

Some day, robots and drones will operate autonomously



Echo, Ore., vineyard owner Lloyd Piercy hosted field demonstrations of drone technology during the Future Farm Expo. Piercy said the development and deployment of technology is an "absolute sea change" for agriculture. "This is it," he said. Eric Mortenson/Capital Press

A six-rotor, camera-equipped drone hovers at a vineyard and blueberry farm during a field demonstration held in conjunction with the Future Farm Expo in Pendleton, Ore. Advocates believe drones, robots and field sensors are revolutionizing agriculture in a way that will reduce labor needs and drastically increase water and input efficiency.

Eric Mortenson/Capital Press

By ERIC MORTENSON Capital Press

ENDLETON, Ore. — Where is it taking us, all this technology? Where is it taking ag-If the presentations and demonstra-

tions at the recent Future Farm Expo are an indication, it's taking us to Jaw Drop City.

Some of this is already in place: A network of field sensors and software produces a three-dimensional soil map to help with crop selection, tillage and drainage decisions, and variable rate prescriptions for seeding, fertilizer and irrigation.

Activated and directed by the system, unmanned equipment rolls to the field to carry out the farming plan. The machines weed, prune, spray, measure, monitor and harvest, sharing information among themselves and working at any hour. One sensor, derived from mili-

tary technology used to detect roadside bombs, sniffs the orchard for signs of disease. Out on the range, a rancher pulls a small drone from his saddlebag and sends it aloft to find and count his cat-

tle. It reads solar-powered RFID ear tags from the air and

Turn to FUTURE, Page 12



The Yamaha unmanned helicopter flies over a vineyard during the Future Farm Expo at Echo West Ranch and vineyard outside Ecno, Ore.

F J Harris/FO Media Group

"In the future, all farm equipment and vehicles will be connected to the internet. They will have a sense of their environment and some form of artificial intelligence. (Farm equipment) will look at the environment and act on its own."

George Kellerman, chief operating office of Yamaha Motor Ventures and Laboratory

Washington Farm Bureau's D.C. trip cited in pesticide furor

WFB CEO agrees: It's a 'new day'

By DON JENKINS Capital Press

The head of the Washington Farm Bureau said Tuesday that he left a March meeting with the Environmental Protection Agency without twisting arms and without knowing



would prohibit chlorpyrifos, though The New York Times recently reported the meeting as a sign that sympathetic Trump appointees collaborated with agriculture to save the pesticide from being

whether the agen-

banned. "There was no undue influence," the bureau's CEO, John Stuhlmiller, said. "It's what you would hope would happen with good government. People affected by regulations talked about the regulations with the regulators, and the director said,

'We'll look into it." The Times highlighted the March 1 meeting in Washington, D.C., in a story posted Aug. 18 about the EPA's contacts with farm groups in the weeks before rejecting a decade-old petition to ban chlorpyrifos, the most widely used pesticide in U.S. agriculture.

The Times reported obtaining more than 700 pages of EPA correspondence through a Freedom of Information Act request. The EPA redacted many pages, citing attorney-client privilege. The records did include EPA notes from the meeting at EPA headquarters with the Washington Farm Bureau's 10-person

delegation. According to The Times, "agriculture industry executives pushed" Pruitt to not remove any more pesticides from the market.

The Times story was picked up by environmental websites and other news outlets. CNN posted a story Tuesday under the headline: "EPA documents fuel criticism that politics played part in pesticide decision."

Turn to TRIP, Page 12

Cattle ranchers press for elimination of entire Harl Butte wolf pack

By ERIC MORTENSON Capital Press

Both sides of Oregon's wolf management issue asked Gov. Kate Brown to intervene in ODFW's handling of continued livestock attacks by the Harl Butte pack in Wallowa County.

ODFW staff shot three of the wolves this month and intends to kill a fourth as part

of its "incremental" approach to controlling the pack. The pack, thought now to include at least seven adults and three pups, is blamed for eight confirmed livestock attacks since July 15, 2016, all within 9 miles of each other. The most recent was Aug. 16, when a range rider found a dead 450 pound calf on private grazing land leased by rancher Todd Nash, who is a Wal-

lowa County commissioner its upper back legs had been and longtime wolf committee chair for the Oregon Cattlemen's Association.

Tracking collar data showed that OR-50, the pack's alpha male, was at the carcass 15 minutes before the range rider found it. The calf probably had been killed an hour or two earlier, according to an ODFW report. It had more than 100 bites and portions of

torn away. Nash provided a

photo to the Capital Press. Nash and OCA Executive Director Jerome Rosa spoke this week with Jason Minor, the governor's natural resources adviser. Rosa said he was encouraged by the conversation; Minor seemed well informed on wolf depredation

Turn to WOLF, Page 12



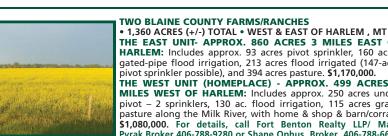
Courtesy of Todd Nash



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This calf was killed by Harl Butte wolves on Aug. 16.



