

## **Automation – Sanitizing Risks to Food Safety**

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Look through recent broadcast news archives and you will find examples of how microscopic problems – literally microscopic – took a financially healthy corporation through public relations and financial nightmare to the point of placing food processing plants on the real estate market.

Food safety responsibilities lie with every step of the delivery chain, not just the mass meat and produce suppliers that capture the greatest media attention when things go bad. Few consumers remember the names of the regional and national suppliers, but they do remember their local store, or their local restaurant that prepares and serves the food. Your company name, brand, and reputation become embedded in their food consumption experience.

Consider *Dateline's* 2005 “Dirty Dining” expose on the nation’s top fast food chains. For every 100 inspections, the majority of reviewed restaurants had close to 100 or more critical violations, ranging from inadequate holding temperatures, cross contamination due to improper hand washing, and prepped food with expired dates. These findings were supported by several state and federal studies indicating the top three “out of compliance” areas for both full service and fast food restaurants are bare-hand contact with food, cold holding below 41F, and lack of date marking (coding) of prepared food.

### ***Food Safety Made Simple- Date Coding***

Date coding for food safety has two simple prevention goals: 1) to clearly date the age of a food item to keep food safe and 2) minimize risks to your business’ reputation.

FDA regulations are clear on what must be date coded to limit pathogen or toxin growth; ready-to-eat food not requiring additional prep; and foods stored under refrigeration for more than 24 hours. What is not regulated is how date coding

should be conducted. They expect, however, and you should require, that your date coding process be understandable by all employees, effective in preventing illness, and consistently used by the employees. That should give every restaurant manager pause to think.

Date coding may seem simple – even too simple to give it much thought. However, as those who have been in violation will concur, it requires consideration. In fact, two distinct parts of the process need review to really understand potential pitfalls. First, consider who or what is generating the date code.

According to research published in 2000 by Sibson & Company – a talent management company, turnover in fast food restaurants can reach 123 percent in a year. With workforce turnover, the diversity of age, maturity and even languages among employees, it is unlikely that any restaurant manager can truly ensure consistent training AND understanding among all employees.

“Manual” dating is a common practice in food service. The ink pen or Number 2 pencil are tools that then rely on handwriting skills. Are the 7s looking like 1s? Could “Tues” look a little like “Thurs?” Is that a slash or a 1? And even with accuracy, ink and pencil lead run when wet, smudge with friction, and aren’t intended to be food safety tools.

By taking specific duties, like calculating “use-by” dates and hand writing labels out of employees hands and automating them, immediate food safety improvements are realized. Using thermal technology and automation provides consistent, timely and accurate date generation in a clear, legible label that adheres to a variety of materials, in varying conditions.

### ***Label as a Technology***

Date coding in most restaurants today involves a label – generally viewed as paper with adhesive. For some restaurants, buying the cheapest “business”

label online and handwriting a date seems like an adequate process. During a 2008 survey on date coding processes, one participant commented, “I go online and search office supply companies for which one has the cheapest labels at that time.” When thinking of the label as just sticky paper, the comment seems reasonable.

Here’s the issue: Common business labels were never intended for food safety. They do not meet FDA required temperature levels. Labels can loosen and find their way to the bottom of a cooler, and the adhesive can stick on fingers or gloves when making a salad. Or strong adhesives could result in parts of the label or adhesive residue going through your sanitizing process, leaving bits of not-too-appetizing material coating reusable service ware.

The label best suited for food service is, in fact, a technology tool: one that has specific features intended to alert to subtle changes beyond printing. Such label technologies include a) color-changing technology whereby color hue transitions based on temperature and time changes indicate possible spoilage; and b) adhesives intended for temperature changes and that allow for either easy removal of the label from equipment, the complete dissolving of the label and adhesive during washing, or remaining permanent on packaging intended to be discarded. Research continues in making label technology more beneficial to the food industry, including great levels of sensitivities to temperature changes and the presence of bacteria.

### ***Automation – Avoid Sticker Shock***

Automation usually brings on an immediate cost concern, but unnecessarily so! Technologies today offer inexpensive scalable solutions that can solve an immediate need today and grow as your needs change over time.

Aside from scalability, it’s important to consider that automation often brings opportunities to integrate multiple processes. In fact, the right automation can reduce the need for disparate systems, reduce wasted employee time having to

use different systems at different stations, and provide proven savings and payback to your bottom line.

First, consider if your date coding process can be – or should be – merged as part of a larger label solution for retail aspects of your business. Do you need to include nutritional information, ingredients' list or other particulars necessary for compliance or retail sales? Automation provides the ability to retrieve your specific data of varying products or ingredients and have them outputted to a label.

Second, you may find that an automated system can also serve as an inventory management solution allowing you to enter quantity when stock is received into inventory and reducing the quantity when the product is pulled from stock to be prepped. This is particularly beneficial for establishments with wide varieties of produce or product.

Next, consider your employees. An automated system reduces wasted time reading charts and figuring out “use-by” dates as the data is contained in one system; which can provide detailed data in multiple languages, reducing the risk for error. Automation also provides accurate tracking of who completes what process and when for inspection purposes.

### ***Proper Automaton Analysis***

No automation should be deployed without a thorough analysis of your current operation, compared with a potential automated operation to determine your return on investment.

It is critical that you first understand the costs to maintain your manual process. Here are some direction points:

1. What are my risk areas with regard to:
  - a. Past violations/inspections – Future \$\$ impact potential

2. What is my actual cost for managing a manual process
  - a. Time spent transitioning steps in food prep
3. What is my training cost to manage a manual process
  - a. Training employees, ensuring reliability, no mistakes
4. What is my food waste cost, with a manual process
  - a. Food discarded/not sold
  - b. Food not discarded but not labeled
5. What is my cost for lack of centralized data in a manual process
  - a. Time spent locating data
6. What is my cost in the event of a illness due to no date coding, or improper date coding?
  - a. Liability and insurance issues
  - b. Decrease in sales due to adverse publicity

Once you understand your current process, then you can apply the models for an automated process. Restaurant managers, fortunately, do not have to perform this assessment alone. Consultants and solution providers (such as Avery Dennison) can perform an analysis, sometimes at no cost. Due to high turnover in the workforce, continual training must be included in the implementation of any automated process. An automated date coding system is the most effective protection to an unforeseen event.

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