

Cannabis Revolutionizing Indoor Agriculture

As the cannabis industry continues to grow, an exciting side effect is taking place: traditional indoor agriculture is turning to the cannabis industry for the most advanced technology solutions to many of the problems faced by indoor gardeners.

"Cannabis is spurring on an ag-tech revolution," said Troy Dayton, CEO of [ArcView Group](#), in [a recent International Business Times article](#). "This is a boom born entirely out of ending repressive laws. The market is already there, it's just moving from the shadows into the light. That's why you're seeing this incredible growth."

The indoor agriculture community is now experiencing the benefits of cannabis "coming into the light". Due to state-legal medical and adult-use markets, it is possible for cultivators and business owners to openly perform research and develop new technology to make indoor cannabis growing more energy efficient. Additionally, the higher profit margins on cannabis make it easier for cannabis growers to spend money on new technological advancements to improve their bottom line.

Indoor Agriculture on the Rise

There are many crops, such as mushrooms and microgreens, that are overwhelmingly grown indoors or in greenhouses and in the very near future, with the growing demand for locally-produced food, more and more crops are likely to move indoors.

It is no secret that the world's population keeps growing (it is expected to reach 10 billion by 2050). In order to meet the demands of the growing population, "[experts predict that we will need to double global crop production over the next 35 years.](#)"

In order to double production, significant changes to the way crops are currently cultivated will need to be made, especially since crop production already requires a large amount of space (estimates range from [the equivalent of South America](#) to [40% of all land on Earth](#)) and water ([70% of fresh water goes to agriculture](#)). At this rate, at least some of the world's food production will need to be moved indoors in order to save space.

While [vertical farming](#) is bringing traditional crops indoors, where they can be grown faster and with less water and fertilizer using LEDs and hydroponics, there are still improvements to be made. As agriculture moves indoors, many farmers are looking to cannabis for solutions.

As Cary Mitchell, a professor of horticulture at Purdue University who "thinks the marijuana industry's work with LED technology might have practical applications in mainstream commercial agriculture", [put it](#) "[Cannabis growers have] undoubtedly been doing this for years and years. They probably are ahead of the specialty crop commercial production industry."

The World is Watching

Now that the cannabis industry has the attention of the agriculture community, and the ability to push for more environmentally friendly solutions, it is important that that attention be kept on us for the right reasons. More environmentally friendly indoor cultivation solutions are needed, and as we all band together to push for more regulations and research, it is possible to make indoor and greenhouse gardening more sustainable and efficient.

We already know that [growing indoors requires less water than growing outdoors](#), the next step is to reduce the amount of energy it requires as well. Surna is hard at work to create energy

efficient solutions including our climate control systems using energy efficient chillers and the new Surna Reflector which increases light output without using more energy.

As the cannabis industry grows, so too will the research and technology for more sustainable solutions. This truly is a case of "if you build it, they will come." Cannabis is leading the revolution for indoor agriculture, and we can't wait to see where the future takes us.

And as for cannabis cultivators: advancements are already being made, and more are soon to come. When building a new facility, or remodeling an existing one, make the sustainable choices and commit to energy efficient cooling and lighting options. They will pay off in the long run - both on return on investment and for the health of the planet.