

**IMPACT OF EARLY SEEDLING INFECTION BY THE ROOT-KNOT
NEMATODE ON COTTON GROWTH, DEVELOPMENT, AND YIELD****J.A. Still****University of Arkansas****Fayetteville, AR****M.A.C. Penteado****SLC Agricola****Costa Rica/MS****T.L. Kirkpatrick****University of Arkansas****Hope, AR****Abstract Only**

In addition to seedling disease, plant-parasitic nematodes may also impact the growth and development of cotton seedlings. The impact of seedling infection by the root-knot nematode on season-long growth, development, and yield of cotton plants was studied in microplots in 2004 and 2005. When nematodes were present in the soil either at the time of planting or within two weeks of planting, seedling growth and development was suppressed. The effects of nematode presence during the early seedling phase resulted in delayed onset of fruiting, slower crop development, delayed maturity, and suppressed yields in comparison with plants that were not challenged by the nematodes until three or four weeks after planting. When nematode infection occurred during the first two weeks of seedling growth, mature plants produced fewer sympodia, and fewer bolls, and boll opening was delayed by approximately one week.