

Is It SDS Or BSR?

URBANA, ILL.

Soybean fields are showing classic foliar symptoms of yellowing and browning between green leaf veins. This is usually the foliar symptom associated with sudden death syndrome (SDS) of soybean. However, this foliar symptom is also characteristic of brown stem rot (BSR) and stem canker diseases in soybean. According to Loretta Ortiz-Ribbing, Extension Specialist for Crop Systems, with University of Illinois Extension, you have to remember to look at and split open the stems and roots before determining if the foliar symptoms are caused by the pathogen causing SDS or by those causing BSR or stem canker. In some years, plants with these pathogens may not even develop leaf symptoms.

Ortiz-Ribbing, says, "I just looked at soybean plants this morning having classic foliar symptoms, but when I split open the stems and root systems there was browning to indicate the disease was probably not sudden death (SDS) but brown stem rot (BSR)."

How you can tell the difference? Look inside. Plants with BSR may have reddish-brown dis-

coloration of the vascular system and pith of the roots, crown, and also the stem above the soil line, often appearing at the leaf nodes. The vascular browning becomes more continuous as susceptible plants mature. Plants with SDS have a gray-brown discoloration but the pith is white. Some uniform reddish-brown vascular discoloration can occur with SDS but without a streaking pattern. Plants with stem canker can also be confused with SDS, however, soybeans with stem canker have sunken reddish-brown cankers on the lower stem and plants with SDS do not have cankers. In addition, plants having SDS will drop their leaflets prematurely leaving leaf petioles attached to the stem. Leaflets on soybean plants having BSR may have a tendency to remain on the plant.

Ortiz-Ribbing commented, "I would not expect to see SDS on soybeans planted in June, but those that were able to get planted in early May prior to or during the cool, wet weather, could be showing symptoms. Remember to check stems for cankers and split stem and roots to check for browning in addition to observing foliar symptoms." Δ