

WARNING: TOXIC, ECOTOXIC
Keep Out of Reach of Children
Read Label Before Use



Thumper NZ Insecticide

Active ingredient: Contains 20 g/litre abamectin in the form of a micro-emulsion concentrate

For the control of Couch Mite and Nematodes in Turf

Approved pursuant to the HSNO Act 1996, Approval Code HSR100729
See www.epa.govt.nz for approval conditions

IMPORTANT: READ THIS LEAFLET BEFORE USING THIS PRODUCT

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NZ Emergency Number: 0800 764 766 (0800 POISON)

TURF
culture

HSNO CLASSIFICATION

6.1D, 6.3A, 6.4A, 6.8B, 6.8C, 6.9B, 9.1A, 9.2C, 9.3C, 9.4A



Harmful if swallowed. Irritant



Chronic Toxic



Ecotoxic

HAZARDS

Warning - Harmful if swallowed. Causes skin irritation. Causes eye irritation. Suspected of damaging fertility or the unborn child. May cause harm to breast-fed children. May cause damage to organs through prolonged or repeated exposure.

Ecotoxic - Very toxic to aquatic life with long lasting effects. Harmful to the soil environment. Harmful to terrestrial vertebrates. Very toxic to terrestrial invertebrates.

APPROVED HANDLER

This product must be under the personal control of an Approved Handler when applied in a wide dispersive manner or used by a commercial contractor. This product is a Tracked Substance.

PRECAUTIONS

Do not handle until all safety precautions have been read and understood. Do not breathe mist or spray. Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact during pregnancy/while nursing.

Storage

Store locked up in the closed, original container in a dry, cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT use this container for any other purpose.

Container disposal: Ensure the container is empty. Triple rinse empty container and add residue to spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point (0800 247 326, www.agrecovery.co.nz). Alternatively, if allowed under local Authority District Plans, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. DO NOT reuse this container for any other purpose.

Product Disposal: Disposal of this product only by using according to this label, or at an approved landfill or other approved facility.

Turf Culture Thumper NZ Insecticide (hereinafter 'Thumper Insecticide') must not be applied onto or into water.

Thumper NZ Insecticide must not be used on or around food or feed crops.

DIRECTIONS FOR USE**Restrains**

DO NOT apply onto or into water.

DO NOT apply on or around food or animal feed crops

DO NOT apply if rainfall imminent.

DO NOT apply if forecast heavy rain or storms are likely to cause runoff.

DO NOT apply by aircraft.

DO NOT apply through any type of irrigation system or ultra low volume spray system

DO NOT store a suspension of Thumper Insecticide for more than two days, otherwise significant breakdown may occur.

DO NOT apply by backpack application.

DO NOT apply by hand gun sprayer.

DO NOT apply with a nozzle height greater than 50cm above the ground.

Situation	Pest	Rate	Critical Comments
Turf	Couch Mite	1 – 2 L/ha (10 – 20 mL/ 100 m ²)	<ul style="list-style-type: none"> • Apply Thumper Insecticide at the low rate (1 L/ha) in an early curative situation (after first symptoms are apparent) to control current and prevent further pest numbers from breeding and building up damaging populations. • Apply Thumper Insecticide at the high rate (2 L/ha) when pest populations are at peak damage levels and the turf stand requires an immediate reprieve from pest attack. • Best results are achieved if applied as populations begin to build rather than at the peak of population growth as pest damage can be avoided with early season applications. • Generally Thumper Insecticide takes approximately 7-10 days to reach maximum mite control. • Good spray coverage is essential. Apply in water volume of 250 – 500 L water per ha (2.5 – 5 L/100m²). • It is important to keep within the water volume range to ensure maximum leaf uptake of Thumper Insecticide, which will give several weeks residual control. High water volumes may reduce efficacy (see 'GENERAL INSTRUCTIONS – Couch Mite' for further information). • Always add non-ionic surfactant (1000 g/L – non buffering type) at 250mL/100 L (0.25 % v/v) of final spray volume. • DO NOT use if rainfall is expected before spray has dried as reduced efficacy may result.

Situation	Pest	Rate	Critical Comments
Turf	Soil Borne Parasitic Nematodes	5 L/ha (50 mL/100 m ²)	<ul style="list-style-type: none"> • Apply Thumper Insecticide in an early curative situation (after appropriate nematode extraction, identification and counts). When counts of a particular nematode species are extremely high, well above that nematode species' threshold (i.e. Sting Nematode: when counts are 100 nematodes/200 g soil or higher), apply a treatment of Thumper Insecticide (1 treatment = 2 applications 14 days apart). An additional treatment may be required again in 30 days from the last application if ideal nematode conditions are still prevalent. • DO NOT apply to dry soil. • Avoid application under windy or very hot and drying conditions. • Irrigate immediately while leaves are still wet with spray deposit (usually within a few minutes) and apply a minimum of 10 mm of water (ensuring you reach the bottom of the root zone). • Regulate the volume of irrigation to avoid the formation of pools and puddles. • DO NOT allow spray deposit to dry on leaves before applying irrigation. • DO NOT irrigate to the point of runoff. • Good spray coverage is essential. Apply in a convenient amount of water. • An addition of a soil penetrant is recommended to ensure an even matrix flow through the soil profile. • Switch to an alternative chemistry class if counts stay high and symptoms persist. <p>See 'GENERAL INSTRUCTIONS – Application for Soil Borne Parasitic Nematodes' for further application information.</p>

INTEGRATED PEST MANAGEMENT

The possible effects of Thumper Insecticide on integrated pest management (IPM) strategies in the turf industry have not been studied at the proposed rates. However, based on available information, it cannot be ruled out that Thumper Insecticide may have an adverse effect on non-target beneficial turfgrass invertebrates where such IPM is practiced.

GENERAL INSTRUCTIONS

Couch Mite

For Couch Mite control, Thumper Insecticide is an acaricide with contact and stomach action.

Following application, Thumper Insecticide penetrates leaf tissue where its translaminar activity provides extended residual control of mites. It is taken up by mites feeding on both the upper and lower surfaces of leaves, and remains in the leaves for several weeks offering residual control of sucking mites.

Foliage-feeding mites ingest Thumper Insecticide, which affects the nervous system of the mites. Shortly after exposure, the mite stops feeding, becomes irreversibly paralysed and no further damage to the plant occurs. Death occurs within 7-10 days.

Reduced efficacy may occur if water volumes higher than recommended are used due to Thumper Insecticide washing off the leaf. This will not allow Thumper Insecticide to penetrate the leaf tissue hence losing the residual control of mites.

Mites: Upon hatching the nymphs molt twice (2 instars) and molt again into a sexually mature adult. In most cases adult mites must feed prior to laying eggs. This is where the correct water volume to achieve maximum leaf tissue penetration is vital as the mite will feed on the plant, ingest Thumper Insecticide and die prior to laying eggs, hence stopping future generations from evolving. No eggs laid means nothing to hatch.

The complete life cycle from egg to adult is 7 to 10 days, and it is faster with higher temperatures.

Each female produces approximately a dozen eggs.

Thumper Insecticide is active against all mite leaf feeding stages (no effect on eggs).

Thumper Insecticide is ideal for either newly sown/planted or established turf.

Apply Thumper Insecticide at the low rate (1 L/ha) in an early curative situation (after first symptoms are apparent) to control current and prevent further pest numbers from breeding quickly and building up damaging populations (i.e. an early season application).

Apply Thumper Insecticide at the higher rate of 2 L/ha when pest populations are at peak damage levels and the turf stand requires an immediate reprieve from pest attack.

Application for Couch Mite

Apply by ground boom sprayer or low-pressure hand wand.

To be effective Thumper Insecticide requires thorough spray coverage. Ensure that equipment is properly calibrated to give an even distribution at the correct volume. Application volume should be adequate to ensure thorough and even coverage of turf leaves with penetration into the crowns. Total application volume should be 250 – 500 L/ha. Use coarse droplets (i.e. Air induction flat fan 025 to 04 nozzles). In higher cut turf (>15mm) a significant spray shielding effect can occur, impacting negatively on spray penetration and even coverage at low application volumes.

Do not make applications when unusually hot conditions are present or expected within 24 hours after application, or under poor or slow drying conditions.

Soil Borne Parasitic Nematodes

For Soil Borne Parasitic Nematode control Thumper Insecticide acts as an anthelmintic compound.

Thumper Insecticide has no systemic activity through plant roots (does not translocate through the roots). To ensure control Thumper Insecticide must be applied evenly through the soil profile with rainfall/irrigation following an application to achieve contact with the Soil Borne Parasitic Nematodes. The Nematodes absorb Thumper Insecticide through contact. By incorporating Thumper Insecticide into the soil profile it moves alongside the growing roots thus protecting the plant from nematode attacks.

Application for Soil Borne Parasitic Nematodes

Application volumes for Soil Borne Parasitic Nematodes can be in a convenient amount of water, remembering that good spray coverage is essential. If using a ground boom spray, for best results use extremely coarse droplets (i.e. Turbo Floodjet* (TF5) or TurfJet* (TTJ10)) and total application volume of approximately 1000 L/ha. Preferably spray onto wet or dewy grass.

An addition of a soil penetrant is recommended to ensure an even matrix flow through the soil profile.

Washing in should commence as soon as possible after application. DO NOT allow spray deposit to dry on leaves before applying irrigation. Irrigate immediately while leaves are still wet with spray deposit (usually within a few minutes) and apply a minimum of 10 mm of water (ensuring you reach the bottom of the root zone). Regulate the volume of irrigation to avoid the formation of pools and puddles. DO NOT irrigate to the point of runoff.

Remember that Thumper Insecticide controls Soil Borne Nematodes by contact. If you do not incorporate an application of Thumper Insecticide to the bottom of your root zone immediately after

spraying then you cannot control the Soil Borne Nematodes feeding on the whole root system. No contact equals no control.

Do not make applications when unusually hot conditions are present or expected within 24 hours after application, or under poor or slow drying conditions.

TURF MONITORING

Couch Mite

Effective mite control depends upon regular monitoring of the turf. Check the turf area regularly remembering that mite activity will be first noticed on developing shoots and it is important to protect the new growth.

Damage is characterised by a yellowing of the tips of the leaves, a turning upward and inward of the leaves and shortening of the internodes, and a rosetting or tufting of the grass (usually described in the turf industry as 'witches broom').

The thinning of turf can be caused by several factors and damage by Couch mite is often misdiagnosed as mutation or nematode infestation. Therefore, it is always a good idea to collect samples of live plants from the effected areas (i.e. witches brooms). Samples should be sealed in a plastic bag and sent to your local turf laboratory/insect specialists for identification.

Remember that chemical control will treat the pest but not repair the turf damage.

Soil Borne Parasitic Nematodes

Effective Soil Borne Parasitic Nematode control depends upon regular monitoring of the turf medium soil. Conduct a Nematodes Analysis (Identification and Count of Nematodes) regularly to monitor the Nematodes present and thresholds applicable to your situation.

If your site history shows damage annually during seasonal periods you should initiate applications early, before periods of peak root growth. This will protect actively growing roots.

There can be interactions between Soil Borne Nematodes and fungal diseases as nematodes can cause wounds to the root system and these wounds are very prone to infection by fungal pathogens. Therefore nematode feeding can increase susceptibility to fungal root diseases.

Conduct a Disease Analysis (primarily on your root system) regularly to monitor if any disease is present. If you do have a fungal root disease present then an appropriate curative fungicide will need to be applied.

You will see significant increases in turf grass quality and improved nematode management when implementing a preventative fungicide program primarily for root diseases. This will reduce the disease pressure and allow root health to improve whilst Thumper Insecticide is relieving Nematode attacks.

MIXING

Measure the required amount of Thumper Insecticide, add to the partly filled spray tank and then add the remainder of the water.

COMPATIBILITY

As formulations of other manufacturer's products are beyond the control of Turf Culture Pty Ltd, and water quality varies with location, all mixtures should be tested prior to mixing commercial quantities.

CROP SAFETY

DO NOT make applications (1) when unusually hot conditions are present or expected within 24 hours after application, (2) under poor or slow drying conditions.

INSECTICIDE RESISTANCE WARNING

For insecticide resistance management Thumper Insecticide is a Group 6 insecticide. Some naturally occurring insect biotypes resistant to Thumper Insecticide and other Group 6 insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Thumper Insecticide or other Group 6 insecticides are used repeatedly. The effectiveness of Thumper Insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant insects is difficult to detect prior to use, Turf Culture Pty Ltd accepts no liability for any losses that may result from the failure of Thumper Insecticide to control resistant insects. Thumper Insecticide may be subject to specific resistance management

strategies. For further information contact a Turf Culture representative.

RESISTANCE

Experience has shown that repeated use of one particular miticide or nematicide from the same chemical group can lead to the early development of resistance to that chemical group. Therefore Thumper Insecticide should not be applied in two consecutive seasons without an unrelated chemical being used in between. Alternate Thumper Insecticide with approved products from other chemical groups. Consult a Turf Culture Pty Ltd representative for advice on chemical groups.

RE-ENTRY PERIODS

Public

DO NOT allow public access until the spray has dried.

Workers

DO NOT undertake occupational re-entry activities on turf treated for the control of couch mite until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length chemical resistant gloves.

DO NOT undertake low exposure occupational re-entry activities such as irrigation and mowing on turf treated for the control of nematodes until the spray has dried. DO NOT undertake high exposure occupational re-entry activities such as transplanting of treated turf for the control of nematodes until 8 days after application, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length chemical resistant gloves.

APPLICATION RECORDS

Users of this product MUST make an accurate written record of the details of each spray application within 24 hours following application and keep this record for a minimum of 2 years. The spray application details to be recorded are:

1. Date, with start and finish times of application
2. Location / address of area(s) sprayed
3. Full name of the product, product batch number (BN) and date of manufacture (DOM)
4. Amount of product used per hectare and the number of hectares treated
5. Turf species/situation and weed/pest
6. Wind speed and direction during application
7. Air temperature and relative humidity during application
8. Spray irrigation or rainfall after application, start time, duration and amount (mm)
9. Equipment used; nozzle brand, type, spray angle, operating pressure and total water volume applied per hectare
10. Name of person applying this product

(Additional record details may be required by the New Zealand Government where this product is used)

FIRST AID

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTRE (0800 764 766) or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/ attention.

SPILLAGE

Wear suitable protective clothing including face shield, impervious gloves and boots. Prevent the product or spilled material from entering water bodies. Absorb liquid spills with inert material such as earth or sand and place in waste containers. Wash area with water and absorb with further inert material. Dispose of safely.

SAFETY DATA SHEET

If additional hazard or safety information is required, refer to the Safety Data Sheet (SDS), which is available from the supplier or from the manufacturer's website: www.turfculture.com.au

CONDITIONS OF SALE

The use of Turf Culture Thumper NZ Insecticide being beyond the control of the manufacturer, no warranty expressed or implied is given by Turf Culture Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Turf Culture Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.