

**EFFECT OF BIOCHAR APPLICATION FOR IMPROVED GROWTH AND
YIELD OF ONION (*Allium cepa* L.)**

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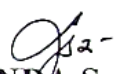
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EFFECT OF BIOCHAR APPLICATION FOR IMPROVED GROWTH AND YIELD OF ONION (*Allium cepa* L.)¹

DENNIS G. DACOCO

ABSTRACT

Background: The field experiment was conducted at the Ramon Magsaysay-Center for Agricultural Resources and Environment Studies (RM-CARES), Central Luzon State University, Science City of Munoz, Nueva Ecija to determine the growth and yield performance of Red Onion using bio-char under pure organic system. The chemical properties of the soil applied with bio-char were also evaluated. **Methods:** The treatments used were (T1) control (no application), (T2) 2 t/ha bio-char + 2.25 t/ha organic fertilizer, (T3) 4 t/ha bio-char + 4.5 t/ha organic fertilizer, (T4) 6 t/ha bio-char + 6.75 t/ha organic fertilizer, (T5) 4 t/ha bio-char (recommended rate/ha), (T6) 4.5 t/ha Organic Fertilizer. The experiment was arranged following the Randomized Complete Block Design (RCBD) with three (3) replications using the Duncan's Multiple Range Test (DMRT). **Results:** Result revealed that weight of bulb per plant, number of bulb per kg, number of marketable bulb, non-marketable bulb, days to maturity and yield per hectare were significantly affected by the application of different treatment evaluated. Better yield of red onion was obtained in treatments consisting of the combination of bio-char and organic fertilizer. **Conclusions:** Based from the result of the study, application of Bio-char at 4 t/ha significantly affect the growth and performance of onion, However, onion crops perform better when Bio-char + Organic fertilizer were combined, resulting to high yield.

Keywords: Red Onion (Red Creole), Bio-char, Organic Fertilizer.

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