

## Control of Certain Sucking Insects on Ornamentals Under Cover<sup>®</sup>

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A survey conducted recently amongst growers of ornamentals and cutflowers revealed that the following insects are the most troublesome and common: spider mites, thrips (including Western flower thrips), aphids, whitefly, leafminers, beetles, caterpillars, and nematodes.

From the survey it was also clear that insect resistance is a major concern to growers, but that attempts are made to manage it by alternating insecticides in the spray programmes. In extreme cases insecticides are applied every 2 to 3 days, usually as preventive sprays. A further obstacle is the lack of approved and registered chemicals under Act 36/1947, but growers try to use products that are registered on edible crops, especially when treating commodities for the export market.

Consequently, Bayer decided to obtain registration for a number of pesticides (insecticides and fungicides) for use in floriculture. The obvious first choice was imidacloprid, a new insecticide in the chloronicotinyl group. It is currently registered for use on ornamentals, turf, and agricultural crops in a number of European countries, South America, Australia, and the U.S.A. In South Africa various formulations of imidacloprid are registered for the control of numerous insect pests in agricultural crops, grazing crops, and turf. It is also known that it controls mealy bug, Australian bug, and other sucking insects.

The following trials (Table 1) on ornamentals were conducted locally with imidacloprid and are discussed.

**Table 1.** Trials on ornamentals conducted locally with imidacloprid.

Crop	Pest	Application method
Gerbera in pots	Whitefly nymphs	Drench application
Gerbera in pots	Whitefly adults	Foliar spray
Fuchsias in pots	Whitefly adults	Drench application
Roses in bags	Aphids	Drench application
Transplanted roses	Aphids	Drench application

Excellent control of whitefly nymphs and aphids was obtained with drench applications, while foliar sprays are more effective for the control of whitefly adults.

Drench applications of imidacloprid have the further advantage that no active ingredient is on the outside of the plant and that beneficial insects which live on the surface of the plant do not come into contact with the chemical. Thus, insects not controlled (e.g., spider mites) could still be the victims of their predators.