

## **Webinar Transcript: [Farm Income and Financial Forecasts, February 2021 Update](#)**

Good afternoon everyone, and welcome to our webinar: Farm Income and Financial Forecast February 2021 Update. My name is Ashley Murdie and I'll be your host today. As a reminder this webinar is being recorded and will be posted on the ERS website next week. If at any time during the webinar you have questions, please enter them into the chat feature and our speaker will answer them at the end of today's presentation.

Today, our presenter is Carrie Litkowski. Carrie is a Senior Economist and Farm Income Team Leader at USDA's Economic Research Service. She's responsible for developing sector-wide measures of farm income, value-added, and aggregate farm sector balance sheets. Previously, Carrie served as an economist at the Bureau of Economic Analysis where she was responsible for the production of farm income and employment...and employment statistics nationwide. Alright, we're ready to get started Carrie. The floor is yours.

Thank you, Ashley and thank you all in the audience for joining me today. I always really appreciate having this opportunity to present to you the latest USDA data on U.S. farm income and wealth. The ERS Farm Income Program measures forecasts and explains indicators of economic performance for the U.S. farm sector. You know these are data that can be used to gauge the financial health of the sector. We release forecasts three times a year and data three times a year. With today's release we are releasing our first calendar year forecast for 2021 for the U.S. We're also updating our U.S. forecast for 2020 to include some new and updated data as it has become available since our last release in early December.

So, what does our forecast cover? First, the core of our data covers the farm sector as a whole, which is comprised of two million farms who operate about 900 million acres of land. Our data covers the income earned from production of agricultural commodities and does not include income from industries that are related to farming, such as Ag services or food manufacturing. Next, we also have data on the income and finances of the approximately 965,000 farm businesses, which account for about 90 percent of the total value of agricultural production in the United States. This is an important subset of these farm businesses, and I'll talk more later about what they are. Lastly, we'll look at the well-being of the over six million people who live in households attached to a farm.

This is our forecast in a nutshell, and it's also the order in which I'm going to talk about the different aspects of our forecast today. In broadest summary both measures of farm income are forecast to decrease in 2021 after increasing in 2020. Net cash farm income is forecast to decline 5.8 percent in 2021 relative to 2020 and that farm income is forecast to decline eight percent. This decline in income is despite a forecast increase in commodity cash receipts or... or sales of farm commodities. Cash receipts are forecasted to increase about five and a half percent in 2021. So, much of the decline in the forecast is coming from direct government payments, which are forecast to decline 45 percent after a large increase in 2020. Federal commodity insurance indemnities are forecast to increase about seven percent. Also contributing to the decline in net income are total

production expenses, which are forecast to increase two and a half percent. On the farm sector balance sheet, farm sector assets, debt, and equity are forecast to rise about two percent. Average net cash farm income for farm businesses – these are larger farms and those where the operator’s primary occupation is farming – these farm businesses are forecast to see average net cash farm income decrease six percent. And for those households that operate a farm, median total household income is forecast to increase one percent in 2021. Now in this slide, I’m using just nominal dollars, meaning I’m not making any sort of adjustments for inflation. But I have some charts later on that will look and use inflation-adjusted dollars, meaning that I’m taking prior years and adjusting for them for inflation. The charts that use inflation-adjusted dollars are typically the ones where I’m looking at a time series of data, where I’m comparing more than just one or two years of data. The inflation adjustment allows for more informed or uh... comparisons across time.

So, we have two primary measures of farm income. The yellow line is net cash farm income, which includes cash receipts from farming or the sales of farm commodities as well as cash farm-related income and government payments to farm operators, less cash expenses, or the expenses that farmers incur to improve... to produce their commodities. And by cash I just mean there’s a market transaction. Net farm income is the blue line, and it’s a broader measure of income that incorporates non-cash items like economic depreciation, and it also accounts for changes in inventories. Note again, this chart is an example of one that’s an inflation-adjusted dollar. For both measures we’re forecasting an increase in 2020 and then a decline in 2021. Our 2020 forecast put net cash farm income at its highest level since 2014 and net farm income at its highest level since 2013. So, we’re looking at a large increase. In 2021 net cash farm income was forecast to decrease seven and a half percent or about 10 billion dollars when inflation adjusted. Net farm income is forecast to decrease 9.7 percent or about 12 billion dollars. This would be the first year that net farm income has fallen since 2016 for the first decline after four years of growing income. Both measures in 2021 are forecast to remain above their levels in 2019 and above their average from 2000 to 2019. That cash farm income would be about 15 percent above its average and net farm income 21 percent above its average.

We derive our measures of farm income or forecast to farm income by measuring its component parts first or from the bottom up. This allows us to identify what is driving the change in income from 2020. Now this chart is in nominal dollars for uh simplicity. The way this chart works is on the far left we have the farm income forecast for 2020 at \$121.1 billion, and then on the far right we have the net farm income forecast for 2021 at \$111.4 billion. The bars in blue indicate which components would contribute to growth, and the bars in red indicate which would reduce growth or take away from growth. So, if we work our way from left to right, crop cash receipts are forecast to increase \$11.8 billion. We do make an adjustment for crop inventories because we only want to count current production in our net farm income measure. So, we... we’re forecasting about three billion dollars of that increase in cash receipts or crop cash receipts is actually coming from inventories. So we, we make an adjustment for it. Animal and animal product receipts, which I’ll likely refer to as livestock receipts in this presentation are forecast to increase \$8.6 billion.

Production expenses are forecast to increase \$8.6 billion. It's shown here as a red bar or a negative because higher expenses would reduce income because we subtract out expenses in the calculation of net income. But the largest contributor to lower income in 2020 are direct government payments to farm operators, which are forecast to decrease 21 billion dollars in 2021. And we'll talk a lot more about that one later.

In the previous chart we saw that cash received our forecast to increase in 2021. In this chart we show why. Through a simulation we can deconstruct the change in cash receipts into a price effect and a quantity set. In other words, we can identify whether changes in prices or changes in quantities sold are driving the change in cash receipt. So, starting from the left, in 2021 total cash receipts are forecast to increase \$11.8 billion due to higher prices. That's the orange bar. And higher quantities sold are expected to contribute another \$8.1 billion to the increase. That's the blue bar. We do have a gray bar here for commodities that we can't isolate a separate price in quantity effect. But the purple bar tells us that, in total, receipts are forecast to increase \$20.4 billion, combining the price and quantity effect. When we look at crops and livestock separately, the story is similar in that it's both prices and both higher quantities sold contributing or causing the increase in cash receipts. But for crops it's more higher quantity sold that is contributing to cash receipt growth the most, but on the livestock side, it's mostly coming from higher prices in 2021.

We can also look at cash receipts by commodity. Note that when we measure cash receipts, they're calendar year forecast and this is another chart in inflation-adjusted dollars. We forecast receipts for about 25 different crop commodities and this chart focuses...focuses on some of the major crops. So, after increasing about four percent in 2020, total crop cash receipts are forecast to increase another four percent or \$8 billion in 2021. The increases for corn and soybeans are expected to more than offset declines for other commodities. After a forecast decrease in 2020, corn receipts are forecast to increase 12 percent in 2021 to higher prices received by farmers and higher quantities sold. Soybeans are forecast to increase 22 percent or 8.6 billion due largely to higher expected prices. On the flip side, we have receipts for fruits nuts vegetables and melons, which after increasing in 2020 are forecast to decline in 2021 following projective lower prices in 2021 for fruits and vegetables.

To give a little more of a historical perspective on this growth in soybean and cash receipts, this chart looks at corn and soybean cash receipts since 2000. The 2021 forecast for corn and soybean cash receipts, if realized, would put them at their highest level in six or seven years. Corn receipts would be at their highest level since 2014 and 18 percent above average across 2000 through 2019. Soybean receipts would be at their highest level since 2013 and be 42 percent above its average.

Total animal and animal product cash receipts are forecast to increase three percent in 2020 after declining six percent...sorry, increased three percent in 2021 after declining six percent in 2020. Receipts for cattle, calves, dairy, broilers, hogs are all expected to increase in 2021. This follows, you know, a decline in 2020 when we saw lower prices for these animal commodities. In 2021 we think prices received by farmers for these commodities will rise. Receipts for hogs are expected to

see the largest percentage increase at almost 13 percent or almost \$3 billion in 2021. We are forecasting dairy and egg receipts to decrease in 2021 because of lower prices.

In 2020 and 2021, government payments are expected to be a central part of the farm income story and they are another source of income to farmers. We define government payments as direct payments made directly to farm operators by the federal government without any intermediaries, generally from farm programs. And we record government payments the year in which they were received by the farmer. Government payments are forecast to have more than doubled in 2020 or up \$23 or almost \$24 billion to a record level \$46 billion in 2020. This increase was due in large part to supplemental and ad-hoc disaster assistance to farmers for COVID-19 relief. In 2021 government payments are forecast to decline 45 percent to 25 billion in nominal dollars with COVID-19 related aid forecast to decline based on authorized spending to date. On this chart, supplemental and ad hoc disaster systems including COVID-related aid is recorded under all other payments. And that's the purple bar, which is forecast at 15.7 billion in 2021. This includes payments from the Corona Food Assistance Program or CFAP, which provides direct relief to producers whose operations have been adversely affected by COVID-19. Payments from CFAP to be received in calendar year 2021 are forecast at 2.5 billion as shown in that plus side text box That compares to about 23.7 billion received or forecast to have been received in 2020. Also included in all other payments is a forecast \$8 billion in direct payments for COVID-related aid from the consolidated appropriation back to 2021, which was signed into law in December of 2020. Additionally, the broker bar includes loans from the Paycheck Protection Program administered by the Small Business Administration. Although these are administered as the loan, these loans will be forgiven if the program's requirements are met so we treat them as a direct payment. And forecast farmers will receive about 2.8 billion in the second round of loans authorized for 2021. This about may be revised with any unforgiven amounts ending up as farm debt rather than a direct payment. The remainder of all other payments includes other supplemental and ad hoc assistance like WHIP+ as well as payments under the Dairy Margin Coverage Program and some miscellaneous programs not classified elsewhere. The pink bar represents payments under the Market Facilitation Program. Most of these payments were received in 2018, 19 and 20, and no new payments have been programmed for USDA in 2021. Payments that are a function of crop price – those are represented by the orange bar segment and are forecast to decrease about \$1 billion in 2021, mostly because of lower payments under the Agricultural Risk Coverage Program or ARC. The blue line on this chart shows the inflation-adjusted total direct government payment. From 2002 to 2019 direct government payments averaged \$16.4 billion. So, in 2021, government payments would well be above that average at \$25.3 billion.

This chart looks at government payments from a little bit of a different perspective and also includes another source of income to farmers. That's commodity insurance indemnities, which are payments to farmers for losses covered by insurance. Here net, pure federal net insurance government payments are shown relative to the rest of net farm income along with government payments. And this, and this is for the Ag sector as a whole and this chart is in inflation-adjusted

dollars. The top peach bar shows indemnity payments paid to farmers less premiums paid by the farmer for federal commodity insurance, or what I'm going to call a net insurance payment. In 2021 net indemnities are forecast to increase just about \$0.3 billion. The darker orange bar segment shows direct government payments, which we talked about in the previous slide. When combined, direct government payments and net insurance are forecast to account for about 43 percent of net farm income in 2020 and 28 percent of net farm income in 2021. Net farm income excluding these payments – that's what the bar, the gray bar is – this forecast to increase in 2020 and in 2021.

Now that I've discussed the sources of income or revenue to farmers, let's look at production expenses, which are expenses incurred by farmers to produce their agricultural output. These include items such as feed, fertilizer, hired labor...In total production, expenses are forecast to increase in 2021. This chart shows expenditures in both nominal and inflation-adjusted dollars. In nominal terms, expenses are forecast to increase \$8.6 billion or about two and a half percent in 2021. And when adjusted for inflation, they are forecast to increase 0.6 billion, sorry, 0.6 percent or 2.2 billion. This would mark the first increase in expenses since 2014 and the first increase in six years in the inflation adjusted series. Yet expenses would remain below levels that we saw in 2011 through 2019.

When we look at expenses by category, we forecast spending for most categories to increase in 2021. And this chart is in nominal dollars. This chart compares 2019, 2020 and 2021 expenditures by category. Those categories above the dotted line are expected to see increased spending in 2021 and those below are expected to see lower spending in 2021. In general, prices for many production inputs have been trending upward in the latter half of 2020 and are projected to increase in 2021. Higher commodity production or output in 2021 would also contribute to higher spending. The largest dollar increases are expected for feed and labor. At the end they're also the two largest categories of spending. Spending on fuels and oils is forecast to increase about seven percent following the forecast for higher prices for diesel fuel in 2021 from the Energy Information Agency. In this chart only seed expenses and net rent to landlords are forecast to decline in 2021. The decline in net rent reflects the forecast decline in match farm income and government payments for the sector because some income and government payments do go to landlords. In addition to farm income, the balance sheet is another tool we can use to measure or gauge the health of the farm sector. It provides us 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 and stable. The value of farm assets – this is, you know, this includes assets that are financed with debt and is represented by the top line on this chart – has remained relatively steady since 2014. And in 2021, it's forecast to be nearly unchanged from 2020 in inflation-adjusted dollars. About 80 percent of farm sector assets are real estate assets. That's the value of land and buildings owned by the farm, which are expected to increase slightly 0.3 percent or 8.9 billion once ingested, once adjusted for inflation. But this increase is forecast to be offset by lower financial assets and the decline in farm inventories of crops animals and purchased inputs. Farm equity – that's assets less debt or the green area on this chart – has declined about five percent since

2014 and is forecast to remain stable in 2021. Farm sector debt – the blue area – is expected to continue its slow and steady rise. This forecast has to increase slightly about 0.4 in 2021. The debt forecast increase is being driven by rising real estate debt, which accounts for about 60 percent of total debt.

Farm sector debt has been growing at a faster rate than the sector's assets as illustrated in this chart, which looks at the amount of debt relative to assets and relative to equity. We have a debt to asset ratio debt to equity ratio, which we are showing as percentages. These are solvency ratios, which provide a measure of the sector's ability to repay financial liabilities – their debts, their loans – through the sale of assets and are one indicator of farm financial stress. Both ratios have gradually been increasing since 2013 and are expected to continue to increase through 2021. The ratios are forecast to be above their average for the prior 10 years and the value in 2020 would put the sector's risk of insolvency at its highest level since 2002. It's important to note that these solvency ratios are for the sector as a whole and there's a lot of variation in the amount of debt held by individual farms. We have additional financial ratios including liquidity measures available on our website.

With this growing financial stress, there has been a lot of interest in farm bankruptcies, which are shown on this chart by the bars. Since 2015 the farm bankruptcy rate has trended upward and, in 2019, reached its highest level since 2010. In 2020 bankruptcies fell six percent according data... to data from the U.S. court. This decline in bankruptcy coincides with a forecast decline in the debt service ratio in 2020 shown by the line on this chart. The debt service ratio describes the share of production income or gross income used for debt payment and is one measure of liquidity – the amount of capital that is readily available for cash. In 2019, the year that bankruptcies uh fell, this ratio decreased, and it's expected to decrease even further in 2020 largely because of the lower interest rates we saw across 2019 and 2020. But in 2021 the ratio is forecast to increase implying that a greater share of production income will be needed to make debt payments.

So up until this point, I have been talking about the farm sector as a whole. Now let's look at farm businesses, which is an important subset of all farms. We define a farm business as all 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. There are roughly 965,000 farms that meet this definition, and they are represented by the blue and red segments on this chart for commercials and intermediate farms. According to the 2019 Agricultural Resource Management Survey, the ARMS, residence farms – those farms where the operator is retired or whose primary occupation is not farming and for which the farm is does not have gross cast income of over \$350,000 – these residence farms account for little over half of all farms. But commercial and intermediate farms account for over 90 percent of all agricultural production and hold most of the sector's assets in debt. Using data from the 2019 ARMS, we're able to project how the sector level forecast can be expected to affect farm businesses in 2020. And we can break down the forecast for farm business income by commodity specialization and geographic region. Our model does take into account what we know about how CFAP payments were allocated in 2020.

So, looking only at farm businesses, let's start by looking at those that specialize in crops. This chart is in inflation-adjusted dollars. Using ARMS we can categorize farms by commodity specialization, meaning that at least 50 percent of the value of production comes from a particular commodity. The outlook for crop farm businesses is mixed in 2021. All farms regardless of specialization or geographic region are expected to see government payments decline and production expenses to rise. But for some types of farms, cash receipts are forecast to increase enough to offset these changes and result in higher net farm income in 2021 on average. In particular, average net cash farm income for corn and soybean farm businesses is forecast to increase in 2021 due to higher forecast receipts for corn and soybeans that we talked about earlier. Average-net-cash farm income for wheat, cotton, and specialty crop farms – that includes, you know, fruit and nut and vegetable farms – this is projected to decline as cash receipts for those commodities are forecast to fall or at least, like in the case of wheat, not increase enough to offset the lower government payments and higher expenses in 2021.

For farm businesses specializing in livestock, most are expected to see average-net-cash farm income decline in 2021. Again, following the expectation of lower government payments and higher expenses. This includes farm businesses specializing in cattle and calves, poultry and dairy. Speaking of dairy, dairy farm businesses are forecast to see the largest decline in 2021 as milk receipts are forecast to fall about 2 percent in 2021. Dairy farms also tend to have higher average expenses. Hog farms are the only category of livestock farm businesses where average net cash farm income is forecast to increase in 2021. For the sector receipts for hogs are forecast to increase 15 percent in 2021. That's a larger percentage increase than is being forecast for cattle or broilers. And the increase in hog receipts is expected to be able to be large enough to be able to offset the decline in government payments and the higher expenses.

By looking at how agricultural production is distributed geographically, we can project how net cash farm income for farm businesses can be expected to change in 2021 by resource region. Eight out of the nine resource regions are expected to see average net cash farm income decrease in 2021. All farm businesses for all of them average net cash farm income is forecast to decrease six percent. This reflects the forecasted decrease in net cash farm income for the sector as a whole. Farm businesses in the Fruitful Rim, so kind of like California and down the coast and around the coast, uh are expected to see the largest decrease at 20 percent due to forecasts for lower receipts for corn, nuts and vegetables, as well as lower government payments and higher expenses. Average net cash farm income for farm businesses in the Northern Great Plains and Prairie Gateway are projected to decrease slightly about one and two percent respectively. Farms in these regions are expected to benefit from higher receipts from cattle, corn, and or soybeans. The Heartland is the only region where average net cash farm income is projected to increase in 2021. Farm businesses in this region are expected to see lower government payments and higher expenses, but they're expected to benefit from higher receipts from corn, soybeans and hulls because that region is responsible for a large share of the production of those commodities.

Up to this point we have discussed the financial performance of the farm sector as a whole and farm businesses, but this may not always give an accurate or complete picture of the well-being of households that own and operate farms. Farm profits are often shared with other stakeholders, say landlords or 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 off the farm for many farm households. So now we're going to look at all family farms. They account for about 98 percent of all the 2 million farms in the U.S. And we're going to look at the households of the farm operators. Over 6 million people live in a household that is attached to a farm. One measure of their well-being is household income, which in total is forecast to increase in 2020 and remain relatively flat in 2021 at the median. This chart looks at income earned on farm and off farm and total income. And this chart is inflation-adjusted dollars. Following the farm sector forecast, median income from farming is forecast to increase in 2020 to about \$767 and then decline to \$495 in 2021. So, what does that mean? What is the median? If you took all of the farm households and line them up in order from lowest farm income to highest farm income, the household at the very middle of that line is forecast to earn \$495 from farming in 2021. And that household represents the median. Recall that most farms are residential farms, which means their small farms where the primary occupation of the operator is not farming. That results in a low median farm income. But it is notable that median farm income since 2019 has been positive because, prior to that, it was negative in each year from 1996 to 2018. The forecast decrease in farm household income from farm income in 2021 follows the sector forecast for farm income reflecting lower government payments to farm operators particularly for COVID-19 related aid. The middle part of this chart looks at farm off . . . um farmhouse of off-farm income. I'll talk about all farm income sources. That includes off farm wage income, so you know off-farm jobs, non-farm business earnings, dividends and transfers. Median off-farm income is forecast to increase just slightly less than one percent in both 2020 and 2021. These forecasts factor in the economic impact payments in 2020 to 2021. And the 2021 increase reflects projections for general economic growth, which can affect your income from interest dividends and other non-farm business income. Although wage income is forecast to decline at the median, in total, median farm household income is forecast to increase two and a half percent in 2020 to 87,678 at the median and then decline one percent to just under 87,000 in 2021 at the median. Because these are medians, note that the values for on-farm and off-farm income will not sum up.

This, my last and final slide, takes a deeper look at farm household income. You know, looking at it by type of farm -- you know, the same categories I've been using earlier: residents, intermediate and commercial. For residential and intermediate farms, median household income is shown by the blue line tracks very closely with off farm income, which is the red line. And off farm income accounts for essentially all of the household income at the median. Income from the farm is shown by the gray line and is near zero for residents in intermediate farms. For commercial farms -- the far right -- 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 decrease in 2021 and drive the decline in total household income for households that are attached to a commercial slide...a commercial farm.

All of the information I presented today is available on our website along with estimates and state level data for prior years. We have data tables, charts, maps, and a written summary of our findings. We also have tables and maps with our state level estimates for 2019. Our next release is scheduled for September 2nd at which time we will update our 2021 forecast and convert our 2021...our 2020 forecast into estimates. We will also have our first state level estimates for 2020 at that time. So, with that, I'm going to open it up to questions.

Thank you, Carrie. As a reminder, the chat feature located at the bottom left-hand corner of the screen can be used to submit any questions.

First, why is your data for 2020 still considered a forecast?

Yes, it is just the forecast at this point. Uh, we will convert it to an estimate in September because and we'll consider it an estimate rather than a forecast because at that time we will have more information available, observed data on what actually happened in 2020. A lot of our...some of our information for 2020 at this point is still being projected or forecast. So, in February we're going to have more observed data on crop and animal production or in what they harvested and what they sold. And a big thing that we'll get in September is that we will have ARMS data on production expenses for 2020. And that will be really important because that will give us kind of a first solid look at how farmers may have adjusted their spending based on the amount of income they were bringing in.

Okay, thanks Carrie. Our next question is how do you know which measure of farm income to use? Net farm income or net cash farm income?

Yeah, that's always a good question. Um, it depends on your purposes – that's my answer – on what you're trying to accomplish or what you're trying to describe or measure in whatever work you're putting out, or what you want to know. Net cash farm income I think tends to be the more straightforward concept. It's simply what you take in via cash versus what you have to spend via cash. It is a good kind of cash flow measure, so it might reflect more, um you know, farmer's pocketbooks. But the farm income measures a broader measure in that it also accounts for non-cash items so it accounts for what um farmers may have raised or grown, but then eaten or consumed on the farm themselves. So, it includes that. A big thing it includes is a change or an adjustment for inventory, so that it only looks at what was produced in the current year, not necessarily what was sold on the current year, but what was produced. And it also accounts for like economic depreciation. So, how much some of these capital purchases like tractors or other machinery, you know, that they lose value every year and the net foreign income measure accounts for that depreciation. So, the answer just depends on what your use of the data, you know, what...what your purpose is for looking at the data. In 2021, the stories are very similar. They're

not diverging, so either one is probably going to work pretty well if you're talking mostly about 2021.

Okay thanks Carrie. And are farm payments by government tracked by farm size? In other words, are large farms the primary beneficiaries?

You know, I'm going to try to make this as straightforward as I can. In the data that's used in our forecasts and estimates, we do not get it by farm size. We just get aggregate totals for the farm sector as a whole, so we don't have what I would call administrative data on government payments by farm size. What we do though have is in the Agricultural Resource Management Survey (ARMS), they do ask questions about government payments and that data can be subset by a variety of factors if you wanted to look at farm size or find farm type, you could do that kind of analysis there. And we have an ARMS data web tool on our website where you can just do pull down menus and get some of these tabulations for yourself through 2019. But we don't have it as part of the sector level forecast.

Okay thanks Carrie. And next question – Are there specific commodities in the fruit rim that are causing the decline in income like citrus tree nuts grapes etcetera?

Oh, so I'm sorry, can...can you repeat the first part of the question?

Sure thing, are there specific commodities in the fruit rim that are causing the decline in income?

Okay thank you. Sorry, yeah and the fruit rim. I can't answer that right now. Yeah that's...I get aggregates for fruits and nuts and vegetables, so I don't have the commodity level data inside that to be able to tell you if it's particular, if it's one particular fruit over another. ERS does put out uh outlook reports on fruits and nuts, which uh might provide more information.

Okay, great. Next question – What is your forecast for farmland values?

Yes, that's a... We're all interested to see what's going to happen in 2021 with farmland value. We are forecasting, uh we call it real...It's on our balance sheet, so on our balance sheet we are forecasting farm real estate assets. So that includes farmland, but it also includes the buildings. We are forecasting them to increase. I believe before you adjust it for inflation, it's about a two percent increase, or I think it's a 2.2 percent increase. But once you adjust for inflation, it ends up being about a point six percent increase, but that's still about nine billion dollars. So, we are forecasting an increase. Uh, it's a little modest for now um...But, we'll have to wait kind of, you know. As the year goes on, we'll see if...if that forecast changes.

Thanks Carrie. And next question – Does your forecast take into account trade? For example, how will the recent large corn and soybean purchases by China affect your forecast?

Yes, it takes into account trade expectations and what's actually happening with trade, but in an indirect way in through the um the projections that we use for commodity like corn and soybean production and prices. We get that data from the World Agricultural Supply and Demand Estimates

report, the WASDE report. Or at this time for the 2021 crop year forecast that are not in the WASDE yet, we're using internal forecasts prepared inside of ERS. But they do consider, to the extent possible, the changes or expected changes in trade conditions or large purchases. So, for instance, you know the corn and soybean forecasts do consider that China has been buying a lot more and has certain assumptions about how much they may continue to buy throughout the year.

Thanks Carrie. Next question – Regarding cash receipts, is it typical for prices and quantities to increase together?

Not typical. Um, usually you know economics 101 would say that price and quantities tend to move in opposite directions and it's not usually both. But this for 2021, we are forecasting that we're going to see an increase in price and an increase in quantities. I think some of that is happening because of this whole situation with COVID. It's kind of uncharted territory. Um, you know, COVID had an impact on prices and quantities in 2020 and will continue to have an impact to some degree in 2021. So, not common, but it's not unheard of either. We've had it happen before, but it's not the norm.

Okay thanks. Next question – Are you including the quality loss adjustment program in your 2021 government payments forecast?

Yes, we are. We include that program under supplemental and ad-hoc disaster assistance if you're looking at our web reports or on the chart that I showed earlier, they were included in that purple bar for all other payments. So, we do think...we are factoring in an amount that we think will be spent in 2021 for that program.

Thanks Carrie. Next question – Does the forecast assume that farmers or farm households will receive any additional COVID related assistance in 2021 beyond what has already been passed by congress?

Yeah that's a very um topical question. At this very moment, no. We are not assuming any payments from anything that has not yet been signed into law. So, while congress may be negotiating an additional round of COVID aid, we will not include it into our forecast until it has been signed by the president and put into law.

Alright, that's all the time we have for today. Thanks for sharing this with us Carrie and thank you to all our listeners for joining us today. As a reminder, a recording and transcript of today's webinar will be available on the ERS webpage next week thanks again everyone. I hope you have a great rest of your day. This concludes our webinar.