

Smart processing for smart farming: Sormac's edge in CEA post-harvest solutions

Controlled Environment Agriculture (CEA) is rapidly transforming the fresh produce industry by enabling the sustainable, year-round production of leafy greens. Whether grown in greenhouses, vertical farms, or through hydroponic, aeroponic, or aquaponic systems, CEA leafy greens are cultivated with precision and care. However, their delicate nature demands an equally meticulous post-harvest approach to ensure they reach consumers in peak condition. This is where Sormac's expertise in post-harvest technology and process optimization makes a crucial difference.

Since the 1990s, Sormac has been at the forefront of leafy vegetable processing. Recognizing the unique challenges of indoor-grown produce, the technology company partnered with leading CEA growers in the 2010s to develop tailored processing solutions. Traditional post-harvest processes—cutting, washing, drying, and packaging—are not always suitable for CEA-grown leafy greens. Unlike field-grown counterparts, these greens are cultivated in controlled, clean environments, eliminating the need for extensive washing. However, they require specialized handling to maintain their structure, freshness, and visual appeal.

One of the most significant challenges with CEA leafy greens is their fragility. The thin cell structure of these greens makes them more susceptible to damage, dehydration, and microbial contamination if not processed correctly. Sormac has developed innovative post-harvest solutions to address these concerns, incorporating gentle harvesting, optimized blending, UV-C treatment and cooling techniques to extend shelf life while preserving quality and food safety, while minimizing human interface.

Every step in the process—from precise cutting to delicate drying—is designed to protect the integrity of the product. By minimizing mechanical stress and optimizing humidity levels, we help growers maintain the crisp texture and vibrant appearance that are essential for consumer appeal.

Sormac offers fully automated post-harvest CEA lines customizable to growers requirements while safeguarding the integrity of indoor grown leafy vegetables.

Technology highlights: Intelligent harvesting and AI-aided line automation

*At the heart of Sormac's CEA post-harvest solution is the **CEA Harvester CH-30**—an advanced unit that automates the cutting and collection of leafy greens grown in gutters or float systems. Gutters are conveyed into the harvester and aligned precisely beneath dual circular knives, which are height-adjustable to ensure a clean, consistent cut just above the stem. A built-in fan gently lifts the leaves, supporting optimal cutting angles and reducing product damage. Once separated, the leaves are transferred onto a conveyor for further processing, while the empty gutter is cleaned and returned for reuse—creating a seamless loop from harvest to replanting.*

*Further enhancing efficiency is **Sormac's OptiPro visual automation system**, an AI-powered technology designed to minimize manual handling and automate quality control. Using high-resolution cameras and deep learning algorithms, OptiPro verifies the product against pre-set recipes and monitors the harvesting process in real time. It checks the integrity and positioning of each gutter and communicates with the central control panel to adjust processing parameters if necessary. This intelligent oversight enables dynamic line adjustments, process precision, and optimized harvesting with minimal human interface—raising the bar for consistency, efficiency, and scalability in CEA operations.*

As CEA continues to evolve, Sormac remains committed to supporting growers in taking the next step in their business. Whether you are an established indoor farmer or entering the CEA space, our expertise and tailored post-harvest solutions help you deliver the highest quality product to market. Partner with Sormac and experience the next generation of leafy green processing—where innovation meets precision to redefine post-harvest excellence.