

## CONCLUSION

A great diversity and large numbers of plant parasitic nematodes have been found to occur frequently at both the sampling sites. In particular the genera *Meloidogyne*, *Tylenchorhynchus*, *Helicotylenchus*, *Criconemoides* and *Xiphinema* were most abundant. Information available from other countries (5,6) where agriculture is practised under similar conditions to that of Sao Francisco Valley suggest that the nematodes are causing serious losses in crops such as grapes, onion, tomato and citrus. It is therefore necessary to place more emphasis on determining practical means of combating plant parasitic nematodes in this area in the immediate future in order to avoid unnecessary losses.

## REFERENCES

1. MOURA, R.M. 1967. Ocorrência em Pernambuco de un nematoide atacando a fruta pao de caroco. Instituto de Pesquisas Agronomicas de Pernambuco, Recife, Brasil. Bol. No. 20: 15 pp.
2. JOFFILY, J.M. 1944. A docenca do anel vermelho e sua ocorrencia no Brasil. Centro Nac. Ensino Pesq. Agron. Bol. No. 3: 64pp. Rio de Janeiro.
3. LORDELLO, L.G.E. 1959. A nematosis of yam in Pernambuco, Brazil, caused by a new species of the genus *Scutellonema*. Rev. Brasil Biol. 19 (1): 33 - 41.
4. SHARMA, R.D. and S.A. SHER. 1973. Occurrence of plant parasitic nematodes in avocado in Bahia, Brazil. Nematropica 3 (1): 20 - 23.
5. TAYLOR, A.L. 1967. Introduction to research on plant nematology. Rome, FAO. 133p.
6. TAYLOR, D.P., SAAD, A.T. and W.E. SCHLOSSER. 1972. Occurrence and distribution of plant-parasitic nematodes in Lebanon. FAO Plant Prot. Bull. 20(2): 31 - 35.

## RESUMEN

Se recolectaron 32 muestras de suelo y raíces de diferentes cultivos en 2 localidades del Valle de Sao Francisco, Pernambuco, Brasil. De 12 géneros de nematodos fitoparásitos identificados en el estudio, los más frecuentemente encontrados fueron: *Meloidogyne incognita*, *Tylenchorhynchus phaseoli*, *Helicotylenchus* spp. y *Xiphinema* sp. Este informe es el primero de este tipo que se realiza en esta área.

**A NOTE ON PLANT PARASITIC NEMATODES ASSOCIATED WITH SUGARCANE IN TRINIDAD [NEMATODOS FITOPARASITOS ASOCIADOS CON LA CAÑA DE AZUCAR EN TRINIDAD]** . N. D. Singh. Department of Crop Science, The University of the West Indies, St. Augustine, Trinidad.

Although sugarcane is the most important crop in Trinidad and Tobago, very little is known of the nematodes which attack it, and their effect on growth and yield.

Examination of soil and root samples from ten locations in Caroni Estates revealed mixed populations of 11 plant parasitic nematode genera (Table 1). The most frequently occurring

nematode genera were *Pratylenchus*, *Helicotylenchus*, *Tylenchus*, *Tylenchorhynchus* and *Meloidogyne*. Less frequent genera were *Macropostonia*, *Aphelenchus*, *Aphelenchoides*, *Rotylenchus*, *Trichodorus* and *Xiphinema*. The most common nematode species were *Helicotylenchus dihystrera* (Cobb, 1892) Sher, 1961, *Meloidogyne incognita* (Kofoid and White, 1919) Chitwood 1949, *Pratylenchus zaei* Graham, 1951, *Tylenchorhynchus martini* Fielding 1956. Many of these nematode species are known to be damaging pests of sugarcane.

It was interesting to find high populations of *M. incognita*, *P. zaei*, *T. martini* and *H. dihystrera* in the heavy clay soils of Picton and Bronte Sections as such large numbers are not usually found in heavy soils. Particularly noteworthy also is that such high nematode populations occurred immediately after severe dry weather conditions.

Combinations of the species were associated with several symptoms of root damage including root-knots or galls, variously-shaped lesions, stunted, swollen and decayed roots, excessive root branching with stunted foliar parts and patches of poor growth in the fields.

It is estimated from the data obtained in this study both as regards the damage observed in the sugarcane roots and the numbers and species of parasitic nematodes present that nematodes may be considered as important pests of sugarcane and may be partly responsible for the poor performance of sugarcane in these fields.

TABLE 1. Average nematode populations and occurrences in 20 soil and root samples of sugarcane in Trinidad

Nematode genera	SOIL		ROOTS	
	Average per sample (200 ml)	Per cent Occurrence	Average per sample (10 gm)	Per cent Occurrence
<u>Pratylenchus</u>	238	100	309	100
<u>Helicotylenchus</u>	209	90	1	10
<u>Rotylenchus</u>	14	40	-	-
<u>Tylenchus</u>	103	90	1	10
<u>Tylenchorhynchus</u>	283	100	6	60
<u>Aphelenchoides</u> <u>Aphelenchus</u> )	4	40	7	40
<u>Macropostonia</u>	19	70	-	-
<u>Meloidogyne</u>	129	90	913	100
Other Tylenchida	67	100	27	100
<u>Xiphinema</u> ) <u>Trichodorus</u> )	9	50	-	-