

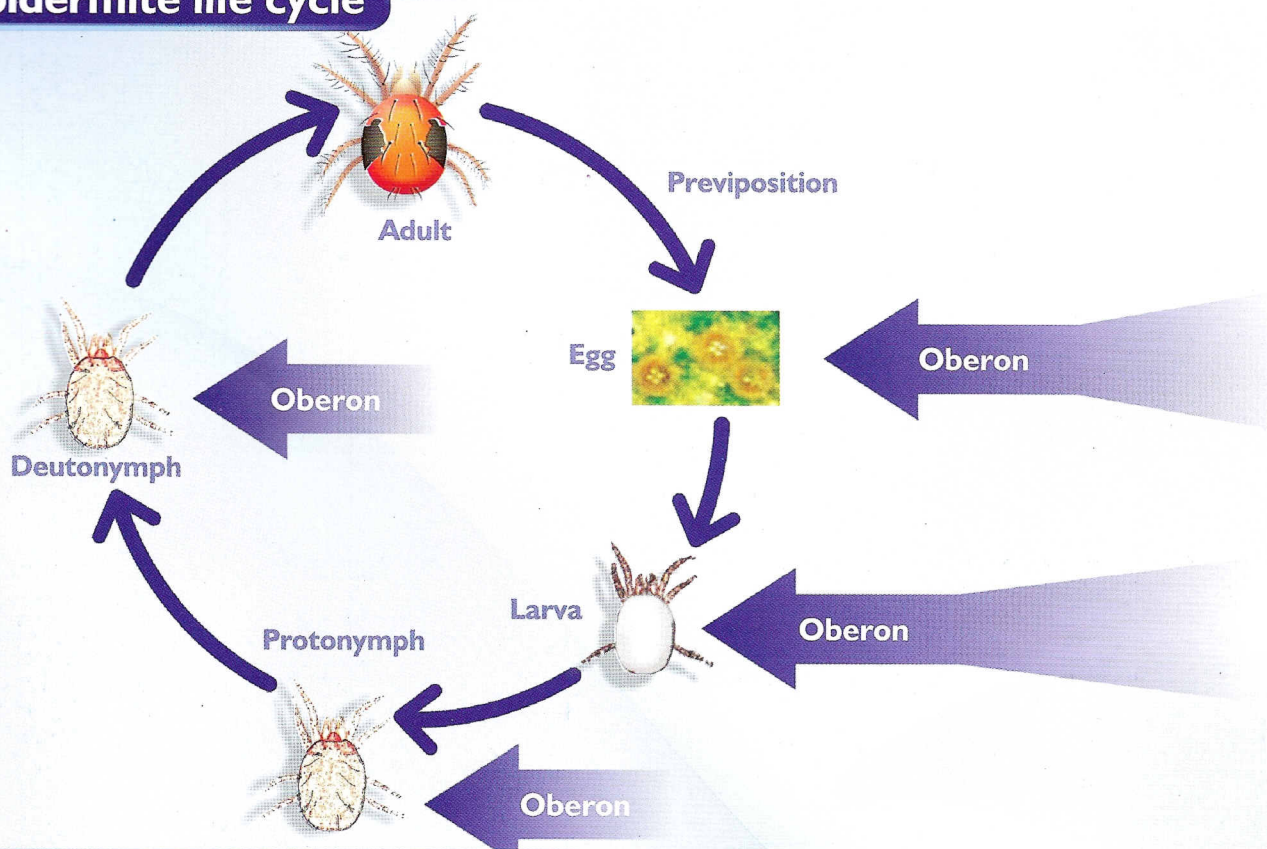


OBERON - (Spiromesifen) is a new insecticide / acaricide by Bayer CropScience that provides excellent control of both Whiteflies and Spidermites. Oberon's active ingredient, Spiromesifen, belongs to a new class of chemicals called Ketoenols. Oberon is a lipid biosynthesis inhibitor (LBI) and interferes with the spidermite and whitefly lipogenesis by preventing biosynthesis of fatty acids and their subsequent biochemical derivatives.

Oberon is a foliar contact compound with activity against whiteflies and spidermites, which are among the major pests in crops such as vegetables and ornamentals.

Oberon efficacy on target pest varies depending on developmental stages, with nymphal/larval stages of both whiteflies and spidermites being affected more rapidly than adults. The spidermites and whitefly nymphs will not moult properly and will fail to reach adulthood.

Spidermite life cycle

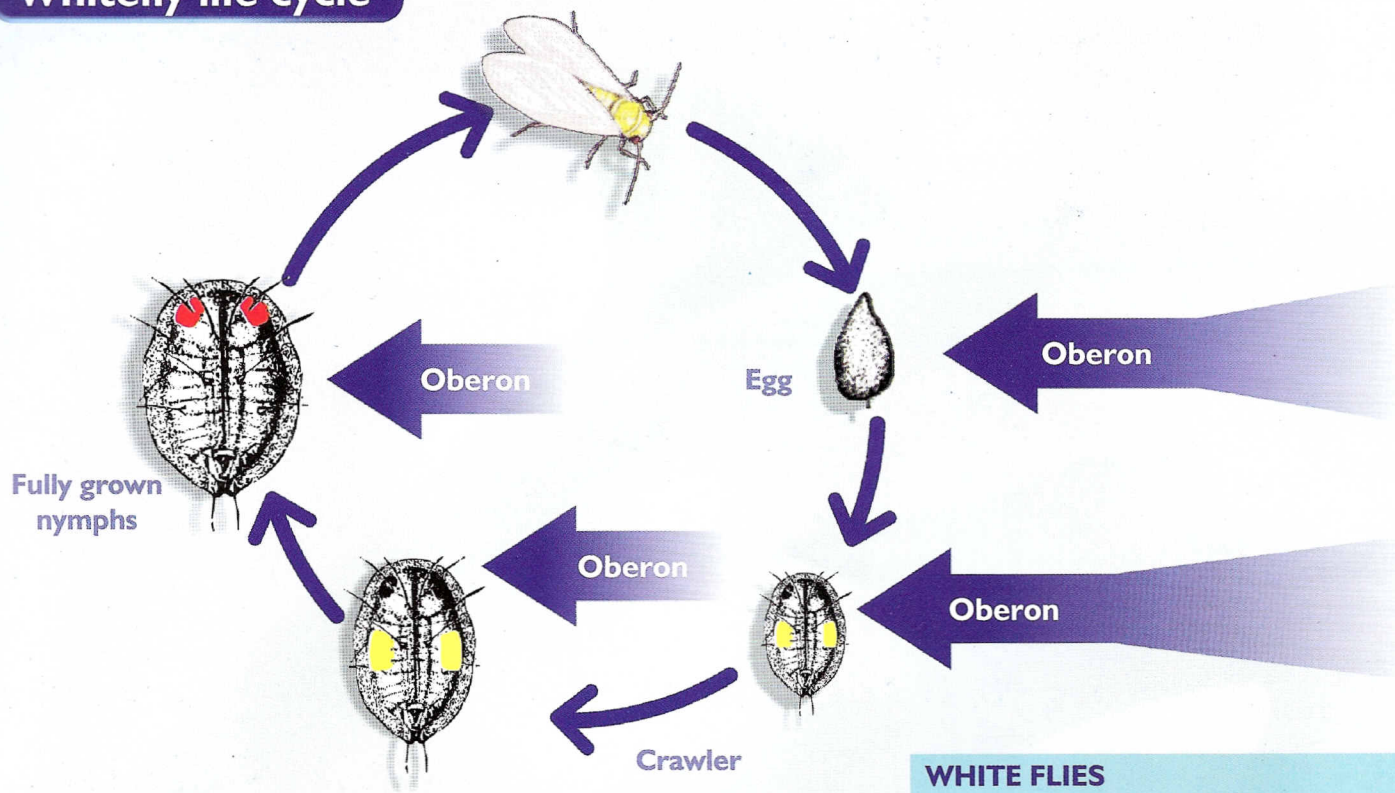


SPIDERMITES

- Highly effective Tetranychid mite eggs
- Controls all juvenile and quiescent stages of mites
- Strongly affects the female by reducing the number of eggs laid



Whitefly life cycle



WHITE FLIES

- Highly effective on eggs and nymphs
- Oberon is ovo-larvicidal
- Activity on pupae (usually difficult to control)
- Affects the adult female by reducing the number of eggs layed

Mode of Entry

The predominant mode of entry for Whitefly intoxicification is both by contact and direct feeding. Oberon acts against developmental stages (*ovo-larvicidal*, *nymphs*, *pupae*) and reduces the fecundity of females. Oberon is highly active against *Tetranychid* mite eggs, all juvenile and quiescent stages and female adults by contact. The ovicidal activity against eggs of *T. urticae* and *P. Ulmi* is excellent.

Translaminar and Contact Activity

Due to its lipophilicity, Oberon tends to stick onto the waxy layers of leaf surface and thus, small amounts penetrate into the leaf lamina giving Oberon an additional contact activity and prolonged efficacy.

Residual Effect:

In order to protect the crops from reinfestation it is an important prerequisite for an acaricide to have prolonged residual efficacy. Oberon, at recommended rates 0.4-0.6lts/ha, will provide residual efficacy for 14-21 days.

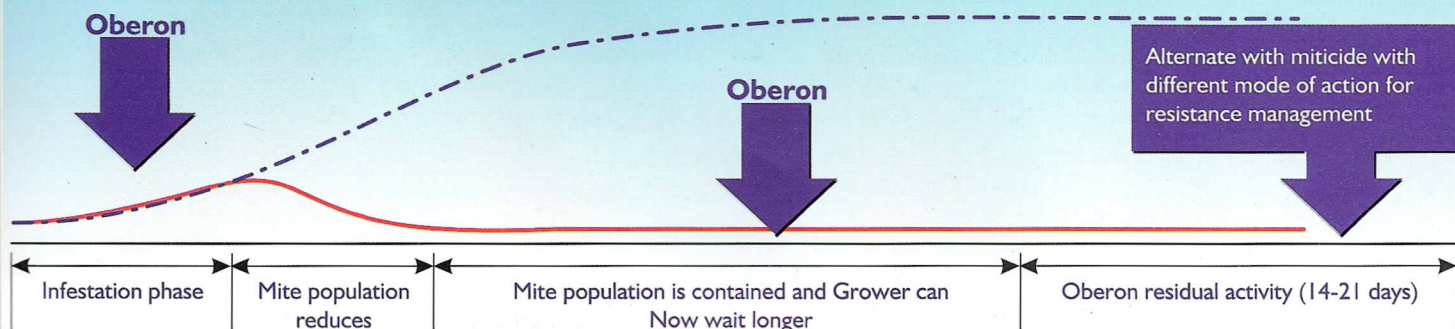
Effect of Temperature

Oberon has an efficacious effect of up to 100% when applied at temperature ranges of 15°-25°C.

Application / Timing

OPTION I : Prevent mite population build up.

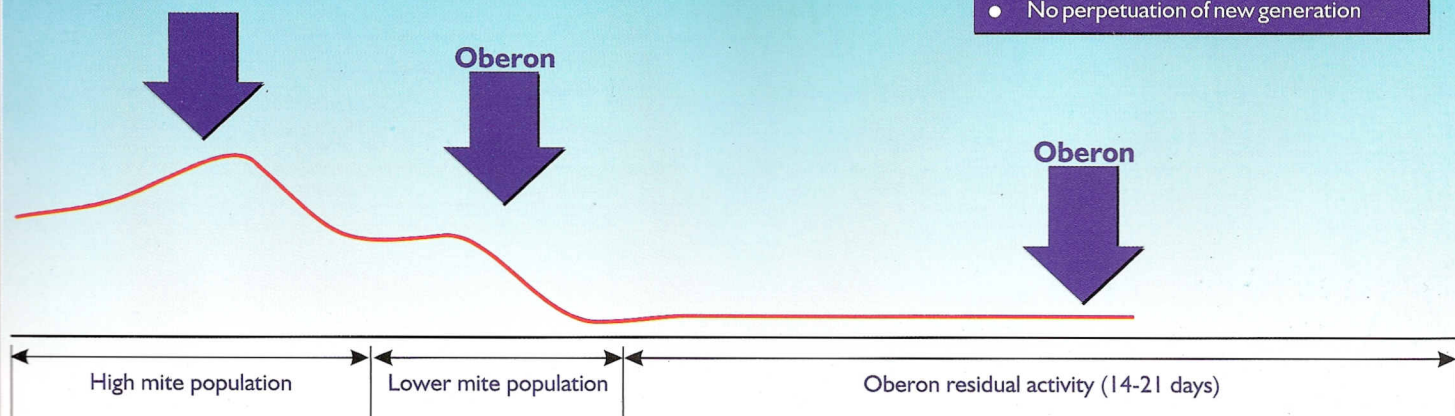
Early application of OBERON ensures eggs do not hatch into larvae and do not reach to adult greatly reducing population build up-**Key objective to any wise grower**



OPTION II : When mite pressure is high.

Use a product with knockdown effect on motile stages e.g. Rufast followed by OBERON

- Long residual effects
- Eggs do not hatch
- Females fail to lay eggs
- No perpetuation of new generation



NB: Oberon® SC 240 is slow acting and therefore should not be used when the mites pressure is high

Directions for Use:

Application: Oberon® SC 240 should be applied as a full cover spray on all foliage parts of the target plant. Thorough, even coverage of upper and lower leaf surfaces is essential for good control.

Crop	Pest	Application Rate	Timing of application/Remarks	Pre-harvest interval (PHI)
Ornamentals: Roses/Carnations	Spidermites Whiteflies	0.4-0.5 l/ha or 40-50 ml in 100 litres of water depending on the pest infestation level.	Start spraying when presence of pest is first noticed. Repeat at 7-10 day intervals if necessary. Spray to runoff.	N/A
Vegetables: French beans, Tomato/ Eggplant, Cucumber/ Courgette, Sweet pepper, Melon	Spidermites Whiteflies	0.4-0.6 l/ha in 1000 l of water or 8-12 ml in 20 litres of water.	As above.	3 days

Ornamentals

Mites and Whiteflies cause severe problems in ornamentals world-wide. Damage to the foliage and the flower are totally unacceptable. The ability to successfully control Spidermites and Whiteflies is one of the most important requirement to succeed in growing ornamentals. This is complicated by resistance development to both organophosphates and pyrethroids. Oberon is a new chemical option for resistance management in both Whiteflies and Spidermites.

Resistance Management Guidelines

- In vegetables, Oberon should be used only up to 2 applications against mites and up to 4 applications against whiteflies per cropping cycle on any one crop and a combination/rotation with compounds from different mode of action is highly recommended.
- In flowers, Oberon should be used only up to 2 applications against both mites and whiteflies followed by a combination/rotation with compounds from different mode of action.
- Oberon should be used at the recommended rate and timings. Follow the product label.
- Oberon like all other products, should be sprayed uniformly and ensure a good coverage.



Unique profile for smart solutions

Management of Selectivity on Flowers Guidelines

As the different species and varieties of Ornamental crops may differ in their sensitivity to chemical spray, users are advised always to check for crop compatibility by first treating a few plants before large scale application is undertaken.

Key Recommendations

- Spray liquid should have sufficient time to dry slowly.
- Spray late afternoon (5.00 pm) or early in the morning.
- Relative humidity > 70 %
- Do not tank mix Oberon with systemic and translaminar products
- Do not tank mix Oberon with EC formulations or adjuvants.

Important Notes

- Oberon is most efficacious when used alone at recommended rates
- Oberon formulations are optimal and no need to add any surfactants or adjuvants
- Consult Bayer CropScience representative prior to mixing Oberon SC with any other pesticides or additives

Applications done early in the morning or late in the afternoon when temperatures are lower and the Drying time is longer do not exhibit selectivity issues