



Greenhouse Pest Message, March 25, 2022

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Ghost Spot on Geraniums develops when a Botrytis infection begins and then stops due to a change in temperatures or relative humidity levels. Prevent further Botrytis infections by spacing plants to allow for good air circulation and minimize leaf wetness (this is also very important for bacterial blight on geraniums)!

Reduce humidity levels by heating and venting in the evening and early morning hours. Water in the morning so leaves dry by nightfall. Avoid excess nitrogen fertility. Calcium chloride has been shown to reduce susceptibility of some flowers. During favorable conditions for Botrytis infection (extended periods of cloudy, overcast conditions) apply preventive fungicides such as Affirm WDG (19), Astun (7), Broadform (7/11), Orkestra (11/7), Mural (11/7), or Daconil (M05) to name a few.



Figure 1: Ghost spot on geraniums. Photo by L. Pundt

Aphids – I have been seeing isolated outbreaks of aphids, but in the cases I have seen, cultural mistakes are encouraging their development. In one situation, the grower increased their fertilizer use without realizing it. The use of excessive nitrogen promotes lush plant growth that is favorable to aphid development. In another case, aphids were migrating from the older plants (hydroponic leafy greens) to the younger starts, so aphids continued to spread in the greenhouse.

Always inspect incoming plants for signs of aphids. Always inspect favored weed hosts such as bittercress. Often growers report that the aphids occurred “overnight”. Aphids are borne pregnant and give birth to living young. An adult female may live for up to one month. During this time, she may give birth to 60 to 100 live nymphs.

Regularly scout plants on a weekly basis to detect aphids before their population explodes. Of course, it is very difficult and time consuming to detect aphids on hanging baskets, plus the warmer temperatures at that higher-level speed up their development time.



Figure 2: Aphids and their shed skins on calibroachoa. Photo by L. Pundt

Selective feeding blockers work well as foliar applications against aphids such as Rycar (9B) (Greenhouse use only), Ventigra (9D) and Endeavor (9B)). (Endeavor is also labeled as a drench for use on ornamentals). Unfortunately, there are not a lot of effective rotational products for these selective feeding blockers. Kontos (23) is hard to use for growers of diverse spring crops because of potential plant phytotoxicity concerns. Kontos label states it is not recommended for use on the following varieties: geraniums (*Pelargonium* spp.), orchids, hoya, *Dracaena*, *Cordyline*, *Schefflera*, *neanthebella* palm, and ferns. Do not make more than one application per season to *Hydrangea*, *Impatiens* spp., crotons (*Codiaeum* spp.), *Fuschia* hybrids, *Petunia*, *Peperomia*, stock, or cyclamens (*Cyclamen* spp.)

Many times growers will treat their hanging baskets with foliar applications while their plants are at the floor or bench level before they are hung and then apply a longer lasting systemic insecticide as a soil drench for 5 to 7 weeks of protection. Some options include Flagship (4A), Altus (4D), Mainspring GNL (28), and Safari (4A). Mainspring GNL is also compatible with *N. cucumeris* preventive use against thrips and broad mites.

Be sure to rotate among different modes of action to help prevent insecticide resistance.

For a complete list of products, see the New England Greenhouse Floriculture Guide online at <https://greenhouseguide.cahnr.uconn.edu/>

Consult and follow pesticide labels for registered uses and plant safety information. To avoid potential phytotoxicity problems, spot test before widespread use. No discrimination is intended for any products not listed.

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