

## **Transcript: Farm Income and Financial Forecasts, August 2019 Update**

Slide 1: Good afternoon everyone and welcome to our webinar, Farm Income and Financial Forecasts for 2019, August 2019. My name is Nancy McNiff, and I will be your host. This webinar is being recorded and will be posted on the ERS website sometime next week. At any time during this webinar, you may enter a question into the chat feature at the bottom left-hand corner of your screen and our speaker will answer questions at the end of the presentation. Our speaker today is Carrie Litkowski. Carrie is a senior economist and farm income team leader at USDA's Economic Research Service. She is responsible for developing sector wide measures of farm income, value-added, and the aggregate farm sector balance sheet. Previously, Carrie served as an economist at the Bureau of Economic Analysis where she was responsible for the production of farm income and employment statistics nationwide. I think we're ready to start. So, Carrie you may begin the presentation.

Thank you, Nancy. Thank you everyone for joining me today on this Friday afternoon. I'm pleased to discuss with you the latest USDA data on the U.S. farm sector income and wealth. The Economic Research Service farm income and finance program measures forecasts and explains indicators of economic performance for the U.S. farm sector. We release our forecasts three times a year, and with today's release, we are updating our U.S. forecasts for 2019 to include some new and updated data as it has become available since March, including some survey-based data on 2019 crop plantings, production, and prices. The latest forecast also includes data from the August World Agricultural Supply and Demand Estimates report, the WASDE report. With this release, we're also converting our 2018 forecast into an estimate that incorporates annual state-level data from USDA's National Agricultural Statistics Service on production and prices, and expense data gathered through the 2018 Agricultural Resource Management Survey, the ARMS. Also with this additional data, we're able to produce our first state-level farm income estimates for 2018. 2017 estimates and earlier were also revised to incorporate results from the 2017 Census of Agriculture among other things.

Slide 2: So, let's get right to it. What does our forecast cover? First, we'll start by looking at the farm sector as a whole, which is comprised of two million farms who operate 900 million acres of land. Next, I'll discuss the income and finances of the approximately 960,000 farm businesses that account for about 90 percent of the total value of agricultural production in the U.S. Lastly, I'll look at the well-being of the over six million people who live in households that are attached to a farm.

Slide 3: Overall, farm sector profits are expected to increase in 2019. Now in this slide, we are looking at all dollar changes and values in nominal dollars. So, they're not adjusted for inflation. Later on, I'll discuss in some places how inflation changes the movement in these forecasts. Net cash farm income is forecast to increase about 7 percent in 2019 relative to 2018. Net farm income is forecast to increase almost 5 percent. This increase in income is despite cash receipts from commodity sales, which are expected to decline about 2.4 billion or almost 1 percent in 2019. The increase in income is largely coming from direct government payments and insurance indemnities, which are insurance payments for covered losses, both of which are expected to increase about 6.1 billion or 80 percent. Sorry, individually, indemnities are forecast to increase 6.1 billion and government payments to increase 5.8 billion. On the expense side, total

production expenses are forecast to increase 1.5 billion in 2019. On the balance sheet, farm sector assets and debt are forecast to increase with overall equity rising by 1.8%. But here's an example of where this increase in equity is not expected to keep up with inflation. So, when adjusted for inflation, overall equity is forecast to remain relatively unchanged from 2018. Average net cash farm income for farm businesses is forecast to increase 11% in 2019. Median farm household income is forecast to increase almost 4% in 2019.

Slide 4: We have two primary measures of farm sector income. First is net cash farm income, which is shown by that orange or yellow line on the top of the chart. And, this includes cash receipts from farming, or that's the sales of farm commodities, as well as cash farm related income and government payments from farm programs less cash expenses. So, I say cash, I just mean that there's a market transaction for the sale or purchase of these goods and services. And, expenses are the input cost to farmers for producing these commodities. Net farm income as shown in the blue, is a broader measure that incorporates non-cash items, including accounting for changes in inventory and non-cash expenses like economic depreciation. Both measures are forecast to increase in 2019. Now, note this chart and some others in this presentation, are in 2019 dollars, which means that we're adjusting prior years to account for inflation. Looking at net farm income, it declined for three consecutive years across 2013 and 2016, and in 2016 reached its lowest level since 2002. Since then, that farm income has trended upwards and is forecast to increase almost 3 percent to 88 billion in 2019. This would put it just below its average across 2000 through 2018. Net cash farm income has followed a similar trajectory and in 2016 dropped to its lowest level since 2009. After remaining relatively unchanged in 2018, net cash farm income is forecast to increase 5% to almost 113 billion in 2019, which would put it above its average across 2000 through 2018.

Slide 5: We derive net farm income by first measuring its component parts or from the bottom up. This allows us to further analyze the forecast change from 2018. Now, this chart is in nominal dollars. The forecast increase, so what we have on this chart, on the far left, is net farm income, the estimate for 2018 at 84 billion dollars. On the far right, we have the forecast for 2019 at 88 billion dollars. The bars in red indicate those components which are expected to pull down income growth or cause it to decline. While the bars in blue indicate what would cause income to increase. Looking from left to right, crop receipts or sales are forecast to increase 3.3 billion. Additionally, sorry, that's decrease 3.3 billion. Additionally, we're making a downward adjustment to crop cash receipts for sales from inventories. Now, net farm income represents income from current production only, so we make an adjustment to account for changes in inventories because they represent sales from the prior year's production. Livestock or animal and animal product receipts are forecast to increase 0.9 billion with a small adjustment downward for changes in inventories. Production expenses are forecast to increase 1.5 billion. Now, this is shown as red because an increase in income pulls down farm income because it is subtracted out in the calculation of net farm income. More than offsetting these changes, though, are the expected increases in government payments and farm related income. Government payments are expected to increase 5.8 billion dollars in 2019. And, the 6.4 billion increase in farm related income is primarily due to forecast higher insurance indemnities or payments to farmers for covered losses in 2019.

Slide 6: In the previous chart, we saw that overall cash receipts are forecast to decrease in 2019, following declines in crop cash receipts. In this chart, we show why cash receipts are forecast to decrease. Through a simulation, we can deconstruct the change in cash receipts into a price effect and a quantity effect. In other words, we can identify whether prices or quantities sold and the changes in them are driving the change in cash receipts. Other changes as shown in this chart refer to those commodities for which data does not exist to allow us to separate out price and quantity effects. In 2019, prices are expected to rise for crops. And, we can see that in the orange bar. While prices are expected to increase, we're expecting an even larger decrease in crop cash receipts due to larger less quantity sold in 2019. For livestock cash receipts which are shown by the bottom chart, we have the reverse. We are expecting prices overall to decline, but quantities sold to increase. The net result would be a 0.9 increase in livestock cash receipts, but a 3.3 billion decline in crop cash receipts. Combined, the total change in all cash receipts is forecast at 2.4 billion at the climb as the drop in crop cash receipts is dominating and leading to the overall decline in total cash receipts.

Slide 7: Next, we can look at cash receipts by commodity. Note that our estimates and these cash receipt estimates are in calendar year forecasts, so not in crop year, but calendar year. And this chart now is in nominal dollars. Total crop cash receipts are forecast to decrease nearly 2 percent from 2018. We forecast receipts for about 25 different crop commodities or commodity groupings. This chart just focuses on the major crops. Cash receipts for corn are forecast to be relatively unchanged in 2019, as lower quantity sold are expected to be nearly offset by slightly higher prices. Soybean cash receipts are forecast to decline 14%, reflecting anticipated drops in both prices and quantity sold. This is really driving the overall decline in total crop cash receipts in 2019. Cotton receipts are forecast to increase in 2000, sorry, decrease in 2019 and receipts for fruits, nuts, vegetables, melons and wheat are forecast to increase in 2019.

Slide 8: Looking at the animal and animal product cash receipts or livestock. These are forecast to increase just half a percentage point in 2019 after increasing slightly in 2018. While receipts for cattle and calves are forecast to be nearly unchanged from 2018, larger quantities - larger changes for other commodities are expected to nearly offset each other. So, receipts for dairy and hogs are forecast to increase following expected higher prices and some increases in quantities sold. However, receipts for broilers and chicken eggs are forecast to decline due to lower prices in 2019.

Slide 9: Another component of farm income, or a source of income from farmers, are direct government payments from farm programs directly by the U.S. government to farmers and ranchers without any intermediary. After increasing about 2 billion dollars or 19 percent in 2018, government payments are forecast to increase by 5.8 billion or 42 percent in 2019. Let's start on this chart with all other payments, as shown by the purple bar segment. These are forecast to increase 13.1 billion dollars, or nearly double in 2019, and are responsible for the increase in total government payments. The increase in 2018 and 2019 are largely due to payments to farmers under the Market Facilitation Program, the MFP, which is part of an aid package designed to assist farmers in response to trade disruptions. We record payments in the calendar year in which the payments were received by farmers. So, our 2018 estimate includes payments received in calendar year 18 from the program announcement and implementation that occurred in 2018, and our 2019 forecasts also includes payments from that first implementation, but were

received in the first part of 2019 in calendar year 2019. So, that 2018 MFP program was spread across two calendar years, as far as when farmers received them. The 2019 forecast also includes expected payments from the first tranche of the MFP program announced earlier this year back in July. We assume that producers will receive 50% of the announced total of 14.5 billion MFP payments in this first tranche that will be made in calendar year 2018. Overall, we're estimating about 5.1 billion dollars in MFP payments in calendar year 2018 and 10.7 billion in calendar year 2019. We're also forecasting an increase in supplemental and ad-hoc disaster assistance for 2019, which is also part of this purple bar on this chart. Forecast to decline in 2019 are payments that are a function of crop prices as represented by that orange bar segment. In recent years, these are primarily payments under the USDA's Agricultural Risk Coverage and Price Loss Coverage programs, ARC and PLC. The blue line on this chart looks at government payments, the total in inflation-adjusted dollars. Since 2007, payments have averaged about 13 billion through 2018. The forecast for 2019 would put them at their highest level since 2005.

Slide 10: Direct government payments do not include commodity insurance indemnity payments. These are payments to farmers for losses that are covered by insurance, which also contributes to farm income. This chart looks at federal net insurance and government payments relative to the rest of net farm income for the Ag sector as a whole. The top or peach bar segment shows net indemnities from federal commodity insurance less the premiums paid by the farmer. These are forecast to increase about 4 billion dollars in 2019, which would put them at their highest level since 2013. We expect payments for prevented plantings to be high in 2019, due to the extensive flooding that occurred throughout the Midwest earlier this year and continue to affect corn and soybean crops. We look at net federal insurance combined with direct government payments, as shown in the orange. They are forecast to account for almost 30 percent of net farm income in 2019. Net farm income is shown in gray excluding these payments is forecast to decline in 2019.

Slide 11: Up until now, I've been discussing the sources of income or revenue to farmers. Now, let's look at the expenses incurred by farmers to produce agricultural output or their input costs or production expenses. These include items such as feed, fertilizer, and hired labor. In total, production expenses are forecast to be relatively stable in 2019. This chart shows total expenditures a nominal and inflation adjusted dollars. After decreasing by four point nine billion or one percent in 2018 in nominal terms, expenses are forecast to increase 1.5 billion or 0.4 percent in 2019. However, this increase in 2019 is less than the expected rate of inflation. So, when you adjust expenses for inflation, they are forecast to decline 1.3 percent in 2019. This would mark the 5th consecutive year of declining expenses. And, we haven't seen a decline of this magnitude or duration since the farm crisis of the early 1980s. These declines now and in the back in the 80s track pretty closely the declines in total cash receipts. This chart looks at total cash receipts and total cash production expenses since 1970. From 2014 to 2019, total cash receipts are forecast to decline 19% and total cash production expenses are forecast to decline 15%. In general, this relationship between receipts and expenses reflects two things, I think. First, roughly one-third of cash expenses are farm origin, meaning that their inputs produced by the farm sector such as feed, seed, livestock purchases, thus they are subject to the same influences that are affecting total cash receipts, for instance, prices. Additionally, it suggests that farmers adjust their spending based on expected or realized income for a given year.

Slide 12: While expenses aren't expected to change much in the aggregate in 2019, the forecast for individual expense items are mixed. Now, this chart is in nominal dollars, and it compares 2017, 18, and 19 expenditures by category. Those above the line, the dotted line, are the items for which we expect increases and the ones below, decreases. Starting with feed purchase, it is a single largest category of expenses, accounting for roughly 16% of total expenses. It is expected to increase about 4 percent following expectations for higher feed prices in 2019. Higher labor expenses are also forecast to increase as the wage rate is expected to continue to rise. Interest expenses are forecast to decrease in 2019 after increasing for 5 consecutive years. The increase is largely due to expected lower interest rates. Spending on fuels and oils is forecast to decrease in part due to the forecasted lower prices for diesel fuel from the Energy Information Agency. And, spending on seed, feed, and fertilizer expenses are forecast to decline.

Slide 13: In addition to farm income, the balance sheet is another tool we can use to measure and gage the health of the farm sector. It provides information on the value of physical and financial assets and the level of debt in the U.S. agricultural sector over time. Looking historically, the balance sheet remains strong or at least relatively stable. Farm equity in 2019 is forecast to be 5% below the record high in 2014. Farm sector debt is expected to continue to rise and is forecast to increase 2% in 2019 in inflation-adjusted dollars. That would put debt at its highest level since 1982, and the increases since 2015 are largely being driven by increases in real estate debt, which accounts for about 60% of total debt. On the asset side, farm real estate assets, that's the value of land and buildings, account for about 80 percent of farm sector assets. When inflation adjusted, real estate assets are expected to be nearly unchanged from 2018 as are total farm sector assets. Farm equity, which is assets minus debt, is forecast to be unchanged from 2018 in inflation-adjusted dollars. So, despite the increasing in debt, because the value of farm assets still greatly exceeds the level of debt, the overall equity is expected to be unchanged.

Slide 14: However, the farm sector debt has been growing at a faster rate than the sector's assets. In this chart, that's what we're looking at, the same data from the previous chart, but we're looking at debt relative to assets and relative to equity in the form of ratios. And we call these ones in particular solvency ratios, which provide a measure of the sector's ability to repay financial liabilities of debts and loans through the sale of assets. Both these ratios have gradually been increasing since 2012 and are expected to continue to increase through 2019. The ratios are above the average for the prior 10 years and have been since 2015. And, the sector's risk of insolvency is now at its highest level since 2009. However, the solvency ratio for the sector as a whole still remains low enough to suggest that the likelihood of default across the sector remains low.

Slide 15: There has been a lot of interest in farm bankruptcies recently, and in this chart we're looking at the rate of farm bankruptcies specifically Chapter 12 bankruptcies, which have been trending upwards since 2016. According to data from the US courts from July 1<sup>st</sup> of 2018 to June 30 of 2019, there were 514 bankruptcy filings in the States, the 50 States, which translates to a rate of 2.5 bankruptcies per 10,000 farms in 2019. Preceding and then coinciding with this increase in bankruptcy rates was an increase in debt payments when measured as a share of production. This is shown by the debt service ratio on this chart, which is the blue line. This means that starting in 2014, farmers have had to spend or use more of their production income to make debt payments.

Slide 16: Up to this point, we've been discussing the forecasts for the sector as a whole. Now, let's look at farm businesses, an important subset of farms. We define a farm business as all farms where the primary occupation of the operator is farming, plus those farms that have 350,000 dollars or more in gross cash farm income before expenses. There are roughly 960,000 farms that meet this definition, and they are represented by the blue and red segments of these bars for commercial and intermediate farms. According to the 2017 ARMS, the Agricultural Resource Management Survey, residence farms account for the majority of all farms, but commercial and intermediate farms account for over 90% of all agricultural production and also hold most of the sector's debt and assets. Using preliminary data from the 2018 ARMS, we are able to project how the sector-level forecasts can be expected to affect farm businesses in 2019. And, we can break down the forecast for farm businesses by commodity specializations and geographic region.

Slide 17: So, looking only at farm businesses, average net cash farm income for farm businesses in total is expected to increase in 2019 after declining in each of the previous four years. For all farm businesses, average net cash farm income is at about 81,800 per farm. Using ARMS, we can categorize farms by commodity specialization, and that means that at least 50% of the value production comes from a particular commodity. Average net cash farm income for all categories of farm businesses is expected to increase in 2019. Farm businesses specializing in cotton are expected to see the largest dollar increase in net cash farm income. Farm businesses specializing in wheat are expected to see the largest percent increase. Both types of farm businesses are expected to benefit from higher government payments and lower cash production expenses in 2019. While average net cash farm income for soybean farm businesses is expected to increase in 2019, largely due to higher government payments. Average income levels are expected to remain low following the large decline in 2018.

Slide 18: Average net cash farm income for most types of businesses specializing in livestock are forecast to increase in 2019. For farm businesses specializing in hogs and dairy, average net cash farm income is forecast to increase in 2019 following what we had sizeable declines in 2018. These increases in 2019 reflect expected increases in hog and dairy cash receipts following the forecast for higher prices for those commodities. We're forecasting net cash farm income on average for farm businesses specializing in poultry to see the largest decline in 2019. This is after increasing in 2018, and the decline in 19 reflects expectations of lower cash receipts for poultry.

Slide 19: By looking at how agricultural production is distributed geographically, we can forecast how average net cash farm income for farm businesses can be expected to change in 2019 by resource region. You know, the regional performance of farm businesses can vary considerably due to strong geographical concentrations of certain production specialties, but all 9 resource regions are expected to see average net cash farm income increase in 2019 by 6 percent or more. Overall, net cash farm income is forecast to increase 11 percent in 2019, reflecting the increase in net cash farm income for the sector as a whole. Farm businesses in the Northern Crescent are forecast to see the largest percentage increase in average net cash farm income at 23 percent, and this is largely due to higher dairy receipts because there are a lot of dairy farms there in the Northern Crescent. Farm businesses in the Northern Great Plains are expected to benefit the most from higher government payments in 2019. The smaller increase for the Fruitful

Rim is following an increase in cash expenses in 2019. The Fruitful Rim is as its name implies, largely a lot of fruit, nuts, and vegetable production. I'll take this time to remind you that if you're interested in the regional breakout of farm income that we do have state level estimates through 2018 now available.

Slide 20: Up to this point, we've discussed the financial performance of the farm sector as a whole and farm businesses, but this often may not give an accurate or complete picture of the well-being of households associated with farms. Farm profits are often shared with other stakeholders like landlords and contractors, and the well-being of farm operator households is determined by a combination of on-farm and off-farm activities with the majority of farm household income coming from off-farm. So, now we're going to look at all 2 million farms, not just farm businesses and the farm operator households, which includes 6 million people who are living in these households attached to a farm.

Slide 21: This chart illustrates that the majority of farm income is coming from off-farm sources such as off-farm jobs. For farm households, median income from farming is forecast to increase just slightly but remain negative in 2019. Now, this might seem surprising, but recall that most farms are residential farms, which are small farms by definition. This results in low median farm income. Well, and in recent years, slightly more than half of farm households have had negative farm income. Median off-farm income, which is this middle section, is forecast to increase in 2019. Off-farm income sources include off-farm wages, non-farm business earnings, dividends, and transfers. In total, the last section of the chart on the right, median farm household income is forecast to increase 3.7 percent in 2019 to reach 74,768 at the median. So, yeah, these are all medians designed to represent the average, close to what we think the average farm is, and when you add these up, they're not going to add because they are medians.

Slide 22: This chart takes a deeper look at farm household income, looking at it by type of farm. So, in the first two sections on the left, for residential and intermediate farms, median household income, as shown by the red line, has been rather steady across 2000 and 2019. And, for those farms, off-farm income, as shown by the blue line, accounts for essentially all of the households' income at the median. Income from farm is shown by the grey line, and it's virtually zero or negative for residence and intermediate farms. For commercial farms, on-farm income is more important and is driving the trends in median household income. Following the sector-level forecast for farm income, on-farm income for commercial farms is expected to increase in 2019 and drive the increases in total household income. So, at the median, commercial farms are expected to benefit the most from the forecasted increase in farm income.

Slide 23: All of the information I presented today is available on our website, along with estimates for prior years. I encourage you to check out our web page for all of our data in interactive reports plus charts and maps of the data. Our next release is scheduled for November 27th of this year, at which time we will update our 2019 forecast again using the latest available data. With that, I will open it up to any questions.

Slide 24: Thank you Carrie. Please enter any questions you may have for Carrie into the chat feature at the bottom left-hand corner of your screen. We have a few questions already, one of which is, do your forecasts for expenses like seed and fertilizer account for prevented plantings?

Yes, to a certain degree when we forecast out things like seed, fertilizer, ag chemicals, we are, we do look at forecasted planted acres to decide in informing our forecast and specifically we're using the forecasts from the August 2018 WASDE report. So, they may to some degree, reflect a decline in planted acres. But, there you know, some of those costs already are what we'd call sunk costs for farmers and they may have already purchased some of those goods or they may continue, they may choose the option to plant a second crop instead of not planting at all. So, it is considered in our forecast.

Okay, and we have a question based on slide number 6, I believe. What is driving the decline in the quantities sold?

Right. When we talk about quantities sold declining, we're largely in a way talking about lower production. Yeah, we make adjustments for sales from inventory, so it's not exactly matching. But, the lower quantity sold often reflects lower production, and that may result from lower demand for, you know, maybe lower demand for the good, like in the case of soybeans, resulting in lower quantities sold. It may be a decline in yields, and it may be declines in production like for these prevented plant acres. If there's not as much produced there usually can't be as nearly as much sold.

Okay, we have a question about slide number 22. And the question is are health care expenses a part of the financial model for farm households?

Oh, that's a good question. Here I believe we're looking at income and the sources of income. So, I don't think this is a net measure of income. We do on our website have some data and research that was done on healthcare expenditures for farm households. But, I believe here where we talk about income or we're mostly talking gross income. So, if farmers and their households are having to spend more on health care, it's not going to be in here. But certainly healthcare for a lot of these smaller farms is a motivation for having off-farm income. So, that they can get health care coverage through an external employer perhaps like for a spouse might get a job off the farm so that they can have insurance, health insurance coverage for their family.

Okay, and on I believe it's on slide number 5, you mentioned the term "nominal." Somebody wants to know if you can define that term nominal and discuss whether it's reflected of real value?

Okay. That's a good question. Yeah nominal is probably economist jargon for a lot of people. But, by nominal it means that these are just the actual dollar values as measured at the current point in time with no adjustment for inflation. So, in that sense, they aren't we distinguish nominal from what you make heard called real dollars and real dollars are inflation adjusted. So, if something, a price increase is just due to overall inflation, when we adjust that in real dollars. We're trying to level the playing field so that we're making a more valid comparison from one year to another. Nominal just looks at that value in that year.

Okay. We have another question. Without projected government payments, how much would farm income decline in 2019? Or do you know that?



I don't have the numbers right in front of me, but this slide number 10 is attempted to, graphs that data. I'm not sure if we can deduce it here from exactly from tables here. Yeah, it's a little hard to gauge, but you can see just by looking at the gray bars, which is net farm income without government payments and without insurance, that it would decline in 2019. Adding in the government payments adds almost \$20 billion. So, if you want to know what net farm income is without these government payments, just basically subtract \$20 billion. So, our forecast I believe was for \$88 billion in 2019. So, yeah, so without these payments, we'd be looking at about \$68 billion in net farm income.

Okay. Cash expenses for farms in 2019 now is forecast at \$302.7 million versus \$331.9 million forecast in March. What drives the lower forecast?

Excellent question. I actually have a slide reserved, which I will go ahead and bring this up. I should do other way. Yeah, we did revise, when we converted in March our 2018-2019 sorry forecast, now this is estimate. I think that was the question. The question was about estimates. We revised our 2018 estimates as shown in this waterfall chart and particularly production expenses will revise \$25.2 billion revised downward. And, that's because we were introducing data from the 2018 Agricultural Resource Management Survey from the ARMS. And, so when we had this new annual survey data that we were able to incorporate, it gave us a much clearer picture on how much farmers were actually spending and having to spend on their production inputs. And, it revealed that they were actually spending less than we thought they were. I guess I can't remember if the question was asking specifically about 18 or 19, but if it was asking about 19 as well this revision to 18, it sets the baseline or double you know the starting point for the 19 forecast. So, when we revised eighteen, those revisions got incorporated into the 19 the forecast for 2019 as well, so that's why we have the lower expenses in this release than what we were showing in March.

Thanks Carrie, we have another question. How does one reconcile a higher supply with the expected increase in prices?

Yeah I'm thinking here for a minute. Yeah, you know the economists would say that they would move in opposite directions. When you have higher quantities, you would have lower prices. And, that's actually when we looked at that price and quantity effects chart, you can actually see that playing out, right, because you saw crop prices increasing, but the quantity is decreasing and then you saw the reverse for livestock prices decreasing, but quantities increasing. So, I think that's kind of holding at least for the aggregates in the whole. I'm not sure that I can answer like any specific commodities. I'm trying to think of an example. I mean, in the case of soybeans, we're looking at both lower quantities and lower prices. And, that's just, you know, with soybeans there's a whole lot going on. So, you know, lower quantities are partly from international demand expected to be lower, also from you know farmers anticipating that demand for soybeans might be lower so they switch to another crop. \And, then those demand pressures are also bringing down prices. So, you know that's kind of an example of situation and you could have the reverse to if demand is expected to be high, it might lead to higher production and higher prices at least in the short run until things can kind of stabilize and you know work themselves out in the market.

Okay. Could you explain again dairy's 41% increase in net cash income in 2019?

Certainly. Yeah, dairy is interesting. I believe you're talking about, you're asking about farm business, the various chart on farm businesses. For dairy farms, the increase I think is twofold. If you look at historically that net average net cash farm income for dairy fell notably in 2018. So, 2019 could be somewhat considered a recovery. And, the increase in 2019 is largely because we expect higher cash receipts for dairy, as I talked about earlier in the presentation. And, those higher cash receipts for dairy are largely due to expected higher prices. You know, prices fell quite a bit in 18 and they're expected to pick back up in 19.

Okay. And one last question, when should we expect an update on working capital?

Working capital was a part of this release. We do have a new forecast and updated estimates for working capital. I didn't have, I guess, a slide to discuss them today, but they're on our website on our tables. You can find them under the financial ratios table, and that will show you that for 2019, we are forecasting a continued decline in working capital.

Okay, I think that's all the questions we have time for today. Thank you Carrie very much for your presentation, and thank you all for joining us and we all hope you have a great rest of your day!