92 Odor Control in Cattle Feed Yards. W.L. Faith. J. Air Poll. Control Assn. 14, 459-460 (Nov. 1964).

Commercial cattle-feeding is a large industry in the United States. In California, for instance, there are more than 500 commercial feedlots. Each of these lots handles from less than 500 to more than 50,000 head of cattle at one time. With the urban and suburban explosion, feedlots that were at one time many miles from residential centers are now "just across the street." Naturally the high odor level from improperly operated yards gives rise to considerable complaint and citizen indignation. A variety of methods to reduce odor to an acceptable level have been tried with varying results. A highly satisfactory procedure is based on "good housekeeping" practices, frequent removal of fecal material, and abatement of residual odor by spraying the lots at designated intervals with a solution of potassium permanganate. Details of the method are discussed. -- Author's abst.

93 Plant Damage Caused by Irradiation of Aldehydes. I.J. Hindawi and A.P. Altshuller. Science 146, 540-542 (Oct. 23, 1964).

The report that damage to petunia has been correlated with the presence of aldehydes in the atmosphere is discussed in relation to recent laboratory findings. Laboratory investigations have shown that irradiation of formaldehyde in air will not cause plant damage to the varieties of petunia, pinto bean, and tobacco wrapper used, even when nitrogen oxide is added to the system. Irradiation of propionaldehyde in air does cause damage to these plants. Addition of nitrogen oxide to the irradiated propionaldehyde-in-air system does not markedly increase damage. -- Authors' abst.

94 What is the Role of Air Pollution as a Cause of Disease? T.M. Gocke. Am. J. Public Health (Suppl.) 54, 71-78 (Jan. 1964).

Limited studies done in Jersey City, where relatively high levels of sulfur dioxide concentrations have been recorded, demonstrate evidence of an excess mortality of such chronic lung diseases as cancer of the lung, chronic bronchitis, and pulmonary emphysema. In addition, epidemiologic studies have indicated high rates of chronic respiratory symptoms among a selected male population in this community. Included in the type of chronic air pollution that is experienced in Jersey City and elsewhere, one must add that of pollution associated with cigarette smoking. One of the future studies will be to determine the relationship between air pollution and respiratory infection among men, who already have been selected in Jersey City, both those who have chronic respiratory symptoms and those who at this time are free from such symptoms. The type of bronchial reaction produced by irritants in the air, cigarette smoke, and bacterial infections are quite similar. Whether the initial lesion of chronic bronchitis is the result solely of infection or bronchial irritants is yet unknown. -- APCA Absts.

95 Practical Applications of Stacks to Minimize Pollution Problems. J.A. Brink, Jr. and B.B. Crocker. J. Air Poll. Control Assn. 14, 449-454 (Nov. 1964).

"Rules of thumb" for stack design have been developed for use on problems where extensive studies cannot be justified or where quantitative design data are unavailable. The application of these rules to a practical stack design problem is discussed. The IBM 704 computer has been used for rapid yet rigorous stack design studies. The computer procedures for design are discussed and its application to a practical problem is described in detail. -- Authors' abst.

96 The Prediction of the Rise of a Hot Cloud from Field Experiments. I.A. Singer, J.A. Frizzola, and M.E. Smith. J. Air Poll. Control Assn. 14, 455-458 (Nov. 1964).

The rise of a hot cloud resulting from combustion of a solid propellant rocket fuel at ground level has been determined from lapse-time movies and visual aircraft observations. The field tests were conducted near a 420-foot meteorological tower under various atmospheric conditions. A method of predicting the maximum thermal rise of a cloud, based on source and meteorological parameters, is described. Comparisons with other theoretical formulations are presented. -- Authors' abst.

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