

Field Facts: Common Rust

- **Common names:** Common rust
- **Scientific name:** *Puccinia sorghi*
- **Symptoms:** Lesions on the upper and lower leaf surfaces start as small, tan spots that turn into elongated brick-red or cinnamon-brown pustules. Pustules can turn black late in the season.
- **Conditions for development:** Moist, cool conditions with temperatures in the 60s and 70s F.



Fast facts

- Common rust is a fungal disease that usually impacts cornfields during the growing season. The pathogen is spread to the Midwest by windblown spores from southern corn-growing areas.
- The most easily observable symptoms of common rust are lesions that appear on the upper and lower leaf surfaces. The lesions begin as flecks on the leaves and develop into small, tan spots. The spots then turn into elongated brick-red to cinnamon-brown pustules with jagged edges.
 - The lesions occur on the leaves only. They do not affect the sheathes, stalks, ear shanks or husk leaves.
- Common rust tends to progress as corn matures in late summer. The disease is favored by persistent moist, cool conditions with temperatures in the 60s and 70s F. Hot, dry conditions are likely to stop or slow development.
- The disease lesions can inhibit photosynthesis, which means corn plants will produce less sugar and pull from stalk carbohydrates to fill kernels. Yield loss can ultimately result from poorly filled kernels and stalk rot and lodging.
 - Later-planted corn is the most at risk for yield loss from common rust, as significant damage to upper leaves early in the life of the corn results in higher yield losses.
- Common rust can be confused with southern rust, and it's important to know the difference between the two, as southern rust can cause more significant yield loss than common rust. Here's what to look for:
 - Common rust pustules are brick-red to cinnamon brown in color and jagged or elongated in shape. Southern rust pustules are reddish-orange, pinhead in shape and smaller than common rust pustules.
 - It's important to note: Common rust pustules will develop on the upper and lower corn leaf surfaces, while southern rust pustules tend to only appear on upper leaf surfaces.
 - Southern rust pustules can develop on corn husks as well as leaves, while common rust pustules will develop on leaves only.
 - While both diseases develop in moist conditions, common rust thrives in cooler temperatures (60° to 77° F) and southern rust thrives in hotter temperatures (77° F and higher).

Control/management tips

- The best way to control common rust is to keep it from developing in the first place. A timely fungicide application can help prevent common rust. Aproach® Prima fungicide offers two powerful modes of action that provide preventive and curative action against the disease.
- Plan to start scouting for common rust early in the growing season. If you see signs of the disease, monitor the symptom development, crop growth stage and weather forecast closely to decide if a curative fungicide application is necessary.
- You can help your customers choose corn hybrids that are resistant to common rust to avoid yield loss.
- Rotation and tillage are not effective for preventing common rust, because the fungus spores are wind-borne and do not overwinter in the United States.



The Corn & Soybean Disease ID Guide
from Corteva Agriscience provides further
information about common rust and other
corn diseases.

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