



MOVENTO®

2XSYS

Crop Guide for Pome Fruit

Innovative softer chemistry for the control of sucking pests.

Movento® 240 SC insecticide is a powerful, innovative, IPM-friendly insecticide registered for the control of mealybugs and San Jose scale in pome fruit – including nashi, quince and loquats – and the suppression of woolly apple aphids.

The first Group 23 insecticide registered in Australia, Movento consistently provides exceptional pest control through its unique 2-way systemicity. Because it is distributed through the plant both upwards and downwards, Movento is able to control pests other insecticides don't reach.

Mode of action

Movento is mainly effective in controlling pome fruit pests through ingestion.

Movento acts as a lipid biosynthesis inhibitor and is primarily active on the immature stages of many sucking pests. Movento should therefore be applied to the early life stages of pests for best performance.



IPM compatibility

Movento is 'soft' on most beneficial species.

Movento is harmless to hoverflies, and lacewings, slightly harmful to earwigs, spiders and predatory bugs, and moderately harmful to predatory mites, with no long-term population effects, when used as directed.

In summary, Movento is highly compatible with IPM production systems.

PRODUCT AT A GLANCE

Pests	Longtailed mealybug Tuber (obscure) mealybug San Jose scale Woolly apple aphid (suppression only)
Rate	Mealybugs and woolly apple aphid: 40 mL/100 L water + adjuvant. San Jose scale: 30 mL/100 L water + adjuvant.
Spray timing	Monitor crops following flowering and commence application at the onset of crawler emergence or when pests reach an economic threshold.
Spray interval	Mealybugs and woolly apple aphid: 14–28 days. San Jose scale: minimum 14 days.
Maximum sprays	No more than 3 applications per crop with a minimum of 14 days between applications.
Withholding period	21 days (domestic market).
Adjuvants	AgriDex® (or Hasten®) at 0.05% v/v (50 mL/100 L of water).
Coverage	Thorough coverage is necessary.
Compatibility	Because of the unique properties of Movento it is recommended not to tank-mix. For further information contact your local Bayer Crop Science representative.

Movento in Pome Fruit

TWO-WAY SYSTEMICITY

The 'systemicity' of insecticides refers to the uptake, transport and distribution of the active ingredient within a plant (including fruit trees). There are two systems of transport within plants; most older systemic insecticides are only mobile in the xylem, not the phloem.



The xylem carries water and nutrients upwards from the roots of a plant to the shoots. The phloem transports the sucrose produced by photosynthesis from the leaves to the young shoots, leaves, buds, fruits and developing roots. Unlike the xylem, the phloem works in both directions – upwards from roots to leaf and back down from the leaf to the roots.

The innovative advantage of spirotetramat, the active ingredient of Movento, is that it is transported through both the xylem and the phloem, so it moves both upwards and downwards throughout the plant.

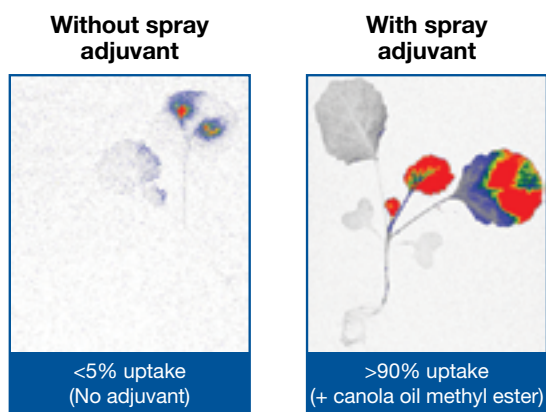
GETTING THE BEST OUT OF MOVENTO

Coverage and plant health

Thorough spray coverage and overall tree health are important for maximum uptake of Movento. Control may be reduced by poor spray coverage of the tree canopy and/or any form of climatic or environmental stress that reduces the uptake of Movento through the leaves.

Products such as sunblock or other protectant products forming a physical barrier over the leaf may also reduce product uptake and should be avoided until after Movento has been applied.

Adjuvants



As these images show, the uptake and translocation of spirotetramat in plant tissue is dramatically improved by the addition of an effective adjuvant.

After extensive testing in grapevines, the recommended spray adjuvants are Agridex or Hasten at 0.05% v/v

(50 mL/100 L of water). Agridex was used in the majority of trials.

These adjuvants ensure that Movento penetrates through the leaf cuticle and into the sap stream for the insects to ingest. Movento is significantly less effective if it is applied without the inclusion of an effective adjuvant.

The use of straight non-ionic surfactants and organo-silicon based products has produced inconsistent results, so they are not recommended in tank-mixes with Movento in pome fruit.

HOW TO USE MOVENTO

Spray timing

Application to the juvenile life stages of the pest before pest numbers have built up is the key to success with Movento.

Trials have consistently shown that applying Movento during the early life stages (crawler release or nymphs) of the target pest gives the best results. Applying Movento to established pest populations dominated by mature adults is not recommended and will result in poor control.

Early spraying is also important because Movento, once within the plant, can take several days to reach peak efficacy. Applying Movento early allows for ingestion and the subsequent death of early life stages before the pest can become established.

To ensure there is sufficient foliage for product uptake, Movento should not be applied before petal fall on apples or before fruitlets reach 10 mm in diameter in pears.

Movento should be applied as two foliar sprays 2–4 weeks apart, followed by applications of further products with a different mode of action to keep the crop clean to harvest.

This back-to-back Movento spray program enhances the residual control, controlling young crawlers (scale/mealybugs) or nymphs (aphids) before they can establish on leaves and fruit. The follow-up spray is especially important where an extended crawler release may occur as the residual control from the first application begins to run out.

Application

Good coverage is essential, so apply thoroughly and use the same total amount of product whether using dilute or concentrate spraying methods. For concentrate spraying, do not use at rates greater than twice the dilute spraying rate (i.e. at a concentration factor greater than 2X). Note that the concentrate mixing rate is applicable only to Movento. The adjuvant rate remains unchanged (i.e. no concentrate factor applies). Refer to the label for detailed instructions.

Residues management

Movento should not be applied more than three times on each pome fruit crop.

Withholding period

Domestic market: 3 weeks.

Controlling longtailed and tuber mealybug

(*Pseudococcus longispinus* and *Pseudococcus virburni*)

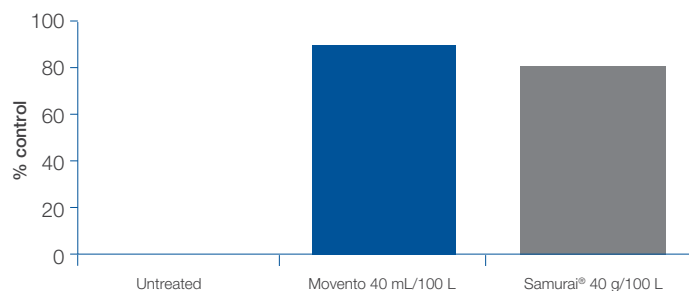
Monitor crops following flowering. Begin applications at the onset of crawler emergence. To ensure there is sufficient foliage for product uptake:

- For apples, do not apply prior to petal fall.
- For pears, do not apply prior to fruitlets reaching 10 mm in diameter.

Continue to monitor crops and make a second application 14 to 28 days after the first application.

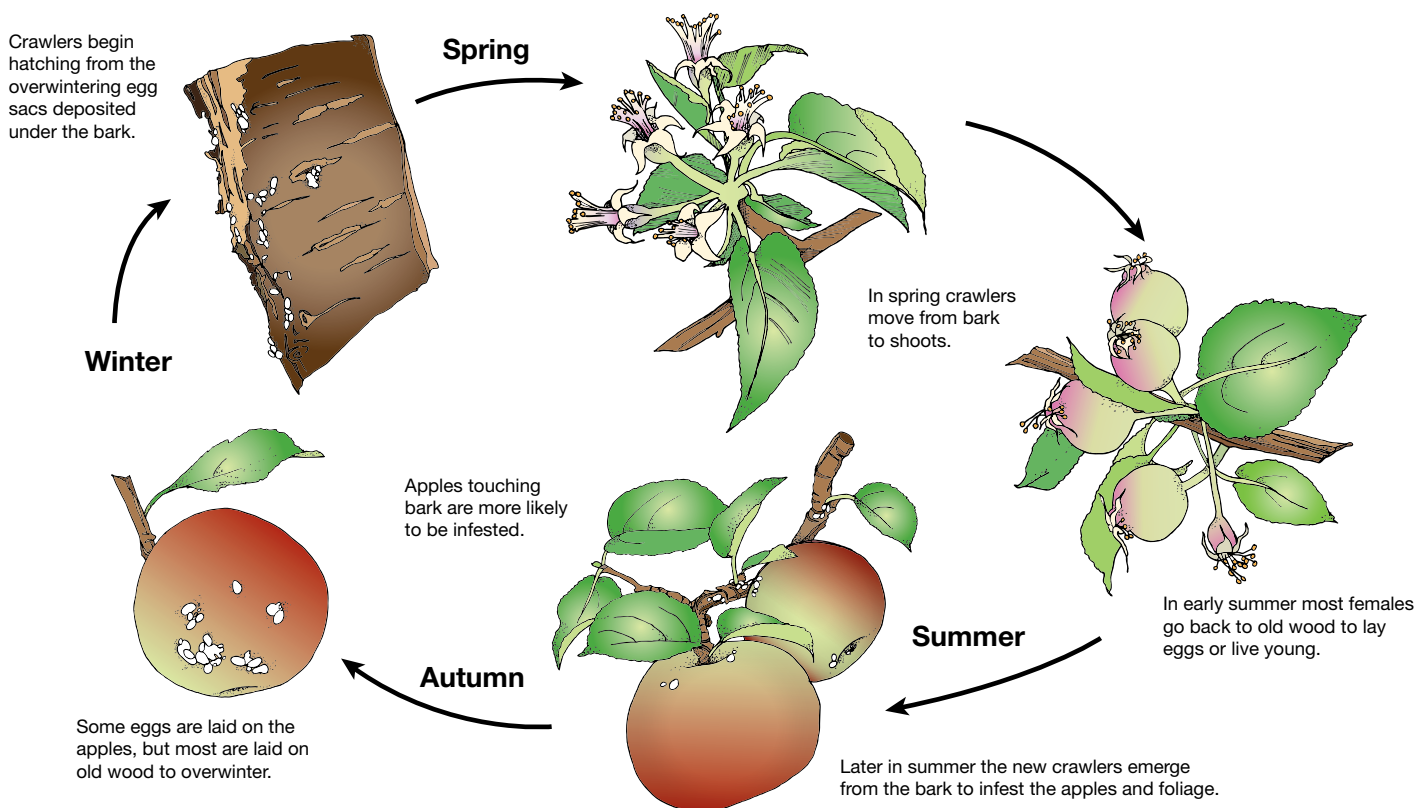
Longtailed mealybug control

This graph shows the effectiveness of back-to-back applications of Movento compared to the same program for the standard product.



TRIAL ID: WB17_2011.

BREAKING THE MEALYBUG LIFECYCLE



Controlling San Jose scale

(*Quadraspidiotus perniciosus*)

Movento is also registered for control of San Jose scale at 30 mL/100 L. Monitor the crops following petal fall. Begin applications at the onset of crawler emergence. To ensure there is sufficient foliage for product uptake, do not apply prior to shuck fall. Continue monitoring and make further applications when new generations emerge. Do not re-apply within 14 days of a previous Movento application.



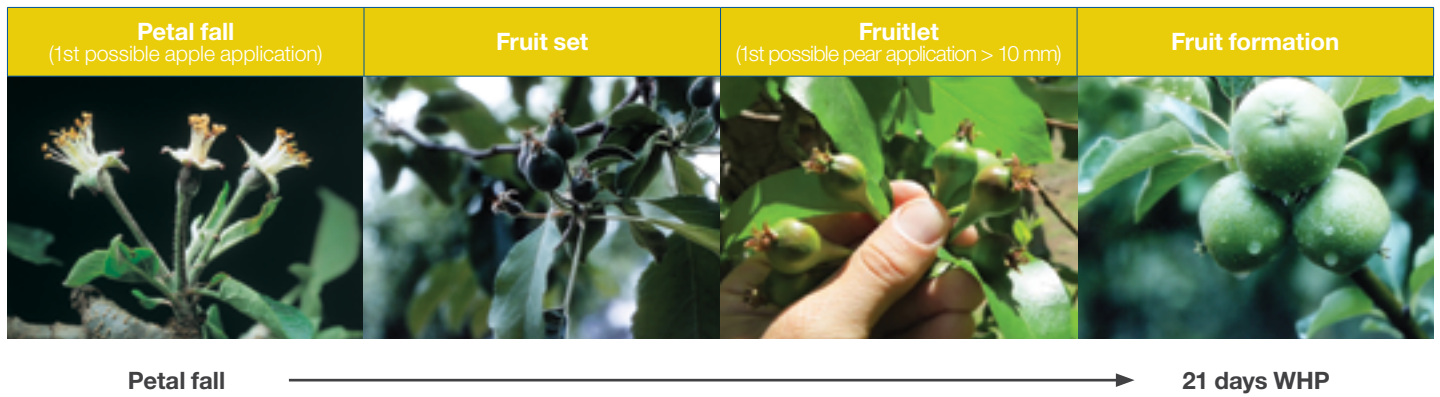
Managing woolly apple aphid

(*Eriosoma lanigerum*)





Movento provides suppression of woolly apple aphid (WAA) and should be applied at the same lifecycle timings as for mealybug and scale, when colonies are building rather than established in order to target juveniles. Trials have shown that applications to established populations of WAA will not provide control of the pest.

Under high WAA pressure, Movento should not be solely relied on for adequate reduction in pest numbers. Supplementing back-to-back Movento sprays with a soil drench such as Confidor® Guard and/or later applications of a registered foliar product can help achieve extended control of WAA.

APPLICATION TIMING



MOVENTO LABEL PESTS AT A GLANCE

Longtailed mealybug (<i>Pseudococcus longispinus</i>)	Tuber (obscure) mealybug (<i>Pseudococcus virburni</i>)	Woolly apple aphid (<i>Eriosoma lanigerum</i>)	San Jose scale (<i>Quadraspidiotus perniciosus</i>)
			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> SUPPRESSION ONLY	<input checked="" type="checkbox"/>

KEY FACTS - EFFECTIVE PEST CONTROL

Rates

Mealybugs and woolly apple aphid: 40 mL/100 L water + adjuvant.

San Jose scale: 30 mL/100 L water + adjuvant.

Activity

On all young feeding crawlers and nymphs.

Timing

Commence applications after flowering for apples and once fruitlets reach 10 mm for pears. Start at or before the onset of crawler release or when pests numbers reach an economic threshold.

Interval

14–28 days after the first spray application if required.



Visit crop.bayer.com.au or talk to your local Bayer Crop Science representative.

Always consult the product label for detailed information. The information and recommendations set out in this brochure are based on tests and data believed to be reliable at the time of publication. Results may vary, as the use and application of the products is beyond our control and may be subject to climatic, geographical or biological variables, and/ or developed resistance. Any product referred to in this brochure must be used strictly as directed, and in accordance with all instructions appearing on the label for that product and in other applicable reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions Bayer CropScience Pty Ltd ABN 87 000 226 022 Level 1, 8 Redfern Road, Hawthorn East, Victoria 3123. Technical enquiries: 1800 804 479 enquiries.australia@bayer.com.

Movento®, Agridex® and Confidor® are Registered Trademarks of the Bayer Group. © 2020 Bayer Group..

BH00214