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SUSCEPTIBILITY OF BAST FIBRE CROPS TO *MELOIDOGYNE INCOGNITA*

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Resistance of fibre crops to root knot nematode (*Meloidogyne* spp.) has been investigated with particular reference to cultivars of jute and kenaf, including roselle (Wilson and Summers, 1966; Adeniji, 1970; Srivastava *et al.*, 1972; Ibrahim *et al.*, 1982; Phukan and Roy, 1983). We have studied the relative susceptibility of jute and allied fibre crops to *M. incognita* (Kofoid *et White*) Chitw.

Plants were grown in 20 cm diam clay pots containing about 2 kg sterilized soil. At 24 days the seedlings were thinned to one per pot and inoculated with 100 second stage juveniles of the nematode. The plants, five per crop, were harvested after four months and the number of galls per 10 g of roots, galling index and nematode population in soils were estimated.

Of the six crops tested against root-knot nematode, *Hibiscus sabdariffa* cv. 4288 and *Crotalaria juncea* cv. K-12 Yellow were free from nematode infection (Table I). The other crops showed varying degrees of infection; *Corchorus capsularis*, *C. olitorius* and *H. cannabinus* were the most susceptible as evident from the number of galls on the roots and increase of populations in the pot. *Urena lobata* has previously been shown to be a host for *M. incognita* (Laha and Bhattacharyya, 1984) and in this investigation it is confirmed as a poor host for the nematode. *H. sabdariffa* was found to be immune to *M. incognita* but it has previously been found to be infested with root-knot nematode (Anon, 1962).

Table I - *Relative susceptibility of bast fibre crops to Meloidogyne incognita*

Test Crops	Cv.	No. of galls/ 10 g roots	Nematode ¹ Galling Index	Final soil population/ Pot
<i>Corchorus olitorius</i> L.	JRO-632	350	H	2,000
<i>C. capsularis</i> L.	JRC-212	—	H	3,000
<i>Hibiscus cannabinus</i> L.	HC-583	244	H	2,400
<i>Urena lobata</i> L.	—	45	L	520
<i>Crotalaria juncea</i> L.	K-12 Yellow	—	0	—
<i>Hibiscus sabdariffa</i> L.	HS-4288	—	0	—

¹ Nematode index (Smith and Taylor, 1947) H: heavy, M: medium, L: light, O: no infection.

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