Conterra Outlook

Farm and Ranch Report – Summer 2022

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Unprecedented inflation levels coupled with the post-pandemic opening of the US economy have ramifications for American agriculture on the world stage.

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Farmland traded at historical highs throughout 2021. Future influences on land values will likely be geographic and commodity driven.

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Fed Policy

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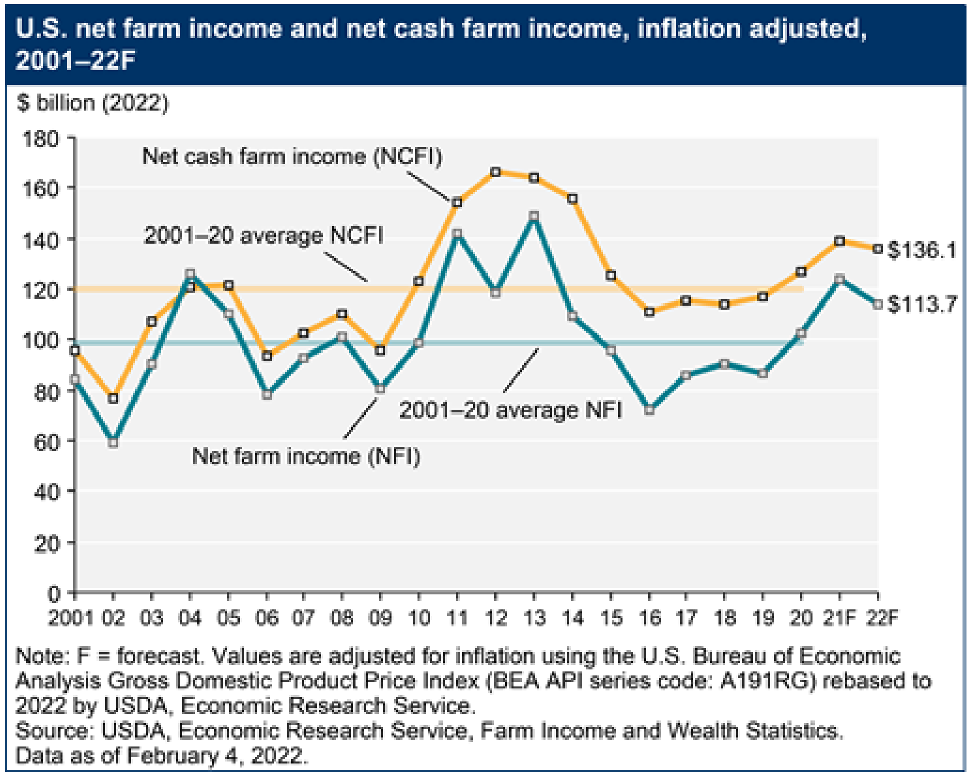
2021 and 2022 Net Farm Income

By and large, 2021 was a profitable year for the farming economy, with net farm income estimated 25% higher than 2020 levels, even with COVID-related government payments subsiding.[1] In addition, the United States and the rest of the world have recovered economically from the COVID-19 pandemic. As a result, inflation in the United States ramped up in the latter half of 2021. Input prices have reached recent highs and increased three-fold in certain parts of the country, particularly toward the end of the year. Accordingly, many row-crop producers took advantage of a historic run-up in commodity prices and ended 2021 profitably.

Industry analysts forecast 2022 to be as profitable as 2021, but these results will vary by sector. While commodity prices are now at recent highs (with high volatility to match), input price run-ups will limit net farm income growth across all sectors. The United States Department of Agriculture

Economic Research Services (USDA ERS) projects an 8.2% increase in row crop cash income. In addition, they forecasted an 8.9% increase for milk, cattle, and broilers while forecasting a 4.8% decline in fruit and nut cash receipts. Of course, it takes expenses to drive income, and most industry commentators expect increases in total farm expenses across the board. Feed expense will represent the single most significant increase for livestock operations, with a forecasted 6.1% increase. In addition, fruit, vegetable, and nut producers can expect an averge labor cost increase of 4.2%.

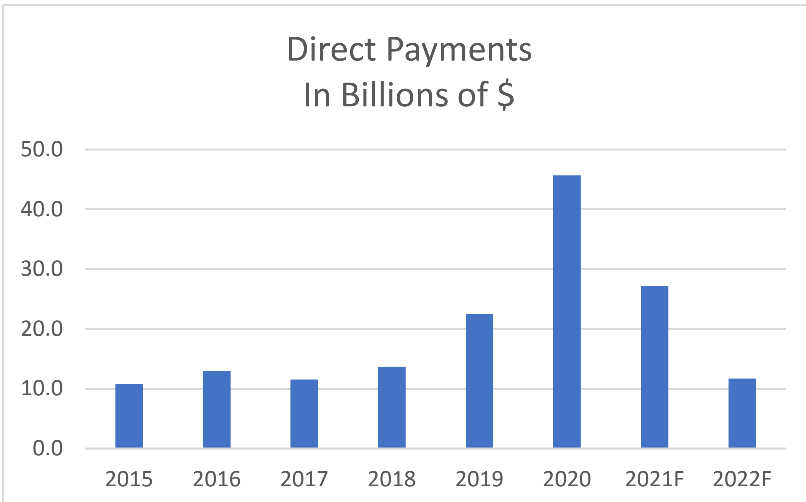


In comparison, row crop operations will be hit hardest by the forecasted 12% increase in fertilizer and lime.[2] In addition, the run-up in commodity prices has led to greater demand for operating loans in both size and volume.[5] Moreover, with USDA analysts forecasting these numbers in February, questions about whether the USDA ERS numbers fully integrated the spike in production costs and increased volatility in input and output markets tied to the geopolitical tensions between Russian and Ukraine.[3]

When taken together, these numbers imply a few things. First, even with reduced government program payments and increased costs. The USDA ERS is forecasting 2022 to be at historically high levels, but less so than 2021, when many operators took advantage of lower input costs but benefited from higher outputs. Second, these results hid the significant geographic and sector variability which defines US agriculture. Third, as the Fed looks to tighten monetary policy and raise target interest rates, farmers and ranchers will find their interest expenses higher, reducing profitability.[3] In this Outlook, we aim to provide more color and context to the above numbers.

Government Payments

As discussed above, direct government assistance is forecasted to decrease from 27.1 billion to 11.7 billion between 2021 and 2022 (this represents a 56% decline year over year). These outlays are typical compared to the 2015-2018 levels, if correct. The chart aside shows direct government payments to farmers and ranchers between 2015 and 2022 (forecasted). 2020 and the unprecedented stimulus brought about by the COVID-19 pandemic and so-called 'Trump Tariff Payments' between 2019 and 2020 will remain anomalous for years to come.[4]



Trade

Two significant events transpired toward the end of 2021 and the beginning part of 2022, which had and will continue to have important ramifications for US agriculture on the world stage. The first is unprecedented (in recent history) inflation levels in the United States brought about by Fed stimulus through the COVID-19 pandemic coupled with the opening up of the US economy post-pandemic. While the US is a net importer, agriculture remains a unique sector, generally maintaining a positive trade balance. While some are anticipating the dollar's run-up to end soon,[6] the dollar remains relatively strong on the world stage due to the Fed's Hawkish rate policy and geopolitical uncertainty. This geopolitical uncertainty historically pushes global investors to safe assets, particularly US treasuries. While a stronger dollar makes US exports relatively more expensive on the world stage, the United States is a highly competitive agriculture producer due to our large resource base and technologically advanced production.

Another bump to US grain exports is the continued conflict between Russia and Ukraine. Both are major corn and wheat producers, given their fertile soil. For example, average wheat yields are 34% higher in Ukraine compared to the United States, with Ukraine exporting 69% of domestic production compared to the United States' 45%. Meanwhile, Russia is the top wheat-producing country, exporting an estimated 47% of its yearly production. This disruption has been felt worldwide, with the immediate impact leading to a 53% increase in CBOT July 2022 delivery (ZWN22) between February 8 and March 8.[7] The current concern is how the

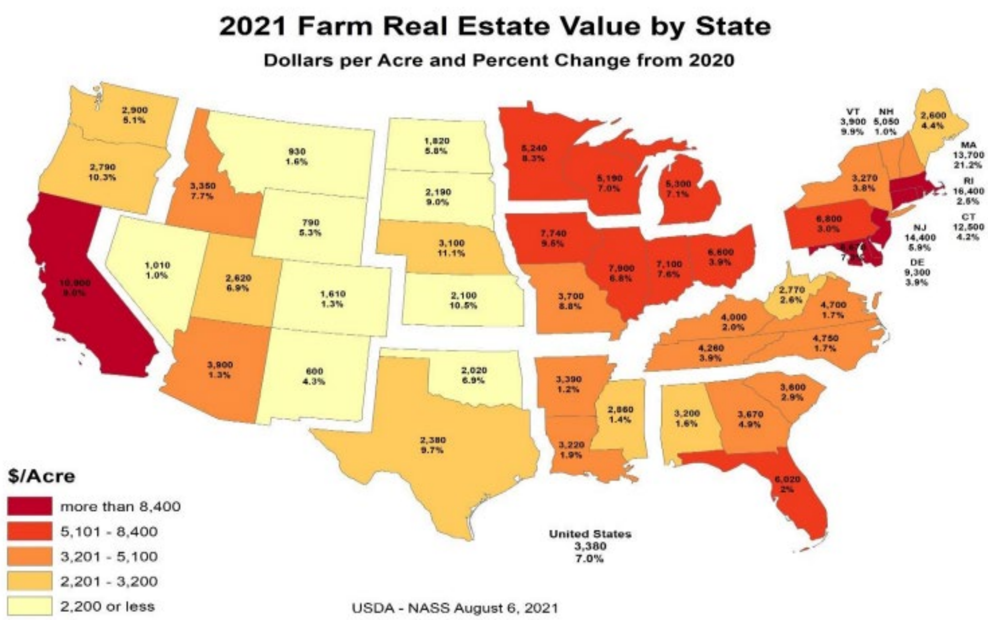
Ukrainian harvest will make it to the Baltic Ports.[8] Given the region's ever-changing updates, the full impact will take months or even years to reveal itself.

China will remain the largest market for US agricultural goods, although there are reports of softening demand.[9] With that said, it is still uncertain how the situation in the Baltics will influence Chinese demand for US commodities. Adverse weather in South America is reducing global oilseed supplies, but Chinese demand has softened over the last six months.

Farmland Values

Historical

Farmland traded at historical highs throughout 2021. The easiest way to conceptualize farmland values is net farm income divided by an interest rate. An increase in farm income and historically low-interest rates through 2021 kept farm real estate demand high. The chart below, accessed from the USDA National Agricultural Statistical Association,[10] outlines both per acre and percentage increase in farm real estate values between August 2020 and August 2021.



The most substantial increases occurred in the western Corn Belt, Central Plains, and California and Oregon on a percentage base. Cropland values saw even more dramatic increases.[11]

To a smaller extent, California, Oregon, and Washington saw substantial increases in cropland values throughout 2021. California is the largest agricultural production state by cash receipts, pulling in an estimated $37 billion, or 19% of total cash crop receipts in the US in 2020.[12]

California is one of the nation's top producer of vegetables, fruits, almonds, wine, and table grapes, among other commodities. While smaller in value, Washington and Oregon also represent exceptionally diverse production regions, growing commodities from apples, cherries, hops to forages, onions, and potatoes. These two states have 'adaptable climates and proximity to West Coast Markets'[11] to keep future demand for agriculture ground high. While California water is subject to further restrictions as the Sustainable Groundwater Management Act (SGMA) is rolled out over the next several years across water districts, opportunities in the relatively more abundant water in Washington and Oregon regions can help smooth the transition. What is currently unknown is how this transfer will continue to influence long-term trends in land values in the region. California experienced a 7.4% increase in cropland values between 2020 and 2021, with smaller increases experienced in Oregon and Washington (6.1% and 3.4%, respectively).[10] [11]

The Corn Belt, primarily composed of the "I" states (Iowa, Illinois, Indiana) along with Ohio and northern Missouri saw dramatic upticks in land values over 2021. These states grow more homogenized commodities compared to the West and Pacific Northwest. Production is mainly centered around corn and soybeans, but other major commodities include cattle, poultry and eggs, and swine production occur throughout the region. On a state-by-state basis, cropland increased between 8-9%.[10] Michigan, Minnesota, Wisconsin, Kansas, the Dakotas and Nebraska are states on the periphery of the Corn Belt, all saw average cropland values increase 6.7-13.8%.[11] These regions represent a substantial portion of corn and soybean production but vary substantially in climate and diversity of other agricultural production and production type. This diversity partially explains the large variation in land values experienced in the region.

Outlook

The easiest way to conceptualize farmland values is net farm income divided by an interest rate, referred to as a 'capitalization rate'.[3] While not identical to market interest rates, the capitalization rate is strongly related to them. Given the Fed has a strong pull on market interest rates through monetary policy and open-market action, the recent commitment on the Fed's part to raise short-term interest rates can influence capitalization rates and hence land values. This relationship is complex, but sustained rate hiking by the Fed has been shown to place downward pressure on land values.[3] In addition, geopolitical uncertainty brought about by Russia's invasion of Ukraine has led investors to 'fly to safety,' and increased credit spreads. The net effect of those events and inflation has increased farm mortgage rates both in the short and long term. This will reduce farmland sales, hampering demand and placing downward pressure on land prices.

With that said, rates are still at historically low levels, and it will take time for rate hikes to reverberate and have a significant influence on land values. In the immediate future, more significant influences on land values will likely be geographically and commodity-specific, driven by changing expectations in net farm incomes, water issues in the West, commercial/residential influences in certain counties, and other geographically specific issues. With all those other factors in mind, nationally speaking, industry analysts expect 2022 to see growth in farmland values, albeit less so had rates stayed at historically low levels.

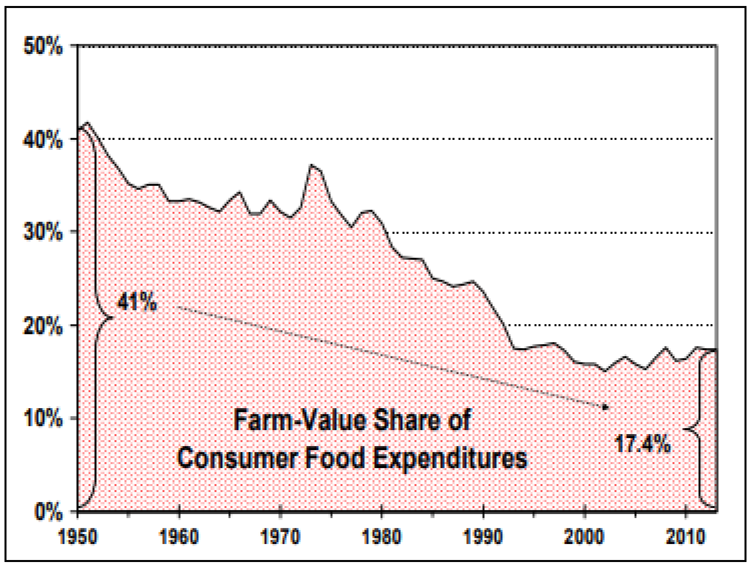
Inflation, Interest Rates, Fed Policy

Throughout most of 2021, the Fed claimed the general uptick in prices across the country, referred to as inflation, was expected to be 'transitory' or short-lived. While it is unclear what the Fed meant when they said short-lived, prices have continued to increase month after month. The latest numbers from the Bureau of Labor Statistics ('BLS') revealed an 8.5% increase in core consumer prices compared to March 2021. While some questions are circulating on how the BLS calculates inflation and potentially changing the metric, an 8.5% annual increase in price levels means prices will double approximately every eight and a half years. This represents the most significant year-over-year increase since the early 1980s.[13] While initially, the discussion revolved around supply chain issues and pent-up demand, the Fed's unprecedented fiscal stimulus brought about by COVID-19 has played a role.

While price increases for commodities like corn and soybeans have benefited some producers, others, such as livestock feeders use these higher priced crops as feed. Additional supply chain constrains and Russian isolation (whose exports accounts for more than 18% of potash, 20% of ammonia, and 15% of urea world markets)[14] will continue to push prices higher in the immediate short-term. Consumer food prices rose 8.8% year-over-year between March 2021 and March 2022.[15]

Different market dynamics are at play when comparing raw commodities like corn and soybeans, which end up in most of the food we consumer, versus retail prices. A substantial body of research has shown farmers typically only receive 15-17 cents for every dollar spent on food (see aside).[16] Therefore, while consumer food prices are rising, farmers don't share in most of the increase. Furthermore, given that we all must eat, rising food prices benefit farmers and ranchers even less when they are dually viewed as consumers.

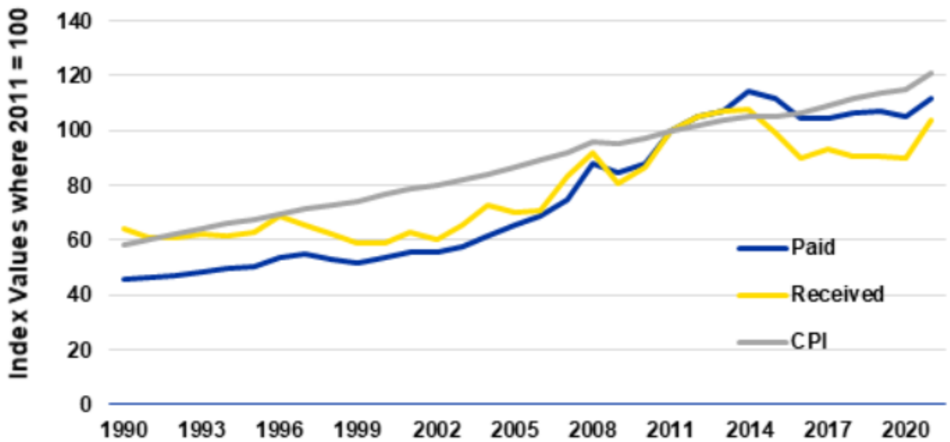
Figure 2. Farm Share of U.S. Food Expenditures Has Declined Since 1950



Source: Derived from multiple ERS data sets: Food Expenditures and Food Dollar Series, USDA, downloaded June 8, 2015, at http://www.ers.usda.gov/data-products/food-dollar-series.aspx.

The moral of the story is while commodity prices are rising, increasing input costs (and generally increasing interest costs on borrowed capital) will hamper farm profitability and hurt everyone at the check-out counter.[17] The graph below, created and taken from the University of Kentucky Agriculture Economics department,[17] summarizes this:

Figure 2: USDA Index of Farm Prices Paid and Farm Prices Received vs the Consumer Price Index (CPI), 2011=100



Source: NASS/USDA

The graph shows how farmers' general price level paid for inputs received for outputs, and the CPI, or consumer price index, tracks general price levels, and hence inflation, in the United States. It shows that the prices farmers pay have generally increased more than both general inflation and their commodity prices. While not only increasing input prices more than output prices and increasing the cost of family living, but inflation also tends to raise market interest rates. This can lead to two other significant impacts on farmer and rancher's income statements and balance sheets: (1) by increasing the cost of borrowed capital and (2) by reducing land values in the long run. To summarize, those harmed by sustained inflation far outweigh those helped by it, particularly when it is large and sustained.

To counteract these effects and curb inflation, the US government can pursue monetary and fiscal policy. Given the time it takes Congress to change fiscal policy, most market analysts and commentators look toward the Federal Reserve (the 'Fed') to change monetary policy. The Fed can accomplish this in two ways: changing their target 'Overnight' rate (the rate banks charge one another for borrowing money) and through market transactions. If you have heard the term 'Quantitative Easing' in recent years, that's what this represents. While the Fed has traditionally purchased and sold US Treasuries from deposit institutions, in recent years, it has expanded to other securities, including mortgage-back securities and other asset-backed securities directly from the market. Through these actions, the Fed influences longer-term interest rates, which represent the price of borrowing money.

The Fed 'hikes' or 'raise' its target rates to cool the economy and make borrowing more expensive. In May and June 2022, the Fed committed to the largest rate increase since 2000 and the first interest rate increase since 2018. These combined rate hikes increased short end interbank borrowing rates by 0.50% and 0.75% respectively. While it will take time for the rate increases to feed their way through the real economy, immediate results were felt in equity and debt markets.

While the above paragraphs may seem like mumbo-jumbo and far removed from the field, the Fed's actions can significantly impact US agriculture. By manipulating market rates, these policies will continue to impact commodity, input, and food prices, increase the cost of borrowing both in the short and long term and have ramifications on farm asset values in the medium term. Therefore, understanding inflation and its impacts on the farm sector's income statements and balance sheets will be essential for 2022.

Commodities

Corn, Soybeans, Wheat

Markets have been volatile, presenting challenges and opportunities for corn and soybean farmers as we move into 2022 planting and beyond. The March World Agricultural Supply and Demand Estimates (WASDE) for March 2022 were the first to price in global impacts from Russia's invasion of Ukraine.[18] Given the wet spring in the eastern Corn Belt, there have been some additional price pressures, placing some concerns on reduced yields.[19] However, research has generally shown other factors, particularly July participation levels, have a much more significant impact on national corn yields than how quickly the crop is planted.[20] While there has been some variation, total planted corn and soybean acres remained unchanged between the February and March WASDE reports.

The February Grain and Oilseed outlook published by the USDA indicated corn, soybean, and wheat planted acres combined will total 228 million acres, the highest since 2014.[21] There has been an expected shift between corn and soybeans from corn planting to soybean planting, given the higher input costs tied to growing corn. However, these effects have been somewhat moderated by the highest projected price for corn crop insurance ($5.90 per bushel)[22] in over a decade.[21] In addition, since the Grain and Oilseed Outlook, December corn board (ZCZ2) prices have increased from around $6.20 per bushel to approximately $7.30 per bushel as of May 11, a 17-18% increase. Soybean prices have kept buoyant on strong crush demand and a weak outlook for South American crops, albeit somewhat volatile. The projected soybean price came in at $14.33 per bushel.[22] More recent information from the USDA has soybean acres the highest on record and a significant increase in the export forecasts for 2021/2022, though they are lower than previously anticipated.[25] [29]

The February report placed wheat production for 2022/2023 at 1,940 million bushels or 18% above 2021 levels. However, these original projections did not anticipate the market volatility brought on by the Russian invasion of Ukraine, which has lifted wheat prices to historical highs. In addition, the government's push to increase wheat acreage [23] to offset Russian export bans on the global market and disruption of crops getting to port in the Baltics may change the numbers, and more information will come to light. Of particular interest is the June 30 Plantings report, the United States' best estimate on actual planted acres of significant commodities. US spring wheat faced a wet, cold spring and delayed planting in Canada, Minnesota, and North Dakota.[29]

Livestock, poultry, eggs, dairy

The sector will continue to face challenges related to COVID-19.[24] Drought tightening forage supplies have increased beef cattle herd culling, with both cow and bull slaughter numbers for 2022 increasing over the spring. While fed cattle numbers are forecasted to decrease over 2022, these cattle will largely be replaced by smaller, non-fed cattle, keeping overall slaughter numbers up.[26] Pork production is forecasted to be down compared to 2022 due to weakening import demand.[27] Meanwhile, broiler production has decreased, but international demand has been strong.[28] Finally, Turkey and egg layer numbers have been impacted by the Highly Pathogenic Avian Influenza, decreasing layer flock numbers by 5% and decreasing annual turkey production by 1.6%.[28]

While cattle prices are higher in 2022 compared to 2021, profitability in the industry will be challenged with higher input costs, particularly feed and labor. The January Annual Cattle Inventory Report is a highly read and analyzed USDA report on cattle supplies, generally indicating which part of the cycle the market is in (the cattle cycle is a roughly 10-year period of contraction followed by expansion). By most accounts, the cattle industry is entering into a contractionary period with herd liquidation and reduced slaughter numbers.[30] As discussed above, western pastures remained dry with much of the western and south-western plains in some type of drought conditions.

Broadly speaking, the cattle market will remain mixed in 2022. Prices remain high with shrinking supply as the market enters a contractionary period. With that said, demand, measured as per capita consumption, is forecasted to decrease from 2021,[31] with rising input costs a continued challenge for industry profitability.

Forward Looking

United States agriculture continues to be a dynamic, ever-evolving industry that encourages adaptability for farmers, ranchers, and all involved in their continued success. This is, of course, nothing new to the thousands of farmers who work daily to feed the United States and the world. Essential items should be on all producers' minds: how will volatility in input and output prices affect the bottom line? What opportunities and challenges does this present? Watching input costs, particularly in the labor, fertilizer, and fuel markets will be extremely important. No one size fits all, but managing expenses this year will be important, even with high, albeit volatile, output prices.

Resources

1. https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/highlights-from-the-farm-income-forecast/#:~:text=Median%20total%20farm%20household%20income,increase%20after%20inflation)%20in%202022.
2. https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/farm-sector-income-forecast/
3. The Feed – Farmer Mac
4. https://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/data-files-u-s-and-state-level-farm-income-and-wealth-statistics/
5. Operating Loans Grow Alongside Input Costs - Federal Reserve Bank of Kansas City (kansascityfed.org)
6. https://www.bloomberg.com/news/articles/2022-03-22/u-s-dollar-s-rally-likely-nearing-its-peak-barclays-says
7. Wheat Jul '22 Futures Snapshot Chart - Barchart.com
8. https://www.law.virginia.edu/news/202204/food-markets-face-major-impact-ukraine-conflict
9. Outlook for US Agricultural Trade: February 2022; USDA / ERS publication
10. https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0821.pdf
11. National Land Values Publication 2021
12. https://data.ers.usda.gov/reports.aspx?ID=17843#P78a09afb05f442f9a4095e5cde34e8c3_3_17iT0R0x0
13. https://www.bls.gov/opub/ted/2022/consumer-prices-up-8-5-percent-for-year-ended-march-2022.htm#:~:text=The%20Consumer%20Price%20Index%20increased,month%20advance%20since%20December%201981.
14. https://www.npr.org/2022/03/14/1086498831/the-russian-invasion-of-ukraine-is-being-felt-as-far-away-as-u-s-farm-fields#:~:text=Russia%20is%20a%20big%20exporter,nitrogen%20fertilizers%20comes%20from%20Russia.
15. https://agecon.ca.uky.edu/food-price-inflation-%E2%80%93-trends-and-implications-us-and-global-consumers
16. https://sgp.fas.org/crs/misc/R40621.pdf
17. https://agecon.ca.uky.edu/inflation-%E2%80%93-%E2%80%9Cgood%E2%80%9D-or-%E2%80%9Cbad%E2%80%9D-agricultural-producers-and-consumers
18. https://www.usda.gov/oce/commodity/wasde/wasde0422.pdf
19. https://farmpolicynews.illinois.edu/2022/05/food-protectionism-adds-to-chaos-in-global-food-markets-while-ukraine-could-plant-a-majority-of-spring-crops/
20. https://farmdocdaily.illinois.edu/2022/05/the-impact-of-late-planting-on-the-state-average-yield-of-corn-in-illinois.html
21. Grain and Oilseed outlook
22. https://cropwatch.unl.edu/2022/2022-crop-insurance-corn-and-soybean-projected-prices-and-decision-making

23. https://farmdocdaily.illinois.edu/2022/05/administration-efforts-to-incentivize-production-due-to-ukraine-russia-conflict.html
24. Livestock and Poultry Outlook
25. https://www.ers.usda.gov/topics/crops/soybeans-oil-crops/market-outlook/
26. https://www.ers.usda.gov/topics/animal-products/cattle-beef/market-outlook/
27. https://www.ers.usda.gov/topics/animal-products/hogs-pork/market-outlook/
28. https://www.ers.usda.gov/topics/animal-products/poultry-eggs/market-outlook/
29. https://www.farmprogress.com/commentary/acreage-report-preview-corn-soybean-acreage-gap-tighten
30. https://www.fb.org/market-intel/cattle-supply-and-demand-issues-for-the-2022-marketing-year
31. https://www.ers.usda.gov/publications/pub-details/?pubid=103951

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Taylor Kaus joined Conterra in 2020 and focuses on analysis of credit and operation stability as part of the underwriting process. This work has focused on understanding broad agricultural market trends and how individual borrowers and applicants operate in those environments. Taylor grew up in western Nebraska, spending time on his grandpa's farm, branding cattle and baling hay. He received his Bachelor of Science and Master of Science in Agricultural Economics and Statistics from the University of Nebraska.

About Conterra:

Conterra Ag Capital is an agricultural lender that provides borrowers, from family farms to large agribusiness, a full portfolio of flexible lending and financial solutions. Based in West Des Moines, Iowa, and with team members around the country, Conterra has leadership with decades of ag finance experience. Conterra's deep understanding of agriculture and the overall ag economy allows the company to quickly adapt to the needs of today's producers. Conterra partners with community banks and lenders, brokers and correspondents and manages assets for hedge funds, insurance companies and private investors to provide a broad spectrum of loan products supporting American agriculture.

Paul Erickson
Conterra President & CEO

Paul Erickson has held various executive leadership positions in the financial services and agricultural sectors. Paul has been involved in all facets of lending including loan origination, loan approval and the closing process. In addition, he works closely with staff on all distressed assets and large transactions. Paul grew up on a small grain and beef cattle farm in northern Minnesota. He obtained a Bachelor of Science in Animal Science from Iowa State University with continuing education at Harvard Business School.