Startups Stirring Up the Future of Food

Panel:

Charles Baron, Co-Founder, Farmers Business Network

Gabe Blanchet, CEO, Grove Labs

David Rosenberg, CEO, AeroFarms

Moderator:

Zoe Leavitt, Senior Retail and CPG Analyst, CB Insights

(Transcription by RA Fisher Ink)

Leavitt: So we have such as interesting assortment of companies here on stage. And I think when we think about the future of farming, there's a lot of overlap between the future of farming and what we heard in Andrew Yang's talk earlier about automation potentially taking away jobs. And there is a bit of a contrast between Farmers Business Network, which is trying to make the existing system of farming more efficient, and the indoor farming model, which is replacing existing farms.

So how do you see the future of jobs in agricultural centers in America? Do you think some of these urban farming initiatives could risk enriching urban areas by helping people that live in New York feel more connected to their food, but at the cost of jobs in rural America?

Rosenberg: Yes, I'm happy to start off this one. So net-net, I think, urban farming is a net job creator. Any time you go from centralized production to decentralized production, which, when you think about it, that's what's going on, you lose economies of scale. So even at AeroFarms, we have automation in seeding, harvesting, cleaning, and packaging. In September, we're rolling out a prototype of automation between those automated components. But, even then, you don't have the economies of scale that centralized production have. So I would argue net-net, it's a net job creator.

And then, if you intellectually take that and look at other industries where that's relevant, it's—if you look at, whether it's robotics, vision machine learning, AI, where you want either highly perishable goods or highly customized goods, you're going to have a proliferation of local production. And that's where I'm excited, where new industries come up, and new opportunities from a job creation standpoint.

Baron: One thing I'd say, I think it's a fascinating and great innovation. But you have to remember, agriculture and the food system is so broad and there's so many different crop types, whether they're orchards, or fresh market, vegetables, or commodity grains. You just take a crop like wheat. There are 40, 50 million acres of wheat in production in the United States. You have millions of acres of crops like cotton and others. So there are hundreds of crops being grown and there's a range of different technologies that are going to benefit those different crops.

Blanchet: I've got a very narrow view on this one because we're not replacing jobs or—but I do love that when you can take a technology like the technologies that are developing in indoor farming, the lights, the fans, the automation systems, etcetera. I love it when you can sprinkle that into—to give the common person a new superpower, a new capability. And right now—and so in some of our most passionate customers, we see them not just getting, maybe, one of our units, but actually starting to grow a significant portion of their family's foods.

Now, I don't think that's going to be for everybody, but it's so cool, it's so interesting when we start to see that with larger percentages of people. They can actually homestead and take that means of production, distribute it fully, all the way to the home level. That's pretty neat.

Leavitt: And specifically, Charles, of Farmers Business Network, it sounds like you're running up against some pretty serious entrenched interests, in terms of the agrochemical companies that are already out there. I don't want to speak for anyone else in the room, but you may be one of the few founders whose clients have actually been threatened by some outsiders. So how do you see this playing out? And then from an indoor farming perspective, I assume, again, it's a relatively small market today, but what would it take for potentially traditional farming companies to see you as a threat? Do you plan to work with them or to cooperate, or do you see the threat of competition?

Baron: In our case, we connect and empower farmers and provide them e-commerce. And e-commerce, actually, has not really been there at national scale in the farm supply industry. And this a multiple tens of billion dollar industry. And what's that led to is, you've had an industry that's been allowed to consolidate to a degree that is unparalleled. You have in corn and soybeans, there's two seed companies, Monsanto and DowDuPont. Now, Bayer-Monsanto and DowDuPont control over 70 percent, actually 77 percent of the products on the market. So they have enormous price and channel power. And those distributors that have, in turn, consolidated as well, has just overall reduced the choices that a farmer is subject to in the amount of competition.

So there's always referring to an incident we had where we had a meeting. We're out in a small town where the local co-op, or the regional co-op actually, parked its trucks in front of our meeting. Had its employees basically watching the farmers walk in and, basically, to say, "Hey guys, we're taking names if you're working with FBN." And if you have to threaten your customers or if you have to retaliate your customer, I can't think of a time I've walked into Best Buy and they've said, "Hey, we saw you on Amazon. Get out of the store."

[LAUGHTER]

It just doesn't happen. But this is an industry that just hasn't had the same competition that other industries have had, and transparency can only benefit our growers, and that's what we've been doing. And we think it also benefits the technology companies that are on the horizon, that are bringing out biopesticides or biofertilizers or gene editing. Those companies are going to require distribution and they can't access the market today through the conventional system. So you have to build an alternative system and that's what we're doing.

Rosenberg: I guess two points. One is where the economics work in indoor farming is mostly in specialty crops. And in specialty crops, the pie is growing so there's less of cannibalizing existing production streams, more of just getting more market of a growing pie. So right now there's a lot of friendly coexistence and the retailers see a trend in local food production that's exciting. That's very hard to meet that demand because of seasonality and the sensitivity of the types of crops that are viable in urban farming. So far, things are friendly. And the seed producers are excited. They see new revenue streams and they're interested in partnering, understand how to optimize seed for this new market segment. So there too, there's friendly collaboration.

From an existing farm standpoint, one of—my last company, I was in nanotech. And trying to understand this space, I spent some time in Salinas, San Joaquin, which is known as the salad bowl of the U.S. And my aha moments were, one, none of the big farmers own farms. And you stop to think of, we've all heard the term farm out your work? Not surprisingly, that comes from the farming industry. And then what I realized what the farmers are. They're sales, marketing, and processors. And I realized to compete—and when I say compete, to drive cost down to a point to make—and at this stage of my career, I'm interested in making this product available to everyone, not just niche markets, but really drive the cost down, I realized we need full automation and be processing. And we need enough growing capacity. Once you put in automation, you want to utilize that 24/7. You don't want a little bit of production and a little bit of processing.

And the point of this is, is the big farmers aren't farmers. They're processors and they're sales and marketing. Which, on one hand, it's not necessarily cannibalizing their production. Then you have these macrotrends, whether it's water scarcity in California, and also E. coli and salmonella. There was just a big red leaf romaine outbreak. And in leafy greens, it's more contamination than any other food group. Eleven percent of all contamination are in this category. So the point is there's a bunch of macro pain points, and farmers are approaching us about collaboration. And here, the first question that anyone would ask is how do you make it a win-win? And, the farmers would say it's existing chains into the customers, and whether it's experience with certain farming techniques. There are relatively low barriers to entry that we see in the retailers, but we're open-minded to what these collaborations could be, especially as it relates to understanding how to be better farmers.

Leavitt: Great. I think we're already to our last question. So I'll ask each of you, what would be the catalyst, either from a technological perspective or a regulatory perspective, that you think might have the biggest positive impact on your business over the next few years?

Rosenberg: I'll jump in. Policy makes some major mistakes that can really catapult innovation. One is water. So water—the fact that we use 95 percent less water has such a minimal amount of an impact on cost of goods sold. Because there's this notion that water should be free. And maybe when it comes down to the earth, the ground, it's free, but once you've got to move it, there's a cost there. And putting an artificial ceiling on the price of water, you're really cutting out Silicon Valley or innovators to solve a problem. So there's very few economic incentives there, and I would just encourage policy makers to think about all the unintended consequences of policy and what it does to innovation.

Blanchet: For Grove, I think what we're up against is not strong enough—sort of education and inspiration that living healthy and being near nature is important to people. So I think anything we can do to further that education. Not just with children, although it's tremendously important there, but really with everybody. So education, inspiration on healthy living will be a boon to consumer indoor farming.

Baron: I think for us, the catalysts have largely already happened. Effectively, American farms have been under so much pressure, they're realizing that the commodity business, the commodity crop production cycle is one that, for many farms and for most farms, is long term not going to help them or keep them in business. So they have to start specializing, they have to start looking at new crops; they have to look for alternative markets. And the other catalysts are things that are taking place right now, things like Amazon buying Whole Foods. That's going to profoundly change the products that are distributed at mass scale. You need a food supply system that's going to have to keep pace with that. And then you need the connective tissue to put that all together. And that's going to require data, that's going to require traceability. And writ large, it means if consumers are willing to pay for specific things, whether those are environmental, health, or other factors, the farm system has to keep up with that. And if you have the data and you have the ability to source direct to the farm, you can. And that's a great new opportunity for farms. And that's basically going to be the future of large-scale production agriculture in the U.S.

Leavitt: Great. I think we're out of time. Thank you.