## Aerial imaging becomes popular with orchardists

#### **By GEORGE PLAVEN** Capital Press

SALEM — From inside Cascade Hall at the Oregon State Fairgrounds in Salem, Dustin Gargas was able to access online aerial maps of a hazelnut orchard in Chile, zeroing in on one corner where it appears trees are undergoing moderate to high water stress.

Gargas, an account manager for Ceres Imag-

ing, compares data showing a 37% stress increase from Nov. 10 to Jan. 7, with each tree represented by

a color-coded red

or yellow dot. "This is something that might be worth scouting or **Dustin Gargas** 

getting in front of," he said, indicating it might be due to a previously undetected problem with the orchard's irrigation system.

Ceres Imaging, based in Oakland, Calif., uses aerial imaging to map potential issues in agricultural fields. Rather than drones, the company flies fixedwing aircraft fitted with five infrared sensors and a thermal camera to capture layers of information about a crop's health and productivity.

Gargas gave a demonstration of Ceres' webbased platform Jan. 12 during a presentation at the 52nd Annual Northwest Ag Show, and explained how the data may be interpreted to help farmers make faster management decisions and maximize their yields.

Infrared sensing is capable of spotting healthy versus stressed plants based on the light each reflects. It can do this 7-10 days sooner than what might be seen with the naked eye.

"It's more of a proactive approach than a reactive approach," Gargas said.

Once a flight is completed, the raw imagery data

> is then separated into five categories — water stress, canopy vigor, canopy density, chlorophyll and temperature. Ideally, Gargas said farmers can see where areas of their fields go in and out of

stress throughout the growing season, and diagnose problems before they make a larger dent in harvest.

For example, he said a corner of the field experiencing higher stress could indicate a faulty irrigation setup, clogged drip lines or a blocked manifold. Having this information up front can save significant time and labor costs down the road, Gargas said.

John Bourne, vice president of Ceres Imaging, estimates that growers managing 20% of all specialty crop acres in the Pacific Northwest are now using Ceres on a weekly basis, according to a previous article in the Capital Press.

### Nitrogen prices have started to drop

#### By MATEUSZ PERKOWSKI Capital Press

Soaring prices for nitrogen fertilizers appear to have hit their limit and are dropping in early 2022.

Unless there's major geopolitical turbulence, nitrogen prices are expected to face downward pressure this year, experts say.

However, it's not clear that relief will come in time to help farmers reduce their expenses during the upcoming growing season.

"Everyone was expecting a correction," said Deepika Thapliyal, senior editor at the ICIS market analysis firm. "The market was too hot and it had to come down."

The price of urea — a benchmark nitrogen fertilizer — roughly doubled between the spring and autumn of 2021.

After peaking at about \$800 per ton in mid-November on the Gulf of Mexico's wholesale market, though, urea prices have fallen to about \$600 per ton.

The reversal in urea prices began with India's government capping the amount of the fertilizer it planned to buy this winter, Thapliyal said. Traders who'd hoped to sell urea to that market abruptly had to find other buyers.

Meanwhile, there's not yet much demand for the fertilizer in early 2022, so buyers have held off on major purchases and sent prices falling, she said. "They don't know what the bottom will be so they're not stepping in to buy."

That dynamic is reflected along the U.S. whole-



Mateusz Perkowski/Capital Press File

A front-end loader scoops up urea. Prices for the staple nitrogen fertilizer have been falling in 2022 after roughly doubling last year.

sale market, centered in New Orleans, where buyers judged urea prices to be "overinflated" last year, said Mark Milam, a senior editor with ICIS.

"It was bound to come down because we're well ahead of the U.S. season," he said. "Nervous sellers push down the prices until they can see a buyer take a bite."

Speculation about U.S. farmers reducing their nitrogen usage and switching to less nitrogen-intensive crops spooked traders with large urea inventories, Milam said.

There's also been more urea imported into the U.S. than traders had taken into account, he said. "There's plenty of supply right now. It isn't about supply but what people are willing to pay."

Urea is a staple global fertilizer and generally sets price trends for other forms of nitrogen, such as urea ammonium nitrate or UAN, Thapliyal said. "Eventually they all tend to follow urea."

Lower wholesale prices have not yet filtered through to the Pacific Northwest, said Tom Wimmer, chief operating officer at Marion Ag Service, an Oregon-based farm supplier.

"We haven't seen much of that up our way. We hope it comes our way," he said.

The problem is that Northwest grass seed farmers

will begin using nitrogen in February, which doesn't give the company much time to wait for prices to drop, Wimmer said.



Tom Wimmer

"You've got to as a supplier make a decision and bring product in," he said. "We've got to have product for our customers here when they need it."

Farmers who can wait until the second quarter of 2022 for nitrogen may do best to hold off on purchases, Wimmer said. Those who need it in the first quarter must "get their ducks in a row" or risk missing out on supplies.

It's uncertain how quickly the "global tone" of softening urea prices will affect the Pacific Northwest's fertilizer market, said Doug Kuenzi, agronomy division manager at the Pratum Co-Op, another Oregon-based farm supplier.

"When it's going to happen and how it's going to happen, we're not sure," Kuenzi said.



# 4-H & FFA Members receive

#### Washington FFA forges record-setting future

The Washington FFA state officer team members recently completed their annual Evergreen Tour, making four different stops during the week of Dec. 6 and meeting with 808 FFA members and 72 teachers across the state.



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Evergreen Tour is traditionally the "kick-off" to the new membership year and provides an opportunity for current and potential FFA members to meet and engage in workshop activities led by the state officer team.

The Washington FFA theme for the year is "Forge Your Future." Each stop of the tour offered two 45-minute workshops, which focused on the diverse array of opportunities FFA members have within the organization and how they can utilize their platforms to positively advocate for agriculture.

The membership year (2021-2022) for Washington FFA is off to a great start. Outside the Evergreen Tour, a record number of students from across the state have been able to participate in state Career Development Events (CDEs) including State Potato Judging and Tractor Driving, which took place on Nov. 17 in Moses Lake with 300-plus students in attendance and State Apple Judging in Yakima on Dec. 8 with 165-plus students in attendance.

Given the headwinds FFA chapters have faced the last two years, agricultural educators are seeing a thirst for hands-on education like they have never seen before. Members are so happy to be out "Learning To Do," as the FFA motto states.

Additionally, Washington FFA state membership is on track to break an all-time record this spring. Prior to the pandemic, membership reached 12,400 members; however, last year's numbers dropped 20% to 9,900 members, the lowest since 2016. At this time, Washington FFA is 12,000 members strong and growing.

- Dany Cavadini, Washington FFA Association executive director

- Jesse Taylor, Washington FFA Foundation executive director

From left, Jesse Taylor, Washington FFA Foundation executive director; Caitlin Garvey, state reporter; Alyxandra Bozeman, state president; Dennis Wallace, state FFA advisor; Madison Wolfe, state secretary; Kinsey Nelson, state treasurer; Andrew Miles, state sentinel; and Dany Cavadini, Washington FFA Association executive director.





Washington State FFA officer team members share their theme, "Forge your Future," with the 167 FFA members at the District 5 and 6 Evergreen Tour stop at Colfax High School on Dec. 6, 2021.



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