

The Effect of Growth Retardants on Annual and Perennial Potplants

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SUMMARY

There are more chemicals in circulation that have a dwarf-growth influence for the plants (Basra, 2000; Korting, 2010; Reiners, 2007; Richter, 2006; Ueber, 2007). Among these substrates we took into the trial five chemicals: CCC, Caramba, Cultar, Regalis and Toprex. These substrates were accommodated in concentration by the reference of the producer. Examined species were: In this preliminary experiment the reaction of the species was observed. We measured the height of the plants, the number of lateral branches, the diameter of the plant bush and the size of leaves. The unfavourable effects (necrosis) were also detected. The trial was started on 19. April, 2010. The seeds were sown into seedflats, and were put into a greenhouse in Mátrafüred. The seeds sprouted within 14-16 days. When the plants reached the 2 leaf stage they were transplanted into pots on 5. May 2010. At first, 6 groups of plants were composed, 5 chemicals in the trial and a control group. By *Matthiola incana*, *Coreopsis grandiflora* and *Scabiosa atropurpurea* 25 pots consisted of a group, while by *Godetia grandiflora* 15 pots, as germinating of *Godetia* was just about 60%. Treating data were: 11th May 2010, 27th May 2010, 17th June 2010. All the chemicals showed adequate results except Caramba. By this substrate we found burned leaves. So a new concentration of Caramba was made. On 14th May 2010 a new plantgroup was sprayed with the new half strength concentration. This new group showed burned leaves again. CCC produced no effect on *Scabiosa atropurpurea*, but had too strong effect on *Godetia grandiflora* and *Coreopsis grandiflora*. These plants grew up abnormal and most of them died. Regalis, Toprex and Cultar showed a very good achievement. With these substances treated plants have more, shorter joints, more and robust leaves, and more compact habit comparing to the control plants. *Godetia amoena* tolerated badly the treatment of substances. Only Regalis and Cultar had real energy-efficiency.

REFERENCES

1. Basra, A. S. (ed.) (2000). Plant Growth Regulators in Agriculture and Horticulture. Food Product Press Inc. New York, London. 89-130.
2. Korting, F. (2010). Hemmstoffe: Tankmischungen können die Arbeit erleichtern. Gärtnerbörse 2010 Januar. 34-36.
3. Reiners, S. (2007). Hemmstoffe bei Topfranunkeln: Alar-Ersatz gesucht. Gärtnerbörse 2007/12. 26-28.
4. Richter, M. (2006). Hortensien mit frühem Regalis-Einsatz hemmen. Gärtnerbörse 2006/5. 46-49.
5. Ueber, E. (2007). Hemmstoff-kombinationen und Spritzbrühemengen. Gärtnerbörse 2007/2. 40-42.