

experiment, arrangement, and the analysis. The results show that the active ingredient is absorbed by the plant neither through the leaves nor the roots. Animals that take in the active ingredient, perhaps during harvesting time as residue on green fodder, very rapidly excrete it almost completely with the dung. Small amounts which are absorbed are partly discharged in the urine, partly distributed over the whole body, broken down, and within a few weeks also excreted. A graphical analysis of the excretion curves shows that the active ingredient leaves the body with a biological half life of 20 hours while its metabolic products have a biological half life of 8 or 70 days, the latter being attributed to inorganically bound tin.

-- Nuclear Sci. Absts.

- 359 Effect of Zirconium Citrate on Early Femur Uptake and Urinary Excretion of Radioisotopes. B. Kawan. Health Phys. 9, 1031-1034 (Nov. 1963).

Effects of single intraperitoneal administration of non-radioactive zirconium citrate on femur uptake and urinary excretion of either simultaneously injected intravenous Ce-144, Pu-239 (VI) or Y-90 were compared in rats during the initial post-injection hour. Zirconium treatment was associated with increased plasma disappearance of Pu-239. Comparisons in control and treated animals indicate that zirconium citrate treatment has no effect to alter rates of femur deposition for the early time interval studied, and that it enhances urinary excretion of Ce-144 and Y-90, with only a very small effect on Pu-239 excretion.

-- Nuclear Sci. Absts.

- 360 The Work of an Occupational Hygiene Service in Environmental Control. R.I. McCallum. Ann. Occ. Hyg. (London) 6, 55-64 (April June, 1963).

Industrial hygiene services which deal with industry as a whole face difficulties arising from widely varied industries, their geographical position, and the different outlooks of individual firms. The work of the North of England Industrial Health Advisory Service is briefly described. Among other problems, it is at present concerned with lead absorption and poisoning in burners in the shipbreaking industry, and skin irritation and pneumoconiosis in antimony process workers. Studies were made in which the data indicated an excessive amount of lead to be present in shipbreaking yards. There are between 20 and 24 such yards scattered around the coast of Britain, employing between 6 and 60 burners each. Burning through steel plate and girders with oxyacetylene torches was introduced in 1918 as a method of reducing the size of metal pieces as naval vessels were scrapped. The method is currently the same except that the fuel may now be propane or coal gas. The high temperature of the flame vaporizes the lead in the paint work. Air samples taken at 2 shipbreaking yards showed the levels of lead to be considerably above the maximum allowable concentration of 0.2 mg/cu.m even in the open yard where conditions were such that one would expect good natural ventilation. Samples taken during the breaking up of a tanker show that there may be little difference between the amount of lead in air when burning is done aboard ship (1.54—1.72 mg./cu.m.) as compared with the open yard (1.15—2.16 mg/cu.m.) and that there was an excessive amount of lead in the air of the yard as a whole and that it often persisted for some time after work had ceased.

-- APCA Absts.

- 361 Environmental Factors in Childhood Lead Poisoning. R.C. Griggs, et al. J. Am. Med. Assn. 187, 703-707 (March 7, 1964).

In a series of 906 children contacted by door-to-door survey, information was obtained on pica and environmental factors related to lead poisoning, and urine samples were analyzed. Urine was abnormal for lead and coproporphyrin in 216 of 801 children living in old housing and in 3 of 105 children of similar socio-economic background living in a new housing project. Thirty-eight children from old housing, but none from new housing, had significant evidence of lead intoxication. A history of pica for paint, dirt or plaster was obtained more frequently in the old housing but was not an adequate screening test for lead intoxication. Flaking paint on the inside of the home was the environmental factor most frequently associated with an abnormal urine.

-- Authors' abst.

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