

Simplot switches to sustainable pallets

Potato giant gains quality, safety, efficiency, and sustainability benefits with aluminum pallets.

J.R. Simplot (www.simplot.com) one of the world's largest private food and agribusiness companies, recently made a change in the pallets it uses at its 380,000 square-foot processing facility of in Caldwell, Idaho.

At any given time, more than 20,000 pallets are in circulation for transporting finished products—from frozen French fries and veggies to packages to be used in prepared meals—between finished product packaging, frozen storage, and shipping docks. For rail shipments, product is removed from their pallets via slip-sheets into railcars using a push/pull system; for truck-loading, product is similarly removed from their pallets and transferred to inexpensive shipping pallets.

In all cases, the use of wood pallets created challenges that, for a facility operating under a continuous improvement program, begged for a solution.

“Wooden pallets can be challenging because as they age they leave wooden pieces everywhere, and you’ve got to repair and/or replace them frequently,” says Gary Bleazard, project engineer. “Even with very careful handling, wood can splinter and penetrate cases and packages, creating the potential for foreign material to enter the product.”

A wood pallet with even a little bit of damage, such as splintered or broken planks, could introduce foreign material into the production line, leading to compromised product and jammed conveyors and other machinery, resulting in increased food safety risks and unplanned downtime. Preventing these risks required constant vigilance, and resulting in the plant deploying one person working 24 hours a day “whose job it was to do nothing but inspect and sort pallets,” Bleazard says. Pallets that couldn’t be rotated from the dock back to the plant were sent to an outside vendor for repairs, and pallet would be repaired many times—some more than 10—until repair was no longer an option. Additional labor was also required to keep the facility clean and clear of wood debris, again, to ensure food safety compliance and maximum productivity.

We have wooden pallets that have been in operation for 3+ years as they are stamped. They may have been repaired 10+ times.

Solution

This problem was discussed in the plant as well as with the Food Group management team, which reviewed the problem and agreed the plant should seek a solution. The team evaluat-

ed the pros and cons of using corrugate, plastic, and aluminum pallets, and chose aluminum for several reasons. These included greater service life; easier cleaning; much-reduced risk of bacteria and insect harborage; and elimination of screws, nails and other hardware that can come loose and present risks to products and to food safety overall.

One possible solution was to install pallet-switching machinery to transfer product in storage to non-wood pallets specifically for use in the packaging area—and transfer finished product back to wood pallets for storage. However says Bleazard, “Once we analyzed the pluses and minuses, we settled on aluminum throughout the facility, even for storage.”

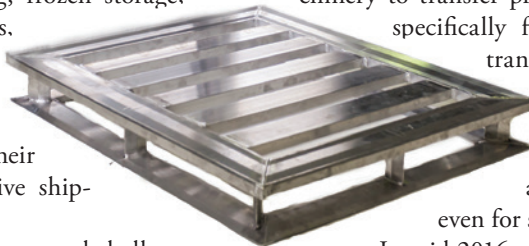
In mid-2016, the plant replaced all 20,000-plus wood pallets with aluminum pallets from Aluminum Industries (www.aluminum-pallet.com), Shawnee, Kansas, leading supplier of high quality, custom engineered aluminum pallets and material handling systems. Going forward, wood pallets are banned from the Simplot plant, used only for outbound shipments leaving the docks.


Benefits & results

The use of aluminum pallets has reduced the labor of inspecting and maintaining damage-prone wood pallets, while reducing bottlenecks and other downtime incidents. Food safety and product quality compliance are also enhanced through the absence of damage-prone wood and the structural robustness of aluminum. The new pallets have also eliminated Simplot’s practice of applying extra fire protection to pallets.

“We’ve done extensive analysis, and cost was certainly part of calculations,” says Bleazard, “but the main drivers were food safety and more efficient operations.” that said, a favorable Total Cost of Ownership is expected. Additional advantages, seen and unseen, include significant cost avoidance through the prevention of production stoppages and food safety incidents that have a significant impact on the financial health of the company, its supply chain partners and a global marketplace of end-consumers.

In addition to being economically sustainable, the new pallets are also environmentally sustainable. Unlike the old wood pallets, which regularly make their way to the local landfill in whole or in parts, aluminum pallets have a practically endless service life that’s potentially measured in decades. Once they reach the end of that life, aluminum pallets, which themselves





may be made of recycled aluminum, can be sold to recoup an estimated 20 percent of their initial cost—in contrast to wood pallets and scrap wood, whose resale value is just shy of nil.

The many small benefits of this solution add up, and reflect how the Simplot brand's 90-plus years of success, commitment to sustainability and food safety and are reflected in daily operation today and into the next century.