



Reusable Plastic Pallets Case Study

PepsiCo's Gatorade Plant

PepsiCo's Gatorade plant bottles the Gatorade brand sports drink. The 157,000-square-foot facility in Oakland staffs approximately 170 employees and produces over 15 million cases of Gatorade annually. Built in 1929, the facility was originally a pork and bean cannery for items such as Beanee Weenees®. In 2001, PepsiCo acquired the plant, and it has been dedicated to bottling Gatorade ever since.

Facts-at-a-Glance

Challenges

- Out-of-spec wooden pallets
- Equipment downtime
- Damaged product
- Customer complaints
- Slip and trip hazards

Solutions

- Research and cost-benefit analysis
- Replacement of optical sensors on palletizer for proper readings
- Conversion of entire plant to plastic pallets based on successful 6-month trial

Benefits

- Reduces product damage, equipment downtime, and labor
- Cuts costs by \$380,000 each year
- Minimizes customer complaints
- Improves employee safety
- Prevents wood waste
- Conserves forest resources
- Lowers CO2 emissions

The Story

The time had come for the Gatorade plant to make some changes to its distribution system. The western region logistics manager took notice when a customer refused an order because the product was shipped on out-of-spec wooden pallets that were too difficult to deal with. Corporate headquarters had already been encouraging the plant to look into more efficient packaging options as part of its sustainability initiative. The StopWaste Partnership first started working with the plant on recycling projects in 2006. When StopWaste learned of Gatorade's efforts to improve its distribution system, a natural partnership formed. The company now regularly presents at StopWaste's Reusable Transport Packaging workshops as a real-world success story.

Challenges

The Gatorade facility needed to switch to a more durable, consistent, and high-quality pallet without taking a large financial hit. Since it loads up to 1,320 pallets a day, efficiency was paramount. However, the wooden pallets that Gatorade relied on caused lots of problems. Out-of-spec pallets forced workers to spend time sorting out the "bad" ones. But even with this check, pallets with broken boards, protruding nails, or variations in size or shape would get jammed in the palletizer (the equipment that automatically loads product cases onto the pallets). Sometimes, entire pallet loads would crash to the floor, causing expensive losses, time-consuming clean up, and slip and trip hazards.

"The new pallets exceeded our expectations; our costs are lower, the plant is more efficient, plus it's good for the environment."

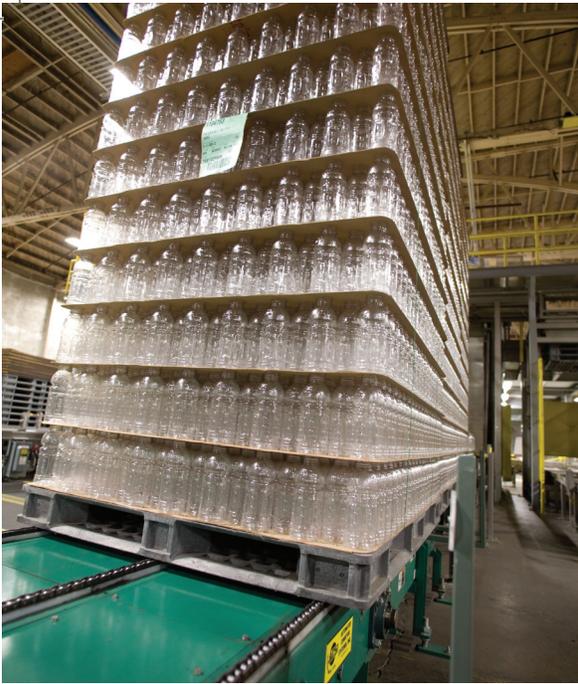


BRIAN FINEGAN, Process Improvement Engineer, QTG Division

Gatorade chose pallets with an interlocking pattern that increases stacking stability and makes it easier and safer to store and transport empties.



Helping Make Business Sustainable



PepsiCo's Gatorade Plant

Solutions

Switch to leasing reusable plastic pallets to reduce product damage, lessen equipment downtime, eliminate refused shipments, and prevent wood waste.

"We didn't anticipate how much the switch to plastic pallets would improve worker safety, which is our #1 priority."

BRIAN FINEGAN
QTG Process Improvement Engineer

► StopWaste Partnership Reusables Campaign

StopWaste offers educational workshops and resources to help businesses make the switch to reusable transport packaging. Learn more at www.UseReusables.com.



The StopWaste Partnership

The StopWaste Partnership is a free technical assistance service dedicated to improving the environmental performance and reducing costs of Alameda County businesses and public agencies. The program provides expert support and funding to prevent waste, conserve water and energy, and use all resources more efficiently.

Helping Make Business Sustainable

Reusable Plastic Pallet Conversion

Because the cost of leasing plastic pallets was the same as for wooden pallets, Gatorade didn't incur an increased expense. The only new cost came from replacing two photo sensors on the palletizer to properly read the new pallets, which was less than \$1,000. But would the plastic pallets address the performance problems? To find out, Gatorade switched over one of their production lines and staged a 6-month feasibility trial. The results were so positive that a year later both production lines were converted to the new, more durable pallets.

Performance

Fourteen months since the transition, there had been no equipment downtime or customer-rejected loads related to pallet quality. Because of increased durability, consistency, and quality, the pallets no longer slide off conveyers and crash to the floor, which has reduced product losses and improved worker

safety. The conversion has also reduced dust and debris in the plant, improving sanitation. Labor is no longer wasted sorting out bad pallets prior to loading. Plus, the new pallets are 30 percent lighter, which facilitates handling and uses less shipping fuel. Gatorade has gained environmental benefits too: The plastic pallets have reduced solid waste, conserved natural resources, lowered CO2 emissions, and are 100% recyclable.

Third-Party Pooling

The Gatorade plant leases pallets from a third-party pooling company. The vendor delivers large quantities from its depot in Hayward to the Oakland bottling plant. The finished product gets loaded on the pallets, then a third-party fleet ships them to a distribution facility in Tracy. Customers pick up directly from the distribution center. The leasing company collects empty pallets from customers and backhauls them to its Hayward depot, where they are inspected and sanitized to complete the cycle.



The bottom line:

- Prevents \$320,000 a year in damaged product
- Minimizes equipment downtime, saving \$40,000 a year
- Reduces the labor needed to sort out bad pallets by \$20,000 a year

Visit www.StopWastePartnership.Org.