

**REPRODUCTION TESTS OF GEOGRAPHIC POPULATIONS  
OF RENIFORM NEMATODE FROM THE U.S.**

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The intraspecific variation of reniform nematode (*Rotylenchulus reniformis* Linford & Oliveira 1940) is an important aspect to consider when breeding for resistance in cotton. The objective of this work was to measure reproduction of geographic populations of reniform nematode on selected hosts. Thirteen populations (2 from Alabama, 2 from Arkansas, 1 from Florida, 1 from Georgia, 2 from Hawaii, 1 from Louisiana, 1 from Mississippi, 1 from North Carolina, 1 from South Carolina, and 1 from Texas) were studied in the greenhouse to determine variation in reproduction among them. The means of reproductive index values ( $R = Pf/Pi$ ,  $Pi = 3000$  vermiform individuals/500 c.c.) and ranges (in parenthesis), after 60 days, were 20.56 (0.10 - 97.92) on Soybean cv. Braxton, 2.12 (0.14 - 16.51) on Soybean cv. Forrest, 12.81 (0.05 - 80.32) on Cotton cv. Deltapine 50, 0.37 (0.05 - 2.3) on a *Gossypium longicalyx* x *G. hirsutum* hybrid, and 0.49 (0.05 - 1.87) on fallow soil. Marked differences among populations, particularly in their range of variation and sometimes in host preferences, became apparent. The populations from Louisiana and Texas appeared to prefer cotton over soybean, and the one from Georgia preferred soybean. A relative measure of soybean: cotton host preference for the population studied is presented.