EFFECT OF LEAD ACCUMULATION OF *Phaseolus aureus* (MUNG BEAN) AND ITS TOLERANCE TO DIFFERENT CONCENTRATIONS OF LEAD

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ABSTRACT

This study used 12 pots of *Phaseolus aureus* (mung bean) for all treatments, which were washed and rinsed and planted on pots with clay soil. After three to four days, seeds were germinated and watered-up with different lead acetate concentrations. Additional pots were irrigated with water and used as control. Treatment with different levels of lead acetate concentrations started only when the when the sprouts had grown 3cm. Observation on plant growth and measurement were done at weekly intervals. For the measurement of the morphological characteristics, the meter stick was used for stem diameter. For the determination of lead concentration in seeds, Atomic Absorption Spectrometry was used.

In the course of this experiment, the following were noted. Accumulation of lead acetate in *Phaseolus aureus* (mung bean) might have caused the lowering of seeds, thus reducing growth of plant. Plants that received higher levels of lead acetate concentrations did not grow normally. The treatment with 0%, 25%, 50%, and 75% of 800ppm level, which is the amount often encountered in industrial site cannot be considered as the concentration of lead toxically affects plants and human.

After six weeks of treatment with different lead acetate concentrations, the following were noted: in stem length the plants treated with T0 were the tallest while the shortest were the one treated with T3. In stem diameter, the biggest diameter was the plants treated with T0, while the one treated with 3 was the smallest; and on the color of

leaves, plants treated with T0 and T1 were green in color, while plants treated with T2 and T3 were yellow green.

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