



PETITION FOR RULEMAKING

April 15, 2024

Via Certified U.S. Mail and E-mail

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Re: Rulemaking Petition to Allow for States to be Reimbursed for and More Easily Provide Vegan Foods in the National School Lunch Program

Dear Secretary Vilsack and Deputy Under Secretary Dean,

Friends of Animals submits this petition pursuant the Administrative Procedure Act (APA)¹ and the First Amendment of the Constitution.² Friends of Animals is an “interested person” under APA section 553(e) and seeks to modify the unnecessarily restrictive requirements of certain foods in the overall childhood nutritional plans, as manifest in the National School Lunch Program (NSLP).

Petitioner specifically requests that USDA’s Food and Nutrition Service amend the NSLP regulations with the aim of making healthful and nutritious vegan foods more easily available in the NSLP.

STATEMENT OF PETITIONER’S INTEREST

Friends of Animals is an international animal advocacy organization incorporated in the state of New York since 1957. Friends of Animals has thousands of members from around the world. Friends of Animals and its members seek to free animals from cruelty and

¹ 5 U.S.C. § 553(e) (“Each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.”).

² The United States Constitution provides that “Congress shall make no law . . . abridging . . . the right of the people . . . to petition the government for a redress of grievances.” U.S. CONST., amend. I.

exploitation around the world and to promote a respectful view of non-human, free-living, and domestic animals.

Friends of Animals opposes the use of animals for human consumption and has a long-standing commitment to educating the public about cruelty-free practices, including veganism and protecting animals imperiled by animal exploitation markets. Friends of Animals places critical habitat, wildlife protection, and veganism at the core of animal advocacy. It also addresses the biggest contributors to climate change caused by human activity: deforestation, animal agriculture, and fossil fuels. Friends of Animals believes that providing healthy vegan food to our nation's children is critical for humans and non-humans alike and necessary to tackle the biodiversity and climate crises that we face.

Establishing new regulations is urgent and necessary for the well-being of American schoolchildren through access to inclusive, healthy, ethical, and environmentally conscious lunch options. Doing so will ensure the quality of nutrition within U.S. schools participating in the NSLP and can better achieve close alignment with the requirements of the Dietary Guidelines for Americans.

Friends of Animals thanks you for your careful review of this Petition and requests a written response informing us of your decision. The attached Basis of Support further explains the reasons for this Petition. The reports and studies cited in the Basis of Support are included on the enclosed flash drive along with a PDF of this Petition.

Respectfully submitted,

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LEGAL BACKGROUND

A. The National School Lunch Program and Implementing Regulations

Congress passed the National School Lunch Program act (NSLP) in 1946.³ The NSLP declares that, as a measure of national security, the NSLP aims to “safeguard the health and well-being of the Nation’s children” and “encourage the consumption of nutritious agricultural commodities.”⁴ The Act also states that the minimum nutritional requirements “shall not be construed to prohibit the substitution of foods to accommodate the medical or other special dietary needs of individual students.”⁵

The goal of the program is to “safeguard the well-being of the Nation’s children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grants-in-aid and other means, in providing an adequate supply of food and other facilities for . . . school lunch programs.”⁶

A key aspect of this program involves Federal reimbursement of State purchases of food. For states to be reimbursed for participating in this program, “[s]chools must offer nutritious, well-balanced, and age-appropriate meals to all the children they serve to improve their diets and safeguard their health.”⁷ The USDA regulations fall short of meeting this goal. While the regulations state that, “[s]chools must follow a food-based menu planning approach,” and “lunches must meet the dietary specifications” laid out in the regulations,⁸ some of these regulations and meal requirements impose restrictions, making it difficult for schools to offer complete vegan meal options.

Schools must comply with strict requirements laid out in regulations. For example, all school lunches must meet the “dietary specifications,” including total calories, saturated fat, sodium, and trans-fat.⁹ The current regulations severely restrict schools’ abilities to provide substitutes for dietary reasons of any kind. For example, while schools may make these substitutions, such substitutions must be “supported by written statement of the need for substitution,” and such statement “must be signed by a recognized medical authority.”¹⁰

³ 42 U.S.C. § 1751 *et seq.*; U.S. Dep’t. of Agriculture, *National School Lunch Program*, <https://www.fns.usda.gov/nslp>.

⁴ 42 U.S.C. § 1751.

⁵ 42 U.S.C. § 1758(a)(1)(A)(i).

⁶ 7 C.F.R. § 210.1(a).

⁷ 7 C.F.R. § 210.10(a)(1).

⁸ 7 C.F.R. § 210.10(a)(1)(i).

⁹ 7 C.F.R. § 210.1(f).

¹⁰ 7 C.F.R. § 210.1(m)(2).

1. Participation and Impact of the Program

Almost 100,000 schools are involved in the NSLP, offering affordable or free meals to students.¹¹ Over the past four years, participation has continuously increased, with an average of thirty million kids now taking part in the NSLP.¹² In the federal fiscal year 2022, the program provided school lunches to 30.1 million students, and 94.8% of these students received free meals. This marks a 26.4% increase from fiscal year 2019, indicating a steady rise in participation since the onset of the Covid-19 pandemic.

The NSLP plays a vital role in contributing to the overall daily nutrition for most American children enrolled in K-12 schools. For many of these kids, the first step to a healthier life begins with dietary habits, which are highly influenced by exposure to a wide variety of offerings on school menus. Therefore, the NSLP should be treated as an adaptive system to help improve the health of children and the overall American public. However, USDA has noted in its proposed rulemaking, *Child Nutrition Programs: Revisions to Meal Patterns Consistent With the 2020 Dietary Guidelines for Americans*, that the NSLP is recognized by respondents as falling short in providing clear information and obtainable guidelines related to plant-based proteins and plant-based milk. Ultimately, this fails to provide equitable accessibility to all children, plant-based milk options, and nutritionally-balanced vegan meals on any given school day.

2. Meat Requirements in the Regulations and Policies

One of the largest areas of change needed to improve school nutrition is the increased use of protein-rich beans, peas, and lentils, as well as a greater use of vegan proteins low in saturated fat.

Friends of Animals commends USDA for proposing to change the name of “meat/meat alternate,” to “protein sources,” as well as changing the name of the vegetable subgroup “legumes” to “beans, peas, and lentils” in 7 C.F.R. §§ 210, 220, and 226. These changes are necessary to improve the food group definitions. As outlined in part B, the health benefits of increasing the use of whole, high-protein plant foods in school meals cannot be overstated. However, other problematic requirements exist.

The current regulations impose significant limitations on the types of vegan protein products that can be credited. For example, tofu must be easily recognizable as a meat substitute and is otherwise not credited. Thus, if tofu is blended into a soup or presented in another form such as tofu noodles, it is not credited. Such specifications can discourage the

¹¹ U.S. Dep’t of Agriculture, Economic Research Service, *National School Lunch Program* (Sep. 27, 2023), <https://www.ers.usda.gov/topics/food-nutrition-assistance/child-nutrition-programs/national-school-lunch-program/>.

¹² USA Facts, *How many US children receive a free or reduced-price school lunch?* (Oct. 26, 2023), <https://usafacts.org/articles/how-many-us-children-receive-a-free-or-reduced-price-school-lunch/>.

use of a variety of plant-based protein products and hinder the use of new products that meet or exceed the component requirements.

The regulations define tofu as “a soybean-derived food” and state that the “[b]asic ingredients are whole soybeans, one or more food-grade coagulants (typically a salt or an acid), and water.”¹³ This definition also allows tofu products to “count toward the meats/meat alternates component.”¹⁴ Yet, crediting tofu requires greater serving sizes and inconsistent requirements that can make the use of tofu and soy products less convenient for program operators than meats in school meals.

While one ounce of lean meat, poultry, or fish can contain varying amounts of protein per ounce, these protein sources are broadly credited for meeting the meat/meat alternate component. Comparatively, the requirements for crediting tofu that meet or exceed five grams of protein per ounce are overly strict for protein content. The current NSLP regulations state that 2.2 ounces of commercially prepared tofu, containing at least five grams of protein, is only creditable as 1.0 ounce equivalent meat alternate.¹⁵

Similarly, USDA policy only allows firm or extra-firm tofu to be served in visibly obvious forms, such as blocks commonly seen in “stir-fries, omelets, and miso soup.”¹⁶

Thus, “tofu that is incorporated into items to add texture or improve nutrition, but is not easily recognizable as a meat substitute, such as in smoothies, sauces, and baked desserts, does not credit toward the meats/meat alternates component.”¹⁷ These limitations largely remove opportunities for students to meet protein intake requirements and undermine the efforts for culturally diverse foods to be introduced to school menus.

Removing restrictions related to visible forms of soy and tofu products can further benefit meal planning budgets. Many generic and unprocessed soy and tofu products are lower in cost than other proteins and are presently being added to international school lunch programs in forms that are not visible, such as soy flour, to increase student protein intake as cost-effectively as possible.¹⁸

3. Dairy Requirements in the Regulations

Although nothing in the statute defines fluid milk or limits it to dairy milk derived from animals, the regulations are unnecessarily restrictive of plant-based milk.

¹³ 7 C.F.R. § 210.20.

¹⁴ 7 C.F.R. § 210.20.

¹⁵ U.S. Dep’t of Agriculture, *Revised: Crediting Tofu and Soy Yogurt Products in the School Meal Programs, CACFP, and SFSP* (Nov. 29, 2023), <https://www.fns.usda.gov/cn/crediting-tofu-and-soy-yogurt-products-school-meal-programs-and-cacfp>.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ Peter Goldsmith et al., *National School Lunch Nutrition and Cost Profile: A Case Study of the Ghana School Feeding Programme*, 40 Food and Nutrition Bulletin 41 (Feb. 8, 2019), <https://doi.org/10.1177/0379572119825960>.

The regulations specify the food components and quantities required in lunch meal patterns.¹⁹ According to the regulations, a minimum of five cups of “fluid milk” must be served each school week, or a minimum of one cup per day for all grades, kindergarten through 12th grade. The regulations provide, “[s]chools must offer students a variety (at least two different options) of fluid milk. All milk must be fat-free (skim) or low-fat (1 percent fat or less).”²⁰ However, “[i]f a school chooses to offer one or more substitutes for fluid milk for non-disabled students with medical or special dietary needs, the nondairy beverage(s) must” comply with the nutrient guidelines listed below:

Dairy Milk

Nutrient	Per cup (8 fl oz)
Calcium	276 mg.
Protein	8 g.
Vitamin A	500 IU.
Vitamin D	100 IU.
Magnesium	24 mg.
Phosphorus	222 mg.
Potassium	349 mg.
Riboflavin	0.44 mg.
Vitamin B-12	1.1 mcg.

7 C.F.R. § 210.10(d)(3).

The existing regulations for fluid milk are centered around a combination of dairy milk, although low-fat and 1% milk have been the main offerings on school menus. Notably, low-fat and 1% milk are commonly enriched with vitamins A and D, similar to numerous plant-based alternates.

While the regulations allow for substitutions, any expenses that go beyond the program reimbursements “must be paid by the school food authority.”²¹ This places an unnecessary

¹⁹ 7 C.F.R. § 210.10(c) at Table 1.

²⁰ 7 C.F.R. § 210.10(d)(1)(i).

²¹ 7 C.F.R. § 210.10(m)(2)(i).

and unfair barrier to providing plant-based milk to students who request it. It may also violate the statutory requirement that participating schools may not “restrict the sale or marketing of fluid milk products.”²²

BASIS OF SUPPORT FOR ADOPTION OF PETITION TO MAKE HEALTHFUL AND NUTRITIOUS VEGAN FOODS MORE AVAILABLE IN THE NATIONAL SCHOOL LUNCH PROGRAM

A. Vegan meal options will advance the broader goals of USDA and improve the nutritional impact of the NSLP.

To best serve America’s children and all those participating in school nutritional programs, USDA must enhance the NSLP by placing greater emphasis on promoting equitable and environmentally conscious dietary standards. USDA should revise current food definitions and processes for schools to create diverse and improved vegan meal options. This will help ensure that schools can appropriately feed growing numbers of students who are in need of plant-based foods due to religion, allergies, disability, personal ethics, or dietary preference.

Requiring the availability of daily plant-based food and milk options to create completely vegan meals removes existing barriers still present in the proposed rulemaking. It will also enhance USDA’s mission “[t]o serve all Americans by providing effective, innovative, science-based policy leadership in agriculture, food and nutrition, natural resource protection and management, rural development, and related issues with a commitment to deliver equitable and climate-smart opportunities that inspire and help America thrive.”²³

The availability of whole, vegan meals can help students meet requisite nutritional standards and the optimal intake of vitamins and minerals. According to the current Dietary Guidelines for Americans (DGA), the consumption of vegetables, fruits, whole grains, and legumes by American schoolchildren is significantly inadequate.²⁴ A 2022 survey found that 37% of students claimed that they would eat school lunches more frequently if more plant-based options were available to them.²⁵

Additionally, integrating a broadened use of beans, peas, and lentils into the NSLP aligns with the Dietary Guidelines for Americans and further addresses current concerns for protein and fiber deficiencies. USDA’s 2021 School Nutrition and Meal Cost Study highlighted a significant gap between students’ fiber intake and the DGA recommendations.

²² 42 U.S.C. § 1758(a)(2)(C).

²³ U.S. Dep’t of Agriculture, *Strategic Plan Fiscal Years 2022-2026* 3, (Mar. 2022), <https://www.usda.gov/sites/default/files/documents/usda-fy-2022-2026-strategic-plan.pdf>.

²⁴ U.S. Dep’t of Agriculture and U.S. Dep’t. of Health and Human Services, *Dietary Guidelines for Americans, 2020-2025* 79-86 (Dec. 2020). https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf.

²⁵ Reyna Estrada, *K-12 students want more plant-based options on the menu* (August 9, 2022), <https://www.foodservicedirector.com/menu/k-12-students-want-more-plant-based-options-menu>.

USDA recognizes that beans, peas, and lentils are “excellent sources of plant protein” and are comparable to meats, poultry, and fish in their nutrient contributions.²⁶ Therefore, Friends of Animals encourages USDA to credit servings of beans, peas, and lentils toward both the protein component and the vegetable subgroup component. This is a sustainable and cost-effective step to help students meet their protein and fiber goals with foods rich in fiber, protein, iron, zinc, and amino acids.

B. Reducing dairy and meat by adding additional vegan options to the NSLP is essential to improving children’s diets and safeguarding their health.

USDA is obligated to incorporate new findings and dietary concerns affecting the health of Americans, particularly those negatively impacting marginalized groups, to strengthen the NSLP. It must be addressed that a growing number of medical professionals have stated that added scrutiny of the negative health risks of meat and dairy consumption is necessary to improve nutritional programming in schools.

The quality of school nutrition impacts student performance and behavior. Across the country, many schools provide easy access to highly processed meats, dairy products, and snacks high in preservatives and added sugars and are low in nutritious calories that can negatively impact weight, sustained energy levels, and focus.²⁷ Research shows that highly processed foods can impair cognitive function and contribute to depression, costing students much more than convenience.²⁸ Replacing highly processed meats and dairy with more plant-based proteins and milk can aid the NSLP in elevating students’ rights to education and nutrition security. Further, school meals supplement food security and can offer nutritional experiences that can become lifelong eating habits outside of school, shared with families, and influence others through exposure.

1. Vegan diets bring positive overall health benefits.

An increasing number of nutritionists affirm that a plant-based diet offers benefits across all age groups and contributes significantly to a healthy lifestyle.²⁹ Considerations of adult studies linking the connection of diet and long-term health are relevant to removing barriers to plant-based foods in schools, as food habits start with introductions at early

²⁶ U.S. Dep’t. of Agriculture, *Why are beans, peas, and lentils in both the protein foods group and the vegetable group?* (Jan. 4, 2024), <https://ask.usda.gov/s/article/Why-are-cooked-dried-beans-and-dried-peas-in-both-the-Protein-Foods-Group-and-the-Vegetable-Group>.

²⁷ Lenny Bernstein et al., *How Lunchables ended up on school lunch trays*, The Washington Post, (Oct. 17, 2023), <https://www.washingtonpost.com/health/interactive/2023/lunchables-school-lunch-ultraprocessed-foods/>.

²⁸ Moufidath Adjibade et al., *Prospective association between ultra-processed food consumption and incident depressive symptoms in the French NutriNet-Sante cohort*, 17 BMC Med. 78 (Apr. 15, 2019), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6463641/>.

²⁹ Nationwide Children’s Hospital, *Are Plant-Based Diets Safe for Kids?* (Jan. 14, 2020), <https://www.nationwidechildrens.org/family-resources-education/700childrens/2020/01/are-plant-based-diets-safe-for-kids>.

ages.³⁰ Improved access to plant-based options in the NSLP can help prevent a multitude of chronic health conditions that can develop later in life, linked to low fruit and vegetable intake, including type-2 diabetes, hypertension, heart disease, stroke, and cancer.³¹ Overall, the health benefits of a well-balanced vegan diet, both in children and adults, include lower risks of diabetes and chronic disease, reduced risks of heart disease, lower blood pressure and cholesterol levels, improved digestive health, and healthy weight management.³² Research conducted in 2021 also found that children on balanced vegan diets experience lower blood cholesterol, lower fat mass, and fewer risks of cardiovascular risks than children on omnivorous diets.³³ Reviews analyzing studies between 2021-2023 on vegan diets in children also concluded that children experienced normal growth and development, and were less obese than children on other diets.³⁴ Experts have further stated that there is a lack of data to suggest that height is negatively impacted by a plant-based diet.³⁵

Vegan diets can promote immune function, improved digestion, and a healthy brain-gut relationship. Several studies indicate that individuals on vegan diets have higher and more diverse gut microbiota and healthy bacterium presence than individuals on omnivorous diets.³⁶ More diverse and rich gut biomes strengthen gut health by fighting pathogens, reducing gastrointestinal inflammation, reducing acidity in the gut, and supporting the absorption of healthy nutrients.³⁷ Multiple studies and findings strongly reflect that the gut microbiome influences the nervous system, further impacting mental well-being and responses to stress.

In the 2024 U.S. News & World Report, vegan diets and diets largely made up of plant-based foods have taken the lead in healthy living. The vegan diet ranked third among the best plant-based diets after being evaluated for the very first time.³⁸ As stated by the American Dietetic Association, “It is the position of the American Dietetic Association that appropriately planned vegetarian diets, including total vegetarian or vegan diets, are healthful, nutritionally adequate, and may provide health benefits in the prevention and

³⁰ Victoria Aldridge et al., *The role of familiarity in dietary development*, 29 *Developmental Rev.* 33-40 (Mar. 2009), <https://www.sciencedirect.com/science/article/abs/pii/S0273229708000427>.

³¹ Neal Barnard & Frédéric Leroy, *Children and adults should avoid consuming animal products to reduce risk for chronic disease: YES*, 112 *Am. J. of Clinical Nutrition* 926-930 (Oct. 2020), <https://doi.org/10.1093/ajcn/nqaa235>.

³² *Id.*

³³ Alina Koller et al., *Health aspects of vegan diets among children and adolescents: a systematic review and meta-analysis*, *Critical Reviews in Food Science and Nutrition* 1-12 (Oct. 9, 2023), <https://doi.org/10.1080/10408398.2023.2263574>.

³⁴ Boštjan Jakše et al., *Vegan Diets for Children: A Narrative Review of Position Papers Published by Relevant Associations*, 22 *Nutrients* 4715 (Nov. 7, 2023), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10675242/>.

³⁵ *Id.*

³⁶ Aleksandra Tomova et al., *The Effects of Vegetarian and Vegan Diets on Gut Microbiota*, 17 *Front Nutr.* 47 (Apr. 17, 2019), <https://pubmed.ncbi.nlm.nih.gov/31058160/>.

³⁷ *Id.*

³⁸ U.S. News & World Report, *Best Plant-Based Diets 2024* (Jan. 1, 2024), <https://health.usnews.com/best-diet/best-plant-based-diets>.

treatment of certain diseases.”³⁹ Strict vegan diets are appropriate for individuals during all stages of the life cycle, including pregnancy, lactation, infancy, childhood, and adolescence for athletes.⁴⁰

Carefully selecting and preparing nutrient-rich foods “that provide a majority of energy from plant-based foods,” can improve the health of all American children. It is also highlighted by the Dietary Guidelines Advisory Committee’s recommendations of diets “providing the majority of energy from plant-based foods, such as vegetables, fruits, legumes, whole grains, nuts and seeds.”⁴¹

Low-income children are particularly affected by food insecurity. The DGA addresses that only 10% of Americans currently consume adequate amounts of vegetables daily, and only 20% consume enough fruits daily.⁴² Studies suggest a direct correlation between fruit and vegetable intake and availability and exposure to these foods at home.⁴³ For some kids, the only exposure to these foods will be during school lunch.

Many medical practitioners and researchers advocate for natural plant foods to support longevity. A study from the University of Borgen highlights the magnitude of benefits from a diet full of legumes, whole grains, nuts, vegetables, and fruits can enhance health and prevent chronic diseases. The study specifically found that a diet largely made up of these foods started at a young age can potentially add ten years to the human lifespan.⁴⁴ A growing number of articles and top food lists by medical practitioners focused on longevity mostly comprise whole plant foods, without biased referencing or promotion of plants in the headlines, such as lists from Health.com,⁴⁵ Denver Health Medical Plan Inc.,⁴⁶ and EverydayHealth.com.⁴⁷

2. Plant-based foods contain helpful nutrients not found in meat and dairy.

Plants contain a high amount of nutrients, and their benefits cannot be overstated. Among the most nutrient-dense and recommended are cruciferous vegetables such as cauliflower, broccoli, and kale, which contain protein, anti-inflammatory properties, fiber, and many

³⁹ Vesanto Melina et al., *Position of the Academy of Nutrition and Dietetics: Vegetarian Diets*, 116 J. of the Academy of Nutrition and Dietetics 1970 (Dec. 2016), <https://pubmed.ncbi.nlm.nih.gov/27886704/>.

⁴⁰ *Id.*

⁴¹ U.S. Dep’t. of Agriculture, *Scientific Report of the 2020 Dietary Guidelines Advisory Committee* 12 (Jul. 2020), https://www.dietaryguidelines.gov/sites/default/files/2020-07/ScientificReport_of_the_2020DietaryGuidelinesAdvisoryCommittee_first-print.pdf.

⁴² *Id.*

⁴³ Laurel F. Moffat et al., *Perceived Produce Availability and Child Fruit and Vegetable Intake: The Healthy Communities Study*, 13 *Nutrients* 3681 (Oct 20, 2021), <https://pubmed.ncbi.nlm.nih.gov/34835936/>.

⁴⁴ Lars T. Fadnes et al., *Estimating impact of food choices on life expectancy: A modeling study*, 19 *PLOS Medicine* e1003889 (Feb. 8, 2022), <https://doi.org/10.1371/journal.pmed.1003889>.

⁴⁵ Cynthia Sass, *What to Eat to Help You Live Longer and Healthier, The five eating habits that can extend your life, according to a registered dietician* (Oct. 25, 2022), <https://www.health.com/nutrition/longevity-diet>.

⁴⁶ Joel Fuhrman, *The 10 Best Foods For Longevity*, Denver Health Medical Plan Blog (2024), <https://www.denverhealthmedicalplan.org/blog/10-best-foods-longevity>.

⁴⁷ *Id.*

vitamins and minerals.⁴⁸ Notably, cruciferous vegetables contain sulforaphane, which helps prevent inflammation linked to heart disease.⁴⁹ Also at the top of many food lists are leafy greens, including spinach, collards, and lettuce, which are widely documented to help reduce risks of heart attacks, strokes, chronic disease, and some cancers.⁵⁰

Evidence suggests nuts can offer significant benefits to improve cognitive function and cardiovascular health. Where permitted due to varying allergen policies in schools, just a handful of nuts as a snack or mixed into a salad can offer an array of nutrients and benefits to students. Walnuts, peanuts, cashews, almonds, and pistachios are calorie-dense, rich in protein, and full of B vitamins and minerals, polyphenols, and omega-3 fatty acids.⁵¹ Specifically rich in alpha-linolenic acid, walnuts have the potential to positively impact emotional health, memory, and cognitive function for adolescents with ADHD. In a recent study, teens with ADHD who ate walnuts over a 100-day period displayed improvement in focusing during class and less hyperactivity.⁵² Participants without ADHD were found to have better focus.⁵³

Similar to nuts, seeds are rich in protein, vitamins, minerals, and omega-3 fatty acids.⁵⁴ While sunflower-sourced butter is common in the NSLP, a greater and varied use of seeds, including pumpkin, hemp, flaxseed, and chia seeds in recipes, can help improve hydration, cognitive function, immune function, and digestion in children.⁵⁵ Notably, chia seeds are specifically linked to healthy weight management, regulated blood sugar, and reduced risks of cardiovascular disease.⁵⁶ Flaxseed is also characterized by high fiber and antioxidant content and can help improve digestion.⁵⁷ Among several benefits, frequent consumption of flaxseed can help prevent type-2 diabetes as a contributor to regulating blood sugar and by improving the insulin resistance index.⁵⁸

Beans, peas, and lentils are highly nutritious sources of protein and fiber. The many benefits of legumes associated with longevity are well-published, including regulation of blood glucose, healthier digestion, contribution to lower cholesterol levels, and links to reduced colorectal cancer risks.⁵⁹ As both a suitable meat/meat alternate component and vegetable

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² Ariadna Pinar-Martí et al., *Effect of walnut consumption on neuropsychological development in healthy adolescents: a multi-school randomized controlled trial*, 59 *eClinicalMedicine* 101954 (Apr. 6, 2023), [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(23\)00131-1/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(23)00131-1/fulltext).

⁵³ *Id.*

⁵⁴ Fuhrman, *supra* note 46.

⁵⁵ Cleveland Clinic, *The 6 Best Seeds to Eat, How to incorporate seeds into a healthy diet*, (Jan. 12 2021), <https://health.clevelandclinic.org/the-6-best-seeds-to-eat>.

⁵⁶ K. Marcinek, Z. Krejpcio, *Chia seeds (Salvia hispanica): health promoting properties and therapeutic applications – a review*, 68 *Rocz Panstw Zakl Hig.* 123 (2017), <https://pubmed.ncbi.nlm.nih.gov/28646829/>.

⁵⁷ Wioletta Nowak & Malgorzata Jeziorek, *The Role of Flaxseed in Improving Human Health*, 11 *Healthcare* 395, (Jan. 30, 2023), <https://www.mdpi.com/2227-9032/11/3/395>.

⁵⁸ *Id.*

⁵⁹ Fuhrman, *supra* note 46.

subgroup meal component in the NSLP, increased use of beans, peas, and lentils is also strongly encouraged to meet the daily dietary needs of diverse students.

Alongside vegetables, higher consumption of fruits and berries is also associated with longevity, with the benefits of high dietary fiber, vitamins, minerals, electrolytes, and antioxidants. Specifically, citrus fruits such as clementines, grapefruits, lemons, oranges, and berries like blackberries, blueberries, cranberries, and more can help prevent breast cancer.⁶⁰ Further evidence suggests that the antioxidants found in blackberries and blueberries may help to destroy breast cancer cells.⁶¹

3. Plant-based diets can help Americans overcome many common health risks, including obesity, type-2 diabetes, and heart disease.

With 20% of American children facing obesity,⁶² it is imperative to mitigate health risks associated with chronic conditions by improving access to plant-forward nutrition. Lowering the risks of chronic conditions can begin with healthy weight management, which is highly attributable to well-balanced vegan diets. Obesity is a significant concern for American youth, as 19.3% of children ages 2-19 years are obese,⁶³ and approximately 42% of adult Americans are obese.⁶⁴

Meat and dairy consumption are increasingly found to be detrimental to the health of people of all stages of life and are primary causes of these long-term health risks impacting BIPOC populations. In June of 2023, Susan Levin, MS, RD, CSSD, and Director of Nutrition for the Physicians Committee for Responsible Medicine, a representative group of 12,000 physicians, stated, “As the leading source of saturated fat in the diet, dairy products contribute to chronic diseases, including heart disease and prostate cancer, that disproportionately harm or kill people of color.”⁶⁵ Similar concerns toward the encouragement of dairy products being exclusionary of the needs of BIPOC individuals for health reasons have been expressed by numerous nutritional experts. The overdue and broader need to address plant-based foods as part of the solution to remove dietary racism in the NSLP is described further in section A.

⁶⁰ Aleksandra S. Kristo et al., *Protective Role of Dietary Berries in Cancer*, 5 *Antioxidants* 37 (Oct. 19, 2016), <https://www.mdpi.com/2076-3921/5/4/37>; Jung-Kook Song & Jong-Myon Bae, *Citrus fruit intake and breast cancer risk: a quantitative systematic review*, 16 *J. Breast Cancer* 72 (Mar. 31, 2013), <https://doi.org/10.4048/jbc.2013.16.1.72>.

⁶¹ Kristo, *supra* note 60.

⁶² National Institute of Health, *Overweight and Obesity, Childhood Obesity*, (Mar. 24, 2022), <https://www.nhlbi.nih.gov/health/overweight-and-obesity/childhood-obesity>.

⁶³ Robert Wood Johnson Foundation, *State of Childhood Obesity*, <https://stateofchildhoodobesity.org/monitor> (last visited Mar. 15, 2024).

⁶⁴ Craig M. Hales et al., *Prevalence of Obesity and Severe Obesity Among Adults: United States, 2017–2018*, Centers for Disease Control and Prevention (Jun. 26, 2020), <https://www.cdc.gov/nchs/products/databriefs/db360.htm>.

⁶⁵ Physicians Committee For Responsible Medicine, *Doctors Group Tells Dietary Guidelines Advisory Committee To Ditch Dairy* (Jul.11, 2019), <https://www.pcrm.org/news/news-releases/doctors-group-tells-dietary-guidelines-advisory-committee-ditch-dairy>.

Concerns for child obesity and secondary health risks are related to the development of type-2 diabetes mellitus (T2D), which also can be prevented with the adoption of a vegan diet. Lower blood glucose levels and higher insulin sensitivity associated with low-fat, high-fiber vegan diets are directly linked to decreasing risks of T2D.⁶⁶ Over the last 30 years, diabetes has quadrupled worldwide due to poor diets and unhealthy lifestyles, with 90% of all diabetic cases diagnosed as T2D.⁶⁷ The Centers for Disease Control and Prevention's Diabetes Surveillance System notes that 11.6% of the U.S. population is diagnosed as diabetic, and this percentage is rising.⁶⁸ Importantly, a vegan diet can lower complications and even help individuals achieve remission from T2D.⁶⁹ As T2D has been diagnosed in children as young as 10 years old,⁷⁰ recognizing the efficacy that vegan diets have in preventing T2D should be treated as crucial to incorporating more plant-based meal options in schools.

Cardiac disease is further associated as a mortality risk associated with diabetes and poor diets overall.⁷¹ Abundantly, vegan diets high in fiber-rich foods are also linked to a 12% reduction in death from heart disease and reduced risks of early death.⁷²

4. Reducing meat and adding plant protein provides health benefits.

As mentioned above, researchers have widely found that eating nuts, legumes, and plant-based proteins instead of red meat is linked to lowering many chronic health conditions, especially risks of type-2 diabetes.⁷³

Beans, peas, and lentils are high-quality sources of protein. According to a study by John Hopkins' Center for A Livable Future, soybeans have a protein digestibility score of 0.91,

⁶⁶ *Id.*

⁶⁷ Yan Zheng et al., *Global aetiology and epidemiology of type 2 diabetes mellitus and its complications*, 14 *Nat. Rev. Endocrinol.* 88 (Feb. 2018).

⁶⁸ Centers for Disease Prevention, *National Diabetes Statistics Report, Estimates of Diabetes and Its Burden in the United States, Fast Facts on Diabetes*, (Nov. 29, 2023) <https://www.cdc.gov/diabetes/data/statistics-report/index.html>.

⁶⁹ Gunadhar Panigrahi et al., *Remission of Type 2 Diabetes After Treatment With a High-Fiber, Low-Fat, Plant-Predominant Diet Intervention: A Case Series*, 17 *Am. J. of Lifestyle Medicine* 839 (Jun. 15, 2023), <https://doi.org/10.1177/15598276231181574>.

⁷⁰ Centers for Disease Control and Prevention, *Prevent Type 2 Diabetes in Kids*, (Dec. 30, 2022) <https://www.cdc.gov/diabetes/prevent-type-2/type-2-kids.html>.

⁷¹ *Id.*

⁷² Julia Clem & Brandon Barthel, *A Look at Plant Based Diets*, 118 *Mo Med.* 233 (May-June 2021) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8210981>.

⁷³ Xiao Gu et al., *Red meat intake and risk of type 2 diabetes in a prospective cohort study of United States females and males*, 118 *Am. J. of Clinical Nutrition* 1153 (Dec. 2023), [https://ajcn.nutrition.org/article/S0002-9165\(23\)66119-2/fulltext](https://ajcn.nutrition.org/article/S0002-9165(23)66119-2/fulltext).

which is very similar to beef and egg protein absorption.⁷⁴ Additionally, pea concentrates have a protein digestibility score of 0.89.⁷⁵

Thus, adequate protein intake can be easily provided with greater portioning of legumes and by combining them into a wide variety of dishes such as plant-based burgers, stews, and more.

Excessive intake of saturated fat and cholesterol in processed foods, meat, and dairy products can also be avoided with a vegan diet. While 3.5 ounces of lean beef contains 34 grams of saturated fat and 83 grams of cholesterol, one serving of black beans has 0.1 grams of saturated fat and no cholesterol.⁷⁶ In fact, most plant-derived foods have little to no cholesterol.⁷⁷ Further, 3.5 ounces of cheddar cheese has close to 20 grams of saturated fat and 58 grams of cholesterol.⁷⁸ A vegan diet avoidant of processed foods high in saturated fat and cholesterol is often linked to reduced total cholesterol levels.⁷⁹

5. Reducing dairy and adding plant-based milk provides health benefits.

In 2020, the American Medical Association (AMA) commented that the USDA Dietary Guidelines Advisory Committee should revise the Dietary Guidelines due to marked levels of lactose intolerance identified in African American and Asian individuals.⁸⁰ In response to the 2020 Dietary Guidelines Advisory Committee, the AMA stated that consumption of meat and dairy should only be deemed optional.⁸¹ Despite the AMA's recommendation, USDA maintains the following recommendations for drinking dairy milk: "Ages 2-3 years old is 2 cups per day, for 4-8 years old, 2 1/2 cups per day, and for 9 years of age and up, 3 cups per day."⁸²

In addition to the AMA's recommendation, dairy is not identified as a necessary food group by the Harvard T. H. Chan School of Public Health's *Healthy Eating Plate*,⁸³ a guide for healthy eating for children and adults alike. Notably, the *Healthy Eating Plate* clearly states

⁷⁴ R.D. Semba et al., *Legumes As a Sustainable Source of Protein in Human Diets, Research Brief*, 28 *Global Food Security* 100520 (Mar. 2021), <https://www.sciencedirect.com/science/article/abs/pii/S2211912421000304?via%3Dihub>.

⁷⁵ *Id.*

⁷⁶ Barnard, *supra* note 31.

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ James Madara, American Medical Association, *Letter to USDA re Dietary Guidelines*, (Aug. 13, 2020), <https://searchf.ama-assn.org/letter/documentDownload?uri=%2Funstructured%2Fbinary%2Fletter%2FLETTERS%2F2020-8-13-Letter-to-Koegel-re-Dietary-Guidelines.pdf>.

⁸¹ *Id.*

⁸² U.S. Dep't. of Agriculture, *How much food from the Dairy Group should I consume daily? How much milk should I drink?* (Nov. 30, 2023), <https://ask.usda.gov/s/article/How-much-food-from-the-Dairy-Group-should-I-consume-daily-How-much-milk-should-I-drink>.

⁸³ Harvard T.H. Chan School of Public Health, *Healthy Eating Plate*, (2019) <https://www.hsph.harvard.edu/nutritionsource/wp-content/uploads/sites/30/2012/09/HEPJan2015.jpg> (last visited Mar. 11, 2024).

that varying sources of milk are available, including ‘non-dairy plant-milk,’ milk produced by the mammary glands of humans, and ‘dairy milk.’⁸⁴ Further, the *Healthy Eating Plate* clarifies that “different forms of dairy-foods, such as cheese, or yogurt may have health effects different than milk,”⁸⁵ and provides clear and simple facts that include a multitude of nutrition sources. Significantly, the Canadian Dietary Guidelines have also excluded dairy as a recommended food group since 2019.⁸⁶

USDA recognizes the “disproportionate rates of lactose intolerance among communities of color.”⁸⁷ Lactose intolerance, characterized as a deficiency or decreased activity of the enzyme lactase in the digestive system, results in an inability to fully and comfortably digest lactose, cow milk, and breast milk.⁸⁸ Symptoms of lactose intolerance can include dehydration, severe diarrhea, gas, and abdominal discomfort.⁸⁹ Although lactose intolerance is a common condition, symptoms may not be recognized until children are of age to be enrolled in school, and it may go undiagnosed for much longer.

Elevated risks of breast cancer and prostate cancer linked to three daily servings of dairy milk⁹⁰ have further pushed scientific experts to clarify that dairy is an unnecessary food group. Therefore, and as discussed for a large concern for equity, plant-based milk and other plant-based products are current solutions for lactose-intolerant individuals and should not be deemed as burdened requests within the NSLP.

Expanding the availability of flavored plant-based options can help encourage lower sugar consumption and support the proposed sugar content standards of 10 grams or less per serving. As referenced by USDA,⁹¹ “flavored milk is the leading source of added sugars in school lunch programs.” Updating equitable meal options on school menus should involve improving access to flavored plant-based milk choices, several of which have low sugar content. With anticipation of approval of the proposed sugar limit of 10 grams or less per 8-ounce serving of milk, Westlife Vanilla Soymilk can effectively broaden the nutritional appeal for all K-12 students during lunch and breakfast. Additionally, a variety of chocolate

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ Government of Canada, *Canada’s Food Guide*, <https://food-guide.canada.ca/en/food-guide-snapshot/> (last visited Mar. 11, 2024).

⁸⁷ Child Nutrition Programs: Revisions to Meal Patterns Consistent With the 2020 Dietary Guidelines for Americans, 88 Fed. Reg. 8050 (Feb. 7, 2023).

⁸⁸ Talia Malik & Kiran Panuganti, *Lactose Intolerance*, StatPearls (April 17, 2023), <https://www.ncbi.nlm.nih.gov/books/NBK532285/>.

⁸⁹ *Id.*

⁹⁰ Gary Fraser et al., *Dairy soy, and risk of breast cancer: those confounded milks*, 49 Int’l J. of Epidemiology 1526 (Oct. 2020), <https://doi.org/10.1093/ije/dyaa007>.

⁹¹ U.S. Dep’t of Agriculture, Food and Nutrition Service, *Technical Assistance & Guidance, Milk*, (Mar. 29, 2023), <https://www.fns.usda.gov/cn/nutrition-standards-proposed-rule-milk>.

soy milk products align with the proposed amendments of 15 grams of sugar or less per 12 ounces for availability outside of meals.⁹²

USDA has the authority to amend the definition of fluid milk and include more plant-based milk types among the current fluid milk options available.⁹³ Considering fortified plant-based beverages other than soy will help diversify menus and accommodate all students as plant-based milk innovation advances. Notably, pea-based milks such as Ripple brand Kids Unsweetened Milk meet or exceed the nutritional requirements, with the exception of Vitamin A,⁹⁴ which can be balanced in a meal by including specific Smart Snacks, such as half of a cup of carrots containing 459 mcg of Vitamin A.⁹⁵ Expansion of the definition of fluid milk by emphasizing the commonality of nutritional content will promote USDA's commitment to providing diverse meal options that meet the needs of various dietary restrictions and cultural considerations, with an adaptable approach to improve nutrition security for all K-12 students long-term.

Innovations in plant-based milk are not far behind in meeting the existing fluid milk requirements. Expansion of the fluid milk definition will streamline adapting school menus for years to come. The charts below show current levels of the regulatory nutrition requirements in some plant-based milks already on the market.⁹⁶

⁹² U.S. Dep't of Agriculture, Food and Nutrition Service, *Technical Assistance & Guidance, Added Sugars*, (Mar. 29, 2023), <https://www.fns.usda.gov/cn/nutrition-standards-proposed-rule-added-sugars>.

⁹³ 42 U.S.C. § 1751; 7 C.F.R. § 210.1.

⁹⁴ Ripple Foods, *Ripple Kids Unsweetened Original Plant-Based Milk*, Nutrition Facts, <https://www.ripplefoods.com/kids/unsweetened/> (last visited Mar. 15, 2024).

⁹⁵ Food Services, *Nutrition Facts, Baby Carrots*, <http://info.cobbk12.org/centraloffice/foodservices/DataBase/NutritionLabel.aspx?StockNumber=68024> (last visited Mar. 11, 2024).

⁹⁶ Nutritionix, *Kikkoman Pearl Organic Soymilk, Smart Chocolate Nutrition Facts*, <https://www.nutritionix.com/i/kikkoman-pearl/organic-soymilk-smart-chocolate/569883f2d08bdd2c693ae1f4>; WestLife, *Westsoy Organic Soymilk Vanilla with Calcium and Vitamin D, Nutrition Facts*, <https://westlifepantbased.com/products/organic-soymilk-vanilla-with-calcium-vitamin-d/>; Ripple Foods, *On the Go, Chocolate, Nutrition Facts*, <https://www.ripplefoods.com/on-the-go/chocolate/>.

Fluid Milk Nutrients By 1 Cup

Sourced by Brand Nutrition Facts

Nutrient	Fluid Dairy Milk Requirement	SILK Original Soy Milk	Ripple Pea-Based Kids Unsweetened Milk	Oatly! Original Oat Milk
Calcium	276 mg	451 mg	445 mg	350mg
Protein	8 mg	7.99 g	8 g	3g
Vitamin A	500 IU or 150 mcg	499 IU	90 mcg	160 mcg
Vitamin D	100 IU or 2.5 mcg	120 IU	5 mcg	3.6 mcg
Magnesium	24 mg	60 mg	24 mg	--mg
Phosphorous	222 mg	250 mg	549 mg	270 mg
Riboflavin	0.44 mg	0.509 mcg	0.48 mcg	0.60 mg
Vitamin B-12	1.1 mcg	3 mcg	1.1mcg	1.2 mcg
Total Sugars	<10g (proposed)	6 g	5 g	7g
Added Sugars (Included in Total)	<10g (proposed)	6 g	5 g	7g

Flavored Plant-Based Fluid Milk Nutrients Compared to Unflavored Dairy Milk By 1 Cup

Sourced by Brand Nutrition Facts

Nutrient	Fluid Dairy Milk Requirement	Kikkoman Pearl Organic Soymilk Smart Creamy Chocolate	Ripple On-the-Go Pea-Based Chocolate	Westlife Soymilk Vanilla
Calcium	276 mg	300 mg	440mg	30mg
Protein	8 mg	8g	8g	8g
Vitamin A	500 IU or 150 mcg	150 mcg	150 mcg	150 mcg
Vitamin D	100 IU or 2.5 mcg	2.5 mcg	6 mcg	4.6 mcg
Magnesium	24 mg	25 mg	30 mcg	45mg
Phosphorous	222 mg	230 mg	500mg	260mg
Riboflavin	0.44 mg	0.5 mg	0.4 mcg	0.5mg
Vitamin B-12	1.1 mcg	1.1 mcg	1.1 mcg	1.1 mcg
Total Sugars	<10g (proposed)	13g	15g	8g
Added Sugars (Included in Total)	<10g (proposed)	12g	14g	7g

Looking at the charts above, both flavored and unflavored plant-based milk closely meet the nutritional requirements for dairy milk.⁹⁷ Due to innovations in the plant-based milk

⁹⁷ Silk, *Original Soy Milk, Nutrition Facts*, <https://silk.com/plant-based-products/soymilk/original-soymilk/> (last visited March 17, 2024); Oatly!, *Original Oat Milk, Nutrition Facts*, <https://us.oatly.com/products/oatmilk-chilled> (last visited Mar. 15, 2024); Ripple Foods, *supra* note 94.

industry, plant-based milk is more suitable than dairy milk to safeguard children’s health, especially for students with lactose or soy allergies.

A. Improving vegan meal options will help address exclusion and racial equity barriers presently faced by individuals participating in the NSLP.

USDA is obligated to dismantle barriers, limitations, and exclusions in the services it provides under Executive Order 13985, “Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.” In section 5(a), this executive order directs federal agencies to examine the services they provide and develop a plan for addressing any barriers to full and equal participation in federal programs. Executive Order 13985 is also supported by the USDA’s commitment to improving diet-related inequities, as demonstrated through recent funding of an additional \$1 billion dollars toward American-grown foods for school meal programs.⁹⁸

Additionally, improving vegan meal options in the NSLP is aligned with our nation’s collective environmental and restorative social justice goals under Executive Order 14096, “Revitalizing Our Nation’s Commitment to Environmental Justice for All,”⁹⁹ which directs a “government-wide approach to environmental justice.” Under section 3(a), “[c]onsistent with section 1-101 of E.O. 12898 and each agency’s statutory authority, each agency should make achieving environmental justice part of its mission.”

The NSLP should prioritize equity as a crucial policy solution to address food insecurity and dietary racism. USDA acknowledges that “the disproportionate rates of lactose intolerance among communities of color” are a primary concern in improving the NSLP.¹⁰⁰ Lactose intolerance impacts 70% of the world’s population and 61%, or nearly 50 million Americans.¹⁰¹ According to Harvard Medical School, “90% of individuals from Eastern Asia, 80% of American Indians, 65% of Africans and African-Americans, and 50% of Hispanics” are lactose intolerant,¹⁰² in contrast to 20% of Caucasians.¹⁰³ Findings from the World Cancer Research Fund and American Institute for Cancer Research further reflect that consuming red meat and processed meat increases the risk of chronic diseases and colorectal cancers, significantly higher for BIPOC individuals than nonwhites.¹⁰⁴

⁹⁸ U.S. Dep’t of Agriculture, *Biden Administration Takes Additional Steps to Strengthen Child Nutrition Programs*, (Jun. 30, 2022), <https://www.usda.gov/media/press-releases/2022/06/30/biden-administration-takes-additional-steps-strengthen-child>.

⁹⁹ Revitalizing Our Nation’s Commitment to Environmental Justice for All, 88 Fed. Reg. 25251 (Apr. 21, 2023), <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/>.

¹⁰⁰ Food and Nutrition Service, U.S. Dep’t of Agriculture, *supra* note 91.

¹⁰¹ Boston Children’s Hospital, *Lactose Intolerance*, <https://www.childrenshospital.org/conditions/lactose-intolerance> (last visited Mar. 11, 2024).

¹⁰² Harvard Health Publishing, *Lactose intolerance*. Harvard Medical School, (Apr. 7, 2023), <https://www.health.harvard.edu/a-to-z/lactose-intolerance-a-to-z>.

¹⁰³ *Id.*

¹⁰⁴ Food and Agriculture Organization of the United Nations, *Sustainable Healthy Diets: Guiding Principles*, (2019), <https://www.fao.org/3/ca6640en/ca6640en.pdf>.

Prioritization of the health benefits from a well-balanced plant-based diet should be emphasized and applied toward improving equitable food accessibility in the NSLP.

The intrinsic connection between food and nutrition insecurity, poverty, and structural discrimination emphasizes the urgent need for a more comprehensive approach to improve institutional practices, cultural representations, and norms that perpetuate advantages for White individuals and disproportionately impact BIPOC communities. In addition to having greater epigenetic risks related to meat and dairy consumption, BIPOC children across the U.S. have historically faced food insecurity in alarming numbers, which is far from resolved. As noted by USDA and Economic Research Service calculations, nearly 15.8% of Black children and approximately 13.2% of Latinx children experience food insecurity, while 5.5% of White children live in food-insecure households.¹⁰⁵

A recent study by USDA also found that 20% of Americans have “low access to healthy food and primary grocery stores.”¹⁰⁶ Devaluation and low prioritization of updating historically redlined neighborhoods have resulted in low rates of investment and little repair of the issue of food deserts. Meanwhile, food costs increase, and lower-income wages are often inadequate to keep up with inflation. Limited access to fresh produce and premium grocery stores remains a prominent issue for communities of color, negatively impacting overall food security, food choices, and, therefore, health. Racial disparities related to food access are widely observed, as low-income, predominantly BIPOC communities reportedly are over twice as likely than White communities to live in areas of closer proximity to convenience stores than premium grocery stores.¹⁰⁷

A survey sponsored by USDA identified that “students from food-insecure households were more likely to eat school meals than other students and received greater portions of food from school than at home.”¹⁰⁸ Awareness of common existing predispositions to health conditions that impact so many individuals, such as lactose intolerance and type-2 diabetes, should be reason enough to make it easier for any student, particularly kids of color, to obtain calcium-rich foods and plant-based options to receive the same level of nutrition that of other students. While most kids may have an awareness of what they can and cannot physically tolerate, the scope of negative impacts of dairy should not hinder the availability of more plant-based options to create balanced meals. USDA owes it to BIPOC populations to normalize open accessibility to plant-based food options in schools to help prevent harmful chronic conditions and shortened lifespans.

¹⁰⁵ U.S. Dep’t. of Agriculture, *Economic Research Service calculations using Current Population Survey Food Security Supplement Data* (Oct. 25, 2023), <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/interactive-charts-and-highlights/>.

¹⁰⁶ U.S. Dep’t. of Agriculture, *Documentation, Food access* (Oct. 20, 2022), <https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/>.

¹⁰⁷ Jerry Shannon, *Dollar stores, retailer redlining, and the metropolitan geographies of precarious consumption*. 111 *Annals of the American Association of Geographers* 1200 (Aug. 27, 2020), <https://www.tandfonline.com/doi/abs/10.1080/24694452.2020.1775544>.

¹⁰⁸ U.S. Dep’t. of Agriculture, *supra* note 105.

B. Vegan options are necessary to create ethical and inclusive school lunch programs that can serve children of various faiths and ethical principles.

Approaching religious and philosophical dietary practices with the expansion of vegan meal options ensures that USDA's efforts toward improving nutrition security succeed in taking an equity lens to its efforts and are forward-looking as demographics in schools change. USDA's equity mission and goals to "promote nutrition security, a healthy environment, and the opportunity for a good life for every person, in every community in America" can be advanced effectively by integrating vegan meal options into the NSLP. Such changes are also vital to addressing its obligations under Executive Order 13985,¹⁰⁹ by thoroughly considering the impacts related to meal planning for students who do not consume meat or dairy for religious, philosophical, and ethical reasons. Even though USDA encourages schools to "consider ethnic and religious preferences when planning and preparing meals," schools across the nation remain unequipped to provide full meals suitable for kids with faith-based dietary restrictions through the NSLP, indirectly subjecting students to discrimination.

Although the precise number of children participating in the NSLP adhering to specific religious dietary requirements is challenging to ascertain, it can be estimated based on census proportions observed in affiliated adults. This equates to approximately 6%, or nearly 1.5 million children participating in the NSLP.¹¹⁰ Specifically, this reflects the following percentages of religious observations among participating students: 1.9% Judaism, 0.6% Islam, 0.7% Buddhism, 0.7% Hinduism, and 1.6% 'other religions' such as Jainism, Sikhism, Seventh-day Adventism, and Rastafarianism.¹¹¹ Significantly, all these religions incorporate concerns for the consumption of animals or animal welfare into dietary practice, and vegan meal options are appropriate for each.¹¹² Dietary rules by these religions collectively include veganism, vegetarianism, adherence to kosher preparation and halal preparation, as well as prohibitions and avoidances of dairy, pork, fish, seafood, and beef.¹¹³ Additionally, modern interpretations of veganism by other religious groups are contributing to greater support of plant-based diets within coalitions and vegan churches, signifying a constant and increasing need for vegan foods in school programs to meet religious standards.¹¹⁴

¹⁰⁹ Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, 86 Fed. Reg. 7009 (Jan. 25, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>.

¹¹⁰ PRRI, *2022 PRRI Census of American Religion: Religious Affiliation Updates and Trends* (Feb. 24, 2022), <https://www.prrri.org/spotlight/prri-2022-american-values-atlas-religious-affiliation-updates-and-trends/>.

¹¹¹ *Id.*

¹¹² Jrank.org, *Religion and Dietary Practice Origins*, https://reference.jrank.org/diets/Religion_and_Dietary_Practices.html (last visited Mar. 11, 2024).

¹¹³ Public Health Agency, *Guidance on foods for religious faiths*, <https://www.publichealth.hscni.net/sites/default/files/FaithsPosterA2.pdf> (last visited Mar. 11, 2024).

¹¹⁴ Vegan Spirituality, *Interfaith Vegan Coalition*, <https://veganspirituality.com/interfaith-vegan-coalition.html> (last visited Mar. 15, 2024).

It is also imperative for USDA to acknowledge ethical veganism and dietary restrictions gaining significant recognition as philosophical beliefs. It cannot be overlooked that a longstanding ethical issue with animal agriculture is the inherent animal suffering prevalent in the meat and dairy industry.¹¹⁵ With staggering global statistics of 900,000 cows, 202 million chickens, 3.8 million pigs, and “hundreds of millions” of fish slaughtered for consumption daily, the suffering of farmed animals is enormous.¹¹⁶ In the U.S. alone, approximately 25 million animals are killed daily, and distressingly, over 20 million die during transport to slaughterhouses each year.¹¹⁷ Therefore, greater implementation of plant-based foods in U.S. schools can significantly reduce animal suffering. Given the evolving determination that meat and dairy are no longer deemed as necessary food groups by experts, there is an urgent moral obligation to diminish and ultimately eliminate the vast suffering of farmed animals.

Ethical veganism extends beyond practicing a strictly plant-based diet and is widely interpreted in reference to The Vegan Society’s definition of veganism “as a philosophy and way of living which seeks to exclude, as far as is possible and practicable, all forms of exploitation of, and cruelty to, animals for food, clothing or any other purpose; and by extension, promotes the development and use of animal-free alternatives for the benefit of humans, animals, and the environment. In dietary terms, it denotes the practice of dispensing with all products derived wholly or partly from animals.”¹¹⁸ Such practices, though nonreligious, can be considered parallel in comparison to religious beliefs and are recognized as philosophical beliefs.¹¹⁹ Due to the strength of consistent disciplines preserving its principles and positive impact on the world as a whole, ethical veganism won protection from discrimination as a philosophical belief in 2020¹²⁰ under the United Kingdom’s Equality Act 2010.¹²¹

A growing number of Americans, including children, are choosing to adhere to a plant-based diet.¹²² Eating meat and dairy from the NSLP is not an option for them. Thus,

¹¹⁵ Augustus Bambridge-Sutton, *Peter Singer on ethics and meat consumption* (Sep. 5, 2023), <https://www.foodnavigator.com/Article/2023/09/05/Peter-Singer-on-ethics-and-meat-consumption>.

¹¹⁶ Max Roser, *How many animals get slaughtered every day?*, Our World in Data (Sept. 26, 2023), <https://ourworldindata.org/how-many-animals-get-slaughtered-every-day>.

¹¹⁷ Sophie Kevany, *More than 20 million farm animals die on way to abattoir in US every year*, The Guardian (June 15, 2022), <https://www.theguardian.com/environment/2022/jun/15/more-than-20-million-farm-animals-die-on-way-to-abattoir-in-us-every-year>.

¹¹⁸ Vegan Friendly, *Ethical Vegan vs Dietary Vegan: What’s the Difference?* (2022), <https://www.veganfriendly.org.uk/articles/ethical-vs-dietary-vegans/>.

¹¹⁹ Paul McKeon et al., *A ‘Life-Style Choice’ or a Philosophical Belief? The Argument for Veganism and Vegetarianism to be a Protected Philosophical Belief and the Position in England and Wales*, 42 *Liverpool Law R.* 207 (Jan. 16, 2021), <https://link.springer.com/article/10.1007/s10991-020-09273-w>.

¹²⁰ *Casamitjana v. The League Against Cruel Sports*, [2020], UKET 3331129/2018. https://assets.publishing.service.gov.uk/media/5e3419ece5274a08dc828fdd/Mr_J_Casamitjana_Costa_v_The_League_Against_Cruel_Sports_-_3331129-18_-_Open_Preliminary_Hearing_Judgment_Reasons.pdf.

¹²¹ UK Public General Acts, Equality Act 2010 c. 15, Part 2, Section 10, (2010), <https://www.legislation.gov.uk/ukpga/2010/15/section/10> (last visited Mar. 18, 2024).

¹²² Sentient Health, *Is veganism becoming more popular? Using Data to Track the Growing Trend* (May 13, 2022), <https://sentientmedia.org/increase-in-veganism/>.

including nutritious whole meals and plant-based options for these children will promote nutritional security and improve their diet. Otherwise, these children will likely not be able to eat a meal that comprises all the regulatory components required in the NSLP.

C. There are many environmental benefits of vegan diets.

Improving vegan meal options in the NSLP is aligned with our nation's goals to pursue actions mitigating climate change. For example, Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," directs Americans to "avoid catastrophic impacts" by using a "government-wide approach to the climate crisis."¹²³

This order also states that "[t]o secure an equitable economic future, the United States must ensure that environmental and economic justice are key considerations in how we govern."¹²⁴ Among other things, this means "undertaking robust actions to mitigate climate change while preparing for the impacts of climate change across rural, urban, and Tribal areas."¹²⁵

The current presidential administration has reinforced this need to tackle environmental issues through other executive orders, such as Executive Order 13990 (reviewing agency actions under the previous administration as they relate to the environment), Executive Order 14013 (planning for impact of climate change on migration), and Executive Order 14017 (bolstering the country's supply chains in preparation for climate shock and extreme weather events).

The scope and seriousness of Americans increasingly opting to eat plant-based meals is supported by a growing number of experts concerned with mitigating climate change and creating sustainable food systems worldwide. As the global population is estimated to reach 9.8 billion people by 2050,¹²⁶ scientists continue to echo that a vegan diet is the 'single biggest way' to reduce climate change, provide enough food to feed the world, and negate the loss of biodiversity.¹²⁷

The Food and Agriculture Organization and the World Health Organization stress that sustainable diets "promote all dimensions of individuals' health and wellbeing; have low environmental pressure and impact; are accessible, affordable, safe and equitable; and are culturally acceptable" to support both current and future generations.¹²⁸ In comparison to

¹²³ Tackling the Climate Crisis at Home and Abroad, 86 Fed. Reg. 7619 (Feb. 1, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>.

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ United Nations, *World population projected to reach 9.8 billion in 2050, and 11.2 billion in 2100* (Feb. 20, 2024), <https://www.un.org/en/desa/world-population-projected-reach-98-billion-2050-and-112-billion-2100>.

¹²⁷ Damian Carrington, *Avoiding meat and dairy is 'single biggest way' to reduce your impact on Earth*, The Guardian (May 31, 2018), <https://www.theguardian.com/environment/2018/may/31/avoiding-meat-and-dairy-is-single-biggest-way-to-reduce-your-impact-on-earth>.

¹²⁸ Food and Agriculture Organization of the United Nations, *supra* note 104.

omnivorous diets, vegan diets result in approximately 75% less GHG emissions, 75% less land use, 54% less water use, and 66% less biodiversity loss.¹²⁹

Shifting K-12 school menus to reflect accountability for environmental externalities is aligned with USDA's overarching goals and can be accomplished by improving access to plant-based meal options and removing the barriers to plant-based milk options. Ensuring these options are available daily on school menus is a crucial measure in the global effort to reduce greenhouse gas (GHG) emissions. Doing so will help streamline the adoption of recommended global policy transitions targeting a 31% GHG emission reduction by 2050, achieved by replacing 50% of meat and dairy products with vegan options.¹³⁰

Indeed, reducing GHG emissions is a primary solution to prevent climate-driven food insecurities. GHG emissions from the meat and dairy industries are anticipated to contribute toward over half of future global warming from food systems by 2030 and through 2100.¹³¹ Advancements in research determine that overall livestock farming contributions to GHG emissions range between 11.1% and 17.8% of global GHG emissions.¹³² The U.S. Environmental Protection Agency estimated that GHG emissions from animal agriculture accounted for 10.6% of U.S. GHGs in 2021, although these emissions were also noted to have increased by 6.9% since 1990.¹³³

However, additional peer-reviewed studies determine that several findings vary in limitations and under-observe methane emissions, highlighting that actual GHG emissions from animal agriculture are more likely to be higher, as noted in previous years.¹³⁴ These uncertainties signify greater urgency for immediate efforts to mitigate warming. Estimated percentages of the specific gases contributing to animal agriculture emissions are estimated to comprise 27% Carbon dioxide (CO₂), 44% Methane (CH₄), and 29% Nitrous oxide (N₂O), each of which is a primary GHG contributing to 80% of warming impacts.¹³⁵

¹²⁹ Peter Scarborough et al., *Vegans, vegetarians, fish-eaters and meat-eaters in the UK show discrepant environmental impacts*, 4 *Nature Food* 567 (July 20, 2023), <https://www.nature.com/articles/s43016-023-00795-w>.

¹³⁰ Marta Kozicka et al., *Feeding climate and biodiversity goals with novel plant-based meat and milk alternatives*, 14 *Nature Communications* 5316 (Sep. 12, 2023), <https://doi.org/10.1038/s41467-023-40899-2>.

¹³¹ Catherine Ivanovich et al., *Future warming from global food consumption*, 13 *Nat. Clim. Chang.* 297 (Mar. 6, 2023), <https://www.nature.com/articles/s41558-023-01605-8>.

¹³² The Breakthrough Institute, *Livestock Don't Contribute 14.5% of Global Greenhouse Gas Emissions* (Mar. 20, 2023), <https://thebreakthrough.org/issues/food-agriculture-environment/livestock-dont-contribute-14-5-of-global-greenhouse-gas-emissions>.

¹³³ U.S. Dept of Agriculture, Economic Research Service, *Estimated U.S. greenhouse gas emissions by economic sector, with electricity-related emissions distributed, 2021* (Nov. 3, 2023), <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=61009>.

¹³⁴ Matthew N. Hayek & Scot M. Miller, *Underestimates of methane from intensively raised animals could undermine goals of sustainable development*, 16 *Env. Res. Letters*. 064006, (June 4, 2021), <https://iopscience.iop.org/article/10.1088/1748-9326/ac02ef>.

¹³⁵ P.J. Gerber et al. *Tackling Climate Change through Livestock: A global assessment of emissions and mitigation opportunities* 13. Food and Agriculture Organization of the United Nations (2013), <http://www.fao.org/3/i3437e/i3437e.pdf>.

A recent study conducted by the University of Oxford examining dietary practices, environmental factors, and data from farms from 119 countries found that lowering daily consumption of more than 3.5 ounces of meat to less than 1.7 ounces (similar to a single fast food burger patty) can equate to removal of 8 million cars off of roads.¹³⁶ Opting out of consumption of even just one serving of meat and dairy weekly and limiting consumption of fish and eggs also has the potential to prevent up to 21% of future warming.¹³⁷ The University of Oxford additionally found the following carbon footprints attributed to daily dietary consumption and related farming practices:

- Production of 1 cup of dairy milk accounts for three times as many GHG emissions than any plant-based milk¹³⁸
- 3.5 ounces of meat or more daily accounts for 10.23 kg (22.5 pounds) of CO₂ emissions¹³⁹
- Less than 1.7 ounces (similar to a single fast food burger) accounts for 5.35 kg (11.8 pounds) of CO₂ emissions¹⁴⁰
- Fish consumption equates to up to 4.74 kg (10.4 pounds) of CO₂ emissions¹⁴¹
- Vegetarian diets on average account for 4.16 kg (9 pounds) of CO₂ emissions¹⁴²
- Vegan diets on average account for 2.47 kg (5.4 pounds) of CO₂ emissions¹⁴³

Even though animal agriculture is responsible for only part of total GHG emissions, the industry is the leading contributor to atmospheric methane. More extraordinary measures must be taken to support America's commitment to the Paris Agreement,¹⁴⁴ the Global Methane Pledge,¹⁴⁵ and initiatives centered around reducing methane emissions. Research conducted in 2020 suggests that existing agricultural emissions may hinder achieving the Paris Agreement goals to keep the global temperature increase "below 2°C and no more than 1.5°C above pre-industrial levels," even with immediate removal of all other GHG sources.¹⁴⁶

Due to methane's atmospheric lifespan of twelve years and ability to trap heat 28 times more than CO₂, it is urgent to focus on these efforts to gain more time to lower CO₂ emissions, which can last in the atmosphere for a century. Such efforts will also deliver

¹³⁶ Scarborough, *supra* note 129.

¹³⁷ *Id.*

¹³⁸ J. Poore, & T. Nemecek, *Reducing food's environmental impacts through producers and consumers*, 360 *Science* 987 (Jun. 1, 2018), <https://www.science.org/doi/10.1126/science.aag0216>.

¹³⁹ Scarborough, *supra* note 129.

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ United Nations, *Paris Agreement* (Dec. 12, 2015), https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf.

¹⁴⁵ Global Methane Pledge, (Nov. 22, 2023), <https://www.globalmethanepledge.org/resources/global-methane-pledge>.

¹⁴⁶ Michael A. Clark, *et al.*, *Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets*, 370 *Science* 705 (Nov. 6, 2020), <https://www.science.org/doi/10.1126/science.aba7357>.

greater time to shift food production to less GHG-intensive sources.¹⁴⁷ Increasing poultry and fish production as substitutions for beef is not a reliable or long-term remedy to effectively decrease the use of resources linked to GHG emissions. These negative environmental impacts need to be reversed to meet the GHG reduction goals of the Paris Agreement by 2030. Climate change presents increasing risks of temperature and precipitation changes that may be more conducive for higher levels of pathogens to thrive in bodies of water, concerning food safety and fish.¹⁴⁸

On a global scale, almost half of the Earth's habitable land is purposed for agricultural use, with 80% allocated to grazing pastures and croplands for feeding meat and dairy livestock.¹⁴⁹ Only 18% of global caloric intake is of benefit from this land use.¹⁵⁰ In the U.S., beef production alone utilizes 50% of agricultural land, with little return in providing just 3% of the nation's caloric intake, in contrast to 7-8% in return from plant-based proteins, primarily legumes.¹⁵¹ Collectively, 41% of all land in the U.S. is purposed for producing meat, dairy, or eggs, and more than 33% of habitable land worldwide.¹⁵²

By contrast, vegan diets can potentially reverse environmental harm and help achieve global food security. A vegan diet utilizes 75% less land than an omnivorous diet. While the majority of agricultural lands are purposed for meat and dairy production, only 16% of croplands are purposed for direct human consumption.¹⁵³ According to numerous studies, shifting toward plant-based diets and away from meat production "in wealthy countries" to prioritize rewilding agricultural land will remove 61% of worldwide GHG emissions if the farmland is left for restoration.¹⁵⁴

Over 90% of the world's water is also purposed for agricultural production, including 70% of freshwater.¹⁵⁵ The water footprint of livestock and dairy production is, "on average, 20 times that of grains per calorie," owing to the significant water requirements for livestock and their feed cultivation.¹⁵⁶ As both food production requirements and water demands

¹⁴⁷ Clarity and Leadership for Environmental Awareness and Research at UC Davis, *A summary of the UN FAO Methane Emissions in Livestock and Rice Systems*, (Jan. 6, 2023), <https://clear.ucdavis.edu/news/summary-un-fao-methane-emissions-livestock-and-rice-systems>.

¹⁴⁸ Keya Mukherjee et al., *How Is Climate Change Affecting The Safety of our Food?*, Food Safety Magazine (Jun. 2022), <https://www.fao.org/3/cc1598en/cc1598en.pdf>.

¹⁴⁹ Hannah Ritchie and Max Roser, *Half of the world's habitable land is used for agriculture* (Feb. 16, 2024), <https://ourworldindata.org/global-land-for-agriculture>.

¹⁵⁰ Poore, *supra* note 138.

¹⁵¹ A. Shepon et al., *Energy and protein feed-to-food conversion efficiencies in the US and potential food security gains from dietary changes*, 11 *Env. Res. Letters*. 1005002 (Oct. 4, 2016), <https://iopscience.iop.org/article/10.1088/1748-9326/11/10/105002>.

¹⁵² Ritchie, *supra* note 149.

¹⁵³ *Id.*

¹⁵⁴ K.E.D. Coan., *Plant-based diets + rewilding provides massive opportunity to cut CO2.*, (Jan. 27, 2022), <https://arstechnica.com/science/2022/01/plant-based-diets-rewilding-provides-massive-opportunity-to-cut-co2/>

¹⁵⁵ Heike Holdinghausen, *Water: Thirsty animals, thirsty crops*, Heinrich-Böll-Stiftung (Sept. 7, 2021), <https://eu.boell.org/en/2021/09/07/water-thirsty-animals-thirsty-crops>.

¹⁵⁶ *Id.*

rise, shifting toward practices that lower water footprints is imperative to improving food security. The average production of one pound of beef requires 1,850 gallons of water, whereas one pound of soybeans only requires 256 gallons.¹⁵⁷ The average water footprints for one pound of pork (720 gallons) and one pound of chicken (520 gallons) are also deemed unsustainable by experts.¹⁵⁸

Due to feed requirements, water footprints linked to dairy are significantly higher than those of plant-based milk. While dairy milk requires 628.2 liters of water to produce 1 liter of milk,¹⁵⁹ starkly lower amounts of water are needed to produce plant-based milk, as listed below:

- Dairy requires 628.2 liters to produce 1 liter of milk (39 gallons per cup)¹⁶⁰
- Soy requires 27.8 liters of water to produce 1 liter of milk (1.7 gallons per cup)¹⁶¹
- Oat requires 48.24 liters of water to produce 1 liter of milk (3 gallons per cup)¹⁶²
- Rice requires 269.81 liters of water to produce 1 liter of milk (16 gallons per cup)¹⁶³
- Almond requires 371.46 liters of water to produce 1 liter of milk (23.36 gallons per cup)¹⁶⁴

Reduction of overall water usage associated with industrial animal agriculture and Concentrated Animal Feeding Operations (CAFOs) that produce tremendous amounts of waste can also significantly lower eutrophication and water pollution, as meat and dairy operations are still the most linked utilizing agricultural blue water¹⁶⁵ and agricultural grey water.¹⁶⁶ Blue and grey water from industrial meat and dairy operation runoff remain to be leading causes of water pollution in the U.S. Almost half of rivers and streams in the U.S. are in “poor biological condition,” according to the EPA.¹⁶⁷

In addition to concerns for environmental harm from CAFOs, significant concerns for equity and environmental racism exist related to the current food system. Decades of evidence demonstrate that indirect discharges from CAFOs further contribute to water and air pollution in the communities located near them, which are disproportionately low-income and nonwhite. Between 2002 and 2022, numerous studies found that CAFOs

¹⁵⁷ Water Footprint Calculator, Beef: The “King” of the Big Water Footprints, (last updated Jan. 11, 2023), <https://www.watercalculator.org/news/articles/beef-king-big-water-footprints/>.

¹⁵⁸ *Id.*

¹⁵⁹ Our World in Data, *Environmental footprints of dairy and plant-based milks*, <https://ourworldindata.org/grapher/environmental-footprint-milks> (last visited Mar. 18, 2024) (citing Poore, *supra* note 138).

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ Watercalculator.org, *The Water Footprint of Beef: Industrial vs. Pasture-Raised* (Sep.9, 2022), <https://www.watercalculator.org/footprint/water-footprint-beef-industrial-pasture/>.

¹⁶⁶ *Id.*

¹⁶⁷ Environmental Protection Agency, *National Water Quality Inventory: Report to Congress 7*. (Aug. 2017), https://www.epa.gov/sites/default/files/2017-12/documents/305brtc_finalowow_08302017.pdf.

disproportionately impact nonwhite communities and communities in poverty.¹⁶⁸ In 2017, the EPA stated having a “deep concern about the possibility that African Americans, Latinos, and Native Americans have been subject to discrimination” due to pig CAFO permitting in North Carolina.¹⁶⁹ Specifically, over 168 pollutants and emissions from CAFOs including ammonia, nitrogen, and hydrogen sulfide, threaten human health in nearby communities and are linked to respiratory disorders, perinatal conditions, and kidney failure.¹⁷⁰

Prioritizing accessibility to plant-based foods and plant-forward methods can also change the narrative that animal agriculture in the current food system is the primary catalyst of deforestation and the consequential loss of natural habitat and biodiversity. This loss affects thousands of plants and animals and further contributes to a decline of keystone species crucial to ecological stability. Approximately 28% or over 44,000 species are presently threatened or endangered with extinction,¹⁷¹ and it is estimated that one million species will face extinction within only a few decades.¹⁷²

Planetary health is dependent on biodiversity, and expanding solutions that can rehabilitate natural habitats are essential to prevent further species loss and mitigate climate change. According to a 2023 study conducted by Yale researchers, restoration of wildlife habitats and rewilding efforts prioritizing species reintroductions can serve as solutions toward the Paris Agreement with the potential to capture more than 6.41 billion tons of CO₂-negative emissions annually.¹⁷³

Considering these urgent environmental concerns, expanding USDA’s Partnerships for Climate-Smart Commodities¹⁷⁴ and agriculture programs that hold clear accountability for stakeholders’ efforts to support biodiversity, sequester CO₂, lower GHG emissions, and promote crop diversification is essential for strengthening the success of sustainable food systems. Fostering robust implementation of these initiatives and providing schools with more sustainable and vegan meal options can achieve a more resilient future.

¹⁶⁸ Gary R. Grant & Steve Wing, *Hogging the Land*, <https://reimaginerpe.org/node/164>. (last visited Mar. 11, 2024).

¹⁶⁹ Lilian S. Dorca, *Letter From Director, External Civil Rights Compliance Off., EPA, to William G. Ross, Jr., Acting Secretary*, N.C. Dep’t of Env’t Quality, at 1. (Jan. 12, 2017), https://www.epa.gov/sites/default/files/2018-05/documents/letter_of_concern_to_william_g_ross_nc_deq_re_admin_complaint_11r-14-r4.pdf.

¹⁷⁰ Julia Kravchenko et al., *Mortality and Health Outcomes in North Carolina Communities Located in Close Proximity to Hog Concentrated Animal Feeding Operations*, 79 N.C. Med J. 278 (Sept. 10, 2018), <https://pubmed.ncbi.nlm.nih.gov/30228132/>.

¹⁷¹ IUCN, *The IUCN Red List of Threatened Species*, <https://www.iucnredlist.org/en> (last visited Mar. 13, 2024).

¹⁷² Tim Benton et al., *Food system impacts on biodiversity loss*, Chatham House (Feb. 21, 2021), https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al_0.pdf.

¹⁷³ Oswald.J. Schmitz et al., *Trophic rewilding can expand natural climate solutions*, 13 Nature Climate Change 324 (Mar. 27, 2023). <https://doi.org/10.1038/s41558-023-01631-6>.

¹⁷⁴ U.S. Dep’t of Agriculture, *Partnerships for Climate-Smart Commodities*, <https://www.usda.gov/climate-solutions/climate-smart-commodities> (last visited, Mar. 11, 2024).

Shifting K-12 school menus to reflect accountability for environmental externalities is aligned with USDA's overarching goals and its strategic objectives to “increase carbon sequestration, reduce greenhouse gas emissions, and create economic opportunities” and to “build resilient food systems, infrastructure, and supply chain.”¹⁷⁵ A transformation in our food system that prioritizes plant-based foods for the well-being of the environment has far-reaching benefits for all living beings and ecological balance. USDA's initiatives can help America maintain its global position at the forefront of all efforts to advance more sustainable agricultural practices, positively impact nutritional security, and improve overall food security. While the overarching solutions are complex, it is a necessary step to initiate this overdue shift in food systems by improving plant-based food accessibility in the NSLP.

D. Vegan meal options can increase program participation, reduce ingredient costs, and support small-scale farmers.

Expanding accessibility to vegan meal options on school menus not only supports USDA's efforts to improve participation in the NSLP but can also aid in cutting ingredient costs as part of the initiative to provide universal free meals. The demands in K-12 schools have a strong potential to shape the agricultural landscape. K-12 schools are optimal for advancing local involvement in sustainable school initiatives such as small-scale farm crop production and plant-forward farm-to-table efforts.

As found in the 2017 pilot program conducted in the Oakland Unified School District, local farm-to-table efforts can greatly aid in providing more sustainable vegan options, ensuring nutrition security, and reducing the food costs of school lunches.¹⁷⁶ After two years of participation in the pilot program, incorporation of locally grown foods, a reduction in meat and dairy products from “0.14 to 0.10 pounds per meal served,” and increased use of whole grains, beans, and scratch-made meals, the Oakland Unified School District reduced school lunch costs by \$42,000.00.¹⁷⁷ The school district further lowered its carbon and water footprints with a 10% increase in the use of legumes, grains, and vegetables. Cost-effective and healthy menu options in the Oakland Unified School District included “vegetarian tostadas” and replacing beef in a chili dish with beans and lentils for the protein component.¹⁷⁸ After this success demonstrated by the Oakland Unified School District, more schools are interested in participating in farm-to-school initiatives, which presents a larger opportunity for USDA to expand school involvement in the Patrick Leahy Farm to

¹⁷⁵ U.S. Dep't of Agriculture, *supra* note 23.

¹⁷⁶ Kari Hamerschlag, & Julian Kraus-Polk, *Shrinking the Carbon and Water Footprint of School Food: A Recipe For Combating Climate Change, A pilot analysis of Oakland Unified School District's Food Programs*, Friends of the Earth (Feb. 2017), https://foe.org/wp-content/uploads/2017/webiva_fs_2/FOE_FoodPrintReport_7F.pdf.

¹⁷⁷ *Id.*

¹⁷⁸ Hamerschlag, *supra* note 176 at 14.

School Program, “helping incorporate more locally grown foods into school meal programs.”¹⁷⁹

Indeed, greater use of dry beans, peas, and lentils, paired with reductions in meat and dairy, can serve as an immediate step to help specifically lower ingredient costs for school meal programs.¹⁸⁰ With cost reductions, food equity, nutrition security, and sustainability in mind, program operators in various institutions are leaning toward utilizing lentils, chickpeas, and beans in an effort to use less meat, dairy, and processed foods.¹⁸¹

As of 2023, all public hospitals in New York City have shifted toward providing plant-based meals as “primary dinner options” for inpatients every night of the week.¹⁸² To date, these hospitals have “served over one million plant-based meals, saving 59 cents with each meal.”¹⁸³ As these programs are growing, findings continue to reflect additional benefits related to adjusting menus to have more vegan options. With concerns for Avian flu and food allergies, another school district in Denver, Colorado has also identified savings of nearly \$13,600.00 annually by implementing more vegan recipes and by cutting out milk powder and eggs.¹⁸⁴

Amidst the imperative to address climate change and the growing demand for free meals, providing daily access to plant-based milk and proteins for school programs is a logical progression to enhance school nutrition and sustainable school practices, and therefore, will increase participation in the NSLP. With improved food component definitions, students can embrace taste testing for vegan meal options more enthusiastically, aiding schools in raising awareness about healthier versions of long-favorable food choices. Successful taste-testing programs in Connecticut’s Middletown Public Schools have resulted in the additions of plant-based chicken nuggets and even vegan dishes inspired by recipes from teachers on Meatless Monday menus.¹⁸⁵ Therefore, making it easier for program operators to provide vegan meal options will empower school districts to reduce ingredient costs, keep up with sustainable food innovation, and better serve students through closer connections with their communities by promoting healthier and more equitable food choices.

¹⁷⁹ U.S. Dep’t of Agriculture, Food and Nutrition Service, *The Patrick Leahy Farm to School Program*, (Mar. 6, 2024), <https://www.fns.usda.gov/f2s/farm-to-school>.

¹⁸⁰ Hamerschlag, *supra* note 176.

¹⁸¹ Patricia Cobe, *K-12 menus take plant-forward eating back to basics*, Food Service Director (Aug. 22, 2022), <https://www.foodservicedirector.com/menu/k-12-menus-take-plant-forward-eating-back-basics>.

¹⁸² NYC Health and Hospitals, *NYC Health + Hospitals Celebrates 1.2 Million Plant-Based Meals Served*, (Mar. 14, 2024), <https://www.nychealthandhospitals.org/pressrelease/nyc-health-hospitals-celebrates-1-2-million-plant-based-meals-served/>.

¹⁸³ *Id.*

¹⁸⁴ Claire Hamlett, *US School District Ditches Eggs Due to Avian Flu*, Plant Based News (Mar. 7, 2024), <https://plantbasednews.org/news/environment/us-school-district-ditches-eggs-due-to-avian-flu/>.

¹⁸⁵ Angela Carella, *Vegan Lunch Options Expand in CT Schools, Nonprofit Advocates for Change*, CT Examiner (Oct. 27, 2023), <https://ctexaminer.com/2023/10/27/vegan-lunch-options-expand-in-ct-schools-nonprofit-advocates-for-change/>.

E. The current regulations create too many obstacles to providing more vegan meal options.

Alongside the 2020-2025 National Dietary Guidelines, broadening options through the NSLP that can make an entire plant-based lunch possible will help reverse institutional food biases and elevate how school staff understand the value of a multitude of nutritional options to best serve their students and surrounding communities.

The existing food definitions and a finite range of available plant-based foods and milk within the NSLP hinder efforts for schools to create whole, vegan meals, including meals from scratch. The glaring absence of a fully vegan meal on all school menus demonstrates that USDA has overlooked its mission and priorities as well as the current concerns related to public health and planetary health.

1. The Regulations create unnecessary barriers to providing plant-based protein.

Currently, NSLP guidance by Food and Nutrition Service only allows firm or extra firm tofu to be served in visibly obvious forms such as in “stir-fries, omelets, and miso soup.”¹⁸⁶ Further, since “[m]eat substitute products such as links and sausages made from tofu are also easily recognizable as meat substitutes,” they can be included in a meal to credit for a meat alternate. In turn, “[s]oft or silken tofu that is incorporated into drinks, such as smoothies, or other dishes to add texture or improve nutrition, such as in baked desserts, does not credit toward the meat alternate component.” This limitation removes opportunities for students to meet protein intake requirements and undermines the efforts for new and diverse foods to be introduced on school menus.¹⁸⁷

Similarly, barriers to introducing plant-based meal options include limitations in crediting less visually obvious forms of legumes toward the meat/meat alternate component. Although legumes are creditable toward the meat/meat alternate component, pasta made entirely from legumes is only creditable toward this component when combined with 0.25 ounces of a visible meat/meat alternate.¹⁸⁸

These unnecessary barriers ultimately limit the ability of schools to advance the goals of USDA and the NSLP by making it difficult for operators to keep up with food innovations that can improve equitable practices in U.S. schools.

USDA should adopt regulations to promote and encourage plant-based meal options through the NSLP by updating the requirements for protein and providing supplemental educational programs and materials.

¹⁸⁶ U.S. Dep’t of Agriculture, *Supra* note 16.

¹⁸⁷ *Id.*

¹⁸⁸ U.S. Dep’t of Agriculture, *Crediting Meat/Meat Alternates in the Child Nutrition Programs Tip Sheet* (July 2022), <https://www.cacfp.org/assets/pdf/USDA+-+Crediting+MMAs+Tip+Sheet+cacfp.org/>.

2. The Regulations create unnecessary barriers to providing plant-based milk.

According to one of the oldest published definitions of “milk,” from 1755, milk refers to an “emulsion made by contusion of seeds.”¹⁸⁹ Indeed, a wide variety of plant-based milks have been present in our world for centuries and remain in many meals, recipes, and cookbooks by tradition.¹⁹⁰

Given both the historical recognition of plant milk and the myriad of advantages to providing students with plant-based milk, the Regulations should include a clear definition of fluid milk that includes plant-based milk. However, the regulations currently create unnecessary hurdles that school food authorities must surmount to provide plant-based milk. The regulations thus prevent students across the country from choosing fully vegan meals. As discussed above, nutritious vegan meals can provide the same, or better, nutrition as meat and dairy products and still fulfill the statutory purposes of the NSLP.

For example, fluid dairy milk substitutes matching the dietary requirements are only provided with proof of medical disability documentation. Mandating disability documentation and written requests for plant-based milk is an unnecessary step to provide equitable meal options, especially when the existing alternate, fortified soy milk, meets precise nutritional standards.¹⁹¹

Disability documentation is impractical for students adhering to religious values, philosophical beliefs, vegan and plant-forward diets, as well as those exploring plant-based food options. A parent’s note is frequently inadequate for approval, as many request forms require medical documentation.¹⁹² This is an undue burden on low-income families who depend on the NSLP most for food and nutrition security. This also perpetuates food waste, with dairy being the most discarded food in school programs, which USDA recognizes.¹⁹³ Overwhelmingly, \$300,000,000 worth of served but unopened milk cartons are thrown out in school cafeterias annually.¹⁹⁴

It is misleading and unnecessary to deem fortified soy milk as a ‘substitute.’ The draft guidance proposed by the FDA, “Labeling of Plant-Based Milk Alternatives and Voluntary

¹⁸⁹ Samuel Johnson’s Dictionary, *Milk*, <https://johnsonsdictionaryonline.com/views/search.php?term=Milk> (last visited Mar. 11, 2024).

¹⁹⁰ Benjamin Kemper, *Nut Milks Are Milk, Says Almost Every Culture Across the Globe*, Smithsonian Magazine (Aug. 15, 2018), <https://www.smithsonianmag.com/history/nut-milks-are-milk-says-almost-every-culture-across-globe-180970008/>.

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¹⁹⁴ *Id.*

Nutrient Statements; Draft Guidance for Industry,”¹⁹⁵ indicates that USDA acknowledges the term “milk” as the most widely recognized term for labeling plant-based options. USDA should also consider that recent findings reflect that dairy should not be a required food group.

As part of this, the definition of “food components” should be explicitly written to acknowledge that plant-based milk is just another type of milk.

As mentioned above, the regulations currently restrict the amount of reimbursement that schools may receive for providing milk substitutions.¹⁹⁶ This section should be modified to allow greater use of plant-based milk. In general, other sections that refer to milk should also clarify that plant-based milk qualifies as fluid milk.

Additionally, the definition of yogurt is too restrictive to represent the yogurt products available today. Yogurt is defined as “coagulated milk products obtained by the fermentation of specific bacteria that meet milk fat or milk solid requirements.” Yogurt’s definition also includes citations to FDA regulations that no longer exist. This is problematic because it creates yet another barrier for schools that want to include a plant-based milk product. This definition should be expanded to recognize the availability of healthy and nutritious yogurts made from plant-based milk.

PETITION FOR RULEMAKING

Friends of Animals hereby petitions the USDA’s Food Safety and School Meals Policy Division to issue the following amendments to the NSLP regulations, as well as any other amendments that help ensure all schools can easily provide vegan meal options to students.

Previous language has been struck with a line through it, and new information has been added in red.

A. Milk Regulations

1. 7 C.F.R. § 210.2 – Food Component

“Food component means one of the food groups which comprise reimbursable meals. The food components are: ~~Meats/meat alternates~~ **Protein**, grains, vegetables, fruits, and fluid milk, **including plant-based milk.**”

2. 7 C.F.R. § 210.2 – Yogurt Definition

“Yogurt means commercially prepared coagulated milk products, **including plant-based milk**, obtained by the fermentation of specific bacteria, that meet milk fat or milk solid

¹⁹⁵ U.S. Food and Drug Administration, *Labeling of Plant-Based Milk Alternatives and Voluntary Nutrient Statements; Draft Guidance for Industry* (Feb. 2023), <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/draft-guidance-industry-labeling-plant-based-milk-alternatives-and-voluntary-nutrient-statements>.

¹⁹⁶ 7 C.F.R. § 210.10(m)(2)(i).

requirements and to which flavoring foods or ingredients may be added. ~~Plant-based yogurt products are covered by the Food and Drug Administration's Definition and Standard of Identity for yogurt, lowfat yogurt, and nonfat yogurt...~~"

3. 7 C.F.R. § 210.2 – Fluid Milk Definition

"Fluid milk can either mean a liquid or juice within the color range of white to beige, produced from the mammary gland of a mammal or the emulsion made by soaking and grinding of various nuts, legumes, or grains, such as soy, almond, oat, hemp, pea, or rice. Fluid milk, regardless of the source, should contain certain amounts of protein, calcium, vitamin A, vitamin D, magnesium, phosphorus, riboflavin, and B-12, as enumerated at 7 C.F.R. § 210.10(d)(3)."

4. 7 C.F.R. § 210.10(c)(2)(v) – Required Food Component Offerings

"Fluid milk component. Fluid milk, **including at least one plant-based milk**, must be offered daily in accordance with paragraph (d) of this section.

5. 7 C.F.R. § 210.10(d)(1) – Types of Milk Offered

"Schools must offer students a variety (at least two different options) of fluid milk, **including at least one plant-based milk...**"

6. 7 C.F.R. § 210.10(d)(3) – Plant-Based Milks

~~"If a school chooses to~~ **Schools must** offer one or more ~~substitutes for fluid~~ **plant-based milks** for non-disabled students with medical or special dietary needs, and the nondairy beverage(s) must provide the nutrients listed in the following table."

7. 7 C.F.R. § 210.10(m)(2)(i) – Reimbursement for Plant-Based Milks

"Fluid milk substitutions for non-disability reasons. Schools may make substitutions for fluid milk for non-disabled students who cannot consume fluid milk due to medical or special dietary needs. A school that selects this option may offer the nondairy beverage(s) of its choice, provided the beverage(s) meets the nutritional standards established under paragraph (d) of this section. Expenses incurred when providing ~~substitutions for fluid milk~~ **plant-based milk** that exceed program reimbursements **will be reimbursed by the program up to an additional 50%, but further costs** must be paid by the school food authority."

B. Protein Requirements

1. 7 C.F.R. § 210.10 – Protein Requirements

Throughout the regulations, USDA should change references to "Meats/Meat Alternates" to "Protein," such as:

- 7 C.F.R. § 210.10(c), Table 1: ~~Meats/Meat Alternates~~ **Protein** (oz eq)
- 7 C.F.R. § 210.10(c)(2)(i): ~~Meats/meat alternates~~ **Protein** component.

- 7 C.F.R. § 210.10(c)(2)(i)(D): Tofu and soy products. Commercial tofu and soy products may be used to meet all or part of the ~~meats/meat alternates~~ **protein** component”

2. 7 C.F.R. § 210.10(c)(2)(i)(D) – Commercial Soy Products

“Tofu and soy products. Commercial tofu and soy products may be used to meet all or part of the ~~meats/meat alternates~~ **protein** component in accordance with FNS guidance. Noncommercial and/or non-standardized tofu and soy products are ~~not~~ **also** creditable.

Tofu and soy products in any form can be used to meet the protein component. This includes tofu and soy whether it is in a visible form or blended into another food product.”

3. 7 C.F.R. § 210.10(c)(2)(iii) – Vegetables Component

“Vegetables component. Schools must offer vegetables daily as part of the lunch menu. Fresh, frozen, or canned vegetables and dry beans and peas (legumes) may be offered to meet this requirement. All vegetables are credited based on their volume as served, except that 1 cup of leafy greens counts as 1/2 cup of vegetables and tomato paste and puree are credited based on calculated volume of the whole food equivalency. Pasteurized, full-strength vegetable juice may be used to meet no more than one-half of the vegetables component. Cooked dry beans or peas (legumes) may be counted as ~~either a vegetable or as a meat alternate but not as both in the~~ and **protein in the same meal, provided there is a sufficient amount to meet both component requirements.”**

CONCLUSION

Due to the reasons discussed above, Friends of Animals urges USDA to amend regulations to the NSLP. Easing accessibility to plant-based meal options in the NSLP has the potential to advance nutritional security, social equity, resource conservation, and the ethical treatment of animals. These regulations represent a critical step toward improving food systems across America that can inspire lasting change.

Establishing new regulations to the NSLP can help empower every child to make healthy, compassionate, and sustainable eating habits for life, which will benefit future generations of Americans. Addressing how structural discrimination and racism has shaped the NSLP will remove inequitable health outcomes and aid in creating new approaches and standards.

Respectfully submitted,

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