

GROWERTALKS

Acres & Acres

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Beware the Shiny Object

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We humans love teasing our cats with the red dot from a laser pointer. Seeing them spring and pounce on something they'll never catch is great fun. And yet, as we laugh at our silly cats, are we, too, chasing something non-existent?

I'm speaking about two current trends in horticulture: growing plants solely via computer algorithm and growing hemp liners for CBD. Both have been in the mainstream news of late and both have recently taken heat for not quite being the pot of gold we were originally led to believe.

Let's start with plants and computers. I'm not sure who first decided that the solution to our "broken" agricultural system is to let big data do the growing, but the computer science geniuses at MIT's famous Media Lab quickly jumped on the idea, inventing what they call the "Personal Food Computer": a

desktop-sized box with lights, irrigation, temperature and humidity controlled by computer algorithms. Just stick a plant inside, close the door and presto! Sometime later you open the door and find a perfect finished plant, ready to eat. They believe that, with enough data, anything can be automated—including plant growing.

I've always been skeptical of this notion. The first thing I wondered was, "Have any of these engineers ever grown so much as a sunflower on a windowsill?" Probably not (although one of them claims to come from a farming family). Yes, plants need optimum light, temperature, humidity, food and water to grow, and computers can help provide that. But anyone who's grown plants knows that it's just not that simple. Every plant, every crop is a bit different, and a good human grower is required to make the judgement calls that mean the difference between a good crop and a great crop—or a crop failure. Can you digitize years of hands-on experience? I say no ... but I also assume MIT professors are smarter than me.

Which is why I admit I felt a touch of vindication when I read this week in Business Insider that the MIT researchers had been faking demonstrations in order to convince investors or potential investors that the system worked. In one case, "one employee was asked to purchase herbs at a nearby flower market, dust off the dirt in which they were grown and place them in the boxes for a photoshoot."

I'd just watched an HBO documentary about the failed blood test company Theranos, where the founder, Elizabeth Holmes, continually misled investors and the media about the device's ability to do blood tests as claimed (she was convincing enough that Theranos was once valued at \$9 billion.) I immediately pictured the Food Computer as a miniature version of Theranos. There is a difference: blood testing is already automated and computerized; the hard

part is squeezing 200 tests in one small box and doing all the tests with a finger-prick's worth of blood. In the case of the food computer, nobody has successfully (to my knowledge) computerized the growing of even one simple crop like basil or lettuce. And why should they? It's just too easy to do it using the computer between our ears.

That leads to my second shiny object: CBD hemp. I've reported on it a lot lately, as more and more ornamental growers devote greenhouse space to the crop. Here, my concern is based on hints I've gotten lately about supply and demand for the crop. Greenhouses grow liners for farmers who are flocking to hemp as a higher-dollar, higher-demand alternative to corn, soybeans and so on. But according to an article by Chase Nobles, co-founder of Kush.com—an online marketplace that connects legal hemp and cannabis producers and sellers—American farmers are already growing eight times more CBD hemp than American consumers will likely consume, which means prices are going to crash (as has already happened with cannabis in Washington and Oregon).

Of course, he could be wrong. Or maybe export markets will consume the excess. Then again, perhaps cheaper product from Mexico, Canada or elsewhere will wipe out domestic production.

Regardless, the lesson is that in agriculture, there are no silver bullets, no guaranteed paths to success. Pursue every new venture with caution, knowing that even if you find success in year one, year two could be a challenge. Go in with your eyes open and your Spidey Sense on high alert. **GT**