

## **2024 Stephens Annual Investment Conference | NASH2024**

### **Green Plains Inc. (GPRE)**

November 20, 2024 12:00 PM EST

#### **Pooran Sharma - Stephens Inc.**

Well, hello, everyone, and thanks for joining us today. I'm Pooran Sharma. I'm the Food and Agribusiness Equity Research Analyst at Stephens. And it's my pleasure to welcome you all to today's fireside chat with Green Plains. For those of you not familiar with the company, Green Plains is a leading ethanol producer in the United States, has been actively investing to expand its capabilities beyond traditional ethanol production into higher margin ventures.

Now, with me from the company today is Todd Becker, President and Chief Executive Officer to help us learn more about the company and its key drivers. Let me turn it over to Todd to provide more detailed background on the company.

#### **Todd Becker - Green Plains Inc.**

Yeah. Thanks and thanks for having us today. We've been on a multi-year transformation of moving away from just making ethanol into other higher value products inclusive of proteins, oil, sugars and now decarbonization. And we've making a lot of progress in all of those areas over the last several years and really getting ready for our 25 inflection point that we outlined several years ago.

And a lot of really positive things are happening in the space as well around carbon capture and decarbonized products. We started up our Clean Sugar facility. We can talk about that a little bit today, but I think we're just starting to make simple progress on a lot of these things, but also a lot since has changed since we've announced our transformation along with the IRA, some positive, some negative.

But generally speaking now obviously with the new administration coming in, there's lots of questions around some of the things that we do as well. But generally, we're optimistic as well that there's a lot of support for many of the things that we do in this administration and we think it's at least business as usual and also some positives relative to some of the regs that we think are supportive among some of their energy advocates that have been working closely with them.

So look, we're looking forward to 2025. It's not without certainly risk around fuel and ethanol and production, things like that. But I think as we kind of move into that the next couple of years around getting the 45Z in place, getting our export demand continues to be very good for our products, driving miles have really not decreased very much. Gas demand remains high. So we're exporting our product all over the world as well.

So we're very, very competitive from that perspective. So it's a little bit of – there's a lot going on, a little bit of volatility as usual, but we're optimistic as we continue to move through our journey.

**Pooran Sharma - Stephens Inc.**

Great. I guess, maybe we could start off by tackling some of the initiatives you're working on. You've mentioned your Trailblazer project a few different times over the past few calls. If you can maybe just give us an update on where things stand and kind of what you're looking to do just with Trailblazer and we could focus on the Summit as well.

**Todd Becker - Green Plains Inc.**

Yeah, sure. So many of our plants are located on one of two different pipeline projects and one is further along than the other. Our Trailblazer project in Nebraska, which we believe is significantly undervalued in our story, is really starting to gain traction as we speak. So we have three plants on the Trailblazer project that's owned by Tallgrass, which is a Blackstone GIC backed company.

They already have the main trunk line laid in Nebraska. So that was in place. That was a natural gas line that they got FERC abandonment. And what they were able to do then is just buy small lateral right ways to a bunch of different plants in Nebraska, so that we can grab the carbon, compress it and ship it on a pipeline.

One of the things that has happened recently is they actually have started to lay their lateral pipes in Nebraska. I think the market was unaware of this and probably is still unaware of this. But even so, some of our plants, they're starting to lay the laterals and starting to build the laterals as they continue to do their work on their mainline as well.

Our carbon capture equipment is ordered. We expect delivery in the second quarter. We expect to break ground on the facilities late in the fourth quarter, early in the first quarter. There really is not a – it's not a huge build. It's a building and we're going to drop compression equipment in it. Tallgrass is doing that for us. So we are not the general contractor or doing anything with regard to construction or other being – other than being supportive from an engineering standpoint of where to put it, how to put it, how to link it into our carbon stack.

They're financing the projects for us as well. So there's no cash out the door to get ourselves hooked up to the project as well as getting started on compressing the carbon and sending it onto their pipeline. So what I think is really exciting though is they've got all their wells approved in Wyoming and that came out this month or late last month. So six wells now have been now approved by the state of Wyoming. That's a difference from the conference call that we had.

We had one at the time. They have all their pore space that they need to sequester the carbon and store the carbon. And now, they're starting to lay our pipe for the laterals, which is a significant change since the last meeting as well. And now obviously, we're just going to wait for the compression equipment to arrive.

We expect to start our in service day with them is mid to late third quarter. We're trying to have them speed that up. We know its \$2.5 million a week roughly of earnings capability for us or EBITDA generation. So every single week makes a difference if we can speed it up. And we've been pressing the – those guys is very, very hard as we made a very large commitment to their pipeline. But it is coming in 2025.

We'll have Wood River, Central City and York on it. Two of those plants qualify for 45Z today. One qualifies for 45Q. We're going to try and do a low energy distillation project at York. So that qualifies for 45Z, which would increase the dollars that we've indicated to the market on generation of EBITDA and cash flows.

In addition, we think the highest value project that we can do at Green Plains today is to expand Central City and do it very quickly. It's a very expandable plant today. We want to do 40 million to 50 million gallon expansion there. We're working on that today, determining what the best timing of something like that would be.

But we're also very optimistic on a 45Z extension even with this new administration that's coming in and we can talk a little bit about that as well. But generally speaking, a lot has happened on the carbon capture project since our earnings call with regard to everything that we just mentioned with permits and poor space and laterals and all those other things that are really important to milestones as well as the fact that we believe there's an opportunity to even expand Central City and get it done very quickly because of some of the equipment that we have sitting around. So we're really, really excited about the project in Nebraska.

#### **Pooran Sharma - Stephens Inc.**

And just on that, just from your Nebraska assets alone and carbon, can you remind us what kind of annual EBITDA run rate contribution you're expecting?

#### **Todd Becker - Green Plains Inc.**

Yeah. What we outlined to the market was about \$130 million of run rate EBITDA under 45Z and – but that also includes a 8% to 10% discount on the value of the 45Z credit monetization as well as the carbon credit monetization at all. So there's more opportunity there. But we wanted to be conservative from that standpoint.

What we want to do is we want to monetize our credit, so we can get cash in the door quickly and drive that through earnings and not necessarily use it as a tax credit right away. Same thing with the voluntary market. We think that it'll either go to LCFS markets to start once we get those pathways approved, as – and we have seen good interest for these type of carbon credits coming out of big tech and other areas that want to start to look at some of these credits and start – and we can monetize that way as well.

So they're looking for tax credits, but they're also looking for carbon offsets. And these are going to be some of the earliest, most volumetric and highest quality, we believe highest quality

credits that will be available on the market. And it'll be the first time they're really able to buy these type of offsets mid-2025.

**Pooran Sharma - Stephens Inc.**

Right. And in terms of just positioning, I know you kind of touched on this, but you're going to order the equipment 2Q kind of break ground late in the year or...?

**Todd Becker - Green Plains Inc.**

No, no, we're breaking ground late this year, early next year. The equipment has been ordered. I mean, it was about a 40-month lead time.

**Pooran Sharma - Stephens Inc.**

Okay.

**Todd Becker - Green Plains Inc.**

And we're checking all of the time with the manufacturer and they say they are on track for a Q2 delivery.

**Pooran Sharma - Stephens Inc.**

And Tallgrass is going to be completing the...

**Todd Becker - Green Plains Inc.**

The Tallgrass is the contractor. They're building the sites we're doing. It's really not any responsibility of any of the shippers. So they're going to build the compression sites, drop the compression equipment in and hook up. But we're involved a little bit, but we have no – we really don't – we don't have any responsibility for the builds at all.

**Pooran Sharma - Stephens Inc.**

Okay. Okay, great.

**Todd Becker - Green Plains Inc.**

And no cash out the door either to get this hooked up.

**Pooran Sharma - Stephens Inc.**

Maybe if we could kind of just shift over to HiPro a little bit. Now just if you could provide us a bit of background and I know you've gone to the next level with Sequence. If you could provide a little bit of background on that.

## **Todd Becker - Green Plains Inc.**

Yeah. So a lot has changed since we launched our High Protein initiative in the last couple of years. Along came the IRA and then along came a significant expansion of soybean crushing capacity in the United States with along with that brings 15 million more tons of new protein onto the world market over these this time period with more coming later in the year. So we saw compression and really a reduction in overall protein prices because of that.

And it was all driven really by the renewable diesel phenomenon that wanted an incented, expanded production of vegetable oils domestically and around the world. And to the benefit of at the time, to the benefit of our production on distillers corn oil, which is the second lowest CI score available for vegetable oils to go under renewable diesel, which again, we'll get into that in a second, which is very beneficial in 2025 for us.

So since we launched the initiative, we launched with a 50% protein, we always knew that we would go to a 60% protein over this period of time. And we were selling what we would consider a super premium product even in the 50 Pro market. But with the addition of all this extra soy crush capacity, we had to change our view a little bit and take a little bit more of a commodity mindset on 50 Pro, even though it still trades at a \$200 premium today to our \$180 to \$200 premium to distillers grains.

We know that if we save our 50 Pro for the super premium buyers that pay for that today, because we do specialized products for pet. And we think about the rest of our. We think we can get another 100,000 tons to 150,000 tons of production just out of our 50 Pro production next year and we're really focused on that and focusing more on volume to cover more of the cost and generate more returns.

And so we're taking a bit of a let's compete, more head-to-head with soybean meal mindset for a portion of our 50 Pro and then keep some of the super premium. And we think that will drive way better returns than kind of what we've been seeing to date just because of the compression of soy prices. So and you've seen even new lows in soy prices as of late.

So we're watching that closely. But distillers prices that we trade against are also have weakened as well during this whole time period. So the spreads have somewhat stayed the same, but we believe we can make a lot more product as we've learned how to increase yields. And in the third quarter when we reported our yields, it was still a record of 3.4 to 3.5 pounds per bushel finally across our system. We do believe we can expand that to 5 pounds per bushel, because we're already getting 4.5 pounds in like a Shenandoah.

If we do that, we could bring another 100,000 tons, 150,000 tons at a call it, \$120 a ton EBITDA contribution to \$100 a ton EBITDA contribution margin. That's just money to the bottom line. So we're rethinking it a little bit just because of the onset of the soybean meal. But we're not rethinking our 60 Pro Sequence initiative at all. We have been working with customers for years and years and years and it just takes that long.

We believe in 2025, we're going to get good penetration into pet because those labels are being printed as we speak in terms of the approvals to get them printed. And we think mid – early to mid-2025, we're going to start to see good inclusion in the pet market as well as into the aquaculture market as well. So it just takes that long. Hopefully, we get at least one to two plants on the 60 Pro here pretty quick and we'll see better contribution there. But we really do have to leave this 50 Pro commodity.

It's been commoditized. We saw that because of soybean meal, but we still are getting some customers still pay us a premium to soybean meal for some of our products that we do really interesting things too in fermentation. And if you're going to just sell it into a dairy market, you're going to get a discount. So it's a little bit of everything right now on 50 Pro, but we're really excited for the work we've been doing on 60 Pro for 2025 and we think that's when we really could start to see inflection come in. When you talk about carbon and you talk about protein and thinking about 2025 other than obviously ethanol volatility that could still be a factor. We still believe that we'll start to see some of these inflection points start to hit very quickly.

#### **Pooran Sharma - Stephens Inc.**

Okay. And then could you remind me what percent of HiPro are you trying to get for like of your HiPro capacity, how much of that are you trying to do?

#### **Todd Becker - Green Plains Inc.**

Yes, our goal is to have 20% of that going into a 60 Pro Sequence market next year. And we do have enough identified demand to do way more than that. It's just a matter of they would need to pull the trigger. And with the compression of protein prices, just like most other agricultural commodities, nobody's extending coverage in anything these days because the world is bearish protein prices. It's not just Green Plains are what we do.

Generally speaking, the world is very bearish protein today, whether it's going to be fish meal all the way down to distillers grains. We've seen weakness across the board and corn sitting at 4 to 4.50 a bushel. It's still okay. But just something that I think is going to be a challenge for this industry for a few years. Generally speaking, the industry whoever makes protein. But look 15 million tons of soy protein that's going to get absorbed. We do know that.

That's not – when you look at growth in protein demand year-over-year-over-year, we're talking about a couple of years of growth will absorb all that and we don't see a lot coming behind that. So while it's really, really chunky, all this extra protein that's hitting the world market, we think over the next couple of years it just gets absorbed and ultimately the market reacts and recovers from this. But when you have \$280 soybean meal and probably not any impetus for that to go higher at this point, it's certainly impactful to the global protein demand.

But when you call a customer, they just don't feel any rush. And I'm not saying just Green Plains. I'm saying generally speaking, if you make soy or you make corn gluten meals or you

make even all the way to fish meals, the world is not in a rush to get coverage. They know there's a lot of it coming. But we still are able to maintain a margin.

And I think that's what's really important. And I think from our standpoint, by taking a bit of a different mindset and really just making as much as we can as cheaply as we can and maybe it's not for a non-super premium buyer, they're just going to get a more commoditized product and for a super premium buyer, they're going to get less of a commoditized product because of things that we can do around protein levels as well as fat and fiber levels. Those are some of the things we can tailor to specific needs. We still have very good optimism towards the products we're producing. But if you're a protein buyer in the world for any type of protein doesn't I'm just saying NP proteins take your pick. There's nobody's rushing in to get coverage in 2025 today.

### **Pooran Sharma - Stephens Inc.**

Appreciate that, Todd. Maybe we could just shift over to clean sugar. What kind of market opportunity is there and what attracts you to clean sugar opportunity?

### **Todd Becker - Green Plains Inc.**

Well, I mean the thing is it took us a little bit longer but our plant's finished. We are making product on spec. We're waiting for FS, our food safety certification which should come in the first quarter of 2025, where it's a 90-day program. Once you start up, you run it and you run it for food safety certification. So we're in the middle of that as we speak. We think January, February latest, we should be able to get food safety certified, which then opens up the rest of the market.

We are already contracting with industrial users from – everything from that – if you think about an industrial user, who uses industrial dextrose versus who uses it for food? You talk about chemical companies, enzyme companies, people that – most people don't know that, but some of the fiberglass insulation that you put into your homes that's made in a fermenter with dextrose. So those are the type of companies globally that are using these type of products.

And that's what we're approved for today. But so – but we've also been sending our product, which is capable of going into food to food manufacturers as well. And those type of users from drinks to everything to pancake syrup and everything in between and candy and confectionery. And so we have to get they really – they've seen our product out of York. They just never seen the product out of Shenandoah in spec. So we're sending that product out as well, because you have to get approvals – product approvals. There's nobody in the world really that will – that you can sell dextrose to much of protein is a lot easier, make protein sell protein.

Really not many in the world that will just take a flyer on send me some dextrose without seeing the product, running through their labs, approving the product and then buying the product. So it's a much different process. We've been doing that for a couple of years, but they wanted to see the Shenandoah product and that has been sent and we are starting contracting for some of that in 2025. But where we're at relative to – so we build a 250 million pound commercial system.

There's commercial and then there's dry and dry is 200, but commercial is 250 million pounds system. We think our – we'll be ramping up a run rate. But when you build a new system, you really don't know wastewater configuration of serial number one.

So the city was able to take a certain amount, but we knew we would have to do some wastewater improvements. And that's kind of being finalized as we speak, so we can get the plant fully up and running, but that'll take us most of 2025 to go to full run rate. We think in that 60 million to 80 million pound range is where we'll probably run the system for quite a while now, now that we're making it in spec. And even then, it's still profitable to do that because of the way that the margin structure is. The margin structure is intact.

I think you've seen it relative to anybody else that makes dextrose through a wet mill. You've seen the results come out of that. The margins are still intact and there's still a constraint on capacity for the demand that's out there to make dextrose, now fructose and high fructose corn syrup and other things like that. That's not what we make. We make 95 dextrose equivalent to go into fermentation for food and for industrial use.

And we also are going to be capable next year of making 63 and 43DE as well, which goes into higher value uses for food. And once we get food certified, we'll have to get that product. But we are extremely excited for the fact that our process is running. Could we engineer number two a lot better – a lot differently than, yes, there's some changes we would make and especially in ion exchange and what we do there. And that's kind of filtration and then evaporation.

But we are extremely excited for the fact that we can make in a dry mill traditionally that can only make industrial products that we can make food grade dextrose products that will be able to be sold at a significantly higher margin contribution just making alcohol out of sugar. We're still making protein. We're still making oil. None of that changes, but we just don't make as much alcohol. And it's a step by step process, but nobody in the world has ever done this.

The technology is all Green Plains. We own and control this technology through our investment with Fluid Quip, and we're not going to be selling that to anybody else. Although, we have calls from people around the world that want to figure out is there something we can do, because the world is capacity constrained on dextrose. I think it's an undervalued asset in our story, but still yet to – a little bit still to be proven to the market. Once we ship into food grade, people will truly understand, but we will be shipping industrial grade dextrose really starting later this year, early next year into commercial markets.

And it's just a step by step process, but nobody in the world has ever done it. Nobody controls the technology but Green Plains and its shareholders. And we're really excited about that opportunity. And look, I mean, we will build serial number two at some point. We just want to make sure that serial number one is just operates, does it operates for quite a while. We get food safety certification, we kind of get through some of those things. We get our wastewater designed, how we want to deal with that. And then we go, because the margins there are at or better than everything we've indicated in the past, because of capacity constraints in the wet mill industry on dextrose.

**Pooran Sharma - Stephens Inc.**

I guess on that track too, it looks like, as you mentioned, you need to make a trade-off between alcohol and sugar. And could you just remind us what type of margin uplift opportunity there is versus traditional ethanol?

**Todd Becker - Green Plains Inc.**

Yes. So the traditional ethanol, if you without oil, let's just take corn oil out because you're going to get that in sugar or alcohol. It's a \$0.05 to \$0.15 a gallon mid-cycle type margin business to make traditional alcohol. Sometimes like last quarter we had \$0.27 a gallon profit or a margin, but that includes oil and sugars or not sugar and protein and protein contributions and all that. But generally speaking, I would say, \$0.05 to \$0.15 a gallon margin mid-cycle for just making alcohol, not inclusive of anything else.

So what I would say is a mid-cycle dextrose margin, go back 25 years, isn't that \$0.65 to \$0.70 a gallon range equivalent to alcohol. It's a significant uplift. The value of dextrose is so much higher relative to value of alcohol in converting starch into something else. And our process does not go through the traditional ethanol process. It goes into a completely separate securification through evaporation, through quality control and so kind of a bunch of stuff in between that's proprietary. But the margin is significantly higher.

You have to add CapEx, but that CapEx is significantly lower than what you would have to spend in a wet mill expanding that as well. So it's, there's no reason to stop. I would say, we thought it would be about a \$1 a gallon equivalent conversion rate somewhere in there, probably running a little bit higher with inflation as it is. Could be \$1.50 a gallon. But today the margin would be about \$0.85 to \$0.90 a gallon uplift equivalent to just to ethanol.

So the long mid cycle is in that \$0.60 to \$0.65 range. The top of the cycle is more than \$0.87 to a \$1 a gallon equivalent range. But at \$0.65 a gallon, even on a \$1.30, \$1.58 gallon CapEx, it's a couple year payback. Even if it goes to three-year payback, it's very well worth it because those are predictable, they're recurring. There's no government policy around it, although we'll have to watch the new health and human services Czar and what he does with food and those type of things. But we don't think that affects dextrose as much as might affect fructose or high fructose corn syrup and those type of things. But even then, we'll see what actually gets through.

But no, the margins are significantly higher than just making alcohol. And then on top of that you still get your contribution from DCO, distillers corn oil. You still get your contribution from high protein production as well. And then on top of that you'll still get your – in Nebraska where we wouldn't do, we wouldn't do sugar there because that's just taking the carbon out and carbon is part of sugar. We'll just keep Nebraska as it is today, because the margins there are going to be outrageous coming in 2025 and we'll have a significant multi-year head start over anything else coming onto the market in volume.

**Pooran Sharma - Stephens Inc.**

It sounds like your conversations regarding your clean sugar with potential customers are doing great. I think you've mentioned a few times that the plant has interest from a lot of customers. Can you speak to this dynamic, and do you think that you could see a potential premium given that your product is a clean and lower carbon intensity product?

**Todd Becker - Green Plains Inc.**

Yeah, well, we've seen that a little bit already. But I don't think we're going to the market necessarily to say hey, pay us a bunch of money for low CI sugar, although we'd like it. But what we get is share, and share at an \$0.85 a gallon margin is good enough for us. Right, because we get share because we have a low CI feedstock. Whether it's going to be in industrial use or whether it's going to be in food use. That's an opportunity for us to just get share. But share is expanding.

So I mean the market is expanding enough to take anything that we're going to produce in the next several years. The market will just absorb it. There's so much excess demand in our view that isn't being serviced today, because of the capacity constraints of the current base. That's out there, which is great for them. If you look at margins on wet milling these days, or at least from that, from the standpoint of making dextrose, they're significantly high. And there's probably no end in sight on that for a little while here just because the demand just continues to outpace supply.

So we're not going to have a negative impact on this. And I think from our standpoint, we will get share because of just maybe reallocating demand to a low carbon feedstock from a high carbon feedstock. But that other feedstock will not have a problem finding additional homes as we see continued growth. Have we seen some leveling off in the seltzer market and those type of things and alcohol. And alcohol is obviously we've seen the drop in that consumption domestically for sure, because of all the other things that you have your choices to do with putting your body. But that's really not really – that was the big growth in the last couple of years, but now the bioindustrial, bioeconomy things are going to start coming on as well. There's going to be some demand from that. So some of these, I think we will get some ebbs and flows, but still, generally speaking, I think there's still a capacity constraint.

**Pooran Sharma - Stephens Inc.**

Right. Maybe we could shift over to renewable corn oil. Can we talk about the potential for this initiative and then maybe remind us why this is considered more advantageous versus like traditional soybean oil with 45Z kind of. I know that's not finalized, but...

**Todd Becker - Green Plains Inc.**

It will be finalized. We're sure of that, at some point here. But no. So look, I mean you have all these different feedstocks that can go into renewable diesel. The lowest CI feedstock is Chinese used cooking oil or used cooking oil generally speaking, but Chinese used cooking oil as well, which we saw some imports, some or a lot of imports coming into the United States. We actually, this administration could be a little tougher on that. So we're hearing at least rumblings

of thinking about the Chinese Yuko story and whether that's going to continue on when the new administration comes in or not. Our view, it's at risk for sure. It's actually good risk for us, but it's at risk for people that are going to bring Chinese used cooking oil in as well as we did see the, China reacted a little bit by putting an export tariff on some of this oil as well. So that made it more expensive.

And then the math just doesn't even work. Where is this all coming from? The math just doesn't work. There's too much of it. But we're 40 – and then you got soybean oil on the other end, which is the higher CI feedstocks. But next to used cooking oil is distillers corn oil and that's the second lowest feedstock available, which then once we get into 2025 gets favorable treatment under 45Z and it's an advantaged feedstock for a renewable diesel producer versus soybean oil. And that's remaining. And so we're going to have somewhere around 325 million total pounds to sell somewhere in that range.

Next year, we're still continuing to work on technologies to unlock the rest of that oil, like our Shell initiative, our SFCT partnership that we have with Shell, and we have that site operating as well, starting to operate as well, which we can talk about. But we think we can crack the rest of the oil out of that kernel ultimately over time, it's the demand is good, renewable diesel is kind of leveled out a little bit. But if you look at it, veg oil markets are extremely tight right now. I think the only uncertainty in the veg oil market today is kind of Q1. What will the policy be?

We're not seeing the biodiesel guys extend a lot of coverage because the biodiesel tax credit goes away. And they don't have good certainty on 45Z yet. But we're hearing this administration might push something through very quickly to get them taken care of. And we don't think it'll be a BTC, but you never know. It's the gift that keeps on giving. But I think overall when you look at the tight balance sheet that we have, the demand for vegetable oils, the continued degrading of this carryout into much tighter situation, we are not necessarily bearish oil prices, but we do need some certainty around this biodiesel tax credit moving into the 45Z so they can get their policy so they can start buying again.

And then the expansion of the renewable diesel market, it probably is leveling out here as well. We probably won't see much more expansion. There's a couple still a little bit of projects coming on, but most of the projects are on today and that's why you're seeing massive disappearance in vegetable oils. So generally we're very optimistic on price. We're also very optimistic on inclusion relative to the 45Z advantaged feedstock and we're looking forward to 2025.

And then on top of that, our Shell partnership, which one of the three things that come out of that SFCT joint venture that we have with them or the partnership we have with them, where we are using our MSC technology to separate what comes out of their process, is that they go after all of the oil, they make D3 RINs or they make sugars to make cellulosic sugars to make D3 RINs or D3 alcohol and then they make a hydrolyzed protein and that 60% range plus. And so they have turned on the system, Shell has turned on the system. They're starting to put product out there and we're starting to validate that product. It's a small pilot facility, but small is relative when you're looking at something like this.

It's actually very large, but it's still a pilot facility, but continued to get validation points out of there to try and free up all the rest of the oil. And really what it would do is it would eliminate a lot of distillers, grains that come out of a plant because you just hydrolyzed the protein through the process. So it's a, certainly an interesting way that we should look at it in the future. But again, that's again down the road. But we think again underappreciated in our story as well.

### **Pooran Sharma - Stephens Inc.**

I appreciate that detail, Todd. Maybe we could just shift over to traditional ethanol. Can you talk, I want to talk about the margin strength we saw for a lot of the year. And can you maybe talk about what drove that strength from your view?

### **Todd Becker - Green Plains Inc.**

Yeah, I mean traditional ethanol is going to be really interesting next year when we have traditional ethanol and we also have low carbon ethanol. So we can talk a little bit about that. And how does that, how that's going to change a little bit when these carbon pipelines start to start to come online. But no, we saw good strength going into the third quarter. It's still really driven by disappearance in the export markets. We have record exports this year, have continued to track towards that. Canada, Europe continues to take more product. We see good demand out of there. South America, Southeast Asia, India is going to expanding their blends. And then we don't really see Brazil open up for us too much. And we're not importing a bunch of stuff from Brazil either.

So even though we might be making 1.1 million barrels a day of ethanol, it was finding a home. And that's what has the market a little bit confused on the margin structure as it kind of got through the third quarter and we were able to lock margins away. Fourth quarter we saw some degradation, a lot of degradation in margins, mainly because of the significant drop in oil and gas prices that we saw through when oil broke hard and gas broke hard. So ethanol went with it and corn just stayed where it's at.

But we've seen some recovery in the last week or so or two weeks of margins. But generally speaking it was really around miles driven disappearance, weekly demand, export markets and we just didn't build stocks. And we look at, and like I said on the conference call, if you look at days of demand and they're still pretty low even after today's report, we built 0.5 million barrels, but I mean 0.5 million barrels is not that much and it could be in a certain pad that might disappear and production was finally leveling off. And we think some of that production is coming out of the wet mills that are losing a little bit of fructose demand maybe and seeing some of the biointermediate production going into making alcohol.

So we think some of that because we can't really, it's hard to reconcile the 1.1 billion or million barrels a day to say just dry mills. And we think we've seen an increase coming out of some wet mills that are moving a little bit away from fructose or, or at least getting some of the bio-intermediate waste streams to make alcohol out of that. So we've held steady. Margins need to do some work for sure, they were doing some work and then today's data came out. But I mean it's held in pretty well.

You just have to watch the corn market, I think is something we'll have to watch closely as we kind of get into later in the year and into next year and what will the farmer plan. But we think demand there is going to be really tight in terms of the balance sheet. So we think the balance sheets that you've seen are still the loosest in corn. So corn probably doesn't have a lot of room to go down. So we really need the energies and ethanol to go up and we have seen that lately. But the margins certainly are weak in the fourth quarter. And yet Q1 has started to come back a little bit. And then typically as we get out of Q1, if we don't build a ton in Q1, Q2 should be really interesting as well.

**Pooran Sharma - Stephens Inc.**

I guess on that a little bit. The export strength maybe we could talk about is it, are you seeing a lot of blending initiatives throughout the world? What's kind of driving this? Do you think it's sustainable over the intermediate to longer term?

**Todd Becker - Green Plains Inc.**

It's a cheap molecule. I mean when molecules are cheap, we find a way to blend that into products around the world and they are cheap. Ethanol is \$1.60 a gallon, maybe in the mid \$60s a gallon. Gas is in that \$1.80 to \$2 a gallon range in oil is where it's at globally gas is a lot higher. So the world buys our ethanol. They have expanded blending initiatives. They've got to hit their targets. The EU is a nice surprise for us and we're seeing. And then we can make an ISSC gallon where we can get certified from farmer practices as an industry that will go to Europe, trades about a \$0.10 premium in the Gulf.

And then on top of that, the biointermediate alcohol that we were talking about, we think trades at another \$0.10 premium. So the world is buying this alcohol to meet their standards and they're buying it because we can meet ISSC or we can meet CORSIA or other types of standards. On top of that though, when we have low carbon alcohol next year, that'll be an even more interesting thing that may hit the export markets as well. And longer term, we think E15 initiatives are going to continue on California isn't has, the governor has now said to CARB, let's get ready for E15 finally.

I mean after what, 20 years, he's finally decided he's going to wake up and allow E15. So CARB is now doing rulemaking for E15. We think that's probably a 2026 story, but that's a billion gallons of demand. If California goes to E15, that's another billion gallons of demand. Well, a billion gallons is kind of our stocks number. If you think about it like that or something like that, you could eat up this excess very, very quickly. We think the capacity will continue to expand in the U.S. especially around carbon capture pipelines and those type of things. But you get carbon, you get expansion of exports, you get a little bit of potentially down the road some Alcohol-to-jet. You get E15 and then you got an interesting story. But until then, we'll just ebb and flow like normal.

**Pooran Sharma - Stephens Inc.**

Okay, appreciate that. I know we have less than 10 minutes here. I just wanted to give audience an opportunity to ask any questions, if you have any. If not, I can keep going down my list. Sure.

## Q&A

[Question Inaudible]

### **Todd Becker - Green Plains Inc.**

Well, Q is not something that is relative to the IRA. It was predated the IRA. So the interesting thing about Q, that's our backstop on carbon capture. Let's say EZ just implodes, which we'd actually have a high degree of certainty it won't, but let's just say it does. You still have Z or you still have Q. Q doesn't start kicking in. It's project by project. So it's a 12 year from project start. So if we start our project up in July or August of next year, it's a 12 year term from the time you start sequestering carbon. That's \$85 a ton. And that's not going to change in our view at all. And that's five years of direct pay. And you're still going to generate voluntary and carbon offsets.

So that's your baseline. So we already know there's a baseline earnings that generates \$75 million a year in Nebraska roughly compared to the \$130 million. So we know there's always a baseline and then it's not, it's not less than a one year payback. It's a one and a half year payback on the investment, which we would still be really happy about. But we really like the 45Z. Our view on the 45Z is, we're hearing the administration is trying to get some rulemaking or some rules out even this year, push them out to give the last gift of the, of the Biden administration on the IRA that they know that people will go after.

But when you look at the team that the new incoming administration is putting in place from Doug Burgum, we know Harold Hamm has been a big supporter as well. I don't think he's been announced as anything because I don't think he will. But he's definitely been at the table. He's one of the bigger investors in Summit Carbon Solutions. We do know that Thune is South Dakota, which is a big supporter of biofuels in the Senate. We have all of our champions in the Senate, in the house that are big supporters of both sides of the aisle, big supporters of 45Z extension.

And we're confident that Burgum, who was a big driver of the North Dakota pipeline, Summit getting it done and now Summit got their permit. He's still the governor. Burgum is a huge supporter of the 45Z tax credit extension as well. And so when you kind of put all those into play and you look at who's around this and how can we get it through legislation, what do we need to do that? We think we have enough support from the Burgum's, the Hamm's, the Thune's and all others that if there's something that gets saved out of IRA, if I had to say IRA just goes away, the 45Z tax credit will get saved in our view because there's too much capital on the ground today and too much capital being spent today based on the 45Z tax credit that was supposed to be here for that.

And that's right. That's Republican capital and Democrat capital. I mean, that's it. That is an equal opportunity of capital deployed to do carbon reducing projects from Big Oil to a single

ethanol plant, take your pick. All the way across the board to other projects in the Gulf and Louisiana, all the way to the Wyoming project that we're a part of. There's enough money being spent and enough money probably being spent in all different ways to make sure the 45Z doesn't go away and potentially gets extended. If I had to put odds based on everything I know today, I think the 45Z rule making will come.

I think, and if I had to put odds on it, I think we get our 45Z extension. Even with this current administration, the new administration coming in because of the people that he has around him relative to policy, I am certain they're all very aware of the 45Z extension that needs to happen to support these projects. There's Summit has spent, it's not in the hundreds of millions now, it's in the billion plus on the project so far. And we're strong supporters of that project and we believe that with this administration, it gave it a better chance at completion, although they have to deal with the South Dakota issue that they have.

But the Iowa, they'll get a permit. North Dakota, they'll get a permit. Even one of our plants we have, there's a couple plants in Minnesota. One of our plants which is up in Fergus Falls is called Otter Tail. All the right of way is bought and we believe that they'll get approval on that. Could be one of the earliest approvals for any pipeline. And it's Minnesota. So our view is 45Z is in place and gets extended if I was betting. But I've lost bets before too, but I think this one will be pretty good.

#### **Pooran Sharma - Stephens Inc.**

I guess with just a couple minutes remaining, Todd, maybe any parting thoughts for investors as we kind of think ahead to 2025 and beyond?

#### **Todd Becker - Green Plains Inc.**

Yeah, I think, look, if you look at our story, whether it's some of the parts discounted cash flows, value of the carbon, looking at what we're doing in protein, the value of our sugar technology. I mean, I can go on and on and on. I've strongly believe our store, our stock is significantly undervalued and can move significantly higher. It's a little bit of a show me story. But look, we are, we are absolutely seeing laterals being built in Nebraska.

If you want to talk about a carbon project generating \$130 million a year, we will be one of the largest benefactors of the early 45Z legislation that's out there. And we'll be one of the largest producers of low carbon fuels on the planet in our three sites in Nebraska in terms of ethanol, low carbon ethanol, and that carbon scores will be some of the lowest in the world. And so we're really excited about that. We think the value of those assets are probably worth more than our market cap today. But we're not getting any credit for that.

And I think that when we look at our story, we're in a good financial position. We have no near term maturities where there's no financing for Summit that's needed. They use all their own capital. So I know that there's some talk that we have to outlay a bunch of capital. There's none on Summit and we don't outlay any capital other than debt financing on Tallgrass, which has already been secured. So there's no cash off the balance sheet to get any of these up and running.

I think that's really important. And we have no near term maturities. We have significant cash on the balance sheet that gets us through the ups and the downs of the basic ethanol market. So we're going to have by middle of next year, this time next year for sure.

No later, we're going to have 287 million gallons of low carbon fuels. We're going to be producing 325 million pounds of corn oil with a significant, we believe a advantaged feedstock. We believe our protein production will increase into 2025 and we should have 60 pros starting to be placed and then we should have dextrose starting to ramp up as we get through the year. And we should have contracts announced and offtakes announced as well, and potentially partnerships.

So when you look at all of that and you look at the value of what's going on with our story overall, you know, I think it's the ethanol has its ups and downs and we can get through all that. If we got through the last 17 years, we're going to get through the next 17 months. We're not worried about that at all. And I think our story is a little bit misunderstood and our value is too low today. But I think we hit target. We set targets out for 2025 a few years ago. Did it get a little bit off track relative because the IRA showed up? Sure. But the IRA is also giving additional benefits. That's not being given us any credit in our story.

So, look, I think we're really excited about getting into 2025 and getting out of some of these winter doldrums and ethanol, and the demand remains really, really good for our base products.

**Pooran Sharma - Stephens Inc.**

Great. Well, thank you, Todd. Appreciate you joining us in Nashville. And thank you all for being here. Appreciate it.

**Todd Becker - Green Plains Inc.**

Thanks.