

Christine McCullum-Gomez, PhD, RDN, LD
Food-Based Strategies to Promote Personal and Planetary Health: The Role of Nutrition and
Dietetics Practitioners
CT AND Fall Webinar, November 10, 2022

References:

1. Prescott, S.L.; Logan, A.C. Planetary health: From the wellspring of holistic medicine to personal and public health imperative. *Explore* 2019;15:98–106.
2. Whitmee S Haines A, Beyrer C et al. Safeguarding human health in the Anthropocene epoch: Report of The Rockefeller Foundation-Lancet Commission on planetary health. *Lancet* 2015;386:1973–2008.
3. Oladunjoye IO, Tajudeen YA, Oladipo HJ. Planetary health and traditional medicine: A potential synergistic approach to tackle antimicrobial resistance. *Challenges* 2022;13(1):24. <https://doi.org/10.3390/challe13010024>
4. Pathak N, McKinney A. Planetary health, climate change, and lifestyle medicine: Threats and opportunities. *American Journal of Lifestyle Medicine* 2021;15(5):541-552.
5. Myers SS, Frumkin H. *Planetary Health: Protecting Nature to Protect Ourselves*. Washington DC: Island Press; 2020.
6. Murphy R. Lifestyle medicine to promote personal and planetary health. Occupational Therapists for Environmental Action [blog]. February 13, 2022. Retrieved September 9, 2022. Available at: <https://www.otenvironmentalaction.com/blog/lifestyle-medicine-to-promote-personal-and-planetary-health>
7. Chrysafi, A., Virkki, V., Jalava, M. *et al.* Quantifying Earth system interactions for sustainable food production via expert elicitation. *Nature Sustainability* 2022;5:830–842. <https://doi.org/10.1038/s41893-022-00940-6>
8. Sandström V, Chrysafi, A, Lamminen M. *et al.* Food system by-products upcycled in livestock and aquaculture feeds can increase global food supply. *Nature Food* 2022;3, 729–740. <https://doi.org/10.1038/s43016-022-00589-6>
9. World Wildlife Fund (WWF). *Living Planet Report 2022 – Building a nature positive society*. Almond, R.E.A., Grooten, M., Juffe Bignoli, D. & Petersen, T. (Eds). WWF, Gland, Switzerland; 2022. Retrieved October 19, 2022. Available at: https://wwflpr.awsassets.panda.org/downloads/lpr_2022_full_report.pdf and Huber B. Report: Biodiversity loss, climate change driving an ‘escalating nature crisis.’ *Fern’s Ag Insider*, October 12, 2022. Available at: https://thefern.org/ag_insider/report-biodiversity-loss-climate-change-driving-an-escalating-nature-crisis/

10. Ritchie H. Half of the world's habitable land is used for agriculture. *Our World in Data*. November 11, 2019. Available at: <https://www.futureoffood.ox.ac.uk/article/half-of-the-worlds-habitable-land-is-used-for-agriculture> and <https://ourworldindata.org/global-land-for-agriculture>
11. FAO, Sustainable Food and Agriculture. Land use in agriculture by the numbers. May 7, 2020. Available at: <https://www.fao.org/sustainability/news/detail/en/c/1274219/>
12. Richter BD, Bartak D, Caldwell P, et al. Water scarcity and fish imperilment driven by beef production. *Nature Sustainability* 2020;3:319-328.
13. Harwatt H, Wetterberg K, Giritharan A, Benton T. *Aligning food systems with climate and biodiversity targets. Assessing the suitability of policy action over the next decade*. London, Chatham House; October 2022. Retrieved October 20, 2022. Available at: <https://www.chathamhouse.org/2022/10/aligning-food-systems-climate-and-biodiversity-targets>
14. Thomson E, Fontes C. *The companies ignoring the human costs of deforestation*. UK, Forest 500 (a Global Canopy Project); July 2022. Retrieved July 30, 2022. Available at: https://forest500.org/sites/default/files/f500_human_rights_briefing_final.pdf
15. Kotzé P. Freshwater planetary boundary “considerably” transgressed: New research. *Mongabay News*. April 27, 2022. Retrieved May 15, 2022. Available at: <https://news.mongabay.com/2022/04/freshwater-planetary-boundary-considerably-transgressed-new-research/>
16. Wang-Erlandsson L, Tobian A, van der Ent R, et al. A planetary boundary for green water. *Earth & Environment*. 2022;3: Available at: https://www.nature.com/articles/s43017-022-00287-8.epdf?sharing_token=R27H4mVwaiD9PzOYrcIEINRgN0jAjWel9jnR3ZoTv0P2KmS6Qajb2nZuUVCQ0VWGrhFxrtruvqLIRoNt1FdkA0zPVxwvsvGJzNxHy-Yb8dmwCdWTdumvmFEdpGRH1tv-9lbaVoNc3mg7UULGFTmhTsZqQ_RiD-WZd5z5zqbnAE%3D
17. Steenson S, Buttriss JL. Review: Healthier and more sustainable diets: What changes are needed in high-income countries? *Nutrition Bulletin*. 2021;46:279 –309. <https://doi.org/10.1111/nbu.12518>
18. Crippa, M., Solazzo, E., Guizzardi, D., Food systems are responsible for a third of global anthropogenic GHG emissions. *Nature Food* 2021; 2(3):198 – 209.
19. Kim BF, Santo RE, Scatterday AP, et al. Country specific dietary shifts to mitigate climate and water crises. *Global Environmental Change* 2020;62:101926.
20. Tuninetti, M., Ridolfi, L. & Laio, F. Compliance with EAT–*Lancet* dietary guidelines would reduce global water footprint but increase it for 40% of the world population. *Nature Food* 2022;3:143–151. <https://doi.org/10.1038/s43016-021-00452-0>
21. Oliver A, Xue Z, Villanueva YT, et al. Association of diet and antimicrobial resistance in healthy U.S. adults. *mBio* 2022 13(3): e00101-22 <https://doi.org/10.1128/mbio.00101-22>

22. Hayek MN. The infectious disease trap of animal agriculture. *Sci Adv.* 2022 4; 8(44):eadd6681. doi: 10.1126/sciadv.add6681.
23. Centers for Disease Control and Prevention (CDC). About Chronic Diseases. July 21, 2022. Retrieved October 18, 2022. Available at: <https://www.cdc.gov/chronicdisease/about/index.htm>
24. Jacobsen AP, Khiew YC, Duffy E, et al. Climate change and the prevention of cardiovascular disease. *American Journal of Preventive Cardiology* 2022; 12:100391. doi:10.1016/j.ajpc.2022.100391
25. Hadley MB, Vedanthan R, Ebi KL, et al. Climate cardiology *BMJ Global Health* 2022;7: e008860.
26. Avesani CM, Cardozo LF, Yee-Moon Wang A, et al. Planetary health, nutrition and chronic kidney disease: Connecting the dots for a sustainable future, *Journal of Renal Nutrition* (2022), doi: <https://doi.org/10.1053>
27. IPCC, 2022: Summary for Policymakers. In: *Climate Change 2022. Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.001.
28. Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO). *Sustainable Healthy Diets: Guiding Principles*. Rome, Italy: FAO and WHO, 2019. Available at: <http://www.fao.org/documents/card/en/c/ca6640en/>
29. Intergovernmental Panel on Climate Change (IPCC), Technical Summary. In: *Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. P.R. Shukla, J. Skea, R. Slade, R. van Diemen, E. Haughey, J. Malley, M. Pathak, J. Portugal Pereira (eds.). IPCC, 2019. Available at: <https://www.ipcc.ch/srccl/chapter/technical-summary/>
30. World Health Organization (WHO). *Plant-Based Diets and Their Impact on Health, Sustainability and the Environment: A Review of the Evidence*. WHO European Office for the Prevention and Control of Noncommunicable Diseases. Copenhagen: WHO Regional Office for Europe; 2021.
31. McCullum-Gomez C. Healthy people, healthy planet. A flexitarian approach to sustainable, healthy diets. *Today's Dietitian Supplement* March 2022. Available at: <https://secure.viewer.zmags.com/publication/ed02d13c#/ed02d13c/1>

32. 2022 *PLANT-FORWARD OPPORTUNITY: A Datassential report in collaboration with The Culinary Institute of America, Food for Climate League, and the Menus of Change University Research Collaborative*. Datassential; 2022. Available at: <https://www.ciaprochef.com/Plant-ForwardOpportunityReport2022/>
33. Gibbs J, Cappuccio FP. Plant-based dietary patterns for human and planetary health. *Nutrients* 2022; 14(8):1614. <https://doi.org/10.3390/nu14081614>
34. Healthy Diets from Sustainable Food Systems: Food Planet Health. Summary Report of the *Eat-Lancet* Commission. *Eat-Lancet* Commission, 2019. <https://eatforum.org/eat-lancet-commission/eat-lancet-commission-summary-report/>
35. Willett W, Rockstrom J, Loken B, et al. Food in the Anthropocene: The *Eat-Lancet* Commission on healthy diets from sustainable food systems. *Lancet* 2019;393:447-92.
36. World Wildlife Fund (WWF). *Bending the Curve: The Restorative Power of Planet-Based Diets*. Loken et al. Gland, Switzerland: WWF, 2020. Available at: https://files.worldwildlife.org/wwfcmssprod/files/Publication/file/7b5iok5vqz_Bending_the_Curve_The_Restorative_Power_of_Planet_Based_Diets_FULL_REPORT_FINAL.pdf.pdf
37. Rippin HL, Cade JE, Berrang-Ford L, et al. Variations in greenhouse gas emissions of individual diets: Associations between the greenhouse gas emissions and nutrient intake in the United Kingdom. *PLoS ONE* 2021;16(11): e0259418. <https://doi.org/10.1371/journal.pone.0259418>
38. Sun, Z., Scherer, L., Tukker, A. *et al.* Dietary change in high-income nations alone can lead to substantial double climate dividend. *Nature Food* 2022;3:29–37. <https://doi.org/10.1038/s43016-021-00431-5>
39. Laine JE, Huybrechts I, Gunter MJ, et al. Co-benefits from sustainable dietary shifts for population and environmental health: an assessment from a large European cohort study. *Lancet Planetary Health* 2021; 5: e786–96.
40. Aleksandrowicz L, Green R, Joy EJ. The impacts of dietary change on greenhouse gas emissions, land use, water use, and health: a systematic review. *PLoS One* 2016; 11: e0165797
41. Schreffel L, Schulte RPO, de Boer IJM, et al. Regenerative agriculture – the soil is the base. *Global Food Security* 2020;26:100404. doi:10.1016/j.gfs.2020.100404
42. Vanham D, Mekonnen MM, Hoekstra AY. Treenuts and groundnuts in the EAT-Lancet reference diet: Concerns regarding sustainable water use. *Global Food Security* 2020; 24:100357 <https://doi.org/10.1016/j.gfs.2020.100357>

43. Fenster TLD, Oikawa PY, Lundren JG. Regenerative almond production systems improve soil health, biodiversity, and profit. *Frontiers in Sustainable Food Systems* 2021;5: 664359 doi: 10.3389/fsufs.2021.664359
44. Semba, R. D. et al. Adoption of the ‘planetary health diet’ has different impacts on countries’ greenhouse gas emissions. *Nature Food* 2020; 1:481–484.
45. Bryant CJ, Plant-based animal product alternatives are healthier and more environmentally sustainable than animal products. *Future Foods* 2022;6:100174. <https://doi.org/10.1016/j.fufo.2022.100174>
46. Hawkins IW, Mangels AR. Resources used and innovations in teaching vegetarian and vegan nutrition in accredited dietetics programs in the United States. *International Journal of Disease Reversal and Prevention* 2021;3(2): doi:10.22230/ijdrp.2021v3n2a231
47. Craig WJ, Mangels AR, Fresán U, Marsh K, Miles FL, Saunders AV, Haddad EH, Heskey CE, Johnston P, Larson-Meyer E, Orlich M. The safe and effective use of plant-based diets with guidelines for health professionals. *Nutrients*. 2021;13(11):4144. doi: 10.3390/nu13114144
48. Melina V, Craig W, Levin S. Position of the Academy of Nutrition and Dietetics: Vegetarian Diets. *J Acad Nutr Diet*. 2016;116(12):1970-1980. doi: 10.1016/j.jand.2016.09.025. Available at: [https://www.jandonline.org/article/S2212-2672\(16\)31192-3/fulltext](https://www.jandonline.org/article/S2212-2672(16)31192-3/fulltext) (Expired on January 1, 2022).
49. Messina M. Soy and health update: evaluation of the clinical and epidemiologic literature. *Nutrients* 2016;8:754: Doi:10.3390/nu8120754
50. Flynn MM, Schiff AR. Economical Healthy Diets (2012): Including lean animal protein costs more than using extra virgin olive oil. *Journal of Hunger & Environmental Nutrition* 2015;10:4:467-482, DOI:10.1080/19320248.2015.1045675
51. The Economist Intelligence Unit. *Fixing Food 2021: An Opportunity for G20 Countries to Lead the Way – Report*. Lonon, UK: The Economist Intelligence Unit & Barilla Center for Food & Nutrition; July 2021. Also, see: *Food Sustainability Index*: <https://foodsustainability-cms.eiu.com/country-ranking/> Retrieved July 20, 2021. Available at: <https://impact.economist.com/projects/foodsustainability/g20/fixing-food-2021-paper/about-this-report/>

According to the *Fixing Food 2021* report (pages 32-33),

(page 32): “In the UK, which is ranked among the highest in the [Food Sustainability Index] FSI’s subcategory on policy response to dietary patterns, national guidelines recommend the amount of each of five food groups that should be eaten daily. But where the UK really excels is in these recommendations taking into account the sustainability of the planet.¹¹⁶ Only three other sets of guidelines issued by G20 governments (Australia, France and Italy) take account of the effects of human diets on the environment.”

(page 32): “A recent study of [food-based dietary guidelines] FBDGs in 85 countries published in the *British Medical Journal* [2020] found that most were not compatible with a set of six global health and environmental targets, including those set by the Paris Agreement and others associated with biodiversity, land and freshwater use, nitrogen and phosphorus pollution, and the SDG [Sustainable Development Goal] of cutting premature deaths from non-communicable diseases by one-third.¹¹⁷

More specifically, if governments were able to ensure that their populations met the recommendations of the FBDGs, the study estimated that premature mortality would fall by 15% and that food-related GHG emissions would decline by 13% (there was no overall effect on demand for freshwater.)¹¹⁸ This is progress of sorts, but is nowhere near enough. The same study modelled the adoption of FBDGs against Paris Agreement targets and found that projected food-related GHG emissions would exceed those permitted under the Agreement by an average of 140%. Only nine of the 85 FBDGs fulfilled four of the targets, and only two met all six.”

(page 33): “Australia is one of only four G20 countries with national guidelines on healthy eating that take into account environmental sustainability. Its FBDGs are outlined in the Australian Dietary Guidelines, developed by the National Health and Medical Research Council and published in 2013.¹²⁰ The Guidelines provide recommendations for how to maintain good health and reduce the risks of chronic health problems across all age groups. Crucially, the appendices state that the aim of the FBDGs is to “encourage people to review their dietary patterns with a primary focus on improving their health, while allowing them to consider ways to reduce environmental consequences”.¹²¹ On sustainability specifically, the document recommends: avoiding over-consumption; reducing food waste by ensuring appropriate product storage; consuming locally grown and seasonal products; focusing on nutritional value (eating “imperfect” fruits and vegetables); and preparing meals in an energy-efficient way. The next step is to put these recommendations in a more prominent position within the Guidelines. An important lesson from Australia’s process, according to Professor Lee, chair of the Australia Dietary Guidelines Working Committee, is “getting sign-off on the scope of the guidelines and the inclusion of sustainability as a pillar early on, because otherwise, no matter how great a job you do, that aspect may end up being buried or excluded”.

52. Li, M., Jia, N., Lenzen, M. *et al.* Global food-miles account for nearly 20% of total food-systems emissions. *Nature Food* 2022;3:445–453. <https://doi.org/10.1038/s43016-022-00531-w>

53. Southey F. Climate impact of food-miles up to 7 times higher than previously thought: study. *Food Navigator*, June 29, 2022. Available at: <https://www.foodnavigator.com/Article/2022/06/29/climate-impact-of-food-miles-up-to-7-times-higher-than-previously-thought-study>

54. Tandon A. ‘Food miles’ have larger climate impact than thought, study suggests. *Carbon Brief*. June 20, 2022. Available at: [carbonbrief.org](https://www.carbonbrief.org)

55. Hendriks SL, Montgomery H, Benton T, et al. Global environmental climate change, covid-19, and conflict threaten food security and nutrition. *British Medical Journal*. 2022;378:e071534. doi:10.1136/bmj-2022-071534
56. Minaker LM, Raine KD, Fisher P, et al. Food purchasing from farmers' markets and Community-Supported Agriculture is associated with reduced weight and better diets in a population-based sample. *Journal of Hunger & Environmental Nutrition*. 2014;9(4):485-497.
57. Harmon AH. Community Supported Agriculture: A conceptual model of health implications. *Austin Journal of Nutrition and Food Science* 2014;2(4): 9. Available at: https://scholarworks.montana.edu/xmlui/bitstream/handle/1/14445/Harmon_AJNFS_2014.pdf?sequence=1
58. United States Department of Agriculture (USDA). Food and Nutrition Service (FNS). FNS Awards CT Grant to Provide Mobile Payments for WIC Farmers' Market Nutrition Program. September 23, 2022. Available at: <https://www.fns.usda.gov/news-item/nero-ct-092322>
59. Connecticut Department of Agriculture, Farmers' Market Nutrition Program. July 21, 2022. Available at: <https://portal.ct.gov/DOAG/ADaRC/ADaRC/WIC-and-Senior-Farmers-Market-Nutrition-Program>
60. Hanson KL, Kolodinsky J, Wang W, et al. Adults and children in low-income households that participate in cost-offset Community Supported Agriculture have high fruit and vegetable consumption. *Nutrients* 2017;9(7):726
61. County Health Rankings & Roadmaps (CHR&R), University of Wisconsin Population Health Institute. Community supported agriculture. September 22, 2019. Available at: <https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/community-supported-agriculture-csa>
62. Brady PJ, Askelson NM, Wright B, Daly E, Momany E, McInroy B, Damiano P. Food insecurity is prevalent in Iowa's Medicaid expansion population. *Journal of the Academy of Nutrition Dietetics* 2022;122(2):394-402. doi: 10.1016/j.jand.2021.04.011
63. Platkin, C., Cather, A., Butz, L., Garcia, I., Gallanter, M., Leung, MM., *Food As Medicine: Overview and Report: How Food and Diet Impact the Treatment of Disease and Disease Management*. Center for Food As Medicine and Hunter College NYC Food Policy Center; March 30, 2022, Available at: <https://www.nycfoodpolicy.org/wp-content/uploads/2022/04/foodasmedicine.pdf>

64. Corbin Hill Food Project. NYC Produce Prescription Program to Combat Food Insecurity, SDOH [Social Determinants of Health]. May 25, 2022. Available at: <https://patientengagementhit.com/news/nyc-produce-prescription-program-to-combat-food-insecurity-sdoh> and Mont Sinai Press Release. Food As Medicine Program Brings Farm Fresh Produce to Upper Manhattan and Bronx Residents. May 17, 2022. Available at: <https://www.mountsinai.org/about/newsroom/2022/food-as-medicine-project-brings-farm-fresh-produce-to-upper-manhattan-and-bronx-residents>
65. Wu JHY, Trieu K, Coyle D, et al. Testing the feasibility and dietary impact of a “produce prescription” program for adults with undermanaged Type 2 diabetes and food insecurity in Australia. *The Journal of Nutrition* 2022; nxac152, <https://doi.org/10.1093/jn/nxac152>
66. National Sustainable Agriculture Coalition. Gus Schumacher Nutrition Incentive Program. May 2019. Available at: <https://sustainableagriculture.net/publications/grassrootsguide/local-food-systems-rural-development/food-insecurity-nutrition-incentives/>
67. United States Department of Agriculture (USDA), National Institute of Food and Agriculture. Gus Schumacher Nutrition Incentive Program. Undated. Available at: <https://www.nifa.usda.gov/grants/programs/hunger-food-security-programs/gus-schumacher-nutrition-incentive-program>
68. United Nations (UN). International Day of Awareness on Food Loss and Waste Reduction, September 29, 2022. *Stop Food Loss and Waste, For the People, For the Planet*. Available at: <https://www.un.org/en/observances/end-food-waste-day>
69. Food and Agriculture Organization of the United Nations (FAO). *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction*. Rome, Italy: FAO; 2019. Available at: <https://www.fao.org/3/ca6030en/ca6030en.pdf>
70. Food and Agriculture Organization of the United Nations (FAO). *Technical Platform on the Measurement and Reduction of Food Loss and Waste*. Rome, Italy: FAO; 2022. Available at: <https://www.fao.org/platform-food-loss-waste/en/>
71. United Nations Environment Programme *Food Waste Index Report 2021*. Nairobi, Kenya, UNEP; 2021. Available at: <https://www.unep.org/resources/report/unep-food-waste-index-report-2021>
72. Conrad, Z. Daily cost of consumer food wasted, inedible, and consumed in the United States, 2001–2016. *Nutrition Journal* 2020;19:35. <https://doi.org/10.1186/s12937-020-00552-w>
73. US Environmental Protection Agency (EPA). *Part I: From Farm to Kitchen. The Environmental Impacts of U.S. Food Waste*. Washington DC:US EPA; November 2021, Available at: https://www.epa.gov/system/files/documents/2021-11/from-farm-to-kitchen-the-environmental-impacts-of-u.s.-food-waste_508-tagged.pdf

74. Food and Agriculture Organization of the United Nations (FAO). 15 quick tips for reducing food waste and becoming a Food hero. September 29, 2020. Available at: <https://www.fao.org/fao-stories/article/en/c/1309609/>
75. Berardy A, Egan B, Birchfield, N et al. Comparison of plate waste between vegetarian and meat-containing meals in a hospital setting: Environmental and nutritional considerations. *Nutrients* 2022;14:1174. <https://doi.org/10.3390/nu14061174>
76. Moreno LA, Meyer R, Donovan SM, et al. Perspective: Striking a balance between planetary and human health—Is there a path forward? *Advances in Nutrition* 2022;13(2): 355–375, <https://doi.org/10.1093/advances/nmab139>
77. Helander H, Petit-Box A, Leipold S. *Healthy diets save more resources than food waste reduction* (Policy Brief, October 2021, Circular Economy Series No. 4). Available at: <https://www.transition.uni-freiburg.de/documents/pb4en>
78. Government Accountability Office (GAO). *Date Labels on Packaged Foods: USDA and FDA Could Take Additional Steps to Reduce Consumer Confusion*. Washington DC: GAO. September 19, 2019. Available at: <https://www.gao.gov/products/gao-19-407> and https://www.gao.gov/products/gao-19-407#summary_recommend
79. Conrad Z, Blackstone NT. Identifying the links between consumer food waste, nutrition, and environmental sustainability: a narrative review. *Nutrition Reviews* 2021; 79(3): 301–314. <http://dx.doi.org/10.1093/nutrit/nuaa035>
80. Foodprint. What you eat has a water footprint. March 8, 2022. Retrieved July 2, 2022. Available at: <https://foodprint.org/blog/what-you-eat-has-a-water-footprint/>

Additional Resources:

Guinto RR, Baluyot CJ, Gan CCR. Health sector solutions for promoting sustainable and nutritious diets. *British Medical Journal*. 2022. 378:e071535.

<https://www.bmj.com/content/378/bmj-2022-071535>

United States Department of Agriculture (USDA). Sustainable Eating. Available at: <https://www.nutrition.gov/topics/shopping-cooking-and-meal-planning/sustainable-eating>

Stiles G, Collins J, Beck KL. Effectiveness of strategies to decrease animal-sourced protein and/or increase plant-sourced protein in foodservice settings: A systematic literature review. *Journal of the Academy of Nutrition and Dietetics* 2022;122(5):1013-1048. doi: 10.1016/j.jand.2021.12.010

Stern, AL, Blackstone, NT, Economos, CD *et al.* Less animal protein and more whole grain in US school lunches could greatly reduce environmental impacts. *Communications Earth & Environment* 2022; 3:138. <https://doi.org/10.1038/s43247-022-00452-3>

Keesing F. Diet for a small footprint. *Proceedings of the National Academy of Sciences (PNAS)* 2022;119 (17) e2204241119. Available at: <https://www.pnas.org/doi/10.1073/pnas.2204241119>

Lusk JL, Blaustein-Rejto D, Shah S. Impact of plant-based meat alternatives on cattle inventories and greenhouse gas emissions. *Environmental Research Letters* 2022;17 024035 Available at: <https://iopscience.iop.org/article/10.1088/1748-9326/ac4fda/pdf#:~:text=Increases%20in%20U.S.%20demand%20for,efficiency%20of%20U.S.%20beef%20production.>

Mapes BR, Prager SD, Béné C, Gonzalez CE. Healthy and sustainable diets from today to 2050-The role of international trade. *PLoS One* 2022;17(5):e0264729. doi:10.1371/journal.pone.0264729

WWF. *Unlocking and Scaling Climate Solutions in Food Systems: An Assessment of Nationally Determined Contributions*. Gland, Switzerland: WWF; November 2022. Available at: <https://www.oneplanetnetwork.org/sites/default/files/from-crm/Unlocking%2520and%2520Scaling%2520Climate%2520Solutions.pdf>

Klapp AL, Feil N, Risius A. A global analysis of national dietary guidelines on plant-based diets and substitutions for animal-based foods. *Current Developments in Nutrition* 2022;6:11, nzac144, <https://doi.org/10.1093/cdn/nzac144>

Pointing C. New Spanish dietary guidelines recommend 0-3 portions of meat a week. *Plant Based News*. November 3, 2022. Available at: <https://plantbasednews.org/lifestyle/food/new-spanish-dietary-guidelines-recommendation-meat/>

Trolle E, Nordman M, Lassen AD, et al. Carbon footprint reduction by transitioning to a diet consistent with the Danish climate-friendly dietary guidelines: A comparison of different carbon footprint databases. *Foods* 2022;11(8):1119. doi: 10.3390/foods11081119

Kovacs B, Miller L, Heller, MC. *et al.* The carbon footprint of dietary guidelines around the world: a seven country modeling study. *Nutrition Journal* 2021;20:15 <https://doi.org/10.1186/s12937-021-00669-6>

Dietary Guidelines for the Brazilian Population, 2nd Edition. Ministry of Health of Brazil; 2014 <https://www.paho.org/hq/dmdocuments/2015/dietary-guides-brazil-eng.pdf>

See page 19 – “Healthy Diets Derive From Socially and Environmentally Sustainable Food Systems”

Halpern, B.S., Frazier, M., Verstaen, J. *et al.* The environmental footprint of global food production. *Nature Sustainability* 2022. <https://doi.org/10.1038/s41893-022-00965-x>

Masterson V. What is regenerative agriculture? World Economic Forum. October 11, 2022. <https://www.weforum.org/agenda/2022/10/what-is-regenerative-agriculture/>

Shiva V. *Agroecology and Regenerative Agriculture: Sustainable Solutions For Hunger, Poverty and Climate Change*. New Mexico: Synergetic Press; 2022. Available at: <https://synergeticpress.com/catalog/agroecology-and-regenerative-agriculture-sustainable-solutions-for-hunger-poverty-and-climate-change/>

Webinar: Serving up Solutions: Building the evidence on Produce Rx Programs, November 15, 2022. Sign up here: https://rockfound.zoom.us/webinar/register/WN_6G7p8YEHRX-oJRq-egRydA

Mozaffarian, D., Blanck, H.M., Garfield, K.M. *et al.* A Food is Medicine approach to achieve nutrition security and improve health. *Nature Medicine* 2022 <https://doi.org/10.1038/s41591-022-02027-3>

Slow Food and CINEA. *Our Food, Our Health: Nourishing Biodiversity to Heal Ourselves and the Planet*. Bra, Italy: Slow Food; 2022. Available at: https://www.slowfood.com/wp-content/uploads/2022/04/EN_position_cibo_e_salute_COMPLETO.pdf

Merrigan K, Giraud, EG, El-Hage Scialabba N, et al. *Growing Organic: The Climate, Health, and Economic Case For Expanding Organic Agriculture*. Swette Center for Sustainable Food Systems, Arizona State University; National Resources Defense Council (NRDC); and Californians for Pesticide Reform; October 2022. Available at: <https://www.nrdc.org/sites/default/files/grow-organic-agriculture-report.pdf>

Feeny M. Food waste reduction through Farm-to-School Programs. USDA. October 27, 2022. Available at: <https://www.usda.gov/media/blog/2022/10/27/food-waste-reduction-through-farm-school-programs>

Bhattacharyya N. Community resources to combat climate change and food loss and waste. June 21, 2022. USDA. Available at: <https://www.usda.gov/media/blog/2022/06/21/community-resources-combat-climate-change-and-food-loss-and-waste>

Buzby J. Do meal kits reduce food waste? An interview with Dr. Brenna Ellison. USDA. July 28, 2021. Available at: <https://www.usda.gov/media/blog/2021/07/28/do-meal-kits-reduce-food-waste-interview-dr-brenna-ellison>