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Idaho

Ag dean wants to elevate University of Idaho

By CAROL RYAN DUMAS
Capital Press

TWIN FALLS, Idaho — There's been a lot of excitement lately surrounding renewed efforts to establish a world-class livestock research center in the Magic Valley.

But that's just one part of the University of Idaho's plan to elevate the land-grant institution to the upper echelon of agricultural colleges.

The man behind the plan is Michael Parrella, dean of the College of Agricultural and Life Sciences.

"The college has great people doing great things, but we're at the second tier," he said.

He wants to up the game, moving the college forward to compete with top-tier ag colleges such as Cornell University and the University of California-Davis. The question is how to do it, he said.

It starts with the college's strengths — its diversity,



Carol Ryan Dumas/Capital Press

Michael Parrella, right, dean of the College of Agricultural and Life Sciences at the University of Idaho, talks with Brent Olmstead, the college's assistant dean for government and external relations, in Twin Falls on May 31.

strong research and curriculums and industry and community outreach. But its salaries aren't commensurate with universities across the country, its research facilities are antiquated and its educational offerings need to be expanded, he said. Moving

the college forward will take solutions in those areas.

While there's no new university money to be had, Parrella is convinced the mission can be accomplished.

His plan is all about renewal — renewal of faculty, facilities and programs.

About 25 percent of the college's faculty will retire in the next couple of years, and that offers the opportunity to recruit early-career faculty motivated for success.

"We want to hire people with the vision of them becoming a functioning faculty member," he said.

That means creative and diverse individuals who can write grants, bring in funding, develop laboratories and applicable research, mentor undergraduate and graduate students, develop new courses and new programs and interact with industry and the community, he said.

"We want to hire the individuals who are willing to do all these things," he said.

With limited funding for salaries, and a situation where early-career faculty are earning as much as mid-career faculty — which has resulted in a morale issue that must be addressed — he wants to

move the college to an incentive-based compensation system, he said.

He plans to put together a budget with metrics that provide incentives for faculty by addressing pay discrepancies and by providing partial graduate student support in partnership with commodity groups and other funding organizations.

"The base of any university is the faculty, and the most important position is the department head ... the buck stops there," he said.

The college is already searching for three new department heads, three of them for new departments that will launch this summer, and several other faculty positions.

The three new departments — Plant Sciences; Soil and Water Systems; and Entomology, Plant Pathology and Nematology — will better serve students by offering undergraduate majors and better serve industry and the com-

munity by matching programs to modern needs, he said.

In addition, research facilities are outdated and need to be renovated. Old facilities make it difficult to recruit early-career faculty. The big issue is field facilities. Half of the college's 230 faculty members are off campus, he said.

"I look at that as a strength and not a weakness" — they're in the community fulfilling the land-grant mission, he said.

But it also presents a challenge. Idaho is a big state, and the college needs to improve communication and emphasize the value of the off-campus facilities. In addition to shifting university funding to update those facilities, the college will need help from industry and the Legislature, he said.

"We have limited funding in the college, and we have to leverage every dollar we have," he said.

Fall-planted wheat faces unusual threat

By JOHN O'CONNELL
Capital Press

IDAHO FALLS — Widespread infections of an uncommon fungal disease have been reported in southeast Idaho fall wheat.

University of Idaho Extension cereals pathologist Juliet Marshall said an unusually wet fall followed by a cool, wet spring has contributed to flare-ups of eyespot — a form of root rot that weakens the bases of stems and often causes wheat stalks to tip over, or lodge, complicating harvest.

Marshall confirmed eyespot in irrigated and dryland fields spanning from Arbon Valley to the Blackfoot area.

"We are seeing some symptoms that would reduce yield pretty significantly, and pretty widespread through the fields," Marshall said, adding the worst cases have occurred in early planted fall wheat. "I would expect yields to be reduced 20 to 40 percent, depending on the severity."

Marshall said eyespot last caused widespread problems in the region during a few wet years in the mid-2000s. The fungus can survive on crop residue. Though it thrives in excessive moisture, Marshall said dryland farms can be at risk, where limited rotational options lead growers to plant wheat in consecutive seasons.

Symptoms may include reduced production of shoots, called tillers, dwarfed plants, white grain heads and eye-shaped lesions at plant bases.

"It's not something the growers are usually planning for or trying to correct for because we only see it in years of a lot of moisture," she said.

She's also confirmed some cases of pythium root rot, which doesn't usually contribute to lodging and seldom causes white heads.

Marshall said growers who notice eyespot should apply a mixture of propiconazole and Topsin M when stems begin to elongate, called jointing. She said it may already be too late to apply fungicide to protect



Courtesy of Juliet Marshall

Fall wheat sampled in southeast Idaho displays symptoms of eyespot disease, including lesions near the bases of plant stalks. Eyespot is widespread this season within the region.

irrigated crops from eyespot, but most dryland crops should be in the jointing stage.

Cathy Wilson, director of research collaboration with the Idaho Wheat Commission, said eyespot has never been listed as a disease of interest on the commission's grower surveys because "it is not typically a problem here."

Kurt Schroeder, a UI cropping systems agronomist, confirmed eyespot on fall wheat at the university research farm in Moscow. He said infection was widespread in a field planted in October, but a field planted the following month was clean.

"It's one of these diseases where unless you're looking for it, it's not the easiest to see," Schroeder said.

Tim Murray, a small grains pathologist with Washington State University Extension, said eyespot is fairly common in Eastern Washington and parts of Oregon.

He said laboratory testing has confirmed some severe infections in Washington, though most growers are focusing their attention on stripe rust. He expects growers to become aware of eyespot soon, when grain begins to lodge. Murray anticipates a bad year for eyespot due to the wet fall, though he noted many growers in his area plant resistant varieties.

Researchers investigate scanners for diagnosing zebra chip disease

By JOHN O'CONNELL
Capital Press

ABERDEEN, Idaho — Researchers are studying the reflections of various light wavelengths off zebra chip-infected potatoes, seeking to devise a quicker and more precise method of quantifying the disease's prevalence.

Zebra chip — caused by the *Liberibacter* bacterium and spread by tiny, winged insects called potato psyllids — creates bands in tuber flesh that darken during frying. The disease first surfaced in the Northwest in 2011.

University of Idaho Extension entomologist Arash Rashed explained processors have been slicing random samples from truckloads of potatoes to check for zebra chip. Spuds are subjectively scored from zero, representing no signs of infection, to 3 based on zebra chip severity.

Rashed said the approach is far from foolproof and can sometimes result in the rejection of spuds that would meet quality specifications, or the acceptance of tubers with latent infections that exhibit poor quality in processing.

For the past two months, Rashed and his collaborators have been using a spectrometer — a device that records signatures of reflected light wavelengths — to evaluate infected tubers from other UI zebra chip experiments for comparison with healthy tubers. Xi Liang, a UI cropping systems agronomist, is assisting with spectrometer analy-



John O'Connell/Capital Press

Zhiguo Zhao, a visiting scientist from China at the University of Idaho Aberdeen Research and Extension Center, prepares to take an infrared scan of potatoes infected with zebra chip disease. Zhao is developing a computer model to simplify and improve the diagnosis of the extent of infections.

sis, and Zhiguo Zhao, a visiting scientist from China, is developing a computer model, based on the data, to predict the progression of zebra chip infection without frying.

"In research, I can see giving a more meaningful measure of disease," Rashed said. "For industry, the short-term benefit is to predict quality loss after storage and processing based on tubers that are just harvested."

Rashed said Zhao's software should also enable the industry to estimate the

growth stage in which infections occurred and predict the further development of zebra chip symptoms in storage.

Rashed said the research has been funded mostly from his general laboratory budget, and he hopes to have initial results in October to justify a larger grant. He anticipates working with UI Extension storage specialist Nora Olsen on storage trials using Zhao's model. Sean Prager, with the University of Saskatchewan, Rodney Cooper, a research entomologist with USDA Ag-

ricultural Research Service in Wapato, Wash., and Rashed's Ph.D. student, Karin Cruzado, have also been involved.

Cooper trained Rashed's team to use infrared imaging equipment. The researchers hope thermal infrared signatures will also enable them to detect zebra chip in uncut tubers.

"It looks like it's going to be really promising technology to be able to identify diseased tubers in a batch," Cooper said. "It could be extremely useful to both growers and researchers."

Deputy state AG: Wheat commission rule change proposal on solid ground

By SEAN ELLIS
Capital Press

BOISE — The Idaho Wheat Commission is on solid footing in trying to obtain the names and contact information of all wheat growers in Idaho, a state deputy attorney general told commissioners.

That message came as the commission prepares to hold a second round of negotiated rule-making meetings on a change that would require first purchasers of Idaho wheat, such as elevators, to submit the names and contact information of all wheat growers to the commission.

The commission is required by its enabling legislation to educate growers and hold periodic referendums to gauge whether wheat farmers approve of the way the commission is spending their checkoff dollars.

But because only 12 of the state's 20 largest elevators submit that information, "We



Sean Ellis/Capital Press File

A wheat field in southern Idaho is shown in this 2016 photo. State Deputy Attorney General Kay Christensen told Idaho Wheat Commission members that their plan to ensure the IWC has the names and contact information of all Idaho wheat growers in on solid legal ground.

are not able to fulfill the duties we have under our enabling legislation," IWC Executive Director Blaine Jacobson said during the commission's regular quarterly meeting June 6.

State statute gives the commission authority to have the names and contact information of wheat growers but the commission currently lacks the mechanism to collect them.

Psyllid tests positive for zebra chip in Kimberly

By JOHN O'CONNELL
Capital Press

KIMBERLY, Idaho — A potato psyllid captured at the University of Idaho's Kimberly Research and Extension Center has tested positive for the bacterium that causes zebra chip disease in potatoes, entomologist Erik Wenninger confirmed on June 1.

Zebra chip — caused by the *Liberibacter* bacterium and spread by tiny, winged insects called psyllids — first surfaced in Idaho and the Northwest in 2011. It reduces yields but poses the greatest nuisance by creating bands in tuber flesh that darken during frying.

Since the arrival of zebra chip, UI has overseen an extensive potato field monitoring network, making weekly collections of sticky traps set up along field borders to detect the arrival of psyllids, which are tested for infection.

Wenninger said a hand-

ful of additional psyllids were also captured in late May from a field in Twin Falls County and a pair of fields in Minidoka County.

Wenninger said the first infected psyllid of 2016 was also confirmed during early June, from a sample collected in late May.

"We had more psyllids last year than in all of the previous years combined, but the amount of *Liberibacter* was quite low," Wenninger said.

He said UI hopes to compile data from its monitoring program to develop a predictive tool for psyllid and zebra chip pressure.

"Every year seems to be a little different, and it's hard to say based on the first viewed samples what's going to happen this year," Wenninger said.

Wenninger said the scouting program will involve routine collections of trap cards from 80 fields throughout Idaho's potato production areas.

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