GROWTH AND YIELD OF LETTUCE UNDER KRATKY HYDROPONICS USING COCO PEAT MIXED WITH CHARCOAL AND OYSTERSHELL AS GROWING MEDIA

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ABSTRACT

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A study was conducted in March in sitio Balutakay Managa, Bansalan Davao del Sur to investigate the growth and yield of lettuce using Kratky hydroponics. The growing media consisted of cocopeat mixed with charcoal and oyster shell. This study employed a Completely Randomized Design (CRD) consisting of three (3) treatments and five (5) replications. Specifically, the purpose of this research was to identify the growth and yield of lettuce under Kratky hydroponics using cocopeat mixed with charcoal and oyster shell as growing media in terms of plant height, number of leaves, root length and yield.

In terms of plant height, treatment 1 (87.5% (266 g) cocopeat, 7.5% (22.8 g) charcoal, 5% (15.2 g) oyster shell) had the highest mean height with (20.240 cm) while treatment 2 (82.5% (250.8 g) cocopeat, 7.5% (22.8 g) charcoal, 10% (30.4 g) oyster shell) had the lowest mean height with

19.508 cm. In number of leaves, treatment 1 (87.5% (266 g) cocopeat, 7.5% (22.8 g) charcoal, 5% (15.2 g) oyster shell) had the highest mean number of leaves with (15.920 cm) while treatment 3 (77.5%) (5.6 g) cocopeat, 7.5% (22.8 g) charcoal, 15% (45.6 g) oyster shell) had the lowest mean number of leaves with (14.000 cm). In root length, treatment 2 (82.5%), (250.8 g) cocopeat, 7.5% (22.8 g) charcoal, 10% (30.4 g) oyster shell) had the highest mean root length with (20.624 cm) while treatment 3 (77.5%) (5.6 g) cocopeat, 7.5% (22.8 g) charcoal, 15% (45.6 g) oyster shell) had the lowest mean root length with (18.596 cm). Treatment 1 (87.5% (266 g) cocopeat, 7.5% (22.8 g) charcoal, 5% (15.2 g) oyster shell) had the highest mean plant yield with (0.121 kg) while treatment 2 (82.5%), (250.8 g) cocopeat, 7.5% (22.8 g) charcoal, 10% (30.4 g) oyster shell) had the lowest mean of (0.109 kg).

Keywords: *Hydroponics, growing media, lettuce, cocopeat, nutrient solution*