

INNOVATOR SPOTLIGHT

Shenandoah Growers | Virginia, USA



INSIDE SHENANDOAH'S GREENHOUSES & VERTICAL FARMS: Transforming Organic Herb Production

Shenandoah Growers, the largest retail grower of organic herbs in the United States, has deployed thousands of Fluence LED systems in its state-of-the-art vertical farm and greenhouse facilities. With the new Fluence lighting systems, Shenandoah Growers boosted crop yield and quality while reducing land, water and fertilizer resources.

With a growing need for organic culinary herb production, the company began planning and construction for a new state-of-the-art greenhouse, vertical farm and regional distribution model in 2014.

“The team and LED solutions at Fluence made it possible for us to produce better crops in higher yields while at the same time using fewer resources.”

TIMOTHY HEYDON
PRESIDENT & CEO

To learn more about how Shenandoah is transforming organic herb production, visit fluence.science/shenandoah-growers



SHENANDOAH'S FLUENCE-POWERED LED GREENHOUSE

Featuring more than 750 Fluence VYPR Series LED systems, the newest Shenandoah Growers greenhouse delivers double the light intensity and an improved spectral composition compared to its other high pressure sodium (HPS) greenhouses. This enables a 25 percent increase in crop production, and a 50 percent increase in energy efficiency compared with the former HPS lighting systems.



**100% LED POWERED
VERTICAL FARM**



**25% INCREASE
IN PRODUCTION**



**50% INCREASE
IN EFFICIENCY**

SHENANDOAH'S FLUENCE-POWERED VERTICAL FARMS

Nearly 4,000 Fluence RAZR LED systems are growing an equivalent of 1.5 acres of organic herbs in a fraction of the space. The new vertical farm reduced land use by 75 percent, water use by 60 percent and fertilizer use by 60 percent compared to Shenandoah Growers' own advanced greenhouse model. By using Fluence LED technology and patented processes early in the growing stage, Shenandoah Growers standardizes and maintains consistent propagation prior to transplanting in their greenhouse. This innovative approach yields healthy plants, peak-season flexibility, and consistent year-round distribution.



**75% REDUCTION
IN LAND**



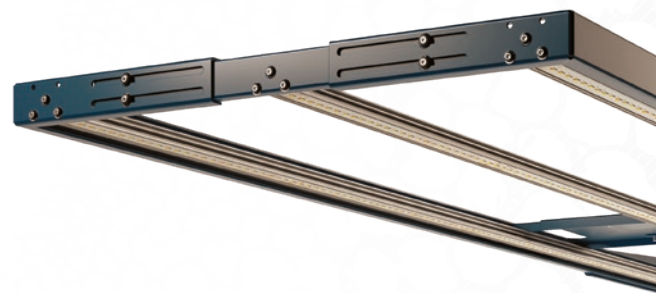
**60% REDUCTION OF
H2O & FERTILIZER**



**365 YEAR-ROUND
PRODUCTION**



V VYPR



R RAZR

To learn more about how Shenandoah is transforming organic herb production, visit www.fluence.science/shenandoah-growers



© Copyright 2022. Fluence Bioengineering, Inc.

FLUENCE