

Two nurseries recently conducted in-house trials on chrysanthemum cuttings and Gerbera seedlings respectively with a biological control product called Eco-T, which is reputed to control crop root diseases such as *Fusarium*, *Rhizoctonia*, *Pythium* and *Phytophthora* and to boost plant growth. The results created some excitement.

Remarkable results in recent floriculture trials

Success with Chrysanthemum Cuttings

In October 2008 Eco-T trials were conducted on chrysanthemum cuttings at Lurco Trading near Krugersdorp, which has 4 hectares of cut flowers.

"The results were excellent," said Manie Pretorius of Lurco Trading. "The cuttings treated with Eco-T showed no signs of wilting 24 hours after being transplanted, while the cuttings treated according to our standard procedure were severely wilted" (see photograph below).



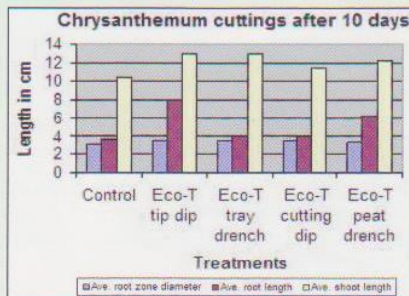
The Eco-T treated cuttings on the right showed few signs of wilting, darker stems and greener leaves than the cuttings on the left, which were treated according to the standard procedure used at Lurco Trading prior to this trial.

Ten days later there was a marked difference in root elongation and shoot formation in the Eco-T treated chrysanthemum cuttings versus the untreated cuttings (see trial results in graph). A number of different methods of Eco-T treatment were applied, including dipping the cutting tips in an Eco-T solution, dipping the whole cutting, drenching the trays after transplanting and

drenching the peat before transplanting. As can be seen from the graph, all Eco-T treatments were significantly superior to the untreated control.

The plugs of the Eco-T treated cuttings were more compacted due to increased side root and root hair development and these plants had more leaves and improved shoot tip development.

"What this means for the nurseryman is that the transplanting of cuttings, which normally takes place 14 days after the cuttings have been treated with Dynaroot, can now be shortened to 7 days with the Eco-T treatment due to the



All Eco-T treatments showed improved root and shoot development of chrysanthemum cuttings after 10 days when compared to the untreated control.

rapid root formation and shoot elongation," said Eco-T marketing agent Rosan van Vuuren.

Cuttings can receive a second Eco-T drench shortly after they have been transplanted to limit transplant stress. A monthly Eco-T drench thereafter will enhance healthy root formation and provide protection against soil-borne root diseases until the flowers are harvested.

No transplant stress in Gerbera seedlings

In trials conducted in October on transplanted Gerbera seedlings at Madelief nursery near Bronkhorstspruit, an Eco-T drench totally relieved transplant stress and also greatly improved root development in the transplanted seedlings. A firm soil plug was formed within a week of transplanting. The roots of the trial plants were measured and compared 12 days after transplanting. Average root length was 2.3 cm longer with the Eco-T treated plants and the root zone diameter was almost 2cm wider.



Root development of the Eco-T treated Gerbera seedlings (right) was typically superior to the control or standard treatment used in the nursery (left).

Excellent Fusarium control

Other floriculture crops on which Eco-T has been used for many years on several hundred hectares with very positive results are carnations and lisianthus, particularly against *Fusarium* infection. It has also been successfully used to control root diseases on proteas.



On the left, a Lisianthus crop showing symptoms of severe *Fusarium* infection, and, on the right, a flower bed after regular drenching with an Eco-T solution. The photos were taken at Osenan flower farm in Kenya.

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PHP Working with Nature
Plant Health Products (Pty) Ltd

Eco-T from Plant Health Products (Pty) Ltd

Eco-T is widely used in floriculture and horticulture to reduce transplant stress, promote root development and control root diseases.

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