

Never Refuse to Reuse

Guidelines and best practices for the safe handling of reusable containers throughout the food supply chain

BY TIM DEBUS



There is a longstanding and remarkable history to the reuse of transport packaging in carrying and delivering farm harvests, food ingredients, fresh and processed foods, and beverages for human consumption. From the ubiquitous milk crates to bread trays, from liquid shipping bins to ready-to-display produce containers, reusable packaging has been used for generations around the world to transport dairy, meats, seafood, fruits and vegetables, grains, and other food staples. Billions of reusable packaging products are used each year in North America alone to bring fresh and nutritious foods safely from growing regions to consumers.

More growers, retailers, and other users in the food supply chain are adopting reusable transport packaging because it can provide superior performance and product protection, lower supply chain system costs, and reduce the environmental impact of packaging, among other benefits. And the global governmental policy emphasis on a low-carbon economy and a growing ecologically-conscious public will likely encourage further expansion of reusable packaging in food applications. As an

example, the market research firm Mintel published its “[Global Packaging Trends for 2016](#),” suggesting that consumers will increasingly turn to “reusable and repurposable packaging,” citing 63 percent of U.S. consumers believing this to be a “key purchasing driver.”

With the continued growth of reusable packaging applications in the food supply chain and with greater attention on food safety compliance following the implementation of the Food Safety Modernization Act, leading suppliers and users of reusable packaging took action to strengthen the established record of safe use with these products. In 2014, the industry’s trade organization—the [Reusable Packaging Association](#) (RPA)—formed a Food Safety Working Group to document a uniform set of standards and best practices for the handling and cleaning of reusable containers for use with food, including fresh produce, meat, eggs, and other perishables items.

The Food Safety Working Group consisted of retailers, grower-shippers, manufacturers, industry associations, and packaging suppliers for broad representation and coverage of the food supply chain.

The group spent a year thoroughly reviewing and researching performance criteria, potential points of failure, best practices, and industry regulations. Key references and guidance came from established food safety models and resources such as Hazard Analysis and Critical Control Points (HACCP), Good Manufacturing Processes (GMPs), the Global Food Safety Initiative (GFSI), and the U.S. FDA’s codes for food contact substances and packaging.

In March 2015, the RPA group completed its initial project and issued the document, “[Guidelines and Best Practices for the Safe Use of Returnable Containers in Food Supply Chains](#).” These science-based recommended protocols encompass the washing, handling, storing, packing, labeling, displaying, and collecting of reusable containers.

RPA’s guidelines examine nine activities of the supply chain, encompassing the touch points for the reusable packaging and addressing areas for cleaning and monitoring. Activities include: maintenance and surveillance of food safety programs, food defense through secure operations, sanitation during washing, product protection during transport, proper receiving methods, product storage protection, sound return practices, compliance to use instructions, and effective testing protocols.

The guidelines extend to all users in the supply chain, including suppliers of the reusable packaging, growers and packers of the food product, and retail operations that distribute and handle the packaging.

Guidelines for Retailers

For retailers, the handling practices of reusable containers are important to ensure the integrity of the next use phase in the food distribution system. This is counter to the mindset and approach for one-way packaging in which disposal for waste or recycling is the end activity. For reusable packaging, there is not an end activity, but rather a return process to prepare and re-position the container for a new use in a continuous cycle.

Many retailers who are experienced in reusable containers educate and train employees down to the store level on the proper handling techniques and re-

quirements. Retailers understand that effective and timely handling of reusable containers contributes to the whole cycle of performance, which benefits the retail operations and ultimately leads to greater customer satisfaction. Suppliers of reusable packaging often assist in this training by providing poster instructions for display in store backrooms.

The RPA guidelines document the best practices at retail. A significant component of the recommendations addresses practices to limit preventable contamination of used containers. Employees of retail stores should remove any trash from the used containers and fold them following their use. When storing used containers, retailers should reserve a single pallet footprint in the backroom where the containers can be stacked in a uniform and interlocking manner. The containers should be stored in a secured area where they are free from tampering as well as exposure from accidental contaminants.

Another important area for proper handling at retail is the compliance to labeling of the containers. As the use of adhesive labels has become more prevalent in the supply chain, the RPA created a task force to test and establish standards for adhesive labels with the goals of improving food safety, minimizing damage to the container and wash equipment, reducing the cost of labels and residue removal, and increasing label removal quality and efficiency. It is recommended that no additional labels or stickers are added to the containers beyond the legal product label that was affixed at time of packing and accompanies the container through the entire supply chain.

Once the containers have been used, folded, and stacked on the pallet for return, the single pallet should be filled and wrapped tightly when the total height reaches 72 inches, or a height designated by the RPC provider, to maximize loading and transport efficiency. Any broken containers should be separated and stacked on a separate pallet and marked as broken.

Retailers should notify their container provider when they have more than one pallet ready for return. Many retailers have scheduled weekly pickups. Regular

store pickups and relocation of the reusable packaging to points of collection by the container suppliers will ensure timely and effective reuse. Also, all used containers need to be returned to the provider for sanitation—they should never be reused at the retail store.

Guidelines for Packaging Suppliers

The reusable packaging industry in North America follows rigorous cleaning and testing methods and deploys advanced industrial washing operations that meet or exceed regulations established by U.S. and Canadian government agencies, where applicable. Commercial cleaning operations involve multifaceted steps and techniques in preparing a container for re-



use. Factors such as heat, detergents and sanitizers, water pressure, and the time and sequence in which they occur, play a critical role in cleaning.

The most detailed and numerous RPA guidelines affect suppliers who also provide the cleaning service. Critical control points in the wash process are temperature control and chemical concentration of the cleaning and sanitizing agents. The wash process should follow GMPs. These GMPs cover equipment, utensils, water, plumbing, waste, and physical facilities. When combined with proper employee hygiene and food defense practices, these GMPs form the core of a sound wash operation.

One of the more noteworthy best practices is the adoption of a comprehensive microbiological sanitation and testing regime that covers human and plant pathogens in all aspects. This includes digitally

dosing and controlling detergents and sanitizers. Thresholds and parts per million (ppm) should strictly follow chemical manufacturer guidelines for food and food contact materials. Redundant electronic and manual processes should ensure these parameters are always correct.

The guidelines also provide uniform testing and surveillance practices to ensure the quality and food safety of a company's sanitation processes. Practices include: systems check log, titration log, surface swab tests, process validation, and preoperational environmental inspection release. The RPA recommends that testing occur hourly, daily, monthly, and quarterly in order to record and monitor a statistically significant sample size representative of the entire production.

Suppliers of the reusable containers should adhere to HACCP procedures to control biological, chemical, and physical hazards in the production process. It is further suggested that companies maintain a trained and qualified individual to monitor compliance with HACCP program.

What's Next?

The reusable packaging industry takes food safety seriously, striving to incorporate the most advanced systems and technologies to deliver on this requirement and to instill confidence behind these products. Food safety is not a competitive issue, and members of the RPA will work together in a culture of continuous improvement on the recommended best practices. RPA will monitor developments in research, advancements in cleaning equipment and tools for optimum effects, and extend partnerships across the supply chain to achieve maximum exposure and compliance.

Safe use of reusable containers depends upon the diligent efforts and food safety commitment of all parties throughout the distribution chain. RPA encourages all members of the supply chain involved to implement the recommendations and guidelines in order to continue the safe production and handling of foods in reusable containers. ■

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