

PATH 172 - INTRODUCTORY NEMATODOLOGY (1+1)

Theory

Introduction. History of phytonematology. Economic importance. General characteristics of plant pathogenic nematodes. Nematode general morphology and biology. Classification of nematodes up to family level with emphasis on groups containing economically important genera. Classification of nematodes by habitat. Identification of economically important plant nematodes up to generic level with the help of keys and description. Symptoms caused by nematodes with examples. Interaction between plant parasitic nematodes and disease causing fungi, bacteria and viruses. Different methods of nematode management. Cultural methods (crop rotation, fallowing, soil amendments, other land management techniques), physical methods (soil solarisation, hot water treatment) Biological methods. Chemical methods (fumigants, non fumigants). Resistant varieties. IDM.

References

1. Dropkin, V.H. 1980. Introduction to plant nematology. John Wiley and sons, INC. New York.
2. Singh, R.S and Sitaramaiah, K. 1994. Plant pathogens. The plant parasitic nematodes. Oxford & IBH Pub. Co. Pvt. Ltd. New Delhi.
3. Parvata Reddy, P. 1983. Plant nematology. Agricole Pub. Co., New Delhi.
4. Southey, J. F. Laboratory methods for work with plant and soil nematodes Tech. Bull. Min. Agric. Fish. Food. Her Majesty's Stationary Office, London.