

Poinsettia: Stem Miners

Stem miners are insects with limited references in grower or scientific reports on poinsettias. Recently, in a poinsettia research study, a few scattered plants were found to have mines on the stems due to stem miners.

Stem Miners

During a poinsettia research study at North Carolina State University, unusual stem symptoms were observed on a few main

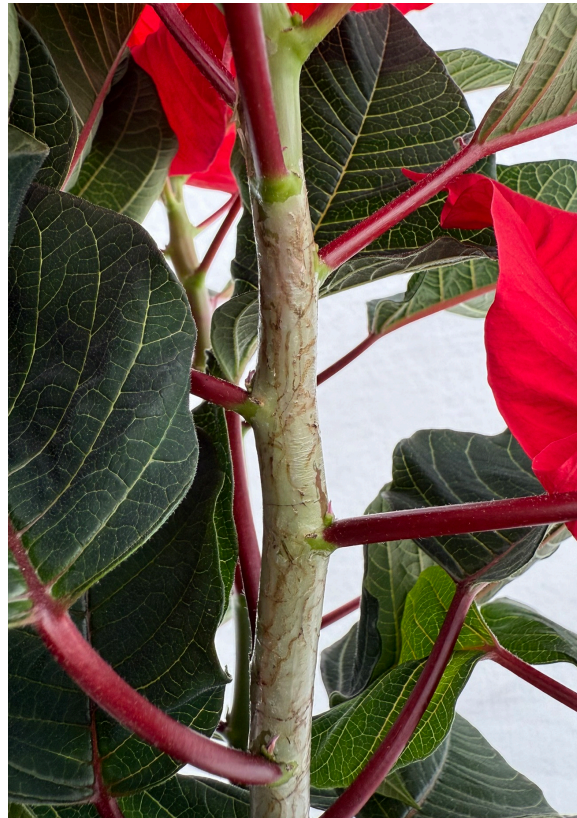


Figure 1. Stem miner symptomology observed on the poinsettia branch still connected to the plant. (© Luke Finn)

axillary stems of *Euphorbia pulcherrima*. Affected stems displayed beige tissue with longitudinal dark lines (Fig. 1). The situation was only noticed due to a stem becoming detached. Otherwise, the situation would most likely have gone unnoticed within the plant canopy (Figs. 2 & 3). These symptoms are reminiscent of the dark trails caused by leaf miners in vegetable and ornamental crops; however, mining within the stem is rarely reported. The affected shoots did not die, and because the symptoms are covered by the leaf canopy, the situation would go unnoticed (Fig. 4).

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Prior Reports

Dr. Matthew Bertone of the NCSU Plant Disease and Insect Clinic was quick to point out that stem miners exist. There are limited published resources documenting 'stem miner' in poinsettia stems. Charley Eiseman reports cases of stem miners (*Marmara gulosa*) seen in poinsettias in California in 2002, but information is limited (Eiseman, 2022). There were three poinsettia cultivars in the greenhouse, and only one, with thicker stems, was affected. There are scattered reports of stem miners in various other floriculture crops as well as certain trees. Reports of stem miners (*Marmara sp.*) have been made on blue lobelia and menispermum in Iowa in 2017 and 2018 (van der Linden, 2017; van der Linden, 2018). Similar symptoms have been observed on willows, elms, and ash trees, although these are estimated to be bark miners (*Marmara salictella*) (Wilson, 2014; Feldman, 2017; Feldman, 2019). *Marmara* spp. stem miners are a generalist feeding species with a wide host range. Mining is most notable on citrus and watermelon fruit and, therefore, is more commonly reported in the literature. The adult moths are tiny (~3 mm), which is smaller than a shorefly adult, and are often not observed.

Preventative Measures

While this is not a problem that is commonly observed, it is something that may appear in your greenhouse. We cannot pin down the exact species, but our preventative measures stay the



Figure 2. Beige tissue with longitudinal dark lines observed on the poinsettia branch. (© Luke Finn)



Figure 3. Stem miner symptomology observed on a poinsettia branch that had previously detached from the plant. (© Luke Finn)

same. Growers should be frequently scouting their crops and include stem inspection in that routine. Affected plants should be removed from the greenhouse to help prevent further spread. Maintain proper sanitization procedures to help limit the possibilities of these insects entering your greenhouse.

Summary

Stem miners will likely be an uncommon problem in the average grower's greenhouse, but it is important to be educated and to know what to look for. Being informed will allow growers to be proactive in the preventative and scouting measures. Maintaining a proper sanitation regimen will alleviate most growers of any issues. Reporting any signs of symptomology will help further the research and understanding of these insects and how to control them.



Figure 4. Plant growth was normal, even with mines circling the stem. (© Brian Whipker)

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