

AGRY 515 - Plant Mineral Nutrition

Nutrient Stress, Disease and Mycorrhizas

Plant interactions with other species: Neutralism, Symbiosis, Competition

Disease: Resistance, Apparent Resistance, Tolerance

Fungal Diseases

Steps in infection and importance of:

- LMW solutes
- plasma membrane permeability
- inducible resistance mechanisms
- hypersensitive reactions

Silicon

- physical barrier
- soluble Si compounds

Nitrogen

- obligate vs facultative parasites

Potassium

Calcium

B, Mo, Cu, Zn

Bacterial Diseases

Spot, vascular diseases

Viral diseases

Vectors

Pests: Types of host resistance

1. physical
2. mechanical
3. chemical

Mycorrhizas

Ectomycorrhizae vs Endomycorrhizae

Root infection

Photosynthate demand

Impact on plant host