

UTAB: A NEW COMPUTER DATABASE FOR INFORMATION ON HEAVY METAL DATA IN PLANTS¹

by

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Abstract. The UTAB database currently contains information on the uptake, translocation, and accumulation of xenobiotic organic chemicals by vascular plants. UTAB is now being expanded to contain data on the uptake of heavy metals by plants. UTAB can be used to estimate the accumulation of toxic metals in vegetation and their subsequent movement through the food chain. Presently, it contains 2550 bibliographic references on metals covering the period 1976-1989. This covers a wide variety of topics but at least 100 papers deal with heavy metal uptake by plants in unreclaimed or reclaimed mine lands. Twenty metals have been included, involving all 13 metals on the US EPA's list of priority pollutants. Each record in the data file will contain information on a single plant species, metal, and dose combination. Other information will identify the plant parts accumulating the metals, the amount accumulated, and the period of exposure. The parameters data field can identify studies as reclaimed or unreclaimed mines, the use of sludge, pollution from ore refineries, and even normal metal content in vegetation. Thus the database can be used to obtain specific data on a plant species or metal without a time consuming library search.

¹Paper presented at the 1991 National Meeting of the American Society for Surface Mining and Reclamation, Durango, CO, May 14-17, 1991.

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