

- 568 Nine Years' Toxicity Control in Insecticide Plants. I. Hoogendam, J.P.J. Versteeg, and M. de Vlieger. Arch. Environmental Health 10, 441-448 (March, 1965).

More than 300 workers have been employed in the Royal Dutch/Shell plants in Pernis manufacturing aldrin, dieldrin, and endrin over periods up to nine years. These workers have been under thorough medical supervision, including periodic electroencephalographic examinations and liver function tests. Seventeen of them had convulsive intoxications. Fifteen of these 17 had more than one convulsion each. Clinical, neurological, and electroencephalographic recovery has been rapid and complete in all cases after removal from exposure, though at times this was only temporary. No impairment of liver function could be detected. The pattern and rate of absenteeism is not different from that of other industrial workers. The maintenance and supervision of hygienic discipline and selection in personnel placement are important factors in controlling toxicity hazards. -- Authors' summary.

- 569 Bird Mortality after Spraying for Dutch Elm Disease with DDT. C.F. Wurster, Jr., Doris H. Wurster, and W.N. Strickland. Science 148, 90-91 (April 2, 1965).

In Hanover, New Hampshire, where elms were sprayed with DDT, 151 dead birds were found; 10 dead birds were found in Norwich, Vermont, where no DDT was used. Chemical analyses of dead birds, observation of symptoms of DDT poisoning, and a population decline after spraying all indicate severe mortality among certain species in Hanover. -- Authors' summary.

INDUSTRIAL DUSTS

- 570 Asbestosis and Pulmonary Carcinoma. F.R. Dutra and J.D. Carney. Arch. Environmental Health 10, 416-421; editorial comment 422-423 (March, 1965).

Asbestosis is a chronic progressive pulmonary disease which results from irritation of the lungs by crystalline asbestos fibers. The disease is often unsuspected clinically because the occupational exposure to dust containing asbestos fibers has not been elicited, and because the chest films may not be diagnostic even in the presence of disabling abnormality. In asbestosis, pulmonary and subpleural fibrosis distort the lungs and lead to respiratory insufficiency. Squamous metaplasia of the bronchial epithelium is induced by the irritating fibers, and in some cases there is progression to squamous cell carcinoma of the lung. Pleural mesothelioma is also reported, particularly in cases of asbestosis in South Africa. -- Authors' summary.

- 571 Pulmonary Function of Uranium Miners. V.E. Archer, H.P. Brinton, and J.K. Wagoner. Health Physics 10, 1183-1194 (Dec. 1964).

Analysis has been made of several ventilatory function field measurements made on uranium miners in 1957 and in 1960. Results show that cumulative exposure to the atmosphere in uranium mines adds to the loss in ventilatory function that results from aging and from cigarette smoking. The data indicate that high radon daughter levels are associated with transient improvement in ventilatory function. Two possible explanations of this "transient improvement" are discussed. Long exposures within uranium mines are definitely detrimental to ventilatory function. There are 34 references. -- Public Health Eng. Abstr.

- 572 Error in the Determination of Average Concentration of Dust as a Function of the Number of Individual Measurements. J. Juda and K. Budzinski. Staub 24, 283-287 (Aug. 1964). German.

The strong dependence of dust concentration on time leads to difficulties in the determination of the average value. A formula which reproduces the sum frequency of the dust concentration distribution with sufficient accuracy is given. The relationships for the tolerance in determination of the average value are derived and the results are shown in a diagram. -- APCA Abstr.