

Soybean Disease Watch:

Three Soybean Diseases to Watch for in the African Great Lakes

The soybean season is at its peak in the Democratic Republic of the Congo (D.R.C.), Burundi, western Kenya, Rwanda, and Uganda. As the season progresses, watch for these three important fungal diseases that have the potential to negatively impact your soybean yields. Understanding the life cycles and symptoms of these diseases will help you scout and plan management strategies during the growing season.

Soybean Rust (SBR)

Disease Overview: Soybean rust is a foliar disease caused by an obligate biotrophic fungus, *Phakopsora pachyrhizi*. Soybean rust results in reduced photosynthesis and defoliation with reported yield losses up to 80%. Symptoms are commonly found on the underside of the leaf and of SBR first appear as small, water-soaked lesions that gradually turn into lesions. As infection progresses, leaves start to yellow, or become chlorotic. Severe infections cause premature defoliation and early maturation. Rust lesions are commonly observed between flowering through the end of the growing season but may appear before flowering. Lesions are often first observed lower in the plant canopy and move upwards as the disease progresses.



Leaf chlorosis (yellowing) and necrosis (dead tissue) caused by soybean rust

Disease Management: Scouting is critical for effective identification and management of SBR. To scout, survey a field or plot in a W- or Z-shape and randomly select plants to examine for disease symptoms. Scout throughout the growing season and intensify scouting frequency at early flowering (R1) through the full seed (R6) stage.

Fungicides are one of the most effective methods for controlling soybean rust. Triazoles are recommended for single fungicide applications as they prevent new infections. Triazole+strobilurin mixtures will provide longer residual protection than either fungicide alone. Spraying is not economical when the disease has progressed to the upper canopy or if plants are past the R6 growth stage. Fungicide availability will vary by location—check with your extension agent for an updated list of available products. Click [here](#) for more soybean rust management information.

**Want to
learn more about
soybean diseases?**



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[Soybean Rust Crash Course](#)
[Spray Calculator](#)

[Soybean Rust Management Webinar Series](#)
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For more information and to be added to WhatsApp Disease and Pest ID Board, please contact SIL-DPT at soybeaninnovationlab@illinois.edu

Red Leaf Blotch (RLB)

Disease Overview: Red leaf blotch (RLB) is a foliar disease caused by the soil-borne pathogen *Coniothyrium glycines*. The disease was first identified in Ethiopia and has been observed throughout Africa. RLB has not been found outside of Africa and little is known about effective management. RLB can cause up to 50% yield loss. Symptoms may occur throughout the growing season. As plants mature, symptoms appear to move from the lower to the upper canopy, causing premature defoliation. Lesions first appear near the primary veins on both sides of the leaf. As lesions progress, they form reddish-brown blotches. Lesions on the bottom surface of the leaf will have dark borders. Lesions are mainly found on the leaves but can also occur on petioles, pods, and stems.

Disease Management: No fungicides are currently registered for RLB control in Africa. The Pan-African Soybean Variety Trials (PATs) have shown differences in varietal response to RLB. Some of the top-performing soybean varieties showing RLB tolerance include SC Signal, SC Spike, and SC Status.

Currently, there are no RLB-resistant commercial varieties available. Click [here](#) for more information on RLB management.



Reddish-brown blotches caused by Red Leaf Blotch

Cercospora Leaf Blight (CLB)

Disease Overview: Cercospora leaf blight (CLB) and purple seed stain (PSS) are caused by the *Cercospora kikuchii* fungus. Severe CLB infections can reduce yields by up to 50%. Symptoms of these diseases occur on leaves, petioles, pods, and seeds. The most distinct characteristic of CLB is purple-bronze discoloration of the upper surface of leaves on the top canopy. Discoloration starts from the leaf tip and moves towards the base of the leaflet. Early CLB symptoms are often confused with sunburn. Symptoms of CLB and PSS on seed can vary widely. Seed discoloration starts from the hilum and may extend to the whole seed. Seed discoloration can vary in color (pink, pale purple, or dark purple) and size (small specks to large blotches). Disease development is favored by warm and wet weather. Spores are spread by wind or rain to infect new soybean plants.

Disease Management: Crop rotation with non-host plants, planting disease-free seeds, and tillage can reduce inoculum levels and subsequent infection. Fungicides can be applied during the late vegetative through most of the reproductive stages to control CLB. PSS can be controlled by foliar fungicide application of fungicides late in the season and with fungicide seed treatments. Click [here](#) to learn more about CLB management.



Purple discoloration on soybean leaf caused by *Cercospora kikuchii*

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