Issue 1
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Idaho Hops

A quarterly newsletter bringing you the latest information and updates from the Idaho hop industry.

IDAHO HOP GROWERS COMMISSION
"Always Specify Idaho"

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Idaho Hop Growers' Commission

The Idaho Hop Commission was formed in 1955 to market and protect Idaho hops, and to conduct relevant research for their continued growth and health. The largest concentration of hops are grown in southwestern Idaho with some grown in North Idaho too. Harvest begins in August, and continues through the first of October. The Commission meets regularly throughout the year.

Brock Obendorf is chairman of the IHGC. He says hop acres in Idaho are up this year despite COVID-19 and its affects on the industry.

"There are a lot of hop buyers who are reluctant to contract with all the unknowns because of COVID, and it will probably be a couple years of a downturn, depending on what happens with the virus," he says. "Harvest is looking average this year as the cold spring and wet June slowed things down. However I think there is a really good cone set even though they are appearing smaller."

Research is a large compoment of the Commission and water and pest trials are being conducted. You can read more about them in this newsletter.

"We'll also be doing USDA growouts for new varieties," Obendorf adds. "This is a big deal for Idaho as it gets us back into the breeding program. We'll be able to find out how varieties grow here. Hops thrive in this area because of the 45th latitude. They require a certain amount of daylight hours and freeze days. That research will help hop growers capitalize on the advantages we have to grow high quality hops."

Commission members include:
Brock Obendorf-Chairman
Oliver Schroeder-Vice Chairman
Nate Jackson
Colbie Libsack
Mark Hanson

Idaho Hop Growers Association

The Idaho Hop Growers Association was formed to help Idaho hop growers with legislative and political issues that involve producers and hop production. Michelle Gooding, Parma, serves as the current IHGA President.

"Legislatively things have been more quiet this year, so we've been putting a lot of work into preparing for the annual convention this year," Gooding says. "It's Idaho's first time hosting since the 80s. It's been a lot of work due to COVID, but we are hopeful to have an in-person convention."

The Hop Growers of America's Annual Convention is scheduled for Jan. 19-22, 2021, at the Hyatt Regency Sonoma, Santa Rosa, Calif. The room block for the convention is open and is found here: www.usahops.org/convention/.

"One of the highlights we're planning is an Idaho Preferred dinner," Gooding adds. "We'll be sourcing products from Idaho to really showcase the diversity of agriculture in the Gem state."

The association has become more active in recent years as younger growers have joined the industry.

"We're starting to be more present within the Idaho ag industry, including joining Food Producers of Idaho," Gooding says. "It will be interesting to see the trends in beer drinking as we move into fall and winter. We'll probably start to see more affects of COVID in 2021 and Q1."

Association officers include:
Michelle Gooding-President
Oliver Schroeder-Vice-President
Corey Coles-Secretary-Treasurer

UI Parma Research Station Upgrades to Benefit Hop Industry

When UI College of Agricultural and Life Sciences (CALS) Dean Michael Parrella joined the University of Idaho, he toured the nine Research and Extension centers around the state. The average age of the facilities is 50 years and they are in need of attention.

"We are the land grant institution so we should have the facilities to reflect that and our researchers are doing phenomenal work," says Samantha Parrot, UI CALS Director of Development. "It's amazing the quality of research they are conducting with subpar facilities. Dean Parrella wants to enhance all the facilities across the state, but is focusing on Parma first."

The plan includes tearing down temporary buildings and building a new facility for research with adequate lab space. Estimated cost for the project is $7 million.

The college is contributing $1 million and has the money secure in a special account that will not be subject to budget cuts.

"The dean feels it's important if we are going to do something, we need skin in the game," Parrott says. "This project is not just the college's, but the University of Idaho's No. 1 capital project. It's been elevated to the President's top priority project."

The University will ask the state to fund $3 million for the project, which will be requested from the permanent building fund. In addition, the goal is for industry partners to raise $3 million, which is close to fruition at $2.75 million in donations so far.

"This is where the Idaho Hop Growers Commission ties in," Parrott says. "The hops growers were the first commodity group to commit. They gave $525,000 for five years to cover the facility and funding for a research assistant position at the Parma Research and Extension Center.

"The hop industry is a leader in the ag industry as they were the first ones to step up for the project," she adds. "They raised the bar for every other commodity group by being first and by giving at that level. That gave us so much momentum going into our fundraising campaign."

University of Idaho
College of Agricultural and Life Sciences

Right now research at the center is primarily plant science research related to water, soil, entomology, plant pathology, and predictive diagnostics. It houses one of the largest spore traps in the world, where processes are done to see if conditions like powdery mildew or other diseases are in the air, so producers can time the use of pesticides more easily.

The new facility will be a one-stop shop for growers and a diagnostic center.

"Growers can go and get help with weeds, soil, bugs, water, anything they need help with for growing or pests," Parrott says. "All the faculty will be there. We're going to add a weed scientist and a soil/water scientist, pollination, and viticulture specialists.

There will be 10 faculty total.

"Specifically for hops, we're going to add a quality assessment lab," Parrott explains. "Growers will be able to pay a fee to use the service to bring samples of hops and receive third party unbiased results to verify quality and checking alpha and beta levels. In addition, they will be adding more acreage for hops, at the Parma Station. They have IR4 trials to test pesticides, and will be able to test new varietals right at the station."

We are adding 4 positions to the new center:

- Irrigation/Soil Scientist
- Weed Scientist
- Pollination Specialist
- Extension Fruit/Viticulture Specialist

Here is a link with more information about our faculty:
https://www.uidaho.edu/cals/parma-research-and-extension-center/our-people

The six we have are:

- Dr. Essie Fallahi (Pomology)
- Dr. Saad Hafez (Nematology)
- Dr. Olga Walsh (Cropping Systems)
- Dr. James Woodhall (Plant Pathology)
- Dr. Justin Clements (Entomology)
- Dr. Mike Thornton (Plant Science/Agronomy – works primarily with potatoes and onions)

Entomologist to work on Hop Research

Justin Clements is the new entomologist at the UI Parma Research Station, who started Jan. 5. He comes to Idaho by way of New Mexico and the University of Wisconsin, where he did a post doctorate fellowship and looked at pesticide resistance. Clements' position with the University focuses on research and extension.

"My job is to understand the entomological concerns which affect agricultural crops and help growers to develop appropriate integrated pest management to deal with insects," he explains. "This can range from any cropping system in Western Idaho, including onions, mint, alfalfa, fruit crops and hops.

Through extension, Clements will interact with growers one-on-one and help provide science-based guidelines for insect control on crops.

"A lot of my extension and research will intermingle with one another because as I am working with growers on extension concerns, I can identify important research areas in agricultural entomology that I can help to address," he says. "With the help of growers, hopefully I can help establish some of these new pest management practices for them"

Since arriving in Idaho, Clements has enjoyed conversations and interactions with hops growers including attending some of their local meetings.

"I want to bounce a lot of ideas off them, get into fields and talk about concerns they have," he says.

Justin is working on a collaboration with a professor at Washington State University, Doug Walsh. Their collaboration explores developing in-field assays to detect miticide resistance in two-spotted spider mite.

"We are examining the mechanisms that give rise to miticide resistance and try to develop an infield assay to help growers assess if they have populations of mites that are resistant to different chemicals," Clements explains. "This would allow growers to have an infield test to relatively quickly tell them which chemicals these mites would be resistant to and this could help them create pest management strategies."

Another project Clements is working on currently is to come up with methods to control the California prionus Beetle.

"The larval stage of this pest stage feeds on hop roots and decreases hop vigor and hop yield," Clements says. "Right now there are few methods to try to control this insect, and it's a problem for growers in southern Idaho."

Clements and professor Edwin Lewis, who is on the main campus in Moscow, are working together.

"We want to screen entomopathogenic nematodes against California prionus beetles to see if we can utilize nematodes for control," Clements says. "Entomopathogenic nematodes are natural insect predators which we can apply through drip irrigation into the soil that infect beetle larvae and kill them."

HGC planted a new plot of hops this year. Jim Barbour, Clements' predecessor, worked on hops research for 20 years. He was there until 2017 and that hop yard was removed. The new plot and poles were in and plants are emerging.

In addition, the Idaho Hop Growers Commission is helping fund half the salary of a research technician.

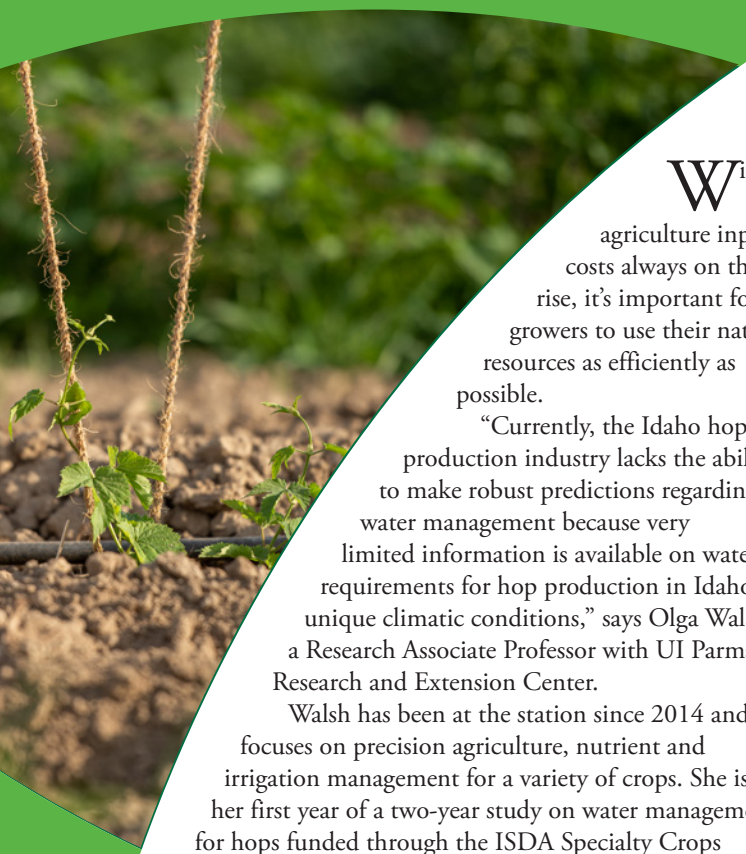
"This assistant will help with a lot of trials for hops," Clements says. "They will helps hops community by monitoring different fungal pathogens at the Parma Research Center and Wider station and provide real-time results to growers."

With time, Clements hopes to find solutions in the lab as different entomological pests come forward and need to be addressed.

"My background is in molecular biology and understanding insecticide resistance," Clements adds. "I do have hope that as time progresses I can look at some of the underlying genetic mechanisms of insecticide resistance in agricultural pests and that's a big part of my research as well."

Growers are welcome and encouraged to stop by the research station to visit.

"My relationship to the growers is that this position helps serve their needs and helps provide scientific methods for them to use. It's very much a professional relationship, but we're also building trust. I hope they will send emails, or call with questions and concerns. Establishing a relationship with growers is important."



Water management study for hops begins

With agriculture input costs always on the rise, it's important for growers to use their natural resources as efficiently as possible.

"Currently, the Idaho hop production industry lacks the ability to make robust predictions regarding water management because very limited information is available on water requirements for hop production in Idaho's unique climatic conditions," says Olga Walsh, a Research Associate Professor with UI Parma Research and Extension Center.

Walsh has been at the station since 2014 and focuses on precision agriculture, nutrient and irrigation management for a variety of crops. She is in her first year of a two-year study on water management for hops funded through the ISDA Specialty Crops Program.

"The study will serve as a needed starting point for development of a more comprehensive hop grower guide detailing the water and nutrient management for hop varieties commonly grown in Idaho," Walsh explains.

The study is comparing the agronomic, economic and environmental impacts of hops grown in a traditional timed-based watering system that many Idaho growers use to a system based on estimated hop crop water loss due to evapotranspiration.

"Our sensor-based system uses climate, soil and plant measurements," Walsh explains. "We'll collect samples throughout the season. We're trying to establish the most efficient and effective system."

Collaborating with the Idaho Hop Growers Commission, and Idaho hop growers, two growers outside of Wilder volunteered their fields to be a part of the research.

In addition, Walsh is working with water management engineer, Dr. Howard Neibling, with UI at Kimberly and Dr. Patrick Hatzenbuehler, who is an ag economist with UI in Twin Falls, who will work on surveys and validate the economic data.

"We used fields that were already established because the root systems have already been developed to take up nutrients and water," Walsh says. "It's also important to have very different soil types—clay soil in one field and sandy soil in another, so that gives us good range of information. Some of these methods may not be useful depending on the soil. Water might drain too quickly for very sandy soils, and we need to try something different."

The researchers should have some preliminary conclusions this winter.

"Based on what we see from this first growing season, we may need to adjust something for the second growing season," Walsh adds.

Next year Walsh hopes to be able to use hop fields at the research station, which were put in this year.

"We could be monitoring hops on a daily basis, with more intensive sampling," she explains. "We're not using the Parma hop yard this year since it's just been established."

This study and future research will provide much needed data and information for hop growers.

Additional resources: https://idcrops.blogspot.com/

2020 Top Hop Varieties in Idaho

Citra	Comet
Columbus/ Tomahawk/Zeus	Cashmere
Chinook	Calypso
Amarillo	Crystal
El Dorado	Idaho Varieties
Cascade	Idaho Gem™
	Idaho 7™

Source: USDA NASS

Mill 95

Located in Parma, in the heart of the state's hops growing region, Mill 95 is the first hops processing and logistics facility in the state. The independently owned mill serves both growers and brewers.

"Our model is a little unique," says Amaya Aguirre-Landa, the sales and marketing associate for the mill. "We let growers stick to what they are best at and we stick to what we do. We're here to be a liaison between our growers and the brewers for the betterment of the industry."

Collaboration is top of mind at Mill 95.

"It's no secret where our hops are sold or who we buy from," Aguirre-Landa adds. "We choose the growers to work with because they share the same values and want to create a quality product. They are proud of what they do. That's part of our story."

Mill 95 offers different services depending on a grower's needs.

"We start having conversations before harvest with growers about what varieties we want to buy and how much we want to buy," Aguirre-Landa says. "We agree upon a price on a poundage, and a contract is put into place. The grower then releases themselves of that product once it leaves the farm after harvest and comes to our facility. We process it into pellets, package it, and store it until it goes to its end user."

Another option for growers is when they have excess poundage.

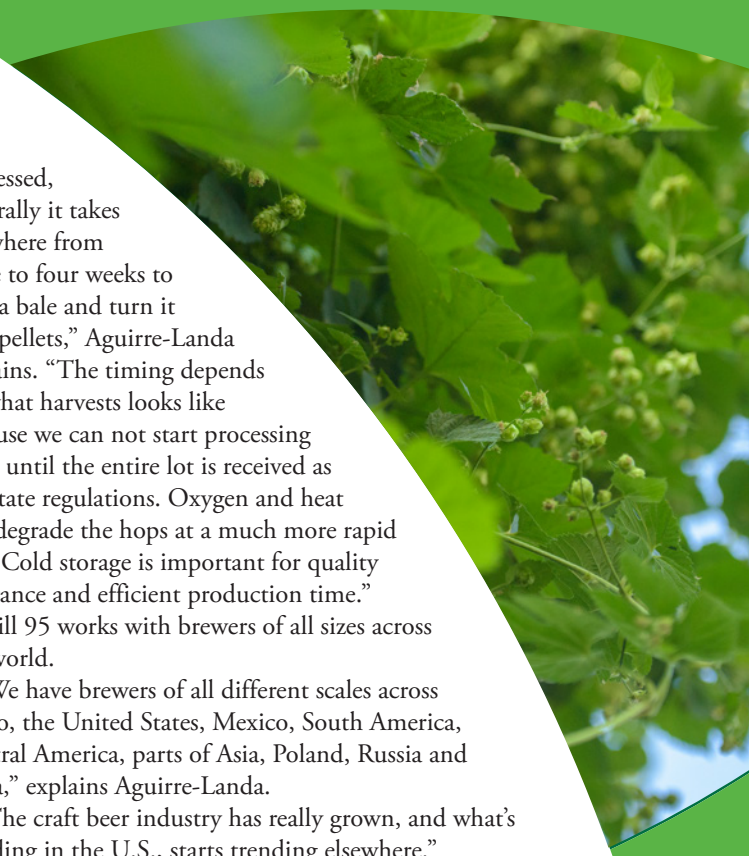
"We work with growers to help store and consign," she explains. "We create a consignment agreement and they can get a percentage of the sale."

A third option is to help with the logistics and cold storage for growers who need a place for hops before the product is shipped to the end user.

"We don't pelletize from all growers, however we would love to work with all our Idaho growers at some point in whatever capacity they need," Aguirre-Landa says.

The individual growers have their own harvesting facilities, which include pickers, drying kilns and balers. Once the cones are dried, they get baled. The bales are received by Mill 95 to process into pellets, similar to a wood pellet, but much softer.

"We take bales and put them into cold storage until they are ready to be processed, generally it takes anywhere from three to four weeks to take a bale and turn it into pellets," Aguirre-Landa explains. "The timing depends on what harvests looks like because we can not start processing bales until the entire lot is received as per state regulations. Oxygen and heat will degrade the hops at a much more rapid rate. Cold storage is important for quality assurance and efficient production time."



Mill 95 works with brewers of all sizes across the world.

"We have brewers of all different scales across Idaho, the United States, Mexico, South America, Central America, parts of Asia, Poland, Russia and India," explains Aguirre-Landa.

"The craft beer industry has really grown, and what's trending in the U.S., starts trending elsewhere."

Mill 95 found there was a large population of smaller brewers in other countries that were growing at a rapid rate. They were severely underserved.

Idaho hop growers are producing good, if not better hops than other areas. While they are all competitors, it's a tight-knit, collaborative group with families deeply rooted in hop production. Agriculture has seen a lot of ups and downs, and growing hops is definitely for the resilient."
—Amaya Aguirre-Landa, Mill 95

"We've taken a vigorous approach to serving the smaller brewers," Aguirre-Landa says. "These brewers are passionate, underserved and not getting access based on their size. We either work with them directly or we vet other brokers in their countries whose values align with ours then partner with them. They speak the language and know the culture and needs of their customers. Developing these relationships benefits Idaho hop growers because it's expanding our market."

Education is key in marketing efforts.

"Some brewers might not even understand historically how long hops have been grown in Idaho," Aguirre-Landa says. "When we go in and educate brewers about hops, they are pleasantly surprised about the quality of hops coming out of Idaho."

1. Idaho at 9,374 acres, ranks second and accounts for 16 percent of the U.S. total.

2. A bale will yield between 135 - 800 barrels of beer (31 gallons each), depending on the recipe.

3. Hops are typically sold in 200-pound bales.

4. 889 plants or "hills" make up one acre of hops, if planted on a standard 3.5 foot by 14 foot spacing.

5. In the Pacific Northwest, yields average about 2,000 lbs. of dried hop cones per acre on mature hop yards, or a little over two pounds per hill (yields vary depending on variety and location).

Sources: USDA NASS and usahops.org

Idaho Hop Growers Commission

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