Three key market trends to consider when choosing packaging equipment

Rising populations and changing diets are fuelling demand for dairy and ready food products. As incomes increase and nations become more and more urbanised, individuals tend to consume more protein-based products (including dairy) as opposed to basic carbohydrates (mostly grains).

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As a result, global demand for dairy foods is expected to grow by 2.5% per annum to 2020, which is largely being driven by emerging markets. Figures also include reduced fat or dairy-free products, which have a direct influence on the variety of options we see on supermarket shelves.

In addition, the fear of foodborne illnesses is still strong among consumers, with many scrutinising labels more carefully and wanting to know more in-depth information about the product. Keeping all this in mind, we have identified three key market trends and how selecting packaging technologies for dairy and food applications can turn the potential challenges into opportunities.

Protecting public health and safety

One of the most prevalent topics is food safety, crucial to both end-consumers and producers alike. According to the US Food and Drug Administration (FDA), about 48 million consumers (1 in 6) get sick, 128,000 are hospitalised, and 3,000 die each year from foodborne diseases.

To prevent this from happening, the FDA Food Safety Modernisation Act (FSMA) is refocusing the food safety system from responding to foodborne illness to preventing it. With this proactive approach, FSMA puts specific responsibilities directly on food producers, including introduction of preventive controls to address foreseeable hazards that can occur in the products they manufacture.

For example, if a facility is handling food that may contain allergens, their product labels must list all allergens and any cross-contact during processing must be controlled. Another crucial rule is that all processes and equipment are maintained in sanitary conditions to minimise or prevent hazards completely.

Similar rules apply in Europe, where the European Food Safety Authority (EFSA) strictly monitors not only the quality and origin of the content transported into the EU from outside, but also of the goods manufactured in all 28 countries that belong to it.

To comply with the aforementioned regulations and to address end-users concerns, while maintaining a healthy bottom line, a growing number of dairy and food producers select advanced hygienic technology in filling and packaging machinery – designed to prevent contamination, avoid product recalls, simplify cleaning and reduce product and material waste.

Options include ultra-clean machines that offer extended shelf life without preservatives for many refrigerated products, while aseptic machines offer shelf life up to one year outside the cooling chain. By using aseptic filling technologies, producers of sensitive products like baby food, for example, can ensure the product stays fresh and safe without added preservatives and artificial ingredients.

Because machine features and hygienic technologies can significantly vary by manufacturer, it is reassuring that Bosch follows the ultra-clean and aseptic hygienic classification standards for filling machines, set by VDMA.

Track and trace evolution

Another key market trend directly linked to food safety is transparency, which encompasses such areas as clean labelling, certification by trusted third parties (like 3-A SSI in the US and EHDGC in the EU) as well as efficient tracking of products to ensure customers are protected from counterfeit products.

In terms of clean labelling, the European Regulation 1169/2011 has simplified the complex food labelling rules to a small

number of key points, including a minimum font size of 1.2mm for better visibility, distinguishing the list of allergens by using a specific type set, adding the country of origin to specific foods and printing the nutrition declaration on the label in one specific order.

In the US, the FDA published its Food Labelling Guide in 2013, where it provides recommendations for clean labelling. For example, it requires the use of at least 1/16-inch (1.5mm) font size for easier readability of text and not to position supporting imagery next to nutritional information to make it stand out more clearly.

In terms of track and trace solutions, the food industry has begun implementing best practices from pharmaceutical and automotive manufacturers.

Currently, the EU's Trade Control and Expert System requires livestock and food products to be tagged with a lifetime identification number to track its movement through the food chain in the event of a disease outbreak. In the US, the FDA finalised pilot projects to identify best methods to improve product tracing projects and plans to provide recommendations for US producers soon.

However, packaging manufacturers are already offering alternative solutions. Bosch presented a pilot track and trace project for the food industry at Interpack in 2017. The yogurt packaging machine is connected with the CPI software which transfers the information directly into the Bosch IoT Cloud.

By simply printing a QR code onto the lid of the yogurt cup, end consumers can easily verify if they have an authentic product.

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Beyond product verification, manufacturers can harness online marketing possibilities via the code by adding further, product-specific information such as ingredients, allergens, recipes or special offers. Such solutions for commercial use are on the horizon.

Keeping convenience and health on the shelf

Last but not least, dairy food producers need to focus on the growing importance of health and wellness trends. Modern consumers pay more and more attention to nutritional content, organic production, all-natural ingredients and fewer artificial additives, and producers need to capitalise on this trend by using packaging that emphasises these values. Brands that use various pack styles to be more distinguishable on the shelf, as well as for special promotions, need equipment that can make format changes fast and easy.

Rising demand for single-serve portions and ready meals for consumers leading a busy, but still healthy, lifestyle can be challenging for food producers. To make sure the changing market demand is met, it is advisable to invest in packaging equipment that offers greater flexibility in terms of filling a range of products with different levels of viscosity on the same line.

In addition, food producers are increasing the number of multi-compartment products on the shelf, like hummus with filled lids, yogurt with toppings, cheesecake singles with fruit as well as non-dairy and vegan alternatives.

Ready for the future

To overcome the challenges and to capitalise on the possibilities in 2019, dairy and food producers need a knowledgeable partner who complies with current regulations and offers the best equipment available on the market. With over 50 years of experience in hygienic filling technology from clean, ultra-clean up to aseptic, Bosch can address these demands as its equipment for dairy food products received both 3A certification in the US and EHDGC in the EU.

In the US, Bosch employs quality managers with 3A accreditation who can evaluate food processing equipment and confirm it complies with the recognised standards.

Based on its experience and global network, Bosch can help dairy and food producers to consistently produce the highest quality products at the highest levels of efficiency. ■