

## **1457 Population dynamics of *Rotylenchulus reniformis* in a cotton production area under no tillage system**

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*Rotylenchulus reniformis* is a major cotton pathogen in Brazil. This species is widespread through the cotton-production region, causing great yield losses. A field study was carried out to investigate the behavior of *R. reniformis* in a cotton production area under no tillage system. A grid of 30 sampling sites equidistant of 50m from each other was established in a naturally infested field in Aral Moreira, Brazil. Soil samples at 0-0.2 and 0.2-0.4m depth were collected monthly on each sampling site between October 2004 and June 2006 and nematodes extracted. Additionally, soil temperature and soil moisture content were also taken at 0.15-0.3m depth. It was concluded that: a) cotton plants play a strong role on the build-up and the juveniles/female ratio of reniform nematode population; b) the abundance of *R. reniformis* is higher at 0.2 to 0.4m than at 0.0 to 0.2m depth; c) soil temperature and soil moisture contents are poorly correlated to nematode abundance; d) losses on cotton-fiber yields are highly correlated to the nematode population at the time of sowing.