



## Pioneering Indoor Growing Technologies with Mushrooms in Kennett Township

Kennett Township in Pennsylvania is known as one of the world’s top mushroom-growing regions. With a population of less than 10,000, this 16-square-mile area produces nearly half of the mushrooms available in the U.S. Now, thanks to a newly formed sustainable development initiative that establishes the region as a Center of Excellence (COE) for Indoor Agriculture, Kennett is positioned at the forefront of developing technologies and methodologies to improve the way food is farmed in indoor environments worldwide.

Smart Yields is among the companies working with Kennett growers to monitor key factors such as soil moisture. Mushrooms, like other indoor crops, are grown year round under tightly controlled conditions. Kennett produces nearly 500 million pounds of mushrooms each year, relying largely on knowledge handed down over the 100-plus years since the industry was established. With the help of Smart Yields, Kennett farmers are now working to establish a more structured framework using detailed data analytics so farmers can grow with additional precision.



### Situation

One of the world’s largest mushroom-growing regions is establishing a Center of Excellence for Indoor Agriculture.



### Solution

Smart Yields is adapting its outdoor technologies for better use in indoor controlled conditions, allowing for enhanced monitoring and data.

Michael Guttman, Director of Sustainable Development for Kennett Township, said Smart Yields technology is an important step in understanding the appropriate moisture level in the various mushroom substrates, or growing surfaces, that are used for mushroom varieties ranging from buttons to portobellos to specialty crops like shiitake.

Indoor growing controls include temperature, humidity and air flow, as well as nutrients. Smart Yields solutions are designed to work in coordination with existing production-focused sensor systems to provide enhanced data points and additional flexibility to address issues throughout the growing process.

“Slight adjustments in growing conditions can make a significant difference in yield,” Michael said. “We are very concerned about developing an optimal growing environment, and Smart Yields is working on adaptive and flexible technology solutions to help us do this.”

Chris Alonzo, president of Pietro Industries, a third-generation family farm founded in 1938, has partnered with Smart Yields for more than a year to measure real-time moisture levels in the growing environment and raw materials.

“Mushrooms are 90 percent water, and we use the data to know when and how much to irrigate the crop,” he said. “That is just the beginning. We never want to stop learning. Margins are thin with year-round indoor growing, so you have to use leading indicator data to succeed.”

**“Slight adjustments in growing conditions can make a significant difference in yield. We are very concerned about developing an optimal growing environment, and Smart Yields is working on adaptive and flexible technology solutions to help us do this.”**

---

Michael Guttman,  
Sustainable  
Development Office;  
Kennett Township,  
Pennsylvania

