



The vine intervention

When it comes to tracking pests, in dogs they trust

By RICH FREEDMAN/Times-Herald staff writer

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Caroline Upton, Shay Cook and Scott Carlisle may some day be responsible for better wine grapes around the world.

And the three are so close, they can almost smell success. Rather, their well-trained dogs can almost smell it.

Benicia's Carlisle, Concord's Cook and Upton of Calistoga joined talents to form "Insect Detection Dogs," which is in the process of perfecting canines that can neutralize vine mealybugs, the bane of the vineyards.

"It's getting to be a very bad problem," said Carlisle. "There are other types of bugs that have been problems, but you can control them without too much work."

The 18 inch vine mealybug, however, can be a nasty critter. Infestation causes mold and grape viruses. Targeting the pest before it



multiplies is imperative, said Upton, who was raised on wineries.

"We hope to decrease the pesticides," she said, adding that the swiftness with the dogs training capability can lead to the sniffing of other pests like apple moths or the sharpshooter.

Cyrus finds a vial of vine mealybug place for training at the Three Palms Vineyard in Calistoga. (Stacey J. Miller/Times-Herald)

"The world is their oyster," Upton said smiling.

The trio has worked together in search-and-rescue teams and quickly found their abilities - and their dogs - perfect for the latest challenge.

"Since our dogs are already trained to do

search-and-rescue, they know how to find something," Carlisle said.

The trio gathered recently at Three Palms Vineyard in Calistoga, owned by Upton's family. With 86 acres of dirt, rocks and vines to roam, it's been the perfect training ground for Cyrus, a 4-year-old black Labrador, and the three German Shepherds the trainers own.

To test the training, a glass vile-inside-a-vile of synthetic female vine mealybug pheromone was hidden in two locations in the vineyard. Within minutes, Cyrus,



Cyrus, a field dog with Insect Detection Dogs, is rewarded for finding an vial of vine mealybug placed for training at the Three Palms Vineyard in Calistoga. (Stacey J. Miller/Times-Herald)

replete with GPS, circled the target and starting yapping to his owner - a veritable alert that he found the booty.

With the GPS, the dog's journey can be pinpointed and charted, Carlisle said. With the mealybug quickly located, the trainers can save vineyard proprietors time, effort, money and the need for pesticides.

"That's the idea," Carlisle said. "Find them early in the infestation so they can knock it down before it gets carried away. These bugs can spread through a whole vineyard and ruin a crop."

The idea of converting human search-and-rescue dogs to seeking damaging bugs was a mutual concept between the three trainers, Carlisle said.

"We almost simultaneously came up with the idea," he said.

The three obtained a synthetic pheromone from the Napa County Agriculture Department last July and secured live insects soon after.

It took "minutes" for the dogs to zero in on the scent, Carlisle said. "Though each individual dog is like individual humans. Some have more of an aptitude for it than others."

Because of the unique service and the trio's already extensive contacts, they're already getting called to bring the dogs in.

"We have vineyard owners asking us, 'When are you going to be ready?' " Carlisle said.

In due time, said Upton.

"We're going about this business with every single parameter and control we can think of," she said, adding that they are working with the Napa County Agricultural Commissioner's Office and U.C. Berkeley "building a strong foundation before we leap off and offer our service. That being said, we're going to have at least two maybe three dogs up and running by March."

The trainers envision their services far beyond the Napa Valley.

"It's a definite possibility it can be worldwide," Carlisle said. "They have this problem in Europe, South Africa, New Zealand. All over the world."

Again, it's about solving the problem before the bugs not only destroy the grapes, but before vineyard owners must resort to spraying.

"With all the new organic growers, you can't go out and just spray all over the place," said Carlisle. "They have to go vine by vine to try and find these insects. If we can do that much faster and cover a bigger area, we're saving them."

Each dog can work solo or in tandem, Cook said.

"I'm hoping this expands to different insects in different counties," Cook said. "We're not just sticking to the vineyards. We're looking into the different insects that may impact the agricultural community in general."

At first, it was "curiosity" to see if dogs could sniff out vine mealybugs, said Cook, a 22-year dog trainer.

Finding the bug isn't hard for an energetic pooch, Carlisle said.

"If you wanted to find a pest, a person or a ping pong ball, that doesn't matter," he said. "They can discern the scene from its surroundings. The trick is to teach them how to search and how to do it so we can control it. I think that's where we have the advantage. We can teach dogs to find whatever we want."



Shay Cook, left, and Caroline Upton fix a GPS tracking system to black Labrador Cyrus before he sets out to track insects. (Stacey J. Miller/Times-Herald)

