THE NEED FOR UTILIZING PGR’S IN ORNAMENTAL CROPPING SYSTEMS.

Dave Barcel, OHP Inc., Genesee, WI

Ornamental cropping systems have changed dramatically over the past 50 years. The 1960’s was the beginning of several advances in new varieties of ornamentals, soilless media mixes, double poly house as well as Horticultural chemical advancements such as plant growth regulators (PGR’s) Several crops such as geranium, chrysanthemum, hydrangea and poinsettia were very vigorous in growth and would consume much bench or floor space if the growth was not held in check. Those earlier days of production utilized pinching to enhance crop quality by inducing more lateral breaks (hydrangea, mums and poinsettia) however, pinching also served to restrain un-wanted growth as well.

The advent of plant growth regulators in the late 60’s and early 70’s brought about a new set of tools for growers to use in plant growth management. Products such as Cycocel (Chlormequat chloride) and B-Nine (Daminozide) provided significant growth reduction by inhibiting gibberellin synthesis, most importantly Ga3. In the coming years of the 80’s and 90’s other PGR’s of significance came to market such as ARest (Ancymidol) Bonzi (Paclobutrazol) Sumagic (Uniconazole) and Topflor (Fluprimidol). These newer triazole based chemicals offered extremely active plant response in growth reduction, which allowed for use on bulbs, perennials and woody ornamentals, crops known for difficult to control growth. By the 2000’s growers wanted plants that would develop better branching habits, which produced a fuller plant and offered more blooms per plant. This need resulted in a new set of PGR’s known for inducing lateral bud break or new bud production. Products such as Florel (Ethephon) Configure (6-Ba) and Augeo (Dikegulac) triggering plant responses that increased branching which resulted in fuller plants for the consumer.