

Greenhouse Pest Message, October 1, 2021

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Tips on Scouting for Whiteflies on Poinsettias

The primary whiteflies species found on poinsettias is the sweetpotato whitefly, *Bemisia tabaci*. It is often introduced into your greenhouse as eggs on the young plugs and cuttings, so is easily overlooked.

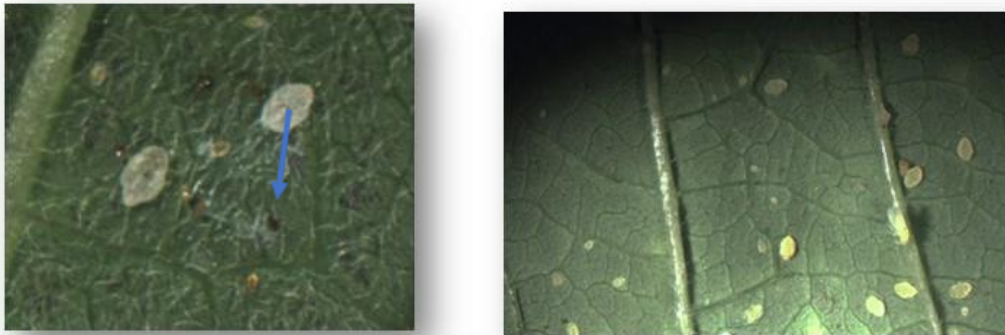


Figure 1: Bemisia whitefly eggs (on left between the white whitefly pupal cases). Adults and crawlers on right. Photos by L. Pundt

In almost thirty years of scouting poinsettias, I have only encountered greenhouse whiteflies, at one retail grower, where greenhouse whitefly infested herbaceous perennials were directly outside their retail greenhouse.

The best way to identify the different whitefly species is to examine the immature pupal stage. The greenhouse whitefly pupae are white with straight, elevated sides. You can also see a fringe of wax filaments around the edge of the pupal case.

Look for the sweet potato whitefly pupae that are yellowish with a more rounded edge. In general, sweetpotato pupae have fewer waxy filaments than the greenhouse whitefly pupae. Red eyes indicate adults are ready to emerge.

When you are first scouting for whiteflies, you may only see a few adults on the youngest leaves and an occasional plant with one or two heavily infested leaves. Focus on the more whitefly susceptible whites, and colored varieties as well as variegated varieties. Dark leaved red varieties are often less susceptible but should still be scouted.



Figure 2 & 3: Greenhouse whitefly pupae (left) and sweetpotato whitefly pupae (right). Photos by L. Pundt

Whitefly Development at 70°F

Developmental Stage	Greenhouse Whitefly	Sweet potato Whitefly
Egg	9 days	12 days
1st instar	4 days	6 days
2nd/3rd instar	7 days	10 days
Pupal (4th instar)	11 days	10 days
Adult	5-40 days	5-30 days
Egg laying period of adult female	6 days	22 days
Egg to Adult	32 days	39 days

Whiteflies tend to be found in hot spots, like aphids and so many other greenhouse insect pests. With a life cycle taking over a month, it takes time for populations to increase.

For more photos: **See Tips on Scouting Poinsettia Insect and Mite Pests** (note new link) [PDF 01Tips on Scouting Poinsettia Pestsfinal2017.pdf](#)

When using biological control agents, Dr. Sarah Jandricic suggests determining if any whitefly life stage is present. If less than 20% of the poinsettias inspected have any whiteflies in mid-September, one can continue using biological controls.

Poinsettia Problems: Your Monthly Scouting Guide 2021 On Floriculture
<https://onfloriculture.com/2021/07/09/poinsettia-problems-your-monthly-scouting-guide-2/>

Because *Bemisia* whiteflies, are highly resistant to many different insecticides, do not rely on just one of mode action and be sure to develop an effective rotation program keeping in mind there are more limited options for foliar sprays once plants are showing color.

Drenches

As a rule, insecticide drenches tend to be long-lasting (4 to 6 weeks) and can be used early in the crop or later in production. Keep in mind that drenches will not be effective on plants with unhealthy roots.

- Safari (4A) is very water soluble and has long been relied upon by grower as a drench. Labeled rates are 12 to 24 oz per 100 gal. However, growers report that they continue to need to use higher rates for effective control. So, 18 oz per 100 gal. is often now used.
- Kontos (23) is very water insoluble and slow acting so make take 3 weeks to become fully effective. It is best used preventively against the immature stages.
- Mainspring GNL (28) can be used as a **preventive** drench. However, the Syngenta bulletin “Mainspring Best Practices Q&A” recommends application no later than the second week of October.
- Endeavor (9B) is also labeled as a drench for whitefly suppression.

Foliar Sprays

There are many more options for foliar sprays. The main issue is not to overuse the products that you can only use on bracts when you made need to control a hot spot of whitefly activity before shipping.

Some options for foliar sprays include Altus (4D), Kontos (23) , Mainspring GNL (28), Rycar (9B), Savate (23), Endeavor (9B), Enstar AQ(7A), Flagship (4A), Pradia (28 & 29), Safari (4A), Sanmite (21A), Tristar (4A) and Ventigra (9D). Altus (4D), Flagship (4A), Sanmite (21A), Mainspring GNL (28), Pradia (28 and 29), Rycar (9B), Savate (23), Safari (4A), and Tristar (4A) are reported to be safe to use on bracts, so be sure not to overuse before you really need them. For example, the Rycar (9B) label states can only be used twice a crop cycle.

For materials labeled for whiteflies, consult the most recent edition of the *New England Greenhouse Floriculture Guide: A Management Guide for Insects, Diseases, Weeds and Growth Regulators* available online at <http://negfg.uconn.edu/>

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

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