

Aloe and Agave Mites

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Keywords: eriophyoid, infestation, pest, succulent

Summary

Aloe and agave mites, both eriophyoid mites, are serious pests of ornamental succulents, with aloe mites being more extensively studied than agave mites. Aloe mites cause tumors, leaf distortions, and dense offsets, requiring either removal of affected plants or use of miticides such as fenpyroximate, spiromesifen, or spirotetramat for management. In contrast, agave mites, which reside at the base of leaves or within the core, remain less understood. Symptoms, including greasy smudges and yellowish areas, appear several months post-

infestation. Effective management of agave mites involves vigilant monitoring, removal of symptomatic plants, and application of predatory *Neosiulus californicus* mites or miticides. Miticides should be selected based on ongoing research, with fenpyroximate, spiromesifen, and spirotetramat being potential options. Continuous monitoring and high magnification inspection are crucial for evaluating treatment efficacy and ensuring that mites are eradicated, as symptoms can persist even after treatment.

INTRODUCTION

Both aloe mites and agave mites can be serious pests of ornamental succulents. Both are types of eriophyoid mites and are functionally invisible to the naked eye. More research has been done on aloe mites, while we are currently conducting research on the less-studied agave mites.

Aloe-mite feeding causes tumors, leaf distortions, and growth of tightly packed offsets. Symptoms will not heal and must be either grown out or removed. To manage aloe mites, removing symptomatic plants and using miticides containing fenpyroximate, spiromesifen, or spirotetramat are good options. Thorough coverage is a must.

For agave mites, things are more difficult and less understood. Agave mites feed on the surface of agave leaves, living hidden at the very base of leaves or inside the core of the agave. Symptoms only appear once the damaged leaves have grown out, around 3-5 months, at a minimum, after the agave mite infestation first begins. The most characteristic sign of agave mite feeding is a greasy smudge or streak appearing on agave leaves. Areas around greasy spots frequently appear yellowish and will lack the powdery blue-white surface color that many agaves have. Mites concentrated at the core of the plant can severely damage the new leaves and cause the core to collapse from their feeding.

The following is a plan for managing agave mites based on what we know so far.

Monitoring. Check if any of your agave plants have symptoms and strongly consider getting rid of any with advanced symptoms. Cover and dispose of these plants downwind of the rest of your agave plants. Continue to monitor your plants for symptoms, especially plants close to previously infested agave.

Prevention. After removing already infested agave plants, you can deploy predatory *Neosiulus californicus* mites or use miticides prophylactically to help prevent infestations. Sachets of *N. californicus* are available to purchase and may provide preventative control for several weeks. If using miticides, products containing fenpyroximate, spiromesifen, or spirotetramat are likely good choices, although research is still ongoing regarding these options.

Curing infestations. If agave mites are established in your plants, applications of miticides labeled for use against eriophyids are the most likely to be effective. Predatory mites will not be able to clean up existing agave mite infestations.

Monitor again. Check your plants multiple times after treatment to evaluate what has worked and what hasn't. Remember that just because symptoms appear later, it does not necessarily mean plants are still infested with agave mites. If possible, cut up one or more plants and check for mites under high magnification (30x or greater at minimum) with a light microscope to see if they are still present.