CONTENTS

Acknowledgements (i)

1. Introduction 1
2. Review of Literature 11
3. Materials and Methods 28
4. Experimental Results

Integrated nematode control with organic amendment/nematicide and intercropping:

a. Intercropping of kasni/chicory with berseem/Egyptian clover and rizka/lucerne, alfalfa in field. 38

b. Residual effect of different treatments of the above experiment. 48

c. Intercropping of mustard with potato in field. 53

d. Residual effect of different treatments of the above experiment in field. 59

e. Intercropping of rocket-salad with potato in field. 61

f. Residual effect of different treatments of the above experiment in field. 67

Effect of soil amendment with chopped leaves (fresh) of plants on the population of plant-parasitic nematodes and plant growth of tomato cv. Pusa Ruby and chilli cv. Pusa Jawala. 70

Effect of soil amendment with chopped leaves (fresh) of plants on root-knot development caused by Meloidogyne incognita and plant growth of tomato cv. Pusa Ruby and chilli cv. Pusa Jawala. 74

Effect of soil amendment with fallen leaves on the plant-parasitic nematodes and plant growth of tomato cv. Pusa Ruby and chilli cv. Pusa Jawala. 77

Effect of soil amendment with fallen leaves on root-knot development caused by Meloidogyne incognita and plant growth of tomato cv. Pusa Ruby and chilli cv. Pusa Jawala. 81

Effect of soil amendment with dry crop residues on the population of plant-parasitic nematodes and plant growth of tomato cv. Pusa Ruby and chilli cv. Pusa Jawala. 87

Effect of soil amendment with urea coated with 'Nimin' and different oils on the population of plant-parasitic nematodes and plant growth of tomato cv. Pusa Ruby and chilli cv. Pusa Jawala.

Effect of soil amendment with urea coated with 'Nimin' and different oils on root-knot development caused by Meloidogyne incognita and plant growth of tomato cv. Pusa Ruby and chilli cv. Pusa Jawala.


Effect of water extracts of plant leaves on the mortality of plant-parasitic nematodes in vitro.

Effect of water extracts of plant leaves on the hatching of Meloidogyne incognita in vitro.

Effect of water soluble fractions (WSF) of undecomposed and decomposed oilcakes of neem and castor on the mortality of Meloidogyne incognita in vitro.

Effect of water soluble fractions (WSF) of undecomposed and decomposed oilcakes of neem and castor on the hatching of Meloidogyne incognita in vitro.


Effect of root-exudates of mustard and rocket-salad on the hatching of Meloidogyne incognita in vitro.

5. Discussion

6. Summary

7. References