

GROWTH RESPONSE OF TOMATO (*Solanum Lycopersicum*) PLANT
TO DIFFERENT KITCHEN WASTES AS FERTILIZER

Research Study

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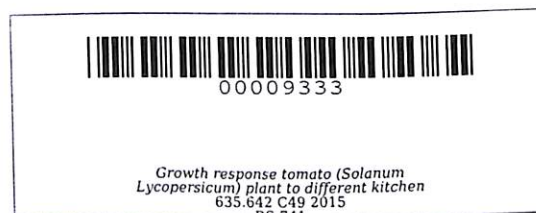
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✓ **GROWTH RESPONSE OF TOMATO (*Solanum Lycopersicum*) PLANT TO
DIFFERENT KITCHEN WASTES AS FERTILIZER**

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ABSTRACT

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A study entitled “Growth Response of Tomato (*Solanum Lycopersicum*) Plant to Different Kitchen Wastes as Fertilizer” was conducted at Buna Lejos, Indang, Cavite from October 2014 to March 2015. Specifically, this study aimed to: (a) determine the height increment of the plant every two weeks; (b) diameter of the plant; (c) number of leaves; (d) weight of fruits; (e) weight of marketable fruits; (f) computed yield of tomato per hectare; and (g) treatment that will best enhance the growth and yield of tomato plant.

There were five treatments replicated three times in this study. The five different treatments used are as follows: T_0 (control), T_1 (crushed egg shells), T_2 (fish substrate), T_3 (fruit peelings), T_4 (vegetable peelings).

Results show that T_2 (fish substrate) gave the highest mean in terms of height increment of plant every two weeks. This treatment also gave the highest mean in terms of number of leaves per plant, diameter of the stem, number of marketable fruits, as well as in terms of average weight of fruits. It also gave the highest mean in terms of the computed yield per hectare as compared to crushed egg shells, vegetable peelings and fruit peelings.

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INTRODUCTION

The tomato is the edible often red fruit/berry of the nightshade (*Solanum lycopersicum*), commonly known as a tomato plant. The species originated in the South American Andes. It is originally used as a food in Mexico, and spread throughout the world following the Spanish colonization of the Americas. Its many varieties are now widely grown, sometimes in greenhouses in cooler climates. It is consumed in diverse ways, including raw, as an ingredient in many dishes, sauces, salads, and drinks. While it is botanically a fruit, it is considered a vegetable for culinary purposes. The fruit is rich in lycopene, which may have beneficial health effects. It belongs to the nightshade family, *Solanaceae*. The plants typically grow to 1–3 meters (3–10 ft) in height and have a weak stem that often sprawls over the ground and vines over other plants. It is