

Application of Technology Products of Lake Tondano Sediment and Organic Manures (Green Manure and Compost of Water hyacinth (*Eichornia crassipes*), and Poultry Manure) toward the Growth and Yields of Nut Plants

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Abstract : Research has aimed to: 1)determine the composition of Lake Tondano sediment and organic manure as technology products, 2)apply those products as the effort of local resources management fulfilled the requirements for plant, 3)measure the growth and yield of nut plants toward the given organic manures.

This research was conducted on Pot Experimental with application of technology product of Lake Tondano sediment as the mixture of planted media for growth and yield of nut plants (peanut and green pea) by given the organic manures (compost and green manure of water hyacinth, and poultry manure) in the method of Block Random Design. Using the sediment, water hyacinth and poultry manure was focused on this research in order to apply the technology product as the application of science and technology based local policy as the conservation effort to Lake Tondano in North Sulawesi province, Indonesia.

Results showed that: 1)nutrient contents of Lake Tondano sediment for N,P,K were medium and C-organic content was very high and pH was neutral, 2)organic manures (compost and green manure of water hyacinth, and poultry manure) has variation and very high ratio of C/N, and the nutrient contents were fulfilled the requirements in using to apply as technology products, 3)given the organic manures on the mixture of Lake Tondano sediment gave significant effect on the growth and yield of nut plants (peanut and green pea), i.e.: variation doses of organic manures (green manure of water hyacinth of 10 ton/ ha + compost of water hyacinth of 10 ton/ ha + poultry manure of 10 ton/ ha) gave highest value on Pot Experiment. Height of plant and number of leaves increased with the extent of variation doses of organic manures. This experiment could be applied in further Field Experiment planning.

Key words : lake sediment, organic manures, technology products, nuts plant.

M.T.M. Sinolungan E.et al / International Journal of ChemTech Research, 2019,12(1): 249-257.

DOI= <http://dx.doi.org/10.20902/IJCTR.2019.120128>
