

Effects of Mulching Materials on Growth and Yield of Long-shaped Yam (*Dioscorea batatas Decene*)¹

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Summary

To study the effects of different mulching materials on yield and quality of long-shaped yam, field experiments were conducted in 1993, 1994 and 1995. The mulching treatments were rice straw, silver black PE film, black and white non-woven fabric mulch, and non-mulching culture as the check. The results indicated there were no significant difference among different mulching materials for tuber sprouting rate. Mulching with straw had the highest yield and quality of tuber due to the longer length, larger diameter and less branch number of tuber, the marketable value of the straw treatment was higher than other treatments. Yield of mulching with silver black PE film was not significantly less than other treatments, but the marketable yield was lower due to the increasing tuber branches. Because of the less branch number of tuber, the marketable yield of mulching with black non-woven fabric was 3.7 M.T./ha greater than mulching with silver black PE film in 1995. Mulching with white non-woven fabric had no effects on weeded control which due to the lowest yield, so it is not recommended to the culture of long-shaped yam. Because of the high labor cost for weed control, the non-mulching treatment was not recommended. According to these results, straw and black non-woven fabric were recommended as mulching materials for long-shaped yam cultivation.

(Key words: Yam, *Dioscorea batatas Decene*, Mulching materials, Tuber.)

¹Research article No.134 of Hualien District Agricultural Improvement Station. This study was supported in part by the Council of Agriculture (Project numbers:83-AST-2.2-FAD-07-6).

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