Life table for reniform nematode, Rotylenchulus reniformis on cotton

J. Gulsar Banu

Received July 11, 2011 and Accepted October 17, 2011

ABSTRACT: Reniform nematode, *Rotylenchulus reniformis* Linford and Oliveira, 1940 is a polyphagous nematode infesting wide range of host plants under field condition. The life table of *R. reniformis* was prepared from daily fecundity and survival data of the cohart when multiplied on cotton var. Suvin at room temperature. The results revealed that the highest female birth was observed on 26^{th} day. Survival fraction remained constant from 24^{th} day of pivotal age onwards due to low adult mortality. The total number of female birth amounted to a net reproductive rate (R_o) of 14.32 female /female / generation in approximate time (Tc) of 25.45 days. The innate capacity for natural increase was 0.1046. The true intrinsic rate of natural increase (r_m) was 0.1005 female/female/day. The calculated finite rate of increase showed that the population of R. reniformis would increase by 1.01057 female/female/day. At this rate, the time required to double the population was 6.8969 days.

Key Words: Rotylenchulus reniformis, life table, cotton.