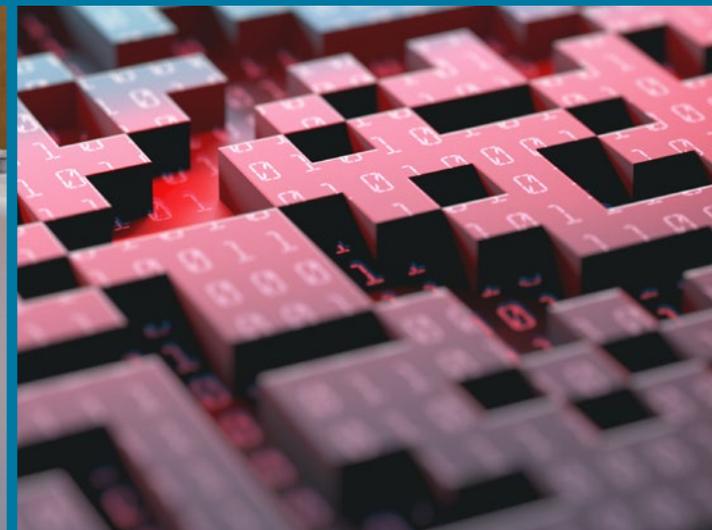


eBOOK

Packaging

TECHNOLOGY TODAY

Labeling, Coding & Marking



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Digital Drives Labeling, Coding and Marking

By **Sean Riley**, PMMI, The Association for Packaging and Processing Technologies

The needs and whims of the buying public have always provided the most significant impetus for change and creating the trends that drive consumer packaged goods (CPGs) companies. More than any time previously, however, changing consumer desires and the stresses it puts on CPGs is steering decision making throughout the packaging supply chain.

Continuous Improvements forums (**Vision 2025, Top-to-Top** and the **OpX Leadership Network**) from PMMI, The Association for Packaging and Processing Solutions, point to evolving and diverging consumer demands for greater product convenience and a growing need for instant gratification as the key consumer factors forging change. Buying habits are

also shifting as a growing global middle class now finds themselves with disposable income to spend on items once considered unaffordable.

Labeling, coding and marking manufacturers are among the most affected sectors of original equipment manufacturers as the technology is responsible for providing identification and information throughout CPG operations.

Digital print allows brands and manufacturers to respond quickly to customer demands while improving the supply chain, reducing warehousing cost and waste and enjoying a faster time to market. Retailer-specific packages, micromarketing efforts, sustainability and traceability concerns are also improved via digital printing.

While using digital for packaging can create a buzz in the market, the true transformation that digital will offer CPGs comes via the supply chain. Digital print used in a targeted fashion for consistent, long-term, project-based work can reduce costs associated with transportation, warehousing and obsolescence.

The speed of digital printing also permits CPGs to label, code and market products more rapidly. In turn it puts product in customer hands faster, making it easier to keep on top of changing consumer behaviors. Ever-changing market dynamics are not as big of a challenge when on demand printing is available. The supply chain and packaging workflow include significant waste, especially when it comes to the time involved. Using digital to reach the market faster leads to less downtime and increased revenue. For equipment, software,



and supplies manufacturers, success in the digital market is incumbent upon an ability to support a variety of packaging applications and develop products that can compete with the productivity of conventional equipment, while emphasizing the value-add that comes with digital.

One of the biggest concerns regarding digital is the initial cost up front. However, as the technology evolves, digital can help the labeling, coding and marking segment achieve things previously out of reach, while enhancing value potential. Digitally printing on in-mold labeling, for example, can position CPGs to enter new market segments and increase total revenues.

As digital printing began to grow mainstream, PMMI recognized the trend and also the proliferation of exhibitors at the PACK EXPO portfolio of Trade Shows PACK EXPO International exhibiting digital products. To meet the industry demand head-on, The PACKage Printing Pavilion, the industry's main stage for package printing innovations, will debut at PACK EXPO Las Vegas 2019 (Sept. 23-25; Las Vegas Convention Center). The launch comes on the heels of the successful introduction of the PACKage Printing Pavilion at PACK EXPO International 2018. Attendees will find innovations such as digital color printing applications for folding cartons, corrugated and flexible packaging, labeling, coding and marketing solutions and other smart package printing options.



gated and flexible packaging, labeling, coding and marketing solutions and other smart package printing options.

Beyond PACKage Printing, PACK EXPO Las Vegas co-located with Healthcare Packaging EXPO, will showcase innovations from more than 2,000 exhibitors spanning over 900,000 net square feet of exhibit space. ■

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Brew up New Branding and Labels to Stand Out in the Crowd

By Gary Paulin and Mark Lusky

How do you set yourself apart amid a sea of craft beers and ever-more-creative labels and packaging?

According to a December 2018 *USA Today* article, “Small and independently owned breweries, or craft breweries, were making about 5 percent more beer at the middle of 2018 than the year before...” With that level of competition comes pressure to brand in a way that connects indelibly with the marketplace. Here are some ways to set the gears in motion:

- 1. Be practical as well as promotional.** Give consumers something they will use in their daily lives or in one case, recreational outings. Frisco, CO-based Outer Range Brewing Co. decided last year to include extended content label trail maps



on its microbrews. The move generated a bunch of buzz among both consumers and industry colleagues.

- 2. Name drop.** Tying a craft beer release to a celebrity can be fodder for memorable labels and a noteworthy promotional campaign. Carson, CA-based Phantom Carriage Brewery fills the bill. Notes an article in thefullpint.com/beer-news, “It’s that ghoulish time of year again! ‘Lugosi’ (Vintage 2018) is our long-awaited bottle release that pays homage to the legendary actor Bela Lugosi. Bela portrayed Count Dracula in the classic 1931 Universal film...Dracula.”

It fits right into the brewery theme that “pays homage to classic horror cinema...[the brewery] is named after an obscure 1920s Swedish horror film. The taproom/eatery atmosphere and décor is influenced by ominous castles and brooding cellar and features a small, on-site movie theatre showcasing creepy cinematic classics,” notes the Phantom Carriage website.

- 3. Contrast in a colorful world.** A long time ago in a galaxy far, far away, a Yellow Pages sales rep was demonstrating his directory’s bright, four-color display ads as a great advance beyond the mono-color standard of the day. He showed me a page full of colorful ads. I placed my client’s black-and-white ad on the page and asked what would be noticed first?

Use of classic black and white and other designs that offer contrast to colorfully-cluttered craft brew branding can stand out from the crowd. For example, Outer Range has released “Shelter” featuring a simple, elegant black-and-



white motif. In a world where busy-ness and over-stimulation is the norm, simple and soothing labels can prove a very effective way to engage with prospective buyers.

- 4. Create a work of art.** Canamagazine.com published an article addressing an **artistic trend in the craft brewing world**: “Creativity in craft beer is at an all-time high. In the tanks, but on the outside too; label design turning art-form

as more and more of the world's top breweries are pairing with artists and progressive design talent. From label designs that could stand alone as conceptual artworks to daring aesthetics that define a brand, as the craft beer juggernaut rolls on, its relationship with the arts rattles alongside at a gathering pace; beer cans are officially the new record sleeve.”

- 5. Reach out and touch someone.** The more senses that can be engaged, the better. Craft brew branding is primarily visual. However, there's something to be said for adding the sense of touch in some situations. Tactile labels can present a rich, textured and memorable look and feel. Among ways to do this are foiling, embossing, varnishing, laminating and use of textured stocks. In some cases, a combination of techniques can create compelling and intriguing effects that stay on the minds of buyers along with the taste of the brew itself.
- 6. Appeal to populism.** Basic, earthy branding content reflected in craft brewer labels also can ring true as another way to appeal to consumer preferences for authentic and less showy presentations. La Cumbre Brewing Co. makes this point on their website: “These beers are all we have. They are our pride and joy. No million-dollar ad campaigns. No fancy marketing, just the best beers we can make, served the best way we know how.” This concept also can be captured on labels. In some cases, as with Vancouver, WA-based Trusty Brewing Co., the name itself is the concept.

Craft brew branding is primarily visual. However, there's something to be said for adding the sense of touch in some situations. Tactile labels can present a rich, textured and memorable look and feel.

There are many ways to brand beyond the crowd. Start with creative brainstorming that considers anything and everything, then see what sticks. ■

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Gary Paulin is director of sales and customer service at *Lightning Labels*, a Denver-based custom label printer that uses state-of-the-art printing technology to provide affordable, full-color **custom labels** and custom stickers of all shapes and sizes.

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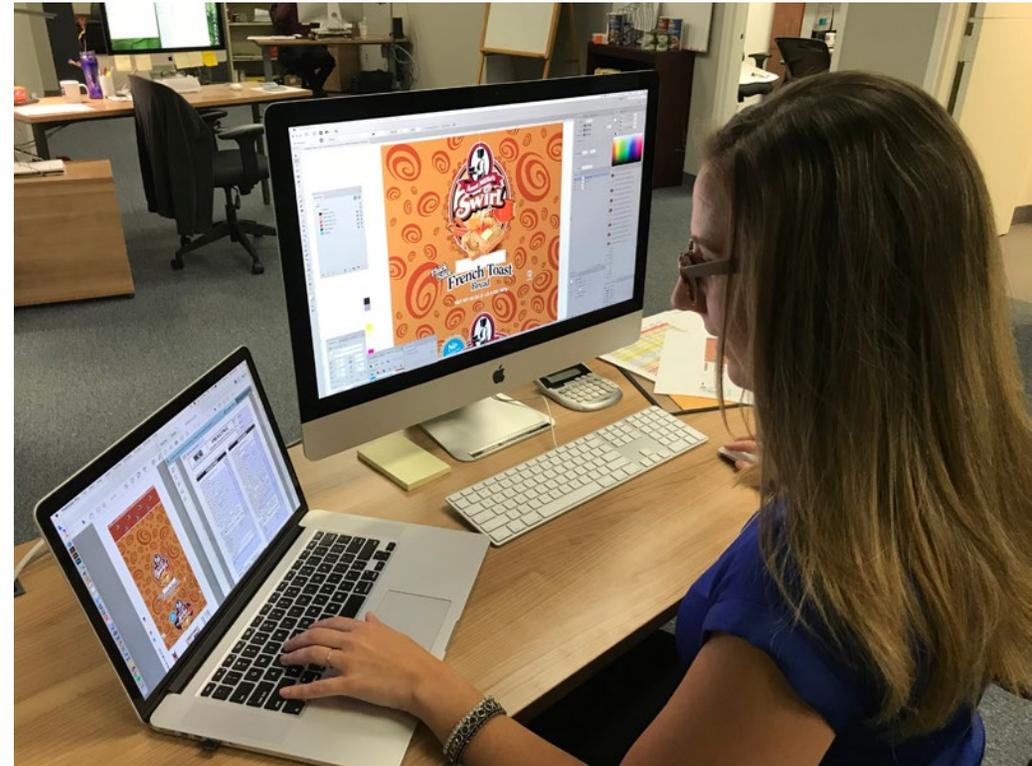
As the Nutrition Label Update Looms Integrated Packaging Design Workflows are More Important Than Ever

By **Robert Jackson**, Vice President of Sales for West Essex Graphics

As the food and beverage industries prepare for the 2020-21 mandate requiring significant changes to nutrition label design, it is paramount to find ways to wholly comply with the FDA while maintaining or improving the impact of the packaging itself. With a mandate as all-encompassing as this new decree, packagers, brand owners and consumers alike will be affected by some aspect of the upcoming changes; in fact, some 80 percent of food industry items will be impacted by the new rules.

As with most regulation-based changes, getting ahead of the game is advisable, as proactive approaches can breed not only compliance but beyond-compliance opportunities for enhancements. Also, for the sake of efficiency, it is in brand owners' best interests to make other updates to labels while the mandatory changes are made, thereby addressing label design once rather than multiple times in a relatively brief period of time. This saves both time and money.

But before we go further, let's reiterate the looming mandate and its deadlines, because they've sown a bit of confusion concerning their rolling enforcement: The FDA recently extended the compliance dates for the Nutrition Facts and Supplement Facts label final rule and the Serving Size final rule, until January 1, 2020 for manufacturers with \$10 million or



more in annual food sales. Manufacturers with less than \$10 million in annual food sales will receive an extra year to comply – until January 1, 2021.

So in other words, larger food manufacturers have a little more than a year to comply, while smaller ones have a little more than two years. That's the blink of an eye in business.

As such, the time is now to prepare and plan for the upcoming changes. Understanding the stipulations is a crucial

first step in tackling the mandate; one of the most prominent changes is the increased size of “calories” and “servings per container” in order to enhance visibility for consumers. “Serving size” will now be required to be not only larger in type size but bolded as well. The notion of “calories from fat” is no longer required to be present on nutrition labels, as research shows that the type of fat is more important than the amount within a product. These changes come as a result of consumers’ heightened awareness of nutrition and the recent push for increased clarity of nutritional facts.

In order to make the most of these changes – to make lemonade out of regulatory lemons, so to speak – food and beverage brand owners should begin the redesign of their products now. Between designing, printing and relabeling, the process can be time consuming and overwhelming. By starting the compliance process early, companies will have ample time to properly prepare for the deadline and perfect the transition to the new labeling requirements.

Proactively preempting the rush to compliance also yields a key opportunity for efficiency and brand impact: the chance to make other design changes simultaneously, thereby “touching” packaging only once along the supply chain. Arranging packaging design updates to occur at the same time as the new labels can save time and money. This type of “two birds with one stone” strategy – achieving FDA compliance in tandem with a brand refresh or other packaging-related alterations – turns the approaching deadline from a burdensome legal issue into a welcome opportunity to truly look at your



packaging design and see where it could be improved.

Amidst this landscape, an integrated approach to packaging design has never been more valuable. Whether companies choose to outsource design to an experienced agency or utilize an internal design team, the compliance mandate provides a unique opportunity to streamline packaging design updates.

For example, capitalizing on digital tools like web-based presentation platforms provides a more collaborative environ-

ment in which various stakeholders both on and offsite can review and critique designs in real time. Additionally, decision-makers can virtually view and approve photos, eliminating the need for on-set presence, and 3D renderings of completed products for print, web or in-house promotions can be hosted on secure online platforms for enhanced accessibility. These digital innovations provide convenience and transparency for clients while establishing accountability for the design team – all critical elements to a successfully centralized workflow channel.

To further streamline redesigns, a set of graphic standards guidelines establishes the foundation for layout norms and consistency throughout a project's execution. A good example here is a sound artwork development process, where accurate reproduction of approved designs – with prioritized attention to standards adherence via one-stop photography management – is a vital first step toward any comprehensive redesign. The implementation of multiple quality control checkpoints, at both supplier and internal personnel levels, best ensures that all artwork is accurate and in compliance.

Also, proper communication with suppliers is paramount in confirming packaging specifications including size, legal copy and nutrition information; by including this necessity in the overall streamlined workflow, the need for brand owners/clients to contact their suppliers regularly is alleviated. Thanks to a concise and efficient workflow, clients will have no need to provide final files directly to suppliers upon approval of artwork, while hard copy and digital proof ap-

provals are readily available for final release.

The overseeing of supplier communications, photography management and collaboration between brand owners and various stakeholders paves the way for an effective centralized workflow in the midst of redesign processes. Fine-tuning such protocols creates a modernized and comprehensive platform for all design needs while maintaining compliance with legal mandates. Such a tightly honed, centralized print production workflow must include collaboration with clients in terms of review and approval, made possible by digital tools that accelerate the workflow processes. A properly functioning, centralized print production process highlights the simplicity and succinct, transparent communication that arises from a collaborative experience between brand owners, stakeholders and graphics teams. ■

ABOUT THE AUTHOR

Robert Jackson is vice president of sales for West Essex Graphics, a full-service design, prepress and flexographic image carrier provider dedicated to serving customers throughout the entire packaging process. Founded in 1949, the company offers prepress services such as design concepts, production artwork, 3D rendering, photography, color management, electronic imaging, Image carriers and Seamless Sleeves. For more information, visit www.WestEssexGraphics.com.



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Preventing Label Mix-up and Ensuring Brand Protection

Submitted by Mettler-Toledo

The Food and Drug Administration has set strict guidelines for label contents across all industries, laying out several key pieces of information that must be on all labels regardless of product. When a mislabeled product makes it to retailer shelves, a recall is issued and there are several consequences that must be considered. Firstly, there is an immediate financial cost. Retailers pull all defective products from their shelves and send them back to the manufacturers, who

must pay to replace each defective product. The cost of replacing the products is high—as is the cost of losing retailer shelf space while new products are sent for replacement. This gives competitors an opportunity to poach consumers who are unable to find the recalled product. The short term costs are considerable, but long-term costs of a major product recall are even worse. Consumer confidence in the brand may be severely damaged by a recall, and the dam-

► Preventing Label Mix-up and Ensuring Brand Protection

age will extend beyond the recalled product. Some consumers avoid the parent brand entirely after a high-profile recall, meaning that manufacturers will not just have lost a consumer from one product, but from any other products the company produces. This has the potential to bring some companies to the edge of bankruptcy—or collapse a company already struggling to remain profitable.

With the high cost of recalls both short and long term, it is clear that companies must devote themselves to preventing common defects from reaching the consumers. Mis-labeled containers account for a large amount of food product recalls, and ironically, one of the easiest defects to prevent. The most effective solution in preventing label mix-ups is to implement an automated vision inspection program. A vision inspection system can inspect 100% of the products on the line without reducing throughput while maintaining the highest level of accuracy possible. With the right control software, a vision inspection system can easily change over to new products. The best vision inspection systems will also come with adjustable user permissions to help prevent system overrides from happening—and if system overrides do happen, user tracking in the control software will show managers who was responsible for the override. Vision inspection systems can be programmed to check all aspects



of a label, from ensuring it is the correct label to verifying the readability of its information. By requiring operators to enter lot codes multiple times—or even requiring two separate operators to enter new lot codes—manufacturers are able to ensure that the correct lot codes have been registered, ensuring traceability. Vision inspection systems will also catch more subtle errors in label presentation, such as improperly spelled or illegible words, unreadable bar codes, and poor-quality graphics.

It is clear that it is in the best interest of manufacturers to do everything possible to reduce the risk of a defective product reaching the consumer. Label mix-ups are common yet easily-preventable defects which still manage to cause the vast majority of product recalls. Manufacturers seeking to reduce the risk of a recall without sacrificing production speeds have found automated vision inspection systems to be the right tool for the job. Working with an experienced vision inspection solution provider, manufacturers can eliminate label mix-ups from their production processes, thus reducing recall risk and safeguarding their brand. Working with an experienced vision inspection solution provider, manufacturers can eliminate label mix-ups from their production processes, thus reducing recall risk and safeguarding their brand. ■



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AUTO MANUFACTURER FINDS MARKING & CODING REPLACEMENT

A manufacturer of ball, needle and roller bearings for the auto industry had challenges with old Videojet® printers and the special blue ink which was not adhering well to the substrates and providing overall bad print quality. The plant manager's quote was, "Those coders are having a lot of issues, specifically poor print quality and the code is rubbing off resulting in customer complaints and returns. Fixing this is a priority." Also, downstream of those coders, production rates were being negatively impacted significantly.

The first step for InkJet, Inc. was having its chemists confirm that they could develop an identical ink chemically to run in our continuous inkjet (CIJ) printers that would not require re-validation. This process was a success and from there, InkJet, Inc. obtained initial samples for testing and also conducted a site survey. Once testing was successfully completed, the samples were delivered to the customer so they could do their own testing. Everything passed their own testing.

For InkJet, Inc., this type of project is a typical example of various people working in concert to solve a customer's problem and provide efficient and effective coding. A total of 15 CIJ printers were installed over a period of six months



and are working 100% better than their previous solution. With the printers and the fluids being provided by InkJet, Inc. and the ability to provide a level of service that keeps their production line running, this customer can rest easy knowing that this one part of their supply chain is working well.

InkJet, Inc.'s DuraCode Continuous Inkjet printer is designed to deliver the best quality code, day in and day out, continuously. Our feature-packed CIJ printer, offered in a keyboard and touch screen model, offers cost saving with a single part service and solvent consumption saving system. Add in InkJet, Inc.'s fluids, parts & service and downtime will be the least of your worries. ■

FOOD MANUFACTURER DISCOVERS THERMAL INKJET AS CIJ ALTERNATIVE

A Texas-based food manufacturer was experiencing extensive downtime due to the need for maintenance and repair of their OEM CIJ (continuous inkjet) printers. InkJet, Inc.'s strong relationship with them as an ink supplier led to providing the recommendation of replacing their CIJ printers with the solvent-based Anser U2 Pro-S, a much more compact, affordable thermal inkjet printer.

This recommendation can be a big decision, which is why InkJet, Inc. offered testing of the printer on their various substrates. 28 tests were done in all, and then an install of a printer in their plant as a trial.

Plant production personnel were so impressed with the trial that they bought the demo unit on the spot and two more Anser Pro-S thermal inkjet printers to replace their three OEM CIJ printers. They were pleased that this new printer operated effectively and would allow for greater uptime and a significant cost savings because of the smaller footprint, little-to-no maintenance and overall life expectancy, which is three-to-five years.

The Anser Pro-S printer can produce crisp one dimensional and two-dimensional barcodes including EAN 128, Code



128, Code 39, Datamatrix, QR and others. Additionally, it is capable of automatically identifying and selecting the proper firing parameter to ensure the best print quality. ■

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New Labels Aid in the Craft Beer Market

By Avery Dennison

For the rapidly growing and professionally distributed Bellevue Brewing Company of Bellevue, WA, getting tap handle labels to customers had become a real challenge. Tap handles and kegs were being delivered with missing, or forgotten, tap handle labels. And, replacement labels needed to be continually printed in small quantities, which was costly and inefficient.

That's when the company turned to Tyson Marshall at RIND Print (rind-print.com) to develop a solution. Bellevue Brewing Company's original idea was to create a piggyback tap handle label attached to the keg collar that could be peeled off and used. But when Marshall ran the numbers it was expensive, so he went to work inventing a totally different approach and brought on his machine and print guru Eric Smith to help him accomplish something that



The keg collars on the beer kegs feature the tap labels too, so that piece is never misplaced.



The tap label peels off from the keg collar for easy brand distinction.

had never been done before.

RIND's idea was to integrate a pressure-sensitive tap handle label into the tag stock of the keg collar, combining a pressure-sensitive and non-pressure-sensitive solution into one. The tap handle label would then be kiss cut for easy removal.

While the idea to integrate the label was simple, execution was not. Yet, with its "customer first" philosophy, RIND Print was ready to go above and beyond to add value for Bellevue Brewing.

According to Marshall, RIND Print went through a dozen

RIND's creativity has earned the company more packaging business with the craft brewery. The company now prints tap handle-integrated keg collars for all of Bellevue Brewing's varieties of beer...

different materials – and multiple renditions – before success was finally found with Avery Dennison materials and adhesive: Avery Dennison white BOPP film with ClearCut™ Adhesive Technology and 10 pt. C1s tag stock.

Six months and thousands of feet of stock later, the company had a one-pass production solution that saved Bellevue Brewing more than 50 percent of the cost of its original piggyback idea.

RIND's creativity has earned the company more packaging business with the craft brewery. The company now prints tap handle-integrated keg collars for all of Bellevue Brewing's varieties of beer, some 15 different SKUs. In addition, Marshall prints the labels for Bellevue Brewing's 22-ounce bombers and does its sell sheets and beer displays.

Bellevue Brewing utilizes RIND's internal art department to make sure everything they print reflects and supports the

**...the pressure sensitive/
non-pressure sensitive
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antidiversion.**

brewery's unique Washington state brand. Bellevue Brewing has built its brand with many of the state's iconic images, such as Mt. Rainier, pine trees and a bald eagle, to create an appealing, fresh and healthy outdoor vibe that speaks to the craft brewer's audience.

While RIND's integrated keg collar has been designed for Bellevue Brewing's tap handles, it can be customized for various handle sizes, with multiple labels, for other breweries. The size and shape of the collar can also be adjusted to anything imaginable. More importantly, the pressure sensitive/non-pressure sensitive construction can add value in any distribution channel, particularly in the growing areas of track and trace and antidiversion.

"The printing industry treats most processes independently," said Marshall. "We're different at RIND. With a stout creative and technical foundation, we are able to hybridize

multiple substrates and print techniques that are fresh and original. Labels aren't just labels anymore. They are parts of a bigger idea. Those ideas are what our clients come to us for. Integrating the keg collar and tap handle is a novel solution for Bellevue Brewing's specific problem. But the bigger idea of pressure sensitive/non-pressure sensitive constructions is exciting. I can't wait to see how the idea will evolve." ■

Avery Dennison manufactures and distributes display graphics, labeling and packaging materials, retail graphic embellishments and RFID tags that companies around the world use to engage customers and efficiently manage their inventories. The company's functional pressure-sensitive adhesive label and packaging materials enhance shelf-appeal of food, beverages, health and beauty products while providing consumers with important information. Avery Dennison draws on the latest scientific advancements and years of manufacturing expertise to deliver coated and uncoated papers, films and foil roll materials that meet customers' diverse needs and requirements. Visit label.averydennison.com.

Snack Food Packaging, Labeling Safety Merits In-Depth Review

Teen death due to peanut allergy is a wakeup call

By Gary Paulin and Mark Lusky

Normally not thought of as a life or death catalyst, snack food labels and packaging were cast in a new light after a teen with a severe peanut allergy died last summer after mistakenly ingesting Nabisco Chips Ahoy! with Reese's peanut butter cups. The resulting discussion about packaging that her mom called "a fatal choice" is intriguing because it was a case of a prominent label gone wrong. According to an article in *USA Today*, "Alexi was at a friend's where her mom believes a folded-back cookie box wrapper in a box of Chips Ahoy! cookies hid the presence of the allergic ingredient... The company says it uses colors to distinguish chewy from chunky and describes ingredients in prominent labels."

This raises two all-important questions about the design and content of snack



food labels and packaging to safeguard health: “How much is enough?” and “What can be done to raise the bar above ‘enough?’”

In hindsight, perhaps images of peanut butter cups and peanuts scattered around the package would have made sense. Or, additional verbiage could have helped ensure that anyone viewing the package would know that it contained peanuts.

What lessons can those in charge of developing snack food labels and packages learn from this tragedy? How can this become a catalyst for future efforts to raise the bar from “enough” to “superlative?” Following are ideas to address this process:

- **Conduct a thorough assessment (or re-assessment) of your product’s ingredients and presentation to ensure covering all major health-related bases adequately.** Play devil’s advocate, establishing a potential punch list of problem areas. Obviously, peanut allergy warnings have become a major issue, along with information related to gluten, genetic modification and the like. The idea here isn’t to emulate the long list of warnings that drug manufacturers must disclose, but rather to redouble efforts to ensure that consumers are fully aware of anything that could seriously jeopardize health if consumed.
- **Survey a broad cross section of your product’s audience to determine their understanding of labels and packaging.** This will help determine how much/how much more to address. It’s important to remember that

It’s important to remember that perceptions may change radically depending on the consumer’s age.

perceptions may change radically depending on the consumer’s age. For example, younger audiences can tend to “blow past” messaging and graphics quickly—so reinforcement can be critical. Older audiences, on the other hand, may be more likely to peruse more—if they can read the label or packaging content. Two-point type and/or special effects that hamper legibility are real challenges as people and their eyes age.

- **Re-design/rewrite labels and packaging to reinforce messaging such as nut allergies in general and peanut allergies in particular.** Present everything to the fullest extent possible to help ensure universal awareness—right down to making the type legible. In the case of Chips Ahoy!, more printed and visual information disclosing peanuts as an ingredient is worth consideration. As always, there’s the tug-of-war between the legal



beagles tasked with preventing liability problems and lawsuits and the in-good-conscience duty of the manufacturer to protect people from health threats.

A CBS News report following the teen's death notes: "Chips Ahoy said Sunday in a tweet it takes allergens 'very seriously'... 'Chewy Chips Ahoy! made w/ Reese's Peanut Butter Cups packaging clearly shows that it contains peanuts through words and visuals,' it said in a statement. 'Package color indicates Chewy, Chunky, or Original. Consumers should always read the label for allergy information.'"

That may meet legal requirements. However, the court of public opinion offers other views, including a report on snack-safely.com: "Please note that we have removed listings of all varieties of Chips Ahoy brand cookies from the Safe Snack Guide... We are taking this precaution in response to the tragic news of Alexi Ryann Stafford, a 15 year-old girl with a severe peanut allergy who suffered a fatal allergic reaction after consuming a variety of Chips Ahoy that contained peanut butter she had mistaken for the plain variety. She died 90 minutes after consuming the cookie... The packaging for the many varieties of Chips Ahoy [is] similar enough that there is a potential danger that one variety could be mistaken for another, as was the case with Alexi. In an abundance of caution, we will no longer list the product line in the Safe Snack Guide."

Labels and packaging merit consideration far beyond legal requirements. Being socially responsible and maintaining a good reputation hang in the balance. ■

ABOUT THE AUTHORS

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Busting the Myth Around Inkjet Barcode Printing on Cases



By Tim Stark, President, Abbott Company

Every so often big box retailers issue a new requirement for suppliers outlining what is acceptable when it comes to the presentation of variable information on case-level packaging. Retailers push for standardization to minimize disruptions in how they move products from their distribution centers all the way to their store shelves. The waste and inefficiencies caused by poor case coding practices are real, but the suggested solutions put forth by retailers that discourage print-on-demand inkjet misses the mark with suppliers in several big ways.

The big myth that retailers have bought into is that “industrial inkjet cannot easily produce scannable barcodes.” This lack of confidence in industrial inkjet technology is misplaced and can be easily rectified if manufacturers large and small make some minor adjustments to how they approach their coding on case-level packaging.

Scannable barcodes start with capable inkjet printers

Not all inkjet printers are created equal. If manufacturers need to print barcodes on their cases in addition to other variable information like lot codes, batch codes, and best by dates, it

is in their best interest to select a high resolution inkjet printing technology that is robust enough to produce high quality prints consistently over long periods of time.

Inkjet printers that are up to the task need to be able to maintain themselves. Manufacturers should look for inkjet printers that have auto-cleaning printheads and can be easily repaired to extend the useable life of the system. The actual printing power behind the inkjet printer needs to be robust enough to throw the ink at long distances as well as maintain top-notch print quality at increasingly faster speeds. This guards against common print irregularities when faced with overfilled or skewed cases and ensures the technology can adapt and grow with the business as production throughput and line speeds increase.

Scannable barcodes require a practical approach to material handling

It is easy to produce scannable barcodes in a lab environment because material handling conditions are always perfect. The same cannot be said for production environments. Operating within sterile, lab-like conditions isn't realistic which is why extra attention needs to be paid to the material handling strategy paired with industrial inkjet technology. Material handling is usually the failure point when it comes to barcode quality.

When looking at material handling in relation to inkjet printers, considerations need to be made for the level of vibration on the conveyor line as well as how the case is presented



in front of the inkjet printer. Both vibration as well as case presentation are key to printing high quality barcodes. Some strategies like mounting inkjet printers to a floor stand as opposed to the conveyor line can reduce print irregularities caused by excessive vibration. Additionally, choosing an inkjet printer that has built in material guidance capabilities like slide rollers or linear retraction helps cut down on corrugate dust as well as helps maintain the proper distance between the printhead and the case.

Nearly 100 percent scannable barcodes can be achieved

Manufacturers that require scannable and verifiable barcodes to meet retailer requirements can easily guarantee that their

Retailers have every right to demand better barcode quality from their suppliers. In many instances, manufacturers have become too lax with their case coding standards.

barcodes are acceptable by incorporating a verification step into their case coding operation. A verification system can scan each barcode after being printed to confirm readability and flag or reject prints that are less than acceptable. This prevents any cases with problematic prints from ever leaving the facility. Additionally, manufacturers working with particularly exacting retailers can opt for white corrugate cases to achieve maximum barcode contrast.

Print-on-demand inkjet technology saves money and cuts down on complexity

Industrial inkjet as a barcode and variable information printing solution will continue to be an acceptable strategy. It is by far the most cost-effective case coding strategy – as much as four times more affordable than pressure sensitive labeling

and ten times more affordable than using preprinted cases. There is always a time and a place for these alternative case coding methods, but they come at a high cost for manufacturers that are operating with thin margins.

In addition to the cost saving advantages, print-on-demand inkjet is one of the simplest ways to accomplish case coding. Fluids for inkjet printers can be replenished while the printer is running, requiring minimal touchpoints throughout the day. This is in direct contrast to the many adjustments and label stock changeovers that require a stop in production when opting for a labeling-based solution. An approach utilizing preprinted cases introduces the added cost and complexity of having to manage and store inventory for every unique SKU — not to mention accounting for the starts and stops in production involved with the constant loading and unloading of case erectors.

Retailers have every right to demand better barcode quality from their suppliers. In many instances, manufacturers have become too lax with their case coding standards. With careful planning and the right inkjet technology, any manufacturer can meet retailer barcode quality requirements without the need to adopt an entirely new approach to coding on case-level packaging. Industrial inkjet can get the job done. ■

ABOUT THE AUTHOR

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A Look at Today's Labeling Problems and Solutions

By Elisabeth Cuneo

Labeling today faces different, and perhaps more complex, challenges than years past. Retailing issues, price point, and increasing competition on shelf lends the industry to look for more solutions to help ease the pain of labeling. So, what are the pains and how have these evolved over time?

We asked Don Earl, president of Overnight Labels, what CPGs want from labels today and how this demand changed over the years, and his response was surprising.

“Our primary business is in nutraceutical and beverage, and what we are noticing is that runs are getting shorter, companies have more SKUs, and we have less lead time. What’s interesting to see is that the more entrepreneurial companies want more innovation, and the less entrepreneurial companies want to create a simpler, less expensive label option. Big CPG brands are going to these types of labels, while small companies are coming onto the scene with beautiful labels to garner attention,” says Earl.

Why is that?

“When you start out as an entrepreneur, you want the effects,



the beautiful labels, and then you enter large retailers and you need to lower cost, so design and labels have to alter for this. New brands can now skip the retailer and go straight to online sales. Traditional retailers are suffering and consumers are reporting a less-than-exemplary experience, with either items sold out, bad customer service, etc. It’s no surprise that more sales are going to online,” continues Earl.

How is the rise of digital printing affecting the industry?

“For one thing, it is accommodating the shorter runs. You can experiment a bit with digital printing. For big runs we still use the flexo, but for prototypes, digital printing works well, and

quickly. The speed helps us show the prototypes quickly to our customers, which is important, because they face more competition within their industries, which means more products and formulas that need to be launched fast,” states Earl.

Labels aid in protecting the product inside, displaying pertinent information, and delivering great graphics. In general, why is the overall quality of labels so important?

As Earl states, “Quality is always important– we always operate with the idea that the label has to be perfect every single time, and every run.”

“We have water-resistant, light-blocking, and other labels, all ready to be tailored to the packaging need. In shrink sleeve, we see a lot of fresh beverages that use HPP (high pressure processing), which is a rough process for a label, so you have to use a specific label to hold up during the HPP process,” says Earl.

What challenges do your customers face as it pertains to labels? And what are the solutions?

“The biggest thing is speed to market, and reacting quickly. That is a struggle because there is more regulation than there used to be. Lead time is squandered in testing, legal, compliance review, ensuring all nutrition facts are accurate, etc. So then by the time that’s done, the customer needs it out asap. They promise a time to get the product on the shelf and compliance makes it difficult to meet that timing. Ideally, we would like 2-3 weeks lead time, depending on the complexity

of a run, but with the changing landscape, we can do it in far less time, to help our customers out,” says Earl.

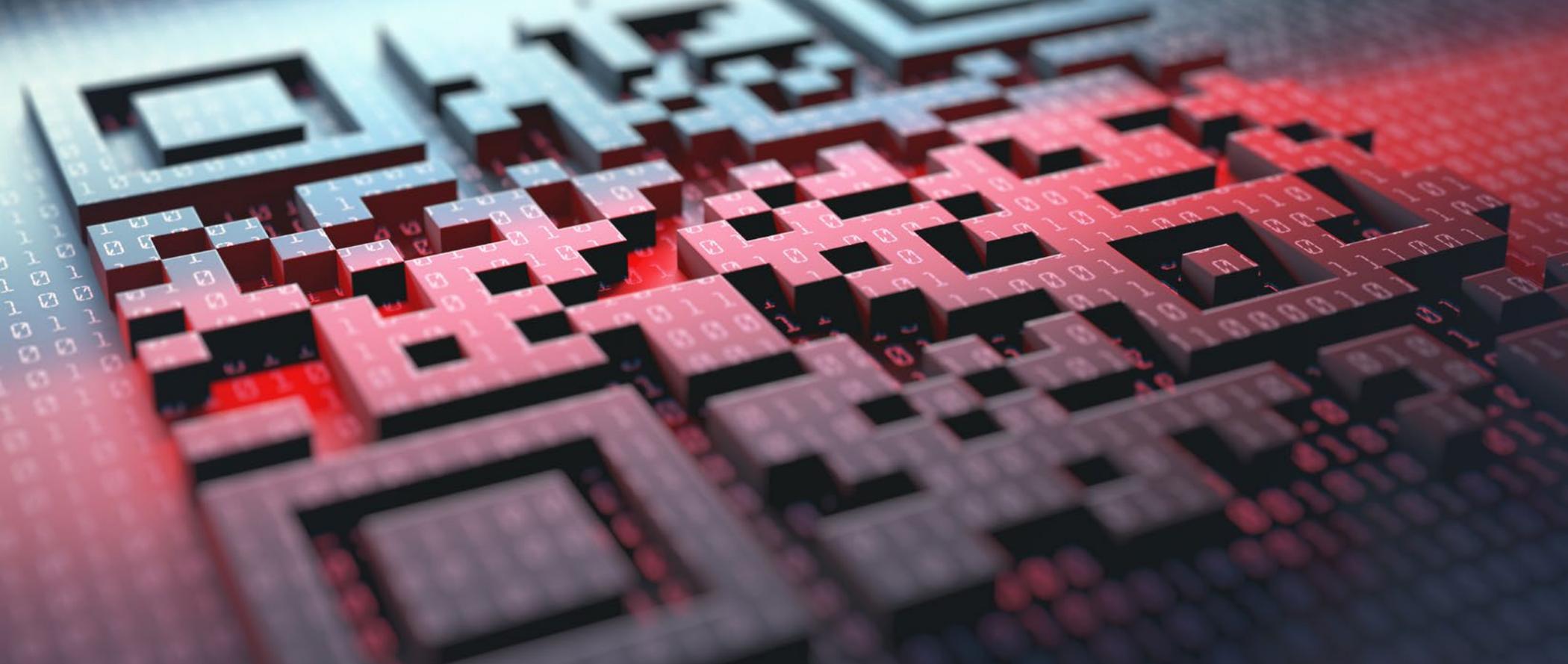
How?

“To accommodate, we have to run efficiently and plan differently,” continues Earl.

Ok, so we know about the common problems of today, what are the trends you’re seeing?

“Years ago, people created a label that looked cool, now it’s all about creating a mood, and creating an identity with the brand. These companies are trying to create a bigger picture, not just one product, but a family of products with a brand behind it, and a rationale. And it all has to fit together. For instance, in the past, color coding was just out of convenience to signal which is which, now it’s used to create a whole brand picture, mood and vision. Also, now the product becomes part of the design; designers are getting savvier and leveraging the product to tie into the label.” ■

Established in 1987, Overnight Labels, Inc., is a U.S.-based manufacturer specializing in custom printed shrink sleeves, neckbands, flexible film, stick packs, booklets, peel-back and piggy-back labels, IRC coupons, confectionary wrappers, clamshell inserts, pressure and non-pressure sensitive labels, rotary silkscreen, foil, tactile varnishes, craft beer labels, embossed labels, reclosure labels, blister card backing, dual-chambered shrink sleeves, and more. Visit overnightlabels.com.



Demand for 3D Barcodes to Boost the Growth of Anti-Counterfeit Packaging

Technavio's (technavio.com) latest market research report on the anti-counterfeit packaging market in North America provides an analysis of the most important trends expected to impact the market outlook from 2017-2021. Technavio defines an emerging trend as a factor that has the potential to significantly impact the market and contribute to its growth or decline.

The top three emerging market trends driving the anti-counterfeit packaging market in North America according to Technavio research analysts are:

- Rise in demand for 3D barcodes
- Innovation in technology
- Increase in implementation of e-pedigree

Rise in demand for 3D barcodes

The demand for anti-counterfeit packaging increased tremendously due to a considerable increase in the counterfeiting of consumer goods, healthcare products, electronics as well as automotive items. Manufacturing companies are implementing a barcoding system in end-user industries to identify individual parts and not the entire batch of the product. For inventory and tracking system, 3D barcodes are a great boon. It uses a principle like linear and 2D barcodes. During the manufacturing process, 3D barcode is applied to or engraved in the product and can be conveniently molded into the plastic or composite items.

“A 3D barcode is scanned using a direct part mark barcode reader and can be read as it captures the reflected image after passing a laser over the code,” said Sharan Raj, a lead analyst at Technavio for packaging. “When the data is recorded, a digital processing unit is used to interpret the image. The addition of color has no effect on the result as this system works on height variances.”

Innovation in Technology

One of the major trends for the anti-counterfeit packaging market in North America is innovation in technology. For authentication and traceability of products, market vendors are investing in R&D and development of new techniques. Increase in the demand for food, beverages, cosmetics, healthcare products, electronics, and automotive products is the leading factor for innovation in the anti-counterfeit packaging

market. In addition, for efficient tracing and identification of products, industries are constantly investing in innovative technologies in the development of equipment with specific functionalities.

Increase in Implementation Of E-Pedigree

An electronic document that provides data on the history of a particular batch of medicine is known as an e-pedigree, which is also called an electronic pedigree. E-pedigree is considered to be an important innovation as counterfeit and adulterated drugs are a growing concern in the supply chain in North America. Several states in the region are enacting laws to emphasize on the requirement of drug pedigrees. The drug pedigree standard supports the pharmaceutical industry by implementing a universal system supply chain that is used to collect pedigree information.

“According to the e-pedigree data management software, Viagra is one of the most counterfeited drugs in North America. Hence, by creating a pedigree to trace each distribution of a drug, the system provides a secure chain of custody for a prescription drug. The tracing begins from the 1st instance of the sale by the manufacturer to the pharmacy,” said Raj. ■