Table 1. Listing of Past and Future Research Efforts Showing Progression of Objectives

Phase 1 of NC-174, Years 1983 to 1988

1. Identify and document the effects of erosion on soil properties and crop yields using field plots and models.

Phase 2 of NC-174, Years 1988 to 1993

1. Continue assessing the effects of erosion on soil properties and crop yields using field plots and models.
2. Evaluate methods for the maintenance and/or restoration of soils productivity of previously eroded soils as evidenced by the field studies and/or model prediction.

Phase 3 of NC-174, Years 1993 to 1998

1. Continue to evaluate methods for the maintenance and/or restoration of soils productivity of previously eroded soils as evidenced by the field studies and /or model prediction.
2. Develop soil quality standards for agricultural soils being degraded by tillage and erosion which utilized soil property and productivity parameters and threshold values.

Phase 4 of NC-174, Years 1998 to 2003

1. Determine erosional and landscape impacts on soil processes and properties.
2. Assess management effects on eroded soil productivity and quality of soil, air and water.

Phase 5 of NC-1017/NCT-199, Years 2004 to 2009

1. Determine spatial C distribution and dynamic in soils of eroded landscapes including 3-dimensional model assessments for better quantification.
2. Assess management (cropping systems, amendments and tillage) effects on C sequestration, productivity and soil quality including the importance of no-tillage on increasing C sequestration in eroded soils.

Phase 6 of NC-1017TEMP/NC-1017

1. Assess management effects on C sequestration and soil productivity including the impacts of crop residue removal on soil organic carbon (SOC) levels and erosion.
2. Determine spatial C distribution and dynamics in the soils of eroded landscapes for better quantification of erosion impacts on soil carbon loss and sequestration.