Before the advent of warehouse club stores, pallets were usually found behind the scenes. Today they’re front and center in retail spaces, stacked with products and serving as merchandising fixtures.

Companies have to consider pallets as an important component in a systems approach to the supply chain. They’re also a crucial part of many companies’ sustainability strategies based on the recyclability of materials and the use of the assets.

With more than 2 billion in circulation in the United States alone, pallets are no longer the hidden backbone of the supply chain. About 95% of all goods are shipped on pallets. There’s an awareness of pallets from the point of production to consumption and return. They’re seen as integral components of the supply chain that can be a competitive advantage or a high-cost hindrance if not managed properly.

Because pallets are ubiquitous, and there aren’t alternatives in most cases, supply chain managers work to be as efficient as possible when it comes to selecting and managing their pallet portfolio.

While consumers have high expectations for service levels, they’re also looking for brands and retailers that genuinely consider the environment in their operations.

Managing pallets sustainably helps companies meet consumer expectations and contribute positively to the environment.
expectations while reducing their environmental impact.

The increasing emphasis on a circular economy compared to a linear approach applies to pallets in two areas: operational efficiency and life cycle, which reflects the pallet's fate at the end of its useful life.

In a circular supply chain, pallets are loaded, sent to a destination, unloaded, and then returned to the point of loading for the next trip and reused as often and quickly as possible. At the end of their life cycle, pallets are repaired or recycled for another round of reuse. Using pallets in this manner generates tremendous economic and environmental benefits.

Companies are examining their pallet strategy to understand how it fits into overall operations to achieve greater efficiencies and lower costs. Pallet pools offer rented or leased pallets that move in a circular supply chain. Pallets move in a flow from production centers in the center of the country out to the coasts, and back again for reloading.

Repositioning pallet assets helps reduce the number of empty truck miles driven each year. Carriers appreciate having the backhaul to utilize their assets instead of deadheading. Pallet pool operators can track pallets at the granular level to show users how much solid waste and carbon dioxide were saved in the circular economy.

By contrast, a linear life cycle results in the disposal of the asset at the end of its useful life. The linear approach is wasteful and inefficient both operationally and environmentally.

In some cases, pallets can flow only one way and are not part of a pool or circular operation. But even in these cases, the pallets can be repurposed once their initial journey is completed.

The materials that comprise the pallet also figure into the circular economy. Currently, the biggest battle is between wood and plastic, with other materials, such as steel, making up a small portion of the market. However, pallets can also be made of different materials such as corrugated board and metal. They can be manufactured using both virgin and recycled materials.

SUSTAINABLY GROWN

Wood pallet makers tout the use of sustainably grown wood as a material that can be recycled or repurposed at the end of its life. Many pallet makers source new lumber from forests certified by the Forest Stewardship Council (FSC) or Sustainable Forest Initiative (SFI).

These certifications mean the trees are harvested at a rate lower than that of the new trees being produced. These forests are sustainable and are responsibly managed to provide environmental, social, and economic benefits.

Pallets of any material can be designed from the start to be repaired and recycled, which streamlines their life cycle and environmental impact. Wood pallets can be repaired and repainted if they’re damaged, reducing the use of new materials to keep the asset in working order. Heavy-duty wood block pallets can last up to 10 years if they are regularly maintained.

Industry research finds 95% of wooden pallets are recycled or recovered into usable materials. Wood pallets that no longer meet specs can be sold to the secondary market for repair. Or, they find other uses such as being ground up for mulch or biofuels.

RECYCLABILITY FACTOR

Plastic pallets, in many cases, are made from recycled materials or can be recycled at the end of their life cycle. Plastic pallets can last up to 15 years without repair in some supply chains. At the end of its life, the pallet can be ground up, and the plastic reused for a new pallet or another product. Metal pallets can be recycled as well.

In the circular economy, sustainability is the core of the business model. Pallets designed and built for a long life cycle last and can be repaired more easily than products produced for a linear economy.

MANAGING PALLETS SUSTAINABLY HELPS COMPANIES MEET CONSUMER EXPECTATIONS.
CABKA introducing one solution to many applications: The NestRack

- Recycled
- Immediate dispatch
- ISPM 15
- Rackable
- Cost-Saving
- Shock-proof
- Light-weight
- Space-saving

Contact us for a quote and delivery options at CABKA North America, Inc. 123 Byassee Dr, Hazelwood, MO 63042
m +1-314-532-0164
betterpallets.com
Pallets built with sustainability in mind are also higher-quality units. They are more likely to be dimensionally consistent with standard sizes that align with materials handling equipment. With greater use of warehouse automation, out-of-spec pallets could cause significant material flow problems. Stable dimensions also reduce breakage and resulting damage to the product that could be onboard.

**INNOVATION IN PLASTIC PALLETS**

Some companies are making the switch to plastic pallets to achieve sustainability goals as well as operational improvements.

For example, a national discount retailer switched to CABKA plastic pallets for internal use to reduce product damage and store-floor damage, says Steve Russell, CABKA’s vice president of sales and marketing.

CABKA is the largest plastic pallet producer in the world in terms of revenue and the second largest in terms of volume, with around 10 million pallets produced and sold per year. The company recycles 70% of materials in-house in the vertically integrated process from recycling to the final product.

“At CABKA, recycling is a passion, not just in the use of the recycled plastics, but also in offering closed-loop solutions for our customers, so that they can actively participate in offering more sustainable solutions in their supply chain,” Russell says.

The company was an innovator as one of the first to use recycled plastic to manufacture new products and was a pioneer in processing mixed plastics, which are usually difficult to recycle.

The CABKA process uses materials from industrial production scraps, packaging waste from private households, and worn-out plastic products. The company recycles and reshapes plastic waste into a diverse line of products, including export pallets, reusable pallets, pallet boxes, containers, and custom-made products. Overall, the company uses 23,000 tons of recycled plastic for its EcoProducts each year. Each ton of recycled plastic saves about 1.26 tons of carbon dioxide.

Companies can use their own scrap to make pallets. “For example, one coffee company sends plastic scraps to be recycled into pallets for use in their own warehouse,” Russell says.

Plastic pallets are also valued for their hygiene. They are easier to clean and sanitize when necessary, and meet health and safety requirements for food and pharmaceutical uses. CABKA offers a line of hygienic plastic pallets with closed surfaces that keeps dirt from accumulating and makes cleaning fast and easy, Russell notes.

**PLASTIC PALLETS ARE VALUED FOR THEIR HYGIENE. THEY ARE EASY TO CLEAN AND SANITIZE.**

DPB, a Dutch beverage manufacturers’ shared pallet pool, began replacing all its wooden pallets with plastic pallets in 2012. The pool had 800,000 wooden pallets in circulation. Operational costs were high from dirty chips and injury-prone splinters, heavy weight—particularly when wet—and disposing of damaged or soiled pallets.

The group adopted the BPP i9 from CABKA, a customized plastic pallet that seamlessly fit into existing storage and transport systems, which were configured for handling the wooden pallets. The forklift pockets, deck height, and blocks of the BPP i9 were the same dimensions as its wooden predecessor.

The plastic pallets were more than 30% lighter than the wood versions. The annual breakage rate fell from 25% to less than 6%. Overall, the pool participants experienced a reduced rental fee as well as a much lower rate of product damage.

The latest CABKA innovation is the NestRack, a nestable plastic pallet that is also suitable for high rack storage. While it has a net weight of only 22 lbs., it can carry up to 2,700 lbs. in racking, which is a revolutionary weight-to-load ratio. The runners ensure smooth transport on roller and chain conveyors and offer four-way access for forklift trucks. It’s available in both open or closed deck versions.

Driven by a desire for innovation and environmental responsibility, the pallet industry has embraced the circular economy whenever possible. Reducing waste in manufacturing, usage, and transportation delivers economic benefits while at the same time respecting the natural world.