Spinach Crown Mite in Connecticut

By Joan Allen

If your early or late season spinach has symptoms of deformed leaves (abnormally puckered or tattered), it could be the spinach crown mite (*Rhizoglyphus* sp.). This tiny bulb mite feeds within the unexpanded newest leaves at the core of the plant, resulting in visible symptoms as the damaged leaves expand. The mites were found on young spinach plants growing in a high tunnel in New London County.

While bulb mites have been around for years in Connecticut on a variety of other hosts (primarily bulb plants), this is the first occurrence as far as I can determine on spinach. The bulb mites have not been thoroughly studied and it is unclear whether this is the same species. They are often reported to have broad host ranges and can survive by feeding on live plant tissue or organic matter in the soil, making them difficult to control. Other recent reports on spinach in the northeast include one from Vermont in 2012 and another from New Jersey in 2013. A report from California described this pest as early as 1949.

Spinach crown mite is favored by a substrate high in organic matter and cool, moist conditions. Young, slowly growing spinach is more severely affected than older, faster growing plants. Control recommendations include sanitation, fallow periods until soil organic matter decomposes, possibly crop rotation and chemical products including endosulfan, bifenthrin and pyrethrin. Chemicals must be applied before damage appears and some references don’t place a lot of confidence in them for this pest if they are mentioned at all.

If you suspect spinach crown mite in your crop, you can check the center of the plant for mites and eggs using a hand lens. The adults and nymphs are white to transparent with eight reddish brown legs and adults are 0.02 to 0.04 inches long. A distinctive feature is sparse, long hairs on the posterior end of the abdomen. Large quantities of spherical transparent eggs are laid in the plant crown area.
Photos by: Joan Allen