Techniques of Organic Hydroponic Culture for Melon (*Cucumis melo* L.)

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Abstract

Developing organic vegetable culture in Taiwan has to face many challenges and difficulties, such as high temperature, high humidity, and few organic suitable species or cultivars. Leaf vegetables are still the major crops for organic cultivation while fruit or long-term vegetables are minor. Therefore, consumers have quite limited choices for organic fruit vegetables products. Substrate culture of melon is popular and acceptable by farmers and consumers that has high marketing potential. This study was to investigate the efficiency of different cultivars, liquid fertilizers, and mediums on organic cultivation for oriental melon (*Cucumis melo* L. var. *makuwa* Makino). Fruit weight, shape, and color of cultivar 'Jill' had better performance and more fitted the demand of market. Fruit weight can achieved about 380g with 13.0 ^{o}Brix that qualified the specification of A level. Mixing old peat medium with new ones or new peat medium with sawdust compost then coupling with right solid and liquid fertilizer can produce high quality organic melon with stable yield. The results of present study can apply for organic melon culture and as a reference for research in the future.

Key words： melon, organic liquid fertilizer, medium