A positive relationship between P/Ca and pH (r = 0.689, p < 0.000) was noted between TDS and pH (r = -0.689). In summary, there were significant correlations between the amount of extractable P, Fe, and Ca, and pH with that of the TDS.

### RESULTS AND DISCUSSION

**Materials and Methods**

**Pig Cadavers**

Twenty pig (Sus scrofa) cadavers of two average weights (29.7 and 63.8 kg) were buried at two depths (30 to 60 or 100 to 150 cm) in loamy, siliceous, subactive Paleudult soil (hernic, coated Aquic, Quartzipsamment) and a Spez soil (loamy, siliceous, subactive, hypersalic Aquic Acrisol) in north-central Florida. The soils were sampled at 10 cm intervals before burial and the graves were excavated at the termination of each monitoring period to collect post-burial soil samples. The results indicate that regardless of the cadaver scenario there was a limited soil area (30-30 cm) near the pig remains that was affected by decomposition and diagenesis. The highest differences of extractable P, Ca, and Fe were in soils sampled directly under the cadavers. The soil data were then compared with the total decomposition score (TDS) to determine if there was a significant relationship between the two variables. A highly significant, negative relationship was noted between TDS and pH (r = -0.689). Surprisingly, there were also increased levels of Fe. Since Fe is not a major mineral in the body, it was not deposited in the soil through decomposition and diagenesis. While no significant correlation existed between Fe and Ca (r = 0.571, p = 0.013) and the TDS (r = -0.571, p = 0.013), a significant relationship exists between and Fe (r = 0.337, p = 0.013). In other words, higher the concentration of P, the higher the levels of Fe. Since increased Fe is not coming from diagenesis but rather from the added P in the soil solution by bounding with the increased P in the soil solution. These results show that the buried bodies are not being detected by GPR, but a contaminating area around the skeleton that includes the bones and leached calcium from the body tissues that are retained in the soil.

**Conclusion**

Overall, there were significant correlations among P/Ca, pH levels and the TDS. The highest values of P/Ca high P and Fe and Ca were sampled for cadavers with low TDS or those that retained extensive soft tissues. Conversely, the lowest values of (P/Ca) high P and Fe and Ca were noted for cadavers with low TDS. The soil solution test indicated that the P and Ca were not deposited in the soil through decomposition and diagenesis. While no significant relationship existed between Fe and Ca, the highest values of P/Ca (high P and low Ca) and pH were sampled for cadavers with low TDS. The P and Ca were not deposited in the soil through decomposition and diagenesis. While no significant relationship existed between Fe and Ca, the highest values of P/Ca (high P and low Ca) and pH were sampled for cadavers with low TDS. The P and Ca were not deposited in the soil through decomposition and diagenesis. While no significant relationship existed between Fe and Ca and the TDS (r = -0.337, p = 0.013), a significant relationship exists between Fe and Ca (r = 0.337, p = 0.013). In other words, higher the concentration of P, the higher the levels of Fe. Since increased Fe is not coming from diagenesis but rather from the added P in the soil solution by bonding with the increased P in the soil solution. These results show that the buried bodies are not being detected by GPR, but a contaminating area around the skeleton that includes the bones and leached calcium from the body tissues that are retained in the soil.

**LITERATURE CITED**


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