

CASE STUDY DESCRIPTION



Institute name: University of KwaZulu-Natal

Unit of relevance: Sub-course 2 (Unit 2.2 – Treatment Mechanisms)

Link to video: https://youtu.be/FRzK_HsNfl8

TITLE: Case Study on the LaDePa Process (South Africa)
DURATION: 7:00 minutes
PROBLEM STATEMENT: Disposal of pit latrine sludge is a major health and environmental problem in the Third World. Additionally, the sludge contains phosphates (a critical but diminishing resource) and other nutrients, which are generally wasted in current disposal methods.
DESCRIPTION: This case study presents the work performed on the lab scale prototype to characterise the LaDePa process which was designed for the safe reuse of faecal sludge entire faecal sludge management chain from pit emptying to faecal sludge treatment using the LaDePa machine. The LaDePa (Latrine Dehydration and Pasteurisation) which is a machine that provides a containerized method of processing sludge in order to produce a nutrient rich soil conditioner. The technology removes the detritus, pasteurizing and drying the sludge to beyond the sticky phase. The LaDePa is a low tech machine and would suit many low-income countries where a substantial number of people depend on pit-latrines and has the potential to provide both business and work experience for the low skilled people.
PRESENTATION STYLE: The video is based on footage from the field and from the labs at the University of KwaZulu-Natal.
TAKE HOME MESSAGE: The data from the case study contributes to a better understanding of optimization of the LaDePa process and to the evaluation of the reuse of the processed pellets in agriculture or as a biofuel.