



CASE STUDY

# BrightFarms Uses LUNA AI's Autonomous Issue Detection to Mitigate Tip Burn

## PRODUCTS PURCHASED

LUNA AI

## VALUE

- Early detection and action limited the impact of tip burn to 2 days of 20% loss, instead of over 14 days of 20% loss
- Determining financial impact of crop issues led to better prioritization and less loss
- Increased operational efficiency

BrightFarms is a national leader in controlled environment agriculture (CEA) transforming how produce is grown and delivered. They specialize in growing leafy greens in high-tech greenhouses in the communities they serve using hydroponic, Deep Water Culture and gutter systems. BrightFarms aims to reach more than 2/3 of the U.S. population with local, indoor grown produce. Their network of 6 farms and growing supplies packaged salads to some of the nation's largest retailers. In addition to being a profitable business, growing sustainable food is at the core of their mission. They are focused on rapidly scaling up their production to transform the US produce industry.

Tip burn is a common issue in leafy green lettuce production that can have a significant impact on quality and yield. Fallon Lowe, Director of Digital Agriculture at BrightFarms, and her team understand the importance of early detection and swift action. To reduce crop loss, optimize yield, and increase revenue, Lowe and her team leverage LUNA AI's issue detection capabilities to analyze the risk and proactively address the issue.

## High occurrence of mild tip burn caused crop waste

"Tip burn is one of the issues we see the most of," explained Lowe. "The crops we grow are susceptible to it and we see the large impact it has. In one of our greenhouses, we had a climate event that was due to an equipment malfunction and maintenance issue. The vents were not opening, it was a sunny day in March, and the greenhouse got hot.

LUNA AI's issue detection saw tip burn systemically throughout most of the crop. The tip burn was low severity but high occurrence, so it was slightly burned and hard to see with the untrained eye, but it was enough tip burn that LUNA AI caught it. Ultimately, it severely impacted our operations because it took a lot of time and labor for people to sort through it in quality control."

## Effective communication and escalation mitigates risk

At BrightFarms, LUNA AI facilitates effective communication and escalation between growers and management teams. One of the key benefits of LUNA AI's issue detection is its ability to alert management teams when an anomaly is detected, and earlier than before.

**"LUNA AI alerts the management team so the master grower and ag leadership see the issue quicker."**

Fallon Lowe, Director of Digital Agriculture at BrightFarms

Lowe explained that previously, a grower might not always escalate issues urgently. Without that sense of urgency, the risk for loss grows. "Every day you leave something without addressing it, the problem gets worse," said Lowe. The grower on the ground may not accurately understand the downstream effects of the impact."

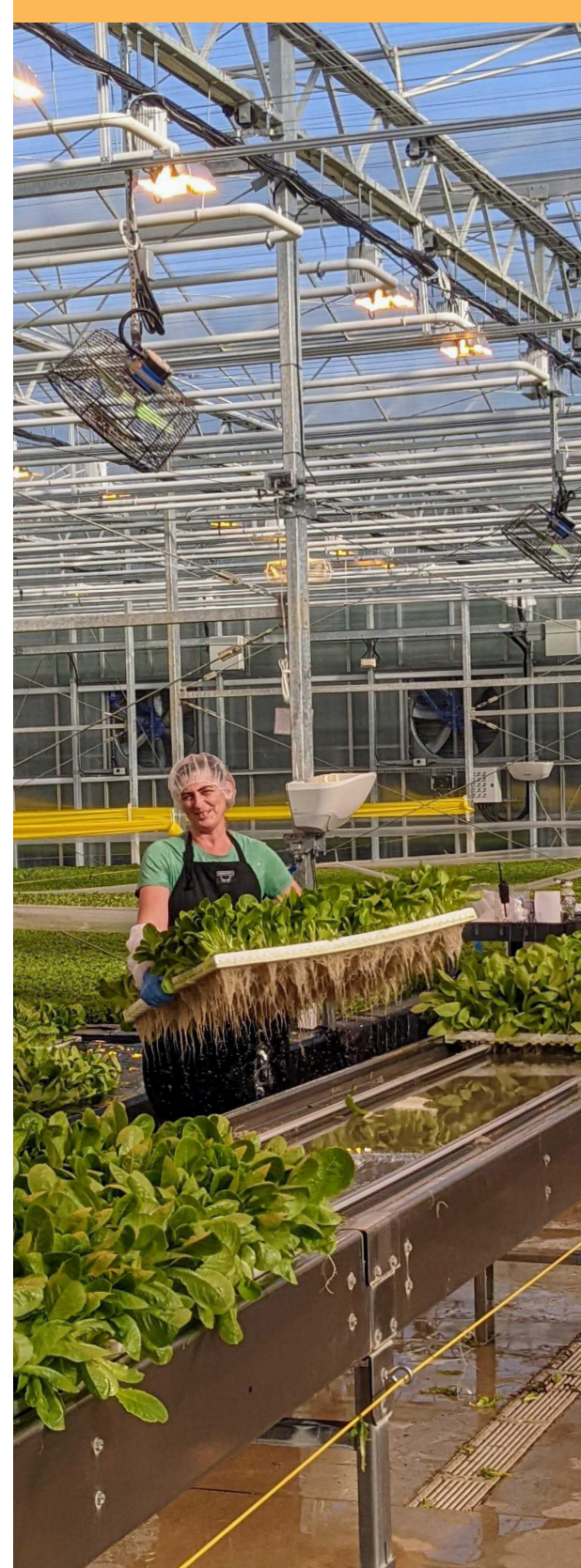
It was critical for BrightFarms to reduce the time between detection and escalation, minimizing the duration and severity of tip burn's impact.

Ultimately, Lowe believes that having greater access to data enables her growers to advocate for what they need to succeed. This enhances decision-making processes and ensures necessary resources are allocated to resolve problems efficiently.

"Before, you'd say, 'Our growers are saying they're seeing more tip burn,' but now you can have the data to understand and escalate the issue. We call it moving from 'I think' to 'I know.' Before, growing was like a green thumb. I think from my experience that this is what is going to happen. Now, I can say 'I know what is going to happen because I have the data to show it.' We started with IUNU saying this is a grower tool, but we are realizing that it's much more of a communication and escalation tool. At our scale a grower can still see issues, but the camera captures data to help them escalate an issue and support them in getting what they need from the company to resolve the problem," she said.

## LUNA AI ties grower data to its financial impact

LUNA AI enables leadership to link issue detection data to its financial impact. It's a valuable tool for determining the root causes of issues and calculating their associated costs accurately.




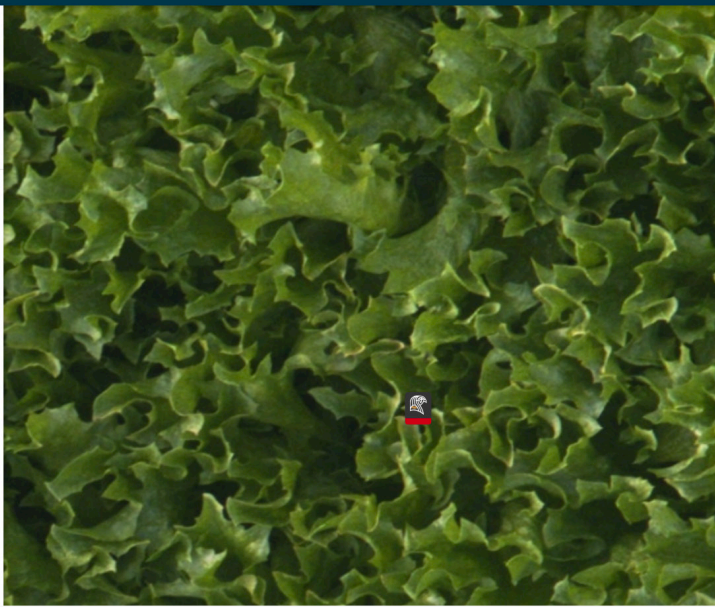
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**“LUNA AI allows our leadership to tie the issue detection data to financial impact. We’d never before been able to link those two things. Now we can take the issue detection data and roll that up to the Operations team to show the root cause of an issue, and then use that data to calculate the financial impact.”**

Fallon Lowe, Director of Digital Agriculture at BrightFarms

With LUNA AI, BrightFarms discovered that a severe tipburn event caused a 20% yield loss. Each incident of tip burn would have several weeks of impact if left unchecked.

## Early action leads to revenue gains

By identifying and addressing tip burn issues early with LUNA AI, BrightFarms managed to limit the impact of tip burn to just two days of 20% loss, instead of potentially 14 or more days of 20% loss if they had not taken early action. These figures emphasize the importance of proactive measures to mitigate tip burn promptly.

LUNA AI empowers growers and management teams to take swift and targeted action to minimize risk from issues like tip burn.