I reckon if I make a strong statement at the start of this article, I'll get everyone's attention. So here it is: Since the beginning of 2009, I haven't sprayed pesticides or fungicides on our nursery. Apart from drenching some chemical to treat a hotspot of foxglove aphids on fuchsia hanging baskets, our banker plant system with Aphidius colemani and Aphidius ervi seems to have done its job well. Quality is good, plants have an extra sheen and customers are interested in the biological control concept, which so far has been successful for us.

I quickly expanded the use of biological controls to our whole production area, not just the two areas that I mentioned in my March 2009 article, because I realized it was a good way to proceed and was easy to implement. In early February, I found thrips on some bought-in perennials, so this gave me an added push.

To make biological controls work, you need a good support system. By that, I mean a supplier of biological control agents (BCAs) who's able and willing to provide lots of experienced information and onsite education. Another essential is a good scout. In Steve, one of my grower helpers, I have someone who's diligent, thorough and keen on making the program work. The sharing of materials and information with another local grower also helps. You need to be committed to making the program work, and attention to detail is important.

We've learned a lot along the way, and I have some new friends as a result. My most important piece of equipment on the nursery is our refrigerator, where we keep a constant supply of Rootshield WP and Steinernema feltiae (parasitic nematodes—my "new friends"). Nematodes are so easy to apply; anyone can do it. It's important to apply them out of direct sunlight, so it needs to be done in the evening or on a cloudy day. None of us want wet days in spring, especially on the weekends, but I really enjoy at least one wet day a week because applying nematodes is my new rainy day activity. I've applied nematodes to every nursery area, including our outside perennial area, at least once a week for the last four to five weeks, and we're extremely free of thrips and fungus gnats. On the Thursday before Mother's Day, because they are so safe, I was applying nematodes in and around people picking orders. No REI makes application easy and
production continues without a hitch. It can even be done wearing shorts and a T-shirt and listening to your iPod, which sure beats suiting up in protective clothing.

One 250-million pack of nematodes in 5 gal. of water agitated with a small pump and applied with a hosepipe and shutoff (via a Dosatron minus the suction screen) can cover about 1.5 acres in two hours. On a rainy day, I have no qualms about using this solution to wet down flowering crops on floors/benches and hanging baskets. Nematodes need a moist environment to swim around in so they can attack the larvae of unwanted pests. At any time during the application process, using a flashlight and a hand lens, you can see the nematodes swimming in the solution and know that they are viable.

After having my banker plant production house contaminated in early spring with a quantity of insect-infested gerbera plugs, we also began to develop a nematode dipping protocol to deal with bought-in plug material. Essentially, trays of young plant material can be dipped/submerged in a nematode bath before planting. I’ve been doing this with all our bought-in vegetative plugs for a number of weeks and feel that this process helps prevent contamination of thrips and fungus gnats in our production area. Wouldn’t it be great if our plug suppliers were using nematodes as well, which would save us this step? Some of our suppliers are doing just that and it’s been fun sharing my positive experiences with them and convincing them to jump on the BCA bandwagon.