

# Be Afraid of Creepy Soil Mealybugs

Soil mealybugs really are creepy. They may appear seemingly out of nowhere. They hide in the soil and truly terrorize African violet growers.

**What do you need to know to protect yourself and your violet collection from this common pest?**



*Closeup of soil mealybugs on African violet roots.*

Photo Credit: Korina Johnson

You'd think that soil would be important for their survival, but it's not. This creepy pest may survive in almost any warm root environment, including when violets are grown hydroponically (using clay stones instead of potting mix) as you see in these photos.

The white masses are actually clusters of egg sacs protected by a waxy substance.



*Soil mealybug infestation on African violet being grown hydroponically on clay stones.*

Photo credit: Korina Johnson

They reproduce asexually, and one female can produce 100-200 young in just 10 days. Soil mealybugs feed on the roots of many different greenhouse plants, including African violets.

How do they travel? The tiny nymphs which hatch from the egg sacs are the size of dust particles and are nearly invisible. As such, they can be carried by the breeze or simply drop out of drainage holes. Nymphs or crawlers are mobile making it possible for infestations in a collection to occur quite unexpectedly. Soil mealybugs thrive in warm temperatures and especially in climate-controlled growing spaces.



## How to control or eliminate Soil Mealybugs

Vigilance is the best control. Healthy African violets seem to be able to tolerate low-level infestations, which may allow the insects to spread to other plants in the area before there are any above-ground symptoms. Wise

growers randomly check the root systems occasionally, just to look for the typical white masses. By the time the first above ground symptom (a loss of vigor) is visible, the infestation is often well established. As the infestation advances and roots deteriorate, outer leaves wilt -- similar to when the plant is too dry.

Pesticides may be used for control.

1. Many violet growers have found the best success with products containing imidicloprid as the active ingredient.
2. Over-the-counter pesticides using pyrethrin-based chemicals have not proven very effective.
3. Neem oil or insecticidal soap may be effective if the product actually contacts the insects. Repeated treatments are often needed. Read the package directions for specific requirements.

Mechanical controls may be more effective and safer:

1. [Diatomaceous earth](#) (often called DE) is sometimes recommended as a useful tool for killing soil mealybugs. DE, which is stirred into potting mix, has sharp edges which injure insect bodies, but it only works if the potting mix is fairly dry. When the soil is kept moist, the diatoms absorb water and the edges become rounded and ineffective.
2. Throw the bugs out. You may do that either by discarding all infested plants, or by decapitating and repotting. To do the latter, simply cut off the roots and discard the infested soil (inside a bag and taken to a garbage can located outside the growing area). Next, wash the remaining crown, since adult mealybugs and nymphs may be on above ground parts of the plant as well. A quick dip in a solution of 10% bleach or in soapy water, followed by a rinse in tepid water, will eliminate many, if not all, remaining mealybugs. The [crown may then be restarted](#) by setting it on top of a fresh pot of moist potting mix and enclosing all in a clear bag or container until the new roots are established (about one month).
3. A creepier and quite unusual idea came from a well-known Colorado grower, Daryl Hoover, who suggests microwaving infested plants and capillary matting for several minutes. He says this turns the pests and plants to mush! (Disclaimer: AVSA has not tested this method and urges extreme caution. Microwaving an African violet will kill it.)

Don't let the unseen soil mealybug ruin your African violet collection. This creepy pest can be controlled and conquered, but first you have to find it!

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