

# 2024 Global Farm to Market Conference

## Green Plains (GPRE)

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### Andrew Strelzik (BMO)

Green Plains is undergoing an ambitious transformation from a pureplay ethanol company into a bio refinery platform with a number of value-added income streams including corn oil, high protein feed ingredients, clean sugar and sustainable aviation fuel.

The evolution creates the opportunity for GPRE to redefine its earnings and cash flow potential while improving earnings predictability.

We're pleased to be joined by CEO Todd Becker, who's led the company for more than 15 years and is the architect of GPRE strategic transformation.

And CFO Jim Stark, who has spent more than a decade with GPRE, including nearly two years in the CFO role leveraging his finance, financial acumen and support of the company's strategic initiatives.

Really appreciate you both being here with us.

### Todd Becker (Green Plains)

Thanks, Appreciate it.

### Andrew Strelzik (BMO)

I actually think someone told me that you're like you know, at an anniversary of your start time.

### Todd Becker (Green Plains)

Yeah, yeah, 17 years from today.

So that was we started this thing.

So and public company was October 15th of 08 with a \$30 million market cap.

### Andrew Strelzik (BMO)

So there we go.

### Todd Becker (Green Plains)

We've come a long way, grown it from nothing.

### Andrew Strelzik (BMO)

I guess where I wanted to start is about the evolution that the company has been on over the last couple years.

I think it's kind of four years since you kind of laid out the whole strategy.

So can you maybe start by assessing the progress so far relative to, you know, kind of your expectations, Where are the areas that you're farthest along maybe haven't made as much progress as you had hoped?

How, do you, how, how would you frame that?

### Todd Becker (Green Plains)

Yeah, so we started we kicked off our transformation about four years ago and it's really about value added ingredients and upscaling of products that we can make by grinding a kernel of corn.

And as transformations ebb and flow as you go through these things happen that maybe are a bit unexpected.

And so, while we kicked it off with high quality ingredients like proteins and sugars and oils, along comes the IRA which gave us a little bit of a different stance on go forward as well.

So, in combination of all of that all of a sudden decarbonization became a very topical part of our, our transformation especially with the fact that the value of our assets and especially starting even next year on some of our assets think rethinking how we allocate capital.

Although you know we aggressively allocated capital into the protein markets and have our first sugar unit coming on as we speak.

And so, but really over these last four years while we've ebbed and flows, we always were on track to a 2025 really beginning of the new company with everything coming online.

So, we've got five protein units that are company owned.

We've got our joint venture with Tharaldson, the biggest protein unit in the world that's been built with this technology.

It's literally making product today as we as we speak.

So, it's been starting it up, got our sugar unit in commissioning mode right now and we'll get into that.

And really, we've made our made our progress towards 2025 and while the numbers have moved around a little bit on contribution from what and where because of because of the IRA we still remain on track to our 2025 guidance.

#### **Andrew Strelzik (BMO)**

So, regard and like that was going to be.

My second question is kind of as you think about the I think it was 500 + million in 2025 I believe or run rate kind of post 2025.

#### **Todd Becker (Green Plains)**

Well that that was everybody else's number.

Our number was 250 to 300 million.

So, you know so while we laid this out we said like base load of 250 to 300 and a zero contribution from ethanol and a little bit you know we it would be higher than that closer to some of those numbers but we've seen the veg oil markets drop but we've seen the carbon markets go up.

So, from our standpoint we remain on track to that with significant upside in in many of the different areas that we that we had.

#### **Andrew Strelzik (BMO)**

So that's perfect.

And so, as you kind of ramp some of these initiatives the legacy ethanol business is still an important part with some of the other initiatives building.

So, it's been a challenging ethanol market certainly what is your expectation for ethanol margins over the balance of the year kind of what are the key variables and drivers that you're watching.

#### **Todd Becker (Green Plains)**

I'd say you know since it is my 17-year anniversary, it's been a challenging ethanol market on and off for 17 years.

But we still remain producing the lowest, one of the lowest carbon fuels in the world.

And in any given year it's been, it's been pretty good for us, and we remain you know committed to the fact that we are going to make a lot of fuel and the next step is really making a lot of low carbon fuels because of decarbonization that's going to happen under some of the tax credits and the pipelines that are being built in the United States.

And so, as we look out for the rest of this year, you know we had a very strong first quarter on export. So, the demand for our product is very high.

We have some really good driving demand starting to pick up as we get into summer driving season. The first quarter doldrums were exceptionally weak.

Typically, we've seen little bit stronger markets in the first quarter, but overall, for everybody across most of the industry unless you have a single one-off plant in the perfect location in the middle of Iowa, you did OK.

But any kind of multi plant owner, so weak weaker markets and we're coming out of those winter doldrums.

We've seen markets, we've seen margins rally quite nicely and we still believe that there's a significant way to go.

Demand remains good, driving demand was excellent.

Again, just reported this morning with EIA data and exports like I said to 450 million gallons in the first quarter which is on track to a record potential record year led by Canada and Europe and the UK and the Netherlands and Colombia and places like that that are really taking our product mainly because of the competitiveness we are to other fuels in the world.

So, you know we think for the rest of the year strong driving demand hopefully the industry maintains some sense semblance of discipline on production which is always a key.

But generally speaking, we're set up better than last year and we finished a strong last year as a company, and we'll probably could have done a little bit better.

But overall, I think we're setting up somewhat similar, even better a better fundamental case versus last year especially with these exports, they're not slowing down; they're definitely not slowing down especially in some of these bigger markets.

#### **Andrew Strelzik (BMO)**

How does Brazil play into your kind of export expectations?

They're obviously an on again off again kind of customer over longer periods of time.

So, so is that a realistic possibility to export ethanol to Brazil? What's the size of that opportunity maybe how, how would you just think about that?

#### **Todd Becker (Green Plains)**

Yeah, I mean it's the market today isn't necessarily open.

We're out where the arb has closed a little bit.

But when we look at the last half of the year and we look at the demand out of Brazil and we look at the supply capability of that industry down there, we believe that that market will be open for us sometime in the last half of the year. Might be small, small amounts of time, but it's enough to really make a difference.

You know every 100 or 200 million gallons of extra export demand really does make a difference in this in this balance sheet.

When we look at the stocks numbers that we have, our view is in the last half of the year Brazil should open up for us mainly because of the lack of supply they're going to have as they close out their year.

#### **Andrew Strelzik (BMO)**

Can you, can you share from a basis perspective a corn price perspective kind of what you're seeing now versus, especially on basis, what you're seeing now versus prior and kind of how on a go forward basis you're thinking about from a minimum cost perspective that that coming into the plants.

#### **Todd Becker (Green Plains)**

There's plenty of corn, that's all I can tell you and there's plenty of corn in the world today and there's

going to be plenty of corn in the world for the next five years.

I mean whether we have a weather event somewhere maybe that'll be the case, but generally speaking, you know we're going to get the, we're going to get the crop planted, we get it planted every year and this year we should will be no exception quite frankly.

And yields, you know we have record yield dialed in for the balance sheet this year for the USDA came out with about a 180-181 yield.

We'll see if that happens.

So, you know we could get a little bit tighter.

But generally speaking, there's not a problem to buy corn every single day, the market structure is set up for us and even domestically and both globally.

There's just there's just so much in the world today and I think that's not going to be any problem for us.

We do, we're a little bit behind in the East on planting.

So, we'll see what happens there, an Eastern corn belt, the Western corn belt will do, will do, will they'll get it in and we'll make significant progress this week.

Again, we are a little bit behind, a little bit behind last year, but overall farmer catches up very quickly and they love to plant corn just so you know I mean that's the key is this farmer knows how to grow corn, loves to plant corn and added this number \$4.50 to \$5.00 corn.

They're going to take a shot at continuing to get as many acres as they can.

Now we'll see if we get those extra acres in, but actually where it's been dry is where we typically get the extra acres in the northern, northern part of the corn belt, Minnesota, North Dakota, South Dakota, they've been wide open to get to get it planted and that's where we usually find extra acres.

So, we'll see what happens and then otherwise they'll just they're just going to plant beans whatever they can't plant either.

#### **Andrew Strelzik (BMO)**

So, but so that you think we end up north of whatever the 90 million?

#### **Todd Becker (Green Plains)**

I think it'll be, I think 90 is a good number to start with.

Could we pick up a little bit of extra acres?

Possibly, but I don't think we're going to lose a bunch of acres unless it just keeps raining and then then they can kind of switch between corn and beans a little bit, but they will go as hard as they can to plant this corn crop.

#### **Andrew Strelzik (BMO)**

Got it. OK.

Moving to the corn oil side, obviously there's been a bit of a roller coaster for the vegetable oil complex.

You talked about kind of how expectations have evolved a little bit your yourself, but how do you think about the outlook for corn oil prices, what that could contribute to your EBITDA build, you know over time and maybe the demand runway as renewable diesel ramps.

#### **Todd Becker (Green Plains)**

Yeah and we've seen corn oil prices come down and veg oils overall come down significantly from the 70s into the 40s and even into the 30s with some of the basis.

You know RBD is trading was trading at 500 under futures, so on soy oil.

So, it is a very weak set up for veg oils right now, you know \$0.30 off the highs for us is \$100 million a year and \$100 million a year put a multiple on that divided by a share count.

You can see why our why we probably were a little bit weaker from this point of our stock price because it is right off the top.

And so, in our view is, is veg oils will continue to remain weak right now.

Now there was some talk on this on this tariff being put in place on use cooking oil out of China.

Our view internally was probably not going to happen.

It's you know it's easy to tax an EV at 100% when we were already taxing them at 20 and 30% and the market was closed much harder to tax feed and food feedstuffs and foodstuffs.

And I think from that perspective I don't think we're going to see much action, because we need China as a as an outlet as well for our agricultural products.

So, I think very our view was probably not going to get much traction on that.

But hey, you never know, and this is this is a crazy year with the, with the election.

But overall, our view is veg oils will remain weak for a little while longer.

We'll see what happens when the big plants in California open up.

Martinez and Rodeo, that's 100,000 barrels of vegetable oil demand a day. That is 2 1/2 that is well, the ethanol industry produces the equivalent of about 40,000 barrels a day of DCO and this is 100,000 barrels a day of soybean oil or vegetable oil demand coming on in California.

It's just a massive giant sucking sound, but we'll see what happens with all these other imports from around the world and what what's going to really make it in here or not.

Generally speaking, you know our view is that we'll probably remain on the defensive side in veg oil prices.

Now the only thing I could say is that you know the great unwind happened where buying meal and selling oil and we see the oil share is really low relative to history.

So maybe we see a bounce because of that but then we saw a weak basis even as we bounced off of those lows.

So, it's general generally speaking the cash markets will remain weak.

### **Andrew Strelzik (BMO)**

You've talked about at various points in time in various corn oil markets potential off take agreements and things like that.

I mean where we sit today and with that perspective does it become more or less attractive to try to have a little bit more visibility there or not so much?

### **Todd Becker (Green Plains)**

I think the turning point on for at least for corn oil and used cooking oil will be next year when the biodiesel tax credit is gone.

We'll see if it's gone right now it's supposed to be gone but you never know whatever ever happens at the end of every year.

But the biodiesel tax credit goes away and we move into more of the of the of the IRA type programs where we are favored as a feedstock from a carbon intensity standpoint corn oil distillers corn oil is favored as a feedstock so is used cooking oil over soybean oil and there is no, there is no tax credit next year.

So, it is actually a producer credit.

So, we'll see how that all transfers around relative to the demand for our product.

But I think next year will be the true test of what a low CI product can earn in in these type of markets as we get into 2025 and the and the and the IRA kicks in.

**Andrew Strelzik (BMO)**

And at that point you would evaluate or whatever it doesn't make sense now obviously given that dynamic.

**Todd Becker (Green Plains)**

But no I let's get Rodeo and Martinez on Rodeo and Martinez online.

Let's get that giant sucking sound, let's see what people need for low carbon feedstocks and then we'll assess from there.

But that's really, we're excited about that because we do we produce about three to 350,000,000 lbs of corn oil per year and we see some technologies that are going to unlock some of those yields over the next coming years where there's more corn distillers corn oil available in this corn kernel.

It's just been Pandora's box in order to unlock it.

And we're doing some things of Fluid Quip, our technology group that we're starting to see and make progress to try to unlock the rest of what's in that in that as well as our as well as our partnership with Shell on the fiber conversion technology which unlocks all of the corn oil that's in, in the in the kernel of corn.

So, we've only been able to get about 1 LB of about 1.8 lbs in a in a bushel available and the Shell technology along with some things we're doing at Fluid Quip, but we believe we can start to unlock much higher, much higher yields and that's the most valuable product we make even at \$0.40 a pound, it's an \$800 ton product.

**Andrew Strelzik (BMO)**

It's amazing.

OK, so, so moving over to the higher protein feed initiatives, the Sequence brand you're at, I guess the question is if you could talk about the demand environment for that product.

I think you're at 10% of the 60% protein on the way to 20 to 30.

Where are you seeing that from an end market perspective across the business, kind of how does that mix look and how does that evolve as we kind of get towards the end of the year.

**Todd Becker (Green Plains)**

So the first quarter of the year we saw a compression of all proteins and that was much like 2021 I think we saw.

And then as well where the distillers grains traded very high which is a kind of a low value protein, but then soybean meal collapsed and corn gluten meal collapsed on top of that and all proteins in the world compressed during the first quarter which weighed on everybody's margins.

Second quarter what we've seen is, is a bit of a recovery.

Now you've seen distillers' grains go to 150 and you've got meal at 370.

So, you've got a nice spread against meal again which we saw that widen back out.

And then you've seen corn gluten meal also rally off the lows about \$100 a ton.

So those just give it a little bit time and those markets will start to even out.

So that's really good for how we're thinking about the remainder of the year.

Our 50 Pro demand continues to remain strong, but we really built our system so we can make Sequence which are now our branded 60% protein product because it does have some unique characteristics that we control in fermentation and we're starting to see good demand for that product.

We're at about 10% going into the Middle East right now.

We think another 10 or 15% will go into South America, into the into the aquaculture markets and then we think we're going to grow from there into the North American pet market as well with the 60% and Sequence product.

And we could do some things and work with customers and tastes and texture and profiles and those type of things and feed conversion ratios.

We're really getting great demand.

We finally got with some major demand base customers, some of the labels were something that we had to had to get approved, takes a long time.

We're through most of our trials with both aquaculture and pet and we believe this that demand is going to start showing up even over the next kind of 30 to 90 days.

But we're right now we're about a little over 10% committed on the product and we're right on track to where we thought we would be 20 to 30%.

First of all, when we started this initiative, we didn't even think we were going to hit this 60 pro plus market for three to five years and we hit in three to five months.

So, we were ahead of ourselves.

The customer takes three years for acceptance, literally two years to grow salmon.

You got to get through pet food labelling and pet food those groups, there on quality control and feed the animal, let's see how the animal likes it as well.

So, we're through all of that now.

So now it's just a matter of into the next contracting season, what are we going to be able to win. What is our inclusion rates going to be and we know that the labels are already approved for our products now.

#### **Andrew Strelzik (BMO)**

I guess what is the feedback from the customers and the testing and things like that?

It sounds like you're pleased with how that is met kind of the metrics and the performance that you would have wanted.

So, I guess when you think about contracting and how much you'll win etcetera, what's the I guess what's the governor, what's the, what's the toggle?

#### **Todd Becker (Green Plains)**

It's time now that's really, really all it is. It's just time, it's time and inclusion rates, you know we're in negotiations with all of those different species, you know one the inclusion rates and the testing went very, very well.

The feed conversion rate ratios went well.

We had one customer say we got a little nervous, they called us up and it's true story they said we got to stop feeding your product and which gave us gave us a bit of pause because our fish are growing too fast.

That was actually a really good thing, so.

So, and we can't make this up by the way, but so that's a good thing actually.

So then then they have to reformulate to figure out how to use our products because remember if you cut 30 or 30 days off of growing a salmon, that's massive return for the for the feeder, right, because it takes two years, take one month off, take 15 days for a trout which takes 9 to 12 months.

That's just a massive uplift and return and that's what they're getting with our product today.

And we're even making progress on the next generation of this product as well, which is embedding, you know, peptide technologies into there to actually make it tastier for the, for the pet, for your pet or for the for the aquaculture market.

And those are things that we've worked on with Novozymes over the last several years as well.

So, we made significant progress there.

That's why we call it Sequence, because we can sequence certain things on top of it.

We can basically start to layer in different, different things within this formula by using fermentation.

That's the uniqueness of this product.

Again, you're not seeing it yet because the sales are just starting.

But our view is that that's really where it will differentiate ourselves in the in the global protein markets.

**Andrew Strelzik (BMO)**

And can you remind us as we go from kind of your base feed to the 50 to the to the Sequence of the 60 Pro what that does to the margin structure?

**Todd Becker (Green Plains)**

Yeah.

So, every, so what we basically said when we started this, this journey is every six, every \$100 a ton was worth about 6 cent a gallon uplift to our margin structure.

And when we looked at it just off the top, we said how do we justify the investment?

Well, the investment is you know \$200 a ton premium over soybean over distillers to soybean meal, that's 12 to 15 cents a gallon.

Another \$200 premium over soybean meal to the traditional spread is actually higher than that to corn gluten meal is another 12 to 15 cents a gallon, that's 25 to 30 cents a gallon uplift and whatever we produce, and which is recurring predictable and not very volatile from that perspective.

But we've seen those spreads even wider.

When we started our investment, we had high protein soybean meals 300 over DDG's and corn gluten meal was 300 over soybean meal.

We've seen those compress a little bit but what we have at Green Plains is, is at 60% protein and higher is really the first plant-based protein product in volume that's we're probably produced 4 to we could produce 4 to 500,000 tons of this product in volume available.

So, people can formulate around it, but we'll just have to watch and see the ebb and flows.

You know we have an avalanche of soybean meal coming in later this year.

So, we'll have to wait and see how that hits the market with all the soy crush capacity that's coming on this year, and will that disappear? How long will that take to clear the market.

Our view and my view is while everybody's we're very worried about this avalanche of soybean meal, you know the markets are very efficient and the market does need protein and it will find a home, it always does find a home.

There won't be, it won't be sitting around.

We might see some weakness to start, but we'll clear the market on that as well.

**Andrew Strelzik (BMO)**

Can you talk about how you think about the JV opportunities because you have you have Tharaldson coming on or you know it's in the process right now.

You know what, what is the appetite to do a bunch more of those, I guess.

I mean I know this is the biggest, you know and so there's a volume dynamic and it's a really attractive component, but that would seem like a really attractive opportunity, low-cost capital.

So yeah, how do you think about it?

**Todd Becker (Green Plains)**

So we think we're at a strategic advantage with owning and controlling these technologies with Fluid Quip.

They continue to innovate through many of these different technologies.

We did the first JV with Tharaldson.

It's a big plant, one of the biggest plants in the United States in in from an ethanol production standpoint and we think there's other opportunities.

What happened though as we were talking to other people about JV's and partnering, was the IRA came along and if they're looking at their own allocation of capital, they're going to allocate to carbon reduction and try to go after that to start before they allocate to a protein uplift and but that's domestically.

But internationally and globally, we are in discussions all the time to apply our technology in multiple different types of JVs around the world, whether it's going to be in the UK, whether it's going to be in Europe, whether it's going to be in Brazil, South America, wherever you know there's a lot of ethanol plants around the world that make these distillers grains and want uplift of their of their value.

That's going to be something that that Fluid Quip has already footholds in all of these countries.

They sell their technology around the world.

We're in Brazil with some of our protein technology already as well as their flex plant technology, the global leading technology where you can take a sugar plant when it's not being used and put corn in there and make ethanol out of that as well with that all of a sudden makes protein.

So, I mean our view is that it's going to be a global opportunity first Fluid Quip sells the technology or we partner with other people maybe on a non-GMO product around the world as well because we did produce a non-GMO product in in Nebraska.

We it's not like we did a lot of that but that has some really great results coming out of our trials in in in Norway as well and you've seen it did some published reports that it is an absolute winner so far in in these feeding trials for salmon in in Norway.

#### **Andrew Strelzik (BMO)**

So are those conversation, are you having those conversations now is it farther out just because priority of capital allocation with the IRA.

#### **Todd Becker (Green Plains)**

For us it's priority capital allocation. I mean we, you know, there's only so much as we always say, our aspirations are always bigger than our balance sheet.

But you know from the standpoint of what Fluid Quip can do and owning and controlling this technology, it's also selling technology too.

And that's an undervalued and underappreciated asset that we own today.

And I think like over the next kind of three to five years, people will understand the value of why we bought into that technology provider and why we own most of it today and then leading into, you know, the sugar technology is the most valuable thing I think that we possess.

#### **Andrew Strelzik (BMO)**

So, let's talk about that.

The first plant is coming online I believe as we speak.

Can you give us an update kind of on where that stands, what are the next checkpoints and then kind of the contribution ramp as you talk about food grade certification and continuing to build that overtime?

#### **Todd Becker (Green Plains)**

Yeah, so for those that don't know, we bought Fluid Quip technology, everybody thought we bought them for the protein technology and got the sugar technology was actually the opposite.

We bought them to control sugar, clean sugar technology and we got protein as what would say is the icing on the cake.

But we have a technology that basically can now divert part of our corn grind at a dry grind facility which typically dextrose is made at a wet mill.

We can now divert some of our grind and make clean sugar and make dextrose.

What is what is a food and a industrial grade dextrose.

And so, we're literally built the first serial number one plant but it's most of the unit operations came from somewhere else.

Nothing was invented per se other than a few little parts of it that are that are totally proprietary and cannot be recreated.

But what we're able to do is divert some of our grind at a traditional ethanol plant and upscale that into a dextrose product both refined and unrefined.

We're now in start up mode in Shenandoah.

It's the first one ever built in the world.

It's a 250 million pound facility.

It'll grind about 1/3rd of Shenandoah.

We'll take about 1/3rd of what we did in Shenandoah IA to make ethanol.

We'll make dextrose out of it.

We've been, we've been in, we just about 30 days ago we finished the project and now we've been in in commissioning, and anybody knows commissioning on a serial number one is always fun and interesting and challenging and exciting.

But basically, to date you know we've been able to make unrefined 95 dextrose which by the way is a product today.

You can actually go find it on our competitors' websites if you want to look at it.

So, we're now have been able to make that and now what we'll move now is to how do we get to a water white refined dextrose.

And as we kind of turn on each of these unit operations, we find, you know we find things we need to probably fix something from the manufacturer, maybe something from the construction, maybe a leak in a pipe or whatever it's going to be.

So, it's going to continually be a process over the next kind of 30 to 60 to 90 days.

We always said it was a we didn't want to rush the scale up of turning this on.

But there is no question in our mind it's a matter of if we're going to make it.

But when we're going to make our water white and as soon as we make our water white clear dextrose syrup then we'll go for a food grade certification.

We have enough demand to buy the whole plant for next year if not 2X or 3X the amount of demand that's showing up at our door.

We are in negotiations and finalizing contracts as we speak for some industrial uses right now.

And then food grade is coming later in the year as we as we are able to get our certification.

But we'll be in food grade evaluations as soon as we can make the product.

We have already made food grade in our York facility and that's already qualified where we're it's much smaller, older, not even as modern, not even close to being as modern and we know.

So we know we'll get food grade certified.

It's just it's just a matter of time now but we didn't want to rush it.

We learned a lot of lessons in starting up protein.

You know the first protein facility we thought we'd just turn it on, set it and forget it.

And it's just this time we just decided that let's just take the time we need now it's not over promise anything.

Let's just get this plant up and running and turn it on the right way so that when we get to our final product which will be food grade 95 DE and 43 DE, which should come in next and what we think 30 to 90 days somewhere in there, then we'll know where we want to build plant #2 and how we want to scale this technology.

The uplift in margin is exceptional.

I mean you take a ethanol plant, let's just use 0 or \$0.10 a gallon, take your pick.

It doesn't matter. Contribution.

When you turn on sugar, it's an immediate \$0.67 to \$0.80 a gallon uplift on that on that same corn kernel if you would instead of converting it into alcohol.

So, and we own it, we control it, we control the IP, it's closely held.

We're not selling the technology to anybody.

Now we have people around the world that have asked us, will I sell the technology, will we sell the technology?

Well, I always started as no, but then I say, well, if you're sitting in somewhere that I can never get to and you can't restrict your area, then maybe I will.

And actually, we have people that are interested in that.

There's demand for dextrose around the world today and today it's growing way faster than supply in our opinion.

**Andrew Strelzik (BMO)**

So, 30 to 90 days plus food grade certification plus agreements.

You expect all that to be completed by the end of the year?

**Todd Becker (Green Plains)**

Oh yeah, definitely.

**Andrew Strelzik (BMO)**

So, you would be kind of ready to rock for.

**Todd Becker (Green Plains)**

We don't want to miss the contracting season either.

So, we're pushing real hard as well.

We want to make sure that you know this contracting season for food grade food companies they'd actually do that.

And as you probably know, and so with this September, October, we want to have a very clear path to, to get getting something ready for them so that we can be in contracting season.

We don't miss it, but 250 million pounds is just not a lot of dextrose, right, in a 15 billion pound market.

**Andrew Strelzik (BMO)**

So, when you think kind of longer term about your ambitions, you're talking about a second plan.

But I guess bigger picture, longer term, what type of player in the space do you want to be?

**Todd Becker (Green Plains)**

I want to be a profitable player.

Where we can make the most amount of money that we can.

So, I mean that's what I want to be.

So, we understand that if we bring it on too fast, we could, we could definitely compress margins.

We don't want to do that.

There's no other.

The only other project that was announced was a project in Fort Dodge for 250 million pounds.

That's literally the only other Dextrose project announced since we started, you know.

So, you know our view is we'll bring on the first plant.

The second plant should be somewhere between 500 million to 750,000,000 pounds.

So, we'll get to a billion.

Our long-term goal is to get to 2 to 3 billion, which is really only the equivalent of about two to 300 million gallons of ethanol converted, but two to 3 billion pounds at the equivalent of 2 to 300 million gallons of ethanol, it's \$0.67 to \$0.80 a pound.

We'll take that.

We'll take that all day long from a from a return standpoint and you know we're close, but it's definitely disruptive where there's no doubt about it.

We're being watched very closely by the four, what we call the Oligopoly, the four incumbents and they watch it closely.

But you know what they have all the demand they can take today and growing, I mean industrial demand for dextrose and some of these biological chemicals those type of are green chemicals that are happening in a fermenter and things that are happening in a fermenter are really changing the way that that the market is thinking about dextrose.

So, whether it's from some of the some of the seltzer drinks that are out there all the way through you know some of the products and gummy bears all the way into you know things like enzymes and chemicals, there's just demand is growing faster than supply.

So, I don't think they're really worried about us, nor should they be and we're not going to certainly not going to ruin the margin structure but we want to go after some, we want to go after some of that margin structure.

It's frustrating when we sit in Omaha and there's a plant 30 miles north of Omaha in a in a little town called Blair and they grind that same kernel of corn, and they make a lot more money than we do running that same kernel of corn in Shenandoah and that's what we're going to go after.

### **Andrew Strelzik (BMO)**

Got it. OK.

And then moving on to SAF and carbon, maybe on, on, on the recent announcement on the on the modelling guidelines around the 40B, just as that sets the stage, will Green Plains be able to participate in kind of SAF, Alcohol-to-Jet based on that policy and what was your take on how that came out, where it might go?

### **Todd Becker (Green Plains)**

Yeah, yeah, it's interesting because you know the ethanol industry and the biofuels industry never want to say anything positive when it comes out.

But I would tell you that when you look at what happened in this recent modelling, it was actually very favorable to what we're doing as an industry and as a company.

If you if you sequester carbon, you get 30, 30 CI points that gets you now qualified under a certain level for SAF without farmer carbon without farm smart, the climate smart practices on the farm.

So, we actually we got a really favorable ruling from the standpoint of they reduced our indirect land use penalty that was the start of it and then from there they got us to a point by doing by doing that

now as we reduce 30 carbon points just by sequestering carbon in a pipeline into geologic formations, we can now qualify for SAF.

You know for Alcohol-to-Jet, you don't need climate smart to qualify.

Now if you have a sequestration program, which I think is really important, which is a really important point, which really puts us into you know our plants in Nebraska that are going to be on a pipeline operating sometime next year and very early pipeline project.

And we have the, the what we believe will be if the largest or if not second largest amount of decarbonized alcohol that's made in the United States today.

And the earliest and we think it's an advantage to our asset base, we'll probably look to allocate some capital to get a little bit more out of that asset base in Nebraska.

But the economics are excellent.

The 45Z tax credit is in place.

We want to capitalize on that to start the 45Q is 12 years of direct pay on top of that with the 40B guidance and then the Alcohol-to-Jet guidance.

I think ultimately, we see sometime in the last half of this decade Alcohol-to-Jet plants being start being built.

But nothing happens in that space until you decarbonize the alcohol.

Nobody's going to build an alcohol to jet plant thinking that we're going to bring a bunch of Brazilian ethanol up here to make jet fuel in the United States.

We're going to build an Alcohol-to-Jet plant in the United States when that first carbon pipeline starts operating and people know they can buy decarbonized alcohol along with projects in North Dakota and there's some geologies in Ohio and Illinois.

There's a couple of project great projects that are there as well that some of the industry is working on.

So once the once the market knows and it's been much bigger players than Green Plains going to build sustainable aviation fuel or ATJ plants. Once they know they have supply and we're getting calls today to talk to people about that supply for next year to lock it in now because they have to get approvals on projects.

These are \$5 gallon type CapEx, maybe \$4 to \$5 gallon type CapEx.

So, you want to build a 500 million gallon SAF plant that's you know it's \$2 billion.

You know that's not that's above our pay grade at Green Plains, but we will be happy to supply them with decarbonized alcohol at a premium.

So, but it just you know when you look at the conversion if it if they want to do 600 million gallons of SAF from alcohol, you got to have a billion gallons of ethanol production to do that because you get the conversion ratio as well.

So, so generally speaking I mean it is one of the biggest things that I think is under appreciated about our company today is mid '25 we'll start sequestering carbon at some point and it's going to generate about \$100 million of free cash flow a year on \$100 million investment just because of our position in Nebraska.

### **Andrew Strelzik (BMO)**

When you think about, I guess how would you stack up where you would expect the feedstock to kind of stack up versus some of the others.

And when you think about demand, I mean you talked about the 30 you know CI point reduction and some of those things.

But I guess when you think about the demand build for SAF, how do you think about your CI score relative to some of the other kind of feedstocks and kind of how that sequences the demand builder?

What needs to happen if that's?

**Todd Becker (Green Plains)**

Well alcohol is alcohol and veg oils are veg oils?

I mean I think there's a very, HEFA feedstocks are very different than alcohol is just where we are.

And I think from a you know Jim, you may have a comment on that.

**Jim Stark (Green Plains)**

Well, I think when you look at the pathway, if the administration is calling for 3 billion gallons of renewables to be blended in, you've got renewable jet that can take that pathway.

But would probably consider that there's less likely because of limitation of feedstock, there's a limited supply of animal fats and tallow and used cooking oil and even our DCO.

But when you think about the pathway for corn ethanol, we probably have a better pathway because we're already buy the 5.2 billion bushels from corn from farmers.

We make more ethanol than we need today.

So, if all of a sudden we could grab half of the gallons of demand for renewable jet through Alcohol-to-Jet, that could disappear two 2 1/2 billion gallons of ethanol out of the system.

Then we don't have enough ethanol.

Then you start thinking about exports, blending, domestic blending and going into SAF.

So, our view is we, we stack up nicely, Yeah, that you've got the last piece really the first piece for us is to decarbonize and those advantages start to come to us as soon as that decarbonization happens.

We've got 45 Z, 45 Q is in place today that's automatic for us.

And then the advent of there are LCFS markets that we can take advantage of with our low carbon ethanol as well.

But then that as Todd mentioned, that's going to put these bigger entities that want to continue to control the supply of jet fuel to the airline industry.

They're going to be highly interested in wanting to make sure they make the investments to get that alcohol to jet going.

**Andrew Strelzik (BMO)**

You've talked about a number of potential kind of strategic actions, I guess in terms of pivoting the asset base, selling plants, expanding capacity, maybe reprioritizing some of the initiatives.

I guess, can you, can you just kind of show your thinking or the framework behind what you're approaching that piece of, of the longer-term strategy?

**Todd Becker (Green Plains)**

I mean, we've been at it for a while, right?

And so, we know that the traditional fuel grade ethanol market has been no less than a challenge over the last 15 years.

We have our ebbs and flows and highs and lows and everything in between, but we survived all that.

So, when we look at the future of where we're going, it's first and foremost up upscaling our products, where can we go get a recurring predict recurring predictable non volatile cash flows.

We know we can get it in protein.

You know that's just taking time.

We know we can get it in sugar.

We know today we can get it in decarbonizing our alcohol.

And so, when we think about how to allocate capital, what's the best and highest use of our money and where do we invest behind our asset base.

So, if we have an asset doesn't that does not have a carbon plan, it cannot be necessarily decarbonized, it may not fit the way we want to look at unless we could put protein or sugar there.

So, we're evaluating all of our assets and also looking at our, we just believe that we're in such an excellent position in Nebraska today with three plants there, two that are very large scale, one is one of the oldest plants in the world.

But we will still, we'll still make ethanol there every day and we're going to even invest some money to lower our carbon score there as well.

We think we're just such an advantage there.

So, when we, when we are looking at the investments that we're going to make next, we will build more protein.

We're not going to stop that.

I would never take that back and I think we need more of it as we go through because I think our Sequence product and I think we're going to make breakthroughs as well to even get higher, higher protein concentrations.

We're already starting to see that and the ability to do that with some of the things that we're doing as well, so.

You know we're not stopping there at all and then and then scaling, scaling sugar at some point, you know we always said the first sugar plant's paid for, the second's not.

So, when we look at capital, we got to say you know we're if that truly is where we're going to go to go after those highest margins that are available, that's going to, that's going to be a big allocation of capital.

And maybe if we can't, you know we can't, getting a permit in the state of Minnesota is like you know three or four years from now you might be able to start construction Illinois, we finally got a permanent in Illinois, but then the IRA came along.

So, we're just going to make more alcohol to start and use that capital than just invest behind the IRA.

But then we'll come back into Illinois and build that protein facility.

So, there's going to be things that we have in flow, but we're always looking at our asset base.

We're also looking at the fact we want to acquire.

We're we are thinking about are there things that we can acquire because of our ability to layer on technologies but also the fact that you know we do have access to capital as well.

So, and we do have a public currency.

So, we're not done growing this company at all and today you know when we look at it, we think we're, you know when markets are always ebbing and flowing, they will recover.

This in this, this sector has been under pressure and we're part of that being under pressure.

The veg oil markets, we'd like to see a recovery there.

But overall, you know we think the products that we make are very valuable, valuable and the decarbonization hasn't even started yet and the value that we can get from that.

### **Andrew Strelzik (BMO)**

Then you we only have another minute or so, but you touched on this a little bit from a funding perspective. I mean how do you think you just talk about the balance sheet, can you talk about what you have allocated where in terms of a funding perspective and the go forward opportunities.

### **Todd Becker (Green Plains)**

I mean right now in our balance sheet you know continues to remain strong.

We always try to stay in a strong liquidity position.

We had about 280 million of cash or so plus 250 million of available capacity on top of the fact that margins have gotten better since the conference call as well.

So, we have been ebb and flow a little bit there as well, but we're looking at now refinancing some of the debt we have on the balance sheet.

When you everybody loved the SOFR plus 400 when they got it now know everybody hates SOFR +4 or 500, but you know so there's some opportunities I think to get some longer tenor debt a lot cheaper than what we have today.

So, we're focused on that.

Should we look at some assets and reallocating those assets to do something else as well.

And then and then from there it's you know how what capital can we generate from free cash flow.

I mean we really don't, our intent is not to issue a bunch of equity to do any of these things.

It's we do have debt capacity available if we can get the right structure in place.

And then also you know we're really excited about 2025 when we kind of get through this, this market get ethanol margins a little bit better and try to get into a full year or 60 Pro, a full year of carbon, a full year of sugar and start to really generate those, those free cash flows and all that is unencumbered to be invested in the business.

### **Andrew Strelzik (BMO)**

We have a question from here.

So, I want to just ask that real quick.

I know we're out of time, but your view on the premium that's available on low carbon ethanol when used as a SAF feedstock.

### **Todd Becker (Green Plains)**

Well nobody's using it yet.

So, but I you know I think there's definitely calls coming and we feel like it's a little bit of deja vu from the corn oil days when everybody was calling and we were, we were the, we were the supplier that everybody wanted to talk to.

It's happening again in the low carbon alcohol because in order to get FID from and some of these companies that want to build jet plants, they need to start to secure supply.

So, we think there's an opportunity there.

We don't really know what kind of premium yet.

I will just tell you this is that I think it's when you look at the carbon credit, a biogenic high quality carbon credit, it's actually we think it's actually the more valuable than LCFS today and we haven't even seen the value of that in any in any size scope or scale.

So, we're going to produce 750,000 tons of carbon credits next year when we when we start up high quality gold standard biogenic carbon and it's not going to be the mom and pops that are going to buy the credit when you fly on your airplane and you and you pay the extra money, it's going to be the Googles and the Facebooks and the or the Meta's and the Microsoft's and anybody that's committed to decarbonization.

We're those are high quality credits that they can't buy in in the world and 750,000 tons of credits that we're going to possess sometime middle of next year available on the market.

It'll be the first true test of the value of a carbon credit.

I think of a high-quality carbon credit.

And when you look at LCFS today under \$50 and you look at carbon credits probably over \$50 today, who cares about an LCFS market?

Quite frankly, I mean sorry Jim, but who cares about an LCFS market quite frankly the 45Z today if you sequester their carbon to edit that is a national low Carbon fuel standard and we're going to be very early adopters and very early participants of that.

And that's what we think will be the advantage and we don't know the true value of that yet, but the value of decarbonized alcohol, we believe will be a premium to non decarbonized alcohol.

**Andrew Strelzik (BMO)**

Perfect.

I think we'll go ahead and edit there.

**Todd Becker (Green Plains)**

Thank you.

**Andrew Strelzik (BMO)**

Look forward to that's for sure.

**Todd Becker (Green Plains)**

Thank you very much.