



Coleus Pest Disorder Guide

This e-GRO Alert provides a photographic guide to coleus pest disorders.

Coleus are popular bedding plants because of their foliage which are available in a wide assortment of colors and leaf shapes. Successful production of coleus requires knowledge of the disorders that can affect plant growth. This e-GRO Alert focuses on coleus pest identification.

Production guides list the following pests that have been reported on coleus: aphids, broad mites, mealy bugs, spider mites, and whiteflies.

In addition, e-GRO authors have observed Western flower thrips, spittlebugs, caterpillars, and slugs on coleus.



Figure 1. Aphids are reported as a pest problem on coleus. (Photo: Matt Bertone)

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COVID-19 protocols caused uncertainty about our ability to conduct research. This research project provided an opportunity to enjoy exploring coleus production as a joint University of Kentucky and North Carolina State University endeavor.

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Broad Mites

While broad mites infestations are uncommon on coleus. Most likely, problems are more prevalent when growers retained their own stock plants from year-to-year, which allowed for a build up of broad mites. Another common instance is when infested hanging baskets are suspended above a crop and the pest fall to the crop below. Nonetheless, broad mites are very small and require 100X magnification to view (Fig. 2). Broad mites cause the new growing tip to become distorted and hard (Fig. 3).



Figure 3. Distorted new growth is the typical symptom of a broad mite infestation, as seen here on ornamental ipomoea. (Photo: Brian Whipker)



Figure 2. Broad mite female and oval eggs can be observed with a 100X microscope. (Photo: Matt Bertone)

Caterpillars

Caterpillars are more common in the landscape than greenhouse settings; however, they can occur. The presence of holes in the leaves (Fig. 4) and black frass are helpful in identifying the problem if the caterpillar cannot be found.

Slugs

Slug feeding results in a similar hole pattern as what is observed with caterpillars (Fig. 5). Inspect the plants for slugs, especially on the bottom of the pot (Fig. 6), and for slime trails to determine if slugs are attacking your crop.

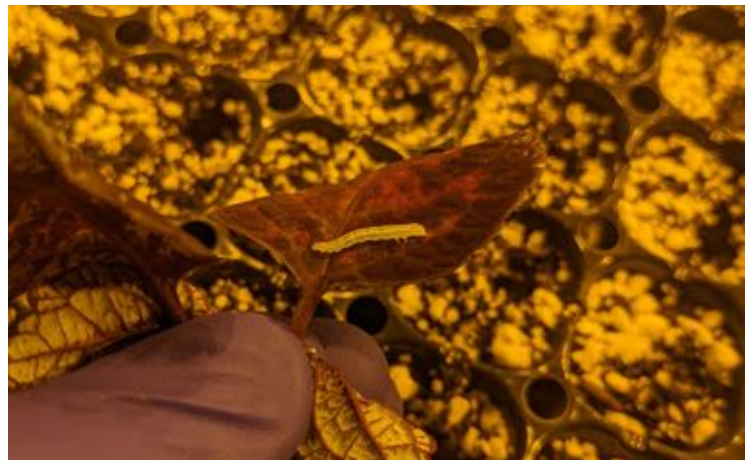


Figure 4. Holes in the leaves (top) along with black frass help determine if caterpillars (bottom) are a problem. [Photos: Brian Whipker (top) and W. Garrett Owen (bottom)]



Figure 5. Holes in leaves are usually the result of slug or caterpillar feeding. A slime trail and finding a slug will help identify the problem. (Photo: Brian Whipker)



Figure 6. Slugs can be found in the interior plant canopy or at the bottom of the pot. (Photo: W. Garrett Owen)

Mealybugs

Mealybugs infestations can occur on plants held back for stock or if they crawl over from adjacent infested plants. The white insect is fairly easy to observe on coleus plants (Fig 7).

Spider Mites

Spider mites are small tan pests with translucent bodies that allow the interior black colored organs to be observed (Fig. 8). Webbing can also be observed on plants when infestations are heavy.

Spittlebugs

Spittlebugs are typically a pest of landscape plants. The immature insect can be found in the protective spittle (Fig. 9). (Photo: Brian Whipker)



Figure 7. White insects on coleus usually denote a mealybug infestation. (Photo: Brian Whipker)



Figure 9. Spittlebugs are mainly only a pest in landscape plantings. (Photo: Brian Whipker)



Figure 8. Spider mite females have a clear body and a tan coloration and can be observed with a 20X microscope. (Photo: Matt Bertone)

Western Flower Thrips

Western flower thrips can be a pest of coleus. In NC State University trials, we have noticed that thrips prefer to feed on the bottom of the leaf (Fig. 10). This can make problem determination a challenge due to no obvious symptoms on the upper surface.

Whitefly

Whitefly can be a minor pest of coleus and the white adults are easy to identify (Fig. 11).



Figure 10. Western flower thrips may only feed on the lower leaf surface, thus making detection a challenge. (Photo: Brian Whipker)



Figure 11. An adult whitefly is easy to see on most plant leaves. (Photo: Matt Bertone)

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