

Evaluating the effectiveness of alginate extracts on wound repair of the redworm (*Eisenia fetida*)

In this study, the effectiveness of alginate extract on wounded redworms, *Eisenia fetida*, was investigated. Twenty redworms were lacerated and subjected to different concentrations of alginate extract to determine which concentration best facilitated wound repair. Wounds were observed over a period of 12 hours and measurements were taken using SPOT Insight software. It was determined that a 5% alginate concentration resulted in significantly slower wound repair with larger surface area (mm²) and longest width (mm) measurements of the wounds than those in the control, 2.5%, and 7.5% treatments. The 5% alginate treatment also had significantly higher length (mm) measurements than the control and 7.5% treatments. The control was significantly lower than all other treatments when looking at the longest lengths, and the 2.5% and 5% treatments when looking at surface area. This study using simple organisms can be utilized for more complicated research understanding the mechanisms of wound healing in humans.