

Nematology Exam Study Guide

Nematodes. Know the life-cycle and feeding habits of the following genera of nematodes:

- a) *Meloidogyne*
- b) *Heterodera*
- c) *Rotylenchulus*
- d) *Tylenchulus*
- e) *Globodera*
- f) *Pratylenchus*
- g) *Hoplolaimus*
- h) *Radopholus*
- i) *Criconema, Mesocriconema, etc.*
- j) *Belonolaimus*
- k) *Trichodorus, Paratrichodorus*
- l) *Xiphinema*
- m) *Bursaphelenchus*
- n) *Ditylenchus*
- o) *Aphelenchoides*

Crops. Know which nematodes are important pests on the following crops.

- a) Cotton
- b) Peanut
- c) Turfgrass
- d) Soybean
- e) Corn
- f) Rice
- g) Potato
- h) Tobacco
- i) Strawberry
- j) Grape
- k) Citrus
- l) Stonefruit
- m) Pecan
- n) Tomato
- o) Sweetpotato
- p) Melons
- q) Crucifers
- r) Wheat
- s) Banana
- t) Pepper
- u) Ornamentals (nursery and landscape)

Diseases and disease complexes. Know which nematodes are commonly associated with the following diseases and disease complexes.

- a) Fusarium wilt
- b) Verticillium wilt
- c) Corky Ringspot
- d) Grapevine fanleaf
- e) Pine leaf bronzing
- f) Red ring
- g) Spreading decline
- h) Slow decline
- i) Peach short life
- j) Rice white tip
- k) Root knot
- l) Toppling disease
- m) Sudden death syndrome

Management. Know the following and how they are used.

- a) Fumigants (1,3-dichloropropene, methyl bromide, metam sodium and metam potassium, chloropicrin, etc.). Which crop systems are they employed in, and against which nematodes.
- b) Non-fumigants (Fluopyram, fluensulphone, aldicarb, ethoprop, abamectin, etc.). Which crop systems are they employed in, and against which nematodes.
- c) Resistance. In what crops is resistance important and against which nematodes.
- d) Grafting/resistant rootstock. Which crops and for which nematodes.
- e) Cover crops. Common cover crops used for nematode management, which crop systems are they employed in, and against which nematodes.
- f) Crop rotation. Common rotations used for nematode management, which crop systems are they employed in, and against which nematodes.
- g) Biological control and bionematicides. Which organisms are effective and how are they implemented.
- h) Cultural control tactics. Which crop systems are they employed in, and against which nematodes.

Root-knot nematodes. Know as much as you can about the following *Meloidogyne* species, which crops they impact and why they are important.

- a) *M. incognita*
- b) *M. javanica*
- c) *M. arenaria*
- d) *M. hapla*
- e) *M. chitwoodi*
- f) *M. enterolobii*
- g) *M. floridensis*
- h) *M. graminis*
- i) *M. partityla*