

Effects of Microbiofertilizers on the Growth and Yield of Seedless Watermelon¹

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Summary

The objective of this study was to investigate effects of VA mycorrhizal fungi, nitrogen fixing bacteria and phosphate-solubilizing microorganisms on the growth and yield of seedless watermelon. This experiment was conducted from January 1999 to June 1999 at Kuangfu, Hualien. At 58 days after transplanting, the vine number and length of seedlings inoculated with vesicular-arbuscular mycorrhizal fungi (VAM), nitrogen fixing bacteria (NFB), phosphate-solubilizing microorganisms (PSM) and applied 67% chemical fertilizer amounts of recommendation had 0.2 more branch and 22.4 cm longer than the control. The yield of watermelon treated with VAM, NFB, PSB and applied chemical fertilizer amounts as the recommendation was 29,921kg per hectare. It was higher than the control by 27.7% and it produced more profit about NT\$54,900 per hectare.

(Key words: Seedless watermelon, Vesicular-arbuscular mycorrhizal fungi, Nitrogen fixing bacteria, Phosphate-solubilizing microorganisms)

¹Research article No.160 of the Hualien District Agricultural Improvement Station. This experiment was supported in part by the Council of Agriculture (project number: 88MCAC-F-01-01(2)-4).

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