

## Chapter 12

### Similar Looking Diseases

Loren Giesler, University of Nebraska-Lincoln

#### Bacterial Blight

- Affects mid-to-upper leaves.
- Angular lesions, reddish-brown to black centers.
- Initial angular water-soaked lesions with yellow halo.

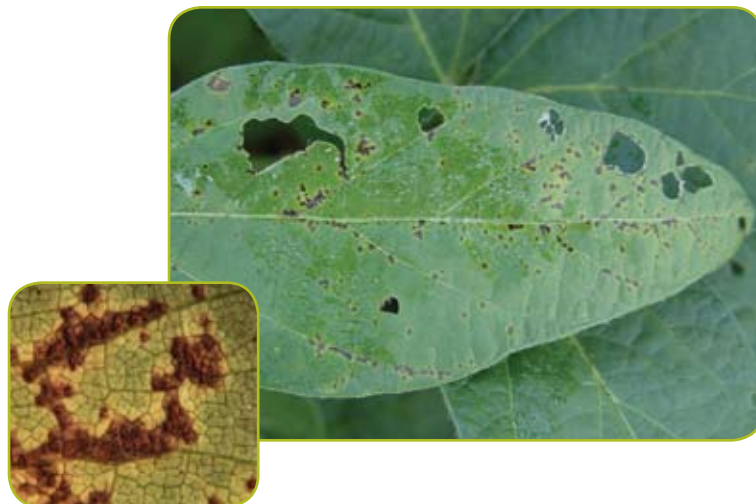
**Difference from Soybean Rust:** Water soaking; angular lesions; lesions on leaf underside are not raised.



#### Bacterial Pustule

- Affects mid-to-upper leaves.
- Lesions — small spots to large irregular shapes without water soaking.
- Lesions associate with main veins; pustules form in lesion centers on leaf underside. (10X)

**Difference from Soybean Rust:** Pustules not always with each lesion; pustules do not have spores in openings; openings are cracks instead of circular pores.



## Downy Mildew

- Affects upper leaves.
- Spots on surface enlarge into yellow lesions.
- Older lesions turn brown with yellow-green margins; size varies with age of leaf affected.
- Fuzzy fungal gray tufts on leaf underside (20X).

**Difference from Soybean Rust:** Lesions larger than rust lesions; no raised pustules on underside; fuzzy fungal growth on underside.



## Cercospora Blight

- Blight affects upper leaves exposed to sun after seed set.
- Blight starts as light purple areas on upper leaf surface which expands to cover surface; leaves leathery and dark reddish purple on upper surface only.
- As blight develops, necrotic tissue appears on the upper and lower leaf surfaces.

**Difference from Soybean Rust:** Blight — overall leaf area is discolored on upper surface only.



## Brown Spot

- Affects lower leaves first.
- Irregular-shaped dark-brown lesions on both leaf surfaces; size — small spots to large areas; adjacent lesions can form irregular shaped blotches.
- Infected leaves quickly yellow and drop.

**Difference from Soybean Rust:** No raised areas (on leaf) underside; angular lesions; if dark lesions, lack of uredia is key symptom; first symptoms can look like rust; has same canopy distribution as rust.



## Frogeye Leaf Spot

- Frogeye lesions start as dark, water-soaked spots; can have light centers; circular to angular brown spots with dark red-brown margins.

**Difference from Soybean Rust:** Frogeye — discrete lesions larger than rust with defined lesion margins; no pustules evident on underside.

