Conservation tillage tobacco production has gained little producer acceptance since introduction in the late 1960’s. Yield reductions, tobacco quality issues, unacceptable weed control, and inadequate planting equipment limited practice adoption and substantiated the need for continued research. The recent developments of a Subsurface Tiller-Transplanter™ and the herbicide Spartan™ renewed producer interest in conservation tillage and led to an investigation with both flue-cured and Virginia dark-fired tobacco. Flue-cured tobacco was transplanted into rye mulch on bedded rows and subsequently cultivated at various timings. Conservation tillage significantly reduced soil erosion approximately 92 percent and tobacco yield approximately 23 percent when row cultivation was not applied. Row cultivation significantly increased tobacco yield without increasing soil erosion. The yield of conservation tillage tobacco receiving a minimum of two cultivations was similar to conventional tobacco.

The second study evaluated wheat, rye, crimson clover, and mixtures of crimson clover with either wheat or rye as cover crop mulches for conservation tillage production of Virginia dark-fired tobacco. Conservation tillage, regardless of cover crop, reduced dark-fired tobacco yields approximately 779 and 488 pounds per acre in 1996 and 1997, respectively. The removal of cover crop residue for hay did not lower tobacco yield.
compared to leaving residue on the soil surface. Row cultivation increased conservation
tillage tobacco yield approximately 247 pounds in 1997 regardless of cover crop. The
nitrogen contribution of crimson clover was minimal in both years of the study and did
not affect tobacco performance.