



## Are spider mites snacking on your cotton?

High numbers of spider mites can affect your cotton - both yield and quality.

Spider mites are small arthropods that feed on the underside of cotton leaves - using their piercing mouthparts to suck out the contents of leaf cells. This removes chlorophyll from the leaves and causes a reduction in photosynthesis.

There are three types of spider mites - **two-spotted spider mites** (the main pest species; pale green with two distinct dark green spots on either side); **bean spider mite** (red in colour) and **strawberry spider mite** (pale green with three dark green spots on either side). They all cause different amounts of damage, so correct identification is important to help you make the correct control decision.

The [CottonInfo team](#) have spotted spider mites in different valleys: is your cotton affected? Here's what you need to know.

### What to look out for? Symptoms and sampling.

All three species feed on the underside of leaves, but they cause different amounts of damage. Two-spotted mites cause damage that appears as brownish areas on the lower leaf surface, causing reddening on the upper surface. If damage is allowed to continue, leaves will become completely red and fall off.

To sample for two-spotted mites in cotton, sample leaves from 3, 4 or 5 nodes below the plant terminal. Check on the underside of each leaf and score as present if any mite life stage (eggs or motiles) is found. Repeat this weekly on 50 leaves per field from at least four sites (depending on the field size).

Refer to page 24 of the [Cotton Pest Management Guide](#) for a detailed

## When do I need to act? Thresholds and control.

Thresholds and yield loss charts have been developed for two-spotted spider mites. Yield loss due to mites depends on when (and how quickly) mite populations begin to increase.

At this stage in the season, when cotton is starting to open, **control is only warranted if mites are well established (greater than 60 percent of plants infested) and are increasing rapidly.** Beyond 20 percent open bolls, control is no longer warranted.

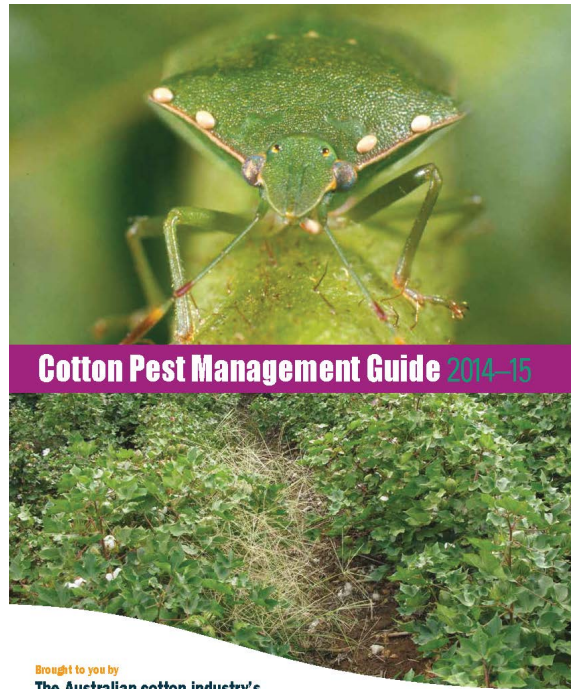
See the table on page 26 of the [Cotton Pest Management Guide](#) for more information.

## Where do I go for more?

The [Cotton Pest Management Guide](#) contains all the information you need on identifying, sampling, and controlling spider mites. It also talks about the key beneficial insects that can help you naturally protect against mites.

The Guide also contains the full sampling protocols for mites, a table outlining estimates in yield reduction, and control methods to help you make the best decision for your farm.

An online tool, the [CottASSIST mite yield loss estimator](#), may also help. A simple relationship has been developed to allow prediction of yield loss from mites based on knowledge of the rate of increase in the population and the time remaining to defoliation. This tool can help by simplifying record keeping and calculations.



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## Short videos on spider mites and sampling

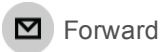
The CottonInfo team have put together these two short videos on spider mites and sampling, featuring Dr Lewis Wilson, CSIRO's senior principal research scientist on Integrated Pest Management at ACRI Narrabri. Take a look!



Spider mites in cotton  
CottonInfo: Connecting growers with research  
30 views



Sampling spider mites in cotton  
CottonInfo: Connecting growers with research  
15 views



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