

AUGUST 2024

PLANT-POWERED CARBON CHALLENGE

ANNUAL REPORT

NYC
Food Policy





THE PLANT-POWERED CARBON CHALLENGE

began with a simple idea: that what we put on our plates can have a positive effect on our environment. Despite the significant overlap between the food system and the climate crisis (after all, over a third of global greenhouse gas emissions come from the food system¹), changing what we eat is rarely seen as a tool for climate action. But what diners demand shapes what the food system supplies—especially in a city like New York, one of the food capitals of the world. Modifying what 8 million New Yorkers consume could have truly monumental impact.

The push towards sustainable diet shifts comes from the recognition that not all foods are created equal; that certain products leave a much larger footprint than others do. For example, emissions from animal-sourced proteins are many magnitudes greater than those from plant-based proteins: twenty times greater, in the case of ruminant meats, such as beef and lamb.² And industrial-scale production of all animal proteins, including poultry, pork, seafood, and dairy, have countless other downstream effects: on the cleanliness of our air and water,³ the resilience of our terrestrial and marine ecosystems,⁴ our ability to prevent global pandemics,⁵ and the health of our most vulnerable communities.⁶

To build a food system that can sustain us and our planet, we must accelerate the global shift towards low-carbon, climate-friendly, plant-powered diets—and that can start right here in New York City.



NYC's plant-powered journey started with a commitment to reduce the city's food-based emissions by 33% by 2030, after an integrated citywide and consumption inventory determined that food was the third largest contributor to the city's carbon footprint.⁷ At the same time, NYC was taking great strides to fight chronic diseases that disproportionately affect Black and Brown communities through expansive lifestyle medicine and access to fresh fruits and vegetables across the five boroughs.⁸ The NYC Health + Hospitals system introduced a default plant-based menu into its 11 public hospitals;⁹ Plant-Powered Fridays became a mainstay in public schools.¹⁰ The City also updated our Food Standards¹¹ to set maximums for servings of red meat and minimums for servings of whole, minimally-processed plant-based proteins (such as beans, legumes, lentils, grains, nuts, and seeds) per week—thus expanding plant-powered menu options across the many agencies that feed our residents every day.

But the food landscape in NYC extends far beyond municipal procurement. New Yorkers are surrounded by food: at our favorite restaurants and corner delis, in our places of employment, at concession stands in baseball stadiums, in the botanical garden we stroll through on the weekends.

We needed plant-forward shifts in the private sector—and that's where the Plant-Powered Carbon Challenge was born.

The inaugural signatories (18 and counting) to the Plant-Powered Carbon Challenge have taken the helm, publicly committing to reduce food-based carbon emissions by 25% by 2030 through delicious, plant-powered food. From local to global, these organizations cut across sectors and scales to demonstrate that diet shifts are a crucial part of any good sustainability strategy. As part of their commitment, signatories measure and track emissions from food procurement data, implement plant-forward shifts in foodservice, and report annually to the Mayor's Office of Food Policy as they progress towards the 2030 target.

It's not a small commitment to make, and it serves as a testament to their willingness to spearhead the food systems transformation in New York City and beyond. And in just the first year since the inception of the Challenge, we have already witnessed their extraordinary efforts to lead NYC in the plant-powered revolution.

MEET OUR SIGNATORIES



THE PROOF IS IN THE (PLANT-BASED) PUDDING



On any given day, approximately 3,000 students on the Columbia University campus sit down for a meal at John Jay Dining Hall. Over the course of a semester, the largest dining hall serves more than a quarter of a million meals—at this scale, making menu changes is quite an undertaking. But it's one that the university takes on with great gusto.

Last December, Columbia University became the first institution to sign on to NYC's Plant-Powered Carbon Challenge. An intrepid student research team, in partnership with Columbia Dining and the Office of Sustainability, investigated the outsized impact of animal proteins on the school's carbon footprint. Students found that although ruminant meats comprised just 13% of John Jay's menu, they contributed to over 70% of the dining hall's carbon emissions from food.

Since then, Columbia Dining has taken a careful look at the role that meat plays in their meal planning. Through strategic menu changes, they've reduced servings of beef on the menu by 30%, and plant-based options are now a

regular feature at most dining hall stations, not just the vegan and vegetarian ones.

But the real success, says the Dining team, has been in their plant-based baking. Over the spring semester, chefs at John Jay began to experiment with substituting plant-based alternatives for traditional dairy products like butter and eggs. The team debuted their first plant-based dessert, an apple strudel, to instant success at their flagship dining event of the year, the Battle of the Dining Halls. (This is no small feat: the Battle is judged mercilessly by student judges and celebrity chefs, and winning teams take home a trophy, a championship belt, and bragging rights for the rest of the year.)





Now, plant-based sweet treats have become the staple at John Jay's dessert station. Next to a traditional dessert, no one would know the difference. Ingredients like whipped tofu can take the place of emulsifiers like eggs without introducing any novel flavors. Oil in place of butter? Hardly noticeable. Plant-based marshmallow topping on a chocolate cake? You can't even tell. In fact, the only students who have noticed the difference are those with dairy allergies who can now enjoy the dessert station too.

“Small, subtle shifts are the key,”

says the Columbia team. Starting with one focal area, like the baking program, has made the Challenge feel more feasible, and further, helped build the confidence to make changes to other menu offerings. This fall, John Jay Dining Hall will launch a brand-new ramen station with a plant-based broth,

and students can add animal protein as a supplement or skip it altogether. Across campus, coffee bars will switch to offering oat milk by default, with dairy milk available on request. And the team will continue to tinker with innovative new plant-based recipes, ready to launch for the new academic year.

Meanwhile, the Columbia Office of Sustainability has been hard at work analyzing the procurement data from each of the dining halls. For a campus like Columbia, with dining halls, cafes, on-site catering, and multiple different vendors, procurement data is vast and can vary significantly between months. Undeterred, the team is building a program that will automate how data is plugged into their emissions calculator, and constructing an iterative dictionary that improves categorization with each successive use.

The early findings are incredibly promising. In just a few months, John Jay has reduced emissions by 12% specifically from beef—a remarkable step in a journey towards a 25% reductions by 2030.

WHAT'S ON THE MENU?

PLANT-POWERED MENUS ARE BACKED BY THE BEST BEHAVIORAL SCIENCE: using gentle nudges to guide diners toward sustainable options. The following techniques are evergreen in almost all foodservice environments, from conferences and catered meals to seated dinners and all-you-care-to-eat dining. With the right choice architecture, diners maintain their agency to choose what they like. It's just that the sustainable choice becomes much easier to make.



SIMPLE SWAPS

Substitute subtle plant-based alternatives for animal-based ingredients that will be unnoticeable in condiments, baked goods, and desserts.



THE CHEF'S SPECIAL

Choose a plant-based dish for the "chef's special," featuring seasonal ingredients and unique flavors.

CHANGE THE DEFAULT

Pre-select a hearty plant-based entree by default for all diners, with the option to opt out and choose a different entree.



CLIMATE-FRIENDLY RATIOS

Offer a minimum of 2 plant-based options for every animal-based one and ensure that plant-based dishes are equally caloric and especially appealing.



PRICE PARITY

Ensure that plant-based dishes cost the same as comparable animal-based menu items (or charge a premium for the addition of animal protein).

ALLERGENS AT THE END

Highlight flavors, ingredients, and textures when naming plant-based dishes in place of titles that lead with "vegetarian" or "vegan"; indicate allergens with subtle icons instead.



ORDER MATTERS

Feature plant-based options first and last, both at serving stations and on the menu.

TRAVEL WITH TASTE

Celebrate cuisines with traditionally plant-forward dishes that are rich in flavor.



EXPLAIN WHY

Communicate with diners about the reasons behind plant-forward menu-ing, particularly when relevant to your organization's mission or goals for social impact.



Signatories are encouraged to utilize comprehensive guides on building plant-forward menus, including Greener by Default's Resource Guide,¹² the World Resource Institute's Food Service Playbook for Promoting Sustainable Food Choices,¹³ and the Menus of Change Protein Flip from the Culinary Institute of America.¹⁴

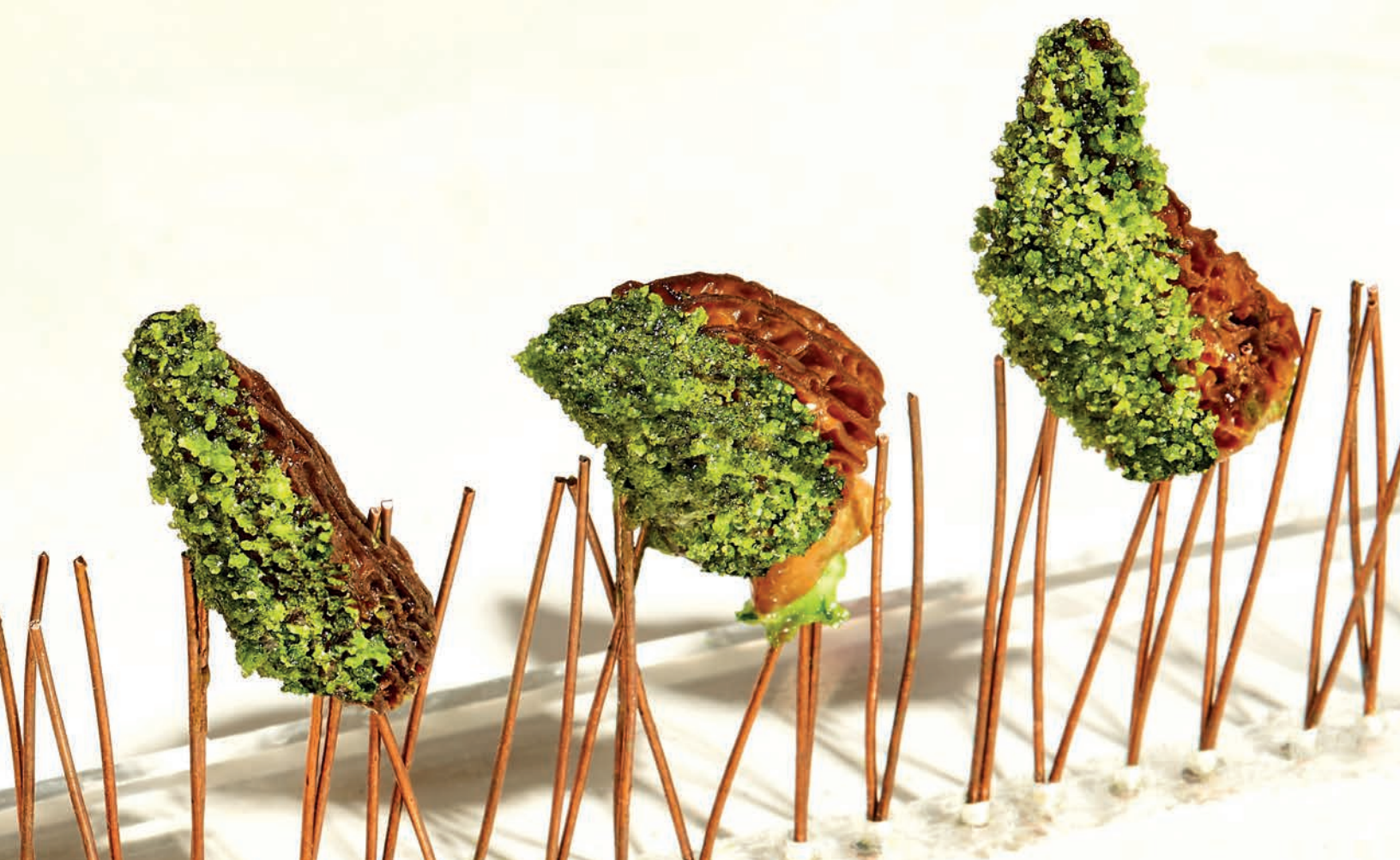


BUSY BEING GREEN

At the height of the summer months, the team at Thomas Preti Events is busy. In the first two weeks of June, they catered six weddings, six gala dinners, four all-day conferences, three mitzvahs, two engagements, two birthday bashes, an evening cruise, . . . and a partridge in a pear tree. They're busy, but not too busy to ensure that the staff manning these events are just as cared for and well-fed as their guests. In fact, they have dedicated culinary staff to cook for the 1,600 staff shifts on-site at their events, not to mention hundreds of commissary and office staff, vendors, techni-

cians, performers, and planners.

This spirit of hospitality echoes throughout the entire Thomas Preti Events to Savor operation—if you call them on the phone and are put on hold, founder Thomas Preti reads you the recipe for his beloved tomato chutney; if you have to wait too long, he offers to send a jar right to your door. It's a part of their mission to build a company that's good for both people and planet: sustainable events are what they do. And it's also why signing on to the Plant-Powered Carbon Challenge was a no-brainer.



Implementation started in-house, by simply removing ruminant meat from staff meals, both on-site at events and at family lunch in their Long Island City commissary. In just those two weeks of June, meals without ruminant meat diverted 6,307 kilograms of CO₂e—equivalent to, the culinary team proudly calculates, close to 7,000 pounds of coal burned, more than 16,000 miles driven by a gas-powered vehicle, 104 trees planted and grown for 10 years, and over 7 acres of forests sequestering carbon in a year. By 2030, the carbon savings will run into the millions.

The Preti sales team even takes their commitment to the front of house. In conversations with clients looking to cater an event, staff will gently nudge clients to reconsider the default entrees and choose lower-carbon options. Seated dinner menus now list plant-based and carbon-friendly options first and last, and optimize the ratio of plant-based to animal-source proteins in each menu section.

Best of all, this approach to sustainability seems to resonate with the entire staff, a team of diverse, multi-generational folks ranging from decades-long veterans to a new generation of event professionals. “It’s one of the many reasons I love Thomas Preti Caterers,” says Sharon, a long-time event server. “The efforts they make to be sustainable in their practices makes me proud, since I do all I can to leave less of a carbon footprint as an individual . . . I love seeing when individuals and businesses make efforts and do more.”

THE RECIPE FOR CHANGE



STEP 1: Organizations interested in joining the **Plant-Powered Carbon Challenge** start a conversation with the **Mayor's Office of Food Policy**. Together, they evaluate the organization's specific food environment, coordinate with food vendors and suppliers, determine procurement data needs, and understand how the Challenge aligns with existing sustainability initiatives.



STEP 2: Organizations sign on to the Challenge and commit to a 25% reduction in food-based carbon emissions by 2030. They define the scope of their commitment and set a baseline year based on the best available procurement data.



STEP 3: Signatories build an action plan specific to their food environment and utilize **Greener by Default's** complimentary services to target the most effective strategies for plant-forward menuing and emissions reduction.



STEP 4: Signatories implement the action plan and track emissions year over year using the **World Resources Institute's Coolfood** calculator or another calculator of choice.



STEP 5: Signatories report on their progress annually to the **Mayor's Office of Food Policy** and modify the action plan as needed to stay on target for 2030. The Mayor's Office will aggregate and consistently report on collective progress towards the 25% reduction goal.



TRANSFORMING THE FOOD SYSTEM is not a task to take lightly. The journey spans geographies and generations of actors, working together on solutions that address each aspect of the food system—from farm to table (and back to the soil). To that end, making changes to what we eat may be only one of those solutions, but it's a solution that we find to be especially compelling. It's individual but also institutional, local but also global. Colorful and innovative and rich in flavor.

Ultimately, our theory of change is predicated on the idea that shifting to sustainable diets can lead to shifts that resonate throughout the system—that lead to behavioral change, as diners make climate-friendly decisions; to municipal and corporate-level change, as institutions build initiatives like this one into their food policies and strategic plans; and most importantly, to systems change, as we look to an uncertain climate future and the growing challenge of nourishing people sustainably and equitably.





ENDNOTES

¹ IPES-Food. 2013. “From Plate to Planet: How local governments are driving action on climate change through food.” <https://ipes-food.org/report/from-plate-to-planet/>.

² World Resources Institute. 2019. “Creating a Sustainable Food Future: A Menu of Solutions to Feed Nearly 10 Billion People by 2050.” <https://research.wri.org/wrr-food>.

³ UN Environment Programme. 2023. “What’s Cooking? An assessment of potential impacts of selected novel alternatives to conventional animal products.” <https://www.unep.org/resources/whats-cooking-assessment-potential-impacts-selected-novel-alternatives-conventional>.

⁴ Ibid.

⁵ Hayek, Matthew N. 2022. “The infectious disease trap of animal agriculture.” *Science Advances* 8(44). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9629715/>.

⁶ Nicole, Wendee. 2013. “CAFOs and Environmental Justice: The Case of North Carolina.” *Environmental Health Perspectives* 121(6). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3672924/>.

⁷ NYC Office of the Mayor. 2023. “Mayor Adams Commits to Reducing City’s Food-Based Emissions by 33 Percent by 2030 After Releasing new Greenhouse Gas Emissions Inventory Incorporating Emissions From Food.” <https://www.nyc.gov/office-of-the-mayor/news/263-23/mayor-adams-commits-reducing-city-s-food-basedemissions-33-percent-2030-after-releasing#/0>.

⁸ NYC Office of the Mayor. 2024. “Mayor Adams Completes Citywide Expansion of Lifestyle Medicine Program, new Site Launches Today in South Bronx.” <https://www.nyc.gov/office-of-the-mayor/news/216-24/mayor-adamscompletes-citywide-expansion-lifestyle-medicine-program-new-site-launches-to-day-in#/0>.

⁹ NYC Health + Hospitals. 2023. “NYC Health + Hospitals Now Serving Culturally-Diverse Plant-Based Meals As Primary Dinner Option for Inpatients at All of Its 11 Public Hospitals.” <https://www.nychealthandhospitals.org/pressrelease/nyc-health-hospitals-now-serving-plant-based-meals-asprimary-dinner-option-for-inpatients-at-all-of-its-11-public-hospitals/>.

¹⁰ NYC Public Schools. “Plant-Powered Meals.” <https://www.schools.nyc.gov/school-life/food/school-meals/plantpowered>.

¹¹ NYC Mayor’s Office of Food Policy. “New York City Food Standards.” <https://www.nyc.gov/site/foodpolicy/governance-initiatives/nyc-food-standards.page>.

¹² Greener by Default. “Resource Guide.” <https://www.greenerbydefault.com/culinary>.

¹³ World Resources Institute. 2024. “The Food Service Playbook for Promoting Sustainable Food Choices.” <https://www.wri.org/research/food-service-playbook-promoting-sustainable-food-choices>.

¹⁴ Menus of Change. 2018. “The Protein Flip: A Delicious Strategy for Change.” Culinary Institute of America. <https://www.menusofchange.org/additional-resources>.



NYC
Food Policy

Eric Adams
Mayor

Kate MacKenzie, MS, RD
Executive Director, NYC Mayor's Office
of Food Policy