

Management Strategies

Natural enemies

Conserve or encourage the build-up of naturally occurring enemies of red spider mites in order to keep the pest populations under check. Natural enemies such as *Encarsia formosa* and *Eretmocerus* spp. can be encouraged by avoiding the use of highly injurious pesticides on crops or by allowing vegetation reservoirs for such natural enemies.

Bio-pesticides

- Use neem-based products e.g. Pyneem 20EC, Neemcide 0.3% EC or Magneto 1% EC

Chemical control

- Spray insecticides based on Chlorpyrifos (e.g. Betafos 263 EC), Alpha-cypermethrin (e.g. Alfix EC) or Spinetoram (e.g. Radiant 120SC).

Warning! High concentration of these agrochemicals may cause harm to you (farmer), crop, consumers and the environment.



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INTEGRATED MANAGEMENT OF RED SPIDER MITES IN TOMATO



Introduction

- Red spider mites are tiny red or brown arachnids that can infest tomato plants and cause significant damage to leaves and fruits.
- They can multiply quickly and spread rapidly, making it difficult to control an infestation once it becomes established.
- Early detection and treatment of red spider mites is crucial for preventing infestations and protecting tomato crops.

Life cycle

- The eggs of spider mites are deposited singly, directly on the host leaf surfaces. Female adults can lay more than 100 eggs during their 30-days life cycle.
- Development from egg to adult takes about one week in the tropics, so there may be many overlapping generations in a single season.
- Their populations can increase rapidly and cause extensive plant damage in a very short time when conditions (temperature, humidity and food) are suitable.
- The pest is extremely polyphagous attacking many cultivated and wild plants.

Damage on tomato crop

- Red spider mites pierce plant cells and suck out their contents. In heavy infestations mites may cause yellow discoloration and wilting of leaves.



Adult red spider mites feeding and breeding on a tomato leaf (Source: KALRO E-mimea Plant Clinic)



Yellow discoloration and wilting of tomato leaves due to infestation by red spider mites (Source: Infonet Biovision)

- Their infestation also results in rough texture, and the deformities caused by these mites can make the fruit unmarketable.



Extreme tomato fruit damage due to severe infestation by red spider mites (Source: KALRO E-mimea Plant Clinic)

- The mites also can cause leaf drop, which can make the plant more vulnerable to other pests and diseases.



Leaf drop of tomato crop due to infestation by red spider mites (Source: insonshade)