

You Should Still Scout For Soybean Seedling Diseases

BLUE SPRINGS, MO.

With above-average temperatures and ideal planting conditions this spring in most of Missouri, widespread soybean seedling diseases are less likely to occur, but farmers should still be on the lookout, says a University of Missouri Extension agronomy specialist.

“Soybean seedling diseases can and do occur every year in Missouri,” said Travis Harper. Areas of fields that stay wet or are compacted are particularly at risk.

“Once any of these diseases are found in a field, there is little that can be done to control the disease,” Harper said. “However, it is still important to scout seedlings for the presence of these diseases so that precautions may be taken to avoid plant death or yield loss next year.”

Here are some of the most common seedling diseases of soybeans:

Pythium seed decay and damping-off – Pythium is the most common fungus causing damping-off in soybean. It is more likely to occur on soybeans that are planted early in the season in colder soils. Infected plants have a rotted appearance and can easily be pulled from the soil.

Phytophthora seedling blight – Phytophthora is a soil-borne fungus that causes seed decay, pre- or post-emergence damping-off and seedling blight of soybeans. It is most common in soybeans planted in warm (greater than 65 degrees) and wet soils. The seedling blight phase may cause yellowing, wilting and death of the plant. It is more likely to occur in low-lying or poorly drained areas.

Rhizoctonia seedling blight – Rhizoctonia is

another common soil-inhabiting fungus that can cause seed decay and pre-emergence damping-off of soybean seedlings. Symptoms of rhizoctonia are found on seedlings, young plants and even older plants and consist of localized red to reddish-brown lesions near the soil surface. Infected plants may be stunted or less vigorous than healthy plants, causing uneven stands. Severe infestations and dry weather may cause death of the plant. Like phytophthora, rhizoctonia prefers warmer soils.

Fusarium seedling blight – Fusarium seedling blight is caused by a soil-inhabiting fungus and causes weak or stunted plants and uneven stands. The disease causes a rot of the root system while the aboveground portion of the plants may start to turn yellow. Plants may eventually wilt and die during periods of warm to hot weather. The disease is most severe when the soil is saturated and soil temperature is around 57 degrees at planting, conditions that are not as common this year.

Charcoal rot – Charcoal rot is one of the most common diseases found in soybean. It typically shows up as a mid- to late-season disease on mature soybeans but can also occur early in the season on seedlings. Symptoms include reddish-brown discoloration from the soil stem up that may become dark brown to black as the disease progresses. Plants may die if conditions become hot and dry.

“If it is determined that one or more of these seedling diseases are present, options for next year may include using good-quality disease-resistant seed, only planting in ideal seedbed conditions, or using fungicide seed treatments,” Harper said. Δ