



KNOW YOUR TRACEABILITY FUNDAMENTALS

BY GARY FLEMING – CHIEF EXECUTIVE OF DAPICON, INC.

As newer traceability tools are introduced into the food industry, they are being done so without considering key traceability fundamentals, associated costs and the landscape of the industry. Without these considerations, the promise of these tools rests on assumptions that will render them ineffective when implemented and add significant (re)investments by the industry. Knowing these fundamentals will help companies understand these assertions and separate the hype from what is truly effective, scalable and sustainable.

In 2009, the produce industry created the PTI (Produce Traceability Initiative), which provided the tools needed for whole-chain traceability. The other fresh food sectors (meat/poultry, seafood, etc.) followed with their own traceability initiatives using the same toolset. This provided a global solution to not only address traceability but also provide one common traceability standard across all food sectors. These tools are just as essential today as they were in 2009.

When product has been implicated in a recall, there are two critical questions that need answering: “Where did the product come from,” and “Where was it shipped?” Answers to these questions will allow investigators to track the origin of the problem and remove the product from distribution before it reaches the consumer. These questions need to be answered at each leg of the supply chain, not just the end points.

Here are some traceability fundamentals that must be present regardless of the tools used:

1. For traceability, you need an **identifier** on the **product** in order to track it. Let’s take a deeper dive:

- **Identifier** – We already have ID numbers in the industry. The UPC identifies the item, the GTIN identifies the case and the SSCC identifies the pallet. For trace-back purposes, we need to track product to the grower’s Lot or to the packer’s Batch. This therefore requires an identifier plus the Lot or Batch #. Without the inclusion of the Lot or Batch #, we could not track the product to a specific field nor harvest.
- **Product** – Each product has three different levels of packaging: item, case, pallet.
 - o **Item** – we cannot use an identifier on the consumer unit for traceability as the only parties that see what is on the item are the ones who pack the item inside the case and the ones who unpack it. The balance of the industry only sees the case.
 - o **Pallet** – We cannot use an identifier on the pallet as the pallet is typically broken down at the distribution center and will therefore lose the pallet identifier.

o **Case** – The case is the only unit of measure that is used across every aspect of the supply chain. It is also the primary unit of measure when ordering and invoicing product. Therefore, the GTIN became the only identifier that can be used along its associated Lot/Batch #.

2. Once you have a GTIN and Lot/Batch # on the case, each subsequent handler must be able to read and store this information as it moves through the supply chain. To minimize additional industry investments, the PTI and other food traceability initiatives utilized the ubiquitous barcode. With each scan, companies can capture and store the date/time of the scan plus the GTIN and Lot/Batch # to be shared and/or referenced at the appropriate time.

3. The last requirement is that every link in a specific supply chain scenario must participate. If a single entity does not, then that traceability link is broken, and traceability is lost from that point forward.

The above fundamentals must be present in order to have whole-chain traceability. Most of the newer tools (e.g. blockchain) assume the industry already has this data. This is not so. This data does not “magically” appear and needs to be captured before being shared. Other tools have come and gone with similar promises (e.g., RFID, QR Code, and DataMax) but fell short of the promises made because of the exclusion of these fundamentals.

The good news is the industry does not need to (re)invest in newer tools to solve the traceability problem. The PTI and other food traceability initiatives work and utilize industry standards and existing technology but are missing 100% industry adoption. This is not a problem of function, but one of choice. When addressing a whole-chain industry problem, all it takes is one missing link and the whole chain is broken. This applies to any tool, regardless of how “shiny.”

So, do we rally around a working solution created by the industry and build on the significant investments and infrastructure already made, or shift to a new “shiny penny” and add even more costs to the industry with the hope that everyone follows? **pb**

Most of the newer tools (e.g. blockchain) assume the industry already has this data. This is not so.

About the writer: Gary Fleming is the chief executive of Dapicon, Inc. and a former employee of both PMA and GS1. He has 30 years of experience in the food industry and 22 years in the produce industry and has played a critical role in almost every major supply chain initiative in the food industry over the past 25 years.

About the company: Dapicon, Inc., provides solutions that manage core business transactions and ancillary data points, giving the industry data they need to solve industry problems and make more informed decisions.