

## **Studies on the status of races of reniform nematode, *Rotylenchulus reniformis* infecting castor in Aligarh district of U.P.**

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**ABSTRACT :** Twenty populations of *Rotylenchulus reniformis* from Aligarh district was reproduced on three host differential plants i.e. cowpea, castor and cotton. These population differed in their pathogenic behaviour towards bajra and mustard. Twelve populations reproduced on cowpea, castor and cotton but not on bajra and mustard which confirm the presence of Race-4 of reniform nematode in Aligarh. However, six populations reproduced on mustard along with cowpea, castor and cotton but not on bajra which showed the presence of Race-2. Similarly two populations reproduced on bajra with cowpea, castor and cotton but failed to reproduce on mustard which confirm the presence of Race-3. The frequency of occurrence of Race-4, Race-2 and Race-3 was 60%, 30% and 10% respectively. Moreover, none populations reproduced on bajra and mustard, clearly showed the absence of Race-1 in Aligarh district. The egg masses of these populations were found to contain embryonated eggs, second stage larvae and a few males, whereas the soil population contains immature females, males and larvae. The proportions of males and young females vary accordingly to suitability of host, it was lesser in good host while higher in poor host. It is concluded from the present investigation that Race-4, Race-3 and Race-2 were present while Race-1 was absent in Aligarh district soils. Moreover, all these three races (Race-4,3,2) found in Aligarh were amphimictic in reproduction.

**Key Words :** *Rotylenchulus reniformis*, host races, castor, Aligarh