



Whitefly and spider mites continue to be major pest problems, especially in protected crops. Oberon (spiromesifen), from Bayer CropScience, provides growers with a unique new mode of action, contact insecticide, which sets new standards in the control of these pests. Oberon provides excellent residual efficacy against whitefly and spider mites and is safe to virtually all beneficials, giving it a good fit in IPM programmes.

Oberon - The Product:

Oberon is based on the new active ingredient, spiromesifen, and comes from a new family of chemistry the 'cyclic ketoenols' group. As Oberon's unique mode of action, lipid biosynthesis inhibition (LBI), gives a moderate speed of knockdown – assessment of pest control should not begin until 4 – 5 days after treatment. Oberon provides excellent activity against all developmental stages of mites and whitefly. Its new mode of action and the lack of cross resistance to existing products, makes Oberon a valuable tool for mite and whitefly control as part of a resistance management programme.

In the Plant:

Oberon works by contact, so complete coverage is required to achieve optimum results. Once applied, Oberon is bound to the waxy layers of the plant, providing excellent residual activity.

Crop Safety:

New Zealand trials have shown Oberon to be tolerated by capsicums (cultivars: Boogie and Chelsea), cucumbers (cultivar: Polaris) and tomatoes (cultivars: Nagano and Tesco).

Oberon is generally safe when applied in the correct manner to capsicums, cucumbers and tomatoes. Oberon can cause damage and should not be used on other plant genus or species. DO NOT apply to ornamentals.

Due to the large number of varieties of capsicums, cucumbers and tomatoes, it is impossible to test all for tolerance to Oberon. The professional user should determine if Oberon can be used safely under conditions and practices prevailing in their growing situation prior to commercial use.

Follow and do not exceed the recommendation in the DIRECTIONS FOR USE section of the product label. Always test a few plants before spraying the whole crop. Manifestation of symptoms could take up to 4 weeks to become visual following the application.

Do not apply other pesticides within 7 days before or after applying Oberon.

The risk of phytotoxicity in some cultivars may be reduced by spraying in early morning or late afternoon, when drying is slower or when the sun intensity is low and relative humidity >70%.

IPM / Beneficials:

Oberon is generally safe to beneficials; including *Encarsia formosa* and *Bombus sp.* Best practice is to close beehives during application. Oberon is, however, moderately harmful to the mite predator, *Phytoseiulus persimilis*. This does not lead to a loss of mite control as the excellent activity of Oberon against spider mites ensures that the pest to predator ratio is not disrupted. However, it is recommended that *P. persimilis* introductions are delayed until up to at least 2 weeks after Oberon applications.



Pests - Two Spotted Spider Mites:

Two spotted spider mite (TSSM) (*Tetranychus urticae*) is an increasingly difficult pest to control. In glasshouse environments TSSM can complete a life cycle in as little as 16 days at 20°C. Oberon gives excellent control of immature stages of TSSM (eggs, nymphs and larvae). Adult females are affected indirectly and may remain alive for several weeks after treatment, however activity levels and egg laying is reduced, in addition any eggs laid will not hatch.

Pests - Greenhouse Whitefly:

With its ability to develop rapidly, and with limited control options available, greenhouse whitefly (*Trialeurodes vaporariorum*) continues to be a major pest for commercial growers of greenhouse vegetables.

Oberon has excellent whitefly ovo-larvacidal and larval efficacy, and a very useful effect on pupae. Adult whiteflies are not controlled, egg laying is strongly reduced and laid eggs are not viable.

Use Rates and Recommendations:

For the control of Two Spotted Spider Mites in Capsicums and Greenhouse Whitefly in Cucumbers and Tomatoes. Apply Oberon at a rate of 60ml/100 litres of water (do not apply any more than 60 ml of Oberon/1000 square metres) and make two applications at a seven to ten day interval, starting on appearance of the developmental stages of the pest.

Oberon is a contact acting product and it is important to ensure thorough coverage of both sides of leaves for best performance.

Apply to early developmental pest stages before a damaging population establishes. If only adult stages of pests are present use a specific adulticide.

Do not apply to plants suffering from stress e.g. transplant shock.

Resistance Management:

Resistance to this acaricide/insecticide could develop from repeated use. To minimize this risk use strictly in accordance with the label instructions.

Oberon may be applied up to a maximum of 2 times in total per crop cycle. At other times use an acaricide/insecticide from a different chemical class and consider biological control.

DO NOT try to rescue a badly infested crop with this product.

Withholding Period:

Capsicums, Cucumbers and Tomatoes..... 1 day

Compatibility:

Do not tank-mix with other crop protection products – unless compatibility has been proven previously.

Packaging:

500 mls

READ THE PRODUCT LABEL CAREFULLY BEFORE USING AND OBSERVE DIRECTIONS

Before using this product read and carefully observe directions, cautionary statements and other information appearing on the product label.

Our technical information, whether given verbally or in writing is based on the best of our current knowledge, is true and accurate, but given without warranty in as much as the conditions of use and storage are beyond our control.

Descriptions and property data do not contain any statement as to liability for possible damage. In other respects our conditions of sale apply.

Contact your local distributor's field representative for further information.