Effect of Soil Moisture Management on the Quality of Waxapple

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Abstract
Waxapple (Syzygium samarangense Merr. et Perry) was one of economically planting orchards in Taiwan. In spite of sugar degree, color, the percentage of fruit cracking was one of important index. The quality of waxapple was influenced by climate, field management. This researcher was conducted to evaluate the influence of soil moisture management on the increasing of fruit quality. It was proceeded in the Kaosu, Nantzu, Pingtung. The soil properties were different in the two areas. The three treatments were proceeded in the fruiting stage, (1) the soil was furrowed 20 cm and immersed in water 5 cm (FI), (2) the tensiometer monitoring, from 15 cbar to 25 cbar (TM), (3) drought (DR), and the treatment of farmer usage as check (FU). The results showed that the effect of TM on soil properties, the concentration of leaf elements and fruit color were all increased between different treatments, the fruit cracking percentage of TM was 11.7% lower than check and the effect of drought on soil properties, the concentration of leaf elements and fruit color were all decreased than the experiment before treatments, the fruit cracking percentage of TM was 11.7% lower than check in Kaosu orchard. The effect of TM on soil properties, the concentration of leaf elements and fruit color were all increased between different treatments, the fruit cracking percentage of TM was 19.7% lower than check and the effect of drought on soil properties, the concentration of leaf elements and fruit color were all decreased than the experiment before treatments, the fruit cracking percentage of TM was 3.3% lower than check in Nantzu orchard.

Key words: Soil moisture, Waxapple, Quality

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