

GEM STATE **Producer** Idaho Farm Bureau

September 2022 • Volume 26 Issue 6

Wheat trade teams *return to Idaho*



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A changing family farm

As the sun came up over my farm the other day, it reflected off the wet grass and I heard the familiar chirping of the birds.

My entire life, I've experienced mornings like this. For a long time, it was with my father as we were wrapping up the morning milking. After that, it was with my children as we added chickens to our farm.

And now, I'm lucky enough to share that sunrise with my grandkids as our cow-calf

operation benefits from a disciplined genetics program and we've accomplished green cover across virtually all our pasture land.

Like many others across America, my farm is a family farm.

Generations have made a living on the land and I hope and pray our land continues to provide for many more generations to come. But my farm is not the same today as it was generations ago, and I'm sure it won't be the

See **DUVALL**, page 6

The President's Desk

By **Bryan Searle**

President, Idaho Farm Bureau Federation



'The miracle of the harvest'

This is the crunch time of year for farmers in Idaho. In sports terminology, we're in the final two minutes of the game when it comes to getting our crops in and reaping a year's worth of toil in the fields.

As I sat on the grain combine recently while harvesting wheat, the words came to my mind: "the miracle of the harvest." From a seed in the ground to the harvest and on to being processed and feeding people around the world, food production is a miracle in

itself.

My hat's off to all farmers and ranchers, big and small, for their hard work and commitment to growing our nation's food supply. Especially this year, as they face a myriad of challenges, from soaring input costs to water shortages to supply chain issues.

That's not to mention the Russia-Ukraine situation, which is exacerbating many challenges in farm country, including the cost and

See **SEARLE**, page 6

Inside Farm Bureau

By **Zak Miller**

CEO, Idaho Farm Bureau Federation



Go slow to move fast

In the literary classic *Alice in Wonderland*, the White Rabbit laments, "The hurrier I go, the behinder I get." Like the White Rabbit, our schedules and time often feel in short supply and out of control.

Most people know they cannot have it all. Still, many desire to try. This attempt to do more than is reasonable results in the whittling to a razor's edge of every buffer between all tasks.

If and certainly when something outside of flawless execution in our schedule occurs,

the only outcome is a catastrophe. As a result, many actions and behaviors become frenetic, sharp, and often foolish.

The irony is that such actions put us on par with the White Rabbit, hurrying faster to get farther behind. I write this passionately because I often exemplify the silly White Rabbit.

In contrast to this often subconscious blind dash to inefficient speed is the wisdom of "slow and smooth gets things done fast."

People in agriculture do not have this

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Idaho Farm Bureau.

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Photo by Sean Ellis

Wheat is harvested in an East Idaho field Aug. 3. According to USDA, the average cost to rent cropland in Idaho rose 8 percent this year compared with last year.

Idaho cropland rental rates 8 percent higher in 2022

By Sean Ellis

Idaho Farm Bureau Federation

POCATELLO – The average cost to rent cropland in Idaho rose 8 percent this year compared with last year, according to USDA data released Aug. 5.

USDA’s National Agricultural Statistics Service estimates average cash rent expense for all cropland in Idaho at \$194 an acre in 2022, up \$14, or 8 percent, compared with 2021.

Average rental expense for irrigated farmland in Idaho is estimated at \$262 per acre this year, up \$26, or 11 percent, over last year, and non-irrigated farm ground expense is estimated at \$65.50 an acre in 2022, up \$2.50, or 4 percent.

Industry experts disagree whether that average farm ground rental rate is accurate – some think it’s much higher – but they agree that rental farm ground rates are increasing.

“The point is, they are going up,” said University of Idaho Agricultural Economist Garth Taylor.

With commodity prices on the rise, it’s no big shocker that ag land rental rates are also on the rise, said Robert Morrison, owner of Robert Morrison Appraisal, which works with East Idaho farms, ranches and agricultural facilities.

“There is no question those rates have gone up and it’s due to commodity prices increasing,” he said. “There’s a lot of competition out there for good, quality ground with water.”

Rising farm values due to high buyer demand and inflation in general are also pushing up rents, said Janey Knipe, an associate broker for Knipe Land Co., a farm and ranch real estate firm that focuses on land sales throughout the Northwest.

See RENT, page 13

COVER: Idaho wheat industry leaders and members of a South American wheat trade team pose for a photo in a wheat field in Ririe Aug. 4. See page 4 for a story on wheat trade teams returning to Idaho after a two-year absence. Photo by Sean Ellis



Photos by Sean Ellis

Ririe farmer Clark Hamilton, left, shows members of a wheat trade team from South America one of his wheat fields Aug. 4.

International wheat trade teams returning to Idaho

By Sean Ellis

Idaho Farm Bureau Federation

RIRIE – After a two-year absence, international wheat trade teams are returning to Idaho.

The Idaho Wheat Commission typically hosts several international trade teams each year that want to get a close-up look at the state's wheat industry, but government-ordered restrictions related to COVID-19 kept them away for two years.

Having face-to-face relationships with customers is essential for Idaho's wheat industry, said outgoing IWC Executive Director Casey Chumrau.

"We have not been able to do that for the last couple of years and we're very happy to be able to invite our customers and our friends back to Idaho ... to show them the entire wheat production process," she said.

A technical trade team from South America visited Idaho Aug. 4-5 to gain more information about the state's wheat industry.



Ririe farmer Clark Hamilton, right, shows Alejandro Jaramillo, a member of a wheat trade team from South America, one of his wheat fields Aug. 4.

The trade team consisted of millers, agronomists and other wheat industry experts from Ecuador and Peru, which purchased a combined 573,500 metric tons of U.S. wheat last year.

After stops in Minnesota and Oklahoma, they visited a farm in Ririe and wheat facilities in Blackfoot and Pocatello, and they liked what they saw.

“My impression is that the United States has the technology and knowledge to produce a very good wheat,” Alejandro Jaramillo, plant manager of Moderna Alimentos in Quito, Ecuador, told Idaho Farm Bureau Federation. “For us, it’s the best wheat in the world.”

According to the trade team, Ecuador imports about 1.45 million metric tons of wheat annually. The United States supplied 368,500 metric tons of that wheat in calendar year 2021.

Peru imports between 1.8 and 2.3 million metric tons of wheat annually and U.S. farmers supplied that nation 205,000 metric tons of wheat in 2021.

Jaramillo said being able to see all facets of the U.S. wheat industry was very important to trade team members.

“This opportunity to keep in touch with all the companies and the farmers

who grow that wheat is very important to us,” he said. “It’s very important for us to see how that wheat is harvested, how it’s stored, how it’s transported. And it’s important for us to know about all of the conditions of your wheat because we need to be able to control all the parameters to make a good flour for good bread.”

Wheat is grown in 42 of Idaho’s 44 counties and the state

typically ranks No. 5 or 6 in the nation in total wheat production. Wheat ranks as the state’s No. 4 agricultural commodity in terms of total farm-gate receipts.

Idaho farmers produce more than 100 million bushels of wheat annually and half of it is exported. Being able to bring those international customers to Idaho to see the state’s wheat industry close-up and meet its farmers is invaluable, said Britany Hurst Marchant, the incoming executive director of the Idaho Wheat Commission.

“It’s a great opportunity for them come and see really, truly where their wheat comes from; to be able to drive the equipment and see wheat fields close up, to actually be able to feel the wheat kernels and taste them, to see the threshing,” she said.

This was the second wheat trade team hosted by the IWC this year. A team from

the Middle East and Africa visited the Gem State in July.

“The goal of trade teams is to show customers the entire process of wheat production, from research to planting, through harvest and then all the way to the export market,” Chumrau said. “It’s very important for them to see and understand the entire process.”

“The customers like to see all of the details that go into the product that they are purchasing and we like to showcase how much care we are putting into producing a high-quality product for them,” she said.

Trade team members spent several hours touring the Hamilton farm in Ririe Aug. 4 and had the opportunity to drive combines while they were harvesting wheat. They spent time in the fields inspecting the wheat up-close and even tasting the kernels.

Farm owner Clark Hamilton said he welcomed the opportunity to meet the state’s wheat customers and host them at his farm.

“Idaho exports half of its wheat, so we want to have our customers come here so we can listen to them and learn how to provide them with what they need,” he said. “We value their business and it’s just a pleasure to have them here and share with them what we’re doing and build that relationship for the future.”

Hamilton and other Idaho wheat farmers who joined the trade team for dinner at the farm answered questions and explained in detail how Idaho wheat is grown, stored and transported.

Hamilton, who serves on the Idaho Wheat Commission, said the main message Idaho’s wheat industry wants to send to trade teams is “that Idaho is concerned about quality and how our product performs for the millers around the world.”

“I appreciate you coming,” he told trade team members before dinner. “I want you to know quality matters to us and we want to serve your market.”

“I’m really impressed,” Daniel Quispe, head of research and development for Molicentro, a wheat company in Lima, Peru, told Hamilton and the other Idaho wheat growers. “This is a once-in-a-lifetime opportunity.” ■

Continued from page 2

same generations from now.

There is no standard definition for what every family farm looks like other than that it is owned and run by, you guessed it, a family.

Some farms have been in a family for well over 100 years. And some are in their first generation. But, no matter how long the land and business have been in the family, I'll bet my bank account they've all changed over time.

One thing remains the same, though. These farms are critical to providing the food, fiber and fuel we all rely on.

In my travels, I've been fortunate to be able to learn about changes in many family operations firsthand.

When I visited Oregon earlier this year, I was able to tour the Iverson family's farm. Their farm started in 1950 when Ross and Dorothy Iverson were married and purchased the farm together. They expanded and brought tulips to the farm as their six children grew older.

Starting in the mid-80s, the family opened their tulip fields to the public, giving rise to their now annual tulip festival, attracting hundreds of thousands of people each year.

But, the festival itself wasn't enough to sustain the growing family that wanted to be part of the farm. So over time, they've added other crops, pursued new technology, and adapted to meet consumer demands.

After their family's experience with CBD

'...no matter how long the land and business have been in the family, I'll bet my bank account they've all changed over time.'

in the final days of Ross's life in 2016, the family added hemp to their farm. Today, their farm supplies the nation's most reputable CBD companies.

In the middle of Connecticut, about halfway between New York City and Boston, I met Liz MacAllister and her son, Mark Gillman, who milk 45 cows twice a day.

With that milk, they make artisan cheeses right there at Cato Corner Farm, which they sell direct to consumers in New York City, Boston and the surrounding communities.

In the 1970s, Liz started raising goats, sheep, cows and chickens, but the money she was getting simply wasn't enough to support the farm. So, in 1997, she started making cheese so she could keep farming and make a living.

Just two years later, Mark left his teaching job in Baltimore and returned to help his mom make cheese. Today, Mark is the master cheesemaker and Liz manages the herd.

Together, they've grown the farm and been honored as one of the best cheesemakers in the U.S. by Food and Wine Magazine.

We see this evolution in other family businesses in ag other than farms. In the

southwest corner of Indiana, I recently met the Dewig family. They own and operate a small meat processing facility and grocery that's become an important part of the local community.

Over 100 years ago, in 1916, the Dewig family started Dewig Meats. Since the second generation took over in 1962, they've continued to grow their facility and add more local products to their shelves alongside the meat they process from nearby farmers and their own farm.

When I visited, the third and fourth generations were helping out and excited to be part of the business. They also shared their plans to pursue grant money as part of the USDA's efforts to expand our country's small and regional processing capacity.

They hope the project can help them expand their business to serve even more neighbors and communities.

As our families grow and change, so do our farms and ag operations. The changes require adaptability, ingenuity and resilience, all of which are part of the DNA of farmers.

Even as farms and farming change, one common thread binds us together: family farms are planting seeds for a sustainable and bright future as we stock America's pantries. ■

Continued from page 2

availability of many fertilizers and chemicals that are vital to grow crops.

Farmers and ranchers are gamblers by nature in that they to some degree roll the dice each year when they plant their crops and invest in the care of their animals, not knowing what the market, weather, plant pests and diseases, or government regulators will throw at them.

But this year has brought a level of uncertainty that many agricultural producers have never experienced before. All of those challenges mentioned above seem to be acute and growing this year.

The increased cost of producing food is perhaps the biggest challenge ranchers and farmers face in 2022. Anyone who has shopped for anything recently, from food to cars to household goods, knows inflation is bumping up the price of goods and services, in some cases dramatically.

It's no different on the farm and in some cases, the cost increases are staggering. The price that many farmers paid for fertilizer this year was two, three, and even four times higher than what they paid in past years.

I don't need to explain how much higher fuel costs are this year. Anyone who drives any type of vehicle already knows that.

Fuel and fertilizer are major expenses on the farm and they cost a lot more this year.

Many farmers and ranchers say their cost of production has increased about 20 percent this year. That's a conservative number.

When consumers pay much more for food at the grocery store, they should know that it's not because farmers are getting rich or raising the price on their own. Farmers are price takers, not price setters, and the increased cost of food is simply a reflection of how much more agricultural producers are having to pay to produce food.

It's also important to keep in mind that the average farmer or rancher gets only about 8 percent of every dollar spent on food in this country.

Farmers and ranchers want as much as anyone for the price of

'Food doesn't just happen. A lot of work, and risk, is involved in bringing it to the plate. It's truly a miracle of work.'

food and everything else to return to near-normal levels. Idaho Farm Bureau Federation and many other agricultural organizations are working closely with elected officials and others to try to find some solutions.

Food doesn't just happen. A lot of work, and risk, is involved in bringing it to the plate. It's truly a miracle of work.

Despite the great challenges this year, farmers and ranchers are doing everything they can to mitigate the increased costs and continue to produce an abundant supply of food.

So, as all of Idaho's farmers bring in their crops this year, a big "thank you" for doing what you do and ensuring the world is fed. And, especially for doing it during a year of great uncertainty and challenge. ■

MILLER

Continued from page 2

knowledge cornered, but Mother Nature's stubbornness may emphasize this truth a bit more to farmers and ranchers. A farmer may want to bale hay today, but the weather decides if they can.

Happily, there are times when we can see evidence that all our fellow travelers do appreciate slow and smooth over fast and insane.

After a glorious small-town parade this summer, my heart swelled with pride in my hometown. I witnessed drivers in heavy small-town traffic patiently taking turns to let drivers merge into the town's arteries as we all exited after the parade.

People could have adhered strictly to the rules of the road and their self-interest. That day people innately understood that if all moved slowly and consistently, the mass and individuals could succeed better than an impatient individual hurrying to wait for the car before them.

If only such attitudes could be seen more regularly in all settings, and especially during harvest.

The insanity of some individuals in their attempts to shave mere seconds from their travel will literally tempt life and limb by

'We all want a safe, profitable harvest, and most of our neighbors are cheering for the same thing.'

challenging the brakes of a loaded farm truck and the wits of what is often a part-time, perhaps teenage driver behind the wheel.

Harvest stress could be dramatically decreased if farm truck drivers follow their training, and the public becomes a partner in teamwork for safety and efficiency instead of an obstacle.

I hypothesize that most farmers hope their trucks and drivers can travel the roads safely and consistently.

A smooth, steady driver usually has fewer breakdowns, accidents, and tickets than a hot rod driver in a big truck. I have

witnessed many a harvest meeting where it is emphasized to crews that their job is to slow down, pay attention and stay on task, and everything will work out just fine.

Thank you all, farmers, for your work to be safe on the roads. It truly is a group effort to stay safe during harvest, and your efforts are appreciated.

Thanks to those farmers who take time during harvest to post on social media and other platforms to inform the community of what harvest entails. Such efforts allow many to better appreciate what harvest is and try to do their part to decrease the risks.

Farm Bureau and other ag groups do their best to share the word about farm safety year-round, especially during busy seasons like harvest. We all want a safe, profitable harvest, and most of our neighbors are cheering for the same thing.

By working together, we can encourage all to work and travel safely.

Of course, a few will always refuse to understand that slow can be fast. In the spirit of stress reduction, let us all assume those people are ignoramuses who have moved in from a state west of ours. ■

Farm Bureau leaders sharpen each other during conference



Photos by Joel Benson

Idaho Farm Bureau Federation members from around the state gathered in McCall July 18-21 for IFBF's annual Summer Leadership Conference.

By Sean Ellis

Idaho Farm Bureau Federation

McCALL – As iron sharpens iron, Idaho Farm Bureau Federation volunteer leaders from across the state spent three days in McCall learning and discussing ways to improve the organization and their own county Farm Bureaus.

“We recognize and appreciate your service to this great organization,” IFBF President Bryan Searle, a farmer from Shelley, told those who attended the annual IFBF Summer Leadership Conference.

About 70 people who serve as Idaho Farm Bureau Federation leaders in various capacities attended the conference, along with their families.

They included county Farm Bureau presidents and vice presidents, members of the state's Young Farmers and Ranchers Committee and Promotion and Education Committee, as well as chairs of IFBF's various commodity committees.

The conference, which took place July 18-21 this year, happens during a busy time of year for farmers and ranchers and Searle thanked participants for taking the

time to attend.

“We know there are things at home that need to be done, but the sacrifices that you make I know will pay big dividends for agriculture,” he said. “It has in the past and it will long into the future. So your engagement is important.”

A host of topics important to agriculture were covered during the conference and participants were encouraged to stay engaged on the various issues affecting the industry. They were also encouraged to remain active in helping to implement the various policies that IFBF members have



While in breakout groups, Idaho Farm Bureau Federation members discuss IFBF policy during the organization's annual Summer Leadership Conference, which was held in McCall July 18-21.

adopted.

IFBF's professional staff advocates for those policies, "But where we really move the needle is when we get the grassroots members advocating for these positions," said Braden Jensen, IFBF's deputy director of governmental affairs.

Jensen and Chyla Wilson, an IFBF governmental affairs representative, reinforced the need for the organization's volunteer members, who are farmers and ranchers, to know the policies contained in the IFBF Policy Book and be comfortable advocating for them.

"You guys have a lot of power," Wilson said. "With great power comes great responsibility. You need to know the policy and be comfortable communicating it."

The different presentations that took place during the conference were interactive and participants were encouraged to participate and speak their minds.

The interactive nature of the conference is by design, said IFBF CEO Zak Miller.

"These are some of our top Farm Bureau leaders in the whole state," he said. "Our real goal of this conference, from my perspective, is to let the talent talk to the talent. Let them share their successes and their ideas with each other because that's how they grow."

County Farm Bureau leaders are at the ground level of the issues facing agriculture and they have in-depth knowledge and experience dealing with those issues, Miller said.

"The best training is when someone who knows what agriculture is about and has a real understanding of a certain issue can share their experiences with somebody else who's going through the same thing," Miller said.

Washington County Farm Bureau President Tristan Winegar said the annual conference always provides worthwhile information, even if it requires some sacrifice to attend because it occurs during a very busy time of year for producers.

"This is a really busy time of year for farmers especially but yet we still have a really good turnout every year and it's because when we come here, we get things that are worthwhile and beneficial that we can take back to our counties and use to improve our county Farm Bureaus," he said. "With Farm Bureau being a grassroots organization, that's what it's all about."

"To me, it's worthwhile to come up here for the networking, to rub shoulders with other ... farmers and ranchers and forestry people from all around the state to learn

from them and grow together," Winegar added.

He said the conference is also an opportunity to catch up with old friends and their families.

"The networking is awesome but being able to meet with friends and the Farm Bureau family itself is amazing," Winegar said. "It's great to come here and be around those people and laugh and talk and grow together and just make each other better."

During the conference, Todd Argall, CEO of Farm Bureau Mutual Insurance Co. of Idaho, told participants he is "a Farm Bureau guy to my core" and said the insurance company is committed to strengthening its relationship with Idaho Farm Bureau Federation.

"Our objective as a company is to ... strengthen that relationship," he said.

At the conclusion of the conference, Searle thanked the organization's volunteer leaders for the sacrifices they make serving Farm Bureau and the agriculture industry.

"Thank you for the active role you play in Farm Bureau," he said. "We appreciate everybody; you make a big difference. I take my hat off to each one of you. Thank you for taking the time to serve." ■



Photos by Bill Schaefer

Pamela Hutchinson, a potato cropping systems weed scientist at the University of Idaho's Aberdeen Research and Extension Center, poses in a field of experimental hemp.

University of Idaho hemp trials promising

By **John O'Connell**
University of Idaho

A University of Idaho Extension weed scientist has some promising leads in trials evaluating potential herbicides for use in Idaho's new hemp farming industry.

Pamela Hutchinson, a potato cropping systems weed scientist at the U of I's Aberdeen Research and Extension Center, and Chad Jackson, the facility's operations manager, are among a small group of growers licensed to raise hemp in Idaho.

This is the first season in which hemp production has been allowed in the state, and no herbicides are currently available to Idaho hemp farmers.

Unable to find funding for large-scale trials, Hutchinson planted some small industrial hemp plots under irrigation, using seed supplied by IND Hemp of Fort Benton, Mont.

In addition to her encouraging herbicide-tolerance results, businessmen involved in the new industry have taken notice of the exceptional quality of Hutchinson's crop, which shows potential for Idaho to become a major hemp-production state.

"I met with an agronomist from IND Hemp. They're really excited about how good the hemp looked in my trial and the possibilities of raising hemp under irrigation," Hutchinson said.

This winter, U of I will work out details of an Extension program with the Shoshone-Bannock Tribes in southeast Idaho, teaching members how to register to produce hemp through the Idaho State Department of Agriculture and how to grow a successful crop. The tribes plan to raise hemp starting next spring.

"There has been some interest in growing it but we don't know how to grow it here in Idaho," Hutchinson said.

Tim Cornie, co-owner of 1,000 Springs Mill in Buhl, planted about 10 acres of hemp this season for research. He plans to use

grain from the hemp he grows to produce a gluten-free hemp meal-replacement bar.

He said hemp is highly nutritious and tastes good, and he anticipates Idaho will be a significant player in the production of hemp for food. He'll use the hemp fiber to make insulation.

"I can see a lot of people growing it. The acres will start to double every year for a while," Cornie said. "It will be a great rotation crop behind wheat and corn."

Ben Brimlow, lead agronomist with IND Hemp, sees potential for Idaho to be among the top five U.S. states for hemp production. He likes the Gem State's volcanic soils, access to irrigation, climate and

latitude.

"What Pam Hutchinson is doing is just phenomenal. Her trials are amazing," Brimlow said. "We'd be happy to support any further research with seed. It's so important to us just to get this industry moving quicker and further."

Fiber hemp grows in dense stands and can reach up to 20 feet tall. Herbicides will be most important before the crop establishes and can outcompete weeds.

Hutchinson planted plots with eight treatments, including both pre-emergence and post-emergence herbicides. She made an early season planting in mid-May and a later planting in mid-June.

She's been encouraged by a pair of herbicides labeled for use in potatoes: Prowl H2O and Linex. Stinger, a herbicide labeled for use in some other crops, has also shown promise.

She'll be working through the IR-4 Project, which was established to ensure specialty crop farmers can access crop protection products, to get the top-performing herbicides labeled for hemp production.

Xi Liang, a cropping systems agronomist, will assist in future trials to answer hemp production-related questions for Idaho farmers. Hutchinson also plans to study the best methods to terminate hemp to make certain it doesn't escape fields and become weedy. ■



Hemp grows in an experimental plot for evaluating weed-control products at the University of Idaho's Aberdeen Research and Extension Center in southeast Idaho.

Idaho set to break record for total farm revenue

But net farm income could be a different story

By Sean Ellis

Idaho Farm Bureau Federation

POCATELLO – Barring an unforeseen catastrophe, Idaho will almost certainly set a record for total farm-gate receipts this year.

Whether farmers actually increase their bottom line this year, however, is uncertain given that farm input costs are soaring.

“We’re going to break an all-time record for cash receipts this year,” said University of Idaho Agricultural Economist Garth Taylor.

Farm-gate receipts are the revenue that farmers and ranchers receive for their commodities.

Taylor is one of the authors of U of I’s annual Financial Condition of Idaho Agriculture report, which estimates total farm-gate receipts and total net farm income in Idaho. One of the report’s co-authors, economist Ben Eborn, agrees that it appears inevitable the state’s record for farm-gate receipts will be broken this year.

“We are going to set a record this year for cash receipts, for sure,” he said.

The reason is simple: the price for virtually every agricultural commodity is up this year. Idaho farmers also expect good yields this year.

Usually, the prices for a handful of agricultural commodities can be expected to be up significantly in a given year, said Rick Brune, who farms in Kimberly.

“This year, it seems like all of them are up,” he added.

So, put good or near-record yields for some commodities and high commodity prices together and ... “The farm-gate receipts are going to be up tremendously,” said Meridian farmer Sid Freeman.

But, he added quickly, “Farm production expenses are way high also.”

“There are some very substantial increases in farm production costs this year,” said Brune.

That means that while gross farm revenue will be up substantially this year,



Photo by Sean Ellis

Wheat is harvested in a field near Ririe Aug. 4. With yields looking good and farm commodity prices up, it appears almost certain that Idaho will set a record for total farm-gate revenue this year.

there’s no guarantee net farm income, which is the farmer’s paycheck, will also be up.

According to the U of I’s Financial Condition of Idaho Agriculture report for 2021, total expenses for the state’s farmers and ranchers last year were up 8 percent compared with 2020, reaching a record \$7.8 billion.

Idaho’s record for total farm-gate receipts, \$8.9 billion, was set last year, nipping the previous record of \$8.8 billion set in 2014, but total net farm income in the state actually decreased 8 percent last year, to \$2.4 billion.

The reason for that decrease was a large year-over-year increase in total farm production costs in 2021. Farm and ranch expenses are again expected to increase

substantially this year.

“We’re seeing record high commodity prices and record high farm expenses,” Freeman said. “The net margins, I believe, will be narrower this year.”

Eborn, owner of North American Potato Market News, said potato production costs in Idaho will be up about 20 percent this year compared with 2021.

“Costs are sky-high,” he said.

Many farmers across the state are reporting good yields this year and if realized, that will boost growers’ total income and help offset some of the input cost increases, Freeman said.

“There are some pretty good yields out there,” Taylor said. “We’re talking very good yields.” ■



Hay is harvested in a field in southcentral Idaho this summer. Average cropland rental rates in Idaho rose 8 percent this year compared with last year, according to USDA.

RENT

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“I’m not shocked,” she said about the increased farmland rental rate in Idaho. “With the appreciation we are seeing in land, ag land rental rates have to increase so there is a capitalization rate, although it be small for the investor. Unfortunately, it’s just another input cost increase for the farmer.”

Farmland rental rates in Idaho differ greatly depending on location and which commodity is being grown and some rental rates are much higher than the average rate reported by NASS, Taylor said.

“They are out the ceiling in some cases,” he said.

According to NASS, the average rental

rate for cropland in Idaho has risen from \$159 an acre in 2019 to \$171 in 2020 to \$180 last year and \$194 this year.

The average rental cost of irrigated cropland in Idaho has risen from \$216 an acre in 2019 to \$225 in 2020 to \$236 in 2021 to \$262 in 2022.

The average rental cost of non-irrigated cropland in the state has gone from \$56 an acre in 2019 to \$62 in 2020 to \$63 in 2021 to \$65.50 in 2022.

NASS estimates show the average rental rate for cropland in the United States rose 5 percent, or \$7 an acre, this year, to \$148 an acre. The average rental rate for irrigated cropland in the U.S. is estimated at \$227 an acre this year, up 5 percent, or \$10, from last year.

The average rental cost of non-irrigated farmland in the U.S. this year is estimated at \$135 an acre, up 6 percent, or \$7, compared with last year.

The average rental rate for cropland in Washington was \$217 an acre in 2022, according to NASS. That’s a drop of 2 percent, or \$5 an acre. The average rental rate for irrigated cropland in Washington this year is estimated at \$430 an acre, up 9 percent, or \$35, from last year.

The average rental rate for cropland in Oregon this year is \$182 an acre, up \$1 from last year. The average rental rate for irrigated cropland in Oregon this year was \$261 an acre, up 7 percent, or \$16, over last year. ■



Photos by John O'Connell

Albert Adjesiwor, a University of Idaho Extension weed specialist, shows samples of waterhemp, redroot pigweed and Palmer amaranth.

Roundup-resistant weed new to Idaho

By **John O'Connell**
University of Idaho

A University of Idaho Extension weed specialist is investigating the recent discovery in an Elmore County sugar beet field of a weed that had never previously been detected in Idaho and appears to be resistant to the glyphosate herbicide.

Albert Adjesiwor, who works from the UI Kimberly Research

and Extension Center, confirmed in late June that the weed, which covered patches in the sugar beet field, was waterhemp, a member of the pigweed family that causes significant yield reductions in crops.

The agronomist who notified Adjesiwor of the discovery said the weeds remained healthy even after two applications of glyphosate, which is the active ingredient in Roundup herbicide.

Though waterhemp hadn't previously been found in Idaho, it's



These are samples of waterhemp, redroot pigweed and Palmer amaranth.

widespread in the eastern U.S., as well as the South and the Midwest.

“This is very concerning because glyphosate is the main – and only – herbicide that provides broad-spectrum weed control in sugar beets,” Adjesiwor said. “All our efforts in proactive resistance management would mean nothing if we cannot prevent the introduction of herbicide-resistant weeds from other regions.”

Idaho farmers typically plant about 170,000 acres of sugar beets each year and the crop ranks as the No. 6 agricultural commodity in the state when it comes to total farm-gate revenue. Idaho sugar beet growers brought in \$396 million in farm-gate receipts last year.

Waterhemp can grow to 8 feet tall and resembles Palmer amaranth, a close relative that Adjesiwor also fears may soon arrive in Idaho and bring a suite of resistance challenges.

Waterhemp can be differentiated from Palmer amaranth by its shorter petioles, which attach leaves to the stalk. A single waterhemp plant can produce upwards of 250,000 seeds.

Adjesiwor suspects the waterhemp was

introduced in the 100-acre field by cattle that had been fed rations contaminated with waterhemp seeds.

“From what the agronomist told me, they had some cows graze that area,” Adjesiwor said. “This is not surprising because pigweeds like waterhemp have hard seed coats and thus can pass undamaged through the cattle’s digestive tract and deposited on the soil via their manure.”

Some of the waterhemp patches in the Elmore County field were already too well established and probably too large to control with other herbicides, so Adjesiwor instructed the agronomist to bring in hand crews to destroy them before they could go to seed.

Adjesiwor also plans to conduct a survey of some sugar beet fields this fall to investigate the distribution of herbicide-resistant weeds.

“Our hope is that, if this problem is widespread, we might be able to collect seeds from other sugar beet fields for screening,” Adjesiwor said.

He is urging farmers who have weeds suspected to be resistant to herbicides to reach out to him or submit samples for

screening through the [UI weed science page](#).

Adjesiwor has transplanted waterhemp plants from the field supplied by the agronomist and will conduct a broad screening for herbicide resistance.

He believes the incident should serve as a cautionary tale to alert people in the industry to keep an eye out for the weed and to follow practices to keep it from spreading here. He’s, nonetheless, optimistic that it hasn’t already gotten out of hand.

“I’m pretty sure we can control this,” Adjesiwor said.

To avoid future introductions of waterhemp and other weeds into Idaho, Adjesiwor advises farmers to inspect and clean used equipment. He also advises seed mixes used in cover crops, bird feed and restoration may be sources of pigweed seed.

Rights-of-way abutting major highways should be periodically scouted for weeds. Furthermore, farmers who can’t be certain manure planned for use as a fertilizer is free of weed seeds should test it first by planting it on a small plot before applying it to an entire field. ■

Idaho Wheat Commission gets a new executive director

By Sean Ellis

Idaho Farm Bureau Federation

POCATELLO – The Idaho Wheat Commission’s new executive director knows who her boss is, or rather, who her bosses are.

The commission, which promotes the state’s wheat industry, keeps wheat farmers up to date on the latest issues and funds wheat research, is funded through an assessment paid by the state’s 2,500 wheat growers.

“I don’t take lightly that my position and our entire commission is funded from money that comes directly from farmers,” said Britany Hurst Marchant, who takes over as the commission’s executive director on Sept. 1. “Those are the people I work for.”

Marchant said her top priority “is to make sure that wheat grower money is invested wisely and spent wisely.”

Marchant takes over as the commission’s executive director from Casey Chumrau, who held that position since January 2020 and is taking over as CEO of the Washington Grain Commission.

Marchant has served as the IWC’s communications and grower education manager since December 2017 and has worked closely with Chumrau for the past few months as she prepared to move into the wheat commission’s top slot.

She said Chumrau actually has kept her in the loop on all the goings on of the wheat commission in their time together.

Chumrau said she has no doubt Marchant will step into her shoes quickly and keep the commission running smoothly.

“Britany has shown dedication, ingenuity and consistent results in her time with the commission,” she said. “The commission is in great hands and will continue to thrive under Britany’s leadership.”

Before joining the IWC, Marchant spent



Submitted photo

Britany Hurst Marchant, new executive director of the Idaho Wheat Commission

more than six years with the Idaho Cattle Association, serving as that organization’s communications director, lobbyist and environmental policy director.

Chumrau said it’s a big plus that Marchant has been closely involved and connected with Idaho’s agricultural industry for many years.

“Her understanding of Idaho agriculture and the strong relationships she has around the state will serve her well as executive director,” Chumrau said.

Rockland farmer Cory Kress, one of five farmers who serve on the IWC, said Marchant’s new position is a challenging one but he and other commissioners “feel she is more than up to the task.”

“She is probably the most committed and dedicated employee I’ve ever been around,” Kress said. “We’re sad to lose Casey obviously but we feel Britany will fill her shoes and continue on with the progress the wheat commission has made the last several years.”

IWC Chairman Clark Hamilton, who

owns farms in Ririe, said the commission had an excellent pool of candidates for the executive director position but Marchant was the obvious choice.

“She brings a wealth of knowledge to the table with her previous work with the commission,” he said. “Her passion for agriculture in Idaho, knowledge of the wheat industry and her professional experience and connections made her the right choice for the job.”

Hamilton said that while the commission is sad to see Chumrau leave, “we understand that this is an incredible opportunity for Casey and her family. We are very pleased with the direction she took the wheat commission while at the helm ... The wheat industry is very lucky to be keeping such a great professional.”

Marchant grew up in the Burley-Rupert area of southcentral Idaho surrounded by farmers and ranchers and said she is excited to be working for wheat producers.

“Idaho’s farmers are the hardest workers and the very best people,” she said. “I am so grateful to be working for people for whom I have so much respect.”

Idaho farmers plant about 1.2 million acres of wheat each year and the state typically ranks No. 5 or 6 in the nation in total wheat production. Wheat is grown in 42 of Idaho’s 44 counties and ranks No. 4 among the state’s agricultural commodities in terms of total farm-gate revenue.

In addition to being a major part of the state’s economy, wheat is an important crop rotation for most farmers in Idaho.

“Even for farmers who think of themselves as primarily potato farmers or sugar beet farmers, wheat is in their rotations,” Marchant said. “It’s a very important crop in Idaho.”

Wheat is also a very important staple crop around the globe, she added.

“Wheat accounts for 20 percent of the world’s caloric intake, so it’s a hugely im-

portant industry for the entire world,” she said. “Idaho’s wheat growers put food on our own families’ tables, and on tables of families around the world.”

About 50 percent of the wheat grown in Idaho and the United States is exported and Marchant said one of her main goals of the commission is to ensure the transportation and other infrastructure remains in place to continue serving those markets.

“Those export markets are really important to the Idaho and U.S. wheat industry, so making sure we keep those export markets open is extremely important,” she said.

About one-third of the wheat commission’s annual budget of about \$3 million goes to research and Marchant said it’s important the commission continue to invest in research.

Farmland in Idaho and around the nation continues to disappear at a rapid pace, “So in order to continue to be able to produce the food that we produce for Idaho, for the United States and for the world, we have to be able to produce a lot more with a lot less land,” she said. “That’s where research comes in.” ■



Photo by Sean Ellis

Britany Hurst Marchant, right, the new executive director of the Idaho Wheat Commission, is shown Aug. 4 with members of a South American wheat trade team.

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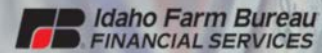
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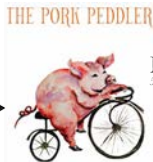
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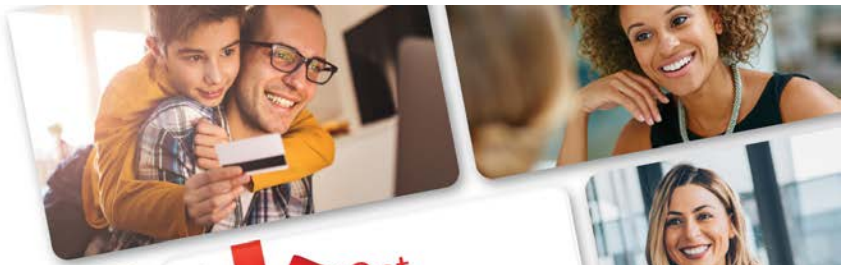
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Thinning larger trees – commercial thinning

By Chris Schnepf
University of Idaho

My previous two columns focused on pre-commercial thinning. This column focuses on thinning larger trees – commonly referred to as “commercial thinning.”

Typically, commercial thinning is done in stands that are at least 20-30 years old, depending on the site and markets for the thinned trees.

The first step to any thinning effort is to assess stand density. Density can be described as trees per acre, basal area, or density relative to the maximum stand density index (SDI).

For commercial thinning, basal area/acre (the cross-sectional area of the trunks at 4.5 feet above ground) is most commonly used in Idaho. If you know how to use forest measurement tools, you can measure stand density yourself.

For more information on forest measurements, see “Basic Forest Inventory Techniques for Family Forest Owners” (PNW 630, downloadable at pubs.extension.wsu.edu/basic-forest-inventory-techniques-for-family-forest-owners).

We will also be offering an extension field day in 2023 titled “Measuring Your Trees,” where you can get some hands-on training using these tools. The date and location will be announced on the University of Idaho Extension Forestry website this winter.

One of the most common questions about thinning is how widely to space the trees. Stand density relative to maximum stand density index (SDI) is increasingly being discussed as a way to approach this.

In extension programs, I find the graphics associated with

explaining SDI can help inform landowner intuition about stocking goals.

Think of the maximum SDI as the maximum carrying capacity of trees on a site – what is the highest density of trees a site could possibly carry? (Doghair lodgepole pine stands provide a good mental image).

Stocking targets are set as a percentage relative to this maximum SDI. Generally, thinnings try to keep a stand between 35% and 60% relative to that maximum density (“the management zone”).

For example, with a stand of ponderosa pine trees averaging 10” in diameter, you might shoot for 20-30 feet between trees, depending on the site. The take-home from this is that thinning should open the stand up more widely than many landowners think initially.

The growing space is going to fill up again as trees continue growing and their roots and crowns take advantage of the new growing space. For more information on relative density and SDI see “Suggested Stocking Levels for Forest Stands in Northeastern Oregon and Southeastern Washington” (USFS PNW-RN-513, downloadable at www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5405482.pdf) and “Competition and Density in Woodland Stands” (OSU EM 9206 downloadable at catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em9206.pdf).

Thinning is an important time to focus closely on leave tree quality. The trees left after a thinning should be the strongest, most stable trees for site, in terms of species, growth, and form.

A commercial thinning is often followed by a stand re-

generation cut 15-30 years later. So, if you plan on some natural regeneration then, your leave tree decisions become more important for the genetic choices you will have for trees you would leave for seed.

For more information, see “Logging Selectively: A Practical Pocket Guide to Partial Timber Harvesting” (PNW 534) and its companion video (go to www.extension.uidaho.edu/detail.aspx?IDnum=667&title=Forestry%20and%20Range&category1=Natural%20Resources&category2=Forestry).

If you are consciously seeking regeneration within a few years of the treatment (beyond keeping certain species in the overstory for eventual seed sources), you are not really doing a thinning – you are engaging in a variant of the selection silvicultural system (individual, group, or variable density selection).

Thinnings are intermediate treatments - applied between regeneration cuts in an even aged silvicultural system such as the clearcut, seed tree, or shelterwood systems.

Selection silvicultural systems generally do not have thinnings per se, beyond a little precommercial thinning in years after group selection entries.

In selection silvicultural systems, each stand entry (typically every 10 to 15 years) “thins” the stand somewhat in the effort to maintain an all-aged forest. You may also run into the term “variable density thinning.”

Where this term is applied in coastal forests, it truly is an intermediate treatment. When the term is used on drier forest types, they are also typically including regeneration goals in “gaps.”

The latter activity is probably better described as an entry in a variable density silvicultural system rather than a thinning.

When commercially thinning, be careful with stands dominated by species most vulnerable to root diseases (e.g., grand fir and Douglas-fir). If you thin the stand and can leave species that are more resistant to root diseases (pines, larch, cedar, etc.), you should be fine.

However, root diseases can become more active if you leave highly susceptible tree species on the site. Cut trees’ root systems can provide food for root diseases to become more virulent – the fungus then moves from cut trees’ root systems to standing trees.

Because you are cutting larger trees, you also need to think more about bark beetles with commercial thinning, particularly those which can breed in green stem wood left on site. For a table on what is safe to leave and when, see “Managing Organic Debris for Forest Health: Reconciling Fire Hazard, Bark Beetles, Wildlife, and Forest Nutrition Needs” (PNW 609, downloadable at www.extension.uidaho.edu/publishing/pdf/PNW/PNW0609.pdf).

The primary focus of commercial thinning is on managing a stand for healthier density and growth. But depending on landowner objectives, a landowner might thin more widely to favor understory plants for forage, livestock grazing, wildlife, or to reduce fire risk.



Better markets for smaller diameter logs have made more thinning efforts commercial.

Be aware that if you thin too heavy, you may start to get new seedlings regenerating – these species may or may not be suited to the site over the long term (they are often shade tolerant species such as grand fir or Douglas-fir).

Their growth could also increase ladder fuels on the site – you or someone down the road will need a strategy to deal with such issues.

There can also be some temporary elevated fire risk from slash after a thinning, but ultimately thinning usually reduces fire risk by making remaining trees healthier and reducing fuel continuity.

In addition to improving the growth and health of a stand, commercial thinning is also an opportunity to use or sell trees that otherwise would die and decay (sometimes referred to as “capturing mortality”).

It may be the first opportunity a forest owner has to pay for reforestation, precommercial thinning, or other earlier stand treatment costs.

As with any harvest of trees taken to a mill, a commercial thinning should have a written timber sale contract. A consulting forester can provide indispensable help with setting up and managing the timber sale associated with a commercial thinning.

For more information and a directory, see “Working with a Professional Forester” (UI CIS 1226, downloadable at www.extension.uidaho.edu/publishing/pdf/CIS/CIS1226.pdf).

When all is said and done, the value of a commercial thinning isn’t how much you make on an associated timber sale. The primary value of any thinning is improved stand growth and health.

After paying logging and hauling costs, you could even lose a little money on logs sold in a commercial thinning, especially when you are removing poorer quality trees. In such a case, look at the commercial thinning as a lower-cost investment in the future of your forest. ■

Chris Schnepf is an area extension educator in forestry for the University of Idaho in Bonner, Boundary, Kootenai and Benewah counties. He can be reached at cschnepf@uidaho.edu.



Barn Quilts

A popular folk art elsewhere comes to East Idaho

By Kathy Corgatelli Neville

For Idaho Farm Bureau Federation

Painting a quilt block design on a piece of wood to hang on a barn can be traced to European and Australian immigrants who arrived in Pennsylvania hundreds of years ago.

Over the years, the folk art spread throughout the Northeast and Midwest. Initially, the art was decorative but became a way for visitors to find a family farm or crossroads from the designs on the barns.

Now, designing, painting and hanging barn quilts has arrived in Eastern Idaho.

Jeff and Michelle Metcalf were among about eight others who learned how to transfer their favorite design onto large sheets of whitewashed plywood in a recent class taught at the Bonneville County Extension office by Alicee Rasmussen of Idaho Falls.

The Metcalfs have been refurbishing a 108-year-old barn and home built in the 1940s on their 11-acre hobby farm in the Grant area and hanging a barn quilt on their barn has been something they've always wanted to do.

"We've seen barn quilts on barns on some road trips we've taken. They're especially prevalent back East," Michelle said.

People decorate their barns for a variety of other reasons, too.

"Research shows that barn quilts were often used to commemorate a lost loved one or ward off evil spirits," Jeff said.

The Metcalfs picked a cheerful sunflower design for their 4 by 4-foot, ¾ inch thick plywood board and painted the geometric design in golds, yellows, greens and browns.

Designs aren't limited, nor is size. Some barn quilts can be as large as two 8x8 foot sheets put together, or even larger, or as small as 4-inches square, or even smaller.



Photos by Kathy Corgatelli Neville

Some examples of quilt designs that can be used in barn quilt painting.

"There are tons of different designs to choose from, but this one caught my eye. It isn't too detailed and will look good from a distance," Michelle said. "We grow sunflowers and the flower just makes me smile."

Some students used masking tape to set off a portion of the art to be painted, while

others planned to hand-paint their designs. Michelle planned to paint the design without aids.

"I love to paint and I've never taped off a straight line," she said.

The completed design will be covered with a clear coat to help preserve the art from harsh East Idaho elements.

“Letting it weather will add to its charm but a clear coat helps slow it down,” Jeff said.

While the majority of designs are made of solid colors and composed of simple geometric shapes such as squares, rectangles and triangles, the sky’s the limit, along with where they’ll hang.

For another couple, their design of a goat will hang on their barn, for another, his designs painted on four small pieces of wood will hang in his room, but for Brianna Barnard, of Idaho Falls, hanging her completed design outdoors will have to wait.

“Someday when we get a place of our own, I’ll hang it outside but for now it will hang inside,” she said.

The project suits Barnard since she’s an avid quilt maker and craftswoman.

“I’ve sewn four or five quilts with my grandmother, Delores Cook, and we’ve painted on glass and lots of other crafts,” she said.

Last summer, Rasmussen first introduced some 4-H members to barn quilts and she’ll offer another class to 4-H kids again this summer.

This is the first time she’s taught the class to adults. The cost of the class depends on the size of the plywood selected. Prices range from \$60 to \$125.

The money covers the cost of materials plus funds scholarships to help cover expenses for deserving 4-Hers who want to be involved in 4-H but might not be able to afford it, Rasmussen said.

“We don’t want anyone who wants to be in 4-H to not be able to afford it,” she said.

Rasmussen teaches a wide range of subjects at the extension office but especially enjoys teaching this particular craft.

“Barn quilts are a personal passion of mine. I love getting the word out about them,” Rasmussen said. “We have a lot of historic barns in this area and I’d like to see more barn quilts on them. There’s a big sunflower on a barn near where we live and it makes me happy every time I drive by.” ■

**Brianna Barnard of Idaho Falls
draws a quilt design on a sheet of
plywood to be painted.**





Photos courtesy of Soiltech Wireless

Ehsan Soltan, founder and chief executive officer of Soiltech Wireless, designed a soil sensor that sells worldwide and has been used to maximize growth of 25 crops.

Soiltech Wireless wins two national awards

Sensor helps farmers make real-time decisions to raise crops

By **Dianna Troyer**
For Idaho Farm Bureau Federation

Soiltech Wireless, an agriculture technology company headquartered in Rupert, has won two prestigious national awards for its innovative soil sensor.

In October, the company won the Plug and Play North Dakota Agtech Startup Competition. In December, Soiltech won the agriculture category of the Irrigation Association's 2021 Pitch Competition.

"We're proud to be a local company and to count southern Idaho as our home," said Ehsan Soltan, founder and chief executive officer. "We developed our technology with local farmers driving the requirements and work closely with the College of Southern

Idaho to give back to the community and to ensure tech innovation continues to move our great state forward."

Since its development in 2017, the sensors have sold worldwide and have been used with more than 25 types of crops. The durable device resembles a plump, lemon-colored, 8-inch-tall thermos.

Buried in a field, the wireless sensor provides information about moisture, temperature, humidity, and other data. Via the Soiltech app, data is transmitted to a cell phone, tablet or computer, enabling farmers to make real-time decisions ranging from irrigation to harvest schedules.

Farmers can also use the app to customize safe zones and receive alerts when any of their parameters are breached.

Soltan programmed the sensors with the Natural Resources Conservation Service soil data and Global Positioning System

software.

“Each sensor recognizes what type of soil it’s buried in, so some farmers place a sensor in the different soil types in a field,” Soltan said.

Since marketing the sensors at trade shows, they have sold throughout the United States, Mexico, Brazil, Argentina, Germany, South Africa and Australia.

Producers use them to grow apples, asparagus, green beans, blueberries, cabbage, carrots, sweet and tart cherries, cranberries, cucumbers, grapes, oats, onions, peaches, plums, peas, bell peppers, potatoes, pumpkins, raspberries, strawberries, sweet corn, tobacco, tomatoes, watermelon, and wheat.

After winning Plug and Play North Dakota, Soltan decided to open a branch in Fargo, N.D., this coming spring with seven employees.

Plug and Play is an innovation platform headquartered in Silicon Valley, connecting startups, corporations, venture capital firms, universities and government agencies.

“Choosing Fargo as the hub for our Midwest operations was easy, based on support from several organizations there,”

Soltan said. “We look forward to helping the agriculture industry in the region with our technology.”

In December during the Irrigation Association’s Irrigation Show and Education Week in San Diego, Soltan gave a winning presentation, competing against eight other startup executives in agriculture and landscape categories.

Soltan designed and manufactured the sensor after consulting with southeastern Idaho farmers to see what information they needed.

“They wanted a multi-functional device that would provide data throughout a crop production cycle, including growth, harvest, transport, and storage,” Soltan said. “The sensors are planted in spring and retrieved in fall at harvest.”

After harvest, the sensors can be recharged with a USB cord. Each sensor has a five-year lifespan.

The sensors have given peace of mind to Randy Bauscher, co-owner of B & H Farms, based in Rupert. He said their accuracy, toughness, affordability, and year-long battery life impressed him.

“I used them mostly in potato fields to measure soil moisture and for bruise



In December, Soltan’s company won the agriculture category of the Irrigation Association’s 2021 Pitch Competition.

spot analysis at harvest,” he said. “Three years ago, I bought three. Two years ago, I bought 15 more. This past year, I used 50.”

He also relied on the sensors to know the temperature in a cellar where he stored seed potatoes.

“The cellar is 100 miles from where I live, so the sensors allowed me to monitor the temperature and humidity there to make sure the potatoes didn’t freeze,” he said. “It saved me from having nervous nights or driving out there to check on them.”

This coming season, Bauscher said he plans to bury sensors at 12 inches and 18 inches to track fluctuating moisture levels in fields.

Soltan has marketed the sensor at trade shows, inviting farmers to kick and drop one to demonstrate its strength.

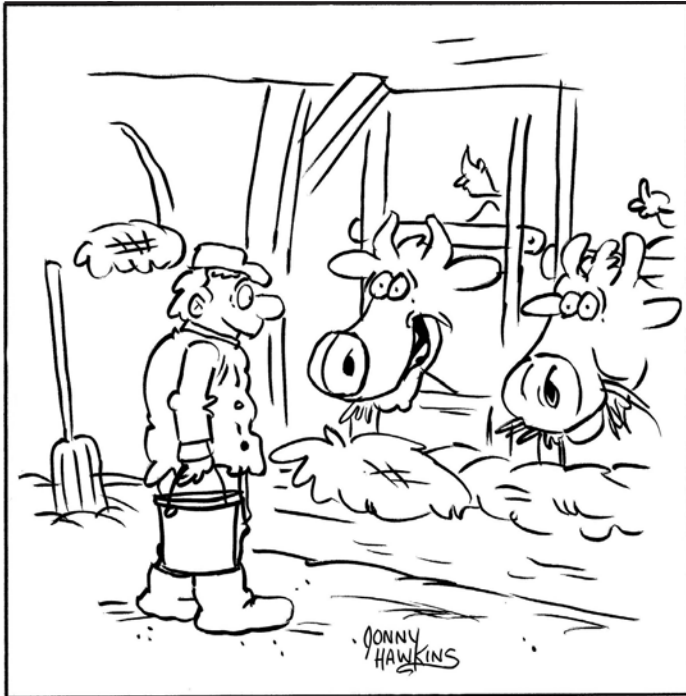
“It’s good to talk to farmers and hear their comments about how the sensors are working for them,” Soltan said. ■



Kevin Burgemeister, left, farm manager for Driscoll Brothers in American Falls, and Travis Blacker, industry relations director for the Idaho Potato Commission, examine the Soiltech Wireless sensor at the Ag Expo in Pocatello.

Country Chuckles

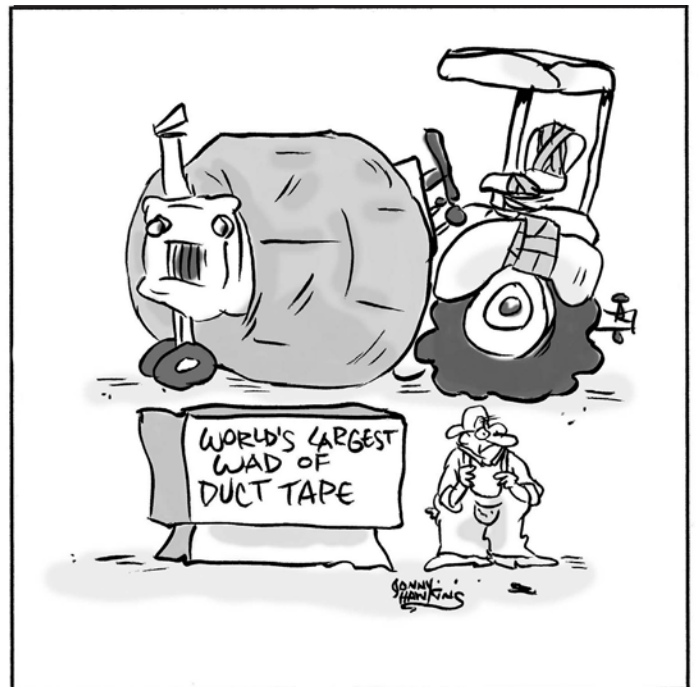
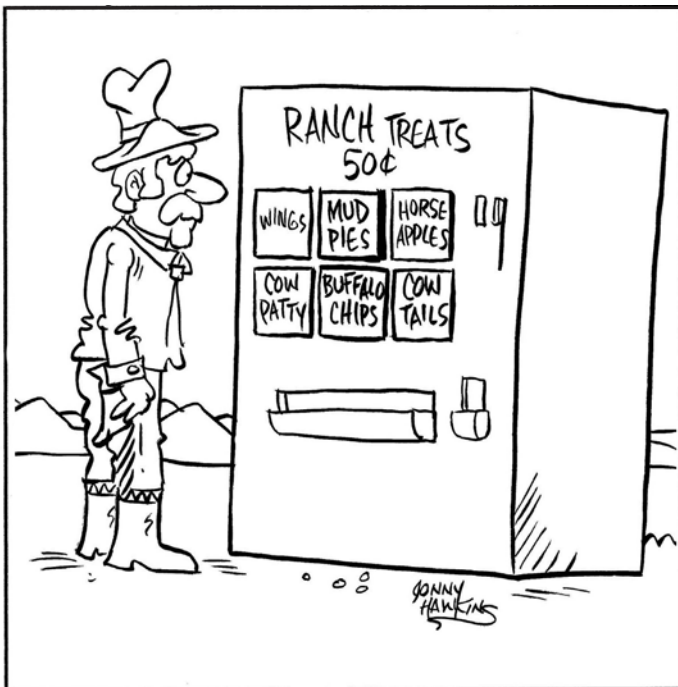
By Jonny Hawkins



"I'll just have water with mine."



"They're our new porridge silos. One's too cold, one's too hot ... and one is just right."



Our marketing should be ‘business as usual’

A great deal has happened recently. In July, we saw Chicago December wheat trade a little over 40 cents lower and then trade a 38-cent range through the first three weeks of August.

The basis for soft white in southeast Idaho strengthened during August and has the potential to continue to strengthen into the end of November. I say that just because the basis historically will strengthen during that timeframe.

Another reason for the basis to strengthen is that the Grain Craft flour mill in Pendleton, Ore., had a fire and was a complete loss. The company is looking to increase their soft white volume in both the Ogden and Blackfoot mills.

While this is good for the producers in the southeast part of the state, we shouldn't get our sights set on higher and higher bids for soft white.

Remember just this past year when the flour mills brought in soft red on rail cars to blend with soft white. Well, they know they can make the flour work, so we know that they will be watching their costs to determine if they buy soft red and just how many bushels they could use in the blend.

This scenario could for sure decrease the demand for soft white.

Remember, grinding 100% soft white may not be the case in the months ahead. This marketing year could very well be a scramble for some producers as we have seen the wheat in some areas sprout in the head because of rain during the harvest time frame.

This isn't as widespread as we saw a few years ago but it is still out there.

Even with all the challenges you have had this year, we are seeing very good yields for the entire state. This is encouraging



just for the fact that we all know that yield is everything when it comes to the bottom line.

Prices will very seldom ever make up for a poor yield. Having said that, we are seeing hay prices offset reduced yields in some areas.

Overall, the US did have a fair production year in grain but we are still just keeping our noses above water when it comes to supplying the demand for U.S. grain.

At this time, the ending stocks for soybeans, corn and wheat are estimated to be at levels that the stocks-to-use ratio will remain steady at best.

When we look at the picture for the world, we see that the world can't afford too many more reduced production years before we enter a critical level of not supplying the grain that the world may need.

Keeping all these things in mind, our marketing should be, “business as usual.” Our

plan should follow the same basic principles that help us arrive at a sound plan.

The levels that we contract at may be different than previous years but how we arrive at our decisions should be close to the same.

We haven't really visited about this in the past but when we are planning our strategy, it just may be beneficial to look at it from the eyes of the processors and end users.

For instance, if you were a flour mill, would you have just enough wheat in inventory to make it to harvest or would you try to have enough wheat contracted by April/May to grind through September?

Planning in this manner may just help us determine when to contract and when we can deliver. This can help us in any of our commodities and whether we are selling into a feed market flour mill or dairy.

This brings us back to, “It is important to sell when someone wants to buy.” ■

‘When we look at the picture for the world, we see that the world can't afford too many more reduced production years before we enter a critical level of not supplying the grain that the world may need.’

Agricultural Profile

Jerome County



Photos by Joel Benson

Jerome County ranks No. 4 among Idaho's 44 counties when it comes to total farm-gate revenue and the county's farmers and ranchers brought in \$733 million in total farm-gate receipts in 2019. Jerome Cheese Co. can be seen in the background of this photo.

Small in size but big in agriculture

By Sean Ellis

Idaho Farm Bureau Federation

POCATELLO – Jerome County is one of Idaho's smallest counties in size and it's also sparse in people, but it's not sparse in farming and ranching and is one of the state's biggest counties when it comes to agriculture.

Jerome ranks No. 4 out of Idaho's 44 counties in terms of total farm-gate revenue. According to USDA data, farmers and ranchers in that county brought in \$733 million in farm-gate receipts in 2019.

Farm-gate receipts are what the farmer or rancher receives for their commodity. Add in the many agricultural processors

located in the county that add value to those commodities, as well as the myriad businesses that serve the ag industry, and agriculture is a multi-billion-dollar business in Jerome County.

That makes farming and ranching critically important to the county's overall economy.

"Agriculture is far and away the largest part of Jerome County's economy," says Eden farmer Carl Montgomery, president of Jerome County Farm Bureau.

Dairy is the county's top agricultural commodity when it comes to farm-gate revenue, and dairies brought in \$274 million in farm-gate receipts in 2017, according to the 2017 Census of Agriculture.

But the county is also big in many other ag commodities.

Jerome County farmers planted 40,941 acres of corn for silage in 2017, 36,430 acres of hay and other forage, 13,297 acres of barley, 8,859 acres of sugar beets and 8,554 acres of vegetables, mostly potatoes.

"We have a lot of corn that goes for silage, we have wheat, barley, hay, sugar beets, potatoes. We have a lot of everything," says Amy Mitchell, who raises beef cows and also hauls feed to dairies and feed mills.

In addition, livestock producers in the county also brought in \$243 million in farm-gate receipts from cattle and calves in 2017.



Jerome County is big on milk cows and beef cattle but it's also big on several other agricultural commodities as well. The county ranks No. 4 in Idaho when it comes to total farm-gate revenue.

Jerome County even ranks No. 7 in the state for revenue from nursery and greenhouse crops.

“Jerome County is a really diversified agricultural county and most of our crops are fairly high-value,” says Montgomery.

Another thing Jerome County is big on is newcomers and the county's population grew an average of 9 percent a year over the past decade.

Most of those newcomers don't know anything about agriculture or its importance to the local economy and one of Jerome County Farm Bureau's main focuses is on educating them about

that, says Mitchell, who serves on the JCFB board and serves on the Idaho Farm Bureau Federation Promotion and Education Committee.

“They don't know what we do and they don't know why we do it,” she says. “They don't understand how things operate in Idaho and how things work with water. We do have to educate them about how and why we do the things we do in farm country.”

The local Farm Bureau organization wants to share agriculture's story with these people and let them know just how important farming and ranching is to the community, Mitchell says.

“We have a lot of huge industry in agriculture that brings in a lot of dollars to our community,” she says. “Everything we do on our farms supports that and it's very important for people to realize that.”

Another area of emphasis for JCFB is making sure kids have a basic understanding of agriculture and how it contributes to the community, Montgomery says.

The local Farm Bureau organization spends a good chunk of its resources and time visiting students in schools and getting that message across. Montgomery says JCFB has visited students in most if not all the schools in the county, including charter schools.

“A lot of kids, even in a rural agricultural county like ours, don't quite understand what it takes to get their food from farm to table,” he says.

According to the 2017 Census of Agriculture, there were 486 farms in Jerome County in 2017 and 171,643 total acres of land in farms.

Most of that farmland – 134,860 acres or 79 percent – is irrigated. ■



Jerome county farmers and ranchers brought in \$733 million in farm-gate receipts in 2019 according to the USDA, making farming and ranching critically important to the county's overall economy.

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Wanted old Idaho Patch- es! Farm Bureau, Farming, Hunting, Idaho Cattlemen Assoc, Idaho Fish and Game. Top Dollar Paid! Call, email or text pics. Rusty Kramer idahotrappguy@hotmail.com 208-870-3217

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FREE CLASSIFIEDS

Non-commercial classified ads are free to Idaho Farm Bureau members. Must include membership number for free ad. Forty (40) words maximum. Non-member cost is 50 cents per word. You may advertise your own crops, livestock, used machinery, household items, vehicles, etc. Ads will not be accepted by phone. Ads run one time only and must be re-submitted in each subsequent issue. We reserve the right to refuse to run any ad. Please type or print clearly. Proofread your ad. Ads must be received by September 15th for the October Quarterly.

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U of I researcher drums up success as scientist through music

By John O'Connell
University of Idaho

Pam Hutchinson draws a parallel between identifying weeds in a potato field and wowing a crowd with a drum solo.

She performs both seemingly dissimilar yet related feats at a high level as the University of Idaho Extension potato cropping systems weed scientist and as a percussionist with the Idaho State Civic Symphony and the Pocatello Municipal Band.

During the Potato Association of America's annual meeting in Missoula, Mont., on July 19, Hutchinson offered evidence in her talk "Repeated Measures: Music and Research," supporting her belief that playing music has made her a better scientist.

She emphasized that both research and music strengthen similar neurological pathways, improve cognitive functioning and require recognition of complex patterns.

Consider hairy nightshade and cutleaf nightshade – both irksome weeds for potato farmers. They look a lot alike until one more closely examines the lobing and serration patterns in the leaves. And at a cursory glance, a visual depiction of an advanced drum cadence looks similar to a high-level math equation.

"Science and music both use formulas and theories to solve problems," Hutchinson said. "Music training is similar to research: both have long-term goals and much intense work to get there. In research, it takes weeks, months, years to carry out an experiment before all the data is ready for analysis."

Hutchinson named her presentation "Repeated Measures" to recognize that determining the effectiveness of a weed control method often means measuring results over time. Similarly, successfully performing a part in a song requires measuring and heeding improvement over time with repeated practice.



Photos by John O'Connell
University of Idaho Extension weed scientist Pam Hutchinson, the percussionist with the Idaho State Civic Symphony and the Pocatello Municipal Band, plays music in one of her experimental potato fields.

On stage, Hutchinson must play rhythmic patterns while keeping proper time. Patterns in a farm field of weed kill or survival over time after herbicide treatment inform Hutchinson as to which post-emergence herbicides to apply from her arsenal of products.

"If you play music a lot, you are a more effective and inventive problem solver, able to make decisions more quickly and efficiently," Hutchinson said.

Hutchinson reviewed several published studies to support her conclusion.

She found research in the journal "Science," for example, that musical training increases the volume and activity of the corpus callosum, which is a bundle of more than 200 million nerve fibers con-

necting the right and left sides of the brain.

She points out that drummers are known for being especially skilled problem solvers. In defense of that opinion, Hutchinson referenced a Swedish study highlighting a correlation between the part of the brain that handles rhythmic timing and problem solving.

Study participants completed a 60-question test while playing a drum beat, and those who maintained the steadiest beat also had the highest test scores.

There are many examples of famous musicians also being accomplished researchers. Guitarist Brian May, for example, finished a doctorate in astrophysics three decades after putting his pursuit of a Ph.D. on hold to form the rock band Queen.



Hutchinson presented evidence supporting her belief that playing music has made her a better scientist during Potato Association of America's annual meeting in Missoula, Mont., on July 19.

Hutchinson has also noticed similarities between presenting research data at a conference and performing a live concert.

“Your nerves and excitement, the elation of the applause – it’s really only at a conference or a concert that you as a musician or a scientist get to share what you’re working on,” Hutchinson said.

Hutchinson previously made a similar presentation before the Western Society of Weed Science, focused on the correlation between musical and scientific acuity. She broadened it to cover the similarities of repeated measures for music and research a couple of months ago.

Hutchinson started drum and piano lessons when she was 10 years old, often playing in competitions.

She continued drumming through high school and joined a drumline and percussion ensemble while pursuing a bachelor’s degree in agronomy at Iowa State University and master’s degree in weed science at South Dakota State University.

When she obtained her promotion and tenure at U of I, she rewarded herself by joining the orchestra and summer band in Pocatello. She’s well known in southeast Idaho for wearing elaborate costumes, once dressing up like a Christmas tree, during the Idaho State Civic Symphony’s annual holiday concert.

She’s also played solos with bands at Aberdeen High School and played with the pit orchestra in the school’s performance of “The Sound of Music,” making thunder

and lightning noises with her drums and cymbals.

The most common question asked of Hutchinson after presentations about the connection between music and math and research is whether people can derive a benefit by simply listening to music.

While Hutchinson agrees listening to music is a fantastic activity, she explains playing and learning music is what gives the brain a boost.

“The physical playing and reading of the music and translating from what your eyes see to what your hands are doing, that’s what strengthens that connection in the brain,” Hutchinson said. “It’s measuring performance repeatedly to become a better musician and researcher.” ■

New University of Idaho wheat variety

By John O'Connell
University of Idaho

The University of Idaho will soon release a new hard white spring wheat variety that should set the gold standard for its class.

U of I wheat breeder Jianli Chen has named some of her most promising varieties after precious metals and minerals – including UI Silver, UI Platinum and UI Bronze Jade – expressing the relative value she places on each one.

At long last, Chen has found a cultivar worthy of the name UI Gold.

She'll release UI Gold, a top yielder in her trials with exceptional baking qualities, later this summer.

"I told myself UI Gold will be the last cultivar before I retire. I didn't decide I wanted to retire, but this one I wanted to name as UI Gold," Chen said. "I think it will be valued like gold. If I have cultivars better than UI Gold later, I could say Gold 1 or Gold 2."

Chen will market UI Gold throughout southeast Idaho as a replacement for Washington State University's hard white spring wheat, Dayn, and Syngenta's SY Teton. UI Gold has out-yielded SY Teton in trials. Its yields are comparable with Dayn, but UI Gold has superior gluten strength.

"This year the world markets are short of hard wheat," Chen said. "Growers can plant this in southeast Idaho to help with the shortage of hard wheats in the U.S. and some overseas countries. This line has been tested by overseas bakers and they like it. High yield and excellent bread baking quality for domestic and overseas end users puts this cultivar in a very unique position."

UI Gold grows to a medium height. It's been among the best yielders in UI Extension trials in southeast Idaho and in breeding trials at the Aberdeen Research and Extension Center during the past three years, both under irrigation and on dry land.

It's yielded as high as 132 bushels per acre under irrigation, with an average yield of 115 bushels per acre.

Chen is raising UI Gold foundation seed this season. She invited industry partners to a July 14 field day in Aberdeen in hopes of finding a company interested in licensing and commercializing this new variety.

This season, UI Gold has also shown promise in Aberdeen and Rockland in fall-planted wheat trials, though Chen will need additional years of data before concluding whether it's a viable option for fall planting.

It typically takes about 15 years after an initial cross is made through conventional breeding techniques before a variety is planted in commercial fields.

UI Gold's pedigree includes WA8123, chosen as a high-yielding hard white spring wheat from Washington State University, and two other varieties known for good baking quality – Grandin, a hard red spring wheat from North Dakota State University, and Jefferson, a hard red spring wheat developed by University of



Photo by John O'Connell

University of Idaho wheat breeder Jianli Chen shows off a research plot with UI Gold, which will soon be released as a new variety.

Idaho.

Chen also has high hopes for a sibling of UI Gold selected from the same cross – the hard red spring wheat IDO2105. Chen plans to release the numbered line IDO2104HF, which has outstanding baking quality and is resistant to Hessian fly, next year.

She believes IDO2104HF will be ideal for northern Idaho and parts of Washington, where Hessian fly is a major pest of concern. ■



Photo by John O'Connell

Xi Liang, an associate professor of cropping systems agronomy at the University of Idaho's Aberdeen Research and Extension Center, stands in deficit irrigation trial plots.

CALS research shows promise in deficit irrigating latter alfalfa cuttings

By John O'Connell
University of Idaho

Hay farmers looking to stretch a limited water supply should consider irrigating their second two cuttings at a significant deficit, research by University of Idaho suggests.

Xi Liang, an associate professor of cropping systems agronomy at the U of I Aberdeen Research and Extension Center, has completed two years of a multi-state study evaluating the effects of planting configuration and irrigation management on hay yield.

The project was funded with a two-year USDA National Institute of Food and Agriculture Alfalfa Seed and Alfalfa Forage System Program grant. Researchers at Oregon State University, Colorado State University and University of Wyoming are also conducting forage trials as part of the project. Liang is pursuing funding to continue the project.

In 2021, Liang applied just 12.6 inches of water to deficit-irrigated second and third cuttings, irrigating at an 8.4-inch deficit, or 40% less water compared with the full irrigation treatment.

Yield, however, was reduced by just 14% on second and third cuttings irrigated at a deficit compared with second and third cuttings that received the full water supply, suggesting an improved water use efficiency (yield per unit of water input).

In 2020, Liang applied 7.4 inches of water to the deficit-irrigated second and third cuttings, irrigating at a 5-inch deficit, which was also 40% less water compared with the full irrigation treatment. Yield, however, was reduced by just 17% on second and third cuttings irrigated at a deficit compared with second and third cuttings that received the full water supply.

Water supplies are tight throughout much of Idaho this season following a mild winter. Furthermore, farmers who draw groundwater from the Eastern Snake Plain Aquifer have been required to make cutbacks on irrigation under the terms of a water call settlement with surface irrigators who have senior water rights.

Alfalfa is a good candidate for irrigation reductions by farmers with more valuable and water-sensitive crops, such as potatoes.

"For sure deficit irrigation could help," Liang said. "You can lose a little bit of yield

but compared with how much water and other associated costs you save, it's probably worth a try."

Liang's project also entailed interplanting grasses – including meadow bromegrass, tall fescue, and orchardgrass – with alfalfa to evaluate the potential yield boost resulting from species diversity at various seeding ratios.

Alfalfa fixes nitrogen for the grasses to use. Farmers who graze cattle directly on alfalfa fields also like having grasses mixed in with alfalfa to limit bloating of their livestock.

In 2020, the grass and alfalfa mixtures out-performed plots with 100% alfalfa. Liang didn't see advantages to mixtures during the dry 2021 season, however.

Alfalfa is more drought tolerant than the grasses and likely outcompeted them in 2021 as a result.

Furthermore, alfalfa is fully established in its second year, which also may have given it a competitive advantage over grasses. If she gets the grant to continue the project, Liang is eager to see how well blends perform when grasses are mixed with third-year alfalfa. ■

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