

Recipe for Success: How Climate-Conscious Media Should Nudge Readers Toward Plant-Based Recipes

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Summary

Major news outlets have slowly improved their climate reporting over recent years, bringing the topic out of its dusty corner within environmental coverage and into the spotlight.¹ Several now have climate dedicated verticals, while *The Guardian* introduced new guidelines in 2019 for language and images used in climate stories to reflect the issue's urgency.² But for most news outlets, a glaring blindspot around climate remains—in their food sections.



Outlets like *The Guardian* are touting their commitment to the climate. But do their recipe sections reflect these values?

A widespread shift toward plant-forward diets, particularly in the Global North, is one of the key ways wealthy countries can cut their emissions,³ as well as one of the most effective climate actions an individual can take to reduce their own carbon footprint.⁴ Yet this report reveals that five of the top eight mainstream media outlets in the UK and US with responsible climate reporting have recipe sections that are dominated by meat-based recipes, including recipes featuring the most emissions-intensive ingredients, lamb and beef—while none features predominantly vegan recipes.⁵

1 McAllister, L., Daly, M., Chandler, P., McNatt, M., Benham, A., & Boykoff, M. (2021). Balance as bias, resolute on the retreat? Updates & analyses of newspaper coverage in the United States, United Kingdom, New Zealand, Australia and Canada over the past 15 years. *Environmental Research Letters*, 16(9). <https://doi.org/10.1088/1748-9326/ac14eb>

2 Zeldin-O'Neill, S. (2019). 'It's a crisis, not a change': the six Guardian language changes on climate matters. *The Guardian*. <https://www.theguardian.com/environment/2019/oct/16/guardian-language-changes-climate-environment>

3 Schiermeier, Q. (2019). Eat less meat: UN climate-change report calls for change to human diet. *Nature*. <https://doi.org/10.1038/d41586-019-02409-7>

4 Wynes, S., & Nicholas, K. A. (2017). The climate mitigation gap: education and government recommendations miss the most effective individual actions. *Environmental Research Letters*, 12(7). <https://doi.org/10.1088/1748-9326/aa7541>

5 Ritchie, H., Rosado, P., & Roser, M. (2022). Environmental impacts of food production. *Our World in Data*. <https://our->

This climate blindspot in recipe sections mirrors the relative lack of media attention to animal agriculture as a significant contributor to climate change.^{6,7} When it is reported on, it is treated abstractly. Though dietary change has been identified as the most effective climate action individuals can take,⁸ news outlets seem to view the issue as a theoretical topic to be examined, rather than viewing themselves as agents of dietary change with influence over how people eat.

This report recommends five simple “behavioral nudges”—techniques, tested by an initiative called DefaultVeg, which are known to influence behavior without eliminating choices—that outlets like these can incorporate into their food sections to guide their readers toward plant-based recipes. By making this shift, mainstream media can both align their food sections with their climate reporting values, and also behave more responsibly in their role as *shapers* and *drivers* of dietary norms and food culture.

Background

Existing media studies research confirms that newspapers actively reinforce meat-centric norms. American newspapers in particular tend to treat their food content as *apolitical* and catering to the tastes of individuals by focusing on the pleasure and art of eating, and printing decadent recipes and restaurant reviews more than other types of food content.⁹ Elsewhere, such as Germany or India, newspapers are more likely to acknowledge their own role in shaping food norms that have social consequences, by focusing on considerations other than sensory experience, particularly healthiness.¹⁰

Such a laissez-faire approach to and hedonistic take on food reporting is problematic. Media, of course, profoundly influences not only public sentiment, but also the construction of social norms.¹¹ Behavioral economics in turn demonstrates that social norms are key to

worldindata.org/environmental-impacts-of-food

6 Kristiansen, S., Painter, J., & Shea, M. (2021). Animal agriculture and climate change in the US and UK elite media: Volume, responsibilities, causes and solutions. *Environmental Communication*, 15(2), 153-172. <https://doi.org/10.1080/17524032.2020.1805344>

7 Arévalo, C., Splitter, J., & Anderson, J. (2023). Animal agriculture is the missing piece in climate change media coverage. *Faunalytics*. <https://faunalytics.org/animal-ag-in-climate-media/>

8 Poore, J. & Nemecek, T. (2018). Reducing food’s environmental impacts through producers and consumers. *Nature*, 360(6392), 987-992. <https://doi.org/10.1126/science.aag0216>

9 Brüggemann, M., Kunert, J., & Sprengelmeyer, L. (2022). Framing food in the news: Still keeping the politics out of the broccoli. *Journalism Practice*. <https://doi.org/10.1080/17512786.2022.2153074>

10 Ibid.

11 Hong, Y., & Kim, S. (2020). Influence of presumed media influence for health prevention: How mass media indirectly promote health prevention behaviors through descriptive norms. *Health Communication*, 35(14), 1800-1810. <https://doi.org/10.1080/10410236.2019.1663585>

understanding—and changing—public behavior, including diet.¹² How mass media talks about food matters—they are not simply reflecting food norms; they are shaping them.

Of particular concern is the tendency in American food media to take a “both sides” approach whenever the topic of sustainable diets is covered. Content analyses have found that American journalists covering sustainable diets often quote both *legitimate* scientific research and financially-motivated opponents of diet change with ties to animal agriculture in the same articles. Fry et al. note that the inclusion of “both sides” echoes harmful aughts-era media patterns which presented climate change as an unresolved topic open for debate.¹³

At least in the UK, there is evidence to suggest that news outlets have reached a consensus on the matter of meat consumption that reflects the science; many more news articles are written about the importance of limiting intake than about animal agriculture’s merits.¹⁴ And yet regardless of this ongoing “de-meatification” in British news media, the editorial sections (where diet is most likely to be addressed) remain wholly depoliticized.¹⁵ Diet is often treated as personal and devoid of any global implications, despite calls from the United Nations for the world’s citizens to cut back on beef. Even in Brazil, where national policies visibly contribute to Amazonian deforestation through land use change, newspapers’ climate coverage focuses on energy rather than agriculture.¹⁶ Few journalists—let alone recipe curators—are making clear the connection between eating animal products and climate change.

One of the few recipe hubs bold enough to make the link explicit is Condé Nast-owned *Epicurious*, which in 2021 “left beef behind.” Citing ruminants’ inefficiency and rising beef consumption in the US, *Epicurious*’s new policy was keenly introduced at rollout as “not anti-beef but rather pro-planet.”¹⁷



RECIPE | FROM BON APPÉTIT
BA's Best Lasagna

Epicurious features recipes from its sister site, *Bon Appétit*—even when they include beef.

12 Sparkman, G., & Walton, G. M. (2017). Dynamic norms promote sustainable behavior, even if it is counternormative. *Psychological Science*, 28(11), 1663-1674. <https://doi.org/10.1177/0956797617719950>

13 Fry, J. P., Stodden, B., Brace, A. M., & Laestadius, L. I. (2022). A tale of two urgent food system challenges: Comparative analysis of approaches to reduce high-meat diets and wasted food as covered in U.S. newspapers. *Sustainability*, 14(19), 12083. <http://dx.doi.org/10.3390/su141912083>

14 Mroz, G., & Painter, J. (2022). What do consumers read about meat? An analysis of media representations of the meat-environment relationship found in popular online news sites in the UK.. *Environmental Communication*. <https://doi.org/10.1080/17524032.2022.2072929>

15 Morris, C. (2018). ‘Taking the politics out of broccoli’: Debating (de)meatification in UK national and regional newspaper coverage of the Meat Free Mondays campaign. *Sociologia Ruralis*, 58, 433-452. <https://doi.org/10.1111/soru.12163>

16 Lahsen, M. (2017). Buffers against inconvenient knowledge: Brazilian newspaper representations of the climate-meat link. *P2P E INOVAÇÃO*, 4(1), 59-84. <https://doi.org/10.21721/p2p.2017v4n1.p59-84>

17 Tamarkin, D., & Hoffman, M. (2021). The planet on the plate: Why *Epicurious* left beef behind. *Epicurious*. <https://www.epicurious.com/collection/epicurious-after-beef>

Beef does not feature in any *Epicurious*-originating recipes, articles, or newsletters after April 2021—though, counterproductively, the site still cross-posts beefy recipes from sister brand *Bon Appetit*, posting a ragu-based lasagna recipe just eleven days after “Leaving Beef Behind.”

That same year, *The Guardian* published an article examining how its reporting was evolving in light of the climate crisis. In reference to its recipe section, the outlet shared, “There are about 23,000 on *The Guardian* website, including plenty of ideas for meat eaters, so we rarely add new beef ones. Our cooks flag when you could use meat with a lower environmental impact or how you might veganise it.”¹⁸

While, to our knowledge, these are the only recipe sites to have announced such changes publicly, we sought to understand whether the other news-oriented media outlets in this report have quietly enacted similar shifts, or whether their recipe sections remain an untapped opportunity for climate-conscious content.

Methodology

For this report, we selected the top eight US and UK mainstream news sites (four from each country) according to their monthly visitors in February and April 2023, respectively.^{19,20} We included only those with their own original reporting and their own written, non-video recipe sections. Further, we excluded outlets covering only niche topics and any outlets which do not aim to report on climate change according to the scientific consensus.²¹

Our final list, with each outlet’s climate stance documented in Appendix A, was as follows:

United States:

- *Associated Press (AP)* (recipe section: <https://apnews.com/hub/recipes>)
- *New York Times* (recipe section: <https://cooking.nytimes.com/>)
- *Washington Post* (recipe section: <https://www.washingtonpost.com/recipes/>)

18 Collingridge, J., et al. (2021). ‘We’re all climate journalists now’: how the weather took over everything. *Guardian*. <https://www.theguardian.com/membership/2021/oct/25/were-all-climate-journalists-now-how-the-weather-took-over-everything>

19 Watson, A. (2023). Leading global English-language news websites in the United States in February 2023, by monthly visits. *Statista*. <https://www.statista.com/statistics/381569/leading-news-and-media-sites-usa-by-share-of-visits/>

20 Watson, A. (2023). Leading English-language news websites in the United Kingdom (UK) in April 2023, by monthly visits. *Statista*. <https://www.statista.com/statistics/288763/newspaper-websites-ranked-by-monthly-visitors-united-kingdom-uk>

21 Kristiansen, S., Painter, J., & Shea, M. (2021). Animal agriculture and climate change in the US and UK elite media: Volume, responsibilities, causes and solutions. *Environmental Communication*, 15(2), 153-172. <https://doi.org/10.1080/17524032.2020.1805344>

- *Yahoo News* (recipe section: <https://news.yahoo.com/tagged/recipes/>)

United Kingdom:

- *BBC* (recipe section: <https://www.bbc.co.uk/food/recipes>)
- *The Guardian* (recipe section: <https://www.theguardian.com/tone/recipes>)
- *The Independent* (recipe section: <https://www.independent.co.uk/life-style/food-and-drink/recipes>)
- *ITV* (recipe section: <https://www.itv.com/thismorning/tags/food>)

We contracted with a data scientist, who created a script to parse the most recent recipes from each site (excluding desserts and beverages), aiming for 100 recipes, at minimum, where possible. This script analyzed recipes as omnivorous, vegetarian (no meat or fish, but may contain eggs, dairy, or honey), or vegan (no animal products) using a predetermined list of ingredients (see Appendix B) and then calculated the proportion of recipes in each category for each site. The recipes were then manually scanned to confirm accuracy and correct any categorization errors.

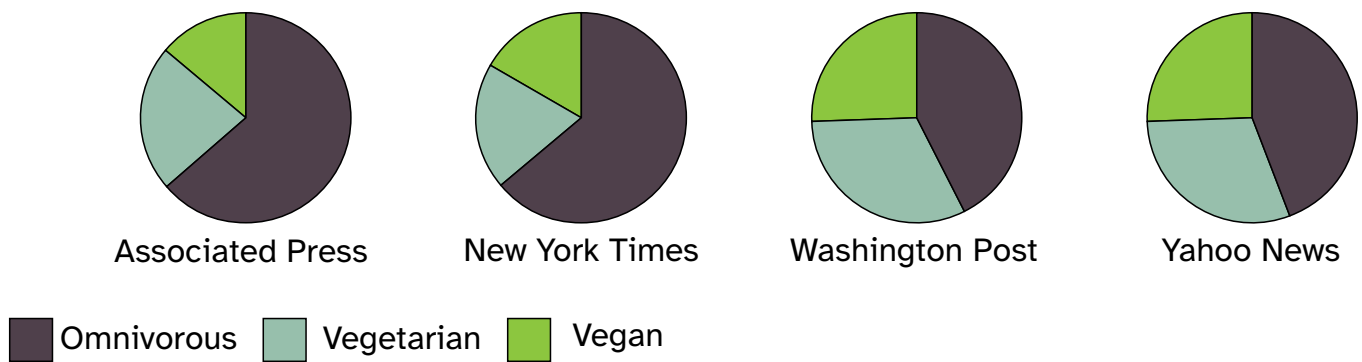
While preparing this report, we reached out to all outlets for comment, providing an opportunity to explain their recipe curation procedure and whether they understand newspapers to have a responsibility to judiciously promote plant-forward recipes.

Results

United States

The US outlets we analyzed had an average of 53.6 percent omnivorous, 26.2 percent vegetarian, and 20.2 percent vegan recipes. As shown in Figure 1 and Appendix C, the most omnivorous outlet was the *New York Times* at 63.9 percent, with just 16.4 percent of recipes classified as vegetarian and 19.7 percent classified as vegan. While the *Associated Press* skewed slightly more vegetarian at 22.7 percent, there were only 13.6 percent plant-based recipes, leaving 63.6 percent of the recipes we examined as omnivorous. *Yahoo News* and the *Washington Post* scored similarly, with both having 25.4 percent vegan recipes, 44.4 and 42.5 percent omnivorous recipes, respectively, and 30.2 and 32.1 percent vegetarian recipes, respectively.

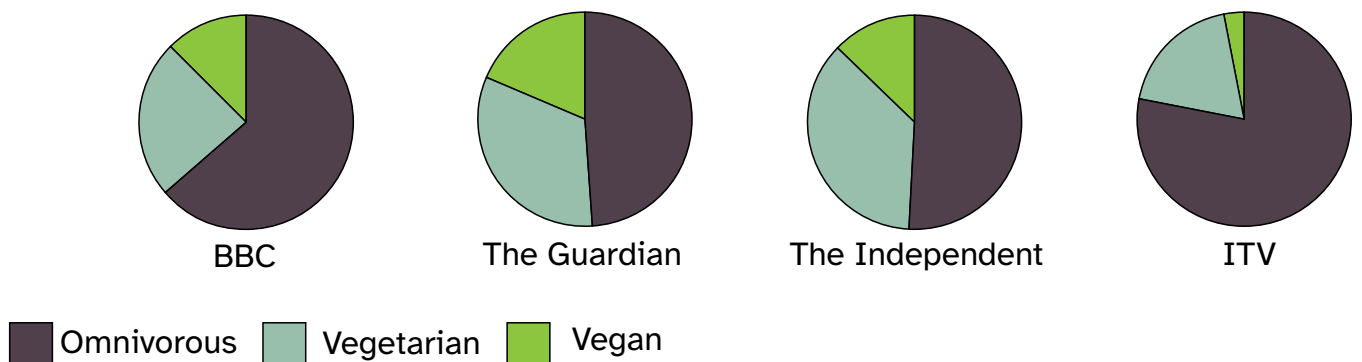
Figure 1



United Kingdom

In the UK, mainstream media's recipe sections performed similarly, with an average of 60.6 percent omnivorous, 27.9 percent vegetarian, and 11.6 percent vegan recipes. As shown in Figure 2 and Appendix C, *ITV* was found to be the most meat-centric, with 78.2 percent of its recipes containing meat and just 18.8 and 3.0 percent vegetarian and vegan, respectively. While the other outlets contained a smaller percentage of omnivorous recipes (63.9 percent for *BBC*, 51.0 percent for *The Independent*, and 49.1 percent for *The Guardian*), meals that contained dairy and/or eggs still made up a much greater proportion of their sites than did fully plant-based recipes. These sites hosted just 12.3 percent, 12.6 percent, and 18.4 percent fully plant-based recipes, respectively.

Figure 2



Conclusions & Recommendations

Although three of the eight analyzed outlets had more recipes without animal-based meat than with it, the proportion of recipes that were fully plant-based—reflecting the prominent role of all animal agriculture, particularly dairy, in the climate crisis—was still only a quarter

or less for all outlets. The failure of most news outlets to reconcile their climate reporting with their recipe sections is symptomatic of a larger failure. Most climate reporting does not mention animal agriculture at all, and the articles that do discuss the livestock industry's emissions do so without mention of how readers' dinner plates fund and enable animal agriculture's unsustainable practices. A recent report by Faunalytics and Sentient Media found that only 7 percent of the 1,000 climate articles surveyed mentioned animal agriculture.²² Six times as many articles mentioned transportation. Given that 14 to 15 percent of global emissions are attributable to the transportation sector but 14.5 to 16.5 percent are due to animal agriculture—that is, before the opportunity cost of land use change is incorporated, which doubles the figure—media's heavy emphasis on electric vehicles and petrol has obscured the outsized role our food system plays in the climate crisis.^{23,24,25} And if newspapers don't connect the dots between climate and diet in their news reporting, then it comes as little surprise that so few have deliberately curated low-carbon recipes.

Still, feedback from at least one of the outlets surveyed suggests that some newspapers take their role in promoting prosocial behaviors seriously. (The remainder of outlets' responses can be found in Appendix D.) Explains Joe Yonan of the *Washington Post*, “We are always looking for ways to help our readers lead better lives, according to their own definition, and recipes play a large role in that. ... [M]ore and more readers are looking for help making climate-friendly decisions about all aspects of their lives, food included, and we want to respond to that.” (One notable such response was the paper's 8-week newsletter Ecokitchen, hosted by vegan chef Priyanka Naik.²⁶ Its sustainability advice focused not on meat or dairy reduction but on water usage, single-use items, and food scraps, though to its credit, a large portion of linked recipes were vegan, owing to Naik's influence.)

As mentioned previously, we also found evidence of at least one other outlet, *The Guardian*, addressing its role in modeling climate-friendly eating by adjusting its recipes. Based on these statements, we would expect that over time, both outlets' recipe sections continue to skew more plant-based—while the remaining six appear to be neglecting this opportunity.

“A common misconception that influential institutions, like media companies, have about diet

22 Arévalo, C., Splitter, J., & Anderson, J. (2023). Animal agriculture Is the missing piece in climate change media coverage. Faunalytics. <https://faunalytics.org/animal-ag-in-climate-media/>

23 Gerber, P. J., Steinfeld, H., Henderson, B., Mottet, A., Opio, C., Dijkman, J., Faluccci, A., & Tempio, G. (2013). Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities. Food and Agriculture Organization of the United Nations. <https://www.fao.org/3/i3437e/i3437e.pdf>

24 Eisen, M. B., & Brown, P. O. (2022). Rapid global phaseout of animal agriculture has the potential to stabilize greenhouse gas levels for 30 years and offset 68 percent of CO2 emissions this century. *PLOS Climate*, 1(2): e0000010. <https://doi.org/10.1371/journal.pclm.0000010>

25 Twine, R. (2021). Emissions from animal agriculture—16.5% is the new minimum figure. *Sustainability*, 13(11): 6276. <https://doi.org/10.3390/su13116276>

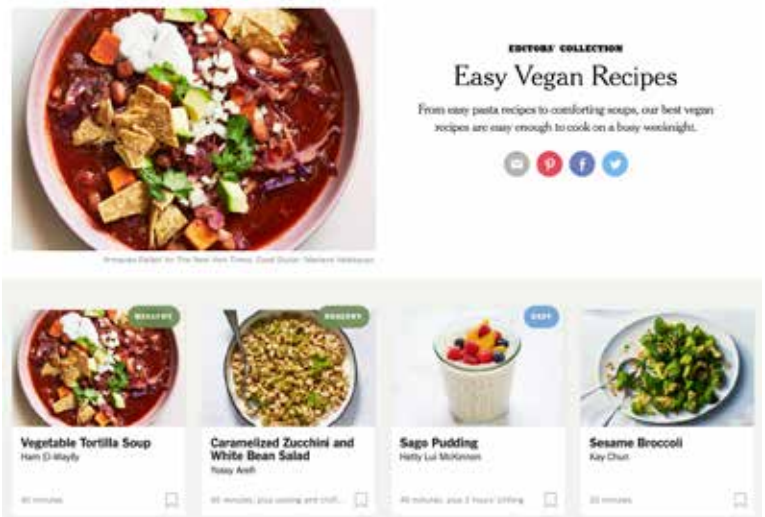
26 Naik, P. (2022). Ecokitchen. *Washington Post*. <https://www.washingtonpost.com/newsletters/ecokitchen/>

change is that they need to introduce plant-based recipes gradually,” says Jennifer Channin, the Executive Director of the Better Food Foundation (BFF), which created the DefaultVeg initiative. “Outlets may believe they’re already being progressive by featuring a vegan recipe here and there, but what multiple studies have shown is that the public is ready for plant-based meals to be featured as the norm in food culture, rather than the exception.”

Our results evince ample room for improvement, with some evidence that outlets are willing to change.²⁷ Accordingly, we have outlined several simple but powerful recommendations that will help these outlets align their recipes with their responsible stance on climate coverage, as follows:

Maintain a ratio of at least 2-to-1 for plant-based versus animal-based recipes. In other words, for every omnivorous or vegetarian entree, there should be at least two vegan recipes. For most outlets we studied, this will flip their current ratios, making them much less carbon-intensive—and helping to normalize the sustainable plant-based dishes.

Present plant-based options first, by default. Within search results and each collection of recipes, outlets can nudge people toward more climate-friendly options simply by listing them first. For instance, a search for “lasagna” might produce a cremini mushroom lasagna with dairy-free ricotta at the top of the page, with a beef-based alternative lower down in the results. Peer-reviewed research has found that people often make choices based on the easiest or automatic option—the default. When plant-based options are presented as a second-tier choice, most people don’t go out of their way to try them out. However, when we make them the default option through a simple behavioral nudge, their uptake dramatically



While outlets like New York Times have included a number of plant-based recipes, they are often segregated into a special section and prominently labeled as “vegan.” A more effective approach to normalize these recipes would be to include them prominently within main categories and avoid special labels that might discourage readers who aren’t vegan from trying them.

27 See, for example, this *Carbon Brief* report on UK newspapers becoming more accurate and responsible on climate reporting: Gabbatiss, J., Hayes, S., Goodman, J., & Prater, T. (2022). Analysis: How UK newspapers changed their minds about climate change. *Carbon Brief*.

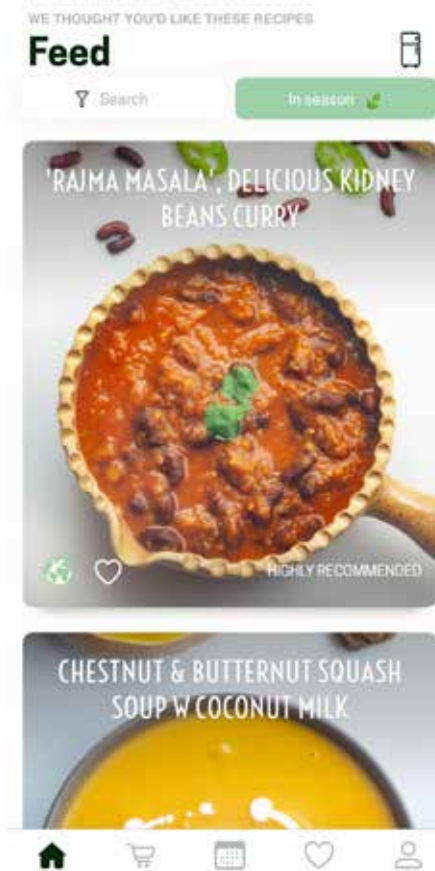
<https://interactive.carbonbrief.org/how-uk-newspapers-changed-minds-climate-change>

increases.^{28,29} A recent study by BFF and the Food for Climate League on three college campuses run by Sodexo found that this strategy led to an increase in the uptake of plant-based meals from 31 to 82 percent when implemented consistently, decreasing dining hall emissions by about 24 percent.³⁰

Make editors' picks or seasonal recommendations plant-based by default. DefaultVeg strategies can be used any time there's an opportunity to highlight recipes. Creating a summer BBQ feature for readers? Specially feature the plant-based grillables and share recipes for sides that only use plant-based ingredients. Wintertime hot cocoa and baked goods recommendations can also spotlight the vegan versions first.

Swap out animal-based ingredients for plant-based ingredients in popular recipes. Many recipes can become vegan by default just by swapping out certain ingredients, without sacrificing taste or quality. Swap out egg-based mayo with vegan mayo in the potato salad—no one will taste the difference! Many readers wouldn't have considered a vegan ingredient in their classic recipe previously, but are open to making the switch. Or simply make a practice of naming the best vegan alternatives to use in popular recipes.

Add a climate score to each recipe based on the emissions intensity of the ingredients, and present highest-scoring options first. This strategy, another type of behavioral nudge, has proven successful in online simulations and randomized clinical trials.^{31,32} Those entrees with the lightest footprint, such as those from plant-derived proteins like lentils and tofu, would rank higher than chicken and egg-based



Kuri uses behavioral nudges to entice users to try plant-based meals.

28 Hansen, P. G., Schilling, M., & Maltheisen, M. S. (2021). Nudging healthy and sustainable food choices: three randomized controlled field experiments using a vegetarian lunch-default as a normative signal. *Journal of Public Health*, 43(2), 392-397. <https://doi.org/10.1093/pubmed/fdz154>

29 Friis, R., et al. (2017). Comparison of three nudge interventions (priming, default option, and perceived variety) to promote vegetable consumption in a self-service buffet setting. *PloS One*, 12(5). <https://doi.org/10.1371/journal.pone.0176028>

30 Serving up plants by default. (2023). Food for Climate League and Better Food Foundation. https://betterfoodfoundation.org/wp-content/uploads/2023/05/Exec-Summary_Serving-Up-Plants-by-Default.pdf

31 Betz, A.-K., Seger, B. T., & Nieding, G. (2022). How can carbon labels and climate-friendly default options on restaurant menus contribute to the reduction of greenhouse gas emissions associated with dining? *PLOS Climate*, 1(5): e0000028. <https://doi.org/10.1371/journal.pclm.0000028>

32 Wolfson, J. A., Musicus, A. A., Leung, C. W., Gearhardt, A. N., & Falbe, J. (2022). Effect of climate change impact menu labels on fast food ordering choices among US adults: A randomized clinical trial. *JAMA Network Open*, 5(12). <https://doi.org/10.1001/jamanetworkopen.2022.48320>

recipes, which would be followed by recipes containing even more climate-intensive red meat.

Already, such strategies have been implemented in many leading institutions that serve food: In 2022, New York City Health + Hospitals shifted its patient meals across all 11 city hospitals to be plant-based by default, with the choice to opt into meat or dairy. More than half of all eligible patients are now choosing plant-based meals, despite only 1 percent identifying as vegetarian or vegan—with an estimated carbon footprint reduction of 36 percent.³³ LinkedIn, Harvard’s Office for Sustainability, the University of Victoria, GreenBiz, and dozens of other leading companies and organizations have also successfully implemented plant-based defaults. Further, consumer apps like Kuri are paving the way toward a more sustainable food future in the digital space by designing meal plans that nudge users toward plant-based ingredients.³⁴

It is important to note that these recommendations are designed to shift recipe sites away from all animal products, and not just the most climate-intensive ones. One concern we have is that a move like that of *Epicurious* (to eliminate a single problematic ingredient, like beef) could result in beef simply being swapped out for chicken, which is often promoted as a climate-friendly alternative. While chicken’s carbon footprint might be seven times smaller than that of beef, it is still 11 times greater than that of lentils, while also consuming twice as much water. In a previous essay, the DefaultVeg team explains, “Just as natural gas is only ‘clean’ when compared to coal, so chicken is only ‘environmentally friendly’ when compared to beef.”³⁵ Like the similar “bridge” solution of natural gas, chicken production brings its own suite of harms. Poultry farms emit pollutants to nearby communities, especially communities of color—and these farms are even less regulated than the natural gas industry, not even being covered by the US Clean Air Act. According to a recent study, animal agriculture’s air pollution contributes to over 10,000 deaths each year.³⁶ What’s more, chicken comes not just at a cost to airways but to waterways as well. In the UK, the River Wye’s decline has been attributed to nearby “intensive poultry units,” known in the US as concentrated animal feeding operations, or CAFOs.³⁷ Phosphorus-rich manure washes into the river, causing algal blooms that suffocate vegetation and fish alike. Clearly, “low-carbon” meats are not as green as they’re made out to be.

33 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. (2023). NYC Office of the Mayor. <https://www.nyc.gov/office-of-the-mayor/news/263-23/mayor-adams-commits-reducing-city-s-food-based-emissions-33-percent-2030-after-releasing>

34 Kuri. (2023). <https://kuri.co/>

35 DefaultVeg. (2021). Chicken: The natural gas of food. *Medium*. <https://defaultveg.medium.com/chicken-the-natural-gas-of-food-15c1c5724dc5>

36 Domingo, N. G. G., Balasubramanian, S., Thakrar, S. K., & Hill, J. D. (2021). Air quality-related health damages of food. *PNAS*, 118(20). <https://doi.org/10.1073/pnas.2013637118>

37 Eveleigh, R., & Ungood-Thomas, J. (2022). Chicken farms may explain decline of the River Wye, tests suggest. *The Guardian*. <https://www.theguardian.com/environment/2022/oct/09/chicken-farms-may-explain-decline-of-the-river-wye-tests-suggest>

Further, we believe it is critical to address the harms dairy production inflicts on the planet. While beef consumption has fallen over the past decade, appetite for dairy products has only grown, and because 10+ gallons of milk are required in order to produce solids like butter and cheese, these dairy products are far more environmentally harmful than milk alone. In 2015, the dairy industry's emissions surpassed 1,700 million tonnes of CO₂, 3.4 percent of the world's total emissions. In other words, dairy contributes as much greenhouse gasses as the aviation and shipping sectors combined (1.9 and 1.7 percent, respectively).³⁸ Therefore, our recommendations emphasize fully plant-based recipes over those that simply omit meat.

Overall, this report takes a holistic view of planetary health, rather than relying on the single-metric of greenhouse gas emissions, incorporating air and water pollution and resource usage into the ecological footprint of the foods we consume. We hope outlets that aim to report responsibly on our changing climate will do, and model, the same.

38 Kasriel, E. (2020). Can dairy adapt to climate change? *BBC*. <https://www.bbc.com/future/article/20201208-climate-change-can-dairy-farming-become-sustainable>

Appendix A: Overview of Outlets' Climate Stances

The Guardian, *New York Times*, and *Washington Post* scored highly in a 2021 assessment of their scientific coverage of climate change in *Environmental Research Letters*, with more than 90 percent of each outlet's climate-related articles crediting anthropogenic activity as a significant driver of climate change.³⁹

The *New York Times* maintains a climate section and newsletter that claims to be a “must-read guide to the climate crisis.”⁴⁰ An April 2023 piece from *Times Insider* (a series that “explains who [*Times* reporters] are and what [they] do and delivers behind-the-scenes insights into how [their] journalism comes together”) asserts, “The window to prevent the catastrophic effects of climate change is rapidly closing.”⁴¹

In 2019, *The Guardian* published “‘It’s a crisis, not a change’: the six Guardian language changes on climate matters,” which included changes to its style guide such as the use of “climate crisis” over “climate change” and “climate denier” over “climate skeptic.”⁴² A 2022 *Guardian* editorial is titled, “The Guardian view on the climate crisis: no end in sight.”⁴³

In 2022, *Washington Post* announced that it was tripling its climate reporting team, writing, “No story is more global than climate, and we are placing reporters across the country and the world to capture it as it unfolds.”⁴⁴

In 2022, *AP* made a similar announcement, adding 20 new climate journalists and “creating a standalone desk that will enhance the global understanding of climate change and its impact across the world.”⁴⁵ Later that year, the outlet published a series of articles digging into the science of anthropogenic climate change and exploring major questions around its speed and

39 McAllister, L., Daly, M., Chandler, P., McNatt, M., Benham, A., & Boykoff, M. (2021). Balance as bias, resolute on the retreat? Updates & analyses of newspaper coverage in the United States, United Kingdom, New Zealand, Australia and Canada over the past 15 years. *Environmental Research Letters*, 16(9). <https://doi.org/10.1088/1748-9326/ac14eb>

40 Climate and environment. (2023). *New York Times*. <https://www.nytimes.com/section/climate>

41 Ocampo, J. (2023). Why solving climate change is not an issue where we ‘succeed or fail.’ *New York Times*. <https://www.nytimes.com/2023/04/20/insider/why-solving-climate-change-is-not-an-issue-where-we-succeed-or-fail.html>

42 Zeldin-O’Neill, S. (2019). ‘It’s a crisis, not a change’: the six Guardian language changes on climate matters. *The Guardian*. <https://www.theguardian.com/environment/2019/oct/16/guardian-language-changes-climate-environment>

43 The Guardian view on the climate crisis: no end in sight [Editorial]. (2022). *The Guardian*. <https://www.theguardian.com/commentisfree/2022/oct/28/the-guardian-view-on-the-climate-crisis-no-end-in-sight>

44 Buzbee, S. Introducing The Post’s expanded Climate coverage. (2022). *The Washington Post*. <https://www.washingtonpost.com/climate-environment/2022/11/28/introducing-posts-expanded-climate-coverage/>

45 AP announces sweeping climate journalism initiative. (2022). *Associated Press*. <https://www.ap.org/press-releases/2022/ap-announces-sweeping-climate-journalism-initiative>

projected impacts on global communities.⁴⁶ It maintains a dedicated climate section, with subsections on climate migration and individual countries.⁴⁷

In 2018, *BBC* issued guidance to all of its reporters on covering climate, including its editorial stance and a crib sheet which confirmed its belief in anthropogenic climate change, and that climate deniers' views do not need to be included in articles to provide balanced coverage.⁴⁸ The site's basic explainer on climate change also begins with the sentence, "Global temperatures are rising as a result of human activity."⁴⁹

In a tool hosted by *Carbon Brief* entitled, "Editorials: Where UK newspapers stand on climate change and energy," *The Independent* is documented as having published editorials with headlines like "The world cannot wait a moment longer to prevent uncontrollable climate catastrophe" and "Wildfires, raging temperatures: This is the cry of Mother Nature in distress."⁵⁰ The site also runs a newsletter on the climate crisis, asserting, "The climate crisis is here, and human beings have caused it. It's a statement made with no hyperbole, and no relish, knowing that dithering governments and malevolent corporate forces, combined with our collective disregard and apathy, have delivered us to this point."⁵¹

In 2020, *ITV* became one of six founding media companies to the Media Climate Pact, which committed to science-based emissions targets, as well as "to drive sustainable lifestyles and behaviour through [its] content."⁵² *ITV* writes of its climate goals, "ITV has set Science-Based Targets to reduce the emissions we control by 46.2% and the emissions we influence by 28% by 2030, measured from our 2019 baseline year. In addition, we are committed to reducing all emissions by 90% by 2050, aligning to the Science-Based Targets initiative's definition of Net Zero."⁵³ It also claims to aim for "content that helps audiences understand the need for climate action, how it is relevant to our lives and how we can all be part of the solution."⁵⁴

Originally founded as a news aggregator, in recent years *Yahoo News* has brought on its own

46 Beltaji, D. (2022). Climate questions: How much has the climate changed already?. *Associated Press*. <https://apnews.com/article/science-trending-news-climate-and-environment-00343ecd98497103ce9582110c1202f6>

47 Climate. (2023). *Associated Press*. <https://apnews.com/climate-and-environment>

48 Hickman, L. (2018). Exclusive: BBC issues internal guidance on how to report climate change. *Carbon Brief*. <https://www.carbonbrief.org/exclusive-bbc-issues-internal-guidance-on-how-to-report-climate-change/>

49 What is climate change? A really simple guide. (2023). *BBC*. <https://www.bbc.com/news/science-environment-24021772>

50 Yeo, S., Gabbatiss, J., & Timperley, J. (2016). Editorials: Where UK newspapers stand on climate change and energy. *Carbon Brief*. <https://www.carbonbrief.org/editorials-where-uk-newspapers-stand-on-climate-change-and-energy/>

51 Boyle, L. (2022). Climate crisis: Sign up to The Independent's newsletter for free weekly updates. *The Independent*. <https://www.independent.co.uk/climate-change/news/climate-crisis-updates-newsletter-b2014618.html>

52 ITV founding signatory of Media Climate Pact. (2020). *ITV*. <https://www.itvplc.com/socialpurpose/news/2020/media-climate-pact>

53 Climate action. (2023). *ITV*. <https://www.itvplc.com/socialpurpose/climate-action>

54 Ibid.

reporting team, including a climate editor.⁵⁵ It maintains a section on climate change, and the climate collection on *Yahoo Finance* reads, “The existential threat of our warming planet has implications for all sectors of financial markets along with our global economy and has forced a reckoning for businesses and governments around the world. The climate crisis is now a top priority for policy makers and CEOs alike. Yahoo Finance Live is at the forefront of the conversation as we lay out the stakes for the planet, explore solutions, innovations and chart the path forward.”⁵⁶

Appendix B: Criteria Used in Recipe Analysis

The **omnivorous** words included the following: anchovy, bacon, beef, bologna, bratwurst, brisket, burger, calamari, calzone, capicola, capocollo, catfish, chicken, chorizo, chuck, clam, cotija, crab, crawfish, crayfish, drumsticks, eel, filet, fillet, fish, flounder, fluke, goat, grouper, halibut, ham, lamb, lard, liver, lobster, london broil, lox, mahi mahi, mascarpone, meatloaf, mussel, mutton, octopus, oyster, pancetta, pollock, pomfret, porchetta, pork, pot pie, potpie, prosciutto, roast, rockfish, rump, salami, salmon, sardine, sausage, sea bass, shellfish, shrimp, snapper, sopressata, squid, steak, tilapia, tongue, tortellini, trout, tuna, turkey, whitefish, wing, wurst.

The **vegetarian** words included the following: alfredo, asiago, bechamel, brie, burrata, butter, buttermilk, caprese, cheddar, cheddarwurst, cheese, cream, egg, feta, fontina, galette, ghee, gouda, gruyere, halloumi, hollandaise, honey, ice cream, mayo, mayonnaise, milk, milk chocolate, monterey jack, mozzarella, omelet, omelette, paneer, parmesan, pecorino, pesto, provolone, queso, ravioli, ricotta, romano, sour cream, stilton, yolk.

Notes:

Attempts were made to include only the “ingredients” portion of webpages. However, there is a lot of verbiage on most websites that is not part of the actual recipe (e.g., a fully vegan recipe might have “Serve with sour cream” at the bottom and thus will match with a dairy word).

All words counted as a match if they ended in *s* (e.g. “briskets” in a recipe will count as “brisket”). “Regular expressions” (e.g., `anchov[y](ies)`) accounted for atypical pluralizations.

If the word “vegan” or “nondairy” preceded a word, it did not match (e.g. “vegan sausage” did

55 Ben Adler. (2023). *Yahoo News*. <https://www.yahoo.com/author/ben-adler/>

56 Climate crisis. (2023). *Yahoo Finance*. <https://finance.yahoo.com/topic/climate-crisis>

not count as “sausage”).

For sources with an obvious time-ordering (e.g., *The Guardian*), the most recent recipes were included. For other sources (e.g., *BBC* is organized alphabetically), we randomly sampled 100 recipes.

Many of the outlets mix articles about food with recipes. We attempted to filter out only the actual recipes, using techniques that depended on the website organization.

The New York Times is organized by theme. For this project, “Weeknight Dinners” was analyzed.

A run of this project occurred on May 8, 2023, which was a couple of days after the Coronation of King Charles. There are some Coronation recipes on the British websites that might not be representative of most times of the year.

The classification logic is as follows (the order matters; if any criterion is met, the recipe is classified and the classification process ends):

If the word “vegan” is in the **title** of the recipe, the recipe is considered **vegan**.

If the ingredients match at least one meat or fish word, the recipe is **omnivor**ous.

If the ingredients match at least one milk, cheese, or egg word in the recipe, the recipe is considered **vegetarian**.

If none of the above criteria are met, the recipe is considered **vegan**.

Appendix C: Number of Recipes Classified as Omnivorous, Vegan, and Vegetarian by Media Outlet

Media Outlet	Omnivorous	Vegetarian	Vegan	Total
<i>Associated Press</i>	28	10	6	44
<i>BBC</i>	292	109	56	457
<i>The Guardian</i>	442	293	166	901
<i>The Independent</i>	77	55	19	151
<i>ITV</i>	104	25	4	133
<i>New York Times</i>	172	53	44	269
<i>Washington Post</i>	191	144	114	449
<i>Yahoo News</i>	28	19	16	63
TOTAL	1334	708	425	2467

Appendix D: Outlet Responses

ITV response:

ITV has committed to the [Climate Content Pledge](#), committing to increase the number of viewers we reach with content that supports the transition to a more sustainable world. More information for commissioners is [here](#). We were founding signatories of the pledge because we recognise the role our content has in shaping culture around climate transition, informing audiences, increasing understanding and inspiring with alternatives. Shows with cookery programmes factor this in.

Washington Post response in full:

1. Do factors such as climate change influence editorial decisions on what kinds of recipes to publish?

We are always looking for ways to help our readers lead better lives, according to their own definition, and recipes play a large role in that. We generally believe and espouse the idea that cooking is a worthwhile pursuit, and our decisions about the types of recipes we publish evolve from our sense of what we believe will appeal to readers and what will help answer the questions they express to us. We have been making more of the recipes work for people with busy schedules, for those with dietary restrictions (including a growing emphasis on substitutions), and for those without easy access to unfamiliar ingredients – while also trying to expose them to a wider diversity of cuisines and approaches. We follow some trends, such as the pandemic-era need for pantry-friendly recipes for people who weren't shopping as often, and the rising sales of such appliances as the Instant Pot and air fryer. We also know that more and more readers are looking for help making climate-friendly decisions about all aspects of their lives, food included, and we want to respond to that.

2. Do you feel the food sections of newspapers have a role to play in encouraging more climate-friendly and sustainable eating?

Absolutely, but food is very personal, so I think it's a matter of balancing the desire to meet people where they are with the commitment to present them with information that explains the implications of diet on climate, helps them understand the implications of their choices, and also provides some delicious options. People eat for so many reasons, and we want to find ways to support all of them: They eat to remember, they eat to celebrate, they eat to connect, they eat to learn, they eat to nourish themselves, they eat to make a difference, and more.

3. Is the Washington Post intentionally trying to make its recipe section more plant-forward, in line with climate science on food and agriculture?

Our move toward more plant-forward recipes has been mostly based on the interests and

inclinations of individual writers, sometimes in response to what they hear from readers and what we see resonates based on audience analysis. As the Food and Dining editor, I have been writing about vegetarian and vegan cooking for a decade now, in a weekly column, and have articulated the environmental concerns (among others) that have motivated my own dietary preferences. Daniela Galarza conceived of her Eat Voraciously recipes newsletter as being veg heavy (but not exclusively) out of a concern about accessibility. “Nourish” columnist Ellie Krieger includes a significant proportion of veg-forward recipes because her columns are health-oriented, and Ann Maloney has been working more vegetarian ideas into her Dinner in Minutes column because of how her own cooking has evolved over the years.