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| Northern Corn Leaf Blight | - Begins on lower leaves and works its way up the canopy  
- Large (1 to 6 in.) elliptical lesions that form parallel to the leaf  
- Begin as greyish-green lesions which then turn tan; not restricted by leaf veins | - Infested corn residue from prior year(s)  
- Spread primarily by wind | As early as the V6 growth stage | - Cool (64 to 81° F), wet, and cloudy  
- Wet, humid weather that keeps the leaves wet for long periods | - Can quickly cover the canopy (and impact yield) due to large lesion size  
- If inoculum is present, rotate to a non-host crop  
- Reduce corn residue on soil surface  
- Select for a hybrid with a good NCLB rating |
| Gray Leaf Spot (GLS) | - Medium (0.5 to 2 in.) rectangular lesions  
- Red or brown and later turn grey  
- Lesions restricted by leaf veins  
- Begins on lower leaves and works its way up the canopy | - Infested corn residue from prior year(s)  
- Spread by wind or splashing water | Normally seen starting two weeks prior to tassel | - Hot and humid (80° F and above) and cloudy  
- Wet, humid weather that keeps the leaves wet for long periods | - Yield impact depends on when it establishes and how quickly it spreads. If the infestation occurs at or around the VT growth stage, it will likely impact yield. Conversely, if the infestation occurs several weeks after VT, the yield impact will be negligible  
- If inoculum is present, rotate to a non-host crop  
- Reduce corn residue on soil surface  
- Select for a hybrid with a good GLS rating |
| Southern Rust | - Small (1/8 in.) round pustule  
- Begin as light green or yellow and turn to orange raised pustules  
- Typically found on the upper leaf surface and seldom on lower  
- Lesions can be on the husks and stalks in addition to the leaves  
- Lesions can form concentric circles around the darker original pustule | - Does not overwinter in the Corn Belt  
- Inoculum survives the winter on corn in more southern locations and is carried north by wind | Reaches the Corn Belt in July or later | - Humid and warm (around 80° F) | - Develops faster than common rust  
- Can be found throughout the Corn Belt, but severe cases have been limited to the southern states  
- Severity depends on when southern rust arrives  
- Crop rotation and residue management are irrelevant because the inoculum does not overwinter  
- Damage is often more severe in later planting dates or late-maturing hybrids  
- Hybrids vary in resistance to southern rust |
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| Common Rust *Puccinia sorghi* fungus | • Small (1/4 to 3/8 in.) round  
• Begin as light green or yellow and turn to brick-red raised pustules  
• Lesions can be on husks and stalks in addition to leaves  
• Can sometimes form a band along the leaf | • Does not overwinter in Corn Belt  
• Inoculum survives the winter on corn in more southern locations and is carried north by wind | Normally seen between the V6 and R2 growth stages | • Humid with moderate temperatures (60 to 77°F)  
• Younger leaf tissue is more susceptible to rust, so later planted corn may show higher levels of rust than early planted corn | • Severity depends on when common rust arrives  
• Crop rotation and residue management are irrelevant because the inoculum does not overwinter  
• Most modern hybrids have adequate resistance to common rust |
| Physoderma Brown Spot *Physoderma maydis* fungus | • Very small (1/8 to 1/4 in.) purple or black circles  
• Lesions found on the leaves in the middle of canopy  
• Usually form a band along the leaf midrib, but it can also form on the stalk and leaf sheath | • Overwinters in infested corn residue from prior year(s)  
• Water loving pathogen that can also survive in soil | Typically symptoms first appear in mid to late vegetative stages. The lesions can be mistaken for Common Rust. | • Prolonged wet periods early in the season with warm temperatures (75 to 85°F)  
• Infection takes place when the whorl is full of water for an extended period of time | • If inoculum is present, rotate to a non-host crop  
• Reduce corn residue on the soil surface  
• Corn plants become more resistant in the late vegetative growth stages  
• Disease has historically been of minor importance |
| Goss’s Wilt *Clavibacter michiganensis* bacterium | • Large (1 to 6 in.) elliptical lesions with small black freckles  
• Lesions appear wilted and water soaked and start off as dark green to black and eventually turn tan  
• Most often seen in the top of the canopy | • Infested corn residue from prior year(s)  
• Spread by splashing water, but bacteria are also carried by wind  
• Can move throughout infected plants | Leaves can be infected at any time, but disease is usually seen around the VT growth stage | • Warm, wet conditions (65 to 82°F) | • Can quickly cover the canopy (and impact yield) due to large lesion size  
• If inoculum is present, rotate to a non-host crop  
• Reduce corn residue on the soil surface  
• Select a hybrid with a good Goss’s Wilt rating  
• Fungicides are not an effective means of control |