

Crusonia Conversations – Matt Crisp & Leslie Bonci

The following has been lightly edited for clarity.

Sarah Mock: [00:00:00] I'm Sarah Mock and welcome to Crusonia Conversations, a forum bringing together entrepreneurs, innovators, and experts in ag, food, and health. A group passionate about the fundamental belief that food is health.

Carter Williams: [00:00:23] Thanks Sarah. I'm Carter Williams, CEO of iSelect. We focus on hard problems. One of those hard problems is Americans spend 1.6 trillion every year on food, but spend nearly 2 trillion on diet-related illnesses, like Type 2 diabetes, obesity, and cardiovascular disease. Each of these is fatal in their own right. They're more fatal when your comorbidities for COVID-19. These are tough problems. At iSelect, we believe if you want any hard problem solved, you give it to an entrepreneur.

We believe that you cannot solve the healthcare challenges we face without the evolution to a new, better and more nutritious food system. Our work at iSelect, and the broader work we're doing with Crusonia, is focused on bringing the right people together to make this happen, to effect the change, to bring entrepreneurs forward.

Large corporations, healthcare systems, patients. Together to make real progress. To solve the problem associated with healthcare. To introduce better food. To make it so that food and health are combined as a solution to improve our quality of life. Our hope is that results are measured not only through the traditional financial metrics, but through a fundamental and positive impact on reversing the footprint and impact of diet related to those

Sarah Mock: [00:02:00] Welcome to Crusonia Conversations where entrepreneurs, experts, and investors explore change in the global food system. I'm Sarah Mock, your host for today's discussion, where we're talking about improving the nutritional quality of our food system. From plant to plate, the greatest food challenges we currently face are about nutritional quality, not supply. There's promising evidence that this can be improved from the ground up with crops, specifically designed to be more nutritious and personal practices that can lead to better food choices and overall improvements in health and wellbeing. Here to help us dig into the links between nutrition and food quality and the opportunities for investing in the future of health, food, and agriculture, we're joined today by Leslie Bonci and Matt Crisp. Leslie Bonci is owner of Active Eating Advice, a nutritional consulting company, advising major brands like Gatorade, General Mills, and the National Dairy Council. In addition to her role as a nutritional consultant for the Kansas City Chiefs, she is an author, an active blogger, and host The Winning Plate on KTKA TV.

Matt is the co-founder of Benson Hill. One of St. Louis' hottest start-ups focused on improving the nutritional quality of food from concept to kitchen and plant to plate. Earlier this year, Benson Hill launched Benson Hill seeds to distribute a line of soybeans with superior nutrition and healthy oil content.

Leslie and Matt, we're so excited to have you here. Matt, you have a background in venture capital and you are leading a thriving food tech company, Benson Hill. Why are you placing your bets in food and agriculture right now?

Matt Crisp: [00:03:48] There's just a huge amount of genetic diversity out there that we're not tapping into right now. You know, the food system is concentrated on, for all intents and purposes, that commodity infrastructure, producing a lot of calories at scale. And there's just so much untapped opportunity for us to think about. Lots of different crops, other crops and, for the crops that we produce on millions of acres, how we might actually tap into their natural genetic diversity as well to focus, not just on yield and agronomic properties, but nutrition and other factors that improve our health and wellness.

Sarah Mock: [00:04:24] Americans currently are spending about a trillion dollars a year on food and twice that on diet related diseases, including Type 2 diabetes, obesity, cardiovascular disease. Leslie, from a consumer perspective, how did we get here?

Leslie Bonci: [00:04:38] The perfect storm of things that have happened that have gotten us to this point. One, is that people are not moving as much. The portions of food have changed in an upwards direction, not a downwards direction. And there is food around all the time. It's a 24/7 exposure to food, whether it is people physically going to find it or looking online. And unfortunately at the same time, some of the foods that are best for us are not always as available and they are not always as affordable.

So all of this together has really created this incredible imbalance, from what it is we take in to what it is we expand. And we have quantity, but we don't necessarily optimize on the quality of what it is that we're eating right now.

Sarah Mock: [00:05:24] What has agriculture's role in that been, and what kind of potential is there for ag to be part of a solution going forward?

Matt Crisp: [00:05:31] We need to think about the, and again, I point back to the genetics, the genomics of crops, what some of them have actually been bred for. And that is to create a system where we can ship things really long distances, where it preserves for a long time, where we can produce it on millions, or even tens of millions of acres of scale, in a consistent format. But the technology has come so far and our understanding of what the plant can accomplish that it's overdue time that we start to focus on not just five crops or ten crops but, in our opinion, empower that innovative activity throughout the entire value chain and start looking at crops like vegetables and thinking about innovative ways to advance them. Not to, again, ship long distances, but to make them taste really delicious and still have the shelf life and still have the productivity and the yield that the grower is incentivized to put that together. And then, I'd say, the other element of this outside of the biology is a demand, and the nutrition, and the health, and the flavor that can come along to service the needs of the demands of the consumer.

It's also the transparency of the system. We have technology right now that is, should, will allow a consumer to understand where their food comes from. What is it made of. In many cases, who grew it, where did it come from? And I don't mean what country, I mean what zip code or what farmer grew it. We're at the dawn of a tech era that is allowing us that type of visibility to, again, not just create the better food, but deliver ultimately the better food to the consumer. And to do it in a way that has a lot of integrity, that has a lot of transparency, that meets the sustainability guidelines that people are increasingly interested in and want to favor. So it's a combined solution and it's a system-wide solution that we're embarking on.

Sarah Mock: [00:07:34] I want to follow up on that because I think one of the big questions here is if there is a more nutritious, better tasting crop option out there, how do you get farmers to adopt it?

Matt Crisp: [00:07:45] Yeah, that's a great question. You really have to share value. It's like anything. If you want behaviors to shift, there has to be "what's in it for me" answered.

Farmers don't want to grow a crop that they've never grown before. However, farmers are innovative. Farmers are entrepreneurs. Farmers will adopt technology, new crops, new solutions that ultimately provides a good return on investment.

When you can identify that value creation opportunity, then we can establish this partnership in the supply chain in order to drive supply and production. At the same time, you can service the needs of food companies, ingredient companies, who then in turn are delivering products that people love and are willing to pay for. It just becomes a win-win. You've got to make farmers part of the solution in order to really drive these changes and behaviors.

Sarah Mock: [00:08:39] Over the last 30-40 years, nutrition science has changed tremendously. How confident are the two of you that our interest in alternative proteins right now is not just a fad?

Leslie Bonci: [00:08:50] I'll start with that. One of the things that we've seen in the trends and the data from 2016 to 2019 is the number of people that are opting to try plant-based and continue to do so is going up. So that's positive and that's before COVID started. And, two, people are seeing the result from the research from some of the diets that tend to be a little bit more plant-focused dietary approaches to stop hypertension, where the result of eating that way are comparable to the antihypertensive medication. There are people that are looking for options to do things without necessarily having to do pharmacological intervention. And that is the beauty of the role of diet. Plus, a lot of these eating pattern, it's more what you *can* include rather than a very, very narrow circle of foods on the plate, maybe the size of a postage stamp.

People don't like that. They want to feel nourished. They want to enjoy the thrill of the food, the gut thrill of the food as well. And that's one of the things that makes plants very, very appealing because you can eat a lot for a little in terms of the calories. You can eat a lot for a lot in terms of the return on your investment from a nutritional perspective.

Matt Crisp: [00:10:03] From our perspective, in an innovative innovation environment, you look at where money from venture capital and investment is flowing because they tend to predict and move after things that are gaining traction and are more than a fad. And they really are indeed a trend. I think it was between 800 and 900 million dollars invested in plant-based alternatives in 2019. More than that was invested in plant-based alternatives in the first quarter of 2020. So we're seeing an acceleration off the grocery store shelves, works in consumer behavior, and investment dollars in innovation.

You're hearing from literally dozens of companies in the last six months who have announced, after Beyond Meat's IPO, which was a smashing success in 2019, dozens of

companies move and want to lay claim to their own brands and the alternative protein category.

So, this is very certainly, not a fad. It's definitely a trend. It's one that we think is accelerated in a COVID environment and that's jumped up that curve. And we're going to continue to see double, and in many cases triple digit, year over year growth for the foreseeable future.

Sarah Mock: [00:11:26] There's certainly a perception that the best foods are much more expensive. Could you both speak to whether or not you think that our food system could turn to better tasting and more nutritious foods, and that they'd be significantly affordable and accessible to everyone?

Leslie Bonci: [00:11:40] We really want people to understand that there's so many places within that point of purchase that they can find things that optimize their health at a price point that works for them. And even the willingness to explore in the kitchen

Consumers are really liking that idea of, "what's in it for me?" The value added to the food that is not just the price point or the label on it. But within that food itself, "what is it doing for my body?" I think this is really a matter of if, not when.

Matt Crisp: [00:12:14] It's easy to throw stones at trends like the alternative plant-based movement and say, "well, it's way more expensive than what it is."

I think early on, there may have been a view that this was only going to be for a certain tier of shopper. That it was not going to be accessible and affordable. But the costs are coming down. Impossible Foods announced earlier this year, if I'm not mistaken, 20% across the board reduction. They, like other companies, are exploring direct-to-consumer and other options, which, I hope in time, will help further drive the costs down.

They also are being thoughtful, as well as many companies in this [00:13:00] space, large and small, about their supply chain. A lot of the companies that are small and innovative and rapidly growing, these are startups for all intents and purposes. And they come without scale and without the infrastructure that a really, really large company can have. And so their prices do sometimes naturally start higher, but over time, as they grow and experience the kind of adoption trends that they're experiencing, I'm very confident we're going to see these types of options get to cost parity, probably much faster than we, and the analysts, initially projected.

Sarah Mock: [00:13:37] Leslie, I'm sure part of your work as dietician for the Kansas City Chiefs involves developing specific menus and nutritional plans for the players. How near do you think this is to being a possibility for regular people?

Leslie Bonci: [00:13:53] It is happening very, very quickly. Just like we break in a pair of shoes, we break in our plate to find [00:14:00] out what works for us. And then we actually increase the compliance and adherence because now people have found something that worked for them, not what was in a book. Not just the general recommendations, but really customized to meet their needs. And flexible enough to be able to match what happens, for instance, for an athlete in season. Out of season, they don't eat the same way all the time because there would be no reason to do so.

I think all of us need to think more about eating as performance, to do the best in our workplace, to do the best in our home life, to do the best in our activities. And we really want our eating to mirror that very, very well.

Sarah Mock: [00:14:37] Matt, let me push this back to you. As the personal nutrition trend moves forward, will this reach all the way back to the farm? Will farmers be able to grow, either specifically for a consumer or specifically for a sector of the market, food that is responds directly to the nutritional issues people might have?

Matt Crisp: [00:14:56] It absolutely will. What we need to be thinking about in order to enable that is this notion of empowerment of innovation across the system.

It's just as important. Creating the food is important. As we understand nutrition science, as we can customize food, as we can create more and more different and more specific products for a broader range of people there become, dozens, hundreds, thousands of opportunities to grow different crops, to meet different needs.

There's a phrase that one of our stakeholders has said. And I think this is true: that from an investment standpoint, oftentimes the riches are in the niches. We'll be in a world of thousands, or tens of thousands, of these niche type of products that can service different folks. Bringing the grower along to deliver that is just as important as developing the great products to begin with.

And by the way, I'd also like us to think, not just about grower as a farmer on 10,000 acres of [00:16:00] land, but we're talking about farmers that maybe working on a footprint that's a tiny fraction of that. We're talking about vertical farms, indoor farms. There's lots of variants of how our system is intending to decentralize production.

These types of intersections are going to create unique, nimble supply chains that allow us to plug in the kinds of solutions to meet consumers' needs in just a tiny fraction of the amount of time and for a tiny fraction of the amount of costs that we could do something like this five or ten years ago, even.

Sarah Mock: [00:16:35] Is there an opportunity, in some of those shifts, for farmers or entrepreneurs as the forward to trying to find their new spaces?

Leslie Bonci: [00:16:44] People love to eat, but they don't necessarily want to do the hard work behind it. But they want to know that they're getting the most from the food that they choose to use each and every day. And that food is having some value added benefit food with benefits. That's definitely something that is very, very appealing right now. I see that in my athletes.

And it is not just about athletes. We want to think more clearly. We want to look better. We want to see better. We want all of these things to happen, and we want the food that we eat to be the guarantee that that will be the outcome.

Matt Crisp: [00:17:19] We're trying as much as possible to listen to the supply chain. When we talk about products that we're offering, that we're in the process of creating supply for, and are in a crop production cycle, when we talk about innovations for different types of

quality of traits, characteristics around, for instance protein, we get phone calls from CPGs, from food system innovators, from ingredients suppliers, from processors, and they are sharing with us their insights and around where they're seeing shifts. This domestic versus international supply chain is a perfect example, where I haven't seen a really good collection of data on this yet. But we were hearing about this a couple of months ago, when there were initial disruption disruptions in the system. So, that's where we're really trying to keep a pulse. You know, we're trying to talk to folks because it helps us think innovatively about our product pipeline and how we can better help them serve their customers as well from both of your guys' perspectives.

Sarah Mock: [00:18:26] What is your vision for the future of food?

Leslie Bonci: [00:18:29] One of the things that I would love to see happen is that we all collectively find a way to decrease food waste. That is absolutely number one, so that the food is not going into the landfill, that we find a way to feed more people because that is critically important as well.

And that we find a way for people to truly identify this idea of "come home to health." That somebody can be prescriptive enough with their eating, that they are finding a way to be self-sustainable over a period of time because of what they are choosing to put into their body, without feeling like they are sacrificing the enjoyment or the taste or the flavor, but really having a programmed kitchen. That I think would be an absolutely wonderful thing to have happen.

Matt Crisp: [00:19:16] In order to tackle those individual, personalized needs, as we've talked about, from a health and wellness standpoint starting with food, we are going to need to innovate a tremendous number of skewers, crops, products, ingredients, fresh food.

And, at some level I equate it sometimes to the music industry or the book industry where previously you had publishing houses and there was this very limited passageway for great content creators. And you'd take a look at what Amazon did, and effectively created a long tail of opportunity for content creators in the case of books, to publish anybody. Anybody can publish a book. If we fast-forward ten, twenty, thirty years, I hope that we'll see the exact same thing happen in food. That if you want a certain kind of a certain berry from a certain farm, you'll be able to get that. And you'll probably be able to get it on your front door, within an hour or two of you ordering it. And, it's going to be fresh and it's going to be available. Then they'll know exactly what it is that they're searching for and why.

Sarah Mock: [00:20:34] Now, we want to turn it to the audience for a live Q&A with Matt Crisp and Leslie Bonci. But we want to kick off the conversation today with a quick survey for everyone. So we're going to ask the question, "how has the global pandemic affected your diet?" You should see a pop-up on your screen right now asking whether it has made you more healthy, less healthy, or has not changed.

All right. So we have some results. It looks like about 33% of you say your diet has become more healthy, 21% says it's become a less healthy. 46%, the clear winner here, says it has not changed. I want to start right there.

Leslie and Matt, are you surprised that most people say their diet hasn't changed during COVID? Then people say they've probably become a little bit more healthy. The fewest amount of people said less. Does that line up with what you're seeing from clients across the industry?

Leslie Bonci: [00:21:24] Yeah, absolutely. And there's so many things to deal with right now, Sarah. Right? I mean, people are just trying to keep it together and part of it might be the plate and part of it might be their job. And part of it might be their family. Nobody can focus a hundred percent on just what it is that they're eating. So I don't think that that's negative. And perhaps those people who responded are doing well to begin with. So they didn't really have to make changes in terms of the types of foods that they were consuming.

But when we look at those other numbers, we know that there's still some room for improvement and maybe all of the people who said, "Oh, you know, my diet could be better," maybe that's something that we want to focus on.

Matt Crisp: [00:22:04] Yeah. I think the data that we saw was 700% increase in goods from consumer packaged goods companies. So while people went to the grocery store at record levels and they bought record levels of produce and record levels of healthy food, they also bought record levels of center aisle, hoarding, comfort foods. And so it's not terrifically surprising that you'd see some folks that perhaps became more balanced in their dietary regimen and maybe some, a little bit less balanced. But I think, that the bigger takeaway is awareness. That because the shopping is occurring, because you're going to the grocery store, you're actually becoming more aware of what you're getting.

And the quality is, as Leslie pointed out, not just necessarily the quantity. Absolutely.

Sarah Mock: [00:22:50] Well, I'm going to take my prerogative as the coordinator here to ask the first question while folks get going to the Q&A. And make sure that you have those questions put in. But I'm going to start by asking, following that COVID question, with Leslie: do you think people are using this time to refocus on wholesome food? And do you think that that's, judging from that result of that poll, do you think that this is a trend that might last? Or do you think that this is kind of, what we're looking at now, is kind of a unique anomaly that that will go away as COVID moves through?

Leslie Bonci: [00:23:34] I hope it doesn't go away. And, certainly food should be comfort. And in very, very scary, uncertain times, it's something that people want to reach for. They want to feel better. They want to placate themselves and food has a huge role to play there. However, one of the other very interesting things about what has happened during the pandemic, of what we know from a nutrition perspective, is the need to optimize one's nutritional [00:24:00] status via supporting a healthy immune system. Not booting, not boosting it, supporting it. And food has a tremendous role to play there. So that becomes more the medical nutrition therapy aspect of what happens with eating. The fact that what we put into our mouth may indeed be very important for bolstering our body's defense system moving forward. That's not going to go away. And if nothing else comes out of what people do with their food, from this pandemic, that in and of itself will be a very, very important one.

Matt Crisp: [00:24:31] I'd say if it was a trend before the pandemic, it's a trend that's been accelerated by the pandemic. And in a couple of the cases I mentioned the acceleration of the plant-based protein market in particular, where we've seen some pretty drastic numbers. Again, it's not necessarily that the rate of gain or the rate of increase will sustain itself. But that if we were here and we were going to get to here, now we maybe get there a little bit faster.

So we've gone through a period of time where that awareness and the adoption and some, in a shortened period, a finite period of time, has accelerated. And what became maybe curiosity for some folks, transitioned into action. And that action actually does have a degree of stickiness and its stickiness was predicted. But now it's just going to create a larger, in our thinking, market opportunity in the near term.

Sarah Mock: [00:25:29] Our next question is from Christopher Greenwald. Christopher, your Mike is un-muted. Would you like to ask your question?

Audience: [00:25:36] Sure. I'm just curious. This question is for Matt. You know, when you think about all of the plant-based products that we utilize, currently, corn, soy, et cetera, I'm curious if you happen to know, what percentage of the overall pool of plants does that represent? In other words, do we utilize in our world 50% of all the plants that are available to feed people, or is it much less than that? Other plants have great protein profiles, but they don't taste very good. Obviously, you guys are trying to solve for that.

Matt Crisp: [00:26:10] Sure. Yeah. There's a couple of different ways we can think about that. If you look at the overarching, genetic diversity of plants, I'd call it within the species and then in-between species, we estimate that we're actually using less than one-tenth of one-percent of all of the global genetic diversity of plants. There are literally thousands of consumable species of plants in our food system; over 80% of the caloric intake globally is constituted from half a dozen crops. So, it gives you some sense of the degree of scale. I saw in your question, you mentioned corn and soy. You know, what we sometimes forget is that there are tens of millions of acres of these crops that are grown globally. Not for direct human consumption, they're grown to produce meat that we consume. So, your drastic increases in protein consumption globally will continue to happen, are projected to happen, to feed a growing burgeoning middle class across developing countries and developed countries.

But when we trace back the consumption of crops in a specific, or in a directed way, for human consumption, let's use alternative plant-based burgers or alternative plant-based, there's actually also a finite number that we're leveraging. Soybean constitutes the majority of alternative plant based products. Others are becoming really popular, like yellow pea chickpea, mung bean. You know, there's several very, very unique functional characteristics of some of these types of crops. There are dozens more that we've actually taken a look at and there's some predictions of around the top fifty that'll emerge. But compared to some of these big, half-a-dozen, globally supplied crops, they're completely minuscule so far.

Sarah Mock: [00:28:09] We're going to take Scott Smith's questions next, but quickly I want to ask Leslie that same question. I wonder if you could speak a little bit to how important taste and texture is with the clients you work with, especially the professional athletes. What

kind of opportunity is there for transforming taste and texture, and what that could mean for diets and for getting people to eat healthier?

Leslie Bonci: [00:28:33] Yeah. People always want the familiar and the familiar isn't just the look at the way it feels in the mouth. It's the taste that it has. I work with professional athletes, and we'll see whether or not there's a season this year, but literally these are two year olds with very big bodies. So they eat like children and food has to be appealing to them. So, if it is a squishy texture that they don't like, they don't want it. The beauty is using lot of plant-based proteins. And we have done this more and more over the past couple of years with the Kansas City Chiefs in a form that they recognize, like a burger.

If a topping on a pizza, if it's in a taco, if it's mixed into a rice, then they eat it. Because, at the end of the day as far as I'm concerned, if they don't eat it and if it sits on the plate, then it's not going into their body and their performance is going to suffer. And all the way around that's a negative and that's more food waste. So we don't want that.

I really have to think about taste. That's important to everybody. It is taste. It is price. It is convenience. That's what people want. And back to that point of food is comfortable. Food is enjoyable. It better taste good.

Sarah Mock: [00:29:46] Just a reminder for folks who might have questions for our panelists here, be sure to put it in the Q&A, and we'll put you in our queue, but now we're going to go to Scott Smith.

Scott, would you like to ask your question? ...All right. Well, just to keep this moving along, I'll go ahead and ask Scott's question for him. So this is for both of you guys, how can food tech companies bring farmers and consumers closer in the supply chain and with more nutrition options?

Leslie Bonci: [00:30:11] Matt. Do you want to start with that one?

Matt Crisp: [00:30:13] Yeah, sure. I don't mind kicking that off. I mean, look, the supply chain is, from our perspective as a genomics company, innovating better food and ingredients.

The supply chain is just as important as the technology innovation or the food and ingredient innovation. Because if you can't partner inside of the value chain, you can't deliver the product ultimately. And as I've mentioned in my prior comments, you've got to engage stakeholders across this chain in order to successfully shift the nutrition, in order to successfully meet the new nutrition or the new norms that the consumers are demanding.

And to be honest, we're, we're really behind. I mean, our supply chain is set up for massive scale. We're really, really good at making cheap calories. What we haven't been great at is defining where these unique, and I'll call it niche again, niche-type opportunities. That's where they start. You can actually marry up with the consumer demands.

And, when we talk about engagement, and I'm going to use the word stakeholder engagement, when we talk about stakeholder engagement, we just think that it's really important to ensure that innovation allows us to get these better products and is empowered

inside of the value chain with companies that sit perhaps in between the grower and the consumer.

That doesn't just mean a shipper or a processor. It can mean a packer, shipper, distributor. It could mean an ingredient supplier. It can mean a CPG. If I sort of zoom out to try to answer that question, I think this linkage tends to be in this value chain, somewhat complex, and it requires a lot of engagement and partnership and collaboration across the spectrum in order to successfully deliver what consumers really want.

Leslie Bonci: [00:32:06] And I would add to that, where it is that things are delivered and the message that's given around those food items. We think about functionality and people hear about functional foods, but consumers really don't understand what that means. So phrasing that a little bit differently.

Because one consumer might be interested in the role that the food plays in terms of optimizing health, Person B might be interested in the fact that maybe that food makes them a look good or feel good. And that's okay. And Person C really just wants to put the food on the plate for the family and call it a day. None of those things are wrong, but what we want to get away from is this idea of foodies and people having these fights with themselves over the food that they're eating, and really engage more in "foodie-ism." What does that mean and how do we do that?

There's a role for everybody to play as part of it. We all want people to eat well. This is what keeps me up at night. I'm worried about these types of things. But I also want to be realistic in my approach of how we're going to do this.

How are we going to feed a nation? How are we going to feed the world? How we're going to minimize the waste? How are we going to do all those things? And everybody needs to be present at that table for that to happen.

Sarah Mock: [00:33:19] Totally. Our next question is from Jared Godfrey. Jared, would you like to ask your question?

Audience: [00:33:24] Yes. Can you hear me okay? Matt, this question is for you. I think you guys posted on LinkedIn a month ago that you contracted 30,000 acres to grow cutting-edge soybean varieties. I'm just curious on the process to target those growers and the manner in which you did in North America, the US. What part of the country? Just curious.

Matt Crisp: [00:33:45] Yeah, absolutely. So we launched a campaign late last year to begin enrolling growers in a program to contract. We'll call this a closed loop system, where we'll supply a specific genetic variety in this case of soybeans to the grower. And we'll sign a contract to buy their harvest from them. When we launched this, we did it concurrently with our Benson Hill seeds launch, late last year. And then we spent the next several months, up until planting here recently, to sign up about 30,000 acres.

Let me answer a couple of the other questions you asked, and then I'll go back to the what. Regionally, we're interested in growers that are across the "I" States from Northwest Iowa, all the way across to some plantings we've got in Illinois and Indiana. And then as far south as Arkansas. We've got some others in there, Kentucky, Missouri, that are close in, but

that's sort of the triangle of regions that our grower base is focused this year. I think it'll expand a little bit next year as we see some additional acreage added and we see some additional products.

In terms of the “what,” we're talking about soybean that have an increased nutritional profile and qualities that are ultimately going to benefit, not just the human food – we're talking a lot about human food consumption and nutrition in a direct and indirect consumptive way, but there's also a huge opportunity to do this in feed.

We sometimes forget about the tens of millions of acres of soybeans that are planted for animal feed and, you know, animals want healthy food too. When we talk about enhancing the amino acid profiles, when we talk about creating products that are better for animals' digestion, that reduce waste, these are the types of challenges that we can tackle using, especially in the case of soybean, a really massive crop that's adopted in very broad acreage across the United States.

Sarah Mock: [00:35:54] Thanks for that response, Matt. Our next question is from Ben Alsop. Ben, would you like to ask your question?

Audience: [00:36:00] Yeah, sure. Matt, how are you man? It's good to see again. You look great. Congrats on the Jason Bull hire. I was going to ask you about the economies of scale. You touched on this a little bit. How do you compete with Big Ag? Do you see them as helpers or hinders of the change?

What kind of market share do you see? Looking at a crop, say like your soybeans, where you get a new nutritional trait, how do you penetrate that to be mainstream? Or do you see it always as a smaller niche value? I kind of touched on that, but wholesale change. Just thinking about that whole push and pull with Big Ag. How do you see that playing out?

Matt Crisp: [00:36:42] Right. Right. Well, it's good to hear your voice, Ben. Thanks for joining today. There's a couple of questions they're really important, especially when we talk about the premiums that are demanded in the consumer market, right? In order to create, as I talked about earlier, the incentive to create the value proposition for multiple parts of that supply chain, to incentivize the behavioral shifts, we've got to initially create products that have a pretty drastic value difference because you've got to have enough value to share to your point, right?

There's a very, very high, a very significant amount of value because that's required in order to share it across the chain. And then over time, I think in the next three-to-six years, we'll be more intensively focused on some things that have multi-million-acre potential, where there's frankly, not quite enough value to share in order to significantly incentivize that shift, that behavioral shift or aggressed as aggressively incentivized that behavioral shift.

The really important thing we think in order to crack this nut is to focus on what the end customer really wants. You've mentioned the big companies and you've got a lot of experience there. This is where I think the big companies, frankly, have not focused because it doesn't deliver a lot of earnings or material value to their bottom line.

We've got to focus on catalyzing the demand side, and for some things that's going to be the consumer. And, the audience is the traffic and the food aisles in the grocery store. For some of them, it's small, medium and large feed producers and, and protein producers in the animal and the animal ag industry.

But I think that that transition really happens over time. As many things do in ag, it will take time, years, in order for us to build that kind of skill.

Sarah Mock: [00:39:01] Our next question is from a Richard Miller. Richard, are you ready to ask your question?

Audience: [00:39:07] Yeah. Thank you. I'm wondering how you folks are addressing the lower third of our population, which is our poverty situation here in the United States, and how they seem not to be able to afford a nutritional food plan. Versus the cost of taxpayer supplemented healthcare programs and the 45 million people and growing on food stamps.

And Matt, I agree. Our studies show that 75% of all food consumed comes from twelve plants and six animals. So the biodiversity is really critical, but addressing the cost is another issue.

Matt Crisp: [00:39:53] Leslie, you want to kick that off and then I'll get to it.

Leslie Bonci: [00:39:57] I will. Thank you for the question. One thing is that now, hearing more from what's happening from a food pantry perspective – and the tremendous leap we have seen in guests of food pantry, where it's been a 700% minimal increase – we have a lot of people that may not have a lot of money for food, but also don't have a lot of culinary skills.

And I'm not saying that in a negative way. It's when somebody has not had the time to be able to be in their kitchen to prepare the food. And now they're getting these foods and they're not sure what to do with it. It's not just about the food items. It's enabling people with the tools and skills so that they actually can be self-sufficient in their kitchen. This was one of the projects I had an opportunity to work on at the start of the pandemic, helping people with the food boxes that they receive and actually helping them with what to do with those foods, how to pair those foods. Making sure they had something in their home to open a can. Because if you don't have a can opener, that's a problem. Taking away some of the perceived negativity and stigma around those food items to at least give people some empowerment and some enlightenment about the food that they're using.

Secondly, even the idea of fresh foods: if you haven't done that before, then you're really not sure what to do with it. So if somebody goes to a food pantry and they're getting a bag of produce and they don't have a pot to cook it in, this is a problem. And that sounds like such a very basic thing, but it's such a very important thing. Maybe it's not pop-up shop, maybe it's chop-up shop that needs to be part of this whole dialogue.

The education of finding a way to repurpose, reuse, recycle, resource with food items, because we're losing all that, because we really have been a throwaway society in terms of what we're doing with food. Or it's already made for me and I'll eat it. Now, I have to make it

myself. What do I do? And this is not just the ranks of people on food stamps. It is everybody right now.

Matt Crisp: [00:42:00] I think a lot of this is about. We like to say, you want to meet the customer where they are, and Leslie makes it a bunch of really good points there that if we can create the supply, we've ultimately got to get it into the hands of people with the tools in order to take advantage of it.

From a Benson Hill perspective, this is as much about the nutrition focus – and I'm going to use protein again – where we, for a long time, have talked about food security, we've talked about yield. And as a result, we've seen this increase in yield and concomitant decrease in nutrition density. And that makes it costs more.

So, if you want to concentrate a crop to get more protein out of it, that's why there's this nonlinear value that's associated with nutritive content. I pound the , as you can tell, and talk about crop genetics, but we've got to get back to the field and solve for those problems in the field.

If you can create more protein at the same cost, with the same crop, in the same process, and you can move that down through the value chain, you start to totally change the dynamics. We're the United States of America for goodness sakes. We should not be talking about people who cannot afford their basic nutritive needs.

I think it's ridiculous. And so we think about “how can we make a direct impact on that?” You've got to start at the production level and you've got to do whatever you can to move that. Not in a niche capacity here, we're talking in a mass capacity down through the chain and to make these types of food options available for people.

We were talking about plant-based burgers, and I'd use the word cost parity. We will get to a place where this stuff is at cost parity, or even better than cost parity to the meat and to the types of protein that people gravitate towards in the developed world.

And it's a shame. It's a shame for us to say that we have people in this country who can't afford that option as it is. I think that, from a crop perspective, this is the way we view it.

Sarah Mock: [00:44:20] The next question comes from Vani Estis Vani, are you ready to ask your question?

Audience: [00:44:25] I am. This is for Matt. Hey Matt. This is a conversation we've had before, but we'll continue it: where does the innovation come from and who pays for the development and the innovation to really develop these higher nutrition crops outside of corn and soy? More than the whole foods areas and fruits and vegetables. You guys know because you have the technology, but how are we going to start incorporating that and getting some of that work done, so that we have more biodiversity and that we have more nutrition per acre, not just calories per acre.

Matt Crisp: [00:45:10] Yeah. So what we're seeing is there's more and more understanding about the lever of crop genomics, and in specialty crops and produce, which I know is near and dear to your heart. What we can do now with a vegetable, from a genetic perspective, a

breeding perspective, to a certain outcome cost; between one-tenth and one-one-hundredth of what it would've cost us to do the same thing ten to fifteen years ago.

There's two parts to that answer. Number one, who's paying attention to genomics as a lever for innovation – and we're increasingly seeing folks that face the consumer at the brand level and the retail level. Grocery stores are having conversations about private label produce. They want to differentiate. They know that differentiation really has to happen at the genetic level because it's literally being grown in the field and moved straight onto their produce aisles. That recognition and realization is a great thing and it's allowing them, to the second part of this answer, to afford it.

It requiring such a fraction of what it used to cost is actually allowing organizations like us to partner with, and power ultimately, innovative activity around genomics with, let's say, a medium sized grocery store who wants a differentiated vegetable and because they want their own, and they know that the produce aisle is driving foot traffic, and they want to be able to offer something that's unique and different than others.

There's a genetic diversity that exists in the pool today that we can select from. And then there's genetic diversity that we can accelerate through breeding and other methods to create unique differentiation, and Leslie can probably attest with more directed feedback, but that ultimately is where we're going to see more and more of these intersection points to health.

Leslie Bonci: [00:47:07] The whole idea of customization and personalization. We've talked about a little bit in the video, but it is what people want. But not everybody has the same template for what it is that they're looking for. So for somebody who is really struggling to get by, they want to feed their family the best that they can and it has to be somewhat easier for them to be able to do that. They need the tools and the education around this, as well as the availability, accessibility, and affordability of the food.

Now, we have somebody like an elite athlete who might have a totally different approach or reason for what it is or why it is that he or she chooses to eat what they do, and it's to win the next Super Bowl (let's hope) or whatever might have might be happening.

And then we have a consumer that might be looking at it for a totally different reason. Maybe they have a family history of osteoporosis, or Type 2 diabetes, or whatever it is, and food, and now taking a more medicinal approach for them. And this is the beauty of the food that we have. It is different things to different people.

I just read this: it's not my plate, it's all of our plates. It isn't just “one plate” that is going to be right. For some people it's a glass or others it's a bowl, or some people like the platter. It depends upon their size. We really need to be thinking about it that way. That is how we're going to be more appealing to people across the board, if we put the customization and the personalization into the dialogue.

Sarah Mock: [00:48:32] I want to remind everyone to hop down to that Q&A on the bottom of your screen to submit questions, but I'm going to sneak it in here with, with one that I personally want to ask Leslie specifically. One of the big news items today is that baseball is

back. Sports leagues are trying desperately and very quickly to figure out how to keep players healthy in this moment and how to keep playing and keep up level of effectiveness and health. Could you give us any sense of how the NFL is addressing kind of the pandemic and those risks in terms of, in terms of health and diet?

Leslie Bonci: [00:49:10] Well, first of all, as a mother, this is great to be able to actually say to somebody, “wash your hands with soap and water,” because we have to clarify both of these things.

When we're talking about what's happening. A lot of this is really interesting. It's about touchless. We've just developed this protocol for touchless hydration. There's no sharing of water bottle. There's one person who is allotted to be the server of the fluids so that you don't have to worry about any cross-contamination. There's no more spitting and thank heavens for that because it was obnoxious anyway. You can't do that. You keep the fluids in your mouth. We know that when our players are lifting weights, there's not going to be any food, no fueling stations and weight rooms anymore because they're shouting and they're spitting and all these things that happen. You can have contamination.

What is also going to be happening is no more buffets, no more serve-yourself. It is all going to be done for them. And it's going to be pre-packaged because it needs to be. As well as the entrance in and the exit out – no more congregation, it's not going to be happening.

So yes, players will be fueled but not the way that we're used to. And I have to say that taking away some of the entitlement (I love these guys, but you know, it's really over the top). There's no, “you don't need a smoothie made with 10 customized ingredients today” – not going to happen. You're going to get something that's in a bottle because it's safer to do so.

And the other side of that is what are we doing to support that immune system? Football's a hard game. You know, these guys have training camp and they just wear themselves down and then they start with the seasons. In a normal year, we would see some decrease in their immunity simply because their body's working hard.

Well, now that is top of mind for everybody, how do you support this healthy immune system and optimize performance? Think about those players who have maybe not been training to the maximum over these past couple of months and they're going to get to training camp and it's full speed ahead.

A lot of things to think about, and I will guarantee you with baseball starting the risk of injury is going to be absolutely through the roof because we have all these players that now have to hurry up and rev it up. All the things we thought about before, and on top of that, the cleaning, the sanitation, the immune function. Absolutely. Those are number one.

Sarah Mock: [00:51:29] We just have a couple more minutes before kind of the end of our scheduled time. So make sure you all are hopping in and getting those last questions in. I want to do a quick follow-up to that question for the both of you. One of the things that has been talked about as related to COVID and diet is this question of immunology and the strength of an immune system.

And I wonder if you could both from your perspective. Matt, is there something that can be done on the plant science side to increase the efficacy of plants or protein and help boost immune systems? And then Leslie, from your perspective, do you think that the conversation here has started to change around the connections between diet and immune system? Do you think this is an opening to have more of those conversations?

Matt Crisp: [00:52:18] When we think of about healthiness, generally speaking, and health being in many respects synonymous with certain balanced diets and micronutrient intakes, we think about flavor. That's the number one driver of consumption for a lot of these vegetables and other plants. And that demonstrate the healthiest immune system profiles. While we can't point to certain functional ingredients that are in our current pipeline, there are many that exist and that can be enhanced using genetics, the number one driver of consumption of these compounds – period, across the board – is taste. Does it taste good? If it doesn't taste good and I'm going to eat it, and if you need to eat or you need to consume these and you're not getting them through some other means, the thing that we can do and that we have degrees of understanding around is taste and flavor.

That's the way in which we look at health as a target area. And obviously people's immune health is directly related to that.

Leslie Bonci: [00:53:27] And I would say, specifically, looking at the composition of the plate.

So for instance, we've been talking about protein. We know that protein is critically important. We know that protein is also critically important to support a healthy immune system. However, the way that people consume their protein over the day matters. So it's not none at breakfast, and then you eat an entire cow at night. You do have to more evenly distribute, and people want options for the way that they do that.

We have people that have been eliminating their carbohydrates – except during COVID because you can't find flour in a grocery store anymore, and banana bread is what people are looking to eat right now – but if you don't have enough carbohydrates, you're actually going to have a deleterious effect on your immune system. Making sure that your micronutrient intake, particularly looking at things like vitamin C, vitamin D zinc, those are all critically important; the probiotics and prebiotics are a component of supporting a healthy immune system; as well as the Omega-3 fatty acids; and then the last category, the vital nutrients, the plant nutrients. So you're not getting that in foods that aren't plants.

Trying to find the value added – I'm trying to do the best for my body with this hand to mouth activity, to keep myself as healthy as I can. I think that that is another message that needs to be out there, more consumers want to hear it. They're just not sure how to do it.

Sarah Mock: [00:54:48] Absolutely. Well, I think we have time for one more question. I'm going to go ahead and take this one as well.

I love a dichotomy and I'm sure both of you will have very kind of impactful answers for this, but I want to know what you think is more important in this journey of improving nutrition, especially with consumers: is it nutrition or taste?

Matt Crisp: [00:55:11] Hmm.

Leslie Bonci: [00:55:14] Okay. I would say, I think flavor overall is what's driving what people eat, but in addition to that, it's "what's in it for me."

Matt and I had a conversation before about a marshmallow, that it might taste good but there's nothing on the back end of the taste. I want the layers of the flavor. Like I could peel an apple or peel an onion and I know that there's different things as I get away from the surface. So people want that initial "wow" and then "whew" on the backend. I think both of them are important as far as I'm concerned.

Matt Crisp: [00:55:47] I think the number and the data would tell us, and we have to follow that data, that tastes and flavors are number one. And, in many respects, it's number one, number two, number three. It's our responsibility to find ways to deliver nutrition in a way that tastes good. If we start having to make that compromise, I don't think we're doing our jobs, frankly.

Sarah Mock: [00:56:13] Great answers. We want to offer a big thank you to all of you, to Matt Crisp and Leslie Bonci, iSelect Fund, and our partners Benson Hill, The Community Foundation of Greater Memphis, Cushman and Wakefield Commercial Advisors, EY, and United Health.

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Thanks so much for joining us. We look forward to seeing you again on July 29th.