

## **Effect of Irrigation at Different Growth Stages on Quality and Yield of Wentan Pomelo<sup>1</sup>**

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### **Summary**

In order to understand the effects of irrigation at different growth stages on the quality and yield of Wentan pomelo. The experiment was conducted from 1996 to 1998 at Shoufeng that is one of the most important Wentan pomelo production areas in Hualien. The drip irrigation treatments were during different growth stage, including (1) no irrigation, (2) during spring sprout flushing, (3) during flowering, (4) during fruit development and maturing, (5) irrigation all the year. The drip irrigation system control water supply through valves of 2 holes on 16 mm PVC pipes, at different distances of 45 and 90 cm from tree trunk. When soil moisture tension reaches 0.6 bar, irrigation starts automatically and intermittently for 8 hrs for 2 days, with a flux of 60 ml/min. Results indicated that irrigation during flowering gained the highest yield (53.7 kg/plant), the best fruit quality of juice content (149 ml/fruit), total soluble solids (11.4 oBrix) and titrable acidity (0.46%). While no irrigation treatment resulted in low yield, poor fruit quality, total soluble solids and titrable acidity.

(Key words: Growth stage, Irrigation, Wentan pomelo, Fruit quality, Fruit yield)

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