

Plant Pathology 354  
Guide to Laboratory Specimens  
ALFALFA DISEASES

**Seedling Health Problems**

Name the pathogen(s) that cause(s) this disease:

Describe the symptoms of the disease:

**Aphanomyces Root Rot**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

**Phytophthora Root Rot**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

**Violet Root Rot**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

**Verticillium Wilt**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

Plant Pathology 354  
Guide to Laboratory Specimens  
ALFALFA DISEASES

**Fusarium Wilt**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

**Crown Rots/Decay**

Name the pathogen(s) that causes this disease:

Describe the symptoms of the disease:

**Spring Black Stem**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

**Root Knot Nematode**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

**Common Leaf Spot**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

Plant Pathology 354  
Guide to Laboratory Specimens  
ALFALFA DISEASES

**Stemphylium Leaf Spot**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

**Downy Mildew**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

**Alfalfa Mosaic Virus**

Name the pathogen that causes this disease:

Describe the symptoms of the disease:

Plant Pathology 354  
Guide to Laboratory Specimens  
SOYBEAN DISEASES

**Brown Stem Rot**

What pathogen causes the disease?

Describe the symptoms of the disease:

**Sudden Death Syndrome**

What pathogen causes the disease?

Describe the symptoms/signs of the disease.

**Phytophthora Root Rot**

What pathogen causes the disease?

Describe the symptoms of the disease:

**Soybean Cyst Nematode (SCN)**

What pathogen causes the disease? *Heterodera glycines*

Describe the symptoms/signs of the disease:

**Sclerotinia Stem Rot (White Mold)**

What pathogen causes this disease?

Describe the symptoms/signs of the disease:

Plant Pathology 354  
Guide to Laboratory Specimens  
SOYBEAN DISEASES

**Brown Spot/Septoria Leaf Spot**

What pathogen causes brown spot/Septoria leaf spot?

Describe the symptoms/signs of the disease:

**Green Stem Syndrome/Soybean Virus Diseases**

What pathogen(s) cause(s) this disease?

Describe the symptoms/signs of the disease:

Plant Pathology 354  
Guide to Laboratory Specimens  
CORN DISEASES

**Seedling Rot/Blight**

What pathogen(s) cause(s) the disease?

Describe the symptoms of the disease:

**Eyespot**

What pathogen causes the disease?

Describe the symptoms of the disease:

**Tar Spot**

What pathogen causes the disease?

Describe the symptoms of the disease:

**Northern Corn Leaf Blight**

What pathogen causes the disease?

Describe the symptoms of the disease:

Plant Pathology 354  
Guide to Laboratory Specimens  
CORN DISEASES

**Northern Corn Leaf Spot**

What pathogen causes the disease?

Describe the symptoms of the disease. Compare and contrast these with the symptoms of northern corn leaf blight:

**Gray Leaf Spot**

What pathogen causes the disease?

Describe the symptoms of the disease:

**Genetic Ringspot**

What causes the disease?

Describe the symptoms of the disease:

**Gibberella Stalk Rot**

What pathogen causes the disease?

Describe the symptoms of the disease:

Plant Pathology 354  
Guide to Laboratory Specimens  
CORN DISEASES

**Anthracnose Stalk Rot**

**Note:** The pathogen that causes this disease also causes leaf blight as well.

What pathogens cause the disease?

Describe the symptoms of the disease:

**Root Lesion Nematode**

What pathogen causes the disease?

Describe the symptoms of the disease:

**Corn Smut**

What pathogen causes the disease?

Describe the symptoms of the disease:

**Crazy Top**

What pathogen causes the disease?

Describe the symptoms of the disease:

How do you prevent/control this disease?



Plant Pathology 354  
Guide to Laboratory Specimens  
SMALL GRAIN DISEASES

**Barley Yellow Dwarf/Red Leaf**

What pathogen causes these diseases?

Describe the symptoms of the diseases:

**Scab**

What pathogen causes the disease?

Describe the symptoms/signs of the disease.

**Take-All**

What pathogen causes the disease?

Describe the symptoms of the disease:

**Eyespot**

What pathogen causes the disease?

Describe the symptoms of the disease. Compare and contrast these symptoms with those of take-all.

Plant Pathology 354  
Guide to Laboratory Specimens  
SMALL GRAIN DISEASES

**Smuts**

What pathogens cause smut disease?

Loose Smut:

Stinking Smut (Common Bunt):

Describe the symptoms of both types of smuts. Compare and contrast the two diseases:

**Powdery Mildew**

What pathogen(s) cause(s) powdery mildew?

Describe the symptoms/signs of the disease:

**Septoria Leaf Blotch**

What pathogen(s) cause(s) the disease?

Describe the symptoms of the disease:

**Ergot**

What pathogen causes the disease?

Describe the symptoms/signs of the disease:

Plant Pathology 354  
Guide to Laboratory Specimens  
SMALL GRAIN DISEASES

**Rusts**

What pathogen(s) cause(s) the disease?

Describe the symptoms of the disease: