

## **Occurrence and distribution of root-knot nematode in important ornamental crops of Jorhat district**

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**ABSTRACT :** Study on occurrence and distribution of root-knot nematode (*Meloidogyne incognita*) in important ornamental crops revealed that root-knot nematode infestation was abundant in most of the ornamentals of Jorhat district of Assam. The maximum frequency of root-knot nematode occurrence (76.92 %) was recorded from Chipahikhola Block and minimum (48.38 %) was recorded from Titabar Block of Jorhat District. In a pathogenicity test of root-knot nematode on Gladiolus (var. Sylvania), four inoculum levels of nematodes i.e., 10, 100, 1000 and 10,000 second stage juveniles per kg of soil was taken for the test along with an uninoculated control. The pathogenicity test showed that a minimum inoculum of 100 nematode per kg of soil can cause significant reduction in plant height, fresh and dry weight of shoot and root, cormel production and reducing quantity and quality of spike. The reproductive rate of the nematode pest decreased with increase in inoculum levels.

**Key Words :** Gladiolus, *Meloidogyne incognita*, Root knot nematode.