



Emisi kendaraan bermotor yang mengandung logam Pb akan menimbulkan pencemaran tanah. Penelitian ini bertujuan untuk mengetahui perbedaan kandungan logam Pb dalam tanah di lahan pertanian dan lahan non pertanian, mengetahui tingkat kandungan Pb dalam tanah berdasarkan jarak dari tepi jalan dan kedalaman tanah serta mengetahui pengaruh bahan organik dan pH terhadap kandungan Pb dalam tanah.

Sampel tanah diambil di sekitar RingRoad Selatan Yogyakarta menggunakan metode *stratified sampling* dan *purposive sampling*. Titik pengambilan sampel dibagi berdasarkan jarak dari tepi jalan yaitu 5 m, 15 m, 30 m dan kedalaman tanah yaitu 4 cm dan 8 cm dan sebagai kontrol diambil pada jarak 250 m.

Hasil penelitian menunjukkan bahwa rata-rata kandungan Pb pada tanah di lahan non pertanian adalah  $38,981 \text{ mg kg}^{-1}$  sedangkan pada tanah di lahan pertanian  $31,183 \text{ mg kg}^{-1}$ . Hal ini berarti kandungan logam Pb lebih besar pada tanah di lahan non pertanian dibandingkan pada tanah di lahan pertanian, karena pada tanah di lahan non pertanian permukaan tanah tertutup oleh bangunan dan vegetasi sehingga akan menghambat jatuhnya partikel yang mengandung logam Pb ke permukaan tanah. Adanya bangunan dan vegetasi juga akan mempengaruhi turbulensi angin yang mendispersikan dan mendistribusikan logam Pb ke permukaan tanah. Kandungan logam dalam tanah cenderung berkurang dengan bertambahnya jarak dari jalan raya dan kedalaman tanah, karena partikel logam Pb akan menjadi sumber pencemar (jalan) mengikuti arah angin dan logam Pb akan terakumulasi pada permukaan tanah (*topsoil*), pergerakannya ke bawah sangat jarang.



Vehicles emission which contain of leads will make soil pollution. The aims of this research are : 1) to know the differences of leads content in soils between agriculture and non agriculture land; 2) to know the content rate of leads in soil according to the distance from the road side and soil depth and; 3) to know the influence of soil i.e. organic matter and pH.

The sampling soil around of Yogyakarta's Southern Ringroad were taken with stratified and purposive sampling methods. There are five sampling sites and divided according to it's distance from the road i.e. 5 m, 15 m, 30 m and 250 m as a control, and the soil depth i.e. 4 cm and 8 cm.

The results of this research shows that the mean of leads in soils of non agriculture land is  $38,981 \text{ mg kg}^{-1}$ , whileas in agriculture is  $31,183 \text{ mg kg}^{-1}$ . It means that the soil pollution which caused by vehicles emission in non agriculture land is higher than in agriculture. It is considered because in non agriculture land is covered by buildings and vegetation, so it will inhibite the fall of particles which content of leads onto the surface of the soil (topsoil). It also influence the wind turbulence which disperses and distributes leads onto the surface of the soil (topsoil). The leads content in soil were inclined decrease according with the distance from the road and soils depth because the lead particles will become the source of pollution following the direct wind and the leads will accumulated in topsoil, the movement into the subsoil is very slow.

**Keywords :** leads, agriculture, non agriculture, pollution