

PLANT-BASED FOOD BOOM CREATES URGENCY TO UPGRADE FOOD SUPPLY CHAIN

If your business touches any part of the booming plant-based food market, here are some things to consider.

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Valued at \$4.5 billion and increasing, the plant-based food market won't stop growing anytime soon. Over the past several years, brands have gone from largely unknown to supplying meat alternatives to fast-food giants and stocking their products on nearly every major grocery shelf. But, like any food trend that significantly increases demand for a specific kind of product, plant-based meat alternatives are creating roadblocks and straining the food supply chain.

Food supply chain professionals know that technology upgrades and more transparent processes will be necessary to compete in the future. However, the plant-based food boom is an inflection point — many consumers are shifting the way they eat, and those involved with the plant-based supply chain must be ready.

What makes this new food trend different from previous shifts in global eating? For one, this trend seems partially influenced by another global shift — the environment. A recent study notes that 16% of consumers avoid meat for strictly environmental reasons, since nearly 15% of global greenhouse emissions come from animal agriculture. But, plant-based food can be particularly tricky for the supply chain because many of these items are produced by traditionally non-organic suppliers.

Whether this plant-based revolution is here to stay remains to be seen. However, it shouldn't stop suppliers and food logistics professionals from thinking about how they can implement new technology to meet demand. If your business touches any part of this booming market, here are some things to consider:

Plant-based meat alternatives are complex.

The global food supply chain has gotten better at tracking its fresh produce. Many organic farmers already follow regulations for handling fruits and vegetables — temperature controls, freight tracking and purchasing suggestions make produce easier to track from farm to table in the event of a recall.

However, because plant-based meat alternatives source many different ingredients to make one product, all it takes is for one of them to be tainted and untraceable to cause a massive recall. It is very likely that young companies will demand their suppliers deploy more advanced technology — whether it be Internet of Things (IoT) sensors on their irrigation systems or connected temperature regulators on their storage facilities — in order to make sure every



ingredient can be accounted for.

Software should not be overlooked.

Hardware is frequently the focus of innovation in the food supply chain, with IoT-enabled devices, sensors and 5G wireless networks promising to make food much easier to trace. However, this hardware is nearly useless without the right systems behind it. An integrated system like enterprise resource planning software (ERP) can help tie all the data together, enabling suppliers to make smarter decisions based on precise analysis. In the short term, software like an ERP can help with tracking food as it moves through the supply chain, but it can also help optimize processes and cut costs when used as a longer-term strategic planning tool.

Sustainability is the future.

To meet consumers' growing concerns about sustainability, the food industry must continue investing in technology that will prevent waste and improve its overall carbon footprint. While producing plant-based foods is a good first step, suppliers need to think long term about how they can increase efficiency. The 22 ingredients it takes to produce a plant-based burger all have varying temperature and handling requirements and expiration dates. Without a carefully controlled system that can monitor the status of all these ingredients, food producers risk wasting supplies because of spoilage. Only an advanced ERP system or similar platform can ensure all ingredients are fresh, handled properly, and used in an optimal time frame.

Five years ago, the thought of a plant-based burger hitting the menu of a national fast food chain was almost unthinkable. But, if the food industry is going to keep pace with today's demand for plant-based offerings, they need to start thinking now about how their software and hardware infrastructure can tackle the challenges that come with a more complex and organic product.

Even if history remembers the plant-based boom as simply another food fad, the businesses that took the time to make the necessary upgrades to their operations now will enjoy long-term success.

