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PERFORMANCE OF FOUR WHITE POTATO VARIETIES  
DERIVED FROM IN VITRO PLANTLETS

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PERFORMANCE OF FOUR WHITE POTATO VARIETIES  
DERIVED FROM IN VITRO PLANTLETS

Research Study Submitted to the Faculty of the  
Laboratory School, School of Education  
of the Don Severino Agricultural College  
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In Partial Fulfillment of the Requirements  
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## A B S T R A C T

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IN VITRO PLANTLETS.  
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Advisers.

The study was conducted to determine the adaptability and growth performance of white potato stem cuttings derived from in vitro plantlets under midland condition.

The experiment was arranged in a Completely Randomized Design (CRD), with four treatments replicated four times. The treatments used were: Variety 1 - Banahaw, Variety 2 - Rebus-7, Variety 3 - Conchita-2, and Variety 4 - 8302-C-76-9.

The study revealed that Banahaw and Conchita -2 are the most adapted varieties under midland condition. Banahaw gave the highest mean percent survival of cut-mother plants, highest mean percent survival of in vitro derived plantlets and the longest mean longitude diameter of tubers per stem cutting. Conchita-2 produced the most number of tubers, the heaviest tubers and the tallest plants. On the other hand, Rebus-7 produced tubers with the longest cross-sectional diameter.

Highly significant differences among varieties were obtained from the following parameters: percent survival of in vitro derived plantlets, percent survival of cut-mother plants, and average cross-sectional diameter of tubers per stem cutting.

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## DERIVED FROM IN VITRO PLANTLETS<sup>1/</sup>

by

Hosea L. Matel

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<sup>1/</sup>A thesis submitted to the faculty of the Laboratory School, School of Education, Don Severino Agricultural College, Indang, Cavite in partial fulfillment of the requirements in Applied Research IV, under the Advisorship of Mr. Adolfo C. Manuel Jr. and Mr. Carlos N. Rodil.

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### INTRODUCTION

White potato (Solanum tuberosum) Linn.) commonly known as "patatas" in Tagalog, is a perennial herb belonging to the Nightshade (Solanaceae) family. It is a native of the Andes Mountains of South America.

Potato grows from 90-120 cm. tall. It has spreading weak stems with coarse, dark green, and tender compound leaves. Each leaf is divided into five to nine leaflets. The foliage is somewhat hairy and sticky. The plant bears clusters of small white or purplish flowers that produce poisonous berries. The edible part of a potato plant are called tubers which are formed underground. The potatoes are round or oval and hard. They may grow more than 15 cm. long and weigh as much as