


# 2018: Innovations in Snack Food Packaging



The Impact on Manufacturers,  
Packagers & Retailers



In 2014, 73% of Americans reported snacking, just two years later, in 2016 83% polled said they consume snacks.<sup>1</sup>

## -Trends in Food Processing Operations, PMMI Business Intelligence

The snack market vertical – which includes pretzels, popcorn, granola, meat and cheese snacks and more – has seen constant change over the years. A couple decades ago, the category didn't even exist and now there is more demand and variety in snack food products than ever before. This is due to a number of factors, but namely from the younger generation that has traded in the traditional three meals per day for five to six smaller snacks a day to accommodate on-the-go lifestyles.

The growth within this marketplace is undeniable and it is only projected to continue to grow and change throughout 2018, which will in turn impact how manufacturers and retailers produce and market more products to consumers.

Read further to discover what innovations are occurring within this market due to changes in consumer demand and learn more about how it trickles down to impact manufacturers, packagers and retailers.

Four out of five Americans say they snack at least once a day.<sup>2</sup>

1 Source: PMMI Business Intelligence: Trends in Food Processing Operations, 2017

2 Source: PMMI Business Intelligence: Trends in Food Processing Operations, 2017

3 Source: PMMI: 2016 Food Packaging Trends and Advances



“The snack industry stands to outperform the overall food market and experience a 3% growth increase through 2022.”<sup>3</sup>

-2016 Food Packaging Trends and Advances

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# Consumer Demand For Healthy Snacking

The clean labeling movement – referring to consumers wanting to have transparency into what ingredients are going into their products – has impacted products all the way down to the recipe formulation. Shoppers want to be able to recognize the ingredients in their snacks. Simple, recognizable ingredients enhance consumer perception that they are getting a more natural or organic product, regardless of true nutritional value. However, taste is still a factor for consumers when choosing a snack, especially for children.

So while the demand increases for snacks to infuse vitamins and whole grains and remove GMOs and sugar, the pressure is still on to produce a snack that tastes good.



Consumers are looking for recognizable, simple ingredient lists



**“37% of US consumers find it important to understand ingredients on food labels. 91% believe that products with recognizable ingredients are healthier.”**

**- 2017 Trends in Food Processing Operations, PMMI**

The implications of this trend impact the sourcing of the ingredients and processing of the snacks as well as reach far and wide into the packaging considerations including size, substrate and the required labeling:

- Single serve packaging implies an effort towards better portion control in snacks by suggesting a healthy amount per serving.
- For branding purposes, manufacturers are innovating with uniquely shaped containers that stand out on retail shelves.
- Multi-serving packaging and bulk packaging spur the need for packaging with enhanced shelf life to preserve freshness.
- Resealable packaging with tear-away strips are commonly used to meet the need for a multi-serving package of fresh, healthy snacks.



# More Snack Product Innovation, More SKUs

Trends towards convenient packaging like resealable pouches, personal sized bags and twist cap tetra packs to fit the mobile lifestyle of today's consumers mean more product variations and consequently, more SKUs. Add on top of this variations in flavors for sugar-free, gluten-free, and low-calorie products to also meet the demand for healthy versions of snacks and manufacturers are spending an increasingly large amount of time managing SKUs.



The burden of SKU proliferation can be managed via your coding and labeling equipment software with varying degrees of automation. At a minimum,

SKUs and messages can be stored at the machine level.

Top continuous inkjet printers, a common choice for food manufacturers, store up to 1,000 diverse SKUs with the ability to pre-

program custom line settings with a meaningful name such as "Pretzels" or "Chips" for easy, mistake-free product changeovers.

As a step up, some system software is intelligent enough to retrieve pre-formulated messages from a database via product barcode scanning, ensuring that the correct batch and lot code information is printed on the right product and, in turn, matches the machine-readable information printed on the case of individual products being shipped to a retailer's warehouse.

Language barriers are often present in facilities operating multiple lines. To solve for this, interfaces are evolving to look more like what one sees on their mobile phone. By using an actual image of the product itself instead of text, it eliminates translation issues that can occur when selecting line settings for specific products.

**“Four out of 5 companies have more than 100 product SKUs and over half predict SKUs will continue to increase, driving the need for faster changeover.”**

**- 2017 Trends in  
Food Processing  
Operations,  
PMMI**



# Packaging Variation Implications On Your Coding & Labeling

With all this innovation in the size and substrate of packaging to meet the freshness and portion control standards of healthy snacks, it is key to consider how this will impact your marking, coding and labeling operations. Consider the following:

## Considerations When Selecting Coding & Labeling Technology:

- ▶ *Substrate*—Are you marking on plastic bags, pouches, glass, flow packs, etc.?
- ▶ *Packaging color*—What color packaging is consistent with your brand? Are there variations in color to indicate different flavors, or healthy options like gluten- or sugar-free?
- ▶ *Variable information*—Do you produce products that require sequential date coding or batch coding information? Does product information change based on product type or flavor?

The right partner will help you evaluate these questions to best fit your requirements and go beyond by adding value to your coding operations by decreasing downtime or maintenance.



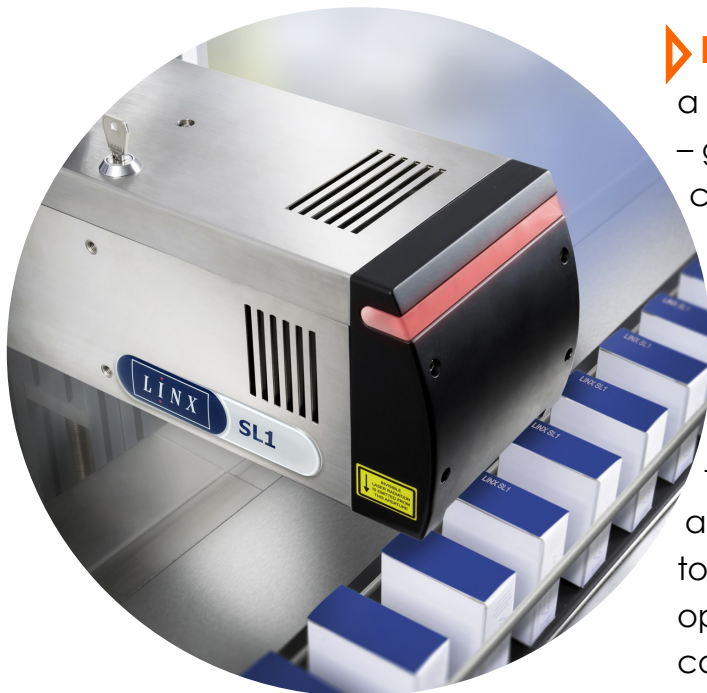
A collage of various snack packages. In the foreground, a yellow and blue bag of Goldfish 'MEGA CHEESE' is prominent, with 'NEW!' written in large red letters. Below it, a green and blue bag of On the Border 'WASABI' is visible. To the right, a blue bag of 'Irresistible Snacking!' is partially shown. In the background, a large blue bag of 'On the Border' is visible. A green banner across the middle of the collage reads 'EARN CASH FOR YOUR SCHOOL!' with the General Mills logo. Below the banner, the text 'The Original' is visible. The entire image has a blue tint.

So what are some coding and labeling options?  
And what are the advantages and disadvantages  
to each when paired with your snack product  
operation?



# Primary Packaging

▶ **Continuous inkjet (CIJ)** printing will offer the widest flexibility in the variety of primary packaging substrates, with the ability to adhere a durable mark on virtually any packaging surface. You're able to choose from a variety of ink colors to allow branding flexibility and ensure readability on darker surfaces that may require an ink color that pops. CIJ will also store up to 1,000 different SKU messages to allow for quick changeovers in addition to accommodating high speed throughputs. One caution is that introducing ink and solvents into your production line may pose food safety risks, so you have to make sure your staff is ready and capable of handling these types of fluids.



▶ **Laser coders** create permanent marks on a more limited amount of substrate materials – glass, plastics, papers and rubber. The codes are etched into the surface of the packaging material instead of using ink, so if you're a snack brand that places value on being eco-friendly, laser is a chemical-free option compared to inkjet technologies that require ink and solvents to be introduced to their environments. So as far as food safety is concerned, laser is a top choice, but high technology costs and operational safety concerns must be considered.

▶ **Thermal transfer overprinters** (TTO) integrate into form, fill and seal machines which form the primary package, like a bag of potato chips or a pouch of peanuts, and are seen frequently in the snack industry for this reason. With more and more food manufacturers adopting multi-lane form, fill and seal equipment to maximize production capacity, a great need is emerging to accommodate the variable code requirements across the wide web of film used in these operations.

Traditionally, food manufacturers affix multiple TTO machines across the web for printing this variable information or utilize systems with wide traversing mechanisms to reach the desired areas for printing. Utilizing multiple printers requires constant monitoring and a lot of time and effort to keep ribbon supplies in sync. Opting for a TTO system with wide traversing capabilities slows down production speeds and requires heavy maintenance due to the intense wear on the machines. Fortunately, advancements in coding technology has led to the emergence of TTO technology that accommodates multiple lanes of printing, utilizing only a single roll of ribbon and a single controller for all lanes of print.

Large format TTO technologies anywhere from 6" to 8" are ideal for printing nutrition facts panel information in real time. Having a large format printing solution for variable nutrition facts reduces waste caused by pre-printed film with outdated information.



# Secondary Packaging

Moving into the secondary packaging of snack food products, a trend gaining traction among big box retailers is a desire for retail-ready packaging, meaning that the carton shipped to the retailer is both functional – with a machine-readable code or label for inventory – and branded. The dual-function of this packaging allows it to be read, inventoried and placed directly on the shelf with minimal labor time. Manufacturers will want to take extra care so that their coding and labeling technology of choice creates barcodes, logos, date codes and product information that are legible and presentable without interfering with the integrity of the design.

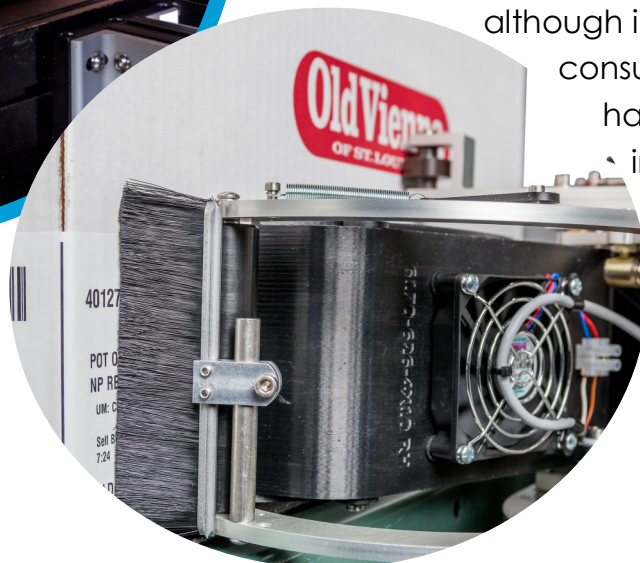


▶ **High-resolution inkjet** coding affords flexibility in your print height — with the combination of different sized printheads — to present a large amount of product information including nutrition facts panels, logos and product quantity information. Selecting a system that has auto-cleaning functions in place to clear the dust and debris caused by corrugate boxes will ensure that codes are consistently crisp and dark.

▶ **Labeling** ensures the highest quality of legibility and contrast for barcodes against marketing designed cases which is of the utmost importance for big box retailers. For flexibility and fast changeovers, look for automated labeling systems that can accommodate varying label sizes with the same tamp pad. Some labelers may require the tamp pad to be changed out depending on the size of labels being adhered to the product.

As a drawback, the line speeds in labeling cannot compete with the high-speeds of inkjet systems. You're also subject to labels falling off in freezers or having smudges occur from friction from hands or other transportation methods. On top of this, labels are going to be roughly four times more expensive than an ink mark,

although ink is still a consumable that would have to be factored into total cost of ownership as well.



## Conclusion

Diagraph Marking & Coding understands that the quickly changing marketplace for snack food manufacturers can be daunting. Designing flexibility into your coding and labeling operation is paramount to reacting quickly to industry changes and trends.

We're here to help you with your product identification and traceability challenges. We have a wide variety of reliable products that span the entire production line from primary products to the pallet-level, which helps our technology experts match you with the right coder or labeler to meet your specific requirements.

We make the greatest impact when we partner with manufacturers to design and implement their full coding and labeling operation – taking into consideration unique packaging requirements, production schedules, manufacturing environment factors as well as labor skill levels to design a full program that keeps coding and labeling equipment up and running and storage rooms fully stocked with the ongoing essentials required to keep your production lines moving.

Rely on us as a partner in your product identification program so that you can focus on what matters most to you – your product.

## About Diagraph

As a leading provider of marking and coding technology, Diagraph works with food and beverage manufacturers of all sizes across the country to comply with food safety requirements and traceability goals. Diagraph manufactures, sells, and services batch coding and date coding technologies that span the entire packaging line — from primary product to secondary packaging all the way to pallet labeling.



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# Special Offer: All-In-One-Pricing

Valid through 12/29/2017

Keeping a look out for the latest trends in the snack food manufacturing and packaging industry can be overwhelming. Your coding and labeling operation doesn't have to be. It is possible to get started today with Diagraph's simple all-in-one pricing special for continuous inkjet printers. The Linx 8900 Series is known for its easy-to-use interface and low maintenance features – perfect for any snack food manufacturing operation.



## What's included in the Quick-Start Essentials Kit?

- ▶ Linx 8900 Series Printer
- ▶ Stainless Steel Printer Stand
- ▶ Printhead Bracket
- ▶ Photocell

Have all the accessories, but just need a new continuous inkjet printer? You are still eligible to receive a special printer price on the Linx 8900 Series printers.

Get started today. Claim your Quick Start Essentials Kit: [Diagraph.com/Quick-Start](http://Diagraph.com/Quick-Start)

**Claim Your Quick Start  
Essentials Kit**