

**PHYTOREMEDIATION MERCURY WASTE (Hg<sup>2+</sup>)  
USING VETIVER PLANT (*Vetiveria zizanioides*)  
WITH VARIATION OF WASTE  
CONCENTRATION**

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**ABSTRACT**

One method of dealing with polluted land due to waste contamination is phytoremediation. This research aims to examine the effect of planting vetiver plants (*Vetiveria zizanioides*) on the phytoremediation of waste that contaminated with mercury (Hg) to reduce the impact of environmental pollution due. This research was carried out for three months at the Greenhouse of FMIPA State University of Medan and the laboratory of Baristand of Medan City. This type of research is an experimental study with a completely randomized factorial design. The number of treatment combinations consisted of 3 variety synthetic waste with 2 repetitions of the test. The results were obtained vetiver plants are able to absorb metallic mercury in the planting media contaminated with synthetic waste up to 15,68 mg/Kg for 12 days of exposure. Addition of compost to the growing media as a stimulant is considered to be able to increase the ability of plants to withstand of heavy metal mercury contamination. The accumulation of heavy metal mercury (Hg) by vetiver plants (*Vetiveria zizanioides*) was increased by increasing phytoremediation time.

**Keywords :** phytoremediation, vetiver, *Vetiveria zizanioides*, hyperaccumulator, mercury (Hg)

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