

## **Growth, physiology and fruit quality of *Hibiscus sabdariffa* L. in response to regulated deficit irrigation**

### **ABSTRACT**

The effects of deficit irrigation technique on growth and fruit quality of roselle (*Hibiscus sabdariffa* L.) was observed. The result shows that minimum weight of the yield was obtained from treatment grown with well watered (WW) condition. Plant height was affected by reduction of water application. Regulated deficit irrigation (RDI) tended to decrease all means of growth parameter except stem fresh and dry weight. RDI shows significant effect on yields, where the reduction of 50% water produce more fruits compared to control plants. The impact of RDI was not significant effect on physiological change of roselle. Thus, RDI could be a feasible technique for Roselle production as it saves large amounts of water with reduction on plant growth but increase the yield as compared to well watered (WW) of roselle.

**Keyword:** *Hibiscus sabdariffa*; Water stress; Physiology; Fruit quality