

Management of chilli thrips using sprinkler irrigation

Recognize the problem

Thrips are acknowledged to be the most destructive pest in chilli cultivation. Although farmers may spray various chemicals to control the thrips, they often do not achieve a good result. Applying chemicals increases the cost of cultivation and may lead to environmental harm.

Chilli is an important crop grown in Sri Lanka. It is cultivated extensively in the dry zone. However the chilli cultivation may be affected up to 100% by Leaf curl complex. Thrips are presently considered as the most important causal agent of chilli leaf curl complex.

Background

Intensive use of chemical pesticides to manage chilli thrips leads to the development of resistance and is harmful to human health. Thus, there is a need to control thrips through alternative measures which are eco-friendly.

One solution to reduce thrips incidence in chilli is by using a sprinkler system.

Studies reveal that using sprinkler irrigation resulted in a water saving of 33% compared with the traditional irrigation method. There was also a yield increase of 24% in chilli. In addition, a micro-climate which is more conducive to the chilli plants and less favorable to the thrips leads to a reduction of the pest population.

Management

- After land preparation, install the sprinkler system in the field and, during the installation, consider even water spraying across the entire field
- Consider planting a live wind barrier in windy areas (e.g. Gliricidia, manioc, wing bean, maize, sorghum)
- Switch on the sprinkler on a daily basis in the morning from 6am to 7am and in the afternoon from 1pm to 2pm
- Duration of irrigation should be 30 minutes in both occasions
- The duration of irrigation depends on soil type and weather conditions
- Maintain the proper water pressure

Adult chilli thrips. (Photo by Andrew Derksen, FDACS/DPI, Bugwood (CC BY-NC))



Symptom of chilli thrips infestation. (Photo by RARDC, Kilinochchi)



Scientific name(s) > *Scirtothrips dorsalis*

The recommendations in this factsheet are relevant to: Sri Lanka

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