

Pursuit

MITICIDE

PRODUCT INFORMATION

Pursuit Miticide is a dual active miticide, containing the active ingredients Abamectin 18g/L and Clofentezine 187.5g/L.

Pursuit Miticide is a suspension concentrate formulation.

Pursuit Miticide is registered for the control of Couch Mite in all turf situations Pursuit Miticide has been developed and manufactured in Australia.

Pursuit Miticide at a glance

| | |
|-------------------|--|
| Active Ingredient | 18g/L Abamectin 187.5g/L Clofentezine |
| Pack Size | 1L, 5L |
| Mode of Action | Group 10A 6 Insecticide |

Key Features

- ✓ Effective knockdown and residual activity of mite populations. Controls feeding stages of mites, whilst also controlling the egg and early mite larval stages. Provides more complete control of the population.
- ✓ Provides residual control for up to 4-6 weeks.
- ✓ Multiple modes of action used: Group 10A and Group 6. There are no limitations on number of treatments per season. This is unlike some other miticide chemistry on the market.
- ✓ Suspension Concentrate (SC) formulation, specifically developed for reduced odour in turfgrass situations.
- ✓ No solvents within formulation, limiting cuticle impact on the plant.
- ✓ Researched formulation. Pursuit Miticide has been extensively researched and trialed in turf situations.
- ✓ Useful product to be used in an integrated approach to mite management.
- ✓ Proven turf safety. Tested on more than 15 turf species without causing any damage.
- ✓ Limited re-entry period restrictions, providing ease of use in the urban environment.



Mode of Action

Abamectin blocks the transmission of electrical activity in invertebrate nerve and muscle cells mostly by enhancing the effects of glutamate (an important inhibitory neurotransmitter in insects) at the glutamate-gated chloride channel.

By activating glutamate-gated chloride channels, the mite becomes paralysed, stops feeding and dies. Abamectin has contact toxicity, but its stomach toxicity is much stronger.

After 2-3 days of spraying abamectin, its insecticidal efficacy will be best and the longevity of residues will last about 7-15 days.

Abamectin moves via translaminar activity (one side of leaf to the other) to kill mites that hide in the internal leaf sheath's.

Clofentezine is a specific acaricide with contact action, and long residual activity.

It acts primarily by interfering with cell growth and differentiation during the final stages of embryonic (ovicide), and early larval development.

IRAC (Insecticide Resistance Action committee) class Clofentezine as an insect or acaricide growth regulator. Clofentezine mimics growth hormones by directly affecting cuticle formation or lipid biosynthesis, halting their ability to develop any further and essentially preventing their lifecycle completion (IRAC, 2016).

Maximising Performance

- ✓ To maximise performance Pursuit Miticide should be applied with a non-ionic surfactant to ensure uptake.
- ✓ To be effective Pursuit Miticide 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 400 to 800L/ha. Use coarse droplets (Air Induction flat fan 025 to 04 nozzles). In higher cut turf (>15 mm) a significant spray shielding effect can occur, impacting negatively on spray penetration and even coverage at low application volumes.
- ✓ Do not spray while bees are actively foraging. Do not allow spray drift to flowering plants in the vicinity of the treatment area.
- ✓ Do not graze treated turf/lawn or feed turf/lawn clippings from any treated area to poultry or livestock.
- ✓ Pursuit Miticide should not be applied if rainfall is imminent.

Key Application Information

- ✓ Apply by ground boom sprayer, low pressure hand wand or hand gun sprayer. To be effective Pursuit 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 400-800L/ha. Use coarse droplets (e.g. 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.
- ✓ Don't apply to turf under heat or moisture stress.
- ✓ Don't apply if rainfall imminent. The effect of this product could be diminished if rain falls within 6 hours of application.
- ✓ Don't apply through any type of irrigation system or ultra low volume spray system.
- ✓ Don't apply with a nozzle height greater than 50cm above the ground.

Couch Mite

Aceria cynodontiensis (Eriophyid mite)

These are tiny mites about 0.2mm in length, translucent and hard to see even under a microscope, though a dark background helps. They have two pairs of legs where other mites have four. They normally cause "Witches' Broom" rosetting at the runner nodes.

Entire lifecycle in 10-14 days. Multiple generations per season.
Eggs hatch in 2-3 days.

Nymphs feed and mature in 5-6 days.

Adults mate and lay eggs within a 3-5 day lifespan.

Monitoring Couch Mite Activity

Effective Couch Mite control depends upon regular monitoring of the turf. Check the turf area regularly remembering that mite activity is 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 ('witches broom'). Thinning of turf can be caused by several factors and damage to Couch Mite can be misdiagnosed as other factors. Therefore, it is recommended to collect sample of live plants from 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. It is important to note that chemical control will treat the pest but not repair turf damage. Good nutrition and growing practices will enhance plant response.



Couch Mite Damage Magnified



Couch Mite Damage

Directions for use

| Situations | Pest | Rate | Critical Comments |
|---|--|---|---|
| Couch turf including but not limited to golf greens, tees and fairways, bowling clubs, sports fields and racetracks | Couch Mite (<i>Aceria cynodoniensis</i>) Nymphs feed and mature in 5-6 days | 1.35L/ha in 400-800L of water per hectare | Apply product in an early curative situation (after first symptoms are apparent). Best results are achieved if applied as populations begin to build rather than at the peak of population growth |

Couch Mite Lifecycle

| Miticidal Activity | CLOFENTEZINE Activity Zone | | ABAMECTIN Activity Zone | | |
|----------------------------|---|-------------------------|-------------------------|------------------------------------|--|
| Mite Lifecycle Stage | Stage 1 > | Stage 2 > | Stage 3 > | Stage 4 > | Stage 5 > |
| Mite Lifecycle Description | Females lays eggs beneath leaf sheath of new growth in spring | Egg Hatches in 2-3 days | Nymph – 2 stages | Molts to become adult after 6 days | Breeds & females lay eggs for 2-4 days |
| Mite Size | Up to 200 mites under one leaf sheath | 0.07mm | 0.1 - 0.15mm | 0.2mm | |

Field Research Performance

