

PP728 Soilborne Plant Pathogens

Spring 2007

Lecture Schedule

Mondays and Wednesdays; 1:30-2:20 PM, 840 Method Rd, Unit 4 Classroom – Rm118

Lec.	Date	Topic
		Part I. Concepts & Principles
1	Jan 10	Introduction – definitions
	Jan 15	Holiday – No class
2	Jan 17	Phytophthora, Fusarium, Gaeumannomyces
3	Jan 22	Rhizoctonia, Sclerotium, Verticillium
4	Jan 24	Soil fungistasis: the phenomenon & mechanisms
5	Jan 29	Rhizosphere: root exudates & border cells
6	Jan 31	Spermosphere: seed exudates & root disease
7	Feb 5	Survival: concepts, competitive saprophytic ability
8	Feb 7	Survival: structures and persistence, review
9	Feb 12	Concepts & principles: catch-up, & review
10	Feb 14	Exam I
		Part II. Inoculum, environment & root disease
11	Feb 19	Inoculum potential, inoculum density-disease relations
12	Feb 21	Root disease models
13	Feb 26	Sampling techniques for inoculum
14	Feb 28	Root infection processes detailed by microscopy (Dr. Shew)
	Mar 5-9	Spring Break
15	Mar 12	Influence of environment: temperature
16	Mar 14	Influence of environment: water
17	Mar 19	Influence of environment: pH
18	Mar 21	Influence of environment: mineral nutrition, & review
19	Mar 26	Exam II
		Part III. Managing soilborne pathogens
20	Apr 2	Tillage practice
21	Apr 4	Soil solarization
22	Apr 9	Suppressive soils
23	Apr 11	Composts and root disease
24	Apr 12	Microbial communities and root disease
25	Apr 17	Biocontrol: mechanisms
26	Apr 19	Case study I: <i>Sporidesmium</i> and <i>Sclerotinia</i>
27	Apr 24	Case study II: Non-pathogenic Fusarium and Fusarium wilt
28	Apr 26	Case study III: From discovery to use, & review
	May 7	Exam III (1-4 PM)