Overcoming hurdles to traceability profits

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Many companies are overwhelmed when they begin to think about traceability. They know that traceability is the wave of the future and they need to ride it, but they just don't know where to start.
During the past four years, we've seen companies offer various rationalizations to explain why they are doing nothing and aren't yet ready to begin tracing:

- Companies think they need to do it all at once. The perceived complexity of interconnecting all their upstream suppliers and downstream customers paralyzes them into inaction and procrastination.
- Companies want to move toward traceability, but only after they've "upgraded their current information systems"
- Profits are tight right now, and companies prefer to wait until the financial picture is a bit brighter before beginning.

Each of these rationalizations is a dead end that limits a company's ability to evolve profitably in today's challenging economic times. Tracing is a somewhat new discipline, and having the right assistance with the right experience and the right perspective on these issues can make all the difference.
Let's take a look at these rationalizations one by one:
When a company thinks it can't afford adding traceability, leaders are usually viewing traceability only as a cost, not a potential profit enhancer--either cost reduction or revenue enhancement. A dollar invested with the right traceability focus generates a large return across multiple companies in many different agri-food chain segments. We've seen 0.5% of a company's revenue invested in tracing having a 1.5% to a 5.0% return. Five dollars invested in tracking a beef cattle animal returns $25 per head, $55 per head or more at slaughter (see FTR, May, Page 24).

When we begin talking with clients, executives will usually say their company is different in this respect, but we have yet to see much difference. What we do see when the projects are actually pilot tested is a three to ten times return on investment. In tough economic times, few companies can ignore this opportunity. Tracing provides a powerful tool to trim costs and add value to products.

Even if a company understands the profits to be gained from tracing, they are likely to think that the practice is still pretty expensive. A company that looked at the field a couple of years ago may have concluded the costs are just too high. It's true that some tracing systems -- especially manual, paper-based systems used by smaller companies in the United States and their counterparts in the European Union--are not cost-effective. These manual systems are also inaccurate; there's a 10%+ error rate on manually copying or manually keying identification numbers over nine digits long. However, electronic

systems that electronically store identification numbers are highly accurate, and the cost has dramatically fallen in recent years.

In beef cattle, for example, the computer chip tag used to identify individual animals has fallen in five years from more than $12 per animal to $1.50. Continued price drops can be expected, but it is unlikely we'll see another order of magnitude drop. For other commodities, where less rugged equipment can survive, the cost has fallen to just a few pennies per appropriately sized individual unit of production.

Again, modest cost drops per identifier can be expected, but much of the major cost has already been driven out of the system. The software technology for securely collecting, processing and sharing this information has also fallen in price so that the overall cost, including cost of implementation, falls well within the 0.5% formula used above.
When company leaders say they will think about traceability after they have upgraded their current information systems, they are likely missing a huge opportunity. As mentioned above, the cost of adding electronic traceability technology has rapidly dropped in recent years. And the capability has substantially increased.

This evolution in traceability can strongly influence how current information systems are upgraded, not vice-versa. Applications that were not technically or economically possible just a few years ago (e.g., determining which upstream product attributes really make a difference in optimizing production and/or consumer acceptance or providing near-real-time inventory status of upstream raw materials) are now both technically possible and affordable.

The falling cost of hardware and software to track product attributes, processes and location/ownership on appropriately sized individual units of production opens the door to management at a lower granularity level--the appropriately sized individual unit of production. Today, most information systems don't go down to this level of granularity. Tomorrow's systems will require this level of detail. Companies that are looking to upgrade their internal information systems will do well to take a close look at how their operations could change if they were able to manage their processes at this richer, lower detail level rather than today's blended group.

Such analysis requires close focus on the traceability technology appropriate to a business. Only then can executives determine what changes need to be made in their existing information structure to take the company through the next five to ten years. Companies don't want to be optimizing their horse-and-buggy designs when the gasoline engine is right around the corner.

Finally, many companies have the misconception that they need to link all their upstream suppliers and downstream customers before they can begin to consider a traceability project. Nothing could be further from the truth. As with all complex problems, the best way to tackle them is by breaking them down into smaller parts.

Working with our customers, we've found that one can typically find one or more bitesized

projects that have both a manageable scope and a very quick and sizeable payback. Identifying such projects allows the company to begin moving towards traceability while solving an immediate company problem and saves the company immediate operating dollars. The system put in to solve the immediate problem uses the appropriately sized unit of production architecture and lays the foundation for reaping additional benefits from the same basic data flow.

We haven't seen many similarities among the initial projects companies have undertaken to begin traceability. One company chose to look first at automating its payroll process for piece-rate employees. Another company wanted only to begin tracking by bar-coded lot number the physical movement of a small number of products from a limited sub-set of suppliers, through the company's distribution/warehouse process to the company's retail stores.

In each instance, the company began with a well-defined, small-scope project that had a very high financial payback in less than nine months. In each case, the chosen solution laid the foundation for later traceability projects that could be added at only a small incremental cost and still more than pay for themselves. In one of the examples above, automating piece-rate payroll ultimately ended up paying for the source verification certification required by certain high-value, geographic markets.
Rationalization leads to inaction. In today's economic and security climate, delay is deadly.