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# AG Talk Report



UNIVERSITY OF IDAHO, U.S. DEPARTMENT OF AGRICULTURE, AND IDAHO COUNTIES COOPERATING

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# Idaho Crop Profitability Outlook for the 2023 **Growing Season**

By Pat Hatzenbuehler, Extension Specialist - Crop Economics, University of Idaho

This report was highlighted during the August 15, 2023 Ag Talk Tuesday session, and it describes current conditions and trends regarding Idaho crop farm profitability as we move toward the end of the 2023 growing season and into the 2023 - 2024 crop year. To view the recorded session on which this report is based, please visit https://www.uidaho.edu/ extension/news/ag-talk-Tuesday and scroll down to the Video Playlist.

A review of key variables can help focus attention on the main factors that influence farm profitability. Farm operating profit is equal to revenues from crop sales minus production costs. Revenues from crop sales are determined by three categories of variables: prices, yields, and acres harvested. Production costs are determined by two variable types: prices and associated quantities of purchased farm production inputs (e.g., seed, fertilizer). If multiple crops are grown, then the total farm revenue is the sum of the revenue (price x quantity sold) from sales of each crop. Total operating costs are the sum of all individual input cost category amounts (input price x quantity purchased).

Prices, for both crops and farm inputs, are relatively unique compared to the other variables mentioned in that they can be influenced by factors that originate far beyond the farm gate. These factors include phenomena like the Russian invasion of Ukraine, which has had a substantial impact on global wheat, corn, fertilizer, and other commodity markets. Other important ones are growing conditions in a major producing region of the U.S. or other part of the world. Due to the way market prices are determined, it is helpful for farmers, buyers, and other participants in commodity supply chains to consult current market information and analyze trends to inform their expectations regarding price movements. For these reasons, this report focuses on input and crop price trends for the 2022 - 2023 crop year.

### Save the Dates:

November 1-2: Annual meeting of the Idaho Association of Plant Protection (IAPP), more information here

January 17-18, 2024: Idaho Potato Conference, more information here

January 23-25, 2024: WA/OR Potato Conference, more information here

May 7, 2024: Ag Talk Tuesday live sessions resume (1st and 3rd Tuesdays, May through August), more information here

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### **Price Trends: Farm Inputs**

Before analyzing trends in farm input prices, I first discuss an investigation into how the input price category, or categories, can vary across crops due to differences in requirements for getting the crop successfully grown, harvested, and marketed. To illustrate these differences, I consulted historical University of Idaho Extension crop enterprise budgets for 2001 – 2019 and decomposed the total operating costs into the following categories: seed, fertilizer, pesticides, custom and consultants, irrigation, machinery, and labor. After identifying the cost for each of these categories, I divided the cost for each category by total operating costs to obtain a % of total operating costs comprised by each category. The results from this decomposition are included in Table 1.

The results show that the most prominent cost category for alfalfa hay production is custom work and consulting, mainly related to mowing, raking, and baling, while that for barley and wheat is irrigation. Fertilizer is the most prominent cost category for potatoes. Sugar beet costs are somewhat more evenly spread across the categories compared to the other crops, with fertilizer and labor being tied for comprising the greatest share of total operating costs. The main takeaway message from Table 1 is that the production cost variable(s) that can have the greatest impact on farm profitability varies across crops.

Table 1. Idaho crop production cost decomposition

Cost category	Alfalfa hay	Barley (Malt)	Potatoes	Sugar beets	Wheat (HRS)
Seed	0%	6%	18%	11%	6%
Fertilizer	14%	16%	20%	16%	23%
Pesticides	3%	11%	14%	9%	9%
Custom & con- sultants	44%	14%	5%	5%	13%
Irrigation	27%	25%	6%	15%	24%
Machinery	2%	8%	7%	15%	9%
Labor	7%	11%	8%	16%	12%

Note: All values are in % of total operating costs.

Source: UI Extension crop enterprise budgets for Southcentral ID, 2001 – 2019.

With this background in mind, I next turn attention to farm input price trends to examine how prices so far in 2023 compare with recent history. The first variable that was examined was the Producer Price Index: Farm Products, which is an index produced by the Federal Reserve Bank of St. Louis. This index is comprised of the costs for producing all U.S. farm products, including both livestock and crops. Figure 1 shows a plot of this index for 2018 through July 2023, and I scaled the index so that 2022 = 1. This was done because 2022 was a particularly high production cost year, and so offers a useful benchmark. Under this scaling, any value below 1 for a given month represents the percentage that production costs in that month were below those for the average for 2022. The plot shows that overall farm production costs have trended downward since the start of 2023, such that the 2023 average (through July 1) index value is equal to 0.95. This implies that U.S. farm production costs in 2023 are, on average, 5% lower in 2023 than 2022. However, the 2018 – 2022 index average is equal to 0.74, which implies that, although lower than 2022, farm production costs in 2023 remain 21% higher than the average for 2018 – 2022.

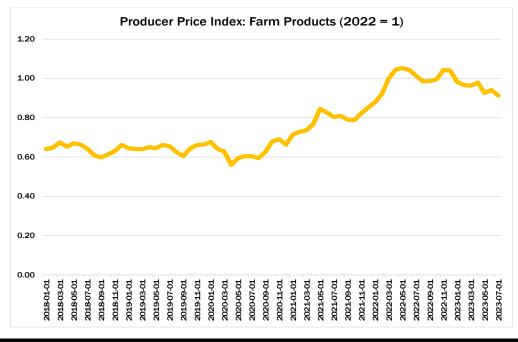
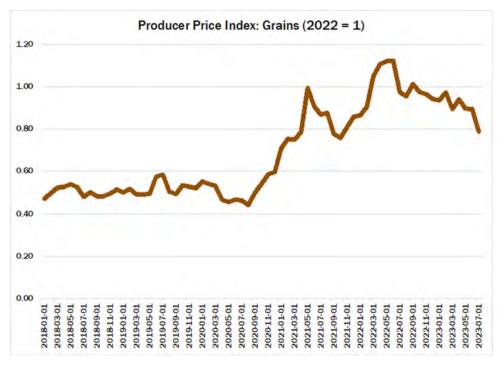


Figure 1. Producer price index: Farm products, 2018 – 2023 (2022 = 1). (Source: Federal Reserve Bank of St. Louis.)

While the plot in Figure 1 indicates that overall farm costs have only declined slightly in 2023 relative to 2022, this is in part due to higher crop prices, which are an input cost for livestock producers. This will be discussed in more detail later. Figure 2 includes a similar plot to Figure 1, but for the Producer Price Index: Grains, which only includes the cost categories relevant for grain production. This plot shows that grain production costs have been steadily declining in 2023, and more dramatically in the most recent months. The 2023 average for this index is 0.90, which implies that grain production costs in 2023 are 10% lower than they were in 2022. However, the 2018 – 2022 average index value was 0.67, which implies that, although grain production costs are lower in 2023 than 2022, they are still 23% higher than the 2018 – 2022 average.



**Figure 2.** Producer price index: Grains, 2018 – 2023 (2022 = 1). (Source: Federal Reserve Bank of St. Louis.)

Since a producer price index is constructed by combining the prices of individual items used in production, it can be helpful to examine how the individual commodity prices are moving to determine the factors that are, or are not, driving the overall index trends. Thus, fertilizer and fuel price trends are examined next.

Figure 3 includes a plot of urea (46-0-0) and potash fertilizer prices in Illinois from 2018 through July 2023. The plot shows that the prices of both types of fertilizer have trended downward since the end of 2022. The average price of urea for 2023 of \$617/ton is 30% lower than the average for 2022 (\$885/ton). However, the 2018 – 2022 average price was \$526/ton, so

the 2023 price remains 17% above the 2018 – 2022 average. The plot shows that urea and potash prices have followed each other closely in 2023, so these described trends for urea apply for potash as well.

\$/ton Urea 46-0-0

Figure 3. Urea (46-0-0) and potash prices, 2018 – 2023. (Source: USDA/AMS and IL Department of Ag Market News (AMS Report 3195).

Regarding fuel prices, Figure 4 includes a plot of farm diesel prices from 2018 through July 2023. It is observed that, like fertilizer, farm diesel prices have broadly trended downward since late 2022. The average farm diesel price for 2023 of \$3.38/gal is 21% lower than the 2022 average (\$4.29/gal). However, the 2023 average price remains 22% higher than the 2018 – 2022 average. Additionally, although trending downward since late 2022, there have been several periods of rapid increases in fuel prices, most notably in the most recent 2-week period.

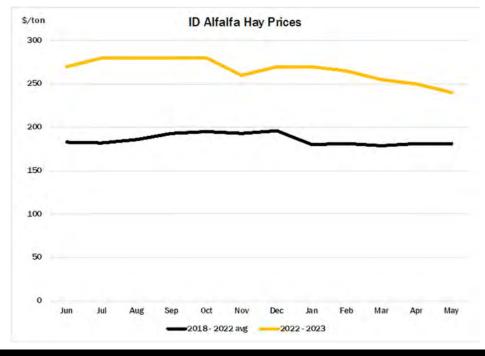


Figure 4. Farm diesel prices, 2018 – 2023. (Source: USDA/AMS and IL Department of Ag Market News (AMS Report 3195.)

In summary, farm production costs have trended downward since the end of 2022. However, most farm input prices in 2023 remain higher than the average from 2018 – 2022. Thus, the downward trends indicate that production cost pressures are easing, but the pressure is higher than it was prior to the substantial runup in prices during 2022. Additionally, there is substantial volatility in prices of some individual farm inputs. For example, between July 27 and August 10, 2023, diesel fuel prices increased by \$0.41/gal (+12%) while potash prices decreased by \$66/ton (-12%). This implies that paying attention to conditions in farm input markets remains important when examining purchasing strategies and implementing purchases.

### **Price Trends: Crops**

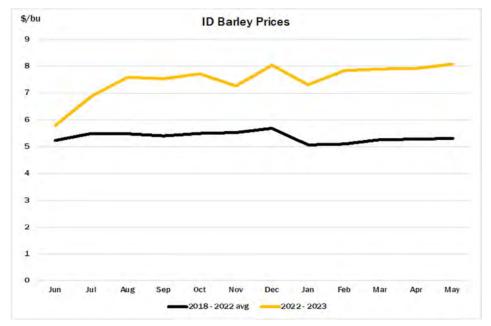
Lower, but still higher than average, prices for farm inputs in 2023 implies that crop farm profitability on average would be expected to be lower in 2023 than other years if crop sales prices were not also higher than average. Thus, 2022 – 2023 crop year prices of alfalfa hay, barley, potatoes, sugar, and wheat are examined next. Each of figures 5 – 9 has prices for the relevant crop year months, with the averages for 2018 – 2022 crop years and the 2022 – 2023 crop year plotted separately for comparison.



**Figure 5.** Idaho alfalfa hay crop year prices, 2018 – 2023. (Source: USDA/ NASS.)

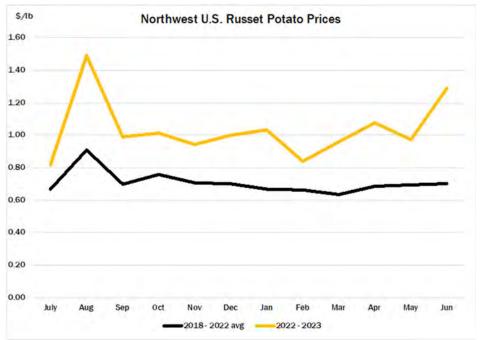
For ID alfalfa hay prices, figure 5 shows that the 2022 – 2023 crop year prices have been above the 2018 – 2022 average for the full crop year. The 2022 – 2023 crop year prices are 43% higher than the 2018 – 2022 average. However, prices started to trend downward since December 2022 heading into the 2023 – 2024 crop year.

Crop year price plots for ID barley are included in figure 6. Like alfalfa hay, the 2022 – 2023 barley crop year prices were also above those for the 2018 – 2022 average for the full crop year. Crop year prices for 2022 – 2023 were 40% higher than the 2018 – 2022 average. Unlike alfalfa hay, barley prices trended largely upward from the beginning of the 2022 – 2023 crop year to the end, and were increasing heading into the 2023 – 2024 crop year.



**Figure 6.** Idaho barley crop year prices, 2018 – 2023. (Source: USDA/NASS.)

Figure 7 includes plots of crop year prices for Northwest U.S. Russet potatoes. The plots show that the prices in the 2022 – 2023 crop year have remained higher than the 2018 – 2022 average. The spread between these averages was 46%. Prices fluctuated substantially during the 2022 – 2023 crop year, but they were trending broadly upward entering the 2023 – 2024 crop year.



**Figure 7.** Northwest U.S. Russet potato crop year prices, 2018 – 2023. (Source: USDA/AMS.)

Price data gathered by the USDA National Agricultural Statistics Service (NASS) for ID sugar beets are only available through 2021. Thus, in their place, U.S. sugar price data from the World Bank, which are more frequently updated, were used. To discern whether U.S. sugar prices are representative of ID sugar beet prices, correlation coefficient was estimated for annual U.S. sugar (World Bank) and ID sugar beet (USDA/NASS) prices for 1980 – 2021. The obtained correlation estimate was 0.89.

This implies that these prices have moved together to a high degree over time, and so one can expect that ID sugar beet prices will generally rise (fall) when U.S. sugar prices rise (fall). Figure 8 includes plots of U.S. sugar crop year prices. Like those of the other crops, U.S. sugar prices have been higher for the full 2022 – 2023 crop year than the 2018 – 2022 average, with the difference being 26%. Sugar prices were increasing for most of the 2022 – 2023 crop year, but then started to decline toward the end.

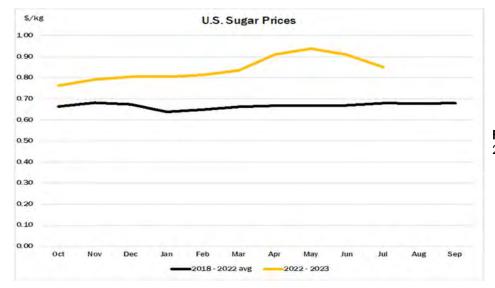
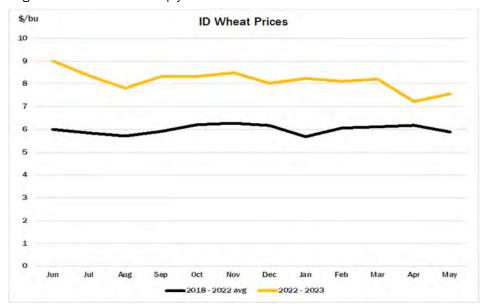


Figure 8. U.S. sugar crop year prices, 2018 – 2023. (Source: World Bank.)

Wheat is the final examined crop, and the plots for ID wheat crop year prices are included in figure 9. Like those of the other crops, the plot shows that the 2022 – 2023 wheat prices were above the 2018 – 2022 average for the full period. The spread between these averages was 36%. However, although there were some fluctuations, wheat prices generally declined from the beginning to the end of the 2022 – 2023 crop year and were lower heading into the 2023 – 2024 crop year than the beginning of the 2022 – 2023 crop year.



**Figure 9.** Idaho wheat crop year prices, 2018 – 2023. (Source: USDA/NASS.)

In summary, prices for all examined crops were higher for the 2022 - 2023 crop year than the 2018 - 2022 crop year averages. The differences between the 2022 - 2023 crop year and 2018 - 2022 crop year averages ranged from a low of 26% higher for sugar and a high of 46% higher for potatoes. Despite having higher prices throughout the 2022 - 2023 crop year, alfalfa hay, sugar, and wheat prices were trending downward heading into the 2023 - 2024 crop year. Like farm input prices, substantial price volatility exists in some of the crop markets. For example, in just one week between July 12 - 19, 2023, prices of Portland Hard Red Winter wheat increased by \$0.61/bu (7%). Thus, paying attention to current market conditions is important when implementing and/or adjusting plans and sales.

### **Profitability Implications**

This overview of crop input and sales prices for key ID crops as the 2023 – 2024 crop year approaches revealed several key messages. First, farm production input prices have trended downward in 2023 but remain elevated compared to recent years. Second, crop sales prices in the 2022 – 2023 crop year were largely higher than those of recent crop years. The implications

of these conditions are that that many crop farms have the potential to be profitable in the 2022 – 2023 crop year, but that several factors will be influential in determining actual profitability. Key factors for profitability include the timing of farm input purchases and sales, such as the ability to delay farm input purchases until prices were lower and crop sales until prices were higher. Timing such purchases and sales is dependent on the capacity to store both inputs and produced crops, and storage capacity varies across farms. Another key profitability factor is the usage of risk management strategies and tools. Contracts for purchases and/or sales, as well as hedging via futures contracts, can help manage price risk. Also, crop insurance, depending on the type, can help reduce both production and price risk.

# Keeping an Eye on Aphids in Southeast Idaho

### Insights from 2023

By Kasia Duellman, Extension Specialist – Seed Potatoes, and

Justin Hatch, Extension Educator – Caribou County, University of Idaho

In 2019, a renewed effort to monitor aphids in southeast Idaho was initiated, focusing on the region's seed potato production. This monitoring project supplements four tall, stationary suction traps (**Figure 1**), which were once part of a broader statewide monitoring network that ran from 1985 to 2003. Three of these suction traps are strategically placed in areas where seed potatoes are grown, while the fourth is situated in a commercial production area. In addition to these suction traps, the monitoring network has been expanded to include a multitude of field-based yellow bucket water traps (**Figure 2**). The introduction of these yellow bucket traps has allowed us to refine our monitoring efforts and zoom in on aphid activity at the field level, while the tall suction traps offer a broader regional perspective.

Monitoring aphids serves several important purposes in southeast Idaho. One key objective is to provide early warning to seed potato growers when aphids are in flight, as winged aphids can potentially transmit Potato virus Y (PVY). For seed potatoes to be eligible for recertification, they must contain no more than 1% PVY. Consequently, seed potato growers are highly motivated to detect aphid flights promptly to safeguard their crops. However, it's important to note that growers don't automatically resort to insecticides, as insecticides alone are not the recommended method for PVY management. PVY is primarily spread by non-potato-colonizing aphids, and dozens of aphid species are capable of transmitting the virus. Moreover, PVY is acquired and transmitted quickly, in a non-persistent, non-circulative manner, which means that insecticides alone



**Figure 1.** Tall, fixed suction trap at the Aberdeen Research & Extension Center in Aberdeen, Idaho. This trap was part of a larger aphid monitoring network that operated statewide from 1985 to 2003.

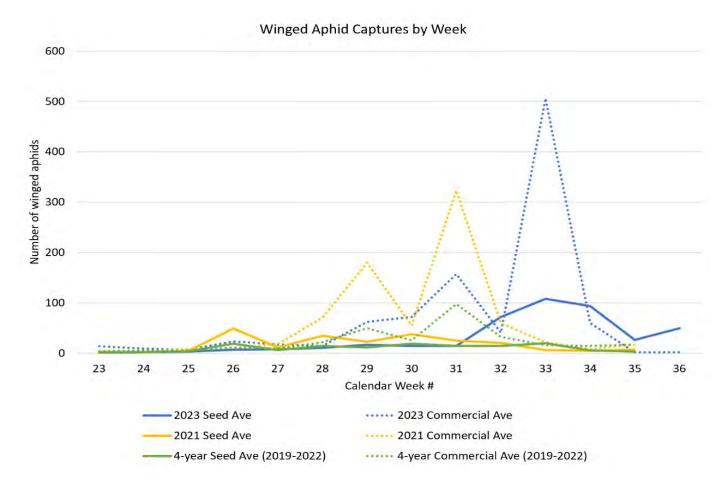
are not effective against it. In contrast, another potato virus, Potato leaf roll virus (PLRV), which was a problem in the 1990s, is transmitted by potato-colonizing aphids that take a long time to acquire and transmit the virus (in what is known as a persistent manner), making systemic insecticides more effective in managing PLRV.



**Figure 2.** Two-gallon yellow bucket water trap. These traps are typically positioned along field edges, ideally in areas with visible soil and weed control. They are filled to the brim with water, a drop of soap is added to break surface tension and prevent aphids from escaping, and a few crystals of copper sulfate inhibit algae growth. The contents are collected weekly and taken to our Idaho Falls lab for aphid counting.

Managing PVY is a complex endeavor requiring an integrated approach. Growers can employ various strategies, including the use of mineral oils. Our ongoing monitoring efforts aim to shed light on the timing of mineral oil applications and the associated PVY risk based on the number and timing of winged aphids.

In 2023, the count of winged aphids started relatively slow compared to the four-year average and the levels ob-



**Figure 3.** Winged aphid captures by calendar week. The four-year average is shown as a point of reference, and 2021 captures are shown since PVY incidence (based on post-harvest testing) was unusually high in that year.

served in 2021, when PVY risk was notably high. The cooler June weather in 2023 may have contributed to the initially low levels of winged aphids captured. However, as summer progressed, the numbers saw a significant uptick in commercial areas, with substantial peaks towards the end of July and early August, followed by another substantial peak in mid-August (**Figure 3**). Seed production areas saw a similar pattern, except the numbers peaked for several consecutive weeks in mid-August. This prolonged late-season peak in seed potato regions is particularly intriguing because the impact of late-season aphid flights on PVY incidence in daughter tubers in Idaho is not yet fully understood.

The movement of the virus within a plant follows the "sink," where the plant directs all its nutrients. During vegetative growth, the sink is in the foliage, which is why seedborne and early-season infections are often visible in the foliage, depending on the virus strain, potato variety, and environmental factors. However, during tuber bulking, the sink shifts to the tuber. Plants that become inoculated with the virus late in the season potentially transfer the PVY particles directly to the tubers, where the plant allocates its energy and nutrients during tuber bulking. Foliar symptoms from such late-season infections would not be visible.

Therefore, the extended late-season flights observed in 2023 may lead to higher-than-expected PVY results in post-harvest tests conducted on seed potatoes. These tests involve collecting a sample of tubers, planting them in a frost-free location (such as Hawaii), and then collecting leaves from each emerged plant for PVY testing in a laboratory. These post-harvest laboratory tests are considerably more reliable in determining PVY incidence compared to inseason visual field evaluations during the growing season.

Our monitoring efforts will continue in 2024, and we encourage seed potato growers interested in aphid monitoring to get in touch with Kasia Duellman via email (kduellman@uidaho.edu) or by phone (208-757-5476). The aphid monitoring team also includes Melinda Lent (melindab@uidaho.edu) and Lindsey McKinney (Ifmckinney@uidaho.edu), and our offices and lab are located at the Idaho Falls Research & Extension Center (1776 Science Center Drive, Suite 205,

# Hemp Research: Industrial Hemp in a Potato Rotation?



By Pamela J.S. Hutchinson, UI Potato Cropping Systems Weed Scientist and Extension Specialist

### Introduction

Idaho was the 50th state to legalize industrial hemp production, allowing growers to raise the crop beginning 2022. Yes, industrial hemp is Cannabis sativa, the same genus and species as marijuana. However, only industrial hemp, which includes fiber and grain strains, is allowed to be grown in Idaho. This is because industrial hemp does not contain high levels of THC, the compound that causes the "high" associated with marijuana. In fact, the Idaho State Depart-

ment of Ag strictly enforces Idaho law which states that testing the crop for THC is required before harvest, and if levels are greater than 0.3% by dry weight, it must be destroyed so that it cannot be sold or even moved off site.

Fiber hemp, which can grow as tall as 15 ft, is used to make products such as cordage, insulation, a concrete substitute, mulch, animal bedding, canvas, paper, and linen for clothing. Grain (seed) hemp is used for protein flour, seed cake, and food oils and supplements. In addition to fiber and grain hemp varieties, dual-purpose hemp varieties produce both fiber and grain.

### Has hemp made a come-back? Current markets in the US

U.S. markets for industrial hemp products have been primarily supplied by Canada and China. Industrial hemp is produced commercially in over 30 countries worldwide, with France being the largest producer of industrial hemp in the world. Idaho is starting out slowly, but acres approved to be grown have nearly doubled in one year (1,200 acres of hemp approved to be grown in 2023, up from 680 acres in 2022).

Hempitecture, an Idaho-based company, recently completed a plant in Jerome County to continue manufacturing insulation made from fiber hemp for the building industry. Other industrial hemp products are in the plan. Mattie Mead, Owner and founder, says that Hempitecture is currently sourcing its hemp from other states and Canada but will get much of its hemp from Idaho growers as acreage is increased. Whitefield Processing Fiber, a subsidiary of Whitefield Global Holdings, opened an industrial hemp processing plant near Rexburg, ID in July 2023. Another hemp venture is led by Tim Cornie, who is producing a gluten-free, meal-replacement bar made with grain hemp at the 1,000 Springs Mill in Buhl, ID.

### Questions on how to grow hemp successfully in Idaho

Many agronomic and pest management questions must be answered to help Idaho and other PNW potato growers produce an economically feasible, benefits-providing hemp crop in their potato rotation. Some of these questions in-

clude:

- What are the best irrigation, tillage, and fertilizer practices to maximize production?
- What varieties and planting timings are the most successful under our climate and growing conditions?
- What about pest management?
- Should hemp follow potatoes or should potatoes follow hemp? What about the hemp rooting system? Does it degrade fairly rapidly or will processors see large or small portions come down the french-fry production line?

We know that hemp grows best in loamy type soils with pH close to 7. It can be a low water-use crop and is fast growing which makes it a candidate for Idaho's semi-arid, relatively short-season climate. The root system has the ability to take up heavy metals from the soil and can help break up soil compaction. Hemp is known for carbon sequestration. Depending upon the type and variety, hemp might require nitrogen. This need could possibly be addressed by planting hemp after potatoes in a rotation. Research in the Netherlands showed that fiber hemp suppressed a population of Columbia root-knot nematode (*Meloidogyne chitwoodi*) and also reduced *Verticillium dahliae* (a fungus involved in the early-die disease complex of potatoes).



A dual-purpose variety of hemp (pictured) can be grown for both fiber and grain.

### Hemp research at the University of Idaho

Starting in 2022, research on industrial hemp has begun at the University of Idaho. Fiber hemp in 2022 and fiber and dual-purpose hemp in 2023 were grown at the UI Aberdeen R&E Center for research to help address some of the agronomic questions we posed above. We are conducting trials to determine herbicide tolerance in fiber and dual-purpose hemp, and optimal planting times for different fiber hemp varieties. Many people are involved with this research, including Brent Beutler (UI Research Associate), with help from Jared Spackman (UI Barley Agronomist), and the UI Aberdeen R&E Center Farm Crew. *The work is supported in 2023 by a University of Idaho Extension Innovative Project grant*. IND Hemp (Fort Bento, MT) has donated the seed for all varieties and types. Brent and I are also evaluating weed control in the hemp crop, controlling volunteer hemp in crops that follow hemp, and determining herbicide carryover in hemp. This work is important because herbicide labels do not currently list hemp in herbicide rota-



A University of Idaho trial evaluating optimal planting dates for different hemp varieties in 2023 (Aberdeen Research & Extension Center). Variety 'Yuma' is shown on the right, and 'Puma' is on the left. Both were planted on an early planting date (May 30).

tion restrictions, requiring hemp to fall under "other crops not listed." This category gives the maximum plant-back restriction interval, which may be unnecessarily long for hemp.

### Results so far

Although fast-growing fiber hemp varieties can possibly outcompete weeds, control may be needed early-season as the crop becomes established. Weeds that can survive under shade, such as hairy nightshade, must be controlled even if they do not affect crop yield so that no seeds are produced to cause problems in other crops. From our research, we found two herbicides to be safe for use in hemp: Prowl H2O (pendimethalin), and Linex (linuron). Hemp is

killed by the herbicide metribuzin when it is applied before or after crop emergence and by some small-grains herbicides applied after emergence.

### On-going and future work

Dual-purpose hemp was also planted at Aberdeen in 2023 for IR-4 Specialty Crop insecticide and miticide trials. Will Meeks (UI Extension Minor-Use Pesticide Specialist) and Lexi Thompson (UI Technician) are making the IR-4 applications to test residue levels so that the products can be appropriately labeled for use in dual-purpose and grain hemp. Ronda Hirnyck (UI Extension Specialist) is the IR-4 State Liaison Representative for Idaho and has been working with us to include industrial hemp research in Idaho in an IR-4 hemp herbicide program.

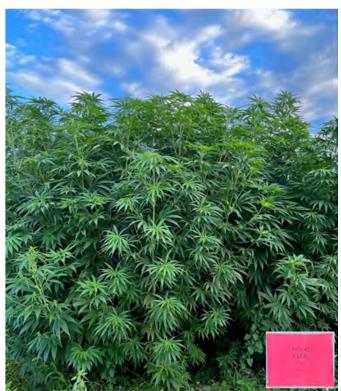
Research is planned for 2024 and beyond for herbicides and hopefully agronomics needed to produce industrial hemp. A collaborative Western Sustainable Agricultural Research and Education (WSARE) pre-proposal (on which I am a co-investigator), "Exploring Sustainable Cropping Systems for the Cultivation of Arid/Semi-Arid Northwest Hemp" was submitted by other research and extension specialists at Oregon State University and Washington State University and Christina Stucker-Gassi, Healthy Food & Farms Program Manager with the Northwest Center for Alternatives to Pesticides (NCAP). Although the proposal was not advanced for full submission, the group, along with support from

Idaho hemp growers Triston Sponsellar (Roberts, ID), Brad Darrington (Declo, ID), Tim Cornie (hemp grower and coowner of 1,000 Springs Mill in Buhl, ID), and others, will submit to WSARE again and feel they will be successful by fleshing out the research and extension activities based on even more intense collaboration.

In addition, the University of Idaho is a collaborator with the Oregon State University Hemp Innovation Center, Washington State University, tribal nations, commodity groups and potato processors on a 5-year, \$50 million project funded by USDA's Partnerships for Climate-Smart Commodities program. Hemp, in rotation with potatoes, is an element of the project to track the benefits of innovative practices within the Pacific Northwest potato industry. In Idaho, the Nez Perce and Shoshone-Bannock Tribes are planning to grow industrial hemp.

### Conclusion

All agree that more research is needed in Idaho to help growers here produce a hemp crop that can benefit their farming operation and Idahoans. Hemp in Idaho naturally means it would be grown in rotation with potatoes. Identifying the best practices for both crops in a rotation is our goal.



Hemp is not damaged by a pre-emergence application of Linex herbicide (where Linex is applied after planting but before crop emergence)

# **AG** Talk Report

## **Recent featured speakers for Ag Talk Tuesday**

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Patrick Hatzenbuehler, Ph.D., is an Assistant Professor and Extension Specialist with the University of Idaho. He performs evidence-based research and extension work on agricultural commodity markets with a focus on market structure and conditions for crops grown in Idaho. Listen to his Ag Talk Tuesday session from August 15.



Kamren Koompin is a third-generation farmer in southeast Idaho who has combined his love of geology with growing potatoes. During the July 18 Ag Talk Tuesday, he shared some of the unique challenges associated with farming in the geological formations of Idaho



Michael P. Parrella joined the University of Idaho as Dean of the College of Agricultural and Life Sciences in 2016. During the August 1 Ag Talk Tuesday session, Dean Parrella provided an invigorating and informative update on recent successes and future plans of the College of Agricultural and Life Sciences.

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1776 Science Center Drive Idaho Falls, ID 83401 208-529-8376

### **Aberdeen REC**

208-397-4181

### **Kimberly REC**

208-423-4691

### Parma REC

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### **Tetonia REC**

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### **Twin Falls REC**

208-736-3600

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208-885-3776

### **Plant Sciences**

208-885-2122

### **Soil and Water Systems**

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