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The Allelopathic Effect of Aqueous Extract of *Calotropis Procera* on The Chemical Compstion of *Catharanthus Roseus*

Wageeha M. Essaa

Widad M. Taher Al-Asadi

wajeehahalfaragh@gmail.com

widad.taher@oubasrah.ude.iq

¹Department of Horticulture and Land Scape - College of Agriculture
University of Basrah

²Department of Ecology- College of science - University of Basrah

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Abstract

It is known that some plants, especially trees, have a chemical antagonistic effect on plants growing under them by not growing their seeds or not reaching the flowering stage. Therefore, this study showed this effect, as the effect of some concentrations of *Calotropis procera* plant extract was studied on some indicators of *Catharanthus roseus* (L.) G.Don growth. and its chemical characteristics, as it was noticed that the plant decreases with growth and the formation of lateral branches whenever the concentration increases compared to the control samples that were irrigated with water. Also, the number of flower buds decreases with increasing concentrations of *C. procera* plant extract, the concentrations used for the extract affected the height of *C. vinca* plant, while the leaf area also decreased with increasing concentration.

The number of active chemical compounds in *C. vinca* plant was also affected by *C. procera* extract compared with the control sample, as it was noted that the highest number of compounds was 32 in the samples that were not treated with the extract, while the highest concentration of the extract was 2.5 ppm, so the number of compounds was 25.

The concentrations of compounds in the *C. vinca* plant differed from one concentration to another compared to the control samples, some of which decreased, some increased, some disappeared, and some concentrations appeared, new compounds that were not present in the control plant, and most of these compounds have an important medical, therapeutic or industrial effect.

Keyword: *Calotropis procera*, *C. vinca*, active compounds, extract, concentrations.

Introduction