SB PLANT
INVIGORATOR

Controls a wide range of important pest species by physical means









fargro®

SB Plant Invigorator overview

CONTROLS a wide range of important pest species including whitefly, aphid, spider mite, mealybug, scale and psyllid. Due to the physical mode of action resistance to SB PLANT INVIGORATOR is unlikely.

SBPI works by physical means and is only effective when in direct contact with the pest.



Mode of action

Adult whitefly has been observed to stick by the wings to any surface they contact. Aphids, juvenile whitefly and spider mite if directly hit are trapped by SB Plant invigorator.

On mealybug an initial application removed the protective wax and a second application controlled them.

Trials have shown a broad range of pest species can be controlled including:
aphids (a wide range of species), whitefly, spider mites, mealybugs, hard scale, soft scale, bay sucker psyllids and powdery mildew. It is advisable to treat plants heavily infested with pests at 2 or 3 day intervals before weekly or fortnightly applications commence.

Why use SB Plant Invigorator

- Controls a wide range of important pest species by physical means.
- Usable on edible and ornamental crops.
- No harvest interval required.
- Can be used as a plant wash to give a cleaner shiny appearance.
- Controls powdery mildew.
- Suitable for use throughout the year.
- IPM compatible.

Aphids

SBPI studies have shown almost total control of major aphid species including, Pea aphids (*Acyrthosiphon pisum*), Bean aphid (*Aphis fabae*), Apple Grain aphid (*Rhopalosiphum padi*), and Woolly Apple aphid (*Erisoma lanigerum*). With weekly applications to susceptible plants recommended.

Peach potato aphid (*Myzus persicae*) as a more resilient aphid species is harder to control using physical means. SBPI will however, control established infestations of *M. persicae* after 2 or 3 applications at 2- or 3-day intervals, with weekly applications following this to maintain control.

SBPI will produce a significant reduction in aphid numbers if applied thoroughly (to upper and lower leaf surfaces) and to the point it runs off the leaves.



Spider Mite

Control of spider mite comes with its challenges, especially when infestations have become established and protected by heavy webbing. SBPI is highly effective at controlling spider mites.

Infestations during early stages of spider mite development before webbing has become intense requires a thorough application of SBPI (to upper and lower leaf surfaces) applied to the point it runs off the plants will control the problem. Re-application at weekly intervals is required due to spider mite eggs not being affected, with the product not possessing any residual activity.

Established spider mite infestations are controlled by SBPI with 2 or 3 applications required at 2- or 3-day intervals. This application will overcome the protective webbing and access the mites within.

Weekly applications ensure newly hatched juveniles and adults that may have crawled on to the plant from elsewhere continue to be controlled.



Whitefly

SBPI is highly effective at controlling whiteflies with almost total control of adult whiteflies achieved after a single application of SBPI using a thorough treatment.

Treatments need to be applied to the point it runs off the leaves, this application causes adult whiteflies to stick to leaves and other surfaces they land on. Although the plants and treated surfaces do not become sticky themselves, when the treatment has dried the affected whiteflies remain stuck and die.

The larval stages of whiteflies can also be controlled by SBPI. Again, a thorough application of the product to the infested areas of the plant is essential since only the larvae that are in direct contact with SBPI will be controlled.

To ensure effective and sustained whitefly control using SBPI, re-applications are recommended at weekly or fortnightly intervals, due to pupae and eggs being harder to control than at other life stages. These application intervals will not only ensure newly hatched adults and larvae are controlled, but also any new whiteflies that may have flown onto the plants.



Scale Insects

Scale insects are a difficult pest to control due to adults being protected by a waxy shield offering a level of protection against control measures. SBPI can offer highly effective control of scale insects when applied thoroughly to infected areas to the point it runs off the leaves.

Eggs and small mobile juveniles are difficult to control as they remain underneath the parental shield. Regular applications at a weekly or fortnightly interval are therefore recommended to ensure complete control.

Continued regular applications will protect against further infestation of scale insects.



Mealybug

Research has shown the SBPI can be a highly effective control for mealybug, including Citrus mealybug (*Planococcus citri*) and the Glasshouse mealybug (*Pseudococcus viburni*).

A thorough application to the upper and lower leaf surfaces of SBPI applied to the point it runs off the leaf, followed by a similar application one day later will be required to control an established infestation of mealybug.

Eggs and the small mobile juveniles are more difficult to control with SBPI so further regular applications at weekly or fortnightly intervals are recommended to ensure the infestation is fully eradicated.

Continued regular applications of SBPI will prevent further established mealybug infestations.



Powdery Mildew

SBPI has proven to be a highly effective control for the common fungal disease powdery mildew. SBPI has a non-chemical, non-biological action against powdery mildew. SBPI controls the disease by physically washing and removing active mildew spores from a leaf surface.

To achieve control, thorough and regular applications of SBPI applied to the whole plant and to the point of run-off are required. Both upper and lower surfaces of leaves must be treated. These regular applications of SBPI have been shown to prevent powdery mildew becoming established on susceptible plants.

An established infestation of powdery mildew can also be controlled by regular applications of SBPI although damage caused by a severe infestation may still remain visible on older leaves.



IPM Compatibility

Studies so far have shown SB PLANT INVIGORATOR to be compatible within an integrated pest management programme where beneficial insects are used. Parasitic wasps developing within aphid and whitefly mummies do not appear affected.

Soil dwelling predatory mites such as *Hypoaspis* do not appear affected although leaf dwelling mites *Amblyseius* and *Phytoseiulus* are affected by multiple applications.

Robust predators such as ladybirds, mirid bugs, hoverfly and lacewing larvae appear unaffected.



SBPI in an IPM programme

IPM COMPATIBLE CONTROLS

Regular applications of key control products such as SBPI.



BIOCONTROLS

Utilise programmed introductions of a range of biocontrols.

HYGIENE

Maintain excellent hygiene levels throughout the year.

PHYSICAL CONTROL

Make use of barriers & traps.

MONITORING

Crop walking weekly. Base control on level of pests observed.

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Stan Brouard Limited, Landes du Marche, Vale
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Professional Formulation : **1 litre outer of 10, 5 litre outer of 4**
Garden / Retail Formulation : **500 ml outer of 20, 250ml outer of 25**
Ready to use formulation : **500 ml x 20**

Distributed in the UK mainland by Fargro Ltd.
Safety data sheet available on request.

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SB PLANT INVIGORATOR has a physical mode of action and is not required to be registered as a plant protection product.
SB PLANT INVIGORATOR is manufactured in Guernsey by Stan Brouard Limited

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