

oryzae over the normal population. But the carbofuran treated plants had an increase of 17.9 and 14.6% in dry grain weight and straw weight. When the soil and root population increased significantly in the nematodes inoculated treatments, they were significantly reduced in carbofuran treated plots. Thus the improvement in plant characters with increase in yield in carbofuran treated plants could be attributed to the reduction in soil and root population of *H. oryzae* and the reduction in plant characters with reduction in yield, due to increase in nematode population. There was a significant negative correlation (-0.93) between nematode population in root and grain yield and (-0.94) between nematode population in the root and number of productive tillers or earheads.

DAMAGE CAUSED BY *MELOIDOGYNE INCOGNITA* ON BRINJAL :
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The nature and extent of damage caused by root-knot nematode, *M. incognita* to brinjal at different inoculum levels of 10, 100, 500, 1000, 5000 and 10,000 larvae per plant was studied, in pot culture.

There was a significant reduction of 14.8 to 64.6% in number of leaves; 4.9 to 32.6% in shoot length; 5.9 to 61.2% in weight of shoot; 5.2 to 34.9% in weight of root; 20.9 to 82.1% in yield and 21.1 to 89.1% in mean weight of brinjal, by the different inoculum levels of the root-knot nematode, within 108 days of inoculation. The total number of root-knots present in each plant increased from 148.5 at the inoculum level of 10 to 412.3 at the inoculum level of 10,000 larvae. The soil population of *M. incognita* also increased from 28.0 to 243 per 100 ml of soil. It may be inferred that *M. incognita* is positively involved in the unthrifty growth of the brinjal plant and the consequent reduction in yield.

FIRST REPORT OF *PARASITYLENCHUS COCCINELLAE* IMPERTI AND WAEREBEKE (1968) FROM INDIA IN TWO NEW HOSTS OF *MENOCILUS SEXMACULATUS* (F) AND *ILLEIS INDICA* TIMB. : P. Narayan Rao and Y. Narsi Reddy, Dept. of Zoology, University College of Science, Hyderabad-7.

Parasitylenchus coccinellae Imperti and Waerebeke, 1968 was found to parasitise the hosts *Menochilus sexmaculatus* (F) and *Illeis indica* Timb (Coleoptera : Coccinellidae). The biology and life history has been studied. Infection was found neither in grubs nor in pupae but only in the adult aphidophagous

beetles. More than one generation of the nematode was found in the host hemo-coel. The study of morphology of different stages revealed slight differences in the Indian forms compared to Waerebeke and Imperti (1968) forms. The impregnated females and males had bifurcated tail tips, besides differences in dimensions. Due to heavy infection and number of generations in the hosts there was damage to the internal organs of the insect reproductive system.

ON OCCURRENCE OF NEMATODES IN THE UPPER GANGES CANAL IN UTTAR PRADESH : M. I. S. Waliullah, Department of Zoology, Aligarh Muslim University, Aligarh-1.

In order to investigate the occurrence of nematodes in the irrigation water in Uttar Pradesh, India, a survey of the Upper Ganges canal was conducted from October 1978 to December 1979. The irrigation water was found to contain from 1 to 5 nematodes per litre of water. Nematodes found in the canal included, among others, representatives of orders Tylenchida and Dorylaimida. The tylenchid nematodes were about 12-35% of the total population. Species of the tylenchid genera, *Tylenchus* Bastian, 1865; *Tylenchorhynchus* Cobb, 1913; *Helicotylenchus* Steiner, 1945; *Rotylenchus* Filipjev, 1936; *Basiria* Siddiqi, 1959; *Basiro-taimus* Shamsi, 1979; *Aphelenchus* Bastian, 1865; Sakia Khan, 1964; *Hemicricone-modies* Chitwood & Birchfield, 1957; *Quinisulcius* Siddiqi, 1971; were observed besides specimens which obviously belong to a new genus which is being published elsewhere. The dorylaims, which were approximately 20-51.4% of the total population, included species of the genera *Longidorus* (Micoletzky, 1922) Filipjev, 1934; *Xiphinema* Cobb, 1913; *Dorylaimus* Dujardin, 1845. *Enchodelus* Thorne, 1939; *Trichodorus* Cobb, 1913; and *Mylonchulus* (Cobb, 1916) Pennak, 1953. The total population of nematodes was relatively high during July-September 1979. During this period the number of tylenchid nematodes was also high. The total population of nematodes including that of tylenchids was found to be highest during September 1979, with the former and the latter reaching 137 and 58 nematodes per 30 liters of water respectively.

DISTRIBUTION OF PHYTONEMATODES ASSOCIATED WITH CITRUS : P. P. S. Baghel and D. S. Bhatti, Department of Nematology, Haryana Agricultural University, Hissar.

Distribution of phytonematodes in soil around the roots of citrus plants at two horizontal spacings (30 and 90 cm from tree trunk) and at two vertical depths