INNOVATOR SPOTLIGHT

Glenwood Valley Farms

Langley City, British Columbia, Canada

EMBRACING LOCAL FARM TO TABLE: How Glenwood Valley Farms is meeting consumer demand with an enhanced LED lighting strategy

Located in British Columbia, one of the most prominent North American regions for greenhouse farming, Glenwood Valley Farms (Glenwood) grows and distributes produce year-round to local grocers and retailers through its strategic partnerships with BC Hot House, a division of The Star Group.

With a greenhouse standing at 15 feet tall, existing facility and environmental constraints forced founder Herb Schlacht to explore alternatives to traditional HPS fixtures, which he realized were detrimental to crop growth, workplace conditions and overall operations and profitability. Combined with a desire to produce larger, healthier, more flavorful crops, Glenwood turned to Fluence and the VYPR series to solve both challenges with an LED implementation.

> "Our greenhouse is four-and-a-half meters tall. It would be impossible for us to achieve the light intensity we want while also accounting for that height with conventional HPS technology—we simply do not have an adequate buffer above our crop. Our Fluence fixtures allow us to grow in our existing greenhouse without risking excessive heat output."
>
> **HERB SCHLACHT**
> FOUNDER AND CEO, GLENWOOD VALLEY FARMS

To learn more about how Glenwood Valley Farms is transforming cucumber production, visit **fluence.science/glenwood-valley-farms/**

FLUENCE

A FRESH OPPORTUNITY

Schlacht understands the dynamism of consumer demand—as more and more shoppers embrace locally grown, sustainably sourced produce, growers must similarly embrace an enhanced cultivation model and lighting strategy that maximizes crop yields while retaining the quality characteristics grocers and their customers expect.

As a result, the Glenwood team sought to increase the light intensity from its fixtures without overheating the facility, endangering staff or damaging crops. Ultimately, the Glenwood team wanted supplemental lighting to provide larger, more flavorful, healthier crops.

For Schlacht, achieving those top-line goals for cucumber production first meant testing Fluence's VYPR broad-spectrum LED lights against his legacy high-pressure sodium fixtures across a hectare of Glenwood's cucumber greenhouse. After just one harvest with 50 percent greater light intensity using Fluence LED fixtures, the results for Glenwood were definitive.

50% INCREASE IN LIGHT INTENSITY WITH LEDS

GREATER CROP YIELDS FOLLOWING FIRST HARVEST

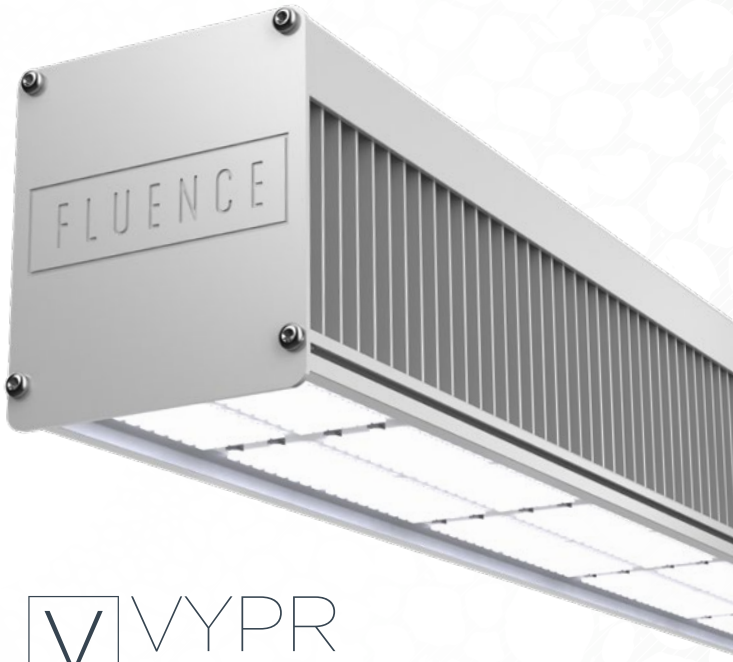
LARGER, MORE FLAVORFUL, HEALTHIER CROPS

SETTING THE STAGE BY EXCEEDING EXPECTATIONS

For more than 30 years, Glenwood has grown tomatoes, cucumbers and various fruits year-round, and distributes produce to regional grocery stores and retailers. A progressive grower in constant search of innovative cultivation solutions, Schlacht is already recording greater crop yields following the first harvests under Fluence's VYPR LEDs.

Schlacht also noted a key advantage LEDs offer in comparison to HPS fixtures: the ability to increase light intensity by decoupling light and heat. Decoupling reduces the risk of overheating the facility and ensures control over environmental conditions, resulting in better plant morphology and improved yields. Schlacht achieved a photosynthetic photon flux density (PPFD) of 275 µmol/m2/s with Fluence's VYPR system—about a 50 percent increase over Glenwood's HPS PPFD of 180 µmol/m2/s.

With assistance from Fluence, its products and horticulture expertise, Schlacht and the Glenwood team achieved what every grower strives for: improving operational efficiency and conditions while enhancing top-line production performance.



VYPR

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