

## Soil Preference of *Eisenia fetida* (common name: red wiggler)

*Eisenia fetida* play an integral role in ecosystems as decomposers of organic matter. Their ability to recycle nutrients and aerate the soil is vital for soil and plant health. This research was two-fold. First, three different soil options were tested to determine if *E. fetida* had a preference. This was done to determine which soil would be appropriate for the second portion of the study. Second, *E. fetida* preference of varying soil pH levels, 4, 5, 6, and 7, was examined. An acute avoidance test adapted from standard methods was used for both aspects of the research. It was determined that the *E. fetida* had a significant ( $p < 0.05$ ) preference for Natures Care® organic potting mix. When testing pH preference it was determined that that *E. fetida* showed a significant preference ( $p < 0.05$ ) for soil with a pH of 6.0. This knowledge may be very valuable to those who are attempting to maintain cultures of *E. fetida* for composting purposes. It is also very valuable for areas that may experience acid rain events that cause soil pH levels to become more acidic than a pH of 6.