

WSU tests unmanned helicopter to dry cherries

By DAN WHEAT
Capital Press

PROSSER, Wash. — Washington State University and a private company are testing an unmanned helicopter to blow rainwater off cherries on trees.

The 11-foot-long, 141-pound Yamaha RMAX aircraft has been used to spray rice crops in Japan since 1997. Some 2,500 operate there now. WSU has begun tests to determine its feasibility as a safer, less expensive replacement for manned helicopters to dry cherries.

A helicopter crash that claimed the life of a pilot July 23, 2014, at Kyle Mathison Orchards on Stemilt Hill south of Wenatchee was the fourth crash of helicopters drying cherries in Central Washington in four years.

A pilot and a passenger died in the other crashes. One helicopter was flying so low that it became entangled in bird netting covering trees. In another, a helicopter struck power lines, crashed and the pilot died after allegedly text messaging to his next customer on his cell phone.

The downdraft of helicopters blows water off cherries. It minimizes water absorption by cherries that, combined with warm temperatures, causes them to split and be ruined.

WSU and Digital Harvest Corp. of Newport News, Va., began testing the Yamaha RMAX on July 16 near the

WSU Irrigated Agriculture Research and Extension Center at Prosser. Testing began two weeks later than hoped because of delays in getting Federal Aviation Administration approval, said Lav Khot, assistant professor of biological systems engineering at WSU's Center for Precision and Automated Agricultural Systems in Prosser.

The test was on blowing irrigation water off cherry tree leaves since cherries had already been harvested, Khot said.

A field demonstration for 15 growers was held July 22 and more testing with irrigation water on leaves will occur Aug. 24 and 25, he said.

Whether the small craft can produce sufficient downdraft to shake the canopy enough to blow water off is key, Khot said. So far, data looks promising, he said.

Optimal altitude, the amount of water and V-trellis versus UFO (upright fruiting offshoots) tree architecture are all factors being studied, he said.

While people can see the effectiveness of helicopter and ground airblast sprayers for drying cherries, there is no hard data on that, Khot said. That will be collected next season along with testing the unmanned helicopter on drying cherries during or after rain, he said.

Growers are excited about the technology but want data on the ef-

fectiveness before buying, Khot said. Base models sell for \$150,000 apiece.

The Yamaha RMAX can carry 61 pounds of payload. WSU will test it for spray applications, and Yamaha is testing it for spraying wine grapes, Khot said.

WSU will apply for a federal grant for more testing beyond next season, he said. Yamaha is coming out with a larger model of the craft for greater payload and flight programming, he said.

Jim McFerson, manager of the Washington Tree Fruit Research Commission in Wenatchee, said the question is whether the machine is effective and cost-effective in tree fruit. The company is looking at it for high-value crops, he said.

It doesn't have the payload, speed and time aloft capacities to compete with crop dusters on row crops, McFerson said.

Beside pesticides, it could be used to apply sunburn protectants, plant growth regulators and ripening control on tree fruit, he said.

The unmanned Yamaha RMAX helicopter is shown during a Washington State University flight test in July near Prosser, Wash. The 11-foot-long craft is being tested for drying cherries on trees and spray applications.

Courtesy of WSU



Western farm expenses increase 11 percent in 2014

By MATTHEW WEAVER
Capital Press

A new USDA study finds that Western farmers paid 11 percent more for goods and services in 2014 than they did the previous year.

Labor was the biggest expense for farmers in the West, representing 18.9 percent of total expenditures. It was the biggest expenditure for California and Washington farmers, too, at 23.7 percent and 20.1 percent of total costs, respectively.

Overall labor costs for farmers in the West increased 7.3 percent, from \$15.1 billion to \$16.2 billion. Labor costs in California increased 9 percent, from \$8.9 billion to \$9.7 billion.

"It's challenging to have a labor force anyway, and it's getting to be more costly to have the amount of labor we need to get everything produced," said Chris Mertz, director of the USDA National Agriculture Statistics Service office in Olympia.

In Washington, rent and miscellaneous expenses were the only categories that didn't increase, he said.

According to the NASS report, Western farmers saw total production expenditures increase from \$77.1 billion to \$85.6 billion.

California farmers' total expenditures increased from \$36.8 billion to \$41 billion, or 11.4 percent. Washington expenses increased from \$8.18 billion to \$9.32 billion,



A combine harvests meadowfoam seed on the Alan McKee farm in Polk County, Ore. The cost of farming continues to increase, according to a new USDA report.

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nearly 14 percent.

The other states in the West saw expenditures increase 10 percent, from \$32.1 billion to \$35.3 billion.

Nationwide, the four largest farm expenditures are feed; farm services; livestock, poultry and re-

lated expenses; and labor. They account for 47.3 percent of total U.S. farm expenditures, according to the report.

The average per farm expenditures in drought-stricken California increased nearly 14 percent, from roughly

\$472,000 in 2013 to nearly \$537,000 in 2014.

In Washington the average increased by 14.9 percent, from \$221,000 to \$254,000.

In the West the average expenses increased 11.8 percent, from \$244,000 to \$273,000 per farm.

According to the report, the average expenditure per U.S. farm increased 9.3 percent, from \$175,270 in 2013 to \$191,500 in 2014.

Agriculture can use the information to inform the public and decision-makers of the cost of doing business, Mertz said.

"They have a lot invested in the state," he said. "Farm producers are spending a lot of money locally to help support other industries, like feed companies, buying fuel from their local distributors or buying trucks, autos and farm implements."

Deadline nears for sage grouse habitat funding

By ERIC MORTENSON
Capital Press

The federal government is providing a shot of money to pay for greater sage grouse habitat work in southeast Oregon over the next five years.

Up to \$9 million is available from the USDA's Natural Resources Conservation Service. Ranchers and other landowners who own property in sage grouse territory are eligible to apply, but must do by Aug. 28.

The funding will be matched dollar for dollar by a collaboration of agencies and groups, making up to \$18 million potentially available. Partners include county Soil and Water Conservation Districts, Oregon State University, Oregon Department of Agriculture, U.S. Fish and Wildlife Service, the Bureau of Land Management and other groups.

The funding is part of a ground-level effort to voluntarily improve sage grouse habitat on 3.4 million acres of private land in southeast

Oregon. The money will help landowners pay to remove western juniper trees, which crowd out the sage brush grouse use as breeding ground. It also will help pay the cost of marking fences so birds don't fly into them, and putting escape ramps in watering troughs so birds can get out.

Greater sage grouse is a candidate for listing under the federal Endangered Species Act, which could restrict grazing, mining, logging, energy development and other activity in the West.

Funding is limited to landowners within sage grouse habitat areas of eight Oregon counties: most of Malheur, Harney and Lake counties, and parts of Grant, Deschutes, Crook, Union and Baker counties.

The program is for landowners who are part of or are pursuing a Candidate Conservation Agreement with Assurances, or CCAA. Under the agreements, most of them brokered through local soil and water conservation

district with U.S. Fish and Wildlife, landowners agree to manage their range in a way that doesn't harm sage grouse. In return, they are granted 30 years protection from additional regulation. Landowners and agency officials prepare site-specific management plans.

Landowners should submit applications to their local USDA Service Center by Aug. 28 to be considered for this current round of funding, the NRCS said in a news release.

Kevin Conroy, a basin team leader with NRCS, said the current funding round is the second that's been offered landowners and the response so far has been mixed. The agency may not have done enough outreach, Conroy said.

In general, he said the voluntary nature of the program has been well received. Landowners get recognition for the stewardship and conservation they've done, and the management plans provide certainty in the years ahead, he said.

Interim director to maintain UI experiment station

UI searches for new ag dean before filling position

By MATTHEW WEAVER
Capital Press

University of Idaho lactation physiologist Mark McGuire is the Idaho Agricultural Experiment Station's new interim director.

McGuire heads UI's animal and veterinary sciences department. He replaces Donn Thill, who retired July 31 after 35 years with the university as a professor and weed scientist. Thill became station director in 2009.

The station is the research division for UI's College of Agricultural and Life Sciences. According to a UI press release, the search for a permanent station director awaits the outcome of an ongoing search for a dean for the college.

McGuire said he hopes to "keep the ship afloat" until a new dean and new station

director can be found. He expects the interim position will last four to six months.

"The station is critical to supporting all the agricultural commodities produced in Idaho," he said. "We try to address problems they face, as well as improve their abilities to be successful in producing food for the public."

McGuire said he intends to ensure that the station is fulfilling the obligations of its agricultural research and extension funding. "Numerous" projects by UI researchers impacting commodities are underway throughout the state, he said.

"The College of Agricultural and Life Sciences is a very willing partner in helping (farmers) be prudent users of the soil, air and water in producing food for the world's population," he said.

Online

<http://extension.uidaho.edu/iaes/>

Irrigators expect lawsuit hearing in mid-September

By MATTHEW WEAVER
Capital Press

An Eastern Washington irrigators group expects its lawsuit against the U.S. Bureau of Reclamation to be heard in U.S. district court in mid-September.

The Columbia-Snake River Irrigators Association filed the suit in April, alleging that the bureau arbitrarily delayed and blocked a water service contract for its \$42 million pipeline system to deliver water to 14,000 acres of farmland in the Odessa Subarea. CSRIA board representative Darryll Olsen says the organization has secured the private financing.

The bureau has said the irrigators' project conflicts with its plans with the Washington State Department of Ecology and three regional irrigation districts.

The government agencies are providing irrigation water from the Columbia River to the Odessa Subarea. The water will replace wells that have been running low.

In the agency's motion to dismiss for lack of subject matter jurisdiction, U.S. attorneys Michael Ormsby and Vanessa Waldref said the irrigators association is "engaged in a pre-emptive, pre-solicitation bid protest, demanding that Reclamation award CSRIA a contract before Reclamation requests proposals and competitive bids."

The attorneys say Reclamation's decision to enter into a service contract is at the discretion of the agency and that the irrigators have not yet petitioned the Washington State Department of Ecology to determine the necessary water right conversion for its proposal.

The association recently filed a response to the bureau's motion.

Olsen called the bureau's motion "almost an empty gesture filing from our perspective — all show and no substance." Olsen said he is confident the federal court will deny the bureau's motion to dismiss the lawsuit.

Michael Williamson, public affairs specialist for Reclamation in Boise, said the bureau must reply to irrigators' response to the motion to dismiss by Aug. 26.

"Ultimately we are looking for a dismissal of the lawsuit," Williamson said.

Williamson said the lawsuit is slated for a hearing Sept. 23 in Richland, Wash.

In the meantime, the irrigators association is meeting with the Washington State Department of Ecology and legislators, Olsen said.