

## What Fine Dining Looks Like With Absolutely No Plastic

A Washington, DC, chef is working to banish plastic entirely from his restaurant, and craft a cost-benefit analysis for other restaurants working to do the same.



The modern fine-dining plate is enabled by plastic. The artful sauce squiggles? They're delivered via plastic squeeze bottles. Those otherworldly food shapes? Crafted by silicone molds. And that's not counting the many plastic implements that never touch the plate: spatulas, cutting boards and plastic-handled knives and pans.

The restaurant industry's reliance on plastic "has become more and more drastic over the years," says Edward Lee, a former Iron Chef America contestant whose book *Buttermilk Graffiti* (Artisan, 2018) won a James Beard Foundation Book Award. "It's not necessary. It's just that it's so convenient and it's so prevalent and it's everywhere that we don't even think about it."

At Shia, his new nonprofit restaurant in Washington, DC, Lee is doing far more than just thinking about plastic use. The Korean outfit, which opened in November, is working toward eliminating the stuff entirely. Staff pour sauce out of a metal pitcher like the ones baristas use to heat milk at coffee shops, and spoon food into natural-looking

mounds. Instead of donning disposable gloves, they wash their hands more often. Shia is part of a global push to make fine dining more sustainable. While many chefs have been tackling the food on the plate — reducing meat offerings, growing their own ingredients or sourcing from sustainable producers — some are now replacing gas ranges with electric alternatives and switching to recycled tableware.

Over the past few years, the Michelin Guide has been doling out green stars (distinct from standard Michelin stars) to restaurants “that combine culinary excellence with outstanding eco-friendly commitments,” according to the publication’s North America chief inspector. Its list now tops 600 recipients.

Restaurants contribute to the hundreds of million tons of plastic waste produced every year, the vast majority of which is not recycled. In addition to generating greenhouse gas emissions, plastics shed tiny particles that have been found everywhere from clouds to human brains.

Lee, who owns restaurants in Kentucky and Washington, DC, considers every item within them an ingredient, trash cans and coat hangers included. “We’ve always tried to be sustainable in the food aspect of it,” he says. “Why wouldn’t we be as careful and thoughtful about those ingredients as well?”

At Shia, which can seat 35 people at a time, that started with compiling a detailed inventory of common plastic items in restaurants. Lee’s team then documented how staff usually use those items — and how much they cost — in order to stack them up against non-plastic alternatives.

Their initial findings are outlined in a report published last month in collaboration with OpenTable. “Our mission is to determine if the elevated costs of going Zero Plastic are sustainable for a broad spectrum of restaurants and if consumers are willing to bear these added costs,” it explains. The document is nearly 100 pages long.

Take cling wrap. A Shia-sized operation would go through around six rolls a month to cover containers of prepped food, at a cost of roughly \$210. Muslin, a cotton fabric, is about \$40 to \$150 per month, but that’s after spending up to \$750 on the first batch and without taking into account the expense of washing, drying and folding.

Cheesecloth runs about \$100 to \$300 a month, but its loose fibers sometimes end up in food and securing it is cumbersome.

On a recent tour of Shia’s kitchen, most perishable food was packed in butcher paper or in metal trays with handwritten labels on painter’s tape indicating their contents. (Instead of disposable Sharpies, they use refillable markers.) The restaurant already buys rice in paper bags from Korea, and honey in glass jugs from a local farm — though eliminating all incoming plastic from suppliers is a challenge that the restaurant plans to tackle next year, says Lee.

One other big adjustment wasn’t as apparent when strolling through the kitchen: a switch to a just-in-time approach to food delivery and prep work that cuts down on storage needs. Cooks whip up vinaigrette on the spot rather than prepping it in big batches. Instead of freezing meat in vacuum-sealed bags, they cook it fresh. Making changes that require extra labor isn’t difficult, Lee says, but it is inconvenient. Even when he and his team found reasonable substitutes for plastic — glass

containers to store staples such as grains and dry fruit, for example — they've had to adapt.

"Every time we reach for that container, if we drop it, we don't just lose the ingredient. We make a huge mess of broken glass everywhere," says Lee. "Things feel a little bit more intentional and we do things with a little bit more meaning."

So far, Shia's staff estimates they've avoided around 230 kilograms to 350 kilograms (510 pounds to 790 pounds) of plastic, or the equivalent of 11,000 to 20,000 single-use water bottles. By the end of this year, Lee is hoping to have a sense of how much more expensive its approach is — which will help inform what costs might be passed on to consumers. The restaurant currently charges \$185 for a seven-course meal. "Would customers be willing to come in and pay a little bit extra for their meal?" asks Lee. "We think, yes."