

INTEGRATED MANAGEMENT OF THE SOUTHERN ROOT-KNOT NEMATODE WITH RESISTANT COTTON VARIETIES AND NEMATOCIDES IN APPLING COUNTY, GEORGIA**D.S. Curry****University of Georgia Coop. Ext.****Baxley, GA****R.C.Kemerait****Dept. of Plant Pathology, University of Georgia****Tifton, GA****Abstract**

The southern root-knot nematode (*Meloidogyne incognita*) is the most widespread nematode affecting cotton in Georgia and is a significant problem in Appling County. With the loss of Temik, growers require new options to manage nematodes. This large-plot, on-farm study was conducted in 2012 with objectives of assessing fumigation with 1,3-dichloropropene (Telone II) and use of multiple varieties, to include Phytogen 367 WRF which has partial resistance to *M. incognita*. Two studies were conducted, each a randomized complete block with three replications. In each study, each variety was planted to ground that had or had not been pre-fumigated with Telone II (3 gal/A). Varieties in Test 1 included Phytogen 367 WRF, Phytogen 375 WRF, and Phytogen 499 WRF. Varieties in Test 2 included DPL 1048 B2RF, DPL 1050 B2RF and Phytogen 499 WRF. In Test 2, use of Telone II increased yields by 440, 222 and 148 lb/A for varieties PHY 499, DPL 1050, and DPL 1048, respectively. In Test 1, use of Telone II increased yields by 112, 127, and 12 lb/A for PHY 499, PHY 375 and PHY 367, respectively. In Test 1, root damage and final nematode counts were reduced when PHY 367 was planted. In Test 2, use of Telone II generally reduced both final root gall ratings and final nematode counts for all varieties.