### **People & Places**

# Researchers team up to thwart thrips

By BRAD CARLSON Capital Press

ONTARIO, Chitturi has Anitha researched thrips for a Most recently, she's focused on managing the tiny insects in the Treasure Valley onion crop including by reducing their appetites.

The entomologist and research associate at the Oregon State University Malheur Experiment Station is on a multi-state team studying thrips control in onions. The work focuses on integrated pest management, which aims to use fewer chemicals by applying them only when the pests are present at economically damaging levels.

Chitturi previously studied thrips in Georgia and Alabama on crops ranging from tomatoes and chili peppers to peanuts, cotton, soybeans and onions.

"Thrips are a very devastating pest that significantly affect crop yield," she said. In onions, thrips affect bulb size and quality, and

can reduce yields 45-50%, Chitturi said. They cause direct dam-

age by feeding on leaves, resulting in silvery or white patches as well as a drop in photosynthetic activity.

They also spread Iris Yellow Spot Virus, damaging the yield and grade of onions.

One of the chemicals she is testing is a biological insecticide that does not kill thrips directly. Instead, its bitter taste stays on the onion plant for one to two

"The insect finds it less palatable to eat," Chitturi said. "Thus it cannot reproduce."

She said reducing the number of eggs produced pays off since a thrip can lay 150-200 eggs during its 30-day life cycle.



Anitha Chitturi, an entomology research associate, in an onion research plot at the Oregon State University Malheur Experiment Station near Ontario.

About 21,000 acres of onions, worth \$110 million to \$140 million in farmgate revenue, are grown each year in southeastern Oregon and southwestern Idaho. The region is known for large bulbs.

"Since this is a high-value crop, traditionally growers have been using a lot of insecticides to manage this pest," Chitturi said of thrips. She joined the research project in June 2020.

Growers use about a dozen government-approved insecticide chemistries to control thrips. They are rotated periodically since thrips can develop resistance to them.

"A challenge is maintaining the efficiency of existing insecticides," Chitturi said.

Researchers have looked into using insecticides in specific sequences, "which has been identified as a promising control technique for minimizing onion thrips," she said.

The project involves Washington State and Cornell universities, USDA,



Stuart Reitz/OSU Damage to onion leaves caused by thrips feeding.

led by Stuart Reitz. Funding is through a USDA National Institute of Food and Agriculture grant. Chemical companies and seed suppliers are also participating.

Managing thrips starting early in the season, when onion plants are small and natural predators are present, "is critical for growers to effectively manage the pest," she said.

The Orius insect species eats thrips and their larand the OSU Malheur team vae. Other natural predators include lady bird beetles. But both insects "are very sensitive to insecticides,

said Chitturi. "So the more spraying you do, you are killing the beneficial insects in the ecosystem."

The integrated approach involves applying a chemical to the onion plant when a threshold of one thrip per leaf is reached.

That approach contrasts with calendar-based spraying at intervals per label guidelines. The spraying is often done no matter whether the insects are present.

Researchers found the integrated approach reduced the number of chemical applications by 26% compared to calendar spraying and increased marketable yield substantially in super colossal and colossal onions.

"In IPM, we are targeting the thrips with different modes of action," Chitturi

For example, the biological insecticide that discourages feeding may follow an earlier application of another insecticide, she said.



### Innovator

### ANITHA **CHITTURI**

Title: Research associate, entomology, Oregon State University Malheur **Experiment Station** 

Education: B.S., agriculture, Acharaya N.G. Ranga Agricultural University, Hyderabad, India, 1999; M.S., 2005 and Ph.D., 2010, entomology, University of Georgia.

Hometown: Guntur. Andhra Pradesh, India. Residence: Ontario, Ore.

Family: Husband, Suman Veeramasu, a Ph.D. student; two children.

Hobbies: Cooking, reading, family activities, walking, bicycling.

Her interest in agriculture and insects came naturally,

Chitturi grew up in Guntur, India. Her father's family had a farm that grew rice primarily, "and it was attacked by a lot of pests," she said. "That's how I really started to know about insects, and that's how my passion for insects and agriculture started."

She came to the U.S. in 2003 to pursue graduate studies at the University of Georgia, which she completed in 2010. She returned to India to work for the International Crops Research Institute for the Semi-Arid Tropics, and with industry. She returned to the U.S. in 2016 to work for Auburn University.

the skill areas we have here are

said what he has learned in the

classroom and then outdoors

would "help me weigh my

ence teacher and FFA advisor

at Elkton, said these types of

events provide students with

the opportunity to learn skills

they can take into a career in a

areas, the students also had

time to visit and ask ques-

tions of representatives from

the Umpqua National Forest,

the Bureau of Land Manage-

ment, the Douglas County

Small Woodlands Associa-

tion, the Douglas Forest Pro-

tective Association, Oregon

Women in Timber, the Soci-

ety of American Foresters,

the Oregon State University

Extension Service and the

UCC Recruiting Department.

'After what they've learned

In addition to the skill

Braden Groth, the ag sci-

Randall Gritton of Elkton

the most relevant.<sup>•</sup>

options for a career.'

forestry field.

# **Capital Press**

### **Capital Press Managers**

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**Correction policy** 

Accuracy is important to Capital Press staff and to our readers.

factual error in a headline, story or photo caption, please call the Capital Press news department at 503-364-4431, or send email to newsroom@capitalpress.com.

### FFA students go outside for state forestry competition dents into these areas. I think

**By CRAIG REED** 

For the Capital Press

ROSEBURG, Ore. Classrooms and study were recently moved to the outdoors for 55 FFA high school students.

They participated in the Oregon State FFA Forestry Competition and were challenged by tests in eight different areas involving forestry and natural resources.

The May 23 event was held on the Umpqua Community College campus and on surrounding forested land.

"We're teaching a lot of these principles in the classroom, in biology and natural resources, but this is the hands-on application piece for the students, their opportunity to be a forester for the day," said Angela Chenoweth, the Glide, Ore., High School ag science teacher and FFA advisor.

The students were tested on General Forestry Knowledge, Math Problem, Map Reading, Forest Plant Identification, Equipment Identification, Timber Cruising, Forest Management Evaluation-Timber Stand Improve-

Submit upcoming ag-related

events on www.capitalpress.com or by

email to newsroom@capitalpress.com.

**FRIDAY-SATURDAY** 

**JUNE 17-18** 

**PNWCTA Summer Meeting** 

and Farm Tour: Chehalis and Mos-

ing and Farm Tour offers attendees

the chance to meet and visit the farm

operations of fellow growers. On Fri-

day of this two-day event attendees

will have the opportunity to partici-

pate in educational sessions and enjoy

dinner at Mistletoe Tree Farm. On Sat-

syrock, Wash. The Summer Meet-



Craig Reed/For the Capital Press

Students study a variety of tools at the Equipment Identification table during the recent FFA State Forestry Competition held on the Umpqua Community College campus. Students were tested in eight different areas.

ment and Compass Orienteering Practicum. Working individually, they had 40 minutes at each station to decide on how to answer the posed problems.

Audrey Van Houten, a junior at Oakland, Ore., High School, claimed top honors and led Oakland to first in the team standings. Junior Emily Weaver (sixth individually), sophomores James Bainbridge and Jake Chenoweth, and freshman Aurianna Van Houten (fourth individually) completed the Oakland team that qualified for the National

FFA Forestry Competition. That event will be part of the National FFA Convention that is scheduled for late October in Indianapolis, Ind.

"I'm real proud of our team for getting us to nationals," said Audrey Van Houten, who qualified for the national competition a year ago. "Our team placed third at district, but since then we did a lot of practicing and studied hard. It's super exciting to be going back to nationals, to meet people and to listen to great industry speakers. It's a great learning experience."

Makaela Carter of Roseburg High School finished second individually and Camille Peters of Elkton High School placed third.

ordinator of the state forestry event, said it's important to have it because of Oregon's combination of "having a great estry tradition and industry."

interested and active," he said. ture, some into forestry, some into natural resources. This is a good event to help funnel stu-

Mark Buckbee, a co-co-

FFA program and a great for-"This program keeps kids "Some may go into agricul-

and experienced, I'm confident a number of these students will

go on to UCC or Oregon State and pursue careers in forestry or natural resources," Buckbee said.

# 5589, darcy@oregon-berries.com

mer Convention: Grove Hotel, 245 S. Capitol Blvd., Boise. Discussion topics to include updates to food-safety guidelines for dry bulb onions, immigration reform, USDA National Potato and Onion Report methodology. Industry facility tours planned. Registration price to increase after June 15. Website: https://bit.ly/3M8SqH7

tival: Cal Expo, 1600 Exposition Blvd., Sacramento, Calif. The California State Fair is dedicated as a place to celebrate the best the state has to offer in agriculture, technology, and the diversity of its people, traditions, and trends that shape the Golden State's future. Website: https://calexpostatefair.com/

### **MONDAY JULY 18** Farm & Ranch Succession Plan-

ning and Working Lands Easements Workshop, Harney County Courthouse, 12:30 p.m. — 4:00 p.m. Attorney Maria Schmidlkofer will present on the topics of succession and estate planning, and how to prepare your operation to be resilient for future generations. Easement specialist Marc Hudson will answer your questions about working lands conservation easements.

### Farm & Ranch Succession Plan-

ning and Working Lands Easements Workshop, Vale City Library, Malheur County, Ore. 9:30 a.m. — 1 p.m. Attorney Maria Schmidlkofer will present on the topics of succession and estate planning, and how to prepare your operation to be resilient for future generations. Easement specialist Marc Hudson will answer your questions about working lands conservation

### **CALENDAR**

ities these dogs and handlers have will impress. Admission is free. Concessions will be on site. Bring a lawn chair as the trial is held on a real working ranch out in the pasture. No pets, please. Website: www.huckleberry-

### **JUNE 26-28** Western Governors' Associa-

tion Annual Meeting: Coeur d'Alene, Idaho. The meeting will focus on public conversations about the most significant issues facing the region. Website: https://www.westgov.org

### Caneberry Field Day: 1 p.m.

sion Center, 15210 NE Miley Road, Aurora, Ore. Sponsored by the Oregon Raspberry and Blackberry Commission and the Oregon State University Extension. Meet at the Columbia Star research plot (directly south of the main building; follow signs). Come early to have time to pick up handWebsite: http://extension.oregonstate. **WEDNESDAY-**

outs. Contact: Darcy Kochis, 503-208-

### **SATURDAY JULY 6-9 National Onion Association Sum-**

### JULY 15-31 California State Fair & Food Fes-

## **TUESDAY JULY 19**

**Opinion** 

If you see a misstatement, omission or

We want to publish corrections to set the record straight.

### Wenatchee River Bluegrass Festival: Chelan County Expo Center, the competition will be steep. The abil-

### urday growers will tour Skookum View Nobles, Bear Canyon Tree Farm and Hunter Christmas Trees. Field demonstrations and a catered lunch will be offered. Contact: 503-364-2942 Website: https://bit.ly/3N57gGT FRIDAY-SUNDAY JUNE 17-19

winners, Appalachian Roadshow: Po' Ramblin' Boys; Dave Adkins; Fast Track, and NW favorites Thunder Ridge and Rusty Hinges Bluegrass. Events also include Taylor's Camp for Kids, Band Scramble and Slow Jam. Camping opens Monday June 13. Call: 509 421-0494. Website: www.WenatcheeRiver-Bluegrass.com **SATURDAY-SUNDAY JUNE 18-19 Huckleberry Mountain Invita-**

5700 Wescott Drive, Cashmere, Wash.

grass Festival features national award

The Annual Wenatchee River Blue-

tional Dog Trial: 11684 Huckleberry Loop, Baker City, Ore. One of the highest paying stand alone cow dog trials in the nation is happening near Sumpter, Ore. Handlers from all over the western U.S. will gather to show their dogs' skills and compete for big money. Last year first place paid just under \$8,000. With \$6,000 added for 2022 and entry fees of \$500 per dog

**SUNDAY-TUESDAY** 

**WEDNESDAY JUNE 29** North Willamette Research & Exten-