres downwind from the application area.

Do not apply by aircraft.

Do not graze treated turf or lawn; or feed turf or lawn clippings from any treated area to poultry or livestock.

Do not tank mix this product with soil wetting agents or surfactants.

Do not allow entry into treated areas until the spray is dry.





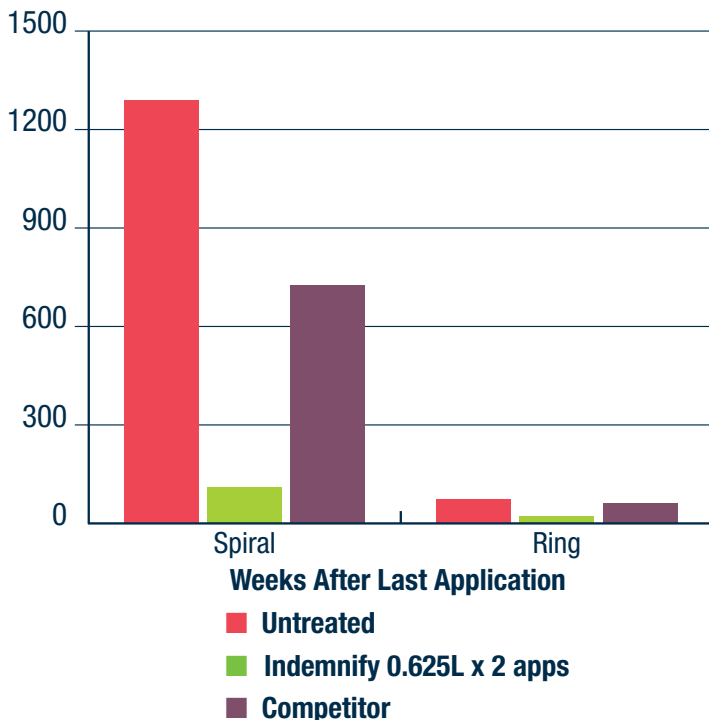
Indemnify®

CROP	DISEASE	RATE	CRITICAL COMMENTS
TURF including golf courses (e.g. fairways, greens, tees) and sports turf (e.g. football and rugby pitches, tennis, bowls and cricket pitches), racetracks, parklands and commercial and residential lawns	Plant parasitic nematodes including Sting, Spiral, Sheath, Ring, Root Lesion, Root-knot and Stubby	625 mL/ha Apply in 400 - 800 L water/ha	Use this product as part of an integrated nematode management program for turfgrass. Apply as a preventative treatment when conditions are favourable for root growth. Reapply as needed after 28 days when nematode pressure is high. Irrigate with sufficient water as soon as possible after application to wash the product into the root zone. Apply a maximum of 1.25 L/ha per year. Do not apply more than the maximum annual rate from any combination of products containing FLUOPYRAM.

Active ingredient: 400 g/L FLUOPYRAM

Pack size: 500mL HDPE bottle

Spiral and Ring Nematodes, Couchgrass Bowling Green, QLD 2016



69 days after initial application

// Integrated nematode management programs for turf

Integrated nematode management programs should employ multiple tactics to provide effective control and population reduction to help prevent economic pest damage.

These programs may include cultural practices such as fumigation, monitoring or other detection methods, proper pest identification, use of nematode-resistant or tolerant varieties and rotation of nematicides with different modes of action.

The need to supplement Indemnify with other nematode control products will depend on various factors including nematode species, pressure, turf species, and turf health.

“We verti-drain before we put out a lot of the other products, whereas with Indemnify, we went straight out on the surface.”

Cameron Hall, Superintendent, Kew Golf Club

TAKE YOUR TURF BACK.

Trust

the Bayer brand

// Science For A Better Life

Bayer is an international life science company offering innovative products that serve the health of humans, plants and animals.

As an inventor company, Bayer sets trends in these research-intensive areas. Bayer's products and services are developed to improve the quality of life. Bayer is committed to the principles of sustainable development, placing equal value on our economic, environmental and social performance.

Environmental Science, a business unit of the Crop Science Division of Bayer, is a leader in our industry today, and aspires to become a thought leader tomorrow.

Guided by our purpose of "Fostering Healthy Environments where we Live, Work, and Play", we aim to provide to our customers high-quality solutions beyond products, investing in innovation, promoting sustainable development, and strengthening our customer centricity.



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