User guide

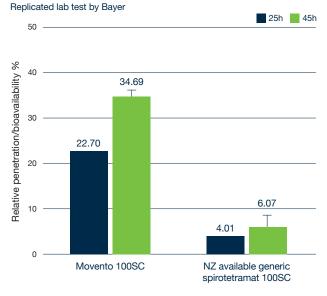
Two-way systemic activity delivered by a class leading formulation.



There is nothing quite like Movento® 100SC insecticide. With unique two-way systemicity, it provides vital and proven protection against sucking pests by penetrating the apple leaf, giving protection from the inside out. For many years it has been the frontline IPM compatible weapon against the quarantine pest apple leaf curling midge (ALCM).

Movento 100SC now has a label claim for another key quarantine pest, woolly apple aphid (WAA), making it an even more effective tool to protect valuable apple crops from damage and potential market rejection.

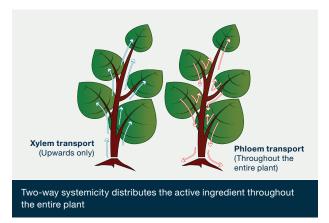
Penetration of spirotetramat across apple leaf cuticles



HOW DOES MOVENTO 100SC WORK?

Movento 100SC is unique amongst insecticides, having strong translaminar activity as well as exhibiting two-way systemicity within the plant. This ensures excellent control of ALCM, scales and WAA, even in areas not readily accessible by spray application.

Uptake of Movento 100SC into the plant takes place via the leaves and not bark; for this reason application should target the leaves and avoid runoff. For optimal uptake by the plant, it is crucial that products based on spirotetramat contain an effective adjuvant package in order to achieve an optimum level of leaf penetration. Movento has been formulated to contain the right balance of these adjuvants. Laboratory tests have shown that Movento delivers up to five times better penetration than other spirotetramat formulations available in New Zealand¹.



¹ Replicated lab test by Bayer: Penetration of spirotetramat across apple leaf



Using Movento for control of woolly apple aphid

Woolly apple aphid (WAA), *Eriosoma lanigerum* is a prevalent pest within apple orchards and can cause significant damage to the trees. The aphids infest the aerial parts of trees and sometimes the roots, sucking sap from the plant. Feeding damage from heavy infestations can result in knotted and galled lumps on older wood and bud damage on shoots which can negatively affect the following year's crop. Fruit contamination and infestation contribute to significant productivity losses, and aphid infestation of fruit calyxes can present a market access problem in some markets.

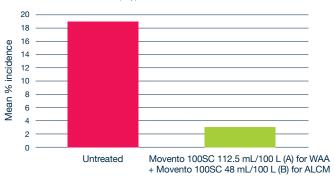
Biological control alone with *Aphelinus mali* does not always prevent late season WAA outbreaks. Often WAA pest numbers can build before sufficient populations of *A.mali* become established. Previous and current options for early and late season control are either damaging to IPM systems, or can exclude produce from certain markets.

Movento 100SC is a lipid biosynthesis inhibitor. This feature prevents the production of the wax filament in sucking pests such as WAA. This effect significantly affects population dynamics at recommended field rates. The absence of wax filaments is likely to make all affected life stages, from nymphs to adults, more vunerable to biological control measures.

Movento 100SC when used according to the label will leave fruit within MRL limits or residue free. It is also safe to beneficials and IPM compatible.

Mean no WAA per 20 shoots on 01/02/2021 - 54 DAB

Trial No: ID21NZLHB2MH17 (Fuji)



Spray timings

A: 17th November: 2nd Gen ALCM peak | B: 9th December

Mean percentage WAA - infested shoots on 27th January and 15th March 2011

Plant and Food Research. Trial No: ID10NZL099PF01



Spray timings:

A: 15th November | B: 25th November



USING MOVENTO 100SC FOR WOOLLY APPLE APHID

Usage Rate	112.5 mL/100 L of water as a dilute spray. Do not exceed 2.25 L/ha.
Water Rate	The rate given is for high volume dilute spraying without excessive runoff. For concentrate spraying, adjust the dilution accordingly.
Timing	The label provides the recommendation to apply in the period 1 to 3 weeks post petal fall. For practicality however, where the priority target is ALCM, but a treatment for woolly apple aphid (WAA) is also required, Movento 100SC should be applied at 112.5 mL/100 L to coincide with the peak of the second generation ALCM egg laying. NB: Movento 100SC will not give season long control of WAA and should be used at the above timing as part of an IPM program.
Adjuvants	None required.
Rainfastness	2 hours under good drying conditions.
Compatibility	Compatible with most fungicides. Do not use in tank mix with foliar fertilisers.
РНІ	14 days for MRL programmes. If growing produce for export, please check with relevant industry body or exporter for latest information on any potential trade issues and their management before using Movento 100SC. Care should be taken with the timing of the 2nd application for ALCM on early maturing varieties.
Contact Re-entry period	12 hours.

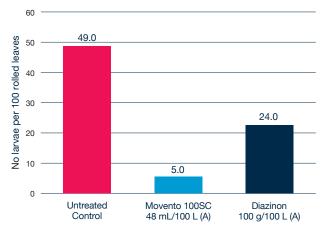
Using Movento 100SC for control of apple leaf curling

midge and armoured scale

Movento 100SC belongs to the ketoenols class of insecticides with a unique mode of action. After ingestion spirotetramat, the active ingredient of Movento 100SC, acts as a lipid biosynthesis inhibitor (LBI) controlling developing stages of sucking insects. Control of adults is limited but exposed female scale produce fewer crawlers and exposed female ALCM produce fewer eggs and the viability of these eggs is significantly reduced.

Apple leaf curling midge control in apples - 2009/10

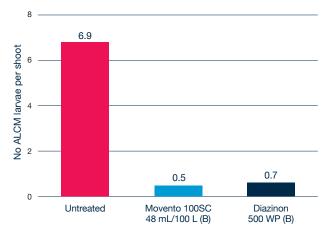
Number ALCM larvae per 100 leaf rolls 19 days after application. CV Royal Gala. Trial No: E-1344-09-LR



Application: A: 15th November

Apple leaf curling midge control in apples - 2011/12

Number of larvae per shoot 15 days after 2nd application. CV Fuji 2011/12. Trial No: ID11NZL030R01



Application: B: Mid November & Mid January



USING MOVENTO 100SC FOR APPLE AND PEAR LEAF CURLING MIDGE AND SCALE

Usage Rate	48 mL/100 L of water as a dilute spray.
Water Rate	The rate given is for high volume dilute spraying without excessive runoff. For concentrate spraying adjust the dilution accordingly.
Timing Apple leaf curling midge	Apply to coincide with periods of peak ALCM egg laying. Apply between mid-November and mid-December and again between January and early February.
Timing Pear leaf curling midge	Apply to coincide with periods of peak pear leaf curling midge egg laying, either just prior to or immediately after flowering.
Timing Armoured scales	Apply to target scale crawler release periods. For the first generation San Jose scale control apply between mid-November and early December, and for the second generation as required from late January to the second week of February. For oystershell scale (South Island only) apply between mid-December and mid-January.
Adjuvants	None required.
Rainfastness	2 hours under good drying conditions.
Compatibility	Compatible with most fungicides. Do not use in tank mix with foliar fertilisers.
РНІ	14 days for MRL programmes. If growing produce for export, please check with relevant industry body or exporter for latest information on any potential trade issues and their management before using Movento 100SC. Care should be taken with the timing of the 2nd application for ALCM on early maturing varieties. Check with your exporter.
Contact Re-entry period	12 hours.

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We're with you in the field

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