

Defoliation of chrysanthemum (*Chrysanthemum morifolium* Ramat) cv. Reagan Sunny for improved flowering and cut flower quality

ABSTRACT

The effects of different levels of defoliation i.e. 0 (control), 20, 40, 60 and 80% at visible floral bud stage on growth, flowering and cut flower quality of chrysanthemum (*Chrysanthemum morifolium*) cv. Reagan Sunny were investigated. Plant height was only reduced by 5% at the highest level of defoliation, whereas the stem diameter was not affected. The time of floral bud break (showing colour), was delayed as level of defoliation increased. However, time of floral bud break within a plant was more synchronised. The spray diameter was reduced and vase life was increased by defoliation up to 60%. Both contributed to better cut flower quality. Other quality parameters such as flower size and stem diameter were not markedly affected. Total fresh and dry weights were linearly decreased with level of defoliation. There was a change in dry matter distribution, in which more dry matter was partitioned to the structural parts i.e. the stems and flower stalks as level of defoliation increased. There was no change on dry matter partitioning to flowers by defoliation. Defoliation at 60% can be the compromised level for cv. Reagan Sunny grown under high temperature environment.

Keyword: *Chrysanthemum morifolium*; Defoliation; Flowering; Flower quality