

PLS 560/561
Nematode-Plant Interactions

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Lecture 1

The phylum Nematoda and the Molecular Revolution. Systematics. Diversity. Phylogenetics. Nematode genomics.

Lecture 2

Plant-parasitic nematodes and plant interactions. Adaptations to parasitism. Niches occupied by plant parasitic nematodes. Evolution of plant parasitism. Molecular approaches to novel crop resistance against nematodes.

Lecture 3

Nematodes-microorganisms interactions in the rhizosphere. Nematode interactions with plant pathogens. Natural enemies. Suppressive soils. Nematodes and biological control. Integrative control strategies.

Discussion Session. Application of transgenic resistance to nematodes to developing world needs. (A list of selected publications will be provided at the beginning of this session)