

A Comparative Study of Plant Growth Using Cow Dung Manure and No Manure

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Abstract

This empirical study aimed to find out the soil condition to achieve maximum plant growth using cow dung manure and to compare it with soil without any manure. The experiment was done in an area of 4.5m² divided into six plots of 0.75m². Five plots were with varied percentages of cow dung manure. Plots 1,2,3,4 and 5 were conditioned with 100,50,40,30, and 20 percent of cow dung manure with that of the soil proportion, respectively. However, plot 6 was with no manure. Measurement of the plant's height, leaf's length and width, number of nodes, and branches in all the plots were measured periodically. The researchers identified and measured the different proportion of cow dung manure and its direct impact on the plant growth comparing with the plot with no manure. Results in the plots with 50 and 40 percent of cow dung manure produced healthy and large leaves, growth of the plants were supported with sufficient nutrients and micro-organisms compared to plots 1, 4, and 5. The plot with no manure showed the opposite of all other plots. Implication of this paper was to scientifically determine the right amount of cow dung manure and soil proportion for optimizing plant growth.

Keywords: *cow dung manure, no manure, plant growth, soil proportion*