



Indoor Ag-Con Gotham 2016: 5 Key Takeaways from a System Provider's Perspective

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Editor's Note: Pieter De Smedt is the US country manager for [Urban Crops](#), a global indoor farming group building fully robotized vertical plant factories. Urban Crops recently opened its regional headquarters in Miami, Florida, and is in the process of hiring new sales agents for the North American region. If you're interested in applying, [email Pieter here](#).

Last week, [Indoor Ag-Con](#) returned to New York. The presentations and panel discussions at this year's event focused on looking to the future of the growing industry. What role will indoor agriculture play in an urban setting? What will the sector look like in a decade? What international locations and what technologies hold the most promise?

This forward-looking approach was especially interesting for a system provider like us because

understanding where indoor growers' – our clients – needs and opportunities will lie in the future is paramount for our continued relevance. Having opened our office in the USA only recently, the North-American perspective proved interesting and resulted in the following five key takeaways for us from this insightful event.

Tell Your Story

The growers that will succeed will be those that can build a brand and appreciate how essential it is to clearly and concisely communicate to the customer the added value of indoor production methods in terms of nutritional value, lifestyle, environmental impact, food safety, and flavor. Telling a convincing story allows you to build and maintain customer loyalty as well as capture the additional margin that customers are willing to pay for local, fresh, healthy and safe food. This is exemplified by companies such as TruLeaf, BrightFarms, and AeroFarms, all of which presented during the day.

Microgreens, Leafy Greens and...?

The bulk of indoor vertical farms are focused on producing microgreens and leafy greens. Since there is still plenty of available market to capture in that segment, this is not problematic in and of itself. However, the point that was raised a number of times, and quite rightly so, was that in order to have a truly fundamental impact on the agricultural scene we have to focus on making it commercially interesting to produce an ever larger variety of crops (like greenhouses, which have other varieties available including tomatoes and bell peppers). At present, research is being conducted on crops including cotton, soy beans, rice, and more, but these are typically far removed from offering a viable financial picture. In our view, these developments will be market-driven. Urban Crops' biological team is being driven by requests to offer growth recipes for 38 different types of radishes, turnips, a variety of culinary flowers, Asian leafy greens, soft fruits, carbohydrate-rich crops, mini peppers and medicinal herbs.

Technology: Yes We Can vs Can We Pay For It?

Often the feeling we all have is that today anything is possible technologically. True as that may be on a lot of fronts, it seems that many underestimate the price at which these futuristic aspirations come. Therefore the limitation on the technological possibilities is the financial feasibility. This point was made especially clear by Charles Grinnell, co-founder of Harvest Automation. He explained to the audience that in his experience, identifying types of tasks that can be done more efficiently by robots depends heavily on circumstances such as the complexity of the task itself as well as the scale of the operation. This reminded me of the challenges we at Urban Crops had to overcome to move from an idea – a robotized indoor vertical plant – to an interesting commercial product – the FarmPro and the Plant Factory.

Another challenge for aspiring growers is in the selection of the right partners when setting up a project. Take for example the lighting aspect of indoor vertical farming, an essential component in your project both in terms of the effect it has on your productivity as well as on operating costs – think energy – and the overall investment needed. There is a growing number of LED-lighting companies, which seem to offer very similar products but at very different price points. At Urban Crops we are looking for a partner with R&D capabilities that can help us to develop a custom LED lighting solution

lucky to have internal R&D capabilities that we can leverage to manufacture our own LED lighting, and we can test third party LED providers in-house to gain trust in their ability before including them into a project for a client. But this type of extensive market and in-house research is obviously not as readily available to people who set out on their first project, and there were no immediate suggestions from the event about how newcomers can navigate the technology minefield without such trusted partners.

Think About Potential to Improve Public Health

At present, the market demand for fresh, local, and healthy produce is getting investors and growers to pair up and establish facilities for commercial gain. An interesting view point put forward by Gregg Curwin, CEO of TruLeaf, is that in the future we have to seriously consider putting in place facilities that are not, solely or primarily, aimed at making profits, but at improving public health. He provided examples of remote communities in Northern Canada where obesity and diabetes are widespread. One Native American community he's connected with has even purchased a vertical farm to feed its people with great health results. Over there, access to healthy food needs to be incorporated in public policy. Comparably, Mahmood Almas, chairman of [Pegasus Agriculture](#), the Dubai-headquartered greenhouse company, told the audience that the Russian government had reached out to the company about establishing grow facilities in remote parts of the country. Such considerations, even in less extreme examples, should drive governments as well as sustainability investors to support these initiatives, which brings us to the next point.

There's Lots of Support Available If You Look For It

Governments and the private sector alike are fans of the potential the indoor agriculture sector holds. As a result, any prospective indoor grower is advised to proactively look for the different support programs that are available out there when structuring and executing their business plan. The US government offers tax reductions on water and electricity, it subsidizes workforces and assists in your real estate acquisition. Private entities such as [Square Roots](#), the urban farming accelerator, have as a mission to create a network of thousands of growers allowing people to reconnect with healthy food and create a sustainable society. However, as Miquela Craytor, director of industrial policy at [NYCEDC](#) mentioned, navigating these different possibilities is a challenging feat.

Overall, the tone at the Indoor Ag-Con Gotham 2016 was one that tried to intertwine the optimism and enthusiasm in this relatively new industry with the required realism: let us set up projects that are financially viable, and let's move the industry forward to where it will have a sustainable right to exist and genuine positive impact.

What do you think about the future of the indoor agriculture industry? We want to hear from you! Email Media@AgFunderNews.com.

Image: from one of Urban Crops' robotized plant factories



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