

**KAJIAN KONSENTRASI LOGAM TEMBAGA DAN SENG PADA TANAH
PERTANIAN SEKITAR TEMPAT PEMROSESAN AKHIR PIYUNGAN,
DAERAH ISTIMEWA YOGYAKARTA**

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INTISARI

Tanaman memerlukan logam tembaga dan seng sebagai mikronutrien untuk pertumbuhan dan perkembangan. Tanaman mendapatkan logam tembaga dan seng melalui tanah, pupuk, dan air irigasi yang mengandung logam-logam tersebut. Pada penelitian ini dilakukan analisis sifat fisika-kimia tanah, penilaian potensi pencemaran pada tanah sawah, dan kandungan logam tembaga dan seng pada tanah, air, pupuk, dan tanaman padi.

Berdasarkan analisis sifat fisika-kimia sebaiknya dilakukan peningkatan terhadap kandungan organik dalam tanah agar kesuburan tanah semakin baik. Ditemukan kandungan logam tembaga dan seng pada batang dan gabah tanaman padi. Hal ini dapat diakibatkan oleh tanah, pupuk, dan air irigasi yang mengandung logam Cu dan Zn. Hasil analisis penilaian indeks beban polusi (PLI) termasuk kualifikasi tidak tercemar dan indeks potensi risiko ekologi (RI) tergolong rendah.

Kata kunci: lingkungan, seng, tanah, tembaga.

*STUDY OF COPPER AND ZINC METALS IN AGRICULTURAL SOIL AROUND
THE PIYUNGAN LANDFILL, SPECIAL REGION OF YOGYAKARTA*

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ABSTRACT

Plants require copper (Cu) and zinc (Zn) as micronutrients for growth and development. They obtain copper and zinc from the soil, fertilizers, and irrigation water. This research involved an analysis of the physicochemical properties of the soil, an assessment of potential contamination in the paddy fields, and the content of copper and zinc in the soil, water, fertilizers, and rice plants.

Based on the analysis of the physicochemical properties, it is recommended to increase the organic content in the soil to improve soil fertility. Metal content of copper and zinc has been discovered in the stems and grains of rice plants. This could be attributed to the copper and zinc content in the soil, fertilizers, and irrigation water. The analysis results of Pollution Load Index (PLI) assessment indicate an uncontaminated qualification, and the Ecological Risk Index (RI) is classified as low.

Keywords: copper, environment, soil, zinc.