LIST OF FIGURES

1. Field layout for studies on population dynamics of P.zeae in sugarcane (1985-1990)
2. Sugar factory zones surveyed for Pratylenchus spp. in districts of Tamil Nadu
3. Distribution of plant parasitic nematodes of sugarcane in states of India
4. Population of Pratylenchus in relation to crop conditions
5. Meteorological observations recorded for five years (1985-1990)
6. Monthly population of P.zeae in sugarcane field for five years (0 cm distance)
7. Monthly population of P.zeae in sugarcane field for five years (25 cm)
8. Monthly population of P.zeae in sugarcane field for five years (45 cm)
9. Correlation between maximum temperature and population of P.zeae (Five years)
10. Correlation between relative humidity and population of P.zeae (Five years)
11. Increase in Mean population of P.zeae at 20 cm depth for three years
12. Increase in Mean population of P.zeae at 20 cm depth for two years
13. Increase in Mean population of P.zeae at 40 cm depth for three years
14. Increase in Mean population of P.zeae at 40 cm depth for two years
14. Increase in population of *P. zeae* at 40 cm depth and 3 distances.

15. Population of *Pratylenchus* in two sugarcane varieties
   (a) Soil population/100 cc
   (b) Root population/10 g

16. Effect of *Pratylenchus* on yield of two sugarcane varieties

17. Effect of *Pratylenchus* on Brix and sucrose of two sugarcane varieties.
   (a) Brix
   (b) Sucrose

18. Effect of *Pratylenchus* on purity and CCS% of two sugarcane
   (a) Yield
   (b) CCS/pot

19. Synergistic action of nematodes on yield and CCS/pot in sugarcane
   (a) Yield
   (b) CCS/pot

20. Penetration of *P. zeae* into 4 sugarcane varieties (15-22°C)

21. Penetration of *P. zeae* into 4 sugarcane varieties (23-30°C)

22. Effect of *P. zeae* on 20 economic crops

23. Quality of sugarcane planted in pots subsequent to harvest of 10 economic crops.

24. Correlation between soil population of *P. zeae* and quality of sugarcane planted subsequent to harvest of 10 economic crops

25. Level of Enzymes in sugarcane roots before and after infection of *P. zeae*