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Growing green: From cannabis to lettuce - by James Miner

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There has been a lot of discussion recently about the impact the cannabis industry is having on real estate throughout the U.S. Most of that discussion has focused on the reinvigorated market for underutilized or vacant warehouses near urban centers, which are being turned into indoor marijuana farms as more states legalize recreational use of marijuana. Beyond the near-term real estate boom for industrial space, there is also great potential for the cannabis industry to influence another key market that is getting more and more traction in our cities: local foods. And no, it's not just because consumption of marijuana tends to induce hunger in many people.

Many indoor marijuana farms use hydroponic growing systems to control light, heat, humidity, and nutrients to be able to produce a more consistent product. This same technology is also increasingly used to grow other leafy greens (the kind we eat in salads) and other highly perishable produce, the vast majority of which is grown in California and shipped across the country in refrigerated trucks. Seeking a more sustainable model, more and more New England farmers have taken up hydroponic farming and are now seeing increased demand for locally grown produce that can be harvested and delivered to your plate on the same day. But, like any emerging business, there are economic challenges to this business model—and that is where cannabis can help.

Because the value of a pound of cannabis is significantly higher than a pound of romaine lettuce, the operating costs of hydroponic farming are less of a barrier for marijuana farmers. The biggest cost for traditional hydroponic farmers—other than capital costs to get a facility up and running—tends to be electricity. Indoor, controlled-environment farming takes a lot of energy to maintain consistently optimal temperatures and light levels. Even as these costs continue to decline as LED technology becomes both more affordable and efficient, energy costs tend to be the factor that puts most hydroponic farmers out of business. This is less of a problem if you are growing marijuana, as the market for the product makes the operation viable.

Indoor marijuana farms do have other hurdles to clear, however, which means it is still risky business. There is a lot more compliance work that needs to be done to grow cannabis, and many cannabis entrepreneurs have to pay thousands of dollars a month to maintain their bank accounts to be able to legitimize their profits. In the end, cannabis farmers have the same incentives to drive down production costs as all other hydroponic farmers do. So, as we see a growth in the number of hydroponic cannabis facilities, we should also see acceleration in the development of technology that is used to grow marijuana, which will improve efficiency and lower operating costs. That should be very good news for the local foods industry. But why should anyone else care?

There is evidence of the growing interest in locally-sourced food all around us: farmer's markets, public markets, community-supported agriculture (CSA) memberships, and farm-to-table restaurants are all on the rise. Here, in New England, there are several factors which make indoor farming a key

part of the local foods movement:

- 1) Our outdoor growing season is shorter than other places in the country, and indoor farming allows us to grow some foods all year round;
- 2) The transportation costs for some of the foods traditionally grown on the west coast (lettuce, leafy greens, tomatoes, and strawberries) can be eliminated if those same foods are grown indoors locally; and,
- 3) We have the highest concentration of urban population centers in the country, and these cities will certainly benefit from indoor farms that reduce reliance on food that has to travel great distances.

If indoor agriculture gets a boost from the cannabis industry like we think it will, there is even more good news from a development perspective. As most developers that work in cities will tell you, food is playing an increasingly important role as a driving force in the retail experience and branding of new urban districts. This is, in large part, due to the fact that the average American now spends more money dining out than they do at the grocery store. And, not only has the restaurant scene boomed in recent years, but it has also steered away from the large, national chains that used to anchor new developments, focusing instead on local culinary talent: rising chefs crafting seasonal menus based on locally-sourced ingredients. With this booming interest in local foods, new technologies in indoor, environmentally-controlled, hydroponic growing systems will afford consumers increasing access to hyper-local, hyper-fresh ingredients.

To test our theory about the influence of food on the urban experience, Sasaki issued a survey of 1,000 people who both live and work in one of six dynamic U.S. cities—Boston, Chicago, New York, Austin, San Francisco, and Washington DC. We asked what they like most about their cities, and urbanites across the country agree on a few things: they want great food. 82% of respondents cited their city's culinary offerings as a positive attribute, and there was agreement across all six cities that the primary motivator for exploring a new neighborhood would be to try a new restaurant! So, keep an eye on the cannabis industry—it could benefit you in ways you may never have imagined.

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