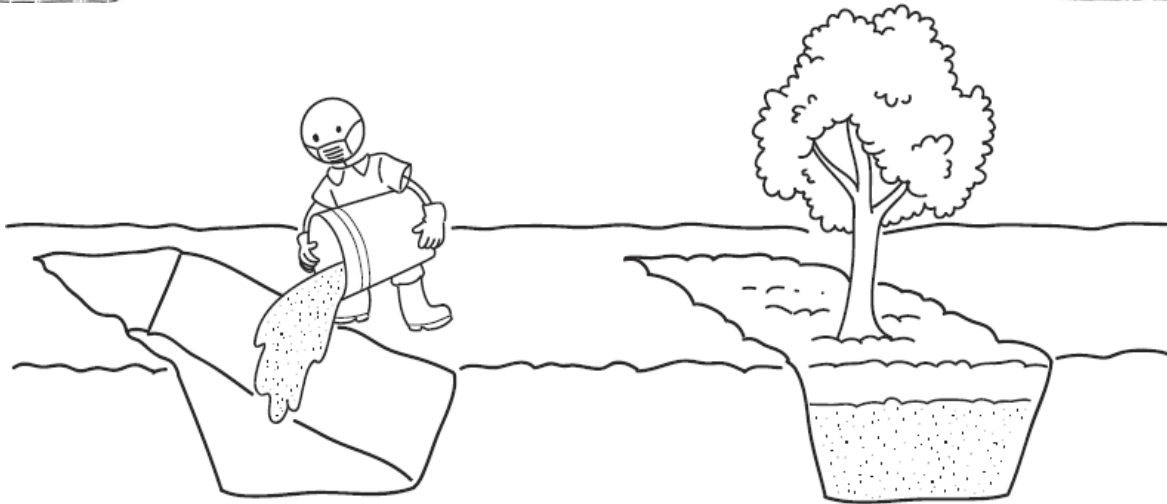




Deep Row Entrenchment



Deep row entrenchment (Credit: CAWST)



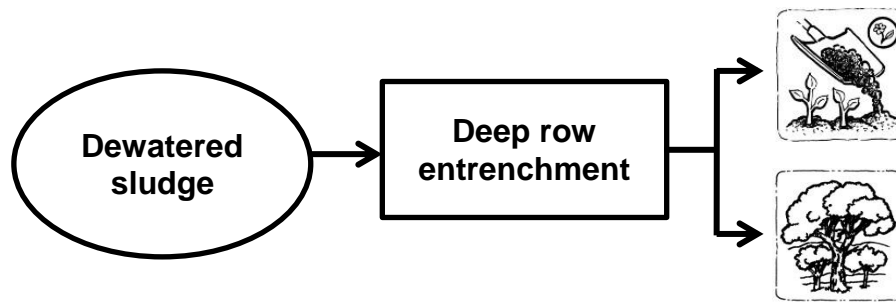
Deep row entrenchment of pit latrine faecal sludge in Durban, South Africa
(Credit: Jay Bhagwan, Water Research Council South Africa in Strande et al., 2014)



- **Design:** Deep row entrenchment is a method of disposal and use as a soil amendment. It requires careful design and operation to not contaminate groundwater.
- **Operation:** Deep row entrenchment is done in batches. Untreated faecal sludge is placed in trenches and then covered with soil. Trees are planted on top or next to the trench.

The length and the depth of the trench depend on the highest groundwater level and the quantity of faecal sludge. The trench can be lined, for example with a layer of clay, to reduce the risk of groundwater contamination.

- **Time and energy required:** Deep row entrenchment needs low amounts of energy.

Treatment Technology Description



Treatment Objectives	Pathogen Inactivation	Low
	Dewatering	Low
	Stabilization/Nutrient Management	Yes
Pathogen Inactivation		<ul style="list-style-type: none"> • Pathogens are inactivated through storage.
Level of Development		<ul style="list-style-type: none"> • Has been implemented at full scale for faecal sludge treatment. There is experience in design, operation, and maintenance.

References

Strande, L., Rontelap, M. & Brdjanovic, D. (2014). *Faecal sludge management: Systems approach for implementation and operation*. London, UK: IWA Publishing. Retrieved from www.sandec.ch/fsm_book