

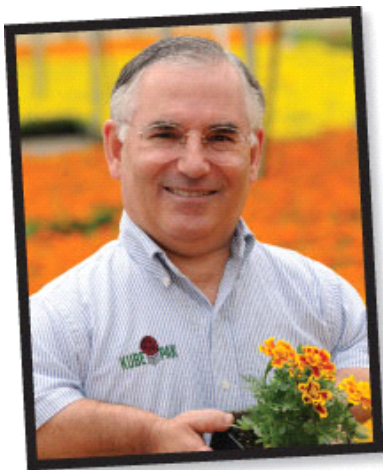
GROWERTALKS

Growers Talk Business

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Beneficial or Not?

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The use of beneficial insects in our industry isn't new. I remember going to a seminar about 10 years ago where a group of speakers extolled the value of their biological remedies. Sadly, most of their "proof" was anecdotal and lacked any scientific backing. It was almost comical how the speakers would make a statement about how a certain treatment worked so effectively, but when asked by the audience if they had any segregated control plants to see if the treatment they applied worked, they said no. Much of what was said was dismissed and resulted in many of the audience to consider biological controls for insects simply a fantasy.

Let's fast forward to 2013. We were finding it more and more difficult to control the thrips population on our finished hanging baskets of calibrachoa. We tried many different chemical applications on these baskets and yet found little success in reducing the thrips counts. As a result, we had to dump thousands of 10-in. baskets because of thrips damage. We knew we had to come up with a better approach and decided it was time to revisit biological controls—specifically beneficial insects.

At that time, we were approached by BioBest about using their beneficial insects to control the thrips. We also had discussions with Syngenta about changing the way we used Flagship for insect control. For the spring of 2014, we embarked on a new method of insect control in the greenhouse.

The first step of the process involved dipping all of the unrooted cuttings in a solution of Botanigard and nematodes before they were planted in 102 trays for rooting. In addition, seven to 10 days after planting, we applied *Cucumeris* mites to control any insects that hatch from eggs after the unrooted cuttings were stuck. We also sponged all of the rooted cuttings we purchased from other sources in the same solution.

After the plants were sufficiently rooted, which took around five to six weeks, we then planted the rooted cuttings in their finished container. This could be a hanging basket or a planter.

Once the rooted cuttings were planted in their finished containers, we then treated them with a sponch of

Flagship at 8 oz./100 gal. This provided excellent control of fungus gnats, whitefly, thrips and aphids. The Flagship was effective in controlling these insects for the six weeks that the containers would be spaced pot tight on the floor of the greenhouse.

After the six weeks, the containers were final spaced. At the time of final spacing, a sachet of *Cucumeris* mites was added to either the basket, which was hung up, or the planter, which was grown on the floor of the greenhouse. Our goal was to get six or more weeks of control from the *Cucumeris* mites. Because we were using beneficial insects, this protection would extend to the homeowner as well.

Once the containers were final spaced, we fogged the greenhouse weekly with Botanigard and an Insect Growth Regulator (IGR), which was compatible with the *Cucumeris* mites. Throughout the entire spring season we didn't apply one wet spray.

What were the results? At the time of shipping, we saw no discernable thrips activity.

Keep in mind, we did a weekly insect scouting of the greenhouse and recorded those results in an Excel spreadsheet. The outstanding success of the program was a complete surprise to us and dispelled any doubts about using beneficial insects in the future.

Now, I don't want you to think that we've become spokespeople for non-chemical control of insects. But we certainly are proponents of a balanced approach to the control of destructive pests through the use of beneficial insects, along with judicious use of chemicals. As you know, there's a great deal of criticism by certain advocacy groups against the use of neonicotinoids and their supposed damage to the bee population. We feel the approach we've taken minimizes any potential damage to the bee population because the neonicotinoid is applied so early in the growth process that by the time the containers leave our greenhouse there's little to no potency left to the neonicotinoid that was applied. Also, we prefer using neonics, because if we stop using them, then we'll have to go back to using old chemistries that are much more dangerous to the environment than the neonics.

In conclusion, we would recommend all growers start learning about the benefits of using beneficial insects. We would suggest you start slowly with various trials and, once you're convinced that you are on the right track, introduce these practices to your regular production. **GT**

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