



MOVENTO
2XSYS

User Guide

May 2014

Product profile

Movento is a ketoenol insecticide with unique two-way systemicity and mode of action for control of aphids and whitefly in Brussels sprouts, broccoli/calabrese, cabbage, cauliflower, collards and kale and aphids in lettuce.

Active substance	150 g/L spirotetramat
Formulation	Oil Dispersion
Pack size	1 litre
Maximum individual dose	0.5 L/ha
Maximum number of applications	2 per crop
Latest time of application	Brussels sprouts, broccoli/calabrese, cabbage, cauliflower, collards and kale: 3 days before harvest Lettuce: 7 days before harvest
Water volume	300-600 L/ha
LERAP	None

Pests controlled

Brussels sprout, broccoli/calabrese, cabbage, cauliflower, collards and kale	Mealy cabbage aphid (<i>Brevicoryne brassicae</i>) Peach-potato aphid (<i>Myzus persicae</i>) Brassica whitefly (<i>Aleyrodes proletella</i>)
Lettuce (outdoor and protected)	Blackcurrant-lettuce aphid (<i>Nasonovia ribis-nigri</i>) Lettuce root aphid (<i>Pemphigus bursarius</i>)

Key advantages

- ▶ New chemistry with unique mode of action
- ▶ Protects the entire plant
- ▶ Broad-spectrum sucking pest control
- ▶ Safe to beneficials for excellent IPM
- ▶ No cross resistance

2XSYS Two-way systemicity and mode of action

Movento is a ketoenol systemic insecticide which works by inhibition of lipid biosynthesis and is unique in moving both up and down the plant with its two-way systemicity. This means the active substance, spirotetramat, moves to areas of new growth to reach hidden sucking pests in hearts, buds, leaf folds and roots.

Movento works more slowly, over a period of days (it is not a 'knockdown' product), but is ultimately more thorough than other aphicides, finding and controlling hidden pests more effectively.

It works best when the plant vascular system is actively transporting the product and when pests are actively feeding. It affects all stages of target pests with young larval stages most susceptible and dying most quickly; adults are also killed and importantly their ability to produce offspring is inhibited.

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Best use guidelines are to apply Movento when plants are most actively growing and pests are actively feeding.



DO NOT apply to crops that are not actively growing (e.g. during drought, or cold periods) as movement of the active substance and hence efficacy will be impaired.

Brussels sprouts, broccoli/calabrese, cabbage, cauliflower, collards and kale

- ▶ Apply as aphids or whitefly start to build up in the crop.
- ▶ Long lasting control from Movento comes from its thoroughness, preventing 'bounce back' of populations. New infestations will need further treatment.
- ▶ Movento application is best timed when the crop has 'thickened up' and it's unique ability to control hidden aphids is most valuable. Also at this time, increased ground cover will optimise capture of the chemical by the crop.
- ▶ Better spray cover of Movento on infested older leaves is important as they do not benefit from redistribution which is towards growing points i.e. new/heart leaves, buttons and curd.
- ▶ Speed of activity and performance of Movento is adversely affected by factors which restrict the functioning of the plant's vascular system and hence the rate of aphid feeding e.g. conditions such as drought and cold.

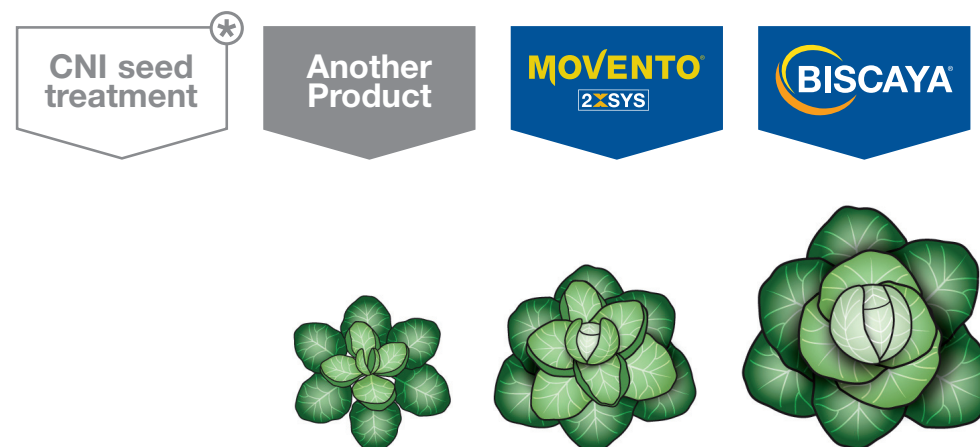
Movento should be used in programmes planned with consideration of brassica type, short or long growing season and whether the focus of control is aphids or whitefly.

Programme planning: Aphid control

Where the focus is aphid control;

- ▶ Use Movento for long lasting protection in dense actively growing crops, when pests are hidden.
- ▶ Use Biscaya for quick 'knockdown' when crop structure is more open and aphids are more exposed to sprays and at the end of the season when colder conditions prevail.

The following diagram shows how these principles can be applied to the planning of aphid control in autumn/winter cabbage. This approach can apply equally to broccoli/calabrese and cauliflower where hidden pests get into the florets and curd. It should also provide effective control of whitefly.



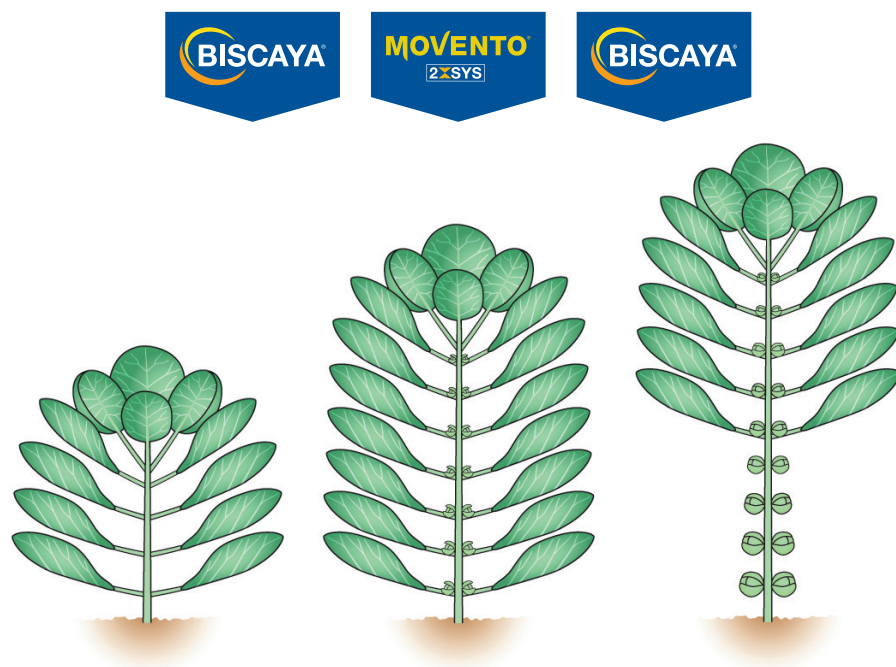
* If CNI (neonicotinoid) seed treatment not used, apply Biscaya first

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In Brussels sprouts aphids may need to be controlled right through the second period of aphid infestation, usually from August to the end of October. It is therefore important to time the two permitted applications of Movento in alternation with Biscaya for best effect as illustrated below.

- ▶ Begin the programme with Biscaya to control aphids when crop structure is open
- ▶ Save the first Movento application until the start of button formation so they will be protected from pest and honey dew contamination for as long as possible. Follow with Biscaya.
- ▶ This approach will also provide effective control of whitefly in normal years when populations do not reach epidemic levels.
- ▶ Should a further treatment be required, revert to Movento.



Programme planning; Whitefly control

Movento is currently the strongest product against whitefly, so in a whitefly epidemic year, when their control becomes the priority in crops of Brussels sprouts and kale, its use needs to be timed for best effect in protecting the marketable quality of the crop as illustrated below.

- ▶ In Brussels sprouts the first application should be held back until the start of button initiation to protect the developing buttons for as long as possible.
- ▶ Under sustained whitefly pressure, follow with Biscaya for further suppression and resistance management before making the final Movento application to protect harvestable quality.
- ▶ This approach will also provide very effective control of aphids.
- ▶ Should a further treatment be required, revert to Biscaya.

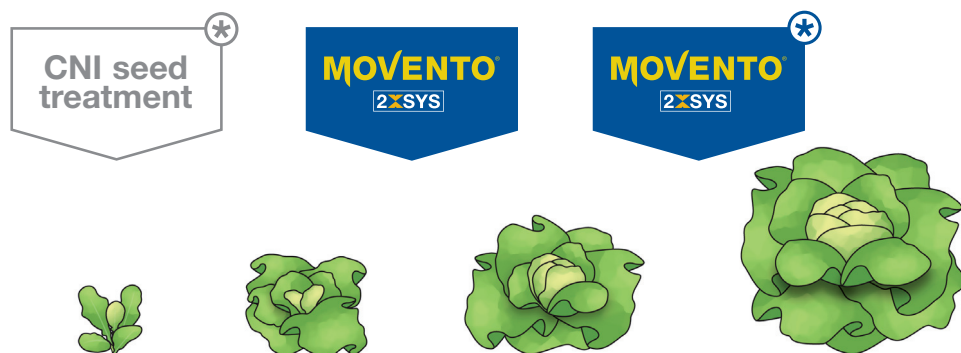


Lettuce

Apply as aphid numbers start to build in the crop.

Imidacloprid seed treatment generally gives lettuce 20 to 25 days protection from planting against root and foliar aphids. In a June or July planted 42-day crop, an application of Movento as the seed treatment's protection is running out should continue to keep the crop aphid free through to harvest.

Later crops, which can take up to 70 days from planting to harvest, may require a second Movento application about three weeks after the first depending on aphid pressure and planned harvest date.



- + A CNI (neonicotinoid) seed treatment is recommended
- + Second treatment may be required on longer season crops

Resistance management

Total reliance on one product will hasten the development of resistance; products of different chemical types or alternative control measures should be included in a planned programme. In a control programme Movento should be used with other insecticides of a different mode of action, either in alternation or as a 2-spray block within the programme e.g. following a neonicotinoid seed or soil treatment.

Application

- ▶ Shake well before use.
- ▶ Apply at a rate of 0.5 L/ha in a water volume of 300 to 600 L/ha (according to crop density) as a medium quality spray.
- ▶ Always apply at the full recommended rate of use and in sufficient water volume to achieve the required spray penetration into the crop and uniform coverage necessary for optimal pest control.
- ▶ Avoid spraying within 5m of the field boundary to reduce effects on non-target insects or other arthropods.
- ▶ If the crop is intended for processing consult the processor before use.

Off label approvals (SOLAs & EAMUs)

Movento has off label approvals for use on outdoor crops of Chinese cabbage, choy sum, Pak Choi, tatsoi. This is used at the grower's own risk; before use, a copy of the off label approval must be obtained from the CRD website; <https://secure.pesticides.gov.uk/offlabels/search.asp>

Compatibility

Movento is physically compatible with a range of other products; for the current list please visit www.bayercropscience.co.uk

Biscaya contains thiacloprid. Movento contains spirotetramat. Biscaya and Movento are registered trademarks of Bayer.

Use plant protection products safely. Always read the label and product information before use. Pay attention to the risk indications and follow the safety precautions on the label. For further information, please visit www.bayercropscience.co.uk or call Bayer Assist on 0845 6092266 / 01223 226644

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