

NURSERY PROPAGATION AND FIELD PLANTING OF KAWAYAN
TINIK (BAMBUSA BLUMEANA SCHULTES)
BRANCH CUTTINGS

ARMANDO MANITO PALIION

MARCH, 1983

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ABSTRACT

PALIJON, ARMANDO MANITO, University of the Philippines
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Planting of Kawayan Tinik (*Bambusa blumeana* Schultes) Branch
Cuttings.

Major Professor: Prof. Domingo V. Jacalne

Effects of hormone and nursery cultural treatments on the growth and development of kawayan tinik (*Bambusa blumeana* Schultes) branch cuttings were studied. Nursery experimentation was done at Calauan, Laguna for a 2-month period while field study was conducted at the Kabataang Barangay camp site, Mt. Makiling, for another 7-month period.

In the nursery, rooting and sprouting percentages were not significantly influenced by hormone treatment but root and sprout growth and development were significantly improved. Survival in the field was found to be similar with the untreated, however, shoot production, height and diameter, and biomass were remarkably stimulated.

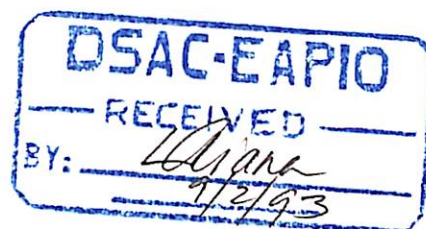
Potted and transplanted stocks had similar quality in terms of number and length of roots and sprouts produced. However, the former had better field performance with regards to survival, shoot production and dry matter weights of rhizome and roots.

Hormone treated potted stocks and treated transplanted stocks were found to produce significantly longer roots compared to untreated cuttings, either grown in pots or in transplant beds. Among these different treatments, hormone treated potted had significantly better field performance. This was evidenced by its remarkably higher shoot production, earlier peak shoot development and heavier weights of rhizome and roots. Furthermore, its cost of growing was found to be the cheapest.

Untreated potted stocks were found to have comparably similar growth qualities in the field with hormone treated transplanted stocks. They were also found to have significantly better diameter growth and heavier weight of rhizome than untreated transplanted stocks. The cost of growing was likewise found to be a little bit cheaper.

All these treated and untreated nursery grown stocks had significantly better survival, shoot production, and growth and development and had obviously cheaper growing costs than fresh branch cuttings, treated or untreated, directly planted in the field.

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INTRODUCTION

National concern about bamboo production and utilization has been growing enormously. This is due to the fact that bamboo offers great variety of uses and possesses excellent qualities which are not found in other plants.

Bamboos comprise a large portion of the tropical forest in Southeast Asia (Uchimura 1977). Of the 19 erect known bamboo species in the Philippines, kawayan tinik (Bambusa blumeana Schultes) ranks as one of the most important species. It has the most extensive distribution throughout the country (Ordinario and Suzuki 1976). Generally, it grows on well drained lowland soil (Uchimura 1977) and can usually adapt very well in places where trees normally grow.

Like other bamboos, the culm of kawayan tinik has wide variety of uses. As a versatile construction material, it has long been used for economical housing, cheap furniture, handicraft and other innumerable non-industrial products. The young shoots of this species are utilized for food. The culm is very much suitable for pulp and paper making with some unique qualities. Regardless of size, bent culm can be used. Its surface is smooth and does not need debarking. In addition, the fiber is longer than those of other grasses and hardwoods (Nichols and Navarro 1964). Specifically, the culm of kawayan tinik is suitable raw material for kraft pulp on account of its