

Several producers have brought in samples of soybean plants with a discoloration on the lower side of the leaves. This is sunburn or sunscald. Sunburn symptoms are most common on lower leaf surfaces, but may occur on the upper leaf surface as well as pods. Lower leaf symptoms appear as a rust-to-purple cast to the leaf. Lower leaf symptoms occur when a leaf is flipped upside down. Often, a portion of the leaf that has been covered by foliage above it shows no symptoms. The symptoms are most pronounced when bright sunshine and low humidity are followed by a period of high humidity and cloudy weather.

Bacterial blight is also being reported in several soybean fields. Typically, bacterial blight does not cause significant yield losses, but may affect quality of seed. Bacterial blight is spread by rain and wind. Bacterial blight tends to infect new leaves. Lesions are small, angular, water-soaked, yellow-to-brown spots.

Low numbers of soybean aphids are being found in some north Missouri soybean fields. Numbers however are remaining very low. In Ray County for example, counts of 1 aphid per 10 plants were found and the count had remained stable for a week, indicating that natural predators were probably controlling the aphid populations. Several beneficial insects such as the 12-spotted, Asian, and pink ladybird beetles, insidious flower bugs, and damsel bugs are actively feeding on the soybean aphids. Beneficial insects can have a major detrimental impact on soybean aphids, with low to moderate aphid populations often quickly eliminated from infested fields.

Warm weather will help slow aphid reproduction. Soybean aphid reproduction is most rapid when temperatures of 72-77 degrees F and relative humidity below 78% occur during late July and early August. Soybean aphids, when they migrate, are usually all females and are capable of producing 3-8 female offspring per day for a one month period. These offspring are all female, born pregnant and give live birth. Under ideal conditions, aphid populations can double every 2-3 days.

Producers should consider treatment when soybean aphid populations have reached or exceeded the economic threshold of 250 aphids or more per plant during the growth stages of R1 (flowering) through R5 (seed fill). Several insecticides are labeled for control of soybean aphids. At present, higher populations are being found on late planted soybeans and on fields of soybeans growing under potassium-deficient conditions. Older plants past the R5 stage of growth may support soybean aphid populations, but data from more northern states suggest they have little impact on yield.