

How Grow Room Automation Can Promote Sustainability

THE CASE FOR
IMPROVING GROW
ROOM SUSTAINABILITY
WITH AUTOMATION



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Excerpt 1

Grow room automation is transforming indoor cultivation operations. From automating lights and fans to collecting important data, automation is helping improve and optimize plant quality, grow room environmental control, operation efficiency, and other variables.

As a result of these many benefits, grow room automation is also promoting what has become one of the critical factors in any grow operation – sustainability.

So grow room automation is changing the indoor grow landscape, but what exactly do we mean when we refer to grow room automation?

What is grow room automation and why is it important?

Although the term automation tends to conjure images of assembly lines with machines and robots, things are not always that complex. Put simply, automation refers to the introduction of an automatic system or technology in a process or facility, i.e. the system or technology ensures that tasks are completed with little to no human assistance.

Based on this definition, grow room automation is essentially the introduction of technology or systems that centralize the control of a grow room. Since each grow room is unique, grow room automation comes in all shapes and sizes. Some growers are tech-savvy and prefer high-tech automation solutions while others are more hands-on and prefer to take care of much of the grow room control themselves.

Ultimately, some form of grow room automation can improve a grow operation whether a grower is very progressive or more conservative and traditional.

Benefits Of Grow Room Automation

- ✓ Long-term data tracking
- ✓ Improved facility visibility
- ✓ Superior crop quality
- ✓ Reduced labor costs
- ✓ Optimal resource use
- ✓ Improved scaling capability

Excerpt 2

How does grow room automation promote sustainability?



An important element of a grow room's sustainability is its [environmental sustainability](#).

One of the biggest issues when it comes to grow room sustainability is high energy consumption, particularly the consumption connected to grow lights and HVAC systems. Automation helps address this issue.

For example, by automating grow lights, cultivators can dramatically reduce energy demand. Instead of guessing the required amount of lighting at any given time, cultivators can make decisions based on real-time data for increased efficiency.

Energy is [a huge contributor](#) to greenhouse gas emissions. Therefore, the increased energy efficiency brought about by automation will play a significant role in promoting sustainability.

Besides lights, grow room automation also helps optimize the use of other resources such as water. For example, cannabis, one of the crops popularly grown in grow rooms, is water-intensive. With automation, growers can ensure that the plants get only the water they need, not more. Efficient water management is a must, especially now with the worsening climate change and [droughts](#).

Excerpt 3

Reduced operating costs

We already looked at how automation reduces labor and utility bill costs, but there are more cost-saving opportunities for growers.

Growers can use data to catch problems that would otherwise go undetected. If a grower is monitoring data regularly, they will notice deviations that may signal a problem with the equipment. Without the data, noticing a problem may take too long and result in costly equipment and system repairs.

Grow room automation also enhances a facility's preventative maintenance scheduling. Instead of unexpected maintenance, automation allows for scheduled downtime. For example, if a system has to run for 40,000 hours before maintenance or replacing, a grower can set a reminder for when the system is about to reach this threshold.

This is much better than experiencing a breakdown and disrupting operations. With automation, growers can be proactive about system maintenance and optimization. This not only saves money but is key to achieving more sustainable practices.

Grow room automation for the win

The need for sustainability is becoming more crucial as we grapple with climate change issues and an increasingly competitive industry. Grow room automation is certainly not a complete solution on its own, but it is one of the best ways for growers to achieve this sustainability.

If there is one thing to take away from all of this, it's that grow room automation can make your facility better. How much of your grow room you want to automate will depend on your needs, but there are definitely immense benefits there, improved sustainability included.