

GROWTH REGULATOR NOTES

White Christmas Bush

In a trial with seedling *Euphorbia leucocephala*, the white Christmas bush, a soil drench of Cycocel at $\frac{1}{2}$ gram per plant was effective in retarding growth to approximately half that of the control 5 weeks later. A spray of Cycocel at 3/10 percent (3000 ppm) was not effective; neither were sprays of 100 and 200 ppm of EL531, although the latter did cause slight retardation of internode elongation. A soil drench of EL531 at 50 mg of the chemical per plant caused the death of all the plants.

Hibiscus

A spray of 3/10 percent (3000 ppm) Cycocel to pink hedge hibiscus was the most effective growth retardant of vegetative growth. The spray was applied March 24 when new growth after shearing was 4 to 6 inches long. Two months later, control plants averaged almost 34 inches of new growth; those treated with Cycocel averaged

16 inches. At the end of 4 months, the Cycocel-treated plants were still producing very short internodes and would still be considered within bounds; the control plants had vegetative shoots more than 48 inches long. Other compounds (B-nine, EL-531, and Niagara 10637) tried on hibiscus were only slightly effective or not at all. An experimental retardant, TD-1123, was effective at $\frac{1}{4}$ percent (2500 ppm) for about 3 weeks, but the plants resumed normal growth. Maleic hydrazide at $\frac{1}{2}$ percent (5000 ppm) prevented any growth beyond that present when the plants were sprayed, but there was some phytotoxicity at this concentration. Eventually, new laterals developed from deeper within the hedge and grew out irregularly through the top.

Wedelia

A remark from a local weed control specialist set us off on a quest for a retardant for the ground cover, *Wedelia trilobata*, which grows so abundantly in Hawaii. There seem to be several effective materials, but this preliminary report describes only the effect of Maintain CF-125, a morphactin. At 600 ppm in a spray application, Maintain caused the plants to develop shorter internodes, more lateral branches, and a dark-green color. A certain amount of leaf rolling on older foliage was associated with its use, but this would not be noticeable in mass plantings. Be very careful in spraying Maintain, as other plant materials downwind may be more drastically affected. Some of the adverse effects of Maintain are: leaf drop, leaf roll, distorted new growth, and proliferation of lateral branches.

Richard A. Criley
Assistant Horticulturist