

Subscribe to our weekly California email newsletter at CapitalPress.com/newsletters

California

Researcher uses tiny predators, drones against strawberry pest

By **TIM HEARDEN**
Capital Press

DAVIS, Calif. — A university researcher is working to enhance the effectiveness of a natural treatment against spider mites, a major pest in California's strawberry fields.

Chemical ecologist Elvira Simone de Lange of the University of California-Davis has received a three-year, \$249,878 federal grant to use drones to detect spider mite-related plant stress and then target the pests with natural predators.

The predatory mites are already widely used in the strawberry industry but can die quickly if they don't find prey, said de Lange, a post-doctoral researcher in the UC-Davis Department of Entomology and Nematology.

The drones can examine large swaths of land all at once and detect subtle differences in the reflectance of the strawberry canopy, which indicates spider mite-induced stress, she said.

"The project goal is to demonstrate that drones can



Photo courtesy of UCANR

Chemical ecologist Elvira de Lange works in the Christian Nansen Laboratory at the University of California-Davis. She is studying the use of natural predators to combat spider mites in strawberry fields.

be used to improve spider mite management and control, while at the same time reducing the need for and reliance on miticides," de Lange said in an email.

The drones used for the project would be too expensive for most growers to purchase, but agricultural consulting companies could offer the service to growers, she said.

The grant is from the USDA's Western Sustainable Agriculture Research and Education Program — known by the acronym SARE — and will fund research through March 2020, according to a university news release.

The project comes as organic strawberry acreage in California has increased rapidly each year since 2000 as growers have moved away

from fumigants and pesticides, although organic yields have lagged behind those of conventionally managed farms.

But de Lange's project could help all strawberry growers, as mites are not controlled by fumigation, noted Carolyn O'Donnell, spokeswoman for the California Strawberry Commission.

Several species of spider mites infest the state's strawberry fields, but the two-spotted mite — *Tetranychus urticae* — is the predominant species affecting fields on the Central Coast, according to the UC's Statewide Integrated Pest Management Program.

The mites suck plant juices, resulting in smaller berries and reduced yield. Mite-feeding symptoms include dense webbing and dry, brittle and discolored leaves, the UC explains.

"Spider mites are a problem that can come and go, depending on field sanitation ... and weather conditions," O'Donnell said, noting that keeping weeds under control can make a difference.

Cattlemen to urge Trump to reconsider monuments that impact grazing

By **TIM HEARDEN**
Capital Press

SACRAMENTO — A cattlemen's group wants President Donald Trump's administration to reconsider national monument designations in California that have greatly impacted grazing.

The California Cattlemen's Association is preparing remarks to submit during a public comment period, which runs through July 10, that will detail what it sees as negative impacts from the designations under the Antiquities Act.

The organization wants to hear from ranchers with allotments on the lands that have been affected.

"We're actually going to be advocating for most of the monuments that were listed in the (Federal) Register to not necessarily be rescinded, but to be diminished in size to an appropriate level," said Kirk Wilbur, the CCA's director of government affairs.

In particular, the CCA would like Trump to reconsider the California Coastal National Monument, which was designated in 2000 by President Bill Clinton and later expanded by President Barack Obama. The designation protects various segments of the coastline from Humboldt County to Orange County.

"It's less than 100,000 acres in total, so it wasn't included" in Trump's order, Wilbur said. "But a lot of grazing land is impacted there. There is some suggestion from my members and from news articles that when the

Obama administration expanded that, they were not all that responsive to the concerns of local communities."

Nearly a dozen new monument designations covering more than 3 million acres have been made in the state during the last two decades, according to the California Farm Bureau Federation.

The CCA argues that while the Antiquities Act was originally intended to protect historic landmarks and other objects of historic or scientific interest, recent presidents have used it to bypass Congress and local communities and place heavy restrictions on massive areas of land.

Obama used the Antiquities Act more than any previous president, locking up 256 million acres of land and water in 30 separate designations, according to the CCA.

While language in the designations often allows for grazing, invariably those grazing rights are significantly curtailed, Wilbur said.

"We're not calling for a wholesale reversal of national monument designations," he said. "I think we recognize there are certain antiquities in a lot of these national monuments that should be protected. But we're talking about protecting historical or cultural relics, not necessarily tens of thousands of acres."

Producers whose grazing operations have been impacted by monument designations are urged to call the CCA at (916) 444-0845.

Experts outline nonlethal measures to prevent wolves from killing cattle

By **TIM HEARDEN**
Capital Press

HAT CREEK, Calif. — In late 2015, seventh-generation rancher Jessica Oddo's family was "unnerved" by California's first suspected wolf depredation of a calf in Siskiyou County.

So last year, Oddo was among several far Northern California ranchers to attend a California Wolf Center-sponsored training in Montana to become range riders.

The riders take turns going out several times a week looking for tracks, scat or other signs of wolves and other wildlife that could harm cattle, which enables producers to move their livestock out of danger if possible.

For Oddo, having a human presence around to watch for any wolf activity is best because it helps ranchers respond more quickly than if they wait to be notified by state wildlife managers, she said.

"One of the most valuable things the California Wolf Center gave us was (access to) a number of people who have a long history of dealing with wolves and livestock," Oddo told about 60 ranchers at a June 14 workshop on wolf-livestock conflicts. "That's been the problem for us, that this is so new."

The range rider program was one of about a half-dozen nonlethal measures for dealing with wolves highlighted at the all-day workshop. The event, hosted by Shasta County, was held at a fire hall and nearby cattle ranch in Hat Creek, about 70 miles north-east of Redding.

Livestock producers, government officials and university researchers gave detailed remarks about how to manage herds and put up safeguards to deter wolves and other predators. Among their advice:

- Managing herds so they learn to stay together can give them safety in numbers, said Matt Barnes, a Bozeman, Mont.-based rangeland consultant. Wolves are less likely to attack a large herd, but scattered animals are easy prey, he said.

With one herd he managed, "we were right next to a coyote den ... and the cows could mob up and run coyotes off," Barnes said.

- Some producers cordon off their grazing cattle or sheep with fladry — a line of electrified cable with brightly colored flags that flap in the breeze. If the flags don't discourage predators, the slight electric shock from the cable might.

But fladry is expensive, costing about \$3,400 to protect a 40-acre pasture, and "we don't like to keep it up for too long because the novelty of it" will wear off, said John Steuber, the Montana state director for USDA Wildlife Services.

- When a depredation or animal death does occur, it's best to remove the carcass as

soon as possible so it doesn't attract more predators, Shasta County agricultural commissioner Paul Kjos said. But it's illegal in California to bury carcasses, and the nearest rendering facilities are in Sacramento or Portland, he said.

The information from the presenters was valuable, said Betty Stephenson, whose

family has been ranching near Bella Vista, Calif., since the 1850s. The operation hasn't encountered wolves, but large dogs have killed a couple of calves, she said.

"This is the first meeting we've attended" on wolf-livestock conflicts, she said. "We just want to know what's going on. We want to know legally what ranches can do."

ACCURACY BEYOND MEASURE

Order the C850 Air Cart and save

Now save up to 8%* on large-scale performance for small grain seeding. With a large 850-bushel capacity, the C850 Air Cart can accurately cover 170 acres per fill and easily seed an entire quarter section.

We didn't purposely design the C850 to be the largest cart in the market, but something even better – the most favorable balance between cart, tractor, tool size and precision ag technology. That balance means less weight, less horsepower needed, reduced compaction and even emergence.

The C850's accuracy is the very measure of performance. Thanks to John Deere AirPower™ 2, the C850 delivers 550 pounds of material per acre directly to all eight primary lines, precisely metering product into the primary air stream.

The results: Greater consistency across the entire drill, more uniform seed emergence, more flowering and canopy, and greater yields.

Find out more about the air cart with accuracy beyond measure. Visit with your John Deere dealer. **That's Performance That Pays.**

Now 8% off

*Offer of 8% discount is only available on the purchase of select new John Deere air seeding equipment. Offer valid on orders placed between June 1, 2017 through July 17, 2017. Subject to availability and may be discontinued or changed at any time without notice. Taxes, set-up, delivery, freight and preparation charges not included. 8% off applied to total purchase price before taxes, set-up, delivery and freight charges. Valid only at participating John Deere dealers. See participating dealer for details and complete list of qualifying products. Other restrictions may apply.



John Deere Dealers

See one of these dealers for a demonstration

Belkorp Ag, LLC
Modesto, CA

Camp Equipment, LLC
Burns, OR
Ontario, OR
Weiser, ID

Campbell Tractor & Implement
Fruitland, ID
Homedale, ID
Nampa, ID
Wendell, ID

Evergreen Implement Inc.
Coulee City, WA
Moses Lake, WA
Ritzville, WA

Kern Machinery Inc.
Bakersfield, CA
Buttonwillow, CA
Delano, CA

Papé Machinery
Four Lakes, WA
Madras, OR
Merrill, OR
Moscow, ID
Ponderay, ID
Tangent, OR
Tekoa, WA
Walla Walla, WA

RDO Equipment Co.
Pasco, WA

Washington Tractor, Incorporated
Chehalis, WA
Ellensburg, WA
Lynden, WA
Quincy, WA

