

GROWERTALKS

Growing With Griffin

3/1/2018

How to Protect Spring Baskets from Pests

Rick Yates

Hanging baskets are staple items in most spring greenhouses, as growers seek to bolster their bottom line with the additional production capacity. When the baskets are hung up, they benefit from higher light levels, good air movement and warmer temperatures.

Elevated above relatively cool floors and benches, plant growth accelerates in hanging baskets—but the plants aren't the only things that benefit. The warmer air and tissue temperatures in hanging baskets serve to ramp up the reproductive rates of pests.

In addition, scouting baskets for pests when they're hung up on purlins requires more effort than scouting plants on benches at waist height. This may allow pests to get a head start by avoiding detection longer.

Achieving uniform spray coverage can be an additional challenge for hanging basket growers. Hanging baskets are here to stay, so it makes sense to develop a strategy to manage insect and mite populations tailored specifically for overhead basket production.

Early detection of pests can lead to a wider selection of control options and overall lower costs. Scouting is so beneficial that some operations have staff devoted to that role and others have hired professional plant scouts. However you decide to handle the scouting needs in your operation, the key is to have someone whose first call is to scout, so the task doesn't fall by the wayside when things get busy(ier).

Pulling down baskets for a close examination requires extra effort, but the price for not being diligent may be discovering an out-of-control pest problem when the baskets are being pulled for shipping. Scouting pays rather than costs. Consult with your supplier for suggested protocols to assist with your scouting program.

Systemic, longer-residual pesticides applied as soil drenches are available for growers to consider in protecting their hanging baskets. If the crop is started on the bench or floor, growers may elect to treat pests via foliar sprays until it's time to hang the baskets up. To extend the length of control, insecticide drenches can be applied as close to the time the baskets will be hung up as possible. There is no single product that's the best under all circumstances, so consider these factors when weighing options:

- What are the primary pests among the crops to be treated?
- Length of control needed?
- Known phytotoxicity concerns?

Table 1.

Product	MOA	Primary pests controlled
Flagship	4A	Aphids, beetles, leafminers, whiteflies, mealybugs
Kontos	23	Aphids, broad mites, mealybugs, spider mites, thrips, whiteflies
Mainspring GNL	28	Aphids, caterpillars, leafminers, thrips
Safari	4A	Aphids, beetles, leafminers, mealybugs, whiteflies

All of the products listed in Table 1 provide long residual control from a soil drench, though it's impossible to predict exactly how long due to many variables. On average, five to seven weeks of control can be anticipated when applied as directed by the label.

Most of these products take one week or less to take up through herbaceous hanging basket crops, however, Kontos can take up to three weeks to become fully effective. Kontos will cause phytotoxicity on geraniums, dracaena, cordyline, ferns and a few other crops found on the label. In addition, some growers have reported that certain verbena varieties experience blooms that turn a lighter shade after treatment. Flagship, Mainspring GNL and Safari have demonstrated excellent plant safety, but growers are always encouraged to run small-scale trials when considering a new pesticide/plant combination.

Many growers are using BCAs as their primary insect and mite control method, including hanging basket production. In some cases, soil drenches of insecticides may be combined with applications of BCAs by various methods to achieve optimum control for hanging baskets.

None of the insecticides mentioned previously controls all pests, leaving open the possibility of using BCAs to augment the spectrum of control. For example, a grower planning to use Safari or Flagship to control aphids and whiteflies on verbena baskets still needs to be concerned about thrips and spider mites.

Sachets (carefully designed breeding colonies) of *Amblyseius cucumeris* can be used to effectively control thrips and suppress spider mites for four to six weeks, an effective complement to the drench treatments. Many potential combinations are possible, customized to match the crop(s) involved. Check with your supplier for detailed BCA-pesticide compatibility information to guide your purchasing decisions.

BCAs available in sachets include:

BCA species	Primary pests controlled	Pest suppression
<i>Amblyseius andersoni</i>	Spider mites, broad mites*	Thrips
<i>Amblyseius californicus</i>	Spider mites, broad mites*	
<i>Amblyseius cucumeris</i>	Thrips, broad mites*	Spider mites
<i>Amblyseius swirskii</i>	Thrips, broad mites*, whiteflies (eggs)	Spider mites

*If released before crop damage is present

Sachets used for hanging baskets can be purchased with hooks or on sticks. Sachet placement is very important: The sachets should be placed in the plant canopy and shaded from direct sun to maximize the longevity of the breeding colony.

Always read and follow the entire pesticide label. Pesticide labels change; be sure to check incoming containers for changes. Pesticides mentioned may not be labeled in all states. Products other than those mentioned may also be safe and effective. **GT**

Rick Yates is GGSPRO Technical Support Manager for Griffin. He can be reached at ggsprotech@griffinmail.com.