The utilization of night-soil as a manure in China

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Night-soil has been widely used as a manure in China for more than two thousand years, yet the practices involved in its collection and utilization are antiquated and result in a high incidence of dangerous intestinal diseases as well as the loss of a considerable part of its nitrogen (3, 4, 5). However, without it, Chinese agriculture could scarcely continue at the present level of productivity. Thus, the use of night-soil in agriculture is a matter of importance not only to the agriculturists, but to the medical profession and the community as a whole. In the course of chemical and agricultural investigations of the nitrogen conservation in night-soil, data have been accumulated and information has been obtained about the methods of collection and utilization of this material in North and South China. The summary of this information given in this paper will be of some interest to both agriculturists and public health authorities.

Agriculturally, China may be divided into two major regions, the wheat-growing areas of North China and the rice-growing areas of Central and South China (1). In the wheat-growing areas, the feces are dried into cakes and then applied to the soil, while most of the urine is discarded. In Central and South China, the mixed feces and urine are collected and utilized in the liquid or semiliquid state. Because of this difference in practice, it is more convenient to discuss the utilization of night-soil in these two regions separately.

Utilization of night-soil in North China

In the rural areas of North China, the human excreta, including some portion of the urine, are added to the animal manure and other refuse in pig pens and is thus prepared for use on the land. Where pigs and other animals are less numerous as in towns and cities a quite different method is used. The solid excreta are collected

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2 Soil Chemist.
3 Figures in parenthesis refer to "Literature Cited", p. 579.