

## Policy Brief: Regulatory Changes to Enable Plant-Forward School Meals



Demand for plant-based foods is growing rapidly among our youth, whether for environmental, health, religious or cultural reasons. However, despite this growing demand, plant-based options are lacking in most school cafeterias due in part to barriers created by USDA's school nutrition standards and meal pattern guidance. Friends of the Earth's [2019 analysis](#) of California school lunches showed that only 4 percent of entrée offerings were plant-based, and about half of those are nut butter and jelly.

This policy brief summarizes (a) regulatory barriers encountered by school foodservice professionals seeking to offer more plant-forward meals; (b) ways the USDA could modify K-12 meal pattern requirements and nutrition guidelines for meat/meat alternates (M/MA) to support healthier, plant-forward menus; and (c) how the USDA could better align its regulations and guidance with the *Dietary Guidelines for Americans* (DGA),<sup>1</sup> as required by the Healthy, Hunger-Free Kids Act of 2010.

### Why more plant-forward and plant-based options are important

School meals are a crucial point of leverage to instill healthy eating habits at a young age and combat the crisis of diet-related disease, especially for the many students who rely on free and reduced-price school meals as their primary source of nutrition.<sup>i</sup> Leading public health organizations agree that a minimally processed, plant-predominant diet protects against chronic diseases including diabetes, heart, kidney and gastrointestinal disease, as well as obesity and certain cancers.<sup>ii</sup> Further, plant-rich diets are a crucial solution to the climate crisis that our youth face.<sup>iii</sup>

The DGA notes that while youth meet or exceed the recommended servings for meats, poultry, and eggs, they are under consuming vegetables, beans, peas, lentils, nuts, seeds, and soy products.<sup>iv</sup> The DGA specifically states that “replacing processed or high fat meats with beans, peas and lentils” would help to “increase dietary fiber, a dietary component of public health concern.”<sup>v</sup>

### Recommendations for Aligning School Nutrition Standards with *Dietary Guidelines for Americans*

To bring school meals into greater alignment with DGA's recommended intakes, FNS should create more opportunities to offer a variety of fiber-rich, plant-forward protein choices to children. Unnecessary hurdles to serving these foods faced by school food operators can be overcome with the following changes to FNS's school nutrition standards approach to the Meat/Meat Alternate category:

1. Allow beans, peas, lentils, tofu, and soy products to qualify as M/MA even if not visually recognizable.
2. Enable beans, peas, and lentils to credit as both a vegetable and M/MA if served in sufficient quantities, and the same pulse dish should be able to credit as a vegetable or M/MA in a single day.
3. Diversify protein options by allowing more flexibility for beans/peas/lentils to credit as M/MA.

---

<sup>1</sup> These findings and recommendations are based on extensive interviews with more than 20 School foodservice and nutrition professionals.

4. Enable quinoa and other “complete” grains that are not limited in amino acids to qualify as M/MA.
5. Amend regulation to allow nuts and seeds to credit fully as a M/MA.
6. Enable alternate protein products (APPs) to credit if they include a minimum grams of protein per serving.
7. Create more consistent and practical nutritional equivalencies for M/MA.
8. Rename the Meat/Meat Alternate category.



**Recommendation #1: Allow beans, peas, and lentils (as well as tofu and soy products) to qualify as meat/meat alternate (M/MA) even if not visually recognizable.**

Beans, peas, and lentils can credit for either the vegetable component or for the M/MA component. If they credit as a vegetable, they do not necessarily have to be visually recognizable. For example, a red lentil pasta can credit as a vegetable, as could beans pureed in a smoothie. However, to credit as M/MA, pulses must be visually recognizable. There is no justification for the disparate treatment of pulses crediting as vegetables versus M/MA in the DGA. Instead, FNS should provide school food operators flexibility to offer beans, peas, and lentils as M/MA

in forms that are attractive and familiar to students, such as pulse-based pastas, burgers, dips, and pureed soups.

**Recommendation #2: Enable beans, peas, and lentils to credit as both a vegetable and M/MA if served in sufficient quantities and allow the same pulse dish to credit as a vegetable or M/MA in a single day.**

School foodservice professionals can serve beans, peas, and lentils to satisfy the M/MA or vegetable components but not both in the same meal even if the quantity served is sufficiently large.<sup>vi</sup> For example, a chili with beans and beef or soy crumble is allowed, while chili with multiple types of pulses is not allowed to credit for both the vegetable and M/MA component, despite the fact that it provides appropriate quantities of protein for the M/MA component. Similarly, a dish with beans, peas, and lentils cannot count for one student as a vegetable and another as an M/MA on the same day. This is an unnecessary barrier, and there is no justification in the DGA for either of these requirements.

**Recommendation #3: Diversify protein options by allowing more flexibility for beans/peas/lentils to credit as M/MA.**

Often, when pulses are served as a side to meet the weekly vegetable subgroup requirement, students tend not to choose or eat them due to the challenges of making them appealing and delicious. However, when mixed with other ingredients, beans, peas, and lentils can provide a plethora of tasty entrees. To diversify students’ protein sources and reduce the carbon footprint of our menus, FNS should incentivize districts to use beans, peas, and lentils as M/MA and in mixed entrees to get students to eat more of these nutritious and under-consumed foods. Options include: (1) Instead of having beans, peas, and lentils as a vegetable subgroup requirement, create a standalone beans, peas, and lentils weekly requirement that could be met either by serving them as a vegetable or as M/MA; (2) Eliminate the vegetable subgroup requirement and create a beans, peas, and lentils subgroup requirement under the M/MA category; or (3) As an alternative to meeting the vegetable subgroup requirement, allow schools to offer a minimum number of entrees in a given week that contain beans, peas, and lentils as M/MA.



**Recommendation #4: Enable quinoa and other “complete” grains that are not limited in amino acids to qualify as M/MA.**

Quinoa is classified as a whole grain, with one cup cooked providing about 8 grams of protein. The protein in quinoa, like that of beef, pork, eggs, fish, dairy, and soy, is complete – meaning that it contains all nine essential amino acids the human body needs. Insofar as FNS allows for other meat alternates that are not within the Protein Foods Group in the DGA, such as cheese, to be used to meet all or part of the M/MA component,

the Agency should also allow foods from other food groups, including certain pseudo-grains with complete protein, such as quinoa, amaranth, and buckwheat.

**Recommendation # 5: Amend regulation to allow nuts and seeds to credit fully as a M/MA.**

Currently, nuts or seeds may be used to meet no more than one-half of the M/MA component and must be served with another M/MA to meet the full meal component requirement, regardless of serving size.<sup>vii</sup> However, FNS allows nut and seed butters to credit toward the full M/MA component. The nutritional content of nuts and seeds does not change when these foods are blended or pureed into butter form, and the DGA does not justify the disparate regulation of nuts and seeds in their whole form.

**Recommendations #6: Enable alternate protein products (APPs) to credit if they include a minimum grams of protein per serving.**

The National School Lunch Program requires vendors of alternate protein products (e.g. a soy nugget), or program operators using such products, to demonstrate that the products meet a hard-to-decipher [formulation](#) to credit as a M/MA.<sup>viii</sup> Program operators and vendors often find this process confusing and difficult to manage, which can deter them from serving more plant-based options.<sup>ix</sup> Districts should be able to credit APPs by demonstrating minimum grams of protein per serving similar to the process for crediting grains. Focusing on total protein content is simple, easier to understand, and achieves the goal of ensuring students are getting an appropriate amount of protein from the M/MA component.

**Recommendation #7: Create more consistent and practical nutritional equivalencies for M/MA.**

USDA’s nutritional equivalencies for certain foods – namely, tofu, nut butters, and cheese – are inconsistent with nutrition science and impractical from an operational standpoint, negatively impacting taste and leading to food waste. For example, currently, 2.2 oz of tofu containing at least 5 grams of protein is creditable as a 1.0 oz equivalent meat alternate.<sup>x</sup> To credit at 2 M/MA, 4.4 oz of tofu containing 10 grams of protein would need to be offered per entrée, which is simply too much tofu – negatively impacting taste and leading to food waste. For example, for tofu chicken nuggets to credit as 2 M/MA, schools would have to serve 10 tofu nuggets - twice as many as is required for chicken nuggets. To be more consistent, tofu’s nutritional equivalency should be lowered to something like 1.5 oz per M/MA, which provides between 3.4g and 7.3g of protein depending on the type of tofu (soft vs firm). When compared to other M/MA options like bologna (which contains 2.76g of protein per 1 oz.), the reduced equivalent serving of tofu still provides a larger quantity of protein per 1 M/MA serving. The nutritional equivalencies for nut butters and cheese are also out of alignment with their recommended serving sizes. A nut butter sandwich would need to include 4 tablespoons of nut butter to credit as 2 M/MA, which is not

an appealing proportion of bread to nut butter for most students. For cheese, a grilled cheese sandwich would require ~3.5 average slices of cheese, which is equivalent to 3.5 recommended serving sizes, to credit as 2 M/MA.

### **Recommendation #8: Rename the Meat/Meat Alternate category**

FNS should abandon the term “Meat/Meat Alternate,” which is not dictated by any nomenclature found in the DGA. Use of this term creates a negative perception of plant-based sources of protein, and is confusing to foodservice professionals, parents, and students. USDA’s My Plate tool has already moved away from “meat/meat alternate” in favor of the term “Protein Foods Group’, [which] includes beans, peas, lentils, nuts, seeds and soy products.”<sup>xi</sup>

In conclusion, FNS could foster greater alignment with the *Dietary Guidelines*, lower the carbon footprint of school meals, and allow school food operators to be more creative in the ways they are offering plant-forward meals by making these changes to its school nutrition standards. We urge FNS to act immediately on recommendations 1, 4, and 7, as we believe these changes can be made by issuing guidance at any time. We urge USDA to address recommendations 2,3, 5, 6, and 8 in its rulemaking process this year to update the meal patterns and nutrition guidelines to be in greater alignment with the latest DGA.

---

<sup>i</sup> Bussel J, How School Meals Help Families Impacted by the Pandemic (Mar. 16, 2021) available at <https://www.rwif.org/en/blog/2021/03/how-school-meals-help-families-impacted-by-the-pandemic.html>.

<sup>ii</sup> American College of Lifestyle Medicine, available at <https://lifestyle-medicine.foleon.com/wfpb-nutrition/manyvoices-one-theme/home/>.

<sup>iii</sup> Intergovernmental Panel on Climate Change, Climate Change and Land. (Jan. 2020). Available at [https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM\\_Updated-Jan20.pdf](https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf).

<sup>iv</sup> USDA, Dietary Guidelines for American 2020-2025, available at [https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary\\_Guidelines\\_for\\_Americans\\_2020-2025.pdf](https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf).

<sup>v</sup> Id. at 34.

<sup>vi</sup> 7 CFR 210.10(c)(2)(i)(E).

<sup>vii</sup> 7 CFR 210.10(c)(2)(i)(B).

<sup>viii</sup> 7 CFR Appendix A to Part 210, 7 CFR Appendix to Part 220,

<sup>ix</sup> USDA/FNS, Questions and Answers of Alternative Protein Products (APP) (April 27, 2007), available at [https://fns-prod.azureedge.net/sites/default/files/APP\\_QAs-Industry.pdf](https://fns-prod.azureedge.net/sites/default/files/APP_QAs-Industry.pdf)

<sup>x</sup> USDA, FNS, Policy Memo SP53 CACFP21-2016, Crediting Tofu and Soy Yogurt Products in the School Meal Programs and the Child and Adult Care Food Program (Aug. 8, 2016). Available at <https://www.fns.usda.gov/cn/crediting-tofu-and-soy-yogurt-products-school-meal-programs-and-cacfp>.

<sup>xi</sup> USDA, MyPlate, What foods are in the Protein Foods Group?, available at <https://www.myplate.gov/eat-healthy/protein-foods>.