

Keeping Focus on All the Pieces

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Management gurus preach that to be successful, we have to always keep the end-goal in mind. For food traceability, there are three distinct end-goals: protecting public safety by providing rapid trace-back in the event of a disease outbreak or a tainted goods episode, protecting a company's brand by providing rapid trace-back and trace-forward analysis to minimize the impact of a tainted goods episode, and boosting a company's profitability by using finer granularity operational visibility provided by a proper traceability system (value traceability) to flag profit leakage/opportunity areas and improve corporate decision making and corporate profitability. All three goals are equally important and we've long discussed the importance of using what we've termed "value traceability" to fund the public protection and brand risk mitigation roles.

Our corollary to this management maxim is that we also need to be constantly mindful of each path that will lead us to the end-goals, and not focus on one path to the exclusion of others. Recent press releases by major players in the animal traceability industry show that work on animal ID is alive and well and moving towards the USDA-provided 2009 timeline. That we are still relatively early in the roll-out phase of this program, though, is evidenced by the fact that many of the press releases in the last week focus heavily on the identifiers used to reference animals and locations:

- In one press release, a major US university announced that they had established a Center for Animal Identification "to expand research in evaluating animal identification systems." The group's mission is to "discover, develop and evaluate livestock identification technologies that might have economic value to livestock producers..." This is a highly laudable goal. In the first stage of this group's operation, they will be focusing on evaluating different RFID technologies, focusing on the animal identifier.
- In another press release one industry group announced they had formed an alliance with other members of their animal production industry to facilitate the registration of dairy farm, dairy calf and heifer grower premises as part of the National Animal Identification System (NAIS). The press release noted that more than 30,000 commercial dairy producers and their suppliers have registered premises, but 35,000 have not. 100% premises registration is the goal. Here the focus is again on the identifier, the premises identifier.
- Finally, in a third press release, the USDA announced it has ordered 1.5 million compliant radio frequency identification ear tags for the NAIS. The press release noted that these tags will be used "for USDA Animal and Plant Health Inspection Service (APHIS)/Veterinary Services State-Federal Cooperative Disease control and eradication efforts in targeted increased-risk geographic locations." Again, the focus is on the identifier, the animal identifier.

One of the first questions people have about traceability systems is how the production units and locations will be tracked (animal identifiers and premises location identifiers). Clearly, a review of recent press releases suggests we are still educating the producer and production base about these important topics.

To move to the next implementation step, though, we will need to make sure that we educate the production and processing community about all of the pieces needed to make an effective traceability system. Neglecting to educate traceability stakeholders about what is needed to deliver a complete system is dangerous because the implied message to the naïve or casual reader is that all a company needs to do is adopt a specific identifier (whether for the production unit or for the premises) and the company then will have a complete traceability system that will deliver all three traceability end-goals. Nothing could be further from the truth, and, in a very real sense, an exclusive focus on the identifier can

damage the traceability cause by diverting effort from all the paths that must be pursued to reach the traceability end-goals.

By no means are we faulting the companies and groups that issued these press releases. In fact, we applaud them for keeping the animal ID flame alive by keeping the products they sell in front of the producer and processing industries. What we would like to see, though, is more communication from the companies that are providing the other pieces of the traceability puzzle so that stakeholders will not think the identifiers are the most important part of the solution, and a broader message from the associations that are educating their membership about traceability. Identifiers are important and critical part of a traceability system but there's more to a traceability system than just the identifier.

Why is the identifier not the traceability system? At best, the identifier used (whether RFID, barcode, memory button, or other unique automatically-read identifier) is only the tip of the traceability iceberg. An analogy quickly points out how inadequate the identifier is to achieving traceability's end-goals. Imagine there was a bank robbery, and an eye-witness reported the license plate number or, worse yet, the Vehicle Identification Number (VIN) of the get-away car. The traceability identifier – the license plate or the VIN number - by itself is virtually useless. Imagine police combing the city peering into cars to check out VIN numbers. Even looking at the license numbers of all the cars a police officer passes is not a terribly productive task. Neither tactic is likely to find the bank robbers. What will find the bank robbers is using the identifier to look into a vehicle registration database to quickly gain information about who owns the car, their address and other pertinent information that will allow the police to more quickly find the car.

This example may seem trivial and obvious, but the main point is that the identifier is only an entry point into a larger set of databases. It is only through the interaction of the identifier with one or more databases that we achieve the full traceability potential, and this point is what most food and beverage company executives lose sight of when they think about traceability. When they think about traceability, they think about the identifier (the unit of production identifier and the premises identifier) and forget they also need back-end database systems, or they think their existing back-end database systems can easily accommodate the traceability identifiers. Both are incorrect.

A complete traceability system needs the identifiers (both for the various units of production and their transforms) as well as two different classes of database systems. The first type of database system is used within the enterprise and connects-the-dots between what arrives on the company's receiving dock and what gets shipped to their downstream customer. This internal, connect-the-dot traceability system will usually inter-connect or bolt onto the company's existing ERP and other operational control and monitoring systems. Ideally it does this with a software oriented architecture (SOA) and software as a service (SaaS), and provides the finer granularity operational visibility to not only meet the traceability compliance requirements but also facilitate the value traceability end-goal. In our opinion, not nearly enough attention is being paid by food and beverage company executives towards this type of internal system. To prove this point one need look at the recent tainted food episodes that have, after months of investigation, yielded inconclusive results. This oversight will severely hamper the creation of effective traceability, and food and beverage executives need to be focusing more on the type of internal traceability system they need to adopt.

A second class of database system is the one that connects multiple enterprises within a supply chain to provide either the public safety end-goal or the value traceability end-goal. There has been some good progress, albeit slow, towards achieving the goal of a cross-enterprise system that can deliver the public safety end-goal in the animal agriculture industry. USDA's database development effort and the subsequent registration of database companies to interconnect with this system are very important and are plodding towards a 2009 voluntary implementation. Efforts to provide cross-enterprise systems for value traceability have been less well-developed although the various initial implementations in isolated chains has shown these systems to have a very high return on investment.

As we all move forward to educate executives in the food and beverage industry about traceability, let us make sure that we speak about all of the components of a traceability system, not just one. It's only by keeping focus on all the paths that all three traceability end-goals can be achieved, and it is in every

stakeholder's best interest to move the food and beverage industry towards widespread traceability adoption.

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