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Grower-owned insectary raises beneficial insects

By Kathy Coatney

Marketing its products as "locally grown beneficial insects," a farmer-run cooperative in Santa Paula raises beneficials to control pests in citrus fruit and avocados.

The Associates Insectary co-op mixes the use of beneficial insects into its overall pest-control services for its farm members.

"It's true integrated pest management," said Bob Pinkerton, a lemon and avocado farmer who chairs the Associates Insectary board and is a past president of the Farm Bureau of Ventura County.

The co-op uses pesticides as well as beneficials, according to Brett Chandler, its president and general manager.

"We don't just provide beneficials, we provide pest control services," Chandler said.

But the use of the beneficial insects has allowed many of the co-op's farmer members to reduce their pesticide use.

"Today, we have ranches that haven't been sprayed in years," Bill Grant, the insectary's production manager, said.

When treatments are indicated now, a material that selects and primarily kills the intended pest is used, Chandler said, and it is one that is the least disruptive to the beneficial insects.

There are about 200 members in Associates Insectary, which he said represents about a third of the growers in the area.

Farmers pay by the acre to become co-op members.

"There's a per-acre fee, and there's a per-tree fee, and it's different between avocados and citrus," Pinkerton said.

Membership benefits include beneficial insects, pest control advisors to monitor the grove for pests, a monthly report from the PCAs and treatment recommendations, Pinkerton said, describing the service as "a turnkey operation."

Pinkerton said members also save money because they don't have to invest in expensive, sophisticated equipment. The special tractor and sprayer used for treatments could easily cost more than $100,000, and it would only be used three to four times a year, he said.

Getting ants and dust under control in orchards is critical for a successful biological-control program, Pinkerton said.

"I haven't done any ant spraying in a number of years … and I basically would say that once you get them under control, it's pretty easy to keep up with the program," Pinkerton said.

Dust also creates problems for the beneficial insects. For example, the fine particles of dust that cover leaves are a problem for the tiny Aphytis wasp used to combat red scale, Chandler said. As the wasp moves around on the leaf surface, it brushes up against those particles, and the dirt can damage the waxy layer of the wasps' skin.

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"It's like sandblasting them, and they literally die," Chandler said, adding that dust is a problem for predatory mites, too. The predatory mites they release are looking for eggs, and the particles of dust are about the same size as the eggs.

"They do it kind of by touch first, and feel, and it kind of confuses them," Chandler said, adding the dust disrupts the mites' activities and reduces their ability to feed.

To combat the dust, "We do go into quite a few orchards now with our spray rigs, especially our oscillating booms, and wash the trees off (with water)," Grant said.

Because of the moderate climate in the region, farmers are able to grow three crops of lemons a year.

"There's three crops on the trees at all times," Chandler said. "There's always blooms, small fruit and mature fruit on the lemon trees."

But the moderate climate is as ideal for pests as for crops.

"We virtually have pest problems all year from most pests," Chandler said, requiring constant monitoring by the PCAs.

Certain weather conditions and pest levels may mean even the beneficials can't do their job, particularly in the avocados, Chandler said.

"We've got pests that, in some years, the weather is just absolutely perfect to their breeding. They'll outbreed the beneficials and become a problem, and we have to treat for them. And there are other years where the beneficials do their chore, and it's not needed," he said, emphasizing regular PCA inspection, monitoring and consultation with the grower is vital.

"This is an integrated service and beneficials are a tool just like anything else, but it takes an educated person to use them, one who knows all the operations going on in the field," Chandler said.

"You have to go out there and find exactly what pest levels and what beneficial levels and what crop conditions are taking place to decide whether you should use beneficials, or whether you need to take some cultural action, or whether they have failed and you need to spray," he said.

Getting an integrated pest management program off the ground takes time, Pinkerton said.

"If you've never used beneficials before, it's going to take them a little while to take hold," he said. "It's not one of those things that you can go out and release (beneficials) today and go out three or four weeks from now and say, 'Oh boy, this is great, look at what they've done.' It doesn't quite work that way. It takes a little while to ramp up."

Growers need to understand there are good insects and bad insects, Pinkerton said.

"Integrated pest management is like looking at an old fashioned scale. You put a weight on the left side, and you put something on the right side, and then you try to balance it," he said.

The goal is to create balance between the good and bad insects, Pinkerton said.

The Associates Insectary Web site is found at www.associatesinsectary.com.

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