



Spider Mite Control

Overview

Spider mites are one of the most common pest challenges affecting growers (Fig. 1). They are particularly problematic during hot, dry conditions when their life cycle is completed in less than 7 days and populations build rapidly, leading to overlapping generations. Integrated pest management practices are critical to success but typically need to be complemented with chemical control strategies, especially in cases of high pest pressure or existing outbreaks.



Figure 1. Two-spotted spider mites, *Tetranychus urticae*. Photo by Frank Peairs, Bugwood.org

Integrated Pest Management Strategies

Cultural: remove weeds that can provide an alternate host site; reduce drought stress by providing adequate and even irrigation; avoid overapplication of nitrogen fertilizers that can increase mite feeding

Mechanical: for low populations, a high-pressure water spray can wash mites from plant tissues; horticultural oils and insecticidal soaps are effective at suffocating mites, but can also impact beneficial insects

Biological: predatory mites such as *Phytoseiulus persimilis*, *Amblyseius swirskii*, and *Neoseiulus californicus* can be effective options; consult your biocontrol supplier for optimal environmental conditions for each species and compatibility with chemicals used in production

Chemical Strategies

Consider the following factors to develop a successful treatment plan:

- Focus on thorough coverage, targeting the underside of leaves
- Use a handheld hydraulic sprayer rather than an airblast or boom for application
- Consider adding a spreader/sticker to improve coverage
- Incorporate growth regulators that disrupt the development of juveniles to break the reproductive cycle
- Rotate modes of action and avoid exposure to repeated applications of the same active ingredient
- Choose active ingredients with documented efficacy against resistant populations

Product	Active Ingredient	Compare To	IRAC Group	Activity	Life Stage Affected
Eschaton™ 5 WDG	etoxazole	TetraSan® 5 WDG	10B	Contact, translaminar	Eggs, immatures
Hexcel™ EW	hexythiazox	Hexygon® IQ	10A	Contact	Eggs, immatures
Actuate™ SC	bifenazate	Floramite® SC	20D	Contact	Immatures, adults, eggs
Atrevia™ 3.0% SL	azadirachtin		UN	Contact, systemic	Immatures
Fervid™	abamectin	Avid®	6	Contact, translaminar	Immatures, adults
Piston™ (GH only)	chlorfenapyr	Pylon®	13	Contact, translaminar	Immatures, adults