

# Webinar: Farm Income and Financial Forecasts, December 2024 Update

December 3, 2024

## Transcript

**Krissy Young:** Good afternoon, everyone, welcome and thank you for joining today's Farm Income and Financial Forecast Webinar. This is our last Farm Income Webinar for the 2024 calendar year, so we appreciate you tuning in today. My name is Krissy Young, and I will be your host for today. Before we begin again, I'd like to note that this webinar is being recorded and will be made available on the ERS website next week. In addition, highlights from the December 2024 Farm Income Forecast can also be found on our website at [ers.usda.gov](https://ers.usda.gov). If you have any questions after today's presentation, please submit them using the Q&A feature at the bottom of your screen.

Now I'd like to introduce our speaker for today, Carrie Litkowski. Carrie is a senior economist and program leader in the Farm Economy Branch within the Resource and Rural Economics Division of USDA's Economic Research Service. As the farm income team leader, she is responsible for planning and implementing an estimation research and analysis program focused on developing sector-wide measures of farm income, value added, and the aggregate farm sector balance sheet. Prior to joining ERS, Carrie served as an economist at the Bureau of Economic Analysis for 22 years where she was responsible for the production of farm income and employment statistics nationwide. Thank you for joining us today, Carrie, I'll turn it over to you now.

**Carrie Litkowski:** Thank you Krissy, and to everyone online, thank you for joining us today as I present the latest forecasts on 2024 farm sector income and wealth for the United States. Spoiler alert, the forecast isn't that much different from our prior forecast released in September. But somehow, it feels a little more important as we near the end of the year to evaluate the current state of the farm economy, as a starting point for considering what challenges and opportunities may lie ahead for U.S. agriculture.

The USDA's Economic Research Service farm income and wealth statistics measure, forecast, and explain indicators of economic performance for the U.S. farm sector. The

data provides an overview of the sector in aggregate, providing guidance to policymakers, lenders, commodity organizations, farmers, and others with an interest in the health of the farm sector. They are also the primary data source for measuring the farm sector's contribution to the U.S. economy. We release forecasts three times a year, and with today's release, we've updated our U.S. level calendar year forecasts for 2024 to include some new and revised data as it has become available since our last release in early September. This includes additional survey-based data on 2024 production, prices, plantings, and marketing patterns. It also incorporates the latest forecasts from the November World Agricultural Supply and Demand Estimates Report, the WASDE Report.

Our data covers the farm sector as a whole, which is comprised of close to two million farms and ranch operations, who operate over 800 million acres of land. About half of those farms are what we consider farm businesses, which are defined as larger farms, and those where the principal occupation of the operator is farming. These farms account for over 90 percent of the total value of agricultural production in the United States. And, we have some additional data and forecasts on their finances, by type, and by region. Lastly, we'll look at the nearly, or 4.6 million people, who live in households that operate a farm.

Here is an overview of what I'll be covering in today's webinar, starting with profits for the farm sector as a whole, which are forecast to decline in 2024. Specifically, net cash farm income for calendar year 2024 is forecast to decline 1.8 billion or 1 percent, relative to 2023, in nominal dollars. Net farm income is forecast to decline \$6 billion or 4 percent. And I'll go over the differences in those two measures conceptually in the next slide.

Much of this decline in net income follows cash receipts from commodity sales, which in total are expected to decrease \$4 billion, or almost 1 percent in 2024, due to lower receipts for crops specifically. Also, direct government payments are forecast to decrease \$1.7 billion or almost 14 percent from 2023 to 2024. Total production expenses are forecast to decrease \$8 billion or almost 2 percent, moderating somewhat the expected declines in income. On the farm sector balance sheet farm sector assets, debt, and equity, are each forecast to increase by about 5 percent in 2024. For farm businesses, average net cash farm income is forecast to decrease 3 percent, following the sector level expectations. And lastly, we'll take a look at those households that operate a farm, where median total farm household income is forecast to increase 2.7 percent to \$100,634 in 2024.

Now note in this summary slide, the discussion is all in nominal dollars and the values are not adjusted for inflation. But many of the charts in this presentation are inflation adjusted, especially those that look at year data over a span of multiple years. Including this chart here. Farm profits, or net income, reached a record high in 2022 and are forecast to fall in 2024, but at a lower rate than in 2023. So, this chart is in 2024 dollars, so we're adjusting

prior years to account for inflation which allows a better comparison of levels of income over time. We have two primary measures of farm sector income or profits that we're showing here. The yellow line is net cash farm income, which includes cash receipts from the sales of farm commodities, as well as cash farm related income, and government payments to farm operators, less cash expenditures, or the expenses farmers incur to produce their agricultural commodities. Well, the term cash just meaning that there's some sort of market transaction.

Net cash farm income fell 26 percent from the record high in 2022 to 2023. In 2024 net cash farm income is forecast to decrease about 3 percent from 2023. Net farm income, that's the blue line, is a broader measure of income that also incorporates non-cash items, like economic depreciation, and it accounts for changes in inventories. Net farm income fell 22 percent from 2022 to 2023 and is forecast to fall 6 percent in 2024. Even with these expected declines, both measures in 2024 are forecast to remain above their 20-year average. Specifically, net cash farm income is forecast to be about 10 percent above its average and net farm income at about 16 percent above average.

We forecast farm income from the bottom up. Meaning that we forecast its component parts first, and this allows us to identify what is driving the change in income from 2023. This chart I'm going back to nominal dollars, so no inflation adjustment. Most of the forecast decline in net farm income is because we expect lower crop cash receipts in 2024. In this chart, we have on the left the net farm income estimate for 2023 at \$146.7 billion. Then at the far right, we have the net farm income forecast for 2024 at \$140.7 billion. The red bars indicate which items would contribute to declining income, while the blue bars indicate which would contribute to growth. So, looking from left to right, crop receipts or sales are forecast to decrease by \$25 billion. On net, farmers sold more than they harvested in 2024, which is accounted for by the inventory change adjustment. As net farm income is a measure of the income from current production only. So combined the value of crop production is forecast to decline \$32.5 billion in 2024. Animal and animal product receipts are forecast to increase by \$21 billion with just a small adjustment for changes in inventories. Production expenses are forecast to decrease \$8 billion which would boost or raise income in 2024. But also contributing to lower income in 2024 are direct government payments from farm programs to farm operations that are forecast to decrease by \$1.7 billion. And then all other income is also forecast to decrease by \$1.5 billion.

The end result is that net farm income is forecast to fall \$6 billion or 4 percent nominally. Cash receipts are the largest source of income to the sector and often drive the trends in net income. This chart looks at total for cash receipts since 1970, in inflation adjusted dollars. And note that our cash receipt estimates and forecasts are for the calendar year, so

not for a marketing or a production year, but the calendar year. Like with net income in 2022, total cash receipts reached an all-time high, following growth in both animal and animal product receipts and crop receipts. Animal and animal product receipts in 2022 nearly matched the record high that we saw in 2014 in inflation adjusted dollars. In 2023, total cash receipts fell 7 percent following similar declines in both total crop and total animal and animal product receipts. In 2024, total receipts are forecast to fall 3 percent, but crop and animal product receipts are expected to diverge. Total crop receipts are forecast to fall 11 percent inflation adjusted, while animal and animal product receipts are forecast to increase 6 percent in 2024.

We can also look at cash receipts by commodity. Again, we're in inflation adjusted dollars in this chart. We forecast receipts for about 25 different crop commodities or commodity groupings, but this chart focuses on some of the major crops. Receipts for corn and soybeans are expected to drive most of the decline in total receipts – crop receipts in 2024. Combined corn and soybean receipts accounted for half of all crop receipts in 2023. Corn receipts are forecast to decline nearly 23 percent or \$19 billion in 2024. And soybean receipts are forecast to decline 14 percent, \$8 Billion. With both corn and soybean receipts expected to decline for the second year in a row. Cotton receipts are forecast to see the largest percentage decline at nearly \$29 billion, largely due to lower quantity sold and lower prices. A bit of an outlier on this chart are receipts for vegetables and melons which are forecast to increase 4 percent due to expectations for higher prices.

For most categories of animal and animal product receipts, receipts are forecast to increase in 2024. Cattle and calf receipts are forecast to increase almost 5 percent or \$5 billion, which would be the fourth consecutive year that they have increased. Dairy, broiler, and hog receipts are forecast to increase 2024 after declining in 2023. Receipts for eggs are forecast to see the largest increase at 36 percent or nearly \$7 billion in 2024. This is due to higher prices for eggs. For the most part, prices received by farmers are driving these expected changes in cash receipts in 2024.

Through a simulation we can deconstruct the change in cash receipts into a price effect and a quantity effect. In other words, identify whether changes in prices or quantities sold are driving the change in cash receipts. So, starting from the left, total cash receipts are forecast to fall \$46 billion due to lower prices alone. That's the red bar and that's for the aggregate of all crops. If prices were held constant from 2023 to 2024, higher quantities sold would raise cash receipts \$20 billion, that's the blue bar, or nearly \$20 billion. When combined, total crop cash receipts are forecast to decrease \$25 billion, that's the green bar. For animal and animal products, higher prices are expected to account for nearly all of the forecast increase in receipts. In total, the changes due to changes in prices and

quantities sold are not quite offsetting. And lower prices are expected to drive the overall \$4 billion decline in cash receipts in 2024.

Government payments are another potential source of income to farmers. We define government payments as payments made directly to farm operations by the federal government, without any intermediaries, generally from farm programs. We record them in the year in which they were received by the farmers. Government payments reached a record high in 2020 because of Covid pandemic assistance to farmers, which is shown by the purple bar segments on this chart. And in each year since, total government payments have declined. Note that this chart is now an inflation adjusted dollars, and it shows payments by general type of payment. Since 2022, more than half of government payments total has come from non-pandemic supplemental and ad hoc disaster assistance. Which is shown by the gray bar on this chart. This includes payments from programs such as the emergency relief program, livestock forage program, and the wildfire and hurricane indemnity program. These supplemental and ad hoc payments totaled about \$7 billion in 2023 inflation adjusted and are forecast to decrease to under \$6 billion in 2024.

Payments that are a function of commodity prices, as represented by the orange bar segment, were relatively low in 2022 and 2023 and are expected to decrease further in 2024. In recent years this category largely represents payments from the agricultural risk coverage, price loss coverage, and dairy margin coverage programs. And they are expected to decline in 2024 largely due to expected lower payments under the dairy margin coverage program.

Conservation payments are shown by the green bar and are forecast to increase about 19 percent to \$4.4 billion in 2024. And in total, government payments are forecast at a little under \$11 billion in 2022, down about \$2 billion from 2023. This would put them at their lowest level since 1982 in the inflation adjusted series. This chart looks at government payments relative to the rest of net farm income. It also includes another source of income to farmers, which are commodity insurance indemnities. These are payments to farmers for losses that are covered by insurance. This chart is also an inflation adjusted dollars. The top peach bar segment shows indemnity payments paid to farmers, less the premiums paid by the farmers for federal commodity insurance. I'm going to call these net insurance payments. Net insurance payments are forecast to decrease \$1.8 billion or about 15 percent in 2024. The darker orange bar segment shows direct government payments, which I talked about in the previous slide, which are forecast to fall about \$2 billion in 2024. And then the gray bar represents net farm income, excluding net insurance and direct government payments. In 2024, net farm income less net insurance and government payments is forecast to fall almost 5 percent, or point 5.8 billion, accounting for about half

the total decline in net farm income. Only in 2020 did federal payments from farm programs and insurance exceed net farm, net cash farm income, excluding these payments. And in 2020 that was the year of a large amount of Covid pandemic related assistance.

Another factor affecting net income are production expenses, which are the costs of inputs used in the production of farm commodities. These include items such as feed, fertilizer, and hired labor. This chart shows total expenditures, both cash and non-cash, in nominal and inflation adjusted dollars. In 2022, total production expenses increased significantly as input prices increased. They rose \$64 billion or 17 percent relative to 2021, in nominal terms, or 9 percent when adjusted for inflation. In 2023, total production expenses continued to grow but at a lower rate than in 2024, 6 percent nominally, or 2 percent in inflation adjusted or real dollars. In 2024, expenses are now forecast to decrease relative to 2023. Decrease almost 2 percent, or 8 billion nominally, or 4 percent, which is about \$19 billion when adjusted for inflation.

When we look at expenditures by category the outlook is mixed. This chart compares expenditures by category in 2023 and 2024. With those categories of spending that are expected to increase being above this dotted line and those expected to decrease in 2024 below the line. Now this chart is in nominal dollars. So, starting with those where we expect increase or higher expenses, livestock and poultry purchases are forecast to see the largest increase from 2023 to 2024 at about \$4 billion or 10 percent. Prices for cattle and calves, feeder in particular, are expected to increase in 2024. Labor expenses are also forecast to increase in 2024 about \$3 billion, or 6 percent, as wage rates have been trending upwards throughout the year. Interest expenses and property taxes are also forecast to increase.

Net rent paid to landlords is expected to remain nearly unchanged from 2023 in nominal dollars.

Below the line, spending on feed expenses is expected to see the largest decline at 13 percent or nearly \$11 billion. And feed is the single largest expense category on our income statement. And prices paid for feed have been declining throughout 2024. Spending on fertilizer, pesticides, and fuels are also forecast to fall in 2024. While spending on seed purchases is expected to be relatively stable.

Despite expectations that income will continue to fall in 2024, the farm sector balance sheet is forecast to continue to improve in 2024. Especially as measured by equity. This is the farm sector balance sheet which provides information on the value of assets, both physical and financial, and the level of debt in the U.S. agriculture sector over time. It is another tool we can use to measure or gauge the health of the farm sector. Farm sector

equity, that's the value of assets less debt, is shown by the green area on this chart. And, it has increased every year after 2019. It is expected to increase nearly 3 percent from 2023 to 2024. The forecast growth in equity largely is reflecting increases in the value of farm sector real estate assets, which represent about 80 percent of total farm sector assets. Real estate assets are forecast to grow 3 percent in 2024, in inflation adjusted dollars.

The level of debt held by the farm sector is shown by the blue area at the bottom of this chart. Debt levels actually fell in 2022 about 2 percent, which was the first decline in debt since 2012. It then grew 1 percent in 2023 and is forecast to increase 2 percent in 2024, which is about the average rate of increase. And this is following increases in both real estate and non-real estate debt levels. To kind of step back a little bit, overall equity since 2019 has increased 16 percent through 2024. But debt over that same period has increased 7 percent. Thus, the continued improvement in the balance sheet that I talked about at the start.

But here's one more way to look at the balance sheet, this chart looks at the amount of debt relative to assets and relative to equity as percentages. These are solvency ratios, which provide a measure of the sector's ability to repay financial liabilities, that's debts or loans through the sale of assets. And it can be an indicator of financial stress. These ratios have improved in each of the last three years or since 2021 as indicated by declining values. In 2024, they are forecast to improve slightly and to be below slightly their 10-year moving average. It is important to note that these solvency ratios are for the sector as a whole, as if it was a single entity, and includes farm operations who have no debt, as well as those who do. There's a lot of variation in the amount of debt that is held by individual farms. Additional financial ratios including liquidity and profitability ratios are available on our website.

But we're going to take one more ratio and also the bankruptcy rate. On this chart we look at the bankruptcy rate and the debt service ratio, which can provide information on liquidity or the sector's ability to make scheduled financial payments as they come due. The farm bankruptcy rate has declined in each of the past four years as shown by the red bars. In 2023, the bankruptcy rate reached its lowest level in 20 years. In 2024, the bankruptcy rate is projected to increase to about one bankruptcy per 10,000 farms. Yet, that would still remain historically low or relatively low. The debt service ratio, as by shown by the line on this chart, describes the share of production or gross income that is needed to make debt payments, and is one measure of liquidity or the amount of capital that's readily available as cash. This ratio had been trending down in recent years and lower is better suggesting improved liquidity. But it rose in 2023 and is forecast to increase some more in 2024. But it is expected to stay below its peak in 2018. This forecast follows the forecast for lower value

of ag sector production or production income. And higher interest expenses for 2024. And it means that more production income is going to be needed to make debt payments in 2024.

So far, we've been discussing forecasts for the farm sector as a whole. In the next few slides, we'll be looking at an important subset of all farms which I call farm businesses. And these are farms where the primary occupation of the operator is farming, plus those farms that had \$350,000 or more in gross cash farm income, that's income before expenses. According to data from the Agricultural Resource Management Survey, ARMS, about half of all farms meet this definition and are represented on this chart by the blue and orange segments for intermediate and commercial farms. These farms are farm businesses, and they account for over 90 percent of all agricultural production and hold most of the sector's assets and debt. Residents' farms, that's the blue bar, are those farms where the operator is retired or whose primary occupation is not farming. And they had less than \$350,000 gross cash income. These residents' farms account for the remaining share of farms and contribute a much smaller share to production assets and debt. So, using farm level data from the 2023 ARMS results, we are able to do what I'll call a micro simulation and project average income levels 2024 based on the forecast for the sector as a whole. And we can break down these forecasts for farm business income by commodity specialization and geographic region.

So, we're going to shift our perspective here in the next three slides and look only at farm businesses, so only 50 percent of farms, and average income net cash farm income levels. So, let's start by looking at farm businesses that specialize in crops. This chart is in inflation adjusted dollars, using ARMS we can categorize farms by their commodity specialization, which is determined by the one commodity or group of commodities that make up at least 50 percent of the farm's total value of agricultural production. For all types of farm businesses specializing in crops average net cash farm income is forecast to fall from 2023 to 2024. This follows the forecast for lower crop receipts in 2024. For Farm businesses specializing in corn, soybeans, and wheat, average net cash farm income is forecast to continue to decline in 2024, after declining in both 2023 and 2022. Average net cash farm income for cotton farm businesses is forecast to fall to its lowest level since 2018. Farm businesses specializing in specialty crops, that would be fruits, nuts, vegetables, nursery, are projected to see the smallest decrease in average net cash farm income in 2024, at about 4 percent, as higher receipts for vegetables and melons and nursery products are expected to somewhat offset higher labor costs for these farms.

Conversely, for farm businesses specializing in animal and animal products we are projecting that farm businesses across all specializations will see average net cash farm



income increase in 2024. Dairy farm businesses are forecast to see the largest increase in average net cash farm income in 2024 at about 61 percent, which would be a rebound after declining in 2024. The forecast for 2024 reflects higher milk receipts and lower expenses, particularly for feed in 2024. That would impact dairy farms. Average net cash farm income for farm businesses specializing in hogs is forecast to increase about 11, well to increase about 25-26 percent, after declining in 2022 and 2023. For farm businesses specializing in cattle and poultry, average net cash farm income is forecast to continue its upward trend in 2024.

By looking at how agricultural production is distributed geographically, we can project how average net cash farm income for farm businesses can be expected to change in 2024 by resource region. Across all farm businesses, average net cash farm income is forecast to decrease about 3 percent or that's about \$3,700 per farm, or on average, from 2023 to 2024 in nominal dollars. And this is following the forecasted decrease in net cash farm income for the sector. We project average net cash farm income to decline in four regions, the Mississippi Portal, Heartland, Northern Great Plains, and the Prairie Gateway. For the Southern Seaboard, average net cash farm income is expected to remain unchanged from 2023. And for the remaining four regions, average net cash farm income is projected to increase in 2024. In particular, higher cash dairy receipts in 2024 are expected to contribute to higher income in the Northern Crescent and the Fruitful Rim. The other two regions expected to see increases are the Eastern Uplands and the Basin and Range.

Up to this point we've been discussing the financial performance of farm operations, but the wellbeing of households that own and operate farms is not equivalent to the farm earnings. Farm profits are often shared with other stakeholders, like landlords and contractors. And the wellbeing of farm operator households is determined by a combination of on-farm and off-farm activities. Or the majority, or with the majority, of farm household income generally coming from off the farm. So now we're going to look at family farms, which accounted for 97 percent of farms, and the households of the principal farm operator.

There are about 4.6 billion people who live in households, not billion, I'm sorry 4.6 million people who live in households attached to a farm. One measure of their wellbeing is household income. Farm households typically receive income from both on-the-farm and off-farm sources. And this chart looks at median farming income, off-farm income, and total household income. The median represents the income level at which half of all households have lower incomes and half have higher incomes. This chart is inflation adjusted. At the median, income earned on the farm is low, that's the far-left set of bars here. And income earned from the farm median is forecast at - \$751 in 2024, meaning that

the median farm household is operating the farm at a loss. But recall that half of all farms are residential farms, which are small farms where the primary occupation of the operator is not farming. This results in low and usually negative farm income at the median. Therefore, many households rely primarily on off-farm income. Off-farm income sources include off-farm wage income, non-farm business earnings, dividends, and transfers. Median off-farm income is forecast to increase in 2024 about 1 percent, when adjusted for inflation. So, in total, farm household income at the median is forecast to increase slightly in 2024, increasing 2.7 percent in nominal dollars, or .2 percent after adjusting for inflation.

This chart looks at farm household income by type of farm that the household operates. For households attached to a residential and intermediate farm, median total household income, as shown by the red line, tracks very closely with off-farm income, that's the blue line, and the off-farm income accounts for essentially all of the household income at the median. For households attached to commercial farms, total household income follows the trends in on-farm income which usually accounts for most of the household's income at the median. Farm income, that's the grey line, for commercial farms is expected to decrease about 15 percent in 2024 and is driving the forecast 12 percent decrease in household income.

With this release, we are putting out a lot of additional and new data on farm household wellbeing into 2023, based on the ARMS survey. This includes data on the share of households with positive income from farming, farm household income by commodity specialization in region, comparisons to all U.S. households, and self-employed households, with additional data on the finances and characteristics of farm households, including net worth. So, I encourage you to check out our topic page on the ERS website under Farm Household Wellbeing for more information on farm households. And the information I presented today on farm sector income and wealth is also available on our website. We have data tables, data visualizations with charts and maps, and a written summary of our findings with even more information. We also have state level income estimates and expense estimates through 2023. And our next scheduled release is going to be on February 6<sup>th</sup>, at which time we will update our 2024 forecast again, and release our first forecast for 2025.

Also in February, USDA will be hosting the Agricultural Outlook Forum. This may be of interest to you. If this webinar interests you, we'll present the February forecast at that forum as well. And I will be presenting that. And there will be multiple, maybe over 30, sessions on the latest trends and developments in agriculture. And it will be a hybrid event, hybrid meaning that you can attend both in person and online. And this year, unlike last year, I have included a link that will help you find out more information on the forum. With

that, you can always reach out to us, the Farm Income Team at this email address here, but I'm going to hand it back to Krissy to lead us in some question and answers.

**Krissy Young:** Carrie that was a very informative presentation, so hopefully, I'm sure our listeners enjoyed it. As Carrie said we're going to go ahead and open the floor for questions. We've already received a few, but as a reminder, if you'd like to submit a question please do so through the Q&A feature at the bottom of your screen. Okay Carrie, here is the first question we will start with, "Why the sharper decline in net farm income versus net cash farm income?"

**Carrie Litkowski:** Yeah. We have, you know net farm income is forecast to fall about 3 percent and net cash farm income about 6 percent. And the difference is primarily because of the crop inventory adjustment in the net farm income measure. For net cash farm income, sales are recorded in the year in which they occur, and there's no accounting for changes in inventories. But for net farm income we're measuring income from current production only, instead of sales, and we want to measure the value of production. So, any sales from inventories, which would be the prior year's harvest or any additions to inventories, are accounted for with the inventory adjustment. And in 2024 we're forecasting that about \$6 billion in crop sales actually came from inventories, which is removed from the net farm income measure, making it fall more than the net cash farm income measure.

**Krissy Young:** Thank you for that explanation, we'll move on to our next question and this is also related to cash receipts and income, "Cash receipts seem to be just for crop and animal receipts, how do we account for receipts from leasing land for wind farms or solar?"

**Carrie Litkowski:** Yes, farm income can include other sources of income that farmers may have, but they must be tied to the fact that they have a farm. Or they must be tied to assets that the farm owns. So, we capture that kind of income in our tables under farm related income. And this does include royalties from any energy production, those would be farm-related income. It would include if you let somebody hunt on your land and you charge a fee for that, or any sort of recreational services that you earn from letting people use your land. I think you mentioned leases, well other than you know we do include in that there's net rent received, like if farmers are leasing their land to other farmers, or some of their land to other farmers. We do have the farm related income which does capture that kind of

lease, but you know, energy leases for energy production it's all going to be in farm related income, which is on our value-added table. But you'll also see cash farm related income on our net cash income statement. So, we do account for it.

**Krissy Young:** Our next question from a viewer is, “What method do you use for the forecast?”

**Carrie Litkowski:** Yeah, we have what we we'll call it a model. But it may not be a model in the terms of like a general equilibrium model, if you're an economist and you're familiar with that. And we have some descriptions of our methods on our website, and I can always direct you towards more if you shoot me an email. But ultimately what we're doing is we're collecting information from a large variety of sources. So, you know, we're using information on commodity production and prices for the forecast year, largely from the WASDE reports, and also from ERS, and analysts who specialize in those different commodities. For expenses we're looking a lot, particularly at this time of year, we're looking a lot at the prices paid indexes that NASS, the National Agricultural Statistics Service puts out. So, I'm trying to think of the best way to kind of describe it succinctly, but we're just pulling data, including forecasts and projections, from a lot of different sources. And we're building off of our 2023 estimates, and to kind of predict how they would change in 2024, based on these maybe you could call them indicator series, that we get from a variety of sources. So, it's not like an equilibrium model, but it is definitely, you know, we use the same methods for every release it's just that the data gets updated with each release.

**Krissy Young:** And this one is sort of a follow-on question to that, “What are the main changes compared to the previous forecast for 2024?”

**Carrie Litkowski:** Yeah, that does tie in nicely to my last statement. The biggest, for what I saw when I looked at the revisions between our two releases, to me the biggest new data that we incorporated was data on monthly marketing patterns, or monthly marketing percentages that we get from our sister agency NASS in USDA. And this tells us how much the share of production for each crop that is sold in each month. And this is critical data for calculating cash receipts because it helps us distinguish between, you know, what is sold from current production and what is sold from inventories. And that is new data that we

got, that most of that data can't be released. Well, it can't be released until after the marketing year has ended. So, there's a bit of a lag, and it wasn't for the major crops it wasn't really available for our August release, but for this release we did have this new monthly marketing patterns data for the 2023 marketing year. For these crops which then influenced a lot of the revisions that you see. For expenses, because we did have, you know, expenses were also revised a bit that we revised down. A key thing that we incorporated here was about two or three more months of the monthly prices paid indexes from NASS. And then we also had some updated forecasts for instance that we get from the Energy Information Agency on the energy outlook, the short-term energy outlook like diesel prices, electricity prices, natural gas, and so those were updated as well. But it's a lot, everything has the potential to be updated but those were some of the major or the most noticeable updates that I found.

**Krissy Young:** We're receiving a couple of questions related to natural disasters, so I'm going to try and combine the questions here, so that we can answer multiple viewer questions. "Have natural disasters such as flooding, tornadoes, hurricanes, or diseases like Avian flu, affected these forecasts? And if so, in what ways? And in terms of natural disasters, we have one viewer who's specifically asking about Hurricanes Helene and Milton."

**Carrie Litkowski:** Yeah, certainly natural disasters have the potential to affect farm income and historically they have. For this forecast for 2024 – they, the timing of it sometimes it just takes time to know the impacts. And so, specifically for Hurricane Helene and the other one. It just skipped my mind...

**Krissy Young:** Milton, Hurricane Milton.

**Carrie Litkowski:** ...is that the data doesn't fully reflect the impact of those Hurricanes yet, or possibly doesn't reflect it. For instance, you know, we rely on other data that I was just talking about earlier. You know particularly, like on crop production, we're getting that from NASS. And NASS noted that for instance, that in their October Crop Production Report that the effects of Helene on citrus, you know, they did their work before those Hurricanes happened. And I think it was kind of similar for pecans. So that in the essence that the impact of the storm is not fully incorporated yet. And from our point of view here at ERS

with these estimates, we don't incorporate it ourselves, we don't go in and say we're going to make an adjustment for these Hurricanes. We rely on our input data to reflect those changes. And so, these were very recent, so they're still coming in through the data, they're still being evaluated, what their impacts were, so they're not fully realized yet in the forecast. Certainly, with things like government payments related to the Hurricanes, those haven't gone out yet, so they're not reflected in the forecast either. So, it's kind of a partial case, would be the short answer. They may partially reflect some of the impacts of the Hurricanes, but due to their timing they're not perhaps fully reflected yet in our forecasts.

**Krissy Young:** Okay that makes a lot of sense, thank you. Let's move on, one viewer is asking, "The first forecast for 2024 predicted a much steeper decline in net farm income for the year, why did the forecast change?"

**Carrie Litkowski:** Yeah, I can't give you like particular commodity by commodity. We certainly have the data on our website that you could do that yourself. Or you can follow up with us because we, on our website, we do maintain a historical archive of every release. So, you could pull the data that was released in February and compare it to the data we released today. But overall, I think one factor that contributed to an improvement in the forecast, which I think is what we saw with each release, that it improved a bit was the production expenses. It's that, you know, I think each release they got a little bit lower, which helps farm income. And you know, that's just kind of reflecting the new data as it comes in, particularly you know, the prices that we're seeing come in. The prices that we're observing that farmers were actually having to pay for their inputs being a little bit lower than what we were thinking might, or what we were having to model back in February. That's the big thing in February, when we do our February forecast, the first forecast for the calendar year, I mean there is no observed data because you know it hasn't happened yet. So, it's a lot of modeling, it's a lot of trends. Looking and predicting, and you know forecasting, based on trends of what might happen. So yeah, the forecast has gotten better and it's just you know the input data has suggested for among other things that expenses weren't – or that we're going to improve - or the costs were going to be a little bit lower than we initially thought.

**Krissy Young:** Thank you. Our next question is actually a two-part question. "Is it common for net farm income to decline at the same time that farm equity increases, as USDA is

forecasting this year? And what does this situation say about the financial soundness of the farm sector?”

**Carrie Litkowski:** Yeah, it isn't uncommon for net farm income to decrease and equity to still improve. In fact, if you were to go back and look at our balance sheet you would see that most years equity improves. You know, far and away it's kind of the steady increase, there's some exceptions. So even when farm income falls, equity improves. And a big part of equity is farm assets and particularly the value of farmland and buildings. And, what I think you're seeing with the equity is just kind of, you know, generally upward trend in the value of farm assets, farmland, and buildings. And you know, the demand for farmland is usually pretty strong and it's usually a long-term investment. So, a one- or two-year decline in income isn't necessarily going to affect the value of farmland and buildings. I think that's what I take away from it. You know balance sheet is long-term, you know it reflects long-term expectations or conditions within the farm sector. Where the income statement is more of a short, you know short term, you know just year-to-year outlook which may not affect the balance sheet.

**Krissy Young:** We are nearing the end of our time here, so we'll see if we can squeeze in one or two more questions. Here's another one that someone is asking, “Do you see any difference in the impact of farm income decline for small farms versus large scale operations?”

**Carrie Litkowski:** You know, I don't. That's something I've never looked at in particular. It's a good research area to go into. And, I think we have a lot of that data from ARMS that you could do that kind of analysis. And currently we have on our website some tabular reports, interactive reports, from the Agricultural Resource Management Survey where you can go look at the balance sheet by size of farm and kind of do that kind of analysis. It's called our ARMS web tool and that might give some information. But no, I don't have that handy, I have not personally done that kind of research yet.

**Krissy Young:** Okay, and just to plug the contact information that's on the screen right now, that may be a good question if someone has follow-up. They can send you an email at [FarmIncomeTeam@usda.gov](mailto:FarmIncomeTeam@usda.gov). Okay let's see, “Is there any reasoning for the corn sweeping cash receipt decline, and the rise in vegetables?”

**Carrie Litkowski:** Not that I'm aware of. I'm not a commodity expert. And you know, for the corn and soybean projections we use the WASDE reports largely, and then for the vegetables, you know we're using data from internally, from our ERS experts, and the ERS experts put out Outlook reports on vegetables and melons that you can check out if you're interested. But you know, there really is no connection, and maybe I'm stating the obvious, but you know when we talk about vegetables, that is distinct from corn and soybeans. I remember I had to learn this the hard way. When I was a real little kid, as you know, my grandpa was a farmer, and he grew corn for grain and then grandma grew corn for eating for vegetables in her garden. And it took me a while to understand that there was a distinction between those two types of corn. And in our accounts, we had that same kind of distinction. There's corn for grains and there's soybeans for oil crops and then the vegetables and melons are the things for human consumption, or you know, not for animal feed for example. But I'm not aware of a connection though between those two forecasts.

**Krissy Young:** Okay, that's good to know. I know a lot of people don't understand the difference. We will end on this final - oh actually, I just realized the time. So, I think that was our last question. I'm sorry there were a few more left to answer, but hopefully that's a good sign that everyone found the information interesting. So, I will go ahead and remind everyone, if you were really interested in today's webinar, we do have another webinar coming up, exactly one week from today. That's America's Farms and Ranches at a Glance 2024 Edition. If you go ahead on our website, you can register for that webinar. Shortly we'll have information up. And then just as a final reminder, Carrie if you want to go to the next slide, thank you. Please be sure to visit us online and see all of our latest statistics on U.S. farms and ranches. Oh, I'm so sorry, that was about the webinar next week. This is just a final reminder that ERS does continue to deliver timely relevant research through our website and on social media. So, be sure to follow us on LinkedIn and X. Thank you everyone for joining us today, that does conclude our webinar. We hope to see you again. Thank you.