Online Extras

Unraveling Indoor Gardening's Silent Epidemic
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Here are a few tips to stay on top of potential pest populations:

Monitoring methods.
Mites are small and difficult to see with the naked eye. Using a 10x hand lens will enhance your ability to see mites and their eggs. Some mites are so tiny that a more powerful scope may be necessary. Spidermites can be detected by looking for the typical mite-caused damage, mites or symptoms of mite infestations such as cast skins and webbing. Their mouth parts are small toothpick-like structures that they use to poke holes in cells before they suck out the cell contents. Spidermite damage is easy to see. The result is small clusters of empty cells that appear from a distance like stipples that urn brown or bronze after a while. Injured leaves take on a bronze appearance, with most of the damage occurring around major leaf veins.
Mites can also be sampled using the "beat method" whereby plant parts are beaten onto an off-white piece of paper or a card. The dislodged mites can then readily be seen crawling on the paper.

Cultural control.
A number of greenhouse practices can affect mite outbreaks. Use of clean, pest-free plants and cuttings is essential. Knowledge of mite-prone species/varieties can enable the grower to avoid these plants or to monitor these most closely as "indicator" plants. Watering practices affect spidermite populations. Drought-stressed plants are most prone to mite outbreaks while overhead sprinkler systems are less favorable for mite outbreaks.

Biological control.
A number of predatory mite species are available for spidermite control in the greenhouse:
Phytoseiulus persimilis, Mesoseiulus longipes (=Phytoseiulus longipes), Metaseiulus occidentalis (=Galendromus occidentalis) and Neoseilus californicus (=Amblyseius californicus). These mite predators have unique properties. For instance, M. occidentalis tolerates a wide range of humidities and longipes tolerate high temperatures and drier conditions. N. californicus is better able to survive at lower spidermite densities and takes longer to suppress populations. Frequently, combinations of two or more species are released.
They are best used as preventive releases made periodically at or before the first detection of spidermites or their damage. The price, availability of obtaining and releasing these predaceous mites should be considered and may be prohibitive. And remember pesticide use before and after making releases may impact the success of subsequent releases.

Physical control.
High-volume, high pressure water sprays can dislodge many mites from foliage and temporarily suppress mite populations.

To learn more about the wide variety of tools and techniques available for use visit:

http://attra.ncat.org
www.ipm.ucdavis.edu
www.tiptopbio.com
www.naturescontrol.com