

## Couch Mite in Australian Turf Management

### Characteristics of Pest

Couch Mite (*Aceria cynodontis*) is a mite species native to Australia, which has been problematic in a variety of turf management situations in many states of Australia for a number of years. This pest is not only apparent in Australia however, as it's activity has been reported in New Zealand, South Africa and the United States.

Couch Mite are very host specific, and will only attack Couch (*Cynodon dactylon*) turf. Hence, mite activity observed in other turf types is unlikely to be as a result of Couch Mite activity. Overseas research has suggested that the finer textured 'Tif' varieties of Couch, have shown some tolerance to Couch mite attack.

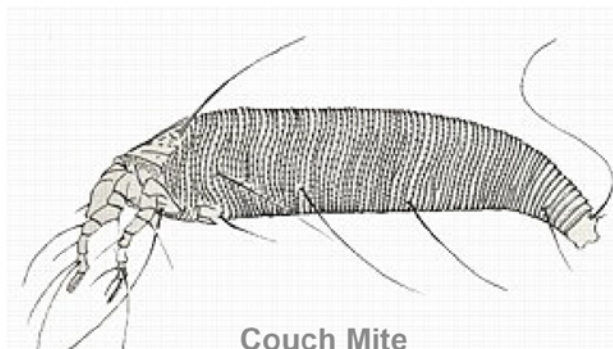
There are several mite families, presently impacting on plants in Australia. Couch Mite is classified as an Eriophyid mite. Its full classification is as follows:

**Phylum** Arthropoda • **Class:** Arachnida • **Order:** Acarina • **Family:** Eriophyidae

### Lifecycle of Mites

Couch mite completes a lifecycle within a very short space of time (7-10 days) and is capable of completing several generations per year.

As a result, in ideal conditions, numbers of this insect can build very rapidly and damage can be extensive if not controlled. The chart, outlines the mite lifecycle in greater detail.



### Lifecycle Chart

Females lay 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

## Temperature and Mite Activity

Couch Mite is active primarily in late spring and summer. Although Couch Mite can survive atmospheric temperatures up to 50°C, optimum temperatures for Couch Mite growth and survival are between 20 - 40 °C.

Overseas research has indicated that at 24°C, a complete lifecycle takes 7 days. Colder temperatures can halt development. The insect overwinters beneath leaf sheaths in the crowns of couch plants and becomes active again, as temperatures increase.

## Identification of Couch Mite

Couch Mite Eggs are transparent white in colour and are 0.07mm in length. The female adult lays less than a dozen eggs in a lifetime. Eggs are laid under the leaf sheath.

Couch Mite Nymphs are worm like in shape, possess 2 pairs of legs (4) and are up to 0.13mm in length. The 1st Nymphal stage is translucent in colour, and the 2nd nymph stage is white in colour.

The Adult Couch Mite is yellow – white in colour, has an elongated body shape and is generally 0.2mm in length. The adult possesses 2 pairs of legs.

## Symptoms

Couch Mite spend most of their lives beneath the leaf sheath. Up to 200 mites may occur under one leaf. Initial damage symptom generally appears as leaf tip yellowing and distortion. Couch Mite with their piercing mouthparts suck juices from the stems and leaf sheaths.

Couch Mite also inject a toxic saliva into the plant. As a result, the plant exhibits the following responses; internodes shorten and leaf sheaths swell, resulting in the 'witches broom' affect that is commonly observed. Damage first appears in Spring and dieback, browning often follows in the summer months.

## Control

Cultural Control Options include; reducing mowing heights where practical, maintaining good nutritional and irrigation practices, collection of clippings when activity is apparent in order to prevent spread.

## Products registered for the Control of Couch Mite

Product	Rate per 100m <sup>2</sup>	Rate per hectare	Comments
Thumper	10mL	1L	Abamectin is a very useful miticide as it possesses the ability to move locally in the plant via translaminar activity. This means that when abamectin is applied to the top of the leaves, the product moves through the leaves and covers the underside of the leaf.
Supracide	40mL	4L	Organophosphate insecticide providing quick knock down of Couch Mite. Apply at 10 day intervals as required.

