

Movemento

Formulated to perform, trusted to deliver.



To ensure market access for high value horticultural crops, the control of insect pests such as mealybugs, woolly apple aphids, scale and tomato/potato psyllids is vital and requires efficient and well researched solutions.

Movento® 100SC insecticide for fruit crops, and Movento® 150OD insecticide for vegetables have been vital tools to help New Zealand growers achieve this for over 10 years. In this time, they have proven their efficacy against many important quarantine and yield robbing pests.

Spirotetramat, the active ingredient in Movento, is unique. It translocates both in the xylem and the phloem and is certainly one of the reasons it has performed solidly since its introduction to the market. This “2 way systemicity” means that distribution in the plant is even and thorough, and can reach the pests being targeted. So when sucking pests feed, the chances of mortality are greatly enhanced.



IMPORTANCE OF THE FORMULATION

Formulation makeup and quality are key to the solid performance of the Movento products. In order to be translocated in the plant's vascular system, and become efficacious against the target pests, spirotetramat must first penetrate the leaf. Once penetration into the leaf has occurred, spirotetramat is converted into spirotetramat-enol. It is only in this enol form that Movento becomes effective. Therefore, 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.



WHAT ARE THE RISKS OF POOR FORMULATION?

- Primary insecticidal activity only occurs once spirotetramat has entered the leaf
- Once penetration into the leaf occurs, spirotetramat converts to the metabolite – spirotetramat-enol
- Spirotetramat-enol has insecticidal activity, not the parent compound spirotetramat

Without an optimised formulation, there are two key concerning issues below that will arise.

RISK 1 - SUB-OPTIMAL PEST CONTROL

Without a fully effective adjuvant package, the failure of the active ingredient to penetrate the leaf and achieve subsequent chemical conversion may result in:

- Ongoing crop damage from continued pest activity
- Pest interceptions – possible rejection due to detection of quarantine pests
- Loss of income
- Reputation damage to New Zealand primary industries
- Increased frequency of testing in importing countries

RISK 2 - DEVELOPMENT OF RESISTANCE

Without an adequate adjuvant package, the failure of the active ingredient to penetrate the leaf and achieve subsequent chemical conversion may result in delivery of a sub-lethal dose leading to:

- More rapid development of resistance
- Increased chance of loss of an important active ingredient currently giving solid pest control
- Attempts to regain control by increasing the dose may lead to residue violations

Formulated to perform

Recent global testing of different generic 100SC spirotetramat formulations showed that Movento 100SC has a more effective surfactant package and provided five times more penetration than those formulations it was tested against. This means there is peace of mind to be had and less risk from using a well-researched and formulated product.

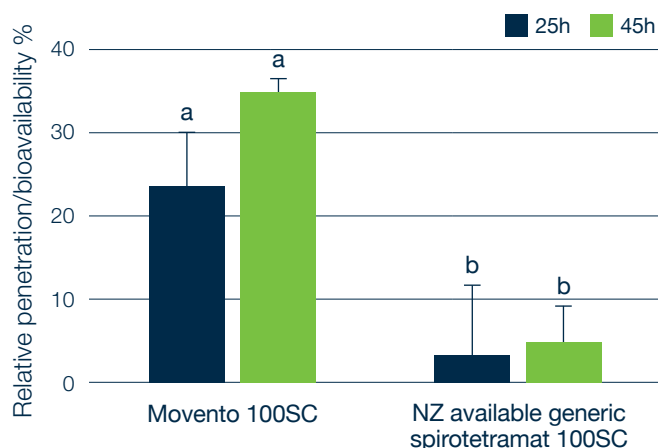
Trusted to deliver

Each product was also tested for effectiveness against the aphid species *Myzus persicae* (green peach aphid). Compared to scale and mealybugs, aphids are considered easier to control. In these tests, Movento showed a clear advantage over the other formulations, meaning that others may not have the same efficacy on harder to control pests.

Under the described test conditions, Movento 100SC showed higher efficacy against tested aphid species on pepper when compared to generic formulations of spirotetramat.

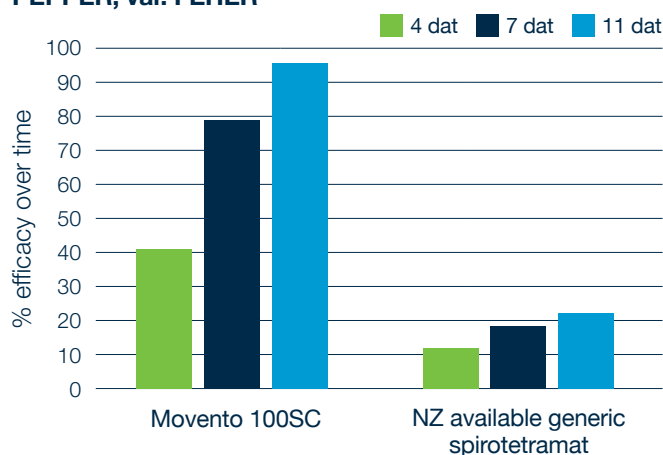
Movento can be relied upon to deliver results because it is formulated for optimal penetration of the leaf surface, maximising performance and protection of healthy crops. Its innovative mode of action and formulation have been trusted for good reason for many years.

PENETRATION OF SPIROTETRAMAT ACROSS APPLE LEAF CUTICLES



Replicated test. P = 0.01

EFFICACY OF MOVENTO 100SC VS NZ AVAILABLE GENERIC SPIROTETRAMAT: *Myzus persicae* ON PEPPER, var. FEHER



Report T3573_Movento 100SC vs NZ available generic spirotetramat. Replicated efficacy studies on MYZUPE. Crop and pest were chosen as universal test subjects. Movento label contains no claims against this pest or in this crop.

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