FOOD

The ins and outs of recycling all of those supermarket plastics

By **Ann Parson** Globe correspondent, Updated July 4, 2023, 12:00 p.m.

So much of what we buy at the grocery store comes packaged in plastic. And yet so little of that plastic gets recycled. JIM DAVIS/GLOBE STAFF

A familiar scenario? You've picked clean a rotisserie chicken, and now you want to recycle its clear plastic dome and black base. Most every plastic container you bring home from the supermarket has a small triangle on its underside, a "chasing arrows"

symbol with a number (1 through 7) that signifies the container's type of resin. Some are recyclable, some aren't.

You're dimly aware that #1s (PET) and #2s (HDPE) are recyclable. Your container is marked with a barely readable #5 — but what does that mean? Since you hate how plastic waste is messing up the planet, you lob the tomb-shaped container into your blue recycling bin, hoping it will get reformed for reuse.

People do this so much, there's a name for it: "wish-cycling." The alternative, putting plastic in the trash, feels morally reprehensible. It's toxic petrochemical waste; it will sit inertly in a landfill for eons, without even worms crawling in and out.

Yes, #1 containers (soda and water bottles) and #2s (milk jugs) can be recycled, and, it turns out, so can some #5 plastics (juice bottles, butter tubs, yogurt cups). These items are recyclable mainly because solid markets exist for turning their materials into new products. The problem is, the chasing arrows logo on every container leaves the impression that all containers are recyclable, which is not true.

"These symbols often are lying to the public. It's a confusing system, and should be overhauled or deleted," said Scott Cassel, CEO of Product Stewardship Institute. "The consumer needs clear, consistent, accurate information."

In fact, regulators are finally rethinking the chasing arrows, which, introduced by the plastics industry in 1988, has lent to so much confusion and greenwashing. In May, the EPA asked the Federal Trade Commission to replace the symbol with better messaging, while California has new legislation that ensures the symbol's use only on fully recyclable packaging.

The reality is, as much as we might wish for a second life for single-use plastics, most plastic isn't recycled due to technological inability or consumer laziness. In the United States, less than 6 percent of plastic waste was recycled in 2021, according to a report by Beyond Plastics and The Last Beach Clean Up, while 80 percent was landfilled and 14

percent was incinerated or spilled into the environment. Plastic “can only be recycled once or twice before it becomes something like clothing or carpeting, which ultimately ends up in a landfill or is incinerated,” said Melissa Valliant at the environmental group Beyond Plastics.

That so little plastic gets recycled “can be surprising to consumers, who’ve been told for decades by the plastic industry that plastic is recyclable,” said Valliant. Recycling, moreover, “isn’t going to tackle the plastic pollution crisis. To effectively curb it, we have to stop using so much unnecessary single-use plastic.”

It can make a difference if the food shopper assumes the role of an ambassador for sustainability. By purchasing only fully recyclable plastic products and avoiding non-recyclable others, you can send a strong message to a manufacturer, said Gretchen Carey, president of MassRecycle and sustainability manager of the New England Region of Republic Services.

Shop wisely, she suggests, by getting away from the confusing resin numbers and adopting this rule: “If it’s a plastic container with a lid and fits in your hand, I’m happy to have it.” she said, referring to items sorted by a Materials Recovery Facility (MRF or “murph”).

One category of nonrecyclables to avoid are plastic films — like the notorious grocery bag. BYUN, YOON S. GLOBE STAFF

“I don’t want your Styrofoam, plastic bags, or PCV pipe. I do want your water bottles, soda bottles, peanut butter jars, and margarine tubs. If you stick to containers with lids, you’re going to get it right 99 percent of the time.”

Containers need to be clean and empty. Even a little jam left in a jar might make the jar too heavy to sort properly. Also, leave caps and lids on containers. Otherwise, small bottle caps will fall through the grate at a MRF and require the added expense of transport to landfill.

Can a plastic straw go into your blue bin? (No.) Most every item’s recyclability can be checked in Recyclopedia, the search tool created by RecycleSmartMA. Had you looked up a rotisserie chicken’s black base, for instance, you would have discovered that, despite its #5 code, it’s not a candidate for recycling, because black plastic cannot be seen by a MRF’s optical sensors that separate plastics.

One category of nonrecyclables to avoid are plastic films — like the notorious grocery bag. These “tanglers” can wrap around a MRF’s spinning machinery and stop the line. The good news is that today most supermarkets in Massachusetts have bins near the front door where you can return all types of films — grocery and bread bags, plastic wrap, ziplock bags, air pillows. They eventually get transported to TREX, the Virginia-based company that recasts #2 (HDPE) and #4 (LDPE) films into decking and furniture.

Polystyrene (#6 PS) is another recycling no-no. Increasingly, communities across Massachusetts are restricting the use of both forms, rigid and foam. Styrofoam is so lightweight and crumbly, there’s no financial model to support its recovery, and under certain conditions it can leach styrene, a toxic hazard for all animals. Note that the World Health Organization recently reclassified styrene from a “possible” to a “probable” carcinogen.

Flexible packaging also defies recycling. Found everywhere in the supermarket, these crinkly, collapsible bags, which hold everything from dried fruit to pet food, are amalgams of multiple plastics (like polyethylene, polyvinyl chloride, and polypropylene), paper, and aluminum. (Vinyl chloride is the same highly toxic plastic that was released during a train derailment in February.)

“Only 4 percent of flexible packaging is being collected, yet it represents 19 percent of all packaging and it’s growing, because it’s meeting a consumer demand,” said Cassel. “The flexible package industry, they have a responsibility to find out how to recycle it.”

Making the manufacturer responsible (known as EPR, for “extended producer responsibility”) for any packaging they put on the market, Cassel believes, is where the future lies. In respect to the plastic waste piling up, “Ultimately, we can’t drive ourselves crazy. Because it’s not up to the consumer. No, it’s the manufacturers, they should be penalized for nonrecyclable packaging they put on the market.”

Environmentalists caution that chemicals in bio-plastics can be as hazardous as those in conventional plastics. As for “compostables,” Carey requests that you add them to your

own compost pile, “not my blue bin, please. They don’t mix well with petroleum-based plastics when they get melted down to make the next product.”

While traditional recycling is all about sorting, chipping, and melting plastics into new plastic products, the fast-developing field of chemical recycling can break down an assortment of plastics into fuel and other raw materials. But critics say it releases worrisome amounts of pollutants and turns a blind eye to the plastics pollution crisis.

“Even increasing our recycling rates isn’t going to keep up with the amount of plastic waste being generated,” said Valliant, who compares the situation to an overflowing bathtub. “Recycling is like mopping while the tap is still on. It makes no sense.”

“We need to go back to my grandmother’s day and the reusable milk bottle. The best solution to single-use plastics are reusable and refillable alternatives.”

Show 14 comments

©2023 Boston Globe Media Partners, LLC