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TWO-SPOTTED SPIDER MITE ON PEANUT

Tetranychus urticae Koch

Description: Adult spider mites are tiny 8-legged pests that are more closely related to spiders than to insects. Two-spotted spider mites are pale yellow and so small (0.4 mm or about 1/500 of an inch) that they are difficult to see without magnification. Mites usually aren't noticed until they reach large numbers and cause damage to plants. Mite damage first appears as chlorotic (pale yellow) areas on terminal peanut leaflets. With continued feeding, circular "hits" of yellow and eventually, dead plants occur in the field. At very high populations the plant terminals are completely covered by mites and the silk webbing they produce.



Spider mites and webbing on peanut. (Univ. of Georgia)

Biology: The two-spotted spider mite spends the winter as an adult in weedy field borders. In spring, populations increase on weed hosts and corn. As corn and weed hosts mature, the mites crawl up the plant and are carried into peanut fields by the wind. Females lay eggs which hatch into colorless, 6-legged larvae. The larvae then become 8-legged nymphs before turning into adults. Mite populations can increase very

rapidly because each female produces about 100 eggs and the complete generation time can be less than one week in hot weather. Mites damage peanut by penetrating the leaf tissue with their mouthparts and removing cell contents. Spider mites usually feed on the underside of peanut leaflets.



Severe spider mite damage to peanut. (W. Campbell)

Management: Spider mites are best managed by avoidance if possible. Irrigation greatly reduces the risk of mites by lowering canopy temperatures and promoting natural control from fungal pathogens. Mowing weedy field borders triggers mite migration into peanut. Establishing a disked, barren soil area around peanut fields early in the year can reduce mite infestations. Avoiding unnecessary insecticide applications is also important. Chlorpyrifos use often triggers spider mite outbreaks. Once outbreaks occur they are often difficult and always expensive to control with currently labeled pesticides. Be alert for mite infestations on drought stressed peanuts, particularly those fields which have had a chlorpyrifos application. Mite infestations usually develop in August and September. Look for the beginnings of pale yellow "hits" particularly near field borders. Pull terminal leaves and examine them for live mites, using a 10x hand lens if necessary. There are no well-defined treatment thresholds for spider mites in peanut yet.

Spider mites are easier to control if detected early. Thorough spray coverage using ground application with cone nozzles and high gallonage is necessary. See the most recent issue of the Ag. Chemical Handbook for control recommendations.

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