

**IDENTIFICATION OF PLANT AS BIOINDICATOR OF SOIL POLLUTION**

**NORAFIFAH BINTI RAMLI**

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## ABSTRACT

### IDENTIFICATION OF PLANT AS BIOINDICATOR OF SOIL POLLUTION

Soil pollution can be caused by many factors, but the main contributor to this problem is man-made waste. This research project is very important as it gives information to people about contaminated soil in UiTM Pahang and the effect of soil pollution to plants. In this research, three main soil samples were taken from three different places in UiTM Pahang which are Agriculture UiTM, dumping site of solid waste UiTM Pahang and Kem Sri Gading UiTM Pahang to measure of soil quality, identifying the growth performance and observing of mitosis of plant tissue of *Zea mays* and *Allium cepa* to soil pollution. Soil physical was investigated to carry out the factor that contributes to soil contamination. Parameter that was studied in this experiment are pH and water content. Agriculture UiTM Pahang recorded the lowest pH with 5.34 while Kem Sri Gading UiTM Pahang recorded the highest pH with 6.31. Soil water content for Kem Sri Gading UiTM was the highest with 42.24%, followed by agricultural site UiTM with 37.88% .The morphological study in this study is about the color of the leaf, type of root and height of the plant. The best soil are Kem Sri Gading because the color of leaf remains green and not affect the growth performance of the plant. The types of root of *A. cepa* and *Z. mays* are fibrous roots. The cytological study of the root cell of *Zea mays* and *Allium cepa* are determined by the characteristic of the chromosome. The staining with iodine blue is more visible compared to methylene blue. From this experiment, the karyotype studies are not complete because the chromosome number and the chromosome structure are not sharply visible.

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