Water percolation improvement

- Tunneling and improvements to the physical structure of soils have a "flow-on" effect which can include:
  - Improved water infiltration reduces surface ponding, assists agricultural inputs (lime, fertilizers) to enter the upper soil profile and reduce the level of contaminants entering the waterways… (Waterhouse 1974; Bormemissza 1976; Doube 2005b)
  - …which leads to improved water quality (Doube 2008)

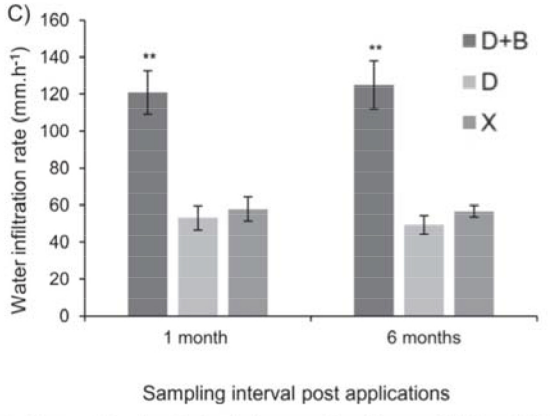

Fig. 1. Mean ± SE values for A – herbaceous plant biomass yield ($g.m^{-2}$), B – herbaceous plant crude protein content (%) and C – water infiltration rate ($mm.h^{-1}$) measurements taken one and six months post the applications of dung and beetles. Treatments were: dung + dung beetles (D + B; n = 4); dung only (D; n = 4); and control/no dung, no dung beetles (X; n = 4) [$*p \leq 0.05$; $**p \leq 0.01$].

Badenhorst et al., 2018. Dung beetle activity improves herbaceous plant growth and soil properties on confinements simulating reclaimed mined land in South Africa. Applied Soil Ecology 132:53-59