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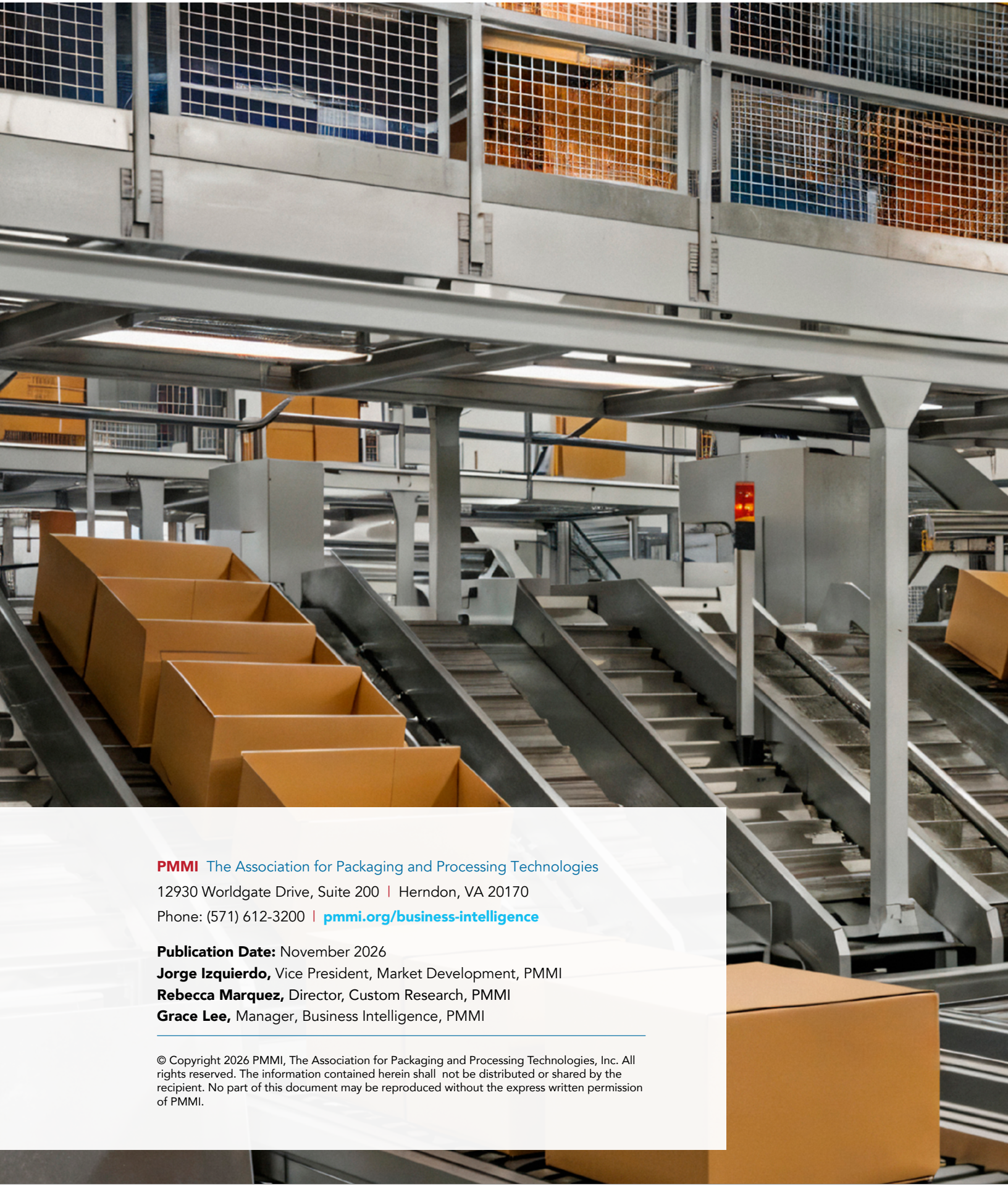
Packaging Machinery Market Trends: Industry Perspectives and Emerging Priorities



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About This Report

This publication is adapted from PMMI Business Intelligence's 2026 State of the Industry: Packaging Machinery report, developed in collaboration with Interact Analysis. It presents selected findings from industry research, including interviews with packaging machinery suppliers, to provide insights into trends and developments shaping the packaging machinery market.

Figure and table numbering has been retained from the original report for consistency. The full report, 2026 State of the Industry: Packaging Machinery report, including additional findings and market forecasts, is available through PMMI Business Intelligence.

PACKAGING MACHINERY MARKET TRENDS

Industry perspectives on evolving market dynamics

The packaging machinery market is being shaped by changing consumer preferences, growing product and packaging complexity, advances in artificial intelligence, and continued pressure to manage capital investments and operating costs. Sustainability commitments and evolving regulations are also influencing equipment requirements and purchasing decisions.

Drawing on interviews with packaging machinery suppliers and other industry research, this report examines the trends influencing packaging operations, equipment needs, and investment priorities. The following pages highlight key developments across the industry and their potential implications for manufacturers.



Shifting Buyer Behavior

Faster expectations, less hands-on engagement, group decision-making, and rising price sensitivity are lengthening and complicating sales cycles. Buyers arrive more informed but less loyal, weighing lower-cost options, even international equipment, that shift competition away from traditional relationships.



Product Virality

Social-media-driven demand spikes are often short-lived, but they accelerate lasting SKU and variety-pack proliferation as brands chase shifting preferences. This raises the need for flexible lines built for fast, frequent changeovers and emerging formats like single-serve and grab-and-go.



Big Data & AI

Early use cases span knowledge capture from retiring staff, specification development from past projects, real-time troubleshooting, and content generation, augmenting rather than replacing expertise. Suppliers are also rethinking digital visibility, shifting from traditional search optimization toward structuring content so AI tools can surface it.



Used Machinery & Asset Preservation

A limited, opportunistic secondary market keeps focus on retrofits, preventative maintenance, and lifecycle extension to preserve capital amid uncertainty. Rather than buying secondhand, firms extend installed assets, sometimes for decades, while older machines find niche value in hands-on training as technical knowledge grows scarce.



OBBB: Accelerated Depreciation

The 2025 One Big Beautiful Bill lets firms write off 100% of newly installed machinery in year one, strengthening the business case for equipment purchases. Few suppliers are yet using it as a selling lever, but those weaving it into customer conversations may pull investment decisions forward.



Carbon Emission Goals by Major Players

Major consumer-goods firms' public commitments are shaping packaging formats and material choices, even as economics increasingly drive decisions. Although several players have pushed net-zero targets out to 2050, emissions reduction remains a priority, and end users increasingly favor suppliers that supply the tools and transparency to meet evolving requirements.



US Regulatory Landscape

EPR, single-use plastic bans, and recycled-content rules concentrated in states like California set a *de facto* national standard, as firms standardize packaging to meet the most stringent regulations rather than maintain regional formats. This is fueling demand for modular, upgradeable machinery that handles a wider range of substrates, from plastics to fiber-based alternatives.



Rising Cost of Gas

Rising petroleum-based input costs are driving a "use less" strategy, optimizing film, strapping, and corrugate across primary, secondary, and tertiary packaging. Companies are eliminating excess, right-sizing cases, and tuning wrap patterns for immediate savings, with flexible formats gaining interest as a lower-material alternative.

SHIFTING BUYER BEHAVIOR

Internal complexity meets investment hesitation

Across interviews, several participants described changes in buyer behavior. Interviewees frequently framed these changes as making the buying process more complex and less predictable, with customers approaching purchasing decisions in different, and in some cases more demanding, ways than in the past. This section highlights several anecdotes shared during this year's interviews.



Increased Price Sensitivity

A number of interviewees described situations where cost considerations appear to be playing a more prominent role in purchasing decisions. Participants noted that some buyers are more actively comparing options and, in certain cases, are willing to prioritize lower-cost or faster-available solutions, even when these may involve trade-offs in performance or service. Several participants suggested that this dynamic can make it more challenging to compete on value alone, particularly where lifecycle benefits must be weighed against higher upfront costs.

In a few interviews, participants also described instances where companies opted for significantly lower-cost equipment despite known trade-offs in quality, support, or lifespan. Some interviewees pointed to examples where internationally sourced equipment could be substantially cheaper than North American alternatives, influencing how buyers evaluate capital investments. In these cases, participants described buyers sourcing lower-cost machinery and modifying it internally to meet operational requirements, reflecting a decision-making approach that prioritizes minimizing upfront capital spending.



Variability in Buyer Preparedness

Interview feedback also highlighted mixed views regarding how prepared buyers are when engaging with suppliers. Some participants described situations where customers began discussions with limited specifications or incomplete requirements, which could lead to revisions later in the design process. One interviewee noted that missing or incorrect details in initial project scopes can contribute to extended development timelines.

Conversely, other interviewees reported encountering customers who appeared more informed at the outset, having conducted independent research or already formed views on potential solutions. Taken together, these perspectives suggest that buyer preparedness is becoming more variable, with some customers entering discussions at a more advanced stage while others rely more heavily on supplier expertise.

Higher expectations, less structure

Expectations for Speed, Simplicity, and Reduced Collaboration

Several interviewees reported that, in their experience, customers increasingly expect faster and more streamlined engagement with suppliers. Rather than engaging in extensive early-stage collaboration, some participants described interactions where buyers provided limited information and relied on suppliers to define the solution.

As one interviewee explained, customers may "schedule a Teams meeting, throw you a couple of drawings, and say 'here it is, you do the rest,'" instead of participating in a more iterative development process. While participants noted that this approach can accelerate initial discussions, some also highlighted that it may lead to challenges later if requirements are not fully defined at the outset.

Interviewees also described what they perceived as a shift away from traditionally hands-on, in-person engagement. Some participants noted that, historically, buyers were more likely to visit facilities, bring product samples, and work directly with suppliers to test and refine solutions.

In contrast, several interviewees suggested that more of this process now takes place remotely. While not universal, participants indicated that this change may reduce opportunities for early validation and shared understanding. One interviewee emphasized that close collaboration remains important for successful system implementation, suggesting that reduced interaction can make it more difficult to fully assess application requirements.

Alongside these shifts, interviewees described changes in how customers engage throughout the sales process. Some participants noted that buyers may be highly responsive at the initial inquiry stage, but less engaged during later, iterative phases when additional input is required. Several interviewees linked this pattern to broader changes in communication preferences, with greater reliance on digital channels. Participants reported that, in some cases, this can make it more difficult to maintain consistent engagement across the full buying cycle.

More Competitive Supplier Selection

Interview evidence also suggests that customers may be evaluating a broader range of suppliers during the purchasing process. Rather than relying solely on established relationships, some interviewees described buyers comparing multiple suppliers based on factors such as price, availability, technical fit, or responsiveness for a given project. Participants suggested that this dynamic may be increasing competition throughout the sales process and, in some cases, reducing the historical advantage associated with long-term supplier relationships.

Declining loyalty and supplier implications

Implications for Suppliers

Taken together, these shifts point to a more complex and less predictable buying environment. Buyers are simultaneously more informed, more cost-conscious, and less engaged in traditional sales processes, creating new challenges for suppliers throughout the purchasing cycle. Early-stage alignment is becoming harder to achieve, while internal customer decision-making is becoming more prolonged and fragmented.

As a result, suppliers are under increasing pressure to respond quickly, provide clearer guidance with less input, and maintain engagement across longer and more variable sales cycles. Success in this environment may increasingly depend on suppliers' ability to deliver structured, accessible information, adapt to changing communication preferences, and help customers navigate increasingly complex internal requirements.



Table 6 - Overview of Buyer Behavior Shifts

Underlying Shift	Observed Behavior	Market Impact
Pressure for speed, simplicity, and lower-effort engagement	Buyers provide limited input, rely more on remote engagement, and expect suppliers to define solutions quickly	Greater pressure on OEM responsiveness, more consultative selling, and higher risk of project misalignment
Greater organizational and purchasing complexity	More stakeholders, longer approval cycles, delayed capital decisions, and inconsistent engagement during projects	Longer and less predictable sales cycles, increased pipeline volatility
Increased cost sensitivity and ROI scrutiny	Greater focus on pricing, vendor comparison, and lower-cost alternatives	Margin pressure, intensified competition, and increased pressure to justify lifecycle value

Source: Interact Analysis

PRODUCT VIRALITY



Cottage cheese as a case study

As digital channels continue to reshape consumer behavior, product virality is emerging as an important factor influencing demand within the packaging industry. Across interviews, suppliers pointed to examples where social media trends rapidly accelerated product adoption, with items such as cottage cheese gaining renewed attention through online platforms and experiencing sharp increases in demand.

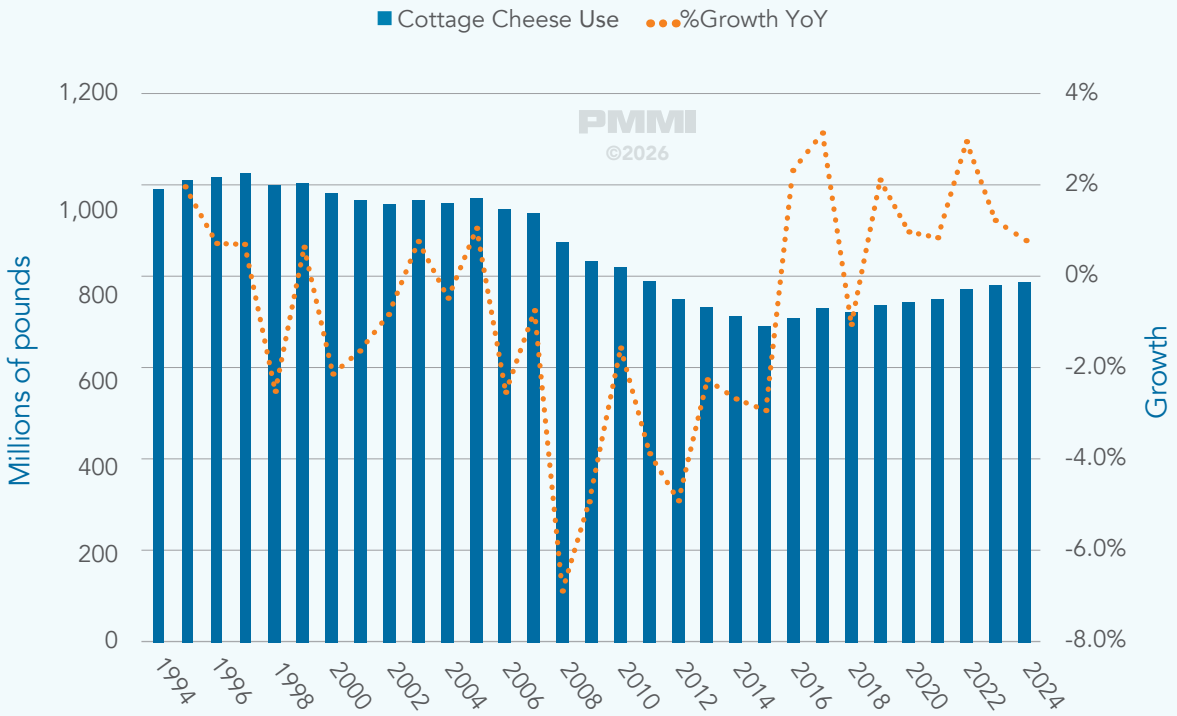
While these viral trends can create sudden pressure to scale production, their direct impact is often short-lived. Suppliers noted that the unpredictability and temporary nature of these demand spikes make it difficult to justify large, long-term capital investments based solely on a single trend.

However, the more lasting impact of virality lies in how it reshapes product strategies. Rather than simply increasing volume, viral trends often contribute to a rapid expansion in product variety. As consumer preferences shift, manufacturers respond by introducing new flavors, formats, and configurations to capture demand and maintain relevance. This has led to a proliferation of SKUs and an increase in offerings such as variety packs, which continue to see sustained growth beyond the initial trend cycle.

This shift toward greater product diversity places new demands on packaging operations. Instead of running high-volume, single-product lines, manufacturers increasingly require equipment capable of handling frequent changeovers, multiple SKUs, and varying package formats. Interviewees highlighted a growing need for flexible packaging systems that can adapt quickly to new products, including emerging formats such as single-serve or grab-and-go packaging driven by viral consumption behaviors.

As a result, the impact of virality is less about sustained volume growth and more about increased variability. For suppliers, this reinforces the importance of flexibility, speed, and adaptability in packaging equipment design, where the ability to respond quickly to shifting trends is becoming a key differentiator in serving evolving customer needs.

Fig. 18 US Cottage Cheese Consumption



Source: USDA, Economic Research Service calculations using data from USDA, National Agricultural Statistics Service; USDA, Foreign Agricultural Service; USDA, Agricultural Marketing Service; and US Department of Commerce, Bureau of the Census.

BIG DATA & AI

An overview

Table 7 - Overview of AI use cases

AI Use Case	Emerging Trend	Operational Impact
Knowledge Transfer	Companies are capturing institutional knowledge from experienced employees using recorded walkthroughs and AI-generated documentation.	Reduces risk of knowledge loss and improves onboarding/ training consistency.
Specification Development	AI is being used to reference prior projects and configurations during specification development.	Speeds up engineering workflows and reduces the need to start projects from scratch.
Internal Knowledge Retrieval	Organizations are experimenting with AI systems that aggregate documents, emails, and project history into searchable internal knowledge bases.	Improves access to information and reduces time spent searching across systems.

Table 7 - Overview of AI use cases *(continued)*

AI Use Case	Emerging Trend	Operational Impact
Documentation & Manuals	AI tools are being used to generate operator manuals and structured documentation from templates.	Reduces time spent on repetitive documentation tasks.
Assistant-Style Work Support	AI is increasingly being used as an internal "assistant" or "intern" to generate first drafts of documents, communications, and workflows.	Accelerates administrative work while maintaining human review processes.
Marketing & Content Generation	Some companies are using AI to convert technical engineering documentation into customer-facing marketing content.	Enables faster content creation and improves translation of technical information for broader audiences.
Workflow Automation	AI is being used to automate internal administrative tasks such as routing leads and managing workflow steps.	Reduces manual effort and improves operational efficiency.
Meeting Summaries	Companies are using AI transcription and summarization tools during meetings.	Helps teams capture key takeaways and improves information sharing.
Troubleshooting Support	AI is beginning to be integrated into machine interfaces to support operators during troubleshooting.	May reduce downtime and lessen dependence on specialized expertise.

Source: Interact Analysis

AI in internal operations

The following section outlines how companies are beginning to apply AI in practical ways, based on themes that surfaced across interviews. It begins with internal applications, including capturing institutional knowledge, supporting day-to-day workflows, and a broader set of emerging use cases, to the external shifts reshaping marketing and digital visibility, where AI is changing how suppliers are discovered and ultimately selected.

AI in Knowledge Transfer and Workflow Support

Across interviews, several early-stage use cases for AI emerged, particularly in how companies are capturing and applying internal knowledge.

One company described using AI to support knowledge transfer as senior employees approach retirement. In this case, experienced team members walk through processes and procedures, which are recorded and then processed using AI tools. These tools transcribe and condense the discussions into structured documentation, allowing the company to convert experience-based knowledge into reusable training materials and internal guides.

Another example focused on the use of AI in developing specifications for customer projects. The company is building an internal system that draws from historical project data, including machine configurations and performance details. When a new request comes in, the system can reference similar past projects and provide a starting point for the specification. This allows teams to avoid starting from scratch and helps newer employees align their recommendations with previous solutions.

A related use case involves broader internal knowledge retrieval. Some organizations are exploring AI tools that aggregate information across documents, emails, and prior projects, allowing employees to quickly search and synthesize relevant data. This enables faster access to institutional knowledge, particularly for employees who may not have deep experience with past projects or systems.

These examples illustrate how companies are beginning to apply AI in practical ways to address knowledge gaps and improve internal workflows. Rather than replacing expertise, these tools are being used to capture and extend it, making institutional knowledge more accessible across the organization.

Marketing in the age of AI

A New Layer of Digital Visibility

The rise of AI is beginning to reshape how suppliers approach marketing and digital visibility. While still early, interviews suggest that companies are starting to rethink how they present information online, particularly as AI-driven tools become a more common entry point for research and discovery.

Rather than representing a complete shift away from traditional marketing, this change is emerging as an extension of existing digital strategies. However, it introduces a new challenge: ensuring that information is not only searchable, but also structured in a way that can be easily interpreted and surfaced by AI systems.

Early Success in Optimizing for AI-Driven Discovery

One supplier noted initial efforts to adjust how its content is structured to improve visibility in AI-driven environments. Rather than focusing solely on traditional search engine optimization, the company began monitoring how its content appeared within AI-driven tools such as ChatGPT and Copilot and experimenting with how information was surfaced in those environments.

As part of this process, the company restructured portions of its website to better align with how AI systems extract and present information. This included restructuring content using tables, bullet points, and other formatting techniques that made key information easier for AI systems to parse and summarize. While these changes were relatively incremental, the company noted that this approach had been effective in increasing its visibility within AI-generated responses.

AI as a Tool for Marketing Efficiency

Beyond external visibility, AI is also being used internally to support marketing workflows. Interview feedback highlighted the use of AI tools for content generation, particularly to translate technical engineering documentation into customer-facing collateral. This has allowed marketing teams to produce content more quickly, while still relying on human oversight to refine and validate outputs.

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For readers seeking a deeper understanding of AI in packaging and processing equipment, PMMI's **Building An AI Advantage In Packaging Equipment** provides additional analysis and use-case examples relevant to this space.



More broadly, this reflects a shift in how marketing content is created and delivered. AI is not replacing traditional functions, but it is enabling faster content development, improved consistency, and more efficient handling of inbound opportunities. In some cases, this extends into lead management, where AI-supported workflows can help route and prepare leads for sales teams more quickly.

Structuring content for AI-driven discovery

A Growing Industry Response

Suppliers are beginning to respond to changes in how buyers discover and evaluate solutions, particularly as AI-driven search and research tools gain traction. While still in the early stages, some interviewees suggest initial efforts to adapt their digital presence to these shifts, including experimenting with how information is structured, presented, and surfaced online.

A key theme emerging from interviews is a move away from traditional search engine optimization practices, which historically focused on repeating keywords to improve rankings. Instead, there is a growing emphasis on developing content that helps users solve specific problems or make purchasing decisions. One interviewee noted that content is increasingly expected to "help people solve a problem," rather than simply prioritize keyword density.

This shift reflects broader changes in buyer behavior. As purchasers conduct more independent research and often arrive with a clearer understanding of their needs, suppliers face increasing pressure to provide information that is directly relevant, practical, and easy to interpret.

In response, some companies are experimenting with new types of content designed to address use-case-driven questions. Rather than focusing exclusively on product pages or technical specifications, these efforts include materials such as buyer guides and explanatory content that outline what types of solutions are needed for specific applications. This approach aligns more closely with how users seek information, particularly as queries become more natural language-based.

Alongside changes in content type, there is also an emerging awareness of how information is structured. Some interview signals suggest that content formatted in a clear, organized manner—such as straightforward explanations, segmented sections, or structured summaries, may be better suited for AI—driven environments, where information needs to be easily extracted and interpreted.

From Being Found to Being Selected

Taken together, these developments point toward a gradual shift in digital marketing strategy. Ranking in search results remains important, but it may no longer be sufficient on its own. Increasingly, content must also be structured in a way that allows AI systems to extract, summarize, and deliver it in response to user queries.

For suppliers, this adds a new layer of consideration. Marketing is not only about attracting traffic, but also about ensuring that content is structured in a way that allows it to be accessed and utilized within AI-driven discovery environments. As these tools continue to evolve, this may become an increasingly important component of digital strategy.

USED MACHINERY & ASSET PRESERVATION

A limited, opportunistic market

The secondary market for packaging machinery exists across the industry but does not play a central role in equipment procurement. Interviews consistently indicate that used machinery is rarely purchased as part of a structured sourcing strategy. Instead, it is typically acquired opportunistically, such as following facility closures, acquisitions, or ownership transfers associated with broader transactions.

Challenges Encountered with Used Equipment in the Field

While purchasing activity is limited, interviews revealed several recurring challenges when used machinery is encountered in operations.

The most common issues include:



Performance and capability gaps
Older machines often cannot match the speed, flexibility, or precision of newer systems, particularly as product formats and SKU complexity increase.



Technological obsolescence
Controls, automation platforms, and software interfaces frequently become outdated, making integration into modern production lines difficult or costly.



Uncertain condition and reliability
Even when refurbished, used equipment introduces variability in performance and maintenance needs, requiring careful evaluation and operator awareness.



Integration complexity
When machines are introduced into new environments, mismatches in layout, throughput, or upstream/downstream systems can create operational inefficiencies.



Limited institutional knowledge
As workforce experience declines, fewer operators and technicians are familiar with older systems, increasing reliance on OEMs or third parties for support.

As a result, even when used equipment is available, many companies approach it cautiously, particularly in high-throughput or mission-critical applications.

Retrofit over replace

Asset Preservation

Rather than engaging heavily in the secondary market, most companies are prioritizing the extension of existing asset lifecycles. Interviews consistently indicate increased demand for retrofits, preventative maintenance, spare parts, and targeted system upgrades.

This approach allows companies to maintain operational continuity while delaying capital expenditures, particularly in an environment characterized by economic uncertainty and cost sensitivity. In practice, organizations are often modifying machines that have been in operation for decades, restoring performance and extending usability for several additional years.

This trend is not driven by a preference for used equipment, but by a broader emphasis on capital efficiency. Companies are choosing maximize the value of installed assets rather than replacing them outright or sourcing secondhand alternatives.

Niche Applications and Secondary Uses

Although the broader used machinery market remains limited, several niche applications have emerged where older equipment retains value. One such application is refurbishment for redeployment in cost-sensitive environments. In these cases, equipment may be reconditioned and placed with customers who have lower performance requirements or tighter budget constraints. However, suppliers emphasize that these scenarios require careful alignment around expectations, particularly regarding speed, flexibility, and long-term reliability.

Another, more unconventional use case involves retaining or reacquiring older machines for internal purposes. In some instances, legacy equipment has been brought back not for production use, but for training, demonstration, or development activities.

This reflects a growing recognition within the industry that hands-on technical knowledge is becoming increasingly scarce. Older machines, which are often more mechanically transparent and less complex than modern automated systems, can provide a valuable platform for operator and technician training.

Where used equipment adds value

Who Benefits from Used Machinery

While used equipment is not widely adopted for production, certain segments of the industry are better positioned to benefit from it.

Smaller manufacturers and companies with lower throughput requirements may find value in refurbished or secondhand equipment, particularly when cost constraints outweigh the need for cutting-edge performance. These organizations are more likely to operate in environments with simpler production requirements and fewer SKU or throughput demands, making it feasible to repurpose or retool existing equipment rather than invest in highly specialized new systems.

Internally, OEMs and larger manufacturers can benefit from retaining older equipment for training and workforce development. As technical skill gaps widen, having physical machines available for hands-on learning can support onboarding, troubleshooting education, and maintenance training.

There is also potential for collaboration with external stakeholders. Trade schools, technical programs, and workforce development initiatives could leverage used or retired equipment as part of structured training environments. Such collaboration could provide students with real-world exposure to industrial machinery while helping the industry rebuild its technical talent pipeline.

Implications for the Industry

The role of used machinery in the packaging industry is best understood within the context of broader structural trends. It does not represent a major alternative to new equipment purchasing, nor does it significantly disrupt OEM demand.

Instead, its importance lies in what it reveals about industry behavior. Companies are not broadly shifting toward secondhand equipment, but they are becoming more focused on asset longevity, incremental improvement, and capital preservation.

Used machinery remains a secondary and situational component of the market. However, its potential value in training, refurbishment, and lower-cost applications suggests that, while limited in scale, it could play a more strategic role in supporting workforce development and extending the lifecycle of industrial assets moving forward.

OBBB: ACCELERATED DEPRECIATION

Few suppliers are actively leveraging accelerated depreciation, despite its potential to strengthen the business case for equipment purchases

In July 2025, the "One Big Beautiful Bill" (OBBB) was enacted, introducing a range of policy measures with limited direct relevance to the packaging and wider machinery sector, except for one significant provision: accelerated depreciation. This clause allows businesses to depreciate 100% of the value of machinery purchased and installed after January 2025 within the same fiscal year. As a result, companies can reduce their taxable income by the full cost of the machinery in the year of installation, providing an immediate financial incentive.

The goal of this financial benefit is to influence investment behavior across the manufacturing and retail sectors, particularly among companies that have delayed capital expenditures due to ongoing uncertainty. By lowering the effective cost of automation investments, the policy aims to provide an additional incentive for companies already considering equipment purchases to move forward more quickly.

However, interview evidence suggests that the impact of this provision on the packaging machinery sector has, to date, been limited. Very few suppliers referenced accelerated depreciation as a meaningful driver of demand, and there was little indication that it is being explicitly incorporated into purchasing decisions or sales conversations. In practice, while the policy improves ROI on paper, it does not yet appear to be a widely leveraged factor in how buyers evaluate investments.

That said, there are early signs of vendor-led activation. One supplier noted that they are proactively educating customers on how to utilize the provision, encouraging potential buyers to work with their accounting teams to better understand how the tax benefit could apply to their specific situation. In this case, the policy is being positioned not as a standalone driver, but as a supporting element within the broader business case for investment.

This behavior remains the exception rather than the norm. Across the broader supplier base, there is limited evidence of proactive communication around the policy, suggesting a gap between the availability of financial incentives and how they are translated into customer value.

Historically, similar accelerated depreciation measures have acted as catalysts for short-term investment cycles rather than sources of new demand. Rather than generating entirely new purchasing activity, they tend to bring forward decisions already under consideration, resulting in temporary increases in equipment orders followed by periods of normalization.

Taken together, this suggests that while the OBBB provision has the potential to serve as a tailwind for packaging machinery investment, its real impact will depend on how effectively it is incorporated into customer discussions and the broader business case for investment. Suppliers that actively incorporate this mechanism into customer discussions may be better positioned to influence decision timing, particularly in a market where capital spending remains constrained. At present, however, most suppliers appear to be passively benefiting from the policy, rather than actively using it as a commercial lever.



CARBON EMISSION GOALS BY MAJOR PLAYERS

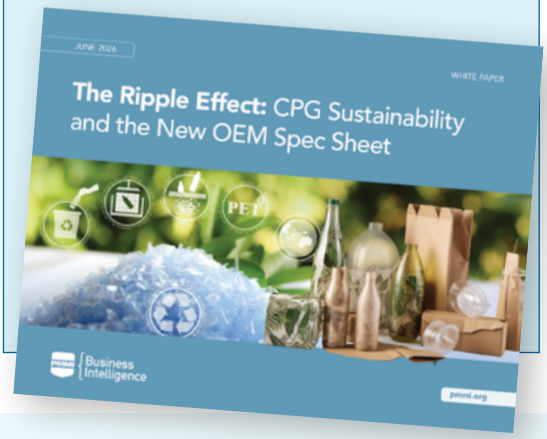
While a number of major players have pushed their emissions targets out to 2050, many others continue to actively pursue their sustainability goals. Although the timelines have been extended, reducing emissions remains a priority for large end users. In practice, however, companies are taking a more measured and pragmatic approach, focusing on incremental improvements such as material reduction, efficiency gains, and waste minimization as they balance sustainability ambitions with cost and operational realities.

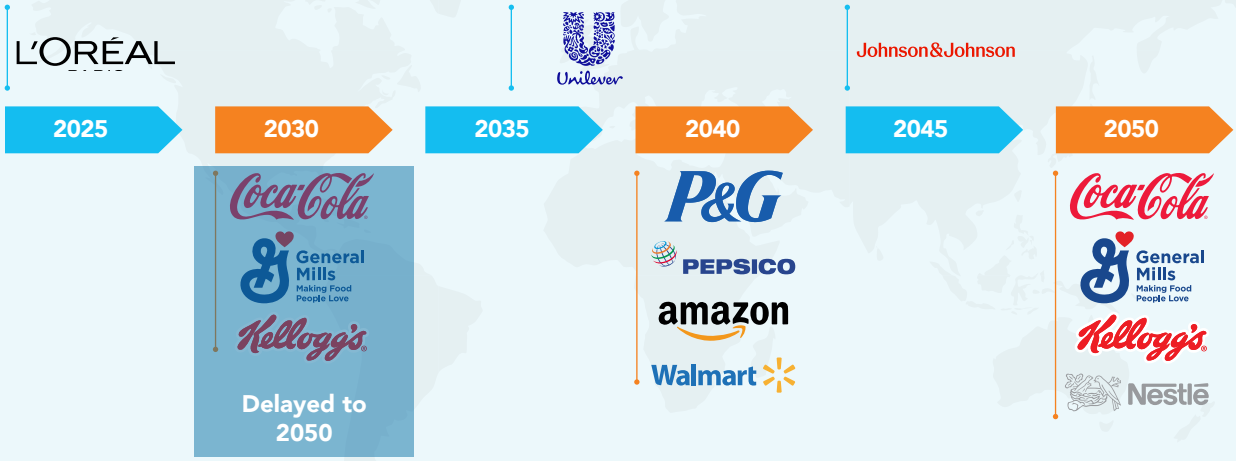
At the same time, progress has become less visible. Rather than broad public commitments, many organizations are shifting toward internal initiatives and preparation for evolving regulatory requirements, particularly as policies like EPR continue to take shape. This is placing new expectations on the supplier base. Companies are increasingly seeking suppliers that can not only support these initiatives, but also provide the tools, flexibility, and transparency needed to track and meet sustainability requirements as they evolve.

These dynamics are contributing to a growing disconnect between sustainability ambition and operational reality, particularly when it comes to packaging equipment.

Learn More!

Learn more about how sustainability pressures are reshaping equipment requirements in PMMI's report, **The Ripple Effect: CPG Sustainability and the New OEM Spec Sheet**, which explores material transitions, evolving regulations, and the growing need for OEM–CPG collaboration.





US REGULATORY LANDSCAPE

Plastic reduction policy in the United States remains fragmented, with the majority of legislative activity concentrated in a handful of states, including California, Maine, and New Jersey, as shown in Figure 28. While this creates a patchwork regulatory environment, the practical impact extends well beyond those state borders.

Large consumer goods companies typically operate nationally and avoid maintaining multiple packaging configurations across regions. As a result, packaging strategies are often standardized to meet the most stringent requirements, particularly those emerging from California due to its size and economic influence. Industry participants consistently noted that maintaining state-specific packaging formats is cost-prohibitive, leading companies to adopt a single, compliant solution across the US.

From Material Bans to System Accountability

Current regulatory activity is focused on two primary areas: restrictions on single-use plastics and the expansion of Extended Producer Responsibility (EPR) frameworks. Together, these policies represent a shift from isolated material bans toward broader system-level accountability.

Single-use plastic restrictions are directly influencing packaging design by targeting specific materials and formats, particularly in consumer-facing applications. In parallel, EPR policies are introducing new financial and operational requirements, placing responsibility on producers for the collection, recycling, and reporting of packaging materials.

Across interviews, EPR emerged as a significant driver of change. Companies are actively evaluating how fee structures and reporting obligations will impact material selection and overall packaging costs. However, many are delaying major redesigns until these frameworks are fully defined, particularly as fee levels remain uncertain in key markets such as California.

Implications for Packaging Machinery

The evolving regulatory landscape is directly influencing demand for packaging machinery and system design.

As material requirements become more variable and region-specific regulations continue to evolve, there is increasing demand for equipment that can accommodate a wider range of substrates and packaging formats. This includes the ability to handle both traditional plastic materials and emerging alternatives such as fiber-based packaging.

Alongside this, the preference for incremental change is driving increased demand for modular, upgradeable systems that can be adapted over time. Rather than investing in entirely new lines, many companies are seeking flexible solutions that allow them to remain compliant while preserving optionality as regulations continue to develop.

Finally, growing variability in materials and formats is increasing complexity at the line level, reinforcing the need for machinery that can maintain performance across a broader range of conditions and packaging characteristics.



States with regulations impacting packaging

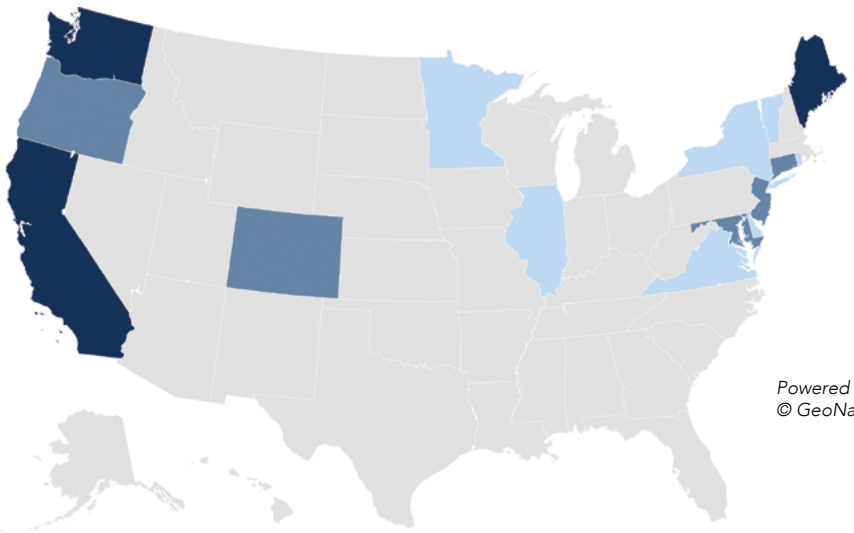
US plastic packaging regulation is still a state-led patchwork, but its reach is national. A handful of states are setting the rules, and as producer-responsibility frameworks take hold, manufacturers are rethinking materials, compliance, and the machinery that has to keep up.

Table 8 - States with Regulations Impacting Packaging

State	EPR	SUP	RC
California	✓	✓	✓
Colorado	✓	✓	
Connecticut		✓	✓
Delaware		✓	
Illinois		✓	
Maine	✓	✓	✓
Maryland	✓	✓	
Minnesota	✓		
New Jersey		✓	✓
New York		✓	
Oregon	✓	✓	
Rhode Island		✓	
Vermont		✓	
Virginia		✓	
Washington	✓	✓	✓

EPR - Extended Producer Responsibility
SUP - Single-use plastics
RC - Recycled Content

Fig. 28 US Map of States with Regulations Impacting Packaging



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RISING COST OF GAS

Material reduction as a cost and operational strategy

As companies continue to face rising operating costs, there is increasing pressure to identify opportunities for cost reduction across packaging operations. While sustainability remains an important long-term priority, interviewees consistently emphasized that the current focus on material reduction is being driven as much by economics as by environmental goals.

One of the most immediate drivers of this shift is the rising cost of petroleum-based inputs. Because materials such as plastics, films, and strapping are derived from petroleum, increases in fuel and energy costs have had a direct impact on packaging material costs. For example, higher petroleum costs have led to higher prices for consumables such as strapping materials used in end-of-line packaging.

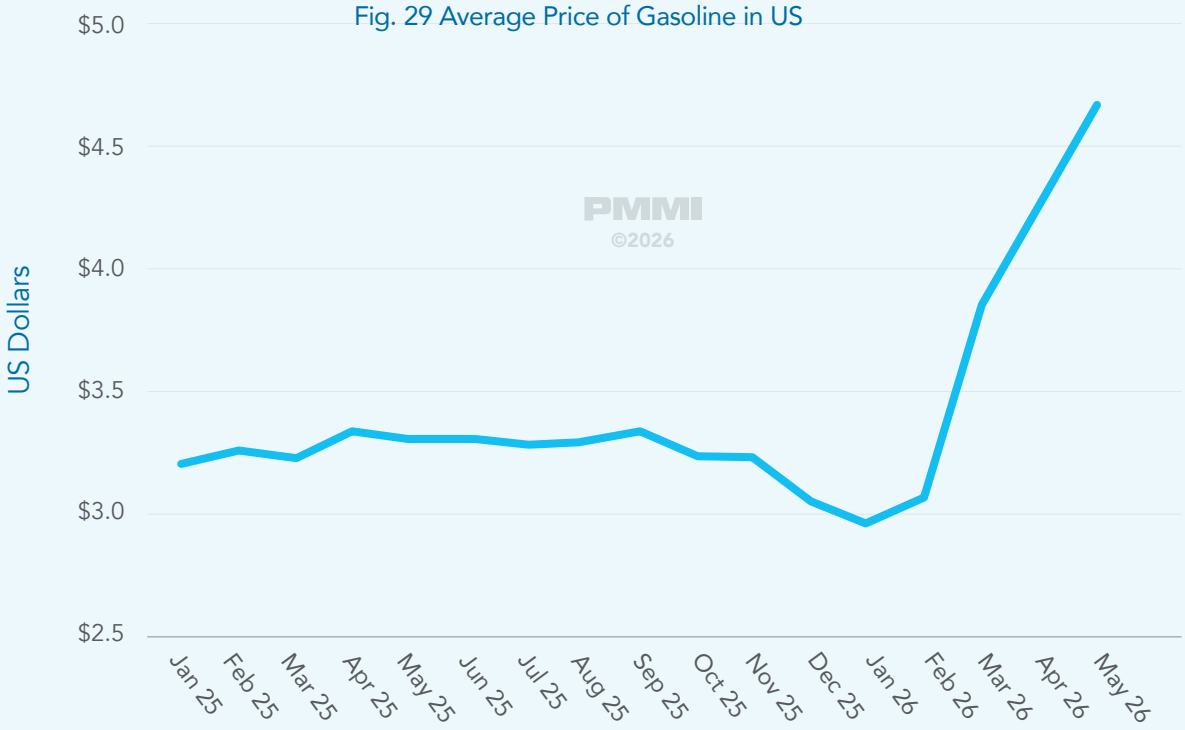
As a result, companies are increasingly prioritizing strategies that reduce overall material usage as a way to manage these cost pressures.

The Industry Shift Toward "Reduce"

In response to these conditions, the industry has shifted toward a "reduce" strategy. Rather than investing in large-scale material substitutions, companies are focusing on using less of their existing packaging materials.

Interview discussions highlighted that this approach allows companies to achieve more immediate and measurable savings while avoiding the complexity associated with adopting new materials or packaging formats. In many cases, suppliers are supporting this shift by helping customers optimize material usage rather than replace materials entirely, for example, by identifying opportunities to reduce stretch film usage while maintaining load stability.

Fig. 29 Average Price of Gasoline in US



Source: US Bureau of Labor Statistics, Average Price: Gasoline, Unleaded Regular (Cost per Gallon/3.785 Liters) in US City Average [APU000074714], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/APU000074714, June 10, 2026.

Reducing material across every level of packaging

Primary and Secondary Packaging: Eliminating Excess

At the primary and secondary packaging levels, material reduction is most often achieved through the elimination of unnecessary components and the optimization of packaging design.

Companies are reducing the use of additional liners, minimizing excess plastic films, and redesigning packaging formats to use less material overall. In secondary packaging, this is also reflected in efforts to reduce corrugate usage through tighter case designs and right-sizing initiatives. These changes are typically incremental but highly impactful at scale, allowing companies to reduce costs without fundamentally altering their packaging systems.

Tertiary Packaging: Optimizing Film and Strapping

At the tertiary level, material reduction efforts are focused on load stabilization. Rather than eliminating materials entirely, companies are working to optimize material application.

This includes reducing the amount of stretch film used, adjusting wrap patterns, and minimizing excess material application. Suppliers are increasingly offering monitoring tools and optimization systems that help identify overuse and improve consistency across shifts, resulting in measurable reductions in material consumption.

These efforts are particularly important given that materials such as stretch film and strapping are directly impacted by fluctuations in petroleum-based input costs.

Emerging Format Shifts: Flexible Packaging

Alongside these operational improvements, there is growing interest in packaging formats that inherently require less material. Flexible packaging, in particular, is gaining attention as a lower-material alternative to rigid formats. While adoption varies by product category, this shift reflects a broader industry trend to favor packaging solutions that reduce total material intensity. As cost pressures persist, flexible formats may continue to gain traction as both an economic and operational strategy.

Implications for Packaging Machinery

As companies reduce film usage, eliminate packaging layers, and adopt thinner materials, there is increasing demand for equipment capable of maintaining performance across a wider range of material conditions. Interviewees suggested that thinner films and lighter-weight materials can create tighter operating tolerances, increasing the importance of machine precision, consistency, and adaptability. This is reinforcing demand for systems capable of handling multiple film types and packaging formats without sacrificing throughput or load stability.

At the same time, suppliers described growing customer interest in technologies that help reduce consumable usage over time. In tertiary packaging, for example, the ability to optimize stretch wrap application while maintaining pallet stability may become an increasingly important competitive differentiator for equipment suppliers.

In some cases, reducing packaging layers or simplifying packaging formats may also reduce the amount of equipment required within a packaging line, particularly where certain wrapping or containment stages can be minimized or eliminated altogether.



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