

TECHNOLOGY

SN SPECIAL REPORT


About 50 U.S. stores are using the PureCart system to sanitize shopping carts.

Germ Busters

Faced with growing concerns about potentially germ-ridden shopping carts, some retailers are swapping cart wipes for high-tech cart cleaners

By **MICHAEL GARRY**

The shopping cart, the seemingly harmless conveyor of merchandise around the store, is apparently more dangerous than one might suspect.

Over the past several years, evidence has been mounting that, given the thousands of hands that push it every week, the many babies and children who sit inside it, and the potential for meat and poultry juices to drip on it, the shopping cart is a more-than-ordinary source of germs. Left unsanitized, some researchers say, the cart can potentially threaten the health of consumers and compromise the integrity of foods placed in it.

According to one study published in 2007 by the Department of Soil, Water & Environmental Science at the University of Arizona, 73% of sampled shopping carts tested positive for coliform bacteria. "The high numbers of bacteria and coliform bacteria on shopping carts indicate extreme unsanitary conditions of the carts

compared to other public places and surfaces that the general public comes into contact with," said the study.

Apart from academic studies, the accumulation of high-profile media reports on foodborne illnesses and the threats of bird flu and swine (H1N1) flu "have people worried about germs in public places," said Jim Kratowicz, president of PureCart Systems, Green Bay, Wis. On the other hand, it is by no means universally accepted in medical circles that consumers should be particularly concerned about exposure to shopping carts.

Since shopping carts fall outside the regulatory reach of the Food and Drug Administration and the U.S. Department of Agriculture, food retailers have been left to their own devices when it comes to keeping the carts clean. Most carts are subject to periodic washing and maintenance by store employees or outside contractors, but few retailers regularly sanitize them. Many stores



— exact numbers are hard to come by — offer shoppers anti-bacterial wipes near the cart racks to wipe down the handle or other cart parts.

But now retailers intent on ensuring that their entire shopping carts are kept germ-free on a regular basis can consider several new cart-cleaning systems. The system that has so far gained the most traction is PureCart, a kind of “mini-car wash” made by PureCart Systems. About 50 stores are using it, half starting in the past year, said Kratowicz, including 15 stores operated by Bhasas’, Chandler, Ariz.

Another cleaning system is the portable ICS 8900 from Hydro Systems, Cincinnati, which sprays the cart with a fine mist. It is being tested this year by three supermarket chains, said Chris Torry, ICS sales manager. Hydro recently commissioned an independent test showing the system is effective in removing microbial soil, bacteria and fungi from a shopping cart.

Meanwhile, Hart’s Family Center, a one-store operator in Eureka Springs, Ark., has been testing the Sanicloud cart-cleaning system from Sanitize Systems, Rogers, Ark., over the past seven months. This self-operating system consists of a pumping station and a set of stainless-steel tubes that run along the shopping cart corral and release a fine mist that cleans the carts.

Taking a much different approach from the other suppliers, Kart-Smart, Port Huene, Calif., has developed a plastic cover that shoppers attach to the handlebar of a shopping cart. While protecting shoppers from germs, the covers can display advertising messages as well. A few California grocery chains are evaluating the covers, said Sal Alvarez, chief executive officer of Kart-Smart.

FIBERGLASS ENCLOSURE

The PureCart system has drawn attention for its car-wash-style structure, a fiberglass enclosure that a shopping cart, guided by an employee, enters on one side;

a few seconds later, it emerges at the other side, sanitized of bacteria like E. coli, salmonella and listeria, as well as yeast, fungus and mold, according to PureCart Systems.

Inside the enclosure the cart is sprayed with a fast-drying mist whose main ingredient is peracetic acid, which is safe “for human and food contact,” said Kratowicz. The chemicals are stored in a separate holding tank connected to the cleaning unit. The company also provides a portable hand-misting unit, but most retailers are using the push-through system.

Bhasas’, which recently filed for reorganization under Chapter 11, has been testing the PureCart system for two years, “with the possibility of rolling it out further” once the chain resolves its financial issues, said Ralph Woodward, senior vice president of retail operations for the chain. The chain, which is also interested in testing PureCart’s handheld unit, puts the enclosed system in a central spot outside the store.

An early provider of hand wipes for cleaning carts as well as hand gel for consumers and employees, Bhasas’ views the PureCart “as maybe the next step in the evolution from the wipes,” said Woodward. “It cleans the whole cart and takes the responsibility away from the customer.”

Woodward acknowledged that it’s hard to really know how dirty shopping carts are. “But I do know that customers like knowing the carts are clean,” he said. “With customers today, food safety and cleanliness are more of an issue than ever. So the assurance of cleanliness is an important part of the process.”

Though Bhasas’ has not promoted PureCart, the system tends to generate local and national publicity. The chain has attracted new shoppers who said they came because of the system, and it may help in retaining some shoppers, Woodward said. “We haven’t measured the effect, but customers seem to like and appreciate it.”

Woodward said the system’s ability to enhance the shopping experience and at-



The Sanicloud system (above) sanitizes carts every 30 minutes. The Hydro Systems cleaner (below) disinfects carts as well as other areas of the store.



tract new customers is important in justifying the cost of leasing it, which runs about \$7,200 per year.

Potter’s Piggly Wiggly, a one-store independent in Oak Creek, Wis., has been leasing PureCart for about 2½ years. It’s kept in the vestibule leading into the store in the winter, outside the rest of the year, said Chuck Potter, the store’s owner, who noted that employees can push up to 10 or 12 carts through the system at one time. His customer have received it “very favorably,” said Potter, adding that he is “very happy” with the system.

Potter still arranges for his carts to be pressure washed once or twice per year to remove built-up grime. While the PureCart system sanitizes the carts, it doesn’t get rid of that kind of dirt, he said. But the PureCart system has made it unnecessary to continue offering hand wipes, which Potter had done for several years.

One retailer that tested PureCart for six months in one store but then didn’t go forward with it is Gerrity’s, a nine-store chain based in Scranton, Pa. “The big-

gest snag was that we didn’t have room for it in our vestibule in the winter,” said Joe Fasula, co-owner of Gerrity’s. “Winter is cold and flu season when it makes most sense, and we couldn’t use it then.” He also cited the cost as another factor. His stores do offer cart wipes, which cost about \$1,000 per year per store.

MULTIPLE USES

Hydro Systems, which has a long heritage selling sanitation dispensing systems to chemical manufacturers that supply supermarkets, decided to market its portable, battery-powered ICS 8900 spray system directly to stores at the end of last year; it uses the same cleaning chemicals supplied by those manufacturers, found also in cleaning wipes. Priced at about \$2,000, the ICS system sanitizes carts by spraying a low-pressure, human- and food-safe mist that sits on the surface and air dries; it can also clean heavily soiled kids’ carts.

The three chains testing the ICS system are applying it to shopping carts as well as other areas. “Our system not only sanitizes carts but

also display cases, restrooms, food-prep equipment and anywhere in the store where you want to maintain a clean environment for the consumer,” said Torry.

In Arkansas, where two years ago a bill was passed encouraging grocers to provide sanitary wipes to customers, Hart’s Family Center has served as the pilot store for the Sanicloud cart-cleaning system from Sanitize Systems. “It’s the most innovative thing I’ve ever seen for sanitizing carts,” said Jay Galyen, general manager of the store.

The tubular system is programmed to release a five-second spray of fast-drying peroxide mist every 30 minutes over the store’s two racks of shopping carts set up in the front. The cost of the system is about \$5,000, plus \$25-\$50 per month for refills of the cleaning chemical.

Customers are not bothered by the non-toxic mist, Galyen said. “We explain what it is and they thank us for doing it. Some people drive here from the next town over because of this.” The store previously offered cart wipes, but only 5% of shoppers used them, he said.

Ryan Johnson, president of Sanitize Systems, said he will be upgrading the Hart’s installation to a new version of the system he recently installed in a store in New Zealand. He is developing a dealer network to market the system in the U.S.

Like wipes, the Kart-Smart handle cover is designed to be offered to shoppers as they enter the store. Taking off an adhesive backing, shoppers simply put the cover on the handle, and pull it off at the end of the trip for recycling. He is offering a two-color version with the retailer’s name for 5 to 6 cents apiece, 250 per box.

In addition to the more high-tech cart-cleaning devices, Alvarez is competing against a number of companies marketing cart or handle-covering products online to consumers. He is positioning his product as “the best protection for swine flu while shopping.” **SN**