

WHITEFLY CONTROL WITH SBP-1382

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The greenhouse whitefly is an onerous pest in greenhouses. The usual species is Trialeurades vaporariorum although over 1000 species of whitefly have been described. With the disappearance of some insecticides such as DDT from the greenhouse pest control program, the whitefly has become a serious problem.

Pyrethrin kills whiteflies if you can hit them with it. But complete control is elusive. S. B. Penick & Co.'s pyrethroid, experimentally designated as SBP-1382, has been reported by Dr. A. Gentile to control juvenile stages as well as adults. A sample was obtained for evaluation. Caution was advised in assessing phytotoxicity.

Fourteen species of plants were sprayed (Table 1). Beginning with a concentration of 125 ppm, the plants were sprayed at weekly intervals with concentrations progressively increasing to 250, 500, 750 and 1000 ppm.

The initial concentration of 125 ppm was sufficient to kill adult whiteflies. At 250 ppm, all adults were killed as well as most of the eggs and larvae. Poinsettias, however, showed foliar discoloration and distortion. As the concentration was increased during the following four weeks to 1000 ppm, the symptoms were not markedly increased.

Table 1. Plant species sprayed with SBP-1382 in phytotoxicity tests.

Abutilon pectum	Flowering Maple
Adiantum cuneatum	Maidenhair Fern
Begonia elatior	Rieger Begonia
Chrysanthemum species	Pot Chrysanthemum
Cyphomandra betacea	Tree Tomato
Fuchsia speciosa	Fuchsia
Delphinium species	Delphinium
Gerbera species	Gerbera
Hydrangea species	Hydrangea
Kalanchoe tomentosum	Kalanchoe
Lantana camara	Lantana
Myrtus communis microphylla	Dwarf Myrtle
Pelargonium hortorum	Common Geranium
Poinsettia pulcherrima	Poinsettia

Other species exhibited marginal and interveinal burns but no decrease in plant vigor. Kalanchoe and gerbera did not exhibit phytotoxicity at the excessive rates of 750 and 1000 ppm.

Climatic conditions appear to influence expression of phytotoxicity. On each of the treatment days, cloudy weather prevailed except for the 1000 ppm application. The clear, sunny weather on this last treatment day may have reduced phytotoxicity.

It would appear that SBP-1382 has considerable merit in the control of greenhouse whitefly. Phytotoxicity may be a problem on some species resulting in less attractive foliage. This may possibly be avoided by closely observing climatic conditions such as dew point, sunshine and barometric pressure. When these parameters are better defined and if label clearance is obtained, control of this pest may not be the big problem that it is at present.