





ESG, Packaging and the Unsung Risks of the Festive Season

As the festive season approaches at speed, and with ESG and increasing focus for both companies and consumers, BluNiche and RQA have delved in to the pressures faced by the food industry when trying to bring more sustainable, yet more attractive, products to our shelves. This article highlights some of the problems faced and the food safety issues that can arise, further highlighting the need for Product Contamination Insurance, particularly given the seasonal nature of many products.

BluNiche supports food and packaging companies with expert advice and insurance cover designed to help absorb recall costs, loss of profits, and the resulting impact to the balance sheet.

By the time December rolls round most food businesses are knee deep in seasonal production, thawing pre-made products and all of that associated packaging. The shelves fill with limited edition cartons, metallic foils, recyclable gift packs and the annual promise that this year's Christmas range will be greener than the last. It is also the time of year when ESG teams and packaging developers brace themselves for feedback from those last minute launches, old artwork in new formats and the quiet hope that nothing unravels in the cold chain while everyone is trying to have a welcome break for the holidays.

ESG has quickly become part of the seasonal rhythm. Sustainability claims are now threaded through on pack copy as naturally as snowflakes in a winter design, and for many brands the Christmas range is the moment to showcase progress. Recycled content,

compostable films and reductions in plastic all become talking points. Yet behind the sparkle is a more sober reality. As packaging becomes a vehicle for ESG performance the risk profile shifts, and we often observe patterns that appear more frequently in the weeks that bookend 'seasonal events' like the festive rush.

The connection is not immediately obvious. Packaging rarely (directly) grabs the 'food safety' headlines in the same way as allergens or pathogens, but it is an increasingly common root cause. It is often found lurking as a root cause or driver in safety related incidents when packaging performance intersects with things like temperature control, barrier integrity or contamination routes. This is particularly true in categories where protection against moisture or oxygen is tied directly to the safe life of the product. The more businesses stretch for visible ESG gains, the more they find themselves walking a narrow line between environmental intent and functional reliability.

The expanding scope of ESG pressure

Pressure on packaging decisions now comes from several directions. Retailers have set out reduction targets, recyclability roadmaps and preferred material lists. Governments in the UK and EU have brought in extended producer responsibility¹, deposit return frameworks and restrictions² on substances of concern³. In the US, litigation trends around environmental claims have raised the stakes for accurate wording. Consumers have grown more confident in challenging whether a pack is genuinely recyclable or merely recyclable 'in theory.'

¹Extended producer responsibility for packaging: who is affected and what to do - GOV.UK

³New EU packaging and packaging waste rules: 10 key things every global business should know



²Packaging waste - Environment - European Commission





These forces converge during the busiest season of the year. A brand that tries to upgrade its packaging ahead of a Christmas launch often faces compressed trial windows, tight print deadlines and unstable lead times. Switching from a traditional laminate to a compostable film, light-weighting, or boosting recycled content to hit a threshold, may look simple on a strategy slide deck. In practice the shift can affect oxygen transmission, decrease durability, stress seal integrity and even effect how a product behaves on automated lines.

This is where ESG ambitions and technical performance sometimes come into conflict. One of the most common challenges is the interplay between eco-friendly materials and shelf life. A material chosen for its sustainability credentials may allow slightly more moisture migration or provide weaker grease resistance even when the supplier's certificate suggests equivalence. In chilled or ambient snacking categories a minor shift in barrier performance can bring product ageing forward by several days. When the new material is needed for a seasonal run, the opportunity to validate the change under full production conditions is limited.



Packaging that travels further than expected

Shipping logistics add another layer of complexity. Winter trading involves tight dispatch windows, fluctuating temperatures and higher returns. Lightweighted materials, for example, support ESG targets but can tolerate less compression during palletisation and under thermal shock from large changes in temperature. Recycled paper and board can behave unpredictably when humidity swings during the journey from factory to depot to store to consumer shelves⁴. These issues may not be visible at the time of design but can

materially affect how well the packaging protects the product under real distribution stresses.



Here the safety relevance becomes clearer. It is not the appearance of the outer pack but the point where functional protection slips. From a recall perspective the issue is not cosmetic damage but what sits behind it. ESG driven changes such as lightweighting, higher recycled content or new barrier chemistries can alter how a pack performs under stacking, vibration and winter temperature swings. If seals are put under extra stress or barrier performance drops even slightly there is a greater chance of products sitting outside their validated life or being exposed to contamination. That is the point at which a sustainable pack stops being a marketing asset and starts to look like a potential safety and regulatory risk.

Seasonal SKUs magnify this exposure. They are time bound, produced in short runs and often launched with consumer facing commitments about sustainability under extreme time pressure. If a functional fault emerges the brand may have already sold through a large proportion of the range which impacts the recall claim scenery heavily. Reverse logistics during the weeks before Christmas are notoriously difficult and waste volumes often rise as a result. We often see a spike of social media influencers rummaging through back of store bins for examples in an attempt to 'expose' food waste.

Where FSG aims meet technical practicality

Every packaging technologist knows that sustainable materials come with trade-offs. These are not flaws in the materials but intrinsic characteristics that need to be understood and managed. Recycled

4Impact of Temperature and Humidity on Key Mechanical Properties of Corrugated Board | MDPI



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content can introduce variability and leachables⁵, compostable films can behave differently across temperature bands⁶ and lightweighted structures can place more stress on adhesive bonds and generate areas of greater stress under load.

When ESG becomes the headline objective the temptation is to reach for the most visible gain. A switch to a material with strong environmental credentials can be attractive particularly for a December launch. Yet the real world performance of that material often depends on the product category, the production line and the supply chain. This is where shelf life and logistics become critical. ESG gains that look impressive in a presentation may quietly erode the technical tolerance built into the previous pack format.

For instance, a baked product that relies on a tight moisture balance may suffer textural changes when packed into a film with slightly different permeability. A chilled product might find its safe life shortened if the seal temperature window becomes narrower. If none of these have been picked up by manufacturers as required fresh validations then the risk to the consumer and the market is real. Transit effects may rise if cartons are made lighter or altered to improve recyclability leading to more damages, spills, cross-contaminations and a host of other risks. In some cases the degradation is so subtle that the brand only notices once customer complaints start to cluster in the weeks before and after Christmas.



This tension is not new but ESG has pushed it into the spotlight.

Businesses now evaluate packaging decisions through sustainability scorecards sometimes without fully appreciating the hidden dependencies that make a pack perform under real conditions. Shelf life breaches, seal failures, post fill contamination linked to barrier changes and instability during shipping can all trace back to packaging adjustments made with the best of environmental intentions.

Regulatory contrasts in the UK, EU and US



The regulatory landscape adds another dimension⁷. As it is often discussed by the media and in the public eye 'forever chemicals' (PFAS)⁸ contamination is perhaps one of the more 'trendy' chemical led topics at present. In the UK and EU9 incoming restrictions on PFAS in food contact materials have already prompted reformulation across many categories. While the EU has moved ahead to restrict PFAS in food-contact packaging under the new PPWR (with bans effective from August 2026)10, the UK has not yet enacted equivalent measures - even though PFAS remain on the priority list under UK REACH and regulatory bodies are actively reviewing their use in packaging and water¹¹. This regulatory divergence increases compliance uncertainty for exporters and highlights potential future recall exposure if PFAS restrictions tighten post-Brexit and under mounting public pressure¹². Analogy wise, paper and board lines that previously used fluorinated treatments have had to find alternatives that do not compromise grease resistance. Some of the early substitutes behaved unpredictably particularly during winter production leading to staining, leakage or reduced tolerance to heat during distribution.

FHazardous chemicals in recycled and reusable plastic food packaging | Cambridge Prisms: Plastics | Cambridge Core

6https://www.sciencedirect.com/science/article/abs/pii/S0924224408002185

^ZPPWR Business Guidance | The Food & Drink Federation

⁸PFAS highlighted on BBC Panorama - Celebration Packaging Limited

⁹86488ab5-30c9-f7b9-547d-84db15535d9a

10 https://eur-lex.europa.eu/eli/reg/2025/40/oj/eng

¹¹PFAS regulation in the UK

12PFAS-UK-food-packaging CHEMTrust May2021.pdf







The US presents a different set of challenges. While PFAS restrictions are also emerging¹³ (there are now State-level bans of intentionally added PFAS in some food packaging) the dominant risk has been around environmental claims¹⁴. The FTC Green Guides¹⁵, though not finalised in their updated form, have influenced litigation patterns. Companies that use ambiguous phrases about recyclability or compostability may face scrutiny if the packaging does not break down or recycle in the manner suggested.

Christmas amplifies these issues by acting as a showcase moment. Seasonal packaging that incorporates big environmental messages is more likely to attract attention. If the claims are not fully substantiated or if the functional performance undermines the message brands can find themselves on the defensive during the most commercially sensitive trading period.



Operational pressure during the festive season

Even the best packaging design needs careful implementation. December is rarely the month for long line trials so factories juggle new materials alongside peak demand. Changeovers become quicker and quality checks become more reliant on sampling rather than full runs. This is understandable. Holiday windows are narrow and customers expect on time deliveries. Yet it increases the likelihood that small incompatibilities such as seal parameters or carton strength slip through unnoticed.

None of this suggests ESG objectives should be avoided. Rather the seasonal cycle reveals how tight the margins can be, and we all know too well how recall root causes love to be that heady mixture we term 'the perfect storm.' When a business tries to improve sustainability, launch new artwork, meet festive demand and maintain food safety simultaneously, the risk surface expands. Recalls are not inevitable but the probability of a packaging related safety deviation does increase.



A festive conclusion

As the year winds down and warehouses fill with seasonal stock there is something almost traditional about the annual push for greener packaging. Many of the innovations are genuinely impressive and are truly innovative. Some reduce material use, others cut carbon footprints and many respond to consumer expectations in a meaningful way. But sustainability does not remove the need for careful validation. It increases it.

Christmas is a helpful reminder that packaging is both a sustainability statement and a functional safeguard. When businesses try to upgrade one without fully stress testing the other the risk of a safety failure rises. A greener pack that compromises shelf life, stresses seals in transit or behaves differently under

¹⁵ greenguides.pdf



¹³ https://www.fda.gov/food/process-contaminants-food/market-phase-out-grease-proofing-substances-containing-pfas

¹⁴EPA Releases Data on Leaching of PFAS in Fluorinated Packaging | US EPA





winter conditions can undo months of well intentioned ESG work.

For the insurance markets, the story is familiar. A flurry of notifications that emerge at the edge of good intentions. Yet it is also important to recognise the progress being made. The more the industry understands about the interplay between ESG, packaging performance and food safety (especially during predictable busy times e.g. seasonal pressures) the better equipped it is to manage the risks.

If the festive season has a lesson for packaging it is this; sustainability and functionality are not opposing forces. They just need time, testing and a little more space than December usually allows and this is analogous to other 'predictable' peak seasonal activities throughout the year.

Whether you are a company specialising in packaging solutions, or a food manufacturer trying to further the sustainability cause, BluNiche can protect you from the unforeseen food safety risks that can occur. With over 60 years of underwriting experience, BluNiche has the expertise and proficiency to understand the nuances of your risk and tailor a wording to your needs. Through our Partnership with RQA we can also provide you with technical help and guidance both pre-incident, to reduce the chances of a food safety issue and in the event of a loss, to help you get back up and running as quickly as possible.



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