

AGRY 515: Plant Mineral Nutrition (Fall 2010)

Week	Date	Lecture Topic	Reading
1	August 24 26		
2	August 31 September 2	Introduction/ Yield response and nutritional physiology Soil nutrient availability / Nutrient movement in soils	Ch 1; Ch 6 Ch 13
3	September 7 9	Root system morphology Roots and the rhizosphere	Ch 14; Ch 15 (pp 537-561)
4	September 14 16	Ion uptake at the root surface / Short distance transport cont. Long distance transport	Ch 2 Ch 3
5	September 21 23	<i>No Class – NUE papers and worksheet</i> Problem Set 1 handed out NUE worksheet review NUE	
6	September 28 30	Phloem Mobility / Conc. & funct. revisit. Problem Set 1 due at 5pm N assim. & funct.	Ch 3 (cont.) Ch 8 (pp 229-254)
7	October 5 7	1st MIDTERM EXAM Biological N fixation	Ch 7
8	<i>October 12</i> 14	<i>No Class - October break</i> P and K assimilation and function	Ch 8 (pp 255-312); handout
9	October 19 21	Ca, Mg, S assimilation and function Problem Set 2 handed out Conclude macronutrients	Ch 9
10	October 26 28	Micronutrient I Problem Set 2 due at 5 pm Micronutrient II and beneficial elements	Ch 10
11	November 2 4	<i>No Class – ASA Mtgs</i> 2nd MIDTERM EXAM	
12	November 9 11	Nutrient deficiency diagnosis Nutrient stress and adaptation	Ch 12 Ch 16
13	November 16 18	Nutrition and disease resistance Modeling nutrient accumulation: Problem Set 3 handed out	Ch 11 Handouts
14	November 23 25	Modeling and knowledge gaps <i>No Class - Thanksgiving</i>	
15	November 30 December 2	The rhizosphere environment Mycorrhizae Problem Set 3 due at 5 pm	Ch 15
16	December 7 9	Nutrient Use Efficiency Revisited Current Issues Revisited: Biofuels, Global climate change, etc.	Handouts
17	December 13 – 18	FINAL EXAM WEEK (AGRY 515 exam may be optional)	