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September 11, 2026

Shiela Corley
Acting Administrator
USDA Food and Nutrition Administration
George Washington Carver Center
5601 Sunnyside Avenue
Beltsville, MD 20740

Re: Characterization of essential fatty acids in Child Nutrition Program guidance materials

Dear Acting Administrator Corley:

The American Oil Chemists' Society (AOCS) writes to identify a factual error in the dietary fat guidance that the Food and Nutrition Administration is now encouraging states and school food authorities to implement, and to offer the Society's technical assistance in resolving it.

AOCS is a scientific society devoted to the chemistry of fats, oils, lipids, and related materials. The Society publishes the *Official Methods and Recommended Practices of the AOCS*, the analytical standards used worldwide by industry, government laboratories, and the Codex Alimentarius Commission to determine the composition of edible fats and oils. We do not write on behalf of any commercial interest. Our concern is narrower and entirely factual.

The issue. The *Dietary Guidelines for Americans, 2025-2030* advises: "When cooking with or adding fats to meals, prioritize oils with essential fatty acids, such as olive oil," and adds that "Other options can include butter or beef tallow." Through the Harvest to Hallways initiative announced August 24, 2026, and the accompanying Pledge for Healthier School Meals, FNA is encouraging states and school food authorities to put the 2025–2030 Guidelines into practice immediately. That sentence will therefore shape purchasing and food preparation decisions in school kitchens nationwide.

The three fats named in that passage are among the poorest sources of essential fatty acids among the fats commonly used in food service.

Only two fatty acids are essential in human nutrition: linoleic acid (18:2 n-6) and α-linolenic acid (18:3 n-3). Neither can be synthesized by the human body, and both must be obtained from the diet. The principal fatty acid in olive oil is oleic acid (18:1 n-9), which is not essential; the body synthesizes it readily.

The compositional data are not in dispute. The figures below are the current international compositional standards, corroborated by recent peer-reviewed measurement. Attachment A gives the full comparison and Attachment B the citations. All values are percentages of total fatty acids. The data show,

- Olive oil contains 2.5 to 21.0 percent linoleic acid and not more than 1.0 percent linolenic acid. Recent cultivar surveys place typical measured values near the lower half of that range, between about 6 and 13 percent linoleic acid.
- Soybean oil contains 48.0 to 59.0 percent linoleic acid and 4.5 to 11.0 percent α-linolenic acid, the highest combined content among common food service oils.
- Canola oil contains 15.0 to 30.0 percent linoleic acid and 5.0 to 14.0 percent α-linolenic acid.

- Safflower oil contains 67.8 to 83.2 percent linoleic acid, conventional high-linoleic sunflower oil 45.4 to 74.0 percent, cottonseed oil 46.7 to 58.2 percent, and corn oil 34.0 to 65.6 percent.
- Butterfat contains roughly 1 to 4 percent linoleic acid and beef tallow roughly 1 to 5 percent, each with less than 1 percent α-linolenic acid. Both are predominantly saturated. No international standard specifies a fatty acid composition for milkfat.

A school food authority following the sentence in the *Dietary Guidelines for Americans, 2025-2030* as written would actually reduce the essential fatty acid content of the meals it serves. Where butter or beef tallow is chosen, it would also increase saturated fat delivery, working against the same document's guidance that "saturated fat consumption should not exceed 10% of total daily calories."

What we ask. AOCS respectfully requests that FNA, in the Child Nutrition Program materials within its own control (Harvest to Hallways resources, Pledge outreach, technical assistance memoranda, and training for state agencies) support the recommendation for prioritizing oils that provide essential fatty acids accurately by identifying oils that are in fact meaningful sources of linoleic and α-linolenic acid.

What we offer. AOCS can provide the Department:

- Compositional reference data, and the analytical method citations behind them, for any fat or oil used in Child Nutrition Programs.
- Technical review of draft Child Nutrition guidance, training materials, or rulemaking language that characterizes fats and oils, in advance of publication.
- A briefing for FNA staff on fatty acid composition and nomenclature as they apply to school food service.

I would welcome the opportunity to discuss this with you or with staff in the Child Nutrition Policy and Regulations Division. I can be reached at patrick.donnelly@aocs.org.

Respectfully,

Patrick Donnelly, PhD, CAE
Chief Executive Officer, AOCS

Attachments: A. Essential fatty acid content of fats and oils used in food service. B. References.

ATTACHMENT A

Essential Fatty Acid Content of Fats and Oils Used in Food Service

Percentages of total fatty acids, in descending order of linoleic acid content.

Fat or oil	Linoleic acid 18:2 n-6 (%)	α-Linolenic acid 18:3 n-3 (%)	Oleic acid 18:1 (%)	References
Safflower seed oil	67.8–83.2	ND–0.1	8.4–21.3	3, 14
Soybean oil	48.0–59.0	4.5–11.0	17–30	3, 10, 11
Cottonseed oil	46.7–58.2	ND–0.4	14.7–21.7	3, 16
Sunflower seed oil (conventional, high-linoleic type)	45.4–74.0	ND–0.3	14.0–43.0	3, 13
Maize (corn) oil	34.0–65.6	ND–2.0	20.0–42.2	3, 15
Rapeseed oil, low erucic acid (canola)	15.0–30.0	5.0–14.0	51.0–70.0	3, 12
Arachis (peanut) oil	4.0–43.0	ND–0.5	35.0–80	3, 17
Olive oil (all grades)	**2.5–21.0**	**≤1.0**	55.0–85.0	1, 2, 7–9
Palm oil	9.0–12.0	ND–0.5	36.0–44.0	3, 18
Beef tallow	**1–6**	**<1.5**	31–50	4, 6, 21, 22
Butterfat	**0.9–3.7**	**0–0.5**	18.7–33.4	6, 19, 20
Coconut oil	1.0–2.5	ND–0.2	5.0–10.0	3

Notes

a. Values for the named vegetable oils are the gas-liquid chromatography ranges in Codex Alimentarius standard CXS 210-1999, Standard for Named Vegetable Oils, as amended. Olive oil values are the trade standard limits of the International Olive Council, which the Codex standard for olive oils follows. ND denotes non-detectable, defined in CXS 210-1999 as ≤0.05 percent.

b. No Codex standard specifies a fatty acid composition for milkfat or butterfat. The Codex standards for butter and for milkfat products set fat, water and free fatty acid limits only. Butterfat values here are therefore compilation and measured values, not standard limits.

c. Sunflower and safflower each have separate high-oleic entries in CXS 210-1999 with much lower linoleic acid content (high-oleic sunflower 2.1 to 17 percent, high-oleic safflower 9.0 to 19.9 percent), and sunflower has a mid-oleic entry at 18.7 to 45.3 percent. The rows above are the conventional high-linoleic types. The type matters, and any recommendation that turns on essential fatty acid content should specify it.

d. Linoleic acid (18:2 n-6) and α-linolenic acid (18:3 n-3) are the only fatty acids essential in human nutrition. Oleic acid (18:1 n-9) is shown for reference because it is the principal fatty acid in olive oil; it is not essential, as the human body synthesizes it from other precursors.

e. Butterfat and beef tallow are predominantly saturated. Recent measurement places butterfat palmitic acid near 30 percent of total fatty acids, and beef subcutaneous fat total saturates above 65 percent.

f. Fatty acid composition varies with cultivar, growing season and climate for plant oils, and with breed, diet and season for animal fats. Peer-reviewed sources in Attachment B quantify that variation. Standard ranges are intended to bracket authentic commercial material, not to describe any single lot.

g. Rows in bold are the three fats named in the fats and oils guidance of the *Dietary Guidelines for Americans, 2025-2030*.

ATTACHMENT B

References

1. International Olive Council. *Trade Standard Applying to Olive Oils and Olive Pomace Oils*. COI/T.15/NC No 3/Rev. 20. Madrid, Spain, November 2024.
2. Codex Alimentarius Commission. *Standard for Olive Oils and Olive Pomace Oils.* CXS 33-1981, revised 2024. FAO and WHO, Rome, Italy.
3. Codex Alimentarius Commission. *Standard for Named Vegetable Oils*. CXS 210-1999, adopted 1999, amended 2026. FAO and WHO, Rome, Italy.
4. Codex Alimentarius Commission. *Standard for Named Animal Fats*. CXS 211-1999, amended 2024. FAO and WHO, Rome, Italy. Contains a fatty acid composition table for lard, rendered pork fat, premier jus and edible tallow.
5. Codex Alimentarius Commission. *Standard for Butter,* CXS 279-1971, and *Standard for Milk Fat Products*, CXS 280-1973. FAO and WHO, Rome, Italy. Neither specifies fatty acid composition.
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