

ABSTRACT

EFFECT OF VEGETATION TYPE ON SOUND REDUCTION

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Noise is a form of disturbing sounds, can cause hearing impairment by psychiatric disorders function. So, the increased volume of noise, especially in the urban areas should be reduced. Due to the increasing noise pollution is from human activities is necessary to build a special area or green open spaces that can serve as a buffer from the noise arises. Selection of plant species or vegetation will affect the sound reduction that will occur, as in the area planted crops, weeds or trees would have different effectiveness in reducing noise. This study aims to find out "effect of vegetation type on noise reduction."

This research was carried out by making experiments in 5 areas of research, that is an empty area, agricultural area, reed areas, areas of trees heterogeneous, and homogeneous areas of trees. Making the experiment carried out by making the plot a circle with a diameter of 5 meters and the sampling performed 5 times from each location. The average value of noise reduction that occurred in an empty area amounted to 28.94 dB, the agricultural area of 30.04 dB, reed area of 30.6 dB, an area of trees heterogeneous 30,26 dB and homogeneous area of trees 30,04 dB. The differences that occur due to different types of vegetation filling the area. The density and basal area (area trees) from their respective areas of research is the main thing that affects the size of the noise reduction that occurred. The experimental data were analyzed by analysis of design completely random and test F / Analysis of variance. Based on the analysis that has been done it is known that the F test (11.321) is greater than F 1% (4.431). It is stated that the research hypothesis (H_1), vegetation type effect in the reduction sound, accepted at test level of 1%. While further testing is carried out honestly significant difference test (BNJ) because the value of diversity coefficient ranges less than 10% (1.38%). Based on the test BNJ obtained any recommendations of the best areas in reducing sound is an area of reeds.

Keywords : reduction of sound, vegetation type