

# THE NEED FOR END-TO-END VISIBILITY IN FOOD SUPPLY CHAINS

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*The recent voluntary recall of single heads of romaine lettuce by California grower Tanimura & Antle, due to suspected E. coli contamination, was just the latest in a long series of health alerts affecting the food supply chain. In this conversation with SupplyChainBrain Editor-in-Chief Bob Bowman, Kevin Beasley, Chief Information Office with VAI, discusses the challenge that food producers, distributors and retailers face in achieving the level of supply-chain visibility that allows them to act quickly and precisely in the event of a product recall.*

**SCB: What happens during a recall like the recent one of romaine lettuce? What actions do companies need to take?**

**Beasley:** It depends on the particular company and what its capabilities are. It starts with being able to perform quality control and testing. It makes a difference if they're the owners of the farm, and can track information direct

from there. Otherwise it depends on what information is being passed up to them, and what they're storing in their database. Product often moves through many different hands. In the old days, if seller didn't have the data, it was a matter of recalling everything. That had a huge impact, especially if you're dealing with the entire country or even international markets. The bigger the recall, the more the black mark on your reputation. Today, in 2020, one would hope you've got a modern system in place, where you've got the data points to be able to track product all the way down to the farm. And if you've got good sensors in place and can record all the particular conditions on a farm — what the water and temperature levels are.

In some more modern situations, you can pinpoint it down to a section of the farm, the aisle or row. What information do they have? How granular can they get? Is it down to a specific lot? Or

is it the whole farm, or a whole day's delivery? It also depends on when they received the product, if it was initially OK but could potentially now be contaminated. They're going to look at who did the testing. Who caught it — the farmer, distributor, retailer, or consumer? That also affects the level of recall.

**SCB: What do you think went wrong in the Tanimura & Antle situation? Did they respond to it in proper fashion?**

**Beasley:** This was all the way from the West Coast to the East Coast. It even went as far as Puerto Rico. It might have been their entire run of a particular lot. I doubt the contamination came from a single farm. Lettuce doesn't all typically come from just one location — it was probably coming from many different suppliers. And the bigger the incident, the less data they have. They have to do a wider swap-type recall.

Sometimes, with a product like lettuce, it could just be a recommendation based on consulting, legal or P.R. marketing advice. At that point, it's just best to recall it all. You don't want your other stuff sitting on a shelf not being bought because it was recalled in other states.

**SCB: Do you think that food brands generally have visibility all the way back to the farm these days? Or is it still a problem?**

**Beasley:** Many times when customers come to us, it's because they don't have traceability. You're probably well aware of what Walmart is requiring with all their leaf products — that it has all those data points from the farm all the way to the consumer.

It gets recorded in blockchains, with every person contributing to it. You couple that with some of the more modern technologies like internet of things devices, which can collect all that information automatically. It's probably not there at the farm level yet, but years from now, when we get 5G, we'll probably get more real-time data. That's going to take a long time to roll out, especially when you get into rural areas. It's more of an urban technology today, from the standpoint of coverage.

The FDA is mandating all this. There are many food safety rules, and a lot of companies are attempting to comply, but it takes time to move an entire industry. They can't just lift up all their software, hardware, and RFID tagging capabilities in one

fell swoop. It's an evolutionary process.

**SCB: How can brands use predictive technology to prevent future recalls?**

**Beasley:** If you've got historical data from particular farms or geographies, you can see what the temperature was in the month of April in a particular locale — whether it was a rainy period, which increases the risk of E.coli. Or you can track seasons. Once you start establishing the data, you can look at both conditions in the past and what you anticipate them to be five years from now. That's the predictive aspect of it. It all goes back to the more data you have, the better you can do.