



Rust

Puccinia helianthi

Figure 1

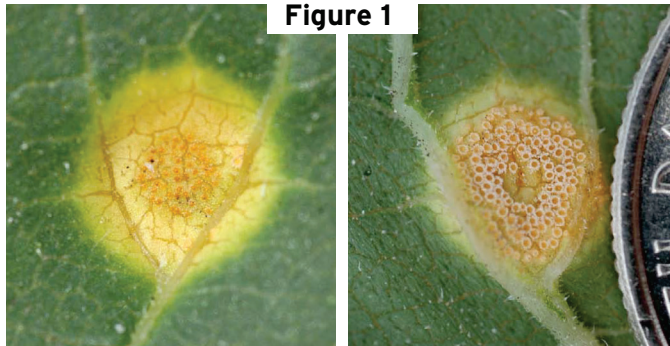


Figure 2

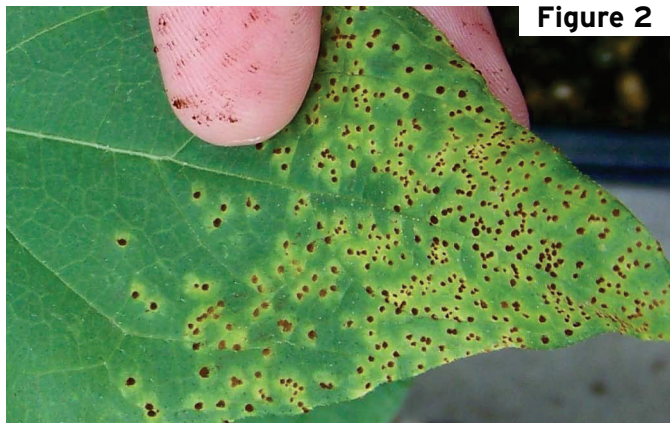
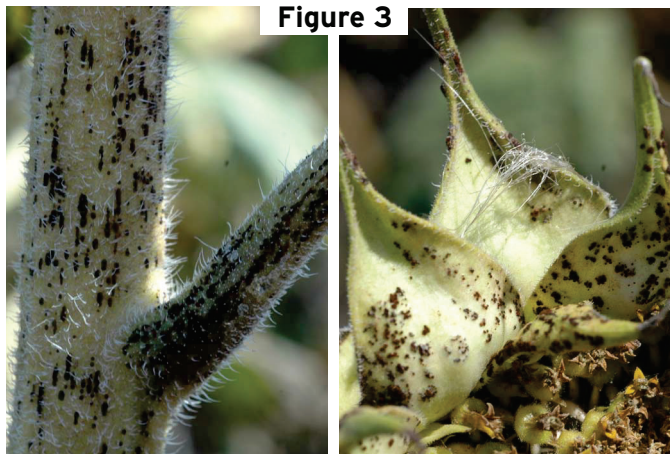


Figure 3





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AUTHORS: Sam Markell, Bob Harveson,
Charlie Block and Tom Gulya

SYMPTOMS

- **Pycnia = yellow/orange bump on topside of leaf (early season)**
- **Aecia = cluster of orange cups opposite pycnia (early season)**
- **Uredia = dusty cinnamon-brown pustule (throughout season), spores can be easily rubbed off, yellow halo common**
- **Telia = hard black pustule (crop maturity)**

FIGURE 1 - Pycnia (L) on upper side of leaf and Aecia (R) opposite pycnia on underside of leaf

FIGURE 2 - Uredinia surrounded by yellow halos; note spores on finger

FIGURE 3 - Pustules on stem and petiole (L) and bracts (R)

FACTORS FAVORING DEVELOPMENT

- Frequent leaf wetness; dew, fog, light rain, etc.
- Temperatures between 55 and 85 F
- Proximity to wild, volunteer or sunflower residue that has or had rust

IMPORTANT FACTS

- Sunflower rust is specific to sunflowers (cultivated and wild)
- Economic losses can be devastating in epidemics
- Fungicide threshold = 1 percent severity on upper leaves at or before bloom (R5)
- Found in all U.S. Great Plains states
- Can be confused with soil splashed on lower leaves or other foliar diseases

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