Thesis Title	The Retention Time for Plain Sedimentation of *Ascaris* Eggs in Night Soil Anaerobic Digester
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ABSTRACT

The retention time for plain sedimentation of *Ascaris suum* eggs in a night soil anaerobic digester was studied. The mixtures of *Ascaris* eggs in distilled water and in night soil with various concentrations of total solids of 3,746, 7,506, 11,383, 15,962 and 21,046 milligrams/litre were settled by plain sedimentation in an anaerobic digester. The digester is a plastic cylinder 13 centimetres in diameter , 115 centimetres in height, and 13.28 litres in volume. The retention time was tested at various intervals : $\frac{1}{2}$, 1, $1\frac{1}{2}$, 2, 4, 8, 24, 48 and 72 hours. The optimum time was 48 hours; then the plain sedimentation of *Ascaris* eggs in the night soil digester resulted 97 percent for the distilled water and 80, 80, 50 and 50 percent supernatant without *Ascaris* eggs for the four lowest concentrations. On the other hand, for the same time period, batch treatment with night soil concentration of 21,046 milligrams/litre resulted in supernatant without *Ascaris* eggs for only 10 percent of the digester volume. According to the results of the experiment, the lesser concentration of night

soil usually required lesser retention time, and vice-versa. However, the most appropriate retention time for plain sedimentation to obtain a supernatant without the formation of *Ascaris* eggs in 50 percent or more of the digester volume, is determined to be 48 hours with night soil concentration of 15,962 milligrams/litre or less.