

By Mike DeGiglio



Ahead of the curve

Environmentally responsible growing methods and food safety prioritization are not new trends in hydroponic greenhouse production.

GROCERY RETAILERS ARE FOLLOWING THE TREND TO “GO GREEN” by promoting products in their stores as being better and safer for consumers as well as the environment. Yet the methods and priorities behind environmentally responsible food production remain elusive and at best confusing to the majority of consumers and retailers alike.

Food retailers are facing an increase in consumer demand for transparency in the growing methods and food safety standards of their food partners. At the same time, retailers are being asked to stand behind the products they carry to ensure consumer confidence. Yet the myriad of claims being made by companies who say they are environmentally responsible, have reliable food safety standards, or even the verification of organic standards can be daunting due to the complexity of labeling claims and third-party certification programs in the market today.

One way for retailers to ensure they are providing consumers with the highest food safety standards available in the market place today as well as the most inclusive environmentally friendly growing methods available is to choose hydroponically grown produce that meet hydroponic certification standards. Intensive hydroponic farming promotes environmental stewardship through water conservation, land resource preservation, natural biological controls, reduced carbon emissions, and above all, food safety.

As one of earth’s most precious resources, increasing water efficiency is paramount in food production today. In hydroponics, state-of-the-art greenhouses use a gutter and drip irrigation system, delivering water that has been recirculated up to four times directly to the root of the plant. Further, greenhouses control humidity reducing water lost through evaporation. This means 100% of the water used reaches the plants with no waste.

Land resource preservation is another area of environmental stewardship inherent to hydroponically grown food. In hydroponics, the plants are grown in a sterile medium, not in soil. With this there is no chance of groundwater contamination or soil contamination, and therefore no threat of soil erosion or depletion of precious soil nutrients. Hydroponic growing methods strive to maximize yield by using less land to grow more produce, and can yield 20 to 30 times more product per acre than conventional field production.

In comparison to traditional chemically intensive field agricultural, in hydroponics natural biological controls such as predator insects are used

to reduce or eliminate insects and the diseases they carry. Hydroponic growers practice an intensive Integrated Pest Management (IPM) program that uses beneficial insects to eliminate pests and stimulate healthy plant growth. Hydroponically grown fruits and vegetables that employ IPM are pesticide and herbicide free.

Hydroponic growers are committed to reducing their carbon footprint by recycling carbon dioxide (CO₂) into the greenhouse. Hydroponic greenhouses utilize carbon dioxide by recycling the output from very efficient boilers used to produce heat to keep plants warm and in turn produce food grade CO₂ that is distributed into the greenhouse. The plants then absorb the CO₂ as part of photosynthesis, creating near zero carbon emissions.

A key element of reducing the carbon footprint is positioning greenhouses close to regional markets, requiring shorter freight transport times to reach stores, therefore reducing the use of petroleum-based fuels. Being committed to using bleach-free, recyclable corrugated cardboard boxes or “blue bin” recyclable items for packaging is yet another way hydroponic growers are working to reduce their carbon footprint.

Hydroponically grown produce adheres to the strictest food safety standards in the industry. Good Agricultural Practices (GAP) modeled after the U.S. Food & Drug Administration’s Good Manufacturing Practices are maintained using third party auditors such as Primus, to ensure consistent food quality, safety and traceability for certified hydroponic growers. GAP addresses important food safety issues: fertilizer usage; water sourcing and usage; pest control and pesticide monitoring; and cooler operations. GAP also covers harvesting practices, including worker hygiene, packaging storage, bioterrorism and product transportation. Hydroponically grown produce has maintained some of the highest documented Primus Food Safety scores in the industry.

Lastly but not least, it has been said that hydroponic produce is superior in taste, appearance and shelf life and is available 365 days a year. Through the “Certified Greenhouse” program of the North American Greenhouse Hothouse Vegetable Growers (NAGHVG), hydroponic growers partner to maintain the highest standards that assure the buyer their products are grown with the full benefit of environmental stewardship and food safety expectations. This certification is a retailer’s, as well as a consumer’s, assurance of best practices. □

Michael DeGiglio is CEO of Village Farms, a member of the NAGHVG program. For more information about hydroponically grown produce, visit www.villagefarms.com.