ABSTRACT

Precision agriculture is a rapidly developing set of technologies that aids management decisions in agricultural entities. Fertility and lime management is directly impacted by precision agriculture through the application of variable-rate technology (VRT). This allows for the rate of application of one or more materials to be adjusted based on positioning information and predetermined application rates. The basis for VRT is soil sampling. In this study, multiple precision agriculture grid and zone-based soil sampling methods and procedures are utilized on a farm in northeastern North Carolina. The results from these soil sampling methods are evaluated against the results of a “gold” standard sampling method. The findings will potentially begin to determine one or more best suited soil sampling methods for northeastern North Carolina, while also potentially eliminating ineffective ones.