

## Infestation of *Radopholus similis* with *Vorticella* from Kerala

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While examining extracts of soil samples for nematodes *Vorticella* sp. has been found attached to the nematodes in few samples. *Vorticella*- 'bell animalcules' on account of their shape is a peritrich protozoan. They are sessile fresh water forms reported from a variety of habitats including plant roots in moist soil (Neumann & Martinoia, 2002). Each individual possess a contractile stalk with an adhesive pad used for attachment (Buhse, 1998). It was found attached to *Radopholus similis* and *Xiphinema* in extracts from soil samples collected from Kayangulam, Kerala. The soil samples were processed using sieving and decantation and modified Bearmann funnel techniques. About 40% of the nematodes were found to be infected, having two to seven *Vorticella*

attached on stalks to its cuticle. A slimy, sticky substance was observed on the cuticle of the affected nematodes to which debris adhered. In some instances the co-existence of *Vorticella* and the nematophagous fungus *Catenaria* was also observed on the same nematode. The role of *Vorticella* in regulating nematode population needs to be studied.

### REFERENCES

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## Efficacy of Dry Powder of *Adhatoda vasica* as Soil Amendment against Root-knot Nematode on Brinjal

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The present investigation was undertaken to know the efficacy of *Adhatoda vasica*, a medicinal plant of Manipur against root-knot nematode *Meloidogyne incognita* on brinjal.

Healthy seeds of brinjal (*Solanum melongena*) were sown in an earthen pot containing sterilized sandy loam soil. After one month of sowing nursery plants of equal size were selected and transplanted into pots of 1 kg soil capacity. Before filling the pots the soil was steam sterilized and mixed with dried leaves powder of *A. vasica* in the dose of 5, 10, 20, 40 and 80 g/kg of soil. The mixture was allowed to decompose for 7 days before transplantation of brinjal nursery. Each treatment was replicated five times, two sets left as control and untreated. After 15 days of transplantation, all the treatments except control were inoculated with 1000 freshly hatched second

stage juveniles ( $J_2$ ) of *M. incognita*. After 90 days of inoculation, the plants were uprooted carefully and washed in tap water. Observation were made on the shoot and root length, fresh and dry weights of both shoot and root, number of leaves, number of flowers, number of fruits, number of galls, number of larvae both in root and soil and number of males in soil. The fresh weight of shoot and root were determined with the help of physical balance. To determine the dry weights of shoot and root, the plant parts were separately cut into smaller pieces and kept in an oven constantly running at 60°C. The materials were reweighed till a constant weight was obtained. The soil was then processed by Cobb's sieving and decanting technique, the number of *M. incognita* larvae and males were counted using Syracuse counting disc, while the larvae in roots were counted using lacto-