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Brent Norwood
Head-Investor Relations, Deere & Co.

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This call also may include financial measures that are not in conformance with accounting principles generally accepted in the United States of America, GAAP. Additional information concerning these measures, including reconciliations to comparable GAAP measures, is included in the release and posted on our website at johndeere.com/earnings under Quarterly Earnings and Events.

I will now turn the call over to Rachel Bach.

Rachel Bach
Manager-Investor Communications, Deere & Co.

Thanks, Brent, and good morning. John Deere completed the first quarter with solid execution. Financial results for the quarter included 20% margin for the Equipment Operations. While still far from normal levels, fewer supply chain disruptions enabled our factories to operate at high levels of production. Strong ag fundamentals remain. Our order books still on allocation are full well into the fourth quarter, and in some cases full through the balance of the year. Likewise, the Construction and Forestry division continues to benefit from healthy demand with order books full into the fourth quarter and orders still on an allocation basis.

Slide 3 shows the results for the first quarter. Net sales and revenues were up 32% to $12.652 billion, while net sales for the Equipment Operations were up 34% to $11.402 billion. Net income attributable to Deere & Company was $1.959 billion or $6.55 per diluted share.

Taking a closer look at the individual segments beginning with the Production and Precision Ag business on slide 4. Net sales of $5.198 billion were up 55% compared to the first quarter last year and up versus our own forecast, primarily due to higher shipment volumes and price realization. Price was positive by about 22 points. We expect price realization to be the highest early in the fiscal year due in part to model year 2021 machines produced and shipped in the first quarter of 2022 effectively including two model years when compared to the first quarter of 2023.
Currency translation was negative by roughly 1 point. Operating profit $1.208 billion resulting in a 23.2% operating margin for the segment compared to an 8.8% margin for the same period last year. The year-over-year increase was primarily due to favorable price realization and improved shipment volume and mix. These were partially offset by higher production costs and increased R&D and SA&G. Prior year results were negatively impacted by lower production from the delayed ratification of our labor agreement as well as by the contract ratification bonus.

Moving to Small Ag and Turf on slide 5, net sales were up 14% totaling $3.001 billion in the first quarter as a result of price realization and higher shipment volumes, partially offset by negative effects of currency translation. Price realization was positive by just over 11 points, while currency translation was negative by nearly 4 points. Operating profit was up year-over-year at $447 million, resulting in a 14.9% operating margin. The increased profit was primarily due to price realization and higher shipment volume, partially offset by higher production costs, R&D, and SA&G.

Slide 6 shows our industry outlook for the ag and turf markets globally. We expect industry sales of Large Ag equipment in US and Canada to be up approximately 5% to 10%, reflecting another year of durable demand. The dynamics of strong ag fundamentals, advanced fleet age, and low field inventory all remain. We expect demand to exceed the industry's ability to produce for yet another year.

For Small Ag and Turf, we estimate industry sales in the US and Canada to be down around 5%. Within the segment, order books for products linked to ag production systems remain resilient, while demand for consumer-oriented products such as compact tractors under 40 horsepower have softened considerably since last year.

Moving on to Europe, the industry is forecasted to be flat to up 5%. Fundamentals continue to be solid, though moderating from recent highs and net farm cash income remains healthy. In South America, we expect industry sales of tractors and combines to be flat to up 5% following a very strong year in fiscal year 2022.

Farmer profitability remains high as our customers benefit from robust commodity pricing, record production, and favorable currency environment. And while the backdrop to Large Ag is favorable, demand for low-horsepower equipment softened a bit over the first quarter. Industry sales in Asia are forecast to be down moderately.

Now, our segment forecasts, beginning on slide 7. For Production and Precision Ag, net sales are forecast to be up around 20% for the full year. The forecast assumes about 14 points of positive price realization for the full year and minimal currency impact. As noted earlier, we expect to achieve higher price realization in the first half of the year and then see it moderate a bit in the latter half. The segment's operating margin is now between 23.5% and 24.5%.

Slide 8 shows our forecast for the Small Ag and Turf segment. We expect net sales to be flat to up 5%. This guidance includes 8 points of positive price realization and less than 0.5 point of currency headwind. The segment's operating margin is projected between 14.5% and 15.5%.

Changing to Construction and Forestry on slide 9, net sales for the quarter were $3.203 billion, up 26%, primarily due to higher shipment volumes and price realization. Results were better than our own forecast for the quarter. Price realization was positive by over 13 points, while currency translation was negative by about 3 points. Operating profit of $625 million was higher year-over-year, resulting in a 19.5% operating margin due to price realization and higher shipment volumes, partially offset by higher production costs.

C&F had several miscellaneous items that were positive to the first quarter results. The impact of these positive items was approximately 1.5 points of margin and we do not expect them to repeat. Prior year results include the
impact of the lower production in the first quarter due to the delayed ratification of our labor agreement as well as the contract ratification bonus.

Let's turn to our 2023 Construction and Forestry industry outlook on slide 10. Industry sales of earth-moving and compact construction equipment in North America are both projected to be flat to up 5%. End markets for earth-moving and compact equipment are expected to remain strong. While housing has softened, infrastructure, the oil and gas sector, and robust CapEx programs from the independent rental companies have continued to support demand.

Retail sales have remained robust and dealer inventory is well below historic levels. Global roadbuilding markets are forecast to be flat. North America remains the strongest market compensating for softness in Europe as well as in parts of Asia. In forestry, we estimate the industry will be flat as softening in the US and Canada is offset with strength in Europe.

Moving to the C&F segment outlook on slide 11, Deere's Construction and Forestry 2023 net sales are forecast to be up between 10% and 15%. Our net sales guidance for the year considers around 9 points of positive price realization. Operating margin is expected to be in the range of 17% to 18%.

Shifting to our Financial Services operations on slide 12, worldwide Financial Services net income attributable to Deere & Company in the first quarter was $185 million. The decrease in net income was mainly due to less favorable financing spreads. For fiscal year 2023, our outlook is now $820 million, as the less favorable financing spreads, higher SA&G expenses, and lower gains on operating lease dispositions are expected to more than offset the benefits from a higher average portfolio balance.

The less favorable financing spreads in both the first quarter results and outlook are a function of the velocity of interest rate increases and the lag in price changes. Credit quality remains favorable with very low write-offs as a percentage of the portfolio.

Slide 13 outlines our guidance for net income, our effective tax rate, and operating cash flow. For fiscal 2023, we are raising our outlook for net income to be between $8.75 billion and $9.25 billion, reflecting the strong results of the first quarter and continued optimism for the remainder of the year. Next, our guidance incorporates an effective tax rate between 23% and 25%. Lastly, cash flow from the Equipment Operations is now projected to be in the range of $9.25 billion to $9.75 billion.

That concludes our formal comments. Now, I'd like to spend a little time going deeper on a few things specific to this quarter. Let's start with farmer fundamentals. The USDA recently updated its farm income forecasts. US net cash farm income is forecast to be down in 2023 compared to 2022, but still well above long-term averages and at levels supportive of continued replacement demand.

Importantly, crop cash receipts are predicted to be down only 3% and remain at very healthy levels for row crop producers. And while expenses are expected to be up, some key inputs like fertilizers have moderated since peaking in 2022. All in, the 2023 farm income forecasts are solid and will continue to support equipment demand. This may be specific to the US, but the message is similar across our various global markets, right, Brent?

Brent Norwood
Head-Investor Relations, Deere & Co.
That's right. And I would add that global stocks to use remain very tight keeping grain prices elevated even if they are down a bit from the highs of last summer. So, the story here is one of slightly lower net income but still quite profitable, which is true in most ag markets globally.

As noted earlier, profitability in Europe remains solid. You know, while grain prices have come off peak levels, input costs have also declined, keeping margins at supportive levels there. The relative profitability varies a bit by region with Central Europe faring a bit better than Western Europe, but overall still solid across the region.

And in Brazil, higher production and favorable FX has kept profitability solid, making the region one of the strongest from a fundamentals perspective. The political transition and rising interest rate environment could result in some softening for smaller ag equipment, but Large Ag equipment demand is holding steady.

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

This is Josh. One thing I'd like to add here is that when we meet with dealers, we hear a consistent message from them, too. They're positive on the outlook in customer demand. We even get feedback, they could quote more customers if they weren't on allocation, so we feel good that the demand is out there.

Our dealers are also optimistic about the level of tech adoption and demand for precision ag solutions, as customers look to reduce expensive inputs, which improve profitability and sustainability. And this is not just a North American theme, but across the globe. I was with our dealers from Latin America earlier in the quarter, and the appetite for increased technology from our customers is very strong and our dealers are investing heavily to deliver on the value proposition.

Rachel Bach  
Manager-Investor Communications, Deere & Co.

That's good perspective on the industry outlooks and the dealer feedback. With that in mind, our order books are generally full into the fourth quarter as we look across the global Large Ag business. Most orders are retail, so they have a specific customer name associated with them, and we anticipate it will be yet another year where Large Ag equipment demand outstrips supply. But if we look more closely at our Small Ag and Turf division, the story is more mixed (13:03). Can you step through that, Brent?

Brent Norwood  
Head-Investor Relations, Deere & Co.

Sure. If we dissect the segment, around two-thirds of our sales are linked to products tied to ag production systems like dairy and livestock, hay and forage, and high-value crops. The remainder is tied more to consumer-oriented products. So, hay and forage and livestock margins remain above recent historical averages. Additionally, dealer inventory-to-sales ratio for midsized tractors are below normal levels. So this part of Small Ag and Turf has remained steady.

A good proof point here is that the order book for our midsized tractors built in Mannheim, Germany is filled well into the fourth quarter of fiscal year 2023. On the other hand, turf and utility equipment is more closely correlated with the general economy, specifically housing. So, we've seen softening there particularly in compact utility tractors. This is one place where we've seen industry inventories build.

And to round out the conversation on order books, Construction and Forestry is also full into the fourth quarter. Given levels of demand, we do not anticipate any rebuilding of channel inventory in fiscal year 2023.
Rachel Bach  
Manager-Investor Communications, Deere & Co.

Let's stay on that topic of inventory building and going back to your comment, Brent, on turf and utility equipment industry inventories, is that increasing channel inventory purely related to the softening in demand, or is any of that seasonal for turf and utility equipment?

Brent Norwood  
Head-Investor Relations, Deere & Co.

A mix of both. We are heading into the prime spring selling season for turf and utility equipment. So, we normally have some inventory build at this time of the year that will sell off as we go through the spring. But we're monitoring channel inventory closely, so we can react quickly if there is further softening in demand.

Rachel Bach  
Manager-Investor Communications, Deere & Co.

What about channel inventory for our other segments?

Brent Norwood  
Head-Investor Relations, Deere & Co.

Yeah, for Large Ag, our dealers remain on allocation, as we've mentioned. The vast majority of orders are marked for retail and have a customer name associated with them. So we don't expect to see restocking of dealer inventory this year. You'll see some channel inventory build seasonally a bit as we ramp up production ahead of the use season, but we don't predict much change in dealer inventory year-over-year by our fiscal year-end. We expect any restocking to be more of a 2024 story.

And as I noted, it's the same for our North America Construction and Forestry business. Dealer inventory is at historic lows. Based on retail demand and our production levels, we don't anticipate much increase in dealer inventory. Again, we would expect any build there to occur in 2024.

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

Yeah, maybe a couple things to add here. As mentioned, our dealer inventories remain below historic levels as demand outpaces supply. We've noted a few times that our order books are still on allocation basis, and this continues because while supply challenges have eased, the supply chain is still fragile. It's getting better, but we continue to experience higher-than-normal supply disruptions. We're working with our supply chain and doing our best to try to ensure delivery to our customers.

Second, since new equipment inventories remain tight, our dealers are seeing the benefit in used equipment. Dealers are turning their used equipment very quickly at a historically fast pace, demonstrating resilient demand for used. As a result, used equipment inventories are at low levels, and used equipment prices continue to be strong. This is a positive for customers as it reduces their trade differentials. This is especially true for both Large Ag and Construction and Forestry.

Rachel Bach  
Manager-Investor Communications, Deere & Co.
Thanks, Josh. Let's shift to pricing. Production and Precision Ag, in particular, benefited from high price realization here in the first quarter. This isn't a normal comparison though. Josh, can you break that down for us?

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

You're right. It's not a normal year-over-year compare. It's really comparing two years worth of price increases. Last year during the first quarter, we were still shipping a fair number of model year 2021 machines. We were behind on deliveries due to the work stoppage at some of our largest US factories.

So, for example, a lot of tractors we shipped during the first quarter of 2022 were actually model year 2021 machines at model year 2021 pricing. During the remainder of fiscal 2022, we experienced significant material inflation, but we also actually increased line rates to catch up on shipments, so we shipped most of the model year 2022 tractors during fiscal 2022.

So now here in the first quarter of 2023, nearly all of the tractor shipments were model year 2023. So, when one looks at the first quarter year-over-year, price comparison is a really model year 2023 versus model year 2021, or two years' worth of price. We do believe that price comparisons will moderate in the back half of the year. Our full year forecast contemplates production cost increasing year-over-year due to the impact of labor, energy prices, and purchase components, though we do expect the increases to be at a much lesser extent than we experienced in 2022. We expect to benefit from improvements in commodity prices, decreased use of premium freight, and increased productivity as our operations run more smoothly. Looking forward though, as inflationary pressures subside, we expect a reversion to our historical averages for price increases.

Rachel Bach  
Manager-Investor Communications, Deere & Co.

That's helpful. Thanks, Josh. And also a good segue to talk about the rest of the year compared to the first quarter. It was a strong first quarter; however, in the first quarter, we had fewer production days from the holidays and some planned maintenance, model year switch-overs and so on. So, as we look to the second quarter, we'll have more production days. C&F, as I mentioned earlier, had some miscellaneous positive items in the first quarter that won't repeat as we progress through the year.

Brent, can you talk through how people should be thinking about our rest of the year forecast?

Brent Norwood  
Head-Investor Relations, Deere & Co.

Absolutely. For PPA and C&F, we're confident in the rest of the year demand and it's likely that our seasonality for the remainder of the year will look more like our historical cadence with the second and third quarters expected to be the highest in revenue for PPA, for example. The supply chain needs to continue to improve, enabling higher production rates. Part delinquencies and delays have abated but have not returned to pre-pandemic levels or anything we'd consider indicative of a healthy supply chain.

Our guidance contemplates that we can procure the material we need to continue production at current daily rates. So, with respect to top line guidance, we do not see significant demand risk for the rest of the year, but we do need the supply base to continue to execute. When it comes to production costs, there are few variables to consider.
As Josh mentioned, while raw material prices and the need for premium freight have eased, we continue to see inflation on purchase components, labor and energy, so some puts and takes there. If the supply chain continues to improve, we could see some additional productivity gains in our operations.

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

Hey, this is Josh. One, I want to point out that when it comes to cost, we're not just waiting for things to get better. We're working with our suppliers to improve on-time deliveries and manage through inflationary pressures. We continue to look for opportunities to source differently when it makes sense and we're looking at our own process as well to continually improve efficiency and cost we can control. So, cost is top of mind and a key focus area.

Rachel Bach  
Manager-Investor Communications, Deere & Co.

One last special topic. We recently published our 2022 Sustainability Report. It can be found on deere.com/sustainability and I would encourage people to take a look at it. Josh, any highlights you’d like to point out?

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

Yes. A few things here to highlight. We made progress on our Leap Ambitions, including engaged, highly engaged and sustainably engaged acres. Engaged acres give us a foundational understanding of customer utilization of Deere technology and we continue to enable our customers to use data to do more with less, unlocking economic value while also improving environmental outcomes.

We formed partnerships to accelerate this value unlock for customers. One example is a demonstration farm with Iowa State University where over several years, we'll be able to test various sustainable farm management strategies and farming practices. We'll be able to collect data that mirrors our customers’ applications and decision making to deliver better solutions.

We introduced the ExactShot feature on planters at CES 2023. This is a great example of a solution that enables our customers to do more with less and leverage their tech stack, pulling nozzle technology from sprayers onto ExactEmerge planter to deliver starter fertilizer on the seed and only on the seed when planting.

We also introduced a prototype of our first fully electric excavator at CES. It's a Deere designed excavator with a Kreisel battery. It shows our focus on electrification in response to customer pull for quieter and safer solutions, while executing jobs in a lower emission manner. It's an example of the team making progress on reducing Scope 3 greenhouse gas emissions for which we have validated science-based targets.

With our focus on creating value for customers and being organized around their production systems, the solutions shown at CES underpin the message of real purpose, real technology with a real impact in all we do. I also want to highlight the significant progress we made in terms of our operational sustainability goals, for example, Scope 1 and 2 greenhouse gas emissions, we had a goal of 15% reduction between 2017 and 2022. As we closed out 2022, we almost doubled that, achieving a reduction of nearly 29% during that timeframe. So, it's not just our products, but our operations having a positive impact, too.
Rachel Bach  
*Manager-Investor Communications, Deere & Co.*

Thanks. That's good stuff. And before we open the line for other questions, Josh, any other final comments?

Joshua Jepsen  
*Senior Vice President & Chief Financial Officer, Deere & Co.*

Sure. It was a good first quarter. Strong results and start of the year. Fundamentals and demand are solid across most parts of our business. The supply chain is showing early signs of improvement, but remains fragile, so the teams are managing through it. We're proud of the team of employees, suppliers, and dealers as we continue to work together to deliver our products and solutions to our customers.

It was also very exciting at CES to reveal new solutions that will unlock value for our customers, not just economic value, but sustainable as well. You can read about it and the progress in the 2022 Sustainability Report, but to see it at CES and our strategy in action reinforces our belief that we have tremendous purpose in the ability to deliver real value for all those associated with Deere.

Rachel Bach  
*Manager-Investor Communications, Deere & Co.*

Thank you. Now, let's open the line for questions from our investors.

Brent Norwood  
*Head-Investor Relations, Deere & Co.*

Now, we are ready to begin the Q&A portion of the call. The operator will instruct you on the polling procedure. In consideration of others and our hope to allow more of you to participate in the call, please limit yourself to one question. If you have additional questions, we ask that you rejoin the queue.
QUESTION AND ANSWER SECTION


Seth Weber  
Analyst, Wells Fargo Securities LLC

Oh, hey, guys. Good morning. Wanted to just ask a question on the cost side. Just to clarify what your message is on the input costs and freight costs and things like that, are you suggesting that costs are going to continue to be up year-over-year through 2023? Or is there some point during this year when we should start to see a cost benefit to Deere on a year-over-year basis? Like, when does that flip, I guess, from – whether it's input costs or freight or what have you? Thank you.

Brent Norwood  
Head-Investor Relations, Deere & Co.

With respect to production costs, Seth, there's quite a bit to unpack there. I mean, I think first and foremost, our factories were running a lot better in the first quarter. Really better in the first quarter than at any other point over the course of 2022. So, we were able to hit line rates that we were expecting to hit as well as completing the machines in the sequence that we intended to complete them on.

You know, with respect to production costs, they are still going to run higher on a year-over-year basis for the full year, but at a diminishing rate when compared to production cost increases that we saw in 2022. If I dissect the components of production costs, there's a few puts and takes there. Raw materials were slightly favorable in the first quarter, but that will get more favorable as we progress through the year. Freight was already favorable in the first quarter as well, and we do believe that will continue rest of year.

Where we are still seeing inflation impacting the production cost line item for us is really in purchase components. And those tend to inflate on a lagging basis. If you think about the inflation that our Tier 3, Tier 2 suppliers are experiencing, it takes a while for that to bubble up into our production costs. So, the inflation they have with respect to labor and raw mats are really hitting us on a lagging basis. That's what's driving some of the higher production costs year-over-year.

I'd also note that labor and energy are going to be higher on a year-over-year basis, also taking production costs on an absolute basis up year-over-year. Now, that said, we are actively working with our suppliers to sort of get back any sort of inflation that's linked to raw material. So, you'll see us very much focused on costs for the rest of the year.

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

Hey, Seth. This is Josh. Maybe one add there is last year as we saw this, because of the way our price programs work and our early order programs, we had set price and then we saw inflation come through. So, while we were price/production cost positive in 2022, it was just slightly positive. 2023 we would expect that to be much more positive as we catch up a bit on the pricing side and start to see some of the increases come in. So, that will be more positive in 2023 than it was in 2022. Thank you.
Seth Weber  
_Analyst, Wells Fargo Securities LLC_  

Thank you, guys.

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**Operator:** Our next question comes from Dillon Cumming with Morgan Stanley. Go ahead, please. Your line is open.

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**Dillon G. Cumming**  
_Analyst, Morgan Stanley & Co. LLC_  

Great. Good morning. Thanks for the question. If I can just ask a longer-term one. I think some of the concern out there in the market is just that we haven't seen an ag cycle this long, right, over the last decade. But if you look at Deere's own revenue growth profile, right, in the 1990s and early 2000s, there have been prior instances of other companies seeing seven, eight years of consecutive revenue growth. So, I guess if you had to describe the current backdrop right, demand outstripping supply, et cetera, would you say that we're operating in a market environment maybe similar to those years versus the more commodity driven cycles that we've seen over the last decade or so?

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**Brent Norwood**  
_Head-Investor Relations, Deere & Co._  

Yeah, good morning, Dillon. Thanks for the question. With respect to this particular cycle, I think there's a lot of variables at play. First off, we've had a really strong start to the year, and our guidance would indicate we're going to have a very strong rest of year as well.

You know, we'd note the backdrop right now is very supportive. Farmer fundamentals are really strong. And we had a record year in 2022. But as we look at 2023, it's going to be a slight decline, but still at a very, very positive level. Crop cash receipts are down 3%. Farmer net income's down 16%. But both of those figures would be higher than the peak of any prior cycle. So, right now I think our farmers are in really good shape.

I think another thing to contemplate with respect to this particular cycle is the way that it really unfolded has been at a slower pace than what the market would typically facilitate. We saw demand inflect in early 2021, but the industry was suffering from significant supply constraints over that year 2022 and in 2023. We are still shorting demand on some level in 2023. Much of that or some of that will certainly push into subsequent years. So, this cycle is difficult to compare to prior cycles because of some of these artificial and external constraints that are placed on the business.

Now, with respect to 2024, certainly too early to make a call there. There's a lot of variables between now and then. We have to plant the 2023 crop. We want to see where ag inputs normalize, things like fertilizer, seed, and chemicals have been somewhat volatile in their pricing over the last couple of – or last year or so. And we've got a number of swing exporters, I would say, when you contemplate areas like the Black Sea region as well as Argentina. So, a lot of variables need to play out.

And we'll start to collect our first data point on next year really this summer when we run our crop care early order program. We'll collect some additional data points in the fall with our combine early order program. That said, how we intend to exit 2023, we think we'll exit at a really healthy rate. The fleet age will still be advanced and inventories, both new and used, are going to continue to be tight.
Joshua Jepsen  
**Senior Vice President & Chief Financial Officer, Deere & Co.**

Yeah, Dillon, maybe one thing I would add here and this gets back to our strategy and I think how we are a fundamentally different company in terms of what we're delivering to customers, how we're integrating technology to derive value for customers really irrespective of where end markets are, the ability to take cost out and to increase productivity and profitability for customers.

So, we're very, very focused on our ability to dampen cyclicality over time, be less reliant on sheer unit volume as we drive better economics for our customers and better per-unit economics for Deere. So, we feel really good about the opportunity to drive growth and our ability to create value for customers.

Thanks, Dillon. We'll go to our next question.

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Dillon G. Cumming  
**Analyst, Morgan Stanley & Co. LLC**

Appreciate it.

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**Operator:** Our next question will come from John Joyner with BMO Capital Markets. Go ahead, please. Your line is open.

John Joyner  
**Analyst, BMO Capital Markets Corp.**

Great. So thank you very much. Josh, you've discussed this a bit, and I know my question here comes up a lot, so I do apologize in advance. But how do you think about pricing power, I guess, when the currently robust up-cycle eventually moderates? Or are prices now possibly set at a – what could be a structurally higher level?

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Brent Norwood  
**Head-Investor Relations, Deere & Co.**

Hey, John. With respect to price, I think there's a lot to contemplate there. You know, the pricing actions that we've taken have been commensurate with the level of production costs that we and the industry have experienced. And Josh noted this earlier, if you look at our 2022 margins for Production and Precision Ag, they were actually down year-over-year when compared to 2021 even on 33% higher revenue. So we've absorbed a lot of production costs and have had to take price measures to account for that.

I think what we've seen so far is no sign of demand destruction yet. Our customers have been really profitable over the last few years. And the good news is we are seeing signs of moderation in our production cost increases. So, from our perspective, that does point to, I would say, a reversion to the mean in terms of normal price increases year-over-year as we start to stabilize with respect to higher production costs.

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Joshua Jepsen  
**Senior Vice President & Chief Financial Officer, Deere & Co.**

Yeah, maybe, John, one add I would throw in there is when we look at the impact of equipment on the P&L for a customer still a relatively small percentage, and I think important in that is it's a relatively small percentage and we're actively focused on other parts of the P&L, how do we take cost out and how do we improve yield.
I think that's really important, kind of to my previous comment, on being able to do that is beneficial regardless of where end markets are or where commodity markets are. So that focus, the ability to do that over time, we think, is differentiated. But as Brent mentioned, we do think as inflationary pressures abate, we'll see prices come back in to — closer to what we've seen in the past. Thanks, John.

**Operator:** Our next question comes from Tim Thein with Citigroup. Go ahead, please. Your line is open.

**Tim W. Thein**  
*Analyst, Citigroup Global Markets, Inc.*

Yeah, thanks. Thanks and good morning. Yeah, so just thinking about gross margins for the rest of the year relative to the 30% in the first quarter, the full year guidance only outlines just a marginal improvement. Obviously, you should have volumes at quite a bit higher kind of quarterly run rate from the first quarter.

So, what are there — I mean, you talked about that there is lot of interplay between price and cost, but normally just from kind of a seasonal perspective, we do see more of an improvement. So are there perhaps some mix benefits that may play through in PPA that help the first quarter that won't for the rest of the year? Or just any other high-level thoughts you have on that just as we think about again gross margins for the balance of the year? Thank you.

**Brent Norwood**  
*Head-Investor Relations, Deere & Co.*

Hey, Tim. Thanks for the question. With respect to gross margins, we would expect to see rest of year somewhat in line with what you saw in the first quarter. As Josh noted, we'll have and put up the strongest price realization number in Q1. That'll moderate a little bit as we go through the year. What offsets that, though, is our cost compares get more favorable. And so, I think the dynamic between moderating price combined with better cost compares will sort of work to offset each other and keep our gross margins roughly in line with what you saw in the first quarter.

**Joshua Jepsen**  
*Senior Vice President & Chief Financial Officer, Deere & Co.*

Yeah, Tim, I think that's fair from a gross margin perspective. And if you think about just profitability overall or operating margins, we do have higher R&D year-over-year. We're investing at record level of R&D. And I think that really speaks to our confidence and optimism in the value that we can create. And that's clearly not in gross margins, but as you think about operating margins, we do see that higher year-over-year and probably higher rest of year than compared to 1Q. So, thanks, Tim. We'll go ahead and go to our next question.

**Operator:** Our next question comes from Stephen Volkmann with Jefferies. Go ahead, please. Your line is open.

**Stephen Volkmann**  
*Analyst, Jefferies LLC*

Great. Excuse me. Good morning, guys. I wanted to think about margins kind of big picture here, and maybe this is Josh's question, I don't know. But at the end of the day, it feels like you guys have sort of achieved your targets earlier than you expected. I wonder if there's an opportunity to sort of bump those higher over time, or whether you think those are still the right ranges to think about. And more specifically, how much volatility may be on the decremental side if and when we actually sort of end this cycle?
Hey. Good morning, Steve. With respect to our stated goal of 20% margins – through-cycle margins by 2030, maybe a couple of things to unpack there. First goal is to get to a structural through-cycle margin achievement at that point. And we would say we’re not quite there yet. I understand that our guidance would imply 20% for this year, and we certainly have progressed beyond our original goal of 15%, but there's still a little bit further to go on the journey. Part of this year's performance is based on the robust demand environment that we're in.

I think the other thing I would point out there is keep in mind that there is an entirely other element to that goal around the reduction of the standard deviation around margins. And we're just now beginning to make progress on our recurring revenue goal by getting the right tech stack out in the market.

So, I think that part of the journey we still have a much further way to go. We're getting started. I think we're off to a good start. But it's really you need to consider both our goal to get to sort of through-cycle margins of 20%, but then also minimize the volatility around that 20% as part of the goal suite as well. Thanks, Steve.

Great. Thank you.

Operator: Our next question comes from David Raso with Evercore ISI. Go ahead, please. Your line is open.

Hi. Thank you. I'm trying to think about 2024. The order books are not open yet, right, so still some time to think about that and how we're going to price as well for 2024. So it looks like the rest of the year you're implying pricing is up about 9.9% the rest of the year, so maybe a cadence of 13%, 14%, 10%, and then by the fourth quarter, we're still up 6%, 7%. So I'm just trying to think about initially — I know it's early, but how are you thinking about pricing for 2024 as it sits today? And is that roughly the right way to think about the exit on pricing for the year in that kind of up 6% to 7% in the fourth quarter? Thank you.

Hey, David. With respect to price, I think your math is probably fair in terms of seeing that price realization number moderate a little bit as we go through the year. Compared to last year, in 2023, you won't see as much midyear price increase. So, a lot of the impact that we're seeing early in the part of 2023 is based on sort of midyear price actions that we took last year. So, I think as we migrate from fiscal year 2023 into 2024, it'll be a little bit more of a kind of clean break in terms of pricing, and will be mostly dependent on what we do for new list prices in 2024.

The calculus there is really going to be based on what we're seeing in production costs. We've seen some positive tailwinds beginning in first quarter of this year, and we would expect some of that to get better as we go through the year. But we're going to have to take a wait-and-see approach until we get a little bit closer to early order programs before we maybe have a fully formed view on where pricing might be in 2024. Thanks, David.
Is there any color at all – thank you.

Operator: Our next question comes from Michael Feniger with Bank of America. Go ahead, please. Your line is open.

Michael Feniger  
Analyst, BofA Securities, Inc.

Yeah, thanks for taking my question. Is there any way to frame these pricing gains being able to look at how much is coming from the inflationary side and how much the higher rates are from tools and features? And are you seeing pricing just across the industry [ph] and players remain (39:52) disciplined as we kind of roll through this year as inflation eases and we revert more to that normal environment? Thank you.

Brent Norwood  
Head-Investor Relations, Deere & Co.

Hey, Mike. Thanks for the question. With respect to pricing, I think the historical trend would point to a normal environment of 2% to 3% pricing based on inflation and roughly maybe 3% to 4% based on additional features. Now, when we quote price realization in our press release, we're only quoting inflationary prices, right? We don't quote the addition to average selling prices that come from those new features in precision ag. That would typically fall in the mix bar on our waterfall charts. And I think on a go-forward basis, the 3% to 4% is largely in line with what we would expect to continue going forward.

With respect to industry discipline, we'll play a wait-and-see approach to how that plays out over the course of this year. I think it'll be largely dependent on the inventory levels that we see in Large Ag, North America Large Ag specifically. Right now those continue to be pretty tight. And as long as those remain tight, there's not a lot of incentive for the industry itself to be undisciplined on price. But again, we'll wait and see how that plays out as we progress through the year. Thanks, Mike.

Operator: Our next question comes from Jamie Cook with Credit Suisse. Go ahead, please. Your line is open.

Jamie Cook  
Analyst, Credit Suisse Securities (USA) LLC

Hi. Good morning. I guess just two questions. Back to C&F, I know you outlined 1.5 points due to sort of miscellaneous positive items. If you could just explain a little more what exactly that was. And obviously margins were strong in the quarter. Is there anything structural going on there that we should get more optimistic about how we think about construction margins over the longer term? Thank you.

Brent Norwood  
Head-Investor Relations, Deere & Co.

So, with respect to the drivers of the C&F beat, I think there's a couple of things to unpack there. First, operationally, that division executed very well in the quarter, and the order book remains really strong. Demand's really held up in that division for us. I would say that Wirtgen was exceptional in their performance in the first quarter. And, of course, we got a little extra price there.

Now, Jamie, you noted there were a couple of miscellaneous items. Those were around some FX hedging gains that we took primarily in the quarter. What I would tell you is that the Construction and Forestry division is one where we've been working to improve structural performance for the last couple of years.
You’ve seen that with the Wirtgen acquisition we made five years ago as well as the decision we made last year to purchase out our JV partner and the Deere-Hitachi relationship. I think those are things that will continue to deliver structural performance as we move forward, and it’s a division we’re real excited about the growth opportunities in.

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

Yeah, one thing to add, Jamie, those two things Brent mentioned are critical and then on top of that is being really, really thoughtful on how we leverage technology into both earth-moving and roadbuilding as well as forestry. Because as with most industries, there are significant labor challenges. So, the ability to automate jobs and bring technology to make jobs safer and easier to do is really, really important. So, you'll see us leverage technology there, you'd be thoughtful and surgical in how we pull things over from PPA, Production/Precision Ag, for example, and we think that is another structural component as we go forward. Thanks, Jamie.

Operator: Our next question comes from Mig Dobre with Baird. Go ahead, please. Your line is open.

Micrea Dobre  
Analyst, Robert W. Baird & Co., Inc.

Thank you. Good morning. Wanted to ask a backlog question, if I may. So, you came into the year with a little better than $14 billion worth of backlog in your ag segment. And I'm sort of curious in your planning assumptions for 2023, do you expect to start working down some of this backlog? And I guess there's two things here. Are you structurally running now with higher levels of backlog? Or is this something that we can actually start to see come down this year? And what are sort of the implications here for production in 2024 given how strong the backlog was to begin with?

Brent Norwood  
Head-Investor Relations, Deere & Co.

Hey, Mig. With respect to our backlog, I think there's a couple of things to discuss there. The level of the backlog that has grown relative to history, some of that is just coming from increased valuation of the price point of our machines, right? So, if you compare on an absolute basis, that's certainly going to look higher.

Certainly, the last couple of years, order books have run further than they've had during prior years, and I think that reflects the environment that we're in where demand is far exceeding supply. Certainly, if we get back to a more normalized supply and demand environment, that can moderate a little bit.

But with respect to 2024, it still remains – it's still a little early, I think, to have a perspective in terms of how far those order books are going to run ahead of the year. What I would tell you, though, is based on where we're at right now, we expect to have little field inventory by the end of the year and many of our dealers are fully expecting that some products are going to remain on allocation in 2024. So, again, that's where we see today. But again, we'll let this season play out. We'll let this crop play out before we have a fully formed view on what that backlog looks like for next year.

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

Hey, Mig. It's Josh. Maybe a couple things to add. Some of this too is impacted by the supply chain and what is the status of the supply chain and the ability to get material to produce, which impacts how far out we're ordered. I
think the – that's really, really critical. I think the other component is thinking about where are we at from a field inventory perspective, where our dealers are at.

This year we have, by and large, been serving retail customers, so we have not been building stock for dealer inventory. So, I think that's an important opportunity that dealers would like to have a little more inventory that's not just going to retail as we look forward in 2024. Thanks, Mig.

**Operator:** Our next question will come from Tami Zakaria with JPMorgan. Go ahead, please. Your line is open.

**Tami Zakaria**
*Analyst, JPMorgan Securities LLC*

Hi. Good morning. Thanks for taking my question. And fantastic quarter. So, going back to the dealer inventory levels and you said you don't expect much restocking this year, can you comment where dealer inventory currently stands in number of months for tractors and combines in, let's say, North America, Europe, and South America versus history? I'm trying to gauge what the volume benefit to you could be in 2024 if restocking finally happens.

**Brent Norwood**
*Head-Investor Relations, Deere & Co.*

Hey, Tami. I would say, overall, inventory remains below historic averages. And there's probably – there's a few pockets where it's built and I'll call those out. But North America Large Ag, again, we don't see any big builds this year. If we compare where we are today versus historical averages, if I look at 220-plus horsepower tractors, we're sitting at about 14% inventory-to-sales ratios.

Typically, that's going to be in the mid-20s to maybe even low-30s at this point in the year. Four-wheel drives and combines, I think, are at a similar point there. And so, I think there's definitely some restocking that will serve as a tailwind in subsequent years there.

C&F is really a similar narrative. We're sitting between 15% and 20% inventory-to-sales ratios and typically that's going to run in the mid-30s to maybe even low-40s depending on what our expectation is of the market. So, there is a little bit of a restocking tailwind, I think that's more of a 2024 event assuming that the supply chain continues to get better and demand holds.

You know, where we have seen a few areas of inventory build as we called out earlier, it's really on the small compact utility tractor, so the under 40 horsepower where you've seen our inventory get to about a 50% inventory-to-sales ratio. The industry is even higher, maybe about 10 points higher.

And then the other pockets that have built a little bit have been really in Brazil CE and Brazil small ag. And Brazil's been a market where it's kind of – it's really a tale of two markets there. Inventory, I would think, is right in line with where they want it to be for Large Ag. It's built a little bit on the small ag side, and what you're seeing there is those producers have a little more sensitivity to higher interest rates, and I think as a result, that's really cooled the market a bit here in the first quarter. We'll see how that trends. We're watching it really closely for those 5 Series, 6 Series tractors that we sell in the Brazilian market. But otherwise, I would say inventory there is more normalized. Thanks, Tami.
Got it. That's very helpful. Can I ask a quick follow-on?

Brent Norwood
Head-Investor Relations, Deere & Co.

Sure.

Tami Zakaria
Analyst, JPMorgan Securities LLC

And I'm sorry if I missed it. Can you quantify by how much your second quarter production rates would be up sequentially and year-over-year?

Brent Norwood
Head-Investor Relations, Deere & Co.

Certainly. So, for North America Large Ag, our large factories like Waterloo and Harvester Works, we talked about the first quarter having about 25% less production days than what we would have had in the fourth quarter. So, sequentially, it was significantly less production days. Now, as we look forward to the second quarter, second quarter will have, I would say, an average number of production days, so more similar to what we had in the fourth quarter of 2022. It's roughly between 60 and 65 production days for that quarter.

Joshua Jepsen
Senior Vice President & Chief Financial Officer, Deere & Co.

Hey, Tami, maybe one thing to add as we think about broadly across all of our businesses, seasonality, as Brent mentioned, returning to look much more similar to what it has in the past, but I would note, 2Q, 3Q are probably much more similar from a top line and margin point of view than they historically have been. So I think we would see a little bit flatter sales and margin between – 2Q compared to 3Q versus historical. Thanks, Tami. We'll go to our next question.

Operator: Our next question comes from Jerry Revich with Goldman Sachs. Go ahead, please. Your line is open.

Jerry Revich
Analyst, Goldman Sachs & Co. LLC

Yes. Hi. Good morning, everyone. I'm wondering if you could just give us an update on Precision Ag on the rollout on an aftermarket basis, where do we stand in terms of product offerings and aftermarket take rates, and any variations in take rates versus what we discussed last quarter on the early order programs as the book has built on the new equipment side. Thanks.

Brent Norwood
Head-Investor Relations, Deere & Co.

Hey, Jerry. Regarding precision take rates, I would say there's not a lot new to report this quarter from last quarter. If you recall, at the end of the fourth quarter, we had already completed all of our early order programs for both crop care and combines. So we are running a bit ahead of schedule than what our normal order book cadence would typically yet show. So as a result, we haven't taken a lot of new orders over the last quarter for those products [ph] if there's (51:34) pretty much sold out for the entire year. We did fill out an extra month or extra quarter of tractor orders.
But maybe just to reiterate some of the things that we talked about last quarter, take rates for our marquee Precision Ag technologies all moved up notably. Things like ExactEmerge and ExactApply saw higher take rates, and then some of our more recent Precision Ag product offerings like ExactRate or the Sugar Cane Harvester CH950 also improved remarkably.

I think for now, we’re very focused on this next generation of products like autonomy, like See & Spray, and then, Jerry, you also brought up retrofit. This is also another part of the tech stack that we’re investing in significantly right now, and I think still early days there, but really excited about some of the things that you’ll see hit the market over the next couple of years.

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

Hey, Jerry. And one thing you’ll hear from us, too, I think, is a shift to thinking about utilization, including further engagement with our dealers. And then our teams recently met with our dealers. We have an annual Precision Ag meeting and there’s a lot of excitement and investment happening in this space to enable our customers to get more out of the solutions that we deliver and better outcomes.

And as noted, you may recall in the past, we’ve talked about we’re including in our dealer incentive plans Precision Ag engagement. So that’s a component of their plans. So that's new for 2023 but underlines the importance of what we’re doing there and the dealer’s commitment. So, thanks, Jerry.

Jerry Revich  
Analyst, Goldman Sachs & Co. LLC

Thanks.

Operator: Our next question will come from Kristen Owen with Oppenheimer. Go ahead, please. Your line is open.

Kristen Owen  
Analyst, Oppenheimer & Co. Inc.

Hi. Thank you for the question. Brent, you started to talk about this a little bit in a question about the inventory levels, but I'm wondering if you can give a little bit more commentary on what you're seeing across South America, just some on the ground for near-term activity levels, but really, I'd love to focus on the longer term, what your view is on your relative positioning in the region. Thank you.

Brent Norwood  
Head-Investor Relations, Deere & Co.

Yeah, thanks, Kristen, for the question. Maybe a couple of – I'll make a couple of near-term comments, and then would love to talk about the longer term there. I mean, for 2023, that's a market that's going to see record production for corn and soy and near-record production for cotton and sugar. Profitability will be outstanding this year, so really good near-term fundamentals. Our guide is up – flat to up 5% after a really big 2022. So, we’re really excited about the fundamentals there.

Right now also in the near term, and I'll point this out, it is a little bit of a tale of two markets, right, where Large Ag is performing at a higher level than Small Ag. Again, Small Ag, more sensitivity to things like interest rates, but Brazil continues to be the strongest market for us in South America.
Now, longer term, it is a market we are incredibly excited about. There’s probably no other market in the world that has the scale that Brazil has. And the need for technology there is so significant, and it’s not just this next-generation technology that we’re talking about. There’s a lot of tools that we have today that haven’t been fully deployed in Brazil.

Connectivity is maybe one of the biggest barriers. We’re working really hard to solve that, and when we do solve that, we think there’s a significant unlock just utilizing today’s technology much less when we get to a point where we’ve got things like autonomy and See & Spray deployed in Brazil. So, you’ll continue to see that as a market we’re going to invest heavily in and a market that really plays to our strength, particularly as we’ve seen it’s a continuation of this migration from lower horsepower equipment to higher horsepower, more precise equipment. I think it really plays to Deere’s strengths longer term there.

Joshua Jepsen  
Senior Vice President & Chief Financial Officer, Deere & Co.

Hey, Kristen. As Brent mentioned, the appetite and the adoption of technology there in particular in Brazil is happening faster than anywhere else in the world. I think importantly, we’ve already gone on the significant journey with our dealers really over the past two decades in terms of building dealers of scale with the ability to support, service, very sophisticated farmers with high levels of technology. And they’re very excited about it.

The other important piece, too, is we’ve talked about in the past we have a target of having margins in South America be North American like, and we’ve really done that. Over the last year, we’ve seen the margin performance significantly improve to now where it’s North American-like, if not a bit better. So, we feel really good about the progress and the future there in an area of continued focus. Thanks.

Brent Norwood  
Head-Investor Relations, Deere & Co.

I think we have time for one last caller.

Operator: Absolutely. Our next question comes from Mike Shlisky with D.A. Davidson. Go ahead, please. Your line is open.

Michael Shlisky  
Analyst, D.A. Davidson & Co.

Yes. Hi. Good morning and thanks for taking my question. You touched on this in passing earlier, Brent, I think, but you had mentioned advanced fleet age as the driver of Production and Precision Ag. If you meet your overall stated natural goals for 2023, do you think farmers will have caught up on fleet age by end of the year, or will they still be older than they probably should be going into 2024? And maybe if you can answer that question and a similar one on Construction and Forestry, will that also be still aged going into 2024?

Brent Norwood  
Head-Investor Relations, Deere & Co.

Yeah, hey, Mike. Thanks for the question. You know, it will depend a little bit on what product line we’re talking about for Large Ag. If we meet our production goals this year, tractors will sort of maintain their age. They won’t age out further, but they really won’t get younger. We’ve pointed this out before in the past. Our production levels in 2023 are still 20%, 25% below prior replacement cycles. So, as a result, we’ll likely just maintain large tractor age in 2023.
We'll make a little bit of progress on combines pulling down the age a bit, but I'd note that the ending point for this year is still above sort of the average fleet age over a longer period of time. For construction, it depends on the end market we're talking about to some degree. That age is normalizing in some pockets. But we also have – I would say the rental channel is really re-fleeting right now. And this is because they obviously had lower CapEx budgets in 2020, 2021, and then in 2022 they weren't able to get maybe as much allocation as they wanted given how earlier in that year that market was so strong. So, I think there's probably a longer way to go when we think about rental fleet age and that may be a multiyear journey there. Thanks for the question, Mike.

Michael Shlisky  
Analyst, D.A. Davidson & Co.

Thank you.

Brent Norwood  
Head-Investor Relations, Deere & Co.

And that's our final question for today. We thank everybody for joining us and look forward to reporting in three months from now. Thanks all.

Operator: That will conclude today's conference, and we thank you for participating. You may disconnect at this time.