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Spider Mites

One insect that thrives in hot weather is beginning to show up in a few locations. The twospotted spider mite has been found in Lafayette and Saline County. Twospotted spider mites are very small greenish, yellowish to orange arachnids with two dark spots on their abdomen. Adults can barely be seen with the naked eye, and they have 8 legs. Drought triggers spider mite outbreaks in soybeans. Hot and dry conditions reduce natural fungi that infect mites, and increase their reproductive rates. The forecast for continuing hot and dry conditions suggests that careful scouting of soybean fields for mites could be a good investment of time. Their development rates increase when temperatures climb over 91 degrees F and a generation can be completed in as few as 4 days under the very hot temperatures we are experiencing.

Spider mite damage is first typically noticed near edges of fields. They established colonies on the undersides of soybean leaves. Since the mites are so small a handheld lens (magnifying glass) would be useful to examine the undersurface of soybean leaves. Another method to check for spider mites is to use a sheet of white paper. Hold the paper under the soybean leaves and shake the leaves. If you shake off what looks like dust and the dust particles start moving, you more than likely have spider mites. Examine leaves from the bottom of the plant up.

Spider mites injure the plant by piercing cells and sucking out the contents. This produces white or yellow spots or "stipling" most noticeable on the underside of the leaf. Feeding damage begins in the lower canopy and moves upwards. As mites continue to feed, chlorophyll is reduced and the plant's photosynthetic capability is reduced. If hot and dry conditions continue and mite densities in a field increase, plants may take on a bronzed appearance and severely injured leaves eventually drop off.

If we return to cooler temperatures and get some rain in the next week to 10 days, spider mites may not amount to much of a problem. However, areas that have not been blessed with rainfall in the last few weeks need to be examined for spider mites. According to the University of Illinois, a rescue treatment should be considered when plants within field margins are showing leaf discoloration and mites are present. Growers should consider treatment when 20% to 25% discoloration is found before pod set or 10% to 15% discoloration occurs after pod set. The two most common insecticides used to limit mite injury were products with the active ingredients chlorpyrifos and dimethoate. These products will not control eggs and have short residuals so more than one application may be necessary to maintain control under the right conditions.

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