



# MOVENTO®



# Cotton Mealybug Tech Sheet

## New registration for cotton mealybug

Movento® 240 SC Insecticide has been registered in cotton for the control of cotton aphid and silverleaf whitefly since 2010. This registration has now been expanded to include the control of the emerging pest, cotton mealybug. Cotton mealybug, also referred to as solenopsis mealybug, can affect all growth stages of the cotton crop as either the nymph or adult developmental stages. Common crop damage symptoms are often observed as distorted terminal growth, crinkled and bunchy leaves or stunting and in heavy infestations plant mortality or effects on lint quality.

Movento can be applied early in the season while beneficial insect numbers are building and it also can be applied later in the season to protect lint yield and quality. For the new registration on cotton mealybug, Movento should be applied when adults are first observed and numbers are expected to increase. Movento works by interfering with fat reserves which are required for insects to grow. Therefore, Movento should be targeted primarily at juveniles i.e. when pest numbers are building and the majority of the population is made up of juveniles rather than significant populations of adults.

### PRODUCT AT A GLANCE

<b>Active ingredient</b>	Spirotetramat 240 g/L
<b>Formulation</b>	Suspension concentrate
<b>Activity group</b>	Group 23 - Tetrone and Tetramic acid derivatives
<b>Mode of action</b>	Interferes with lipid biosynthesis causing the insect to stop growing which in most cases leads to death
<b>Target pests</b>	Cotton aphid ( <i>Aphis gossypii</i> ) Silverleaf whitefly ( <i>Bemisia tabaci</i> Biotype B) Cotton mealybug ( <i>Phenacoccus solenopsis</i> )
<b>Withholding period:</b>	Harvest 21 days
<b>Adjuvant</b>	Penetrant-type adjuvants are recommended e.g. Hasten® at 1.0 L/ha

# Movento in Cotton

## KEY BENEFITS

- **IPM fit** – Soft on most beneficials, with minimal impact compared to broad spectrum alternatives when used as directed. Movento preserves ladybird beetles, which are natural predators of mealybug.
- **2-way systemic** – Movento controls hidden pests other insecticides don't reach, because it is transported in both the xylem and phloem; good coverage is recommended.

## IMPACT ON BENEFICIAL SPECIES

Beneficial group	Target pest/s	Description	Impact of direct application
<i>Aphidius colemani</i>	Green peach aphid and cotton aphid	Parasitic wasp. Lays eggs into the body of the aphid.	
<i>Encarsia formosa</i>	Greenhouse whitefly in protected cropping situations	Parasitic wasp. Lays eggs in 2nd, 3rd & 4th nymph stages of whitefly.	
<i>Eretmocerus hayati</i>	Silverleaf whitefly (SLWF)	Parasitic wasp. Lays eggs under the SLWF nymphs. Larvae hatch and penetrate nymphs.	
<i>Aenaisus bambawalei</i>	Solenopsis mealybug	A parasitic wasp.	
<i>Cryptolaemus montrouzieri</i>	Solenopsis mealybug	Predatory beetle. Adult and larvae chew soft scale insects and mealybugs.	

Low Impact  Moderate impact  High impact

The information in the table is based on tests using a single application at registered label rates.

Impact rating (% reduction in beneficials following application, based on scores for the major beneficial groups); Low = < 20%, Moderate = 20-40%; High = > 40%

Data is sourced from IPM Technologies and Table 3: Impact of insecticides and miticides on predators, parasitoids and bees in cotton, from the Cotton Research and Development Corporation (CRDC) and CottonInfo 2018-19 Cotton Pest Management Guide available from [www.crdc.com.au/publications/cotton-pest-management-guide](http://www.crdc.com.au/publications/cotton-pest-management-guide). 2018–19 Table Authors: Simone Heimoana (CSIRO); Originally created by Lewis Wilson (CSIRO).



## IDENTIFICATION

- **Males** are non-feeding and don't cause plant injury.
- **Females** have a 3-4 mm long oval shaped body, covered with white wax. Adult females and large nymphs are readily identified by two dark bands on their backs and males are distinguished by a 1 mm long pale grey body and transparent wings.
- **Crawlers** are less than 1 mm long, relatively bare and pearly white to yellow in colour, without the white wax coating.



## GENERAL APPLICATION RECOMMENDATIONS

- Movento is registered for application by both ground equipment and aircraft in a minimum volume of 80 L (ground) and 30 L (aerial) of water per hectare.
- Ground application volumes of 300 L/ha have shown increased efficacy compared to lower volumes. Using droppers before row closure is recommended for uniform coverage.
- Movento can be applied as either a blanket spray or banded in early stages of the crop prior to canopy closure. Whether applied as a blanket spray or banded, complete coverage of the plants is required.
- If applying Movento by ground rig in a banded spray, the band width should determine how many nozzles are required per row to generate the best penetration and coverage of the plant. As a general guide:
  - Up to 30% band – 1-2 nozzles per row.
  - 30 – 50% band – 2-3 nozzles per row.
- Where appropriate the use of droppers may be required to ensure thorough coverage and maintain a suitable boom height to ensure a full spray pattern across the top of the plant whilst also covering the lower canopy with dropper nozzles.
- Select nozzles and ground speed to generate a medium spray pattern with a suitable pressure to ensure thorough coverage of the plant.
- Best canopy penetration will be achieved when ground speed is limited to less than 20 km/h.



**For more information on getting the best out of Movento, visit [crop.bayer.com.au/movento](http://crop.bayer.com.au/movento) or talk to your local Bayer representative.**



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