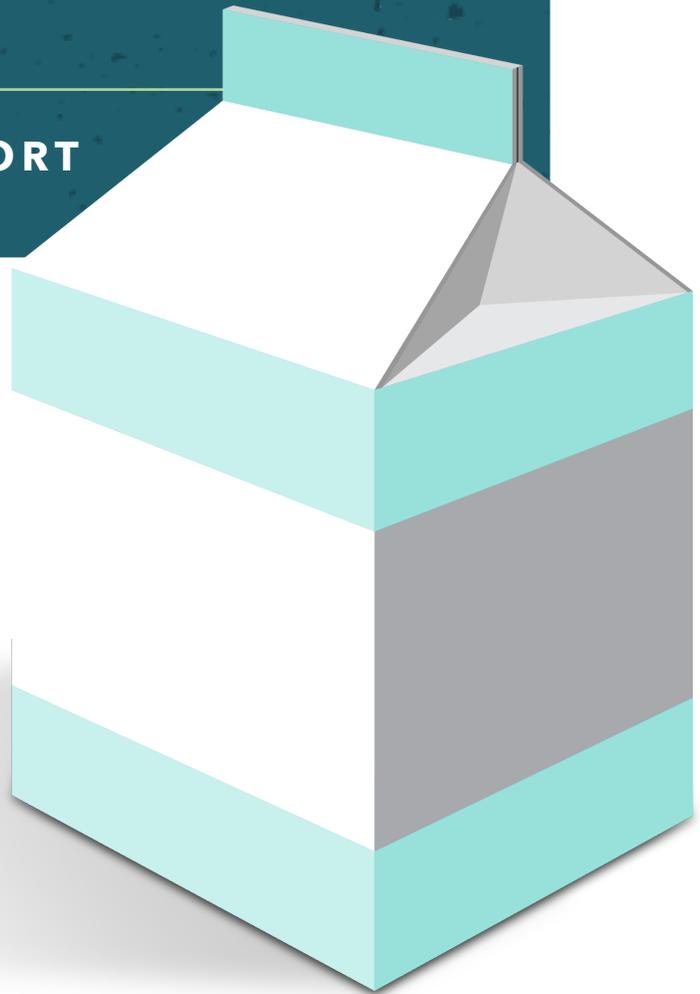




CENTER FOR  
Science IN THE  
Public Interest  
*Your Food and Health Watchdog*

# Behind the Carton

2022 SCHOOL MILK REPORT



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### **About CSPI**

The Center for Science in the Public Interest (CSPI) is your food and health watchdog.

CSPI envisions a healthy population with reduced impact and burden of preventable diseases and an equitable food system that makes healthy, sustainable food accessible to all. CSPI values independence, scientific rigor, and transparency.

Founded in 1971, CSPI is an independent, science-based consumer advocacy organization with an impressive record of accomplishments and a clear and ambitious agenda for improving the food system to support healthy eating.

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## Executive Summary

The Center for Science in the Public Interest (CSPI) is pleased to release our 2022 School Milk Report. This report is a supplement to our 2021 School Food Corporate Report Card, providing a snapshot of the nutritional quality of the fluid milk products currently available to K–12 schools.

School breakfast and lunch are the healthiest meals that children eat, thanks in large part to the strong nutrition standards set by the Healthy, Hunger-Free Kids Act of 2010.<sup>i</sup> Unfortunately, these strong standards have come under attack in recent years.<sup>ii</sup> CSPI has fought hard to protect these important health measures. The U.S. Department of Agriculture’s (USDA) 2017 attempt to roll back school nutrition standards was vacated by a federal judge in 2020 following a legal challenge by CSPI. The COVID-19 pandemic temporarily limited school food authorities’ (SFAs) ability to implement these strong nutrition standards, and the USDA had to issue emergency waivers to alleviate these pandemic-related challenges. For this school year (SY) and next, however, SFAs are operating under the temporary nutrition standards issued by the USDA in February 2022. The USDA has committed to updating the nutrition standards for SY 2024–25 and beyond through rulemaking expected in early 2023 that will align school meals with the 2020–2025 Dietary Guidelines for Americans (DGA).

To align school nutrition standards with the 2020 DGA, as is required by law, we urge the USDA to establish a new sodium reduction schedule that lowers sodium to safe levels for all grade groups, and to set an added sugars standard that limits added sugars to no more than 10 percent of calories at each meal. In addition, there are public health concerns around certain low-calorie sweeteners (i.e., Aspartame, Acesulfame-K, Saccharin, Sucralose) and synthetic dyes; CSPI believes that the USDA should require that these harmful additives be removed from school meals entirely. It is particularly important for the USDA to address dangerous low-calorie sweeteners if the agency sets an added sugars standard so that companies do not substitute harmful low-calorie sweeteners for added sugars.

The purpose of this report, and our 2021 scorecard, is to explore how the K–12 products currently in the school food marketplace from the largest companies meet existing nutrition standards and to establish whether companies could meet stronger standards consistent with the 2020 DGA. To that end, this report examines 11 of the largest dairy companies’ single-serve school milk products to determine:

- Whether they meet the current sodium-reduction target (i.e., Target 1) and if they could meet a 2020 DGA-aligned sodium standard for the meal pattern;
- Whether they could meet a 2020 DGA-aligned added sugars standard (i.e., no more than 10 percent of calories) for the meal pattern; and
- Whether they could meet a standard that prohibits any harmful low-calorie sweeteners or synthetic dyes.

We evaluated 51 flavored and unflavored, fat-free and low-fat (1-percent) milk products based on the Nutrition Facts labels and ingredient lists that 11 of the largest U.S. dairy companies voluntarily shared with us. Since there is little publicly available data on the nutritional quality of school milk, our report was limited to a small sample of products which were made available by the companies that responded to our outreach, but which may not be representative of the market.

### Final Companies in Report



For sodium, we found that the sodium content in flavored milk was statistically significantly higher than in unflavored milk. The amount of naturally occurring sodium (which ranged from 95–160 mg and averaged 117 mg) in the 22 unflavored milk products included in this report does not present a public health concern nor would these levels of naturally occurring sodium make it unfeasible for SFAs to meet a DGA-aligned sodium-reduction target. In contrast, the 29 flavored milk products included in this report had between 95–250 mg of sodium (with an average of 164 mg), and 20 of them (69 percent) had salt as an added ingredient. While all 29 flavored milk products would contribute less than half of the sodium at K–5 breakfast under Target 1 (< 540 mg), 16 of them would contribute more than half of the sodium under a DGA-aligned target at K–5 breakfast ( $\leq 340$  mg). This means that if SFAs were to offer any of these 16 flavored milk products, it would be difficult for them to meet the most protective sodium standard for the youngest grade group. Not all flavored milk products have a lot of added salt though; one chocolate milk had only 20 mg of additional sodium from salt, which confirms that reducing sodium in flavored milk is indeed possible for the dairy industry.

Unflavored milk does not contain any added sugars, but flavored milk is the top source of added sugars in school meals.<sup>iii</sup> While 1 cup of milk contains about 12 g of naturally occurring sugar (i.e., lactose), the additional sugars added to flavored milk can be significant. Seven flavored milk products had more added sugars than a DGA-aligned standard at K–5 breakfast would allow ( $\leq 12.5$  g), having between 13–16 g of added sugars. As with sodium, flavored milk products with that much added sugars would make it difficult for SFAs to meet a DGA-aligned added sugars standard for the youngest grade group. We also found that there were nearly as many flavored milk products (six) with only 6–7 g of added sugars, which suggests the dairy industry can reduce added sugars and still sell flavored milk that is palatable to children.



We were encouraged that none of the milk products in this report contained low-calorie sweeteners of concern, but five of the nine strawberry milk products contained one or more synthetic dyes. Strawberry milk does not require synthetic dyes to be colored pink, and we found four examples of strawberry milk products with either no or safe color additives.

In sum, our report found that there are school milk products currently on the market, including flavored milk products, that could meet an added sugars standard and stronger sodium-reduction targets and that do not contain low-calorie sweeteners of concern or synthetic dyes. While we found that there are a number of flavored school milk products that need to be reformulated to reduce added sugars and sodium and remove synthetic dyes, this report indicates that healthier school milk products are already available and such reformulation is possible.

Based on our findings, we recommend that:

- The USDA set a sodium-reduction schedule that would align school meals with the 2020 DGA recommendations for all grade groups.
- Dairy companies reduce the sodium content of their flavored milk products.
- The USDA set a quantitative, per-meal added sugars standard that would align school meals with the 2020 DGA recommendations for all grade groups.
- Dairy companies reduce the added sugars in their flavored milk products without increasing sodium or introducing low-calorie sweeteners of concern.
- The USDA require that low-calorie sweeteners of concern be phased out of school meals.
- Dairy companies remove synthetic dyes from their flavored milk products.
- The USDA require that synthetic dyes be phased out of school meals.
- The USDA instruct state agencies to collect and report product-specific nutrition information for milk products during SFAs’ administrative reviews.
- The USDA conduct its own study of the national school milk marketplace and publish a report with corresponding data sets.

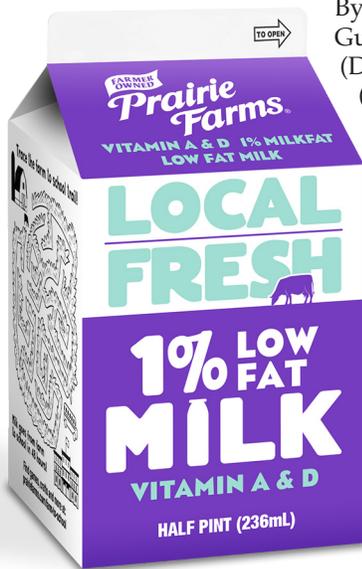
# Introduction

## REACH AND IMPACT OF SCHOOL MEALS

The National School Lunch Program (NSLP) and School Breakfast Program (SBP) are federally funded programs that—prior to the COVID-19 pandemic—provided subsidized school meals to nearly 30 million children annually.<sup>iv</sup> During the COVID-19 pandemic, all students were eligible to receive free meals, regardless of household income. Beginning this school year (SY 2022–23), pre-pandemic eligibility rules resumed, and only children from households with low incomes are now eligible for free or reduced-price meals. Some states, however, recognizing the widespread benefits of healthy school meals for all, have passed legislation to allow every student to receive meals at school free of charge: California, Maine, and Colorado have funded this permanently, while Massachusetts, Vermont, and Nevada have provided one year of funding at the time of this report.<sup>v</sup>

Children consume as much as one-half of their daily calories during the school day,<sup>vi</sup> and for students who reside in households experiencing food insecurity, school breakfast and lunch may be the only nutritious meals that they will consume in a day.

## SCHOOL MEAL NUTRITION STANDARDS



By law, school meals must meet nutrition standards based on the Dietary Guidelines for Americans (DGA).<sup>vii</sup> In 2010, Congress passed the Healthy, Hunger-Free Kids Act (HHFKA), which removed full-calorie soda and other junk foods from schools and, in school meals, reduced sodium and saturated fat while increasing whole grains, fruits, and vegetables.<sup>viii</sup> In 2012, school meal nutrition standards were updated to be consistent with the 2010 DGA.<sup>ix</sup> Despite their success in improving the nutritional quality of school breakfast and lunch, the U.S. Department of Agriculture (USDA) weakened these standards in 2017–2018 with rollbacks<sup>x,xi</sup> that were later vacated by a federal judge following a legal challenge by CSPI.<sup>xii,xiii</sup> The vacatur, however, reinstated the 2012 standards in April 2020 at a time when school food authorities (SFAs) were struggling to serve meals to students at the start of the COVID-19 pandemic. In response to the emergency, the USDA issued a series of waivers to alleviate pandemic-related challenges, waiving the requirement to meet the 2012 standards.<sup>xiv</sup> In February 2022, the USDA issued temporary nutrition standards for flavored milk, whole grains, and sodium effective SY 2022–23 through SY 2023–24.<sup>xv</sup> Unfortunately, these standards were weaker than the 2012 standards. The USDA has committed to updating school nutrition

standards for SY 2024–25 and beyond through rulemaking expected in early 2023 that will align school meal nutrition standards with the 2020 DGA.<sup>xvi,xvii</sup>

**Table 1: Current USDA School Nutrition Standards<sup>xviii</sup> Versus CSPI’s Policy Priorities**

	Current USDA Standards	CSPI Policy Priorities
Whole Grains	At least 80 percent of the grain products offered weekly must be whole grain-rich (i.e., containing 50 percent or more whole grains). The remaining grain products must be enriched.	Reestablish the 100-percent whole grain-rich standard to align school meals with the 2020 DGA.
Sodium	Breakfast and lunch must meet sodium-reduction Target 1 in SY 2022–23; lunch must meet a 10-percent sodium-reduction target (Interim Target 1A) in SY 2023–24. The standard is a per-meal limit averaged over the week.	Establish additional sodium-reduction targets to align school meals with the 2020 DGA.
Added Sugars	None	Introduce a per-meal added sugars standard averaged over the week that aligns with the 2020 DGA (i.e., no more than 10 percent of calories from added sugars)
Low-Calorie Sweeteners	None	Introduce a standard to remove harmful low-calorie sweeteners.
Synthetic Dyes	None	Introduce a standard to remove harmful synthetic dyes.

As with whole grains and sodium, the requirements for fluid milk have varied since 2010. Fluid milk is a required food component for both the NSLP and SBP, and SFAs operating under these programs must offer 1 cup of milk at both breakfast and lunch for those meals to be reimbursed.<sup>xix,xx</sup> Prior to SY 2012–13, there were no limitations on what types of milk could be served in schools: flavored (e.g., chocolate or strawberry) or unflavored (i.e., plain) whole, reduced-fat (2-percent), low-fat (1-percent), and fat-free milk were all allowed.<sup>xxi</sup> Starting in SY 2012–13, only three milk options were permitted in schools: fat-free unflavored milk, fat-free flavored, and low-fat unflavored milk.<sup>xxii</sup> Later, a FY 2017 appropriations rider allowed SFAs to apply for a waiver to serve low-fat flavored milk, but they had to demonstrate a need for serving the milk based on reduced student consumption or increased milk waste.<sup>xxiii</sup> As part of the Trump-era rollbacks, SFAs no longer needed a waiver to offer low-fat flavored milk,<sup>xxiv</sup> but it had to be offered alongside unflavored milk.<sup>xxv</sup> With the 2020 vacatur, low-fat flavored milk was technically no longer allowed,<sup>xxvi</sup> but the flexibility afforded by the COVID-19 waivers permitted SFAs to continue offering it.<sup>xxvii</sup> Currently, the 2022 transitional rule allows SFAs to offer low-fat flavored milk alongside unflavored milk through SY 2023–24.<sup>xxviii</sup>

## NUTRITIONAL QUALITY OF SCHOOL MEALS

The USDA conducted the 2019 School Nutrition and Meal Cost Study (SNMCS), the first nationally representative study to assess school meals after the HHFKA and the most comprehensive assessment of school meals to date.<sup>xxix</sup> The Healthy Eating Index (HEI) total (100 possible points) and component scores for food groups (between 5–20 maximum points each) measure how well dietary patterns conform to the recommendations made in the 2010 DGA overall and for each individual food group, where higher scores indicate greater compliance.<sup>xxx</sup> The study found that the nutritional quality of school breakfasts and lunches under the HHFKA, as measured by the HEI-2010, increased on average by 22 and 24 total points, respectively, for all school types between school years 2009–10 and 2014–15.<sup>xxxi</sup> Despite these improvements, updates to the nutrition standards—and thereby the nutritional quality of school meals—are warranted, as they are not currently consistent with the 2020 DGA.

## FOCUS OF THIS REPORT

In 2021, CSPI published the School Meals Corporate Scorecard, which analyzed the nutritional quality of K-12 breakfast and lunch products sold by the largest food companies in the U.S.<sup>xxxii</sup> The report analyzed nearly 2,000 school food products and their ability to fit within science-based meal standards. Of the products analyzed, only four were fluid milk products, due to the lack of major school milk providers captured by the report methodology. Because that report focused on the largest food companies in the country, and milk production in the U.S. is typically regional, fluid milk did not feature prominently in that report. Thus, this report aims to provide a snapshot of the nutritional quality of the fluid milk being sold to schools by the largest dairy companies in the U.S.

As with the last report, this report primarily focuses on sodium, added sugars, and specific harmful low-calorie sweeteners and synthetic dyes.

## SODIUM

Excessive sodium consumption is common among children and adolescents in the U.S. According to the 2020 DGA, on a typical day, 95–97 percent of children 2–13 years exceed the recommended daily limit for sodium intake, and among adolescents 14–18 years, 77 percent of females and 97 percent of males exceed sodium recommendations.<sup>xxxiii</sup> This overconsumption of sodium increases the subsequent risk of elevated blood pressure, heart disease, and stroke.<sup>xxxiv</sup> Children 4–18 years' typical daily intakes range from approximately 2,400–3,800 mg,<sup>xxxv</sup> while the 2020 DGA recommendations limit sodium to ≤ 2,300 mg per day for children older than 14 years, ≤ 1,800 mg per day for children 9–13 years, and ≤ 1,500 mg per day for children 4–8 years.<sup>xxxvi</sup> Current school nutrition standards include sodium reduction targets, but they do not align with the 2020 DGA recommendations.



## ADDED SUGARS

Approximately 77–80 percent of children 5–13 years and 72–76 percent of adolescents 14–18 years consume more than the DGA-recommended daily limit of added sugars.<sup>xxxvii</sup> Among children, excessive intake of added sugars has been associated with weight gain, dental decay, and an increase in risk factors for cardiovascular disease.<sup>xxxviii,xxxix</sup> The 2020 DGA recommends that, to achieve a healthy dietary pattern, people older than two years consume less than ten percent of calories per day from added sugars.<sup>xl</sup> However, nine out of ten schools exceed the 2020 DGA limit for added sugars at breakfast, nearly seven out of ten schools exceed the limit for lunch, and the top source of added sugars in school meals is flavored milk.<sup>xli</sup> Current school nutrition standards do not address added sugars and so are not aligned with the 2020 DGA recommendations.

## LOW-CALORIE SWEETENERS

The safety of low-calorie sweeteners (LCS)—sometimes called artificial sweeteners, non-nutritive sweeteners (NNS), or high-intensity sweeteners—has been the subject of significant debate. The American Academy of Pediatrics concluded that, “the long-term safety of NNS in childhood has not been assessed in humans.”<sup>xlii</sup> In 2018, the American Heart Association (AHA) Science Advisory concluded that, “it is prudent to advise against prolonged consumption of LCS beverages by children.”<sup>xliii</sup> In contrast, the U.S. Food and Drug Administration (FDA) has concluded that high-intensity sweeteners are safe and permits their use in food.<sup>xliv</sup> Based on the available evidence, CSPI advises that children avoid all low-calorie sweeteners. CSPI is especially concerned about Aspartame (NutraSweet® and Equal®), Acesulfame potassium (acesulfame-K; Sweet One®), Saccharin (Sweet’N Low®), and Sucralose (Splenda®), and encourages consumers to avoid these sweeteners due to cancer concerns.<sup>xlv</sup> In particular, there is compelling evidence that aspartame is a carcinogen.<sup>xlvi</sup> Current school nutrition standards do not address low-calorie sweeteners.

## SYNTHETIC DYES

In April 2021, California’s Office of Environmental Health Hazards Assessment (OEHHA) released a ground-breaking, peer-reviewed report concluding that, “synthetic food dyes can impact neurobehavior in some children. Data from multiple evidence streams, including epidemiology, animal neurotoxicology, and mechanistic studies, support this finding.”<sup>xlvii</sup> The OEHHA report also concluded that FDA’s Acceptable Daily Intakes (ADIs), “may not provide adequate protection from neurobehavioral impacts in children,” explaining that these ADIs were based on old animal studies that could not detect, “the types of neurobehavioral outcomes measured in later studies, or for which there is concern in children consuming synthetic dyes.”<sup>xlviii</sup> Nonetheless, FDA does permit the sale of synthetic food dyes,<sup>xlix</sup> and current school nutrition standards do not address them.

## Methods

### COMPANY SELECTION

In February 2022, we convened an advisory board representing school nutrition researchers, school foodservice personnel, and national advocacy partners to inform the report’s methodology. Because information on which companies have the largest shares of the K–12 school milk market is either proprietary or nonexistent, we decided to use a top companies list from an industry publication, as we had in our 2021 School Meals Corporate Report Card.

We consulted Dairy Foods’ 2021 Top 100 Dairy Companies list (the most recent year available), which “identifies the largest dairy processors in North America.”<sup>i</sup> Federal law (i.e., the Buy American provision) requires that SFAs “purchase, to the maximum extent practicable, domestic commodities or products,” which in the context of the NSLP and SBP includes fluid milk.<sup>ii</sup> As a result, we removed from analysis two companies based in Canada and one in Mexico.

Because the Top 100 Dairy Companies list was not limited to companies with fluid milk products, we reviewed the remaining 97 companies’ websites to determine whether they sold fluid milk products. We then proceeded to call and email the 43 companies with fluid milk products, asking them whether they sold ½ pint or 8 fluid ounce (fl oz) containers of milk to schools. If a company confirmed, we asked them to supply the Nutrition Facts labels and ingredient lists for all their school milk products in single-serve packaging. One company declined to answer our questions, stating that “this is not information that we are able to share.” Nine companies did not respond to any of our attempts to reach them. Ultimately, 14 companies indicated that they sold school milk, and 11 of those companies passed along the requested data. The three companies that did not share their data were Dairy Farmers of America Inc., HP Hood LLC, and United Dairy Inc. The final sample consisted of 51 products from the following 11 companies (Table 2).

**Table 2:** Number of K-12 Milk Products by Company, Fat Content, and Type

Company	Fat-free, Unflavored	Low-fat, Unflavored	Fat-free, Flavored	Low-fat, Flavored	Total
Borden Dairy Co.	1	1	2	1	5
Crystal Creamery	1	1	1	1	4
Danone North America	0	1	0	3	4
Gossner Foods Inc.	1	1	2	0	4
Organic Valley	0	1	0	1	2
Prairie Farms Dairy Inc.	1	3	0	3	7
Producers Dairy Foods Inc.	1	1	2	0	4
Shamrock Farms	1	1	3	1	6
SmithFoods Inc.	1	1	1	1	4
Upstate Niagara Cooperative Inc.	1	1	2	2	6
Wawa Inc.	1	1	2	1	5
<b>Total</b>	<b>9</b>	<b>13</b>	<b>15</b>	<b>14</b>	<b>51</b>

For the full list of companies, see [Appendix B](#).

### COLLECTION OF NUTRITION DATA

We extracted data from Nutrition Facts labels, ingredient lists, spec sheets, K–12 product guides, and/or sell sheets that each company provided. We only received one data source for each school milk product, so we did not need to resolve any contradictions in data. In some cases, a flavored milk product’s Nutrition Facts label did not list added sugars (which have only been required on Nutrition Facts labels relatively recently), and we requested that value from a company representative. We obtained data directly from company representatives and archived all documents and written communications with companies. Data

collection took place from late May to mid-September 2022. A second reviewer fact-checked the data entry to ensure accuracy.

## PRODUCT CLASSIFICATION

Only fluid cow’s milk sold to schools in single-serve, ½ pint or 8 fl oz containers were included. We did not include bulk milk dispenser bags or nondairy milk substitutes (e.g., soy milk).

Products were classified according to their fat content—fat-free and low-fat (1-percent)—and whether they were flavored (e.g., chocolate or strawberry) or unflavored.

# Establishing Nutrition Standards

## SODIUM

With the 2022 transitional rule, the USDA set short-term sodium reduction targets for the three grade groups (i.e., K–5, 6–8, and 9–12) through SY 2023–24. Target 1 went into effect on July 1, 2022 for all grade groups at both breakfast and lunch; Interim Target 1A, which represents a 10 percent sodium reduction, will go into effect on July 1, 2023 for all grade groups but will only apply to lunch.<sup>lii</sup> While the USDA has committed future rulemaking—expected in early 2023—to align school nutrition standards with the 2020 DGA, neither Target 1 nor Interim Target 1A meet the 2020 DGA recommendations for any age group. Following the same methodology as the USDA used when setting the 2012 sodium-reduction targets,<sup>liii</sup> we calculated a DGA-aligned target by multiplying the sodium Chronic Disease Risk Reduction Intake (CDRR) for each grade group (1,500 milligrams [mg] per day for K–5; 1,800 mg for 6–8; 2,300 mg for 9–12)<sup>liiv</sup> by the mean daily calorie targets for breakfast (21.5 percent) and lunch (32 percent) as set by the National Academy of Medicine—formerly the Institute of Medicine—in their 2010 report *School Meals: Building Blocks for Healthy Children*.<sup>liv</sup> All values were then rounded up to the nearest 10 mg (Table 3).

**Table 3: Current Sodium Reduction Targets<sup>lvi</sup> and DGA-aligned Targets**

Grade Group	Target 1*	Interim Target 1A**	DGA-aligned Target
<b>Breakfast</b>			
K–5	< 540 mg	N/A	≤ 340 mg***
6–8	< 600 mg	N/A	≤ 390 mg
9–12	< 640 mg	N/A	≤ 500 mg
<b>Lunch</b>			
K–5	< 1,230 mg	< 1,110 mg	≤ 510 mg****
6–8	< 1,360 mg	< 1,225 mg	≤ 580 mg
9–12	< 1,420 mg	< 1,280 mg	≤ 740 mg

\* Effective July 1, 2022

\*\* Effective July 1, 2023

\*\*\* Slightly higher than 21.5% of the sodium CDRR (322.5 mg) because the K-5 grade group spans part of two DRI age groups

\*\*\*\* Slightly higher than 32% of the sodium CDRR (480 mg) because the K-5 grade group spans part of two DRI age groups

These sodium limits are per-meal allowances averaged over a week. So, for an SFA to receive federal reimbursement for breakfasts served to the K–5 grade group in SY 2022–23, the average sodium content of a week’s worth of breakfasts must be below 540 mg, which allows for saltier foods to be served one day so long as less salty foods are served on another. Since milk is only one of three required meal components at breakfast and one of five at lunch, no milk products on their own should exceed the per-meal allowance or account for the majority of the sodium at a meal.

Milk products were measured against Target 1 and a DGA-aligned target for the K–5 and 9–12 grade groups at breakfast and lunch. We measured the percent of the sodium limit at breakfast and lunch accounted for by each milk product. For example, if a milk product contained 100 mg of sodium, we noted that it would contribute 15.6 percent of the sodium allowed under Target 1 at breakfast for grade group 9–12 (< 640 mg), and 20 percent under a DGA-aligned standard (≤ 500 mg).

## ADDED SUGARS

The current school nutrition standards do not address added sugars because the 2010 DGA, upon which they are based, did not include a quantitative added sugars recommendation.<sup>lvii</sup> Since then, both the 2015 and 2020 DGAs have recommended that less than 10 percent of daily calories come from added sugars, and we used that as the basis for our analysis.<sup>lviii,lx</sup> We calculated the permissible number of grams of added sugars by multiplying the maximum of each grade group’s calorie range by 0.10 and dividing the result by 4, as 1 gram (g) of sugar contains 4 calories (kcal) (Table 4). As a practical consideration, we have set per-meal standards for added sugars at—not below—10 percent of calories.

**Table 4:** Added Sugars Standard by Grade Group, Consistent with DGA Recommendations

Grade Group (Calorie Range) <sup>lx</sup>	DGA-aligned Standard (< 10% of Calories from Added Sugars)
<b>Breakfast</b>	
K–5 (350–500 kcal)	≤ 12.5 g
6–8 (400–550 kcal)	≤ 13.75 g
9–12 (450–600 kcal)	≤ 15 g
<b>Lunch</b>	
K–5 (550–650 kcal)	≤ 16.25 g
6–8 (600–700 kcal)	≤ 17.5 g
9–12 (750–850 kcal)	≤ 21 g

We analyzed all flavored milk products against the DGA-aligned added sugars standard for grade groups K–5 and 9–12 at breakfast and lunch, measuring the percentage the product represented of the added sugars standard. For example, if a flavored milk contained 13 g of added sugars, we noted that it would contribute 104 percent of the added sugars allowed at breakfast for K–5 (12.5 g). As was the case for sodium, the added sugars standard that we developed is a per-meal allowance averaged over a week, allowing SFAs to serve more sugary items one day and less sugary ones another.

## LOW-CALORIE SWEETENERS OF CONCERN

For this analysis, the presence of low-calorie sweeteners of concern in a product was derived from its ingredient list. We noted whether each milk product included any of the following low-calorie sweeteners rated “avoid” by CSPI in Chemical Cuisine: Aspartame (NutraSweet® and Equal®), Acesulfame potassium (acesulfame-K; Sweet One®), Saccharin (Sweet’N Low®), or Sucralose (Splenda®). Although we only examined ingredient lists for these four low-calorie sweeteners due to cancer concerns, CSPI recommends that children avoid all low-calorie sweeteners.

## SYNTHETIC DYES

We evaluated product ingredient lists for the presence or absence of synthetic dyes. We noted whether each milk product included any of the following synthetic dyes, including their lakes, which are rated “avoid” by CSPI in Chemical Cuisine: FD&C Blue No. 1 (Blue No. 1, Blue 1), FD&C Blue No. 2 (Blue No. 2, Blue 2), FD&C Green No. 3 (Green No. 3, Green 3), FD&C Red No. 3 (Red No. 3, Red 3), FD&C Red No. 40 (Red No. 40, Red 40), FD&C Yellow No. 5 (Yellow No. 5, Yellow 5), and FD&C Yellow No. 6 (Yellow No. 6, Yellow 6).<sup>lxii</sup>

## STATISTICAL ANALYSIS

We calculated descriptive statistics for sodium and added sugars content of each milk type (i.e., unflavored and flavored) and fat content (i.e., fat-free and low-fat). We report the mean statistic for sub-groups with a sample size greater than or equal to five observations and report the median statistic when the number of observations in a sub-group is less than five. Due to relatively small sample sizes within groups, we opted to use the more conservative non-parametric Mann-Whitney U test to determine group differences in sodium and added sugars content. Results were considered statistically significant at  $P < 0.05$  (2-sided). All statistics were calculated using Microsoft Excel and IBM SPSS Statistics 29.0.0.0.

## Results

We analyzed data from 11 dairy companies with 51 products, including 24 fat-free and 27 low-fat milk products (Table 2). The sample consisted of 22 unflavored (nine fat-free, 13 low-fat) and 29 flavored (15 fat-free, 14 low-fat) milk products: 18 chocolate-, nine strawberry-, one vanilla-, and one birthday cake-flavored milk. The mean number of products offered by each company was five.

Appendix A contains the full data set of products and their nutrition information.

**Table 5: Summary of Findings**

	Unflavored				Flavored								
	Sodium (mg)				Sodium (mg)				Added Sugars (g)			Additives	
	n	Mean (Overall only)	Minimum	Maximum	n	Mean (Overall only)	Minimum	Maximum	Mean (Overall only)	Minimum	Maximum	n Products with low-calorie sweeteners of concern	n Products with synthetic dyes
Overall	22	117	95	160	29	164	95	250	10	6	16	0 (0%)*	5 (17%)*
Company		Median				Median			Median				
Borden Dairy Co.	2	120	120	120	3	190	135	190	6	6	6	0	0
Crystal Creamery	2	103	95	110	2	185	170	200	10	7	13	0	0
Danone North America	1	N/A	N/A	N/A	3	160	130	180	10	9	11	0	0
Gossner Foods Inc.	2	105	105	105	2	140	100	180	11	11	11	0	1
Organic Valley	1	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Prairie Farms Dairy Inc.	4	120	105	130	3	150	105	230	11	9	11	0	0
Producers Dairy Foods Inc.	2	145	130	160	2	140	130	150	6.5	6	7	0	0
Shamrock Farms	2	113	105	120	4	170	95	180	14	13	16	0	1
SmithFoods Inc.	2	115	105	125	2	180	170	190	12	11	13	0	0
Upstate Niagara Cooperative Inc.	2	115	115	115	4	165	110	250	11	9	11	0	2
Wawa Inc.	2	105	105	105	3	190	105	200	11	10	14	0	1

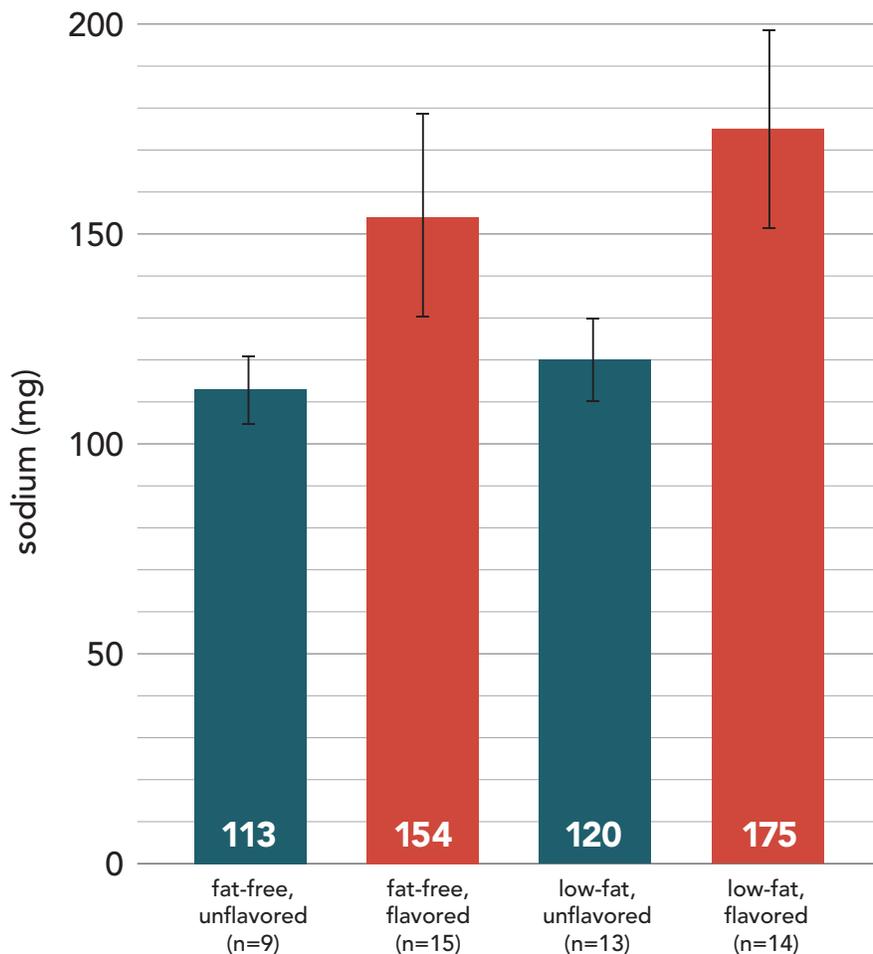
\*Percentage of 29 flavored milk products

## SODIUM

The average sodium content of fat-free milk (139 mg) was 9 mg lower than that of low-fat milk (148 mg), but the medians were not statistically significantly different between fat-free (125 mg) and low-fat (130 mg) milk ( $U = 380$ ,  $z = 1.026$ ,  $P = 0.288$ ). On the other hand, the distribution of sodium among flavored milk

was statistically significantly higher than for unflavored milk ( $U = 524.4, z = 3.926, P < 0.001$ ). The mean sodium content for unflavored milk was 117 mg, and 164 mg for flavored milk. The sodium content for unflavored milk ranged from 95–160 mg, and from 95–250 mg for flavored milk. Of the four categories, low-fat flavored milk had the highest mean sodium content at 175 mg, while the individual product with the highest sodium content (250 mg) was a fat-free flavored milk.

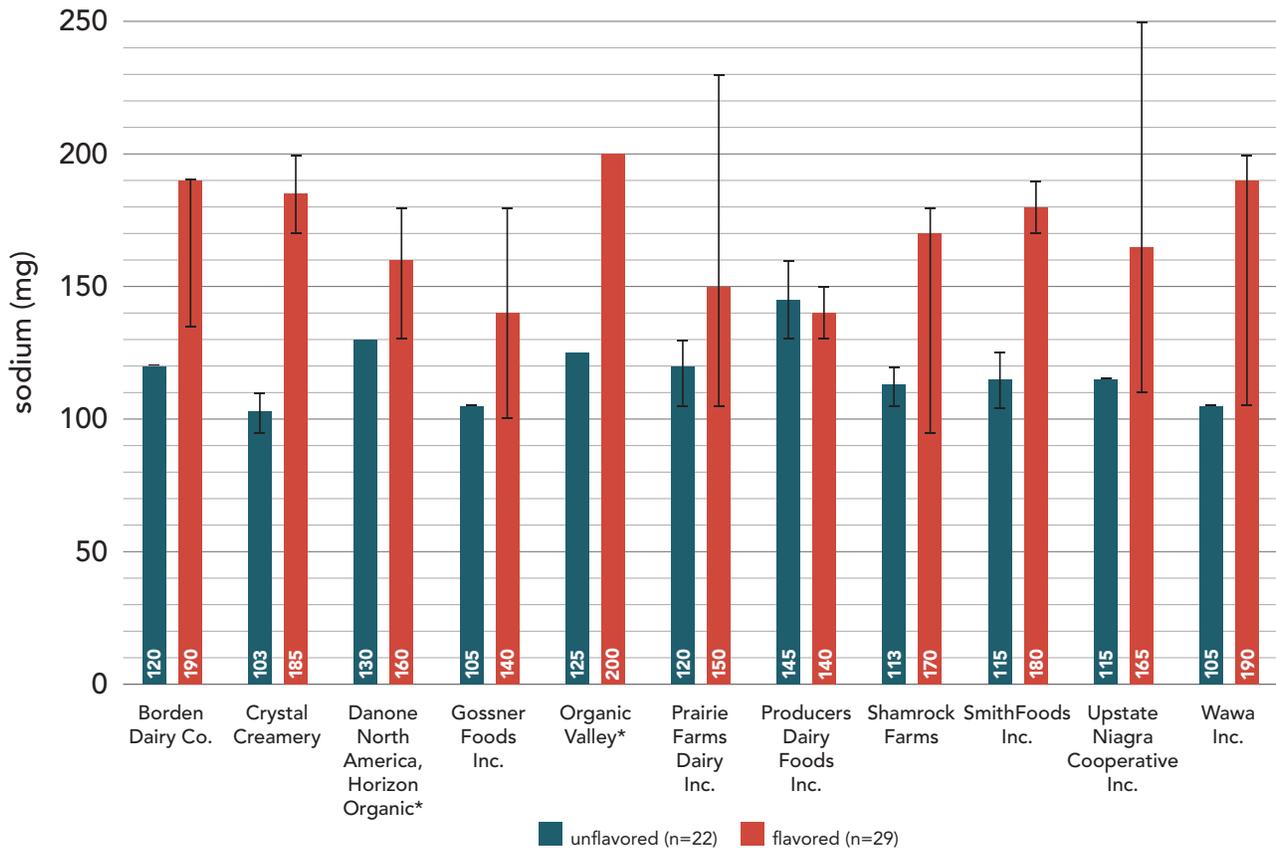
**Figure 1:** Comparison of Mean Sodium (95% CI) Content in Fat-free and Low-fat Milk Products



In all but five instances, the companies’ flavored milk products had a sodium content equal to or higher than their unflavored milk products of the same fat content. Of note, however, was Producers Dairy Foods Inc. whose flavored and unflavored milk products had very similar sodium contents.

For unflavored milk, Producers Dairy Foods Inc. had the highest median sodium content (145 mg) as well as the single unflavored milk with the highest sodium content (160 mg). All other companies had a median sodium content for unflavored milk between 100 mg and 120 mg. For flavored milk, Borden Dairy Co. and Wawa Inc. tied for the highest median sodium content (190 mg). Upstate Niagara Cooperative Inc. had the single flavored milk product with the highest sodium content (250 mg), followed closely by Prairie Farms Dairy Inc. (230 mg). Gossner Foods Inc. and Producers Dairy Foods Inc. tied for the lowest median sodium content for flavored milk (140 mg).

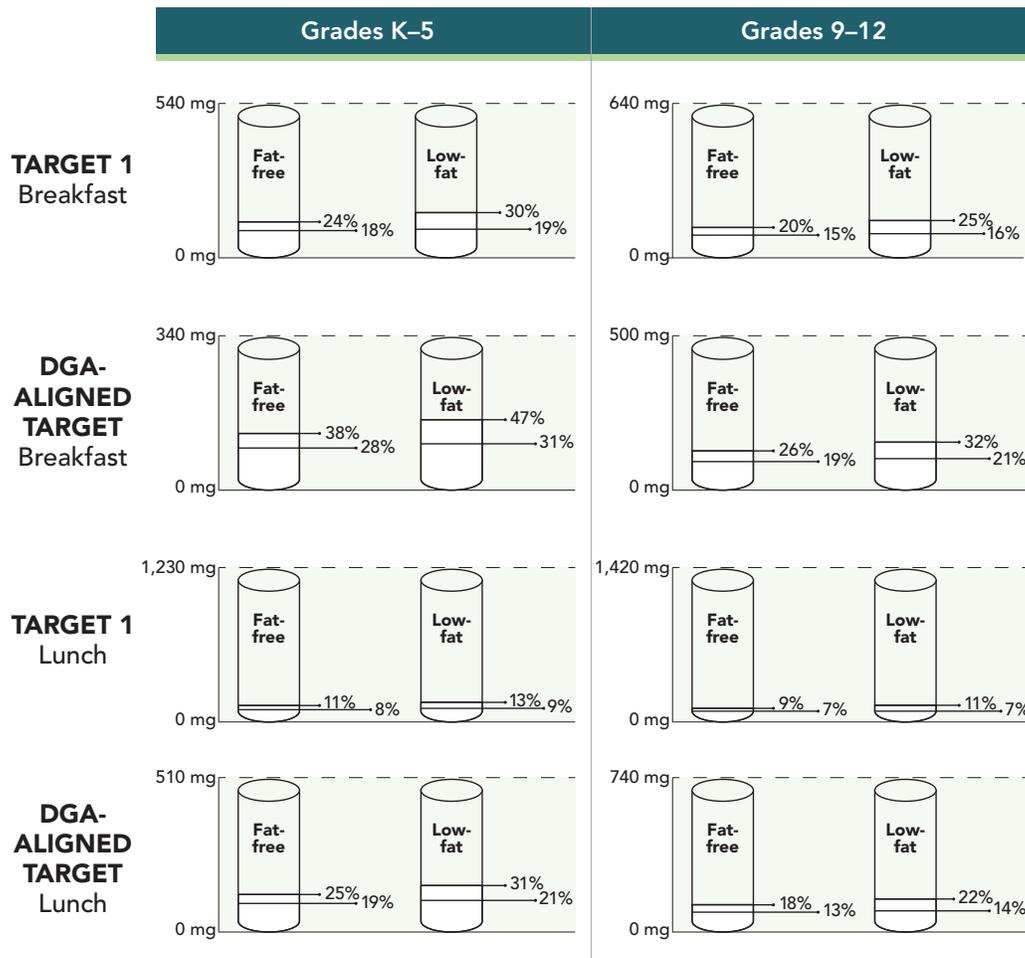
**Figure 2:** Comparison of Median Sodium (Minimum, Maximum) Content in Flavored and Unflavored Milk



\*n=1 Organic Valley unflavored milk, n=1 Organic Valley flavored milk, n=1 Danone North America, Horizon Organic unflavored milk

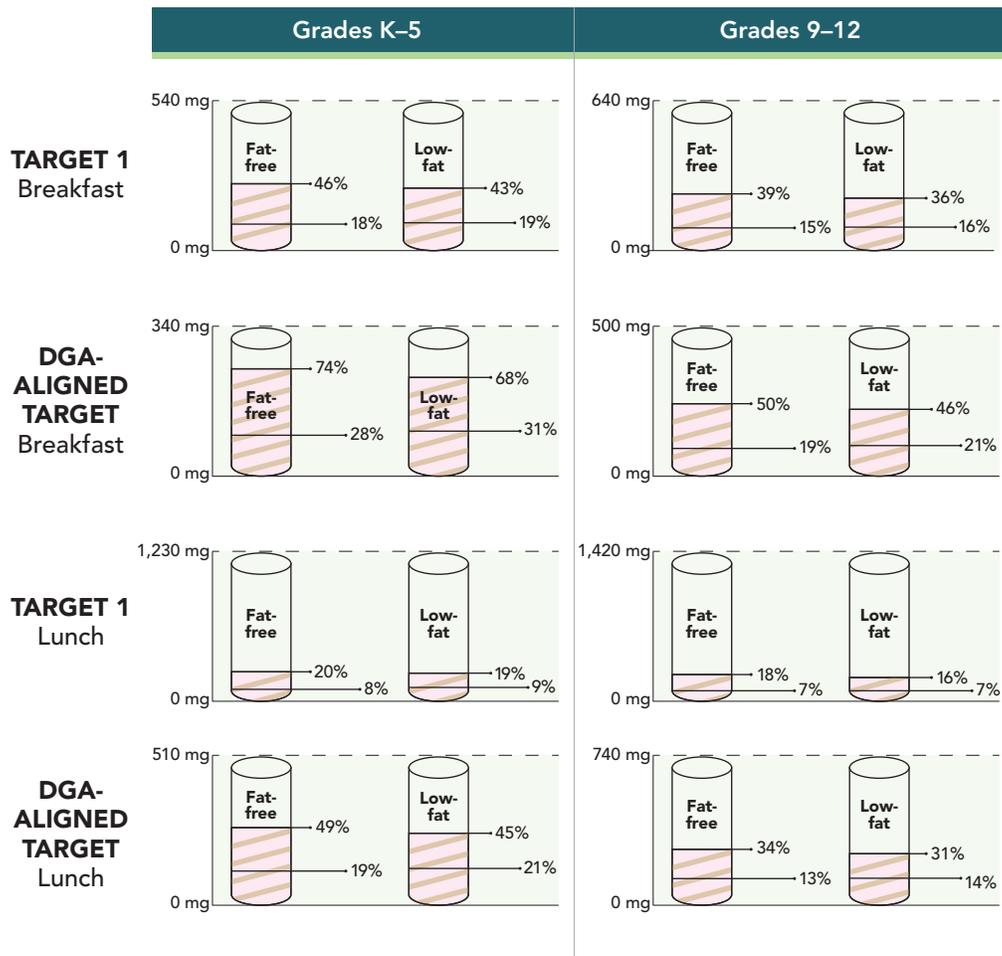
We assessed each unflavored milk product’s percent contribution to Target 1 and a DGA-aligned sodium reduction target at both breakfast and lunch for grade group K–5 (the grade group with the lowest sodium allowances) and grade group 9–12 (the grade group with the highest sodium allowances) (Table 6). No unflavored or flavored milk products on their own exceeded any per-meal sodium target for any grade group. Since the sodium in unflavored milk is naturally occurring and would therefore be outside the scope of companies’ reduction efforts, these percentages represent a baseline for school milk.

**Table 6: Ranges of Contributions to Grade Group Sodium Targets from Unflavored Milk Products**



We also assessed each flavored milk product’s percent contribution to Target 1 and a DGA-aligned sodium reduction target at both breakfast and lunch for grade groups K-5 and 9-12 (Table 7). No milk products accounted for 50 percent or more of the sodium allowance at lunch for any grade group target. Similarly, only one milk product (a fat-free chocolate milk) would contribute 50 percent or more sodium to any target for the 9-12 grade group. For the K-5 grade group at breakfast, however, there were 16 flavored milk products (seven fat-free, nine low-fat) that would contribute 50 percent or more sodium to a DGA-aligned target.

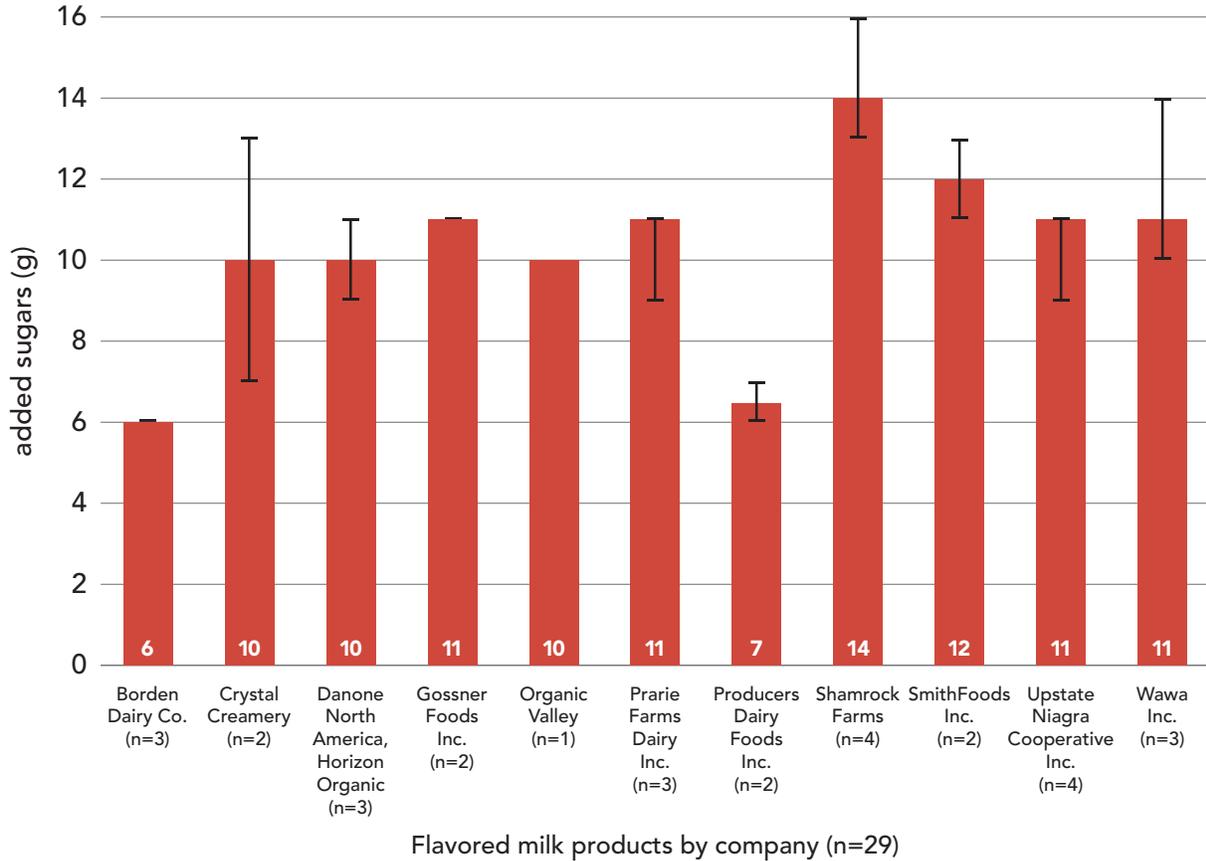
**Table 7: Ranges of Contributions to Grade Group Sodium Targets from Flavored Milk Products**



## ADDED SUGARS

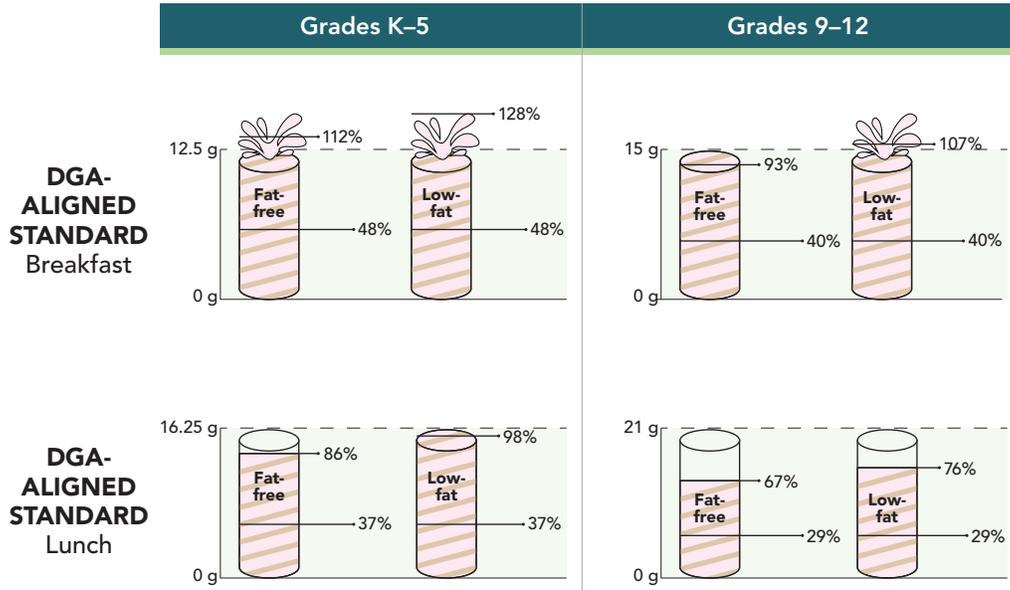
All of the unflavored milk products were free of added sugars and sweeteners. The average added sugars content among all flavored milk products was 10 g. The average added sugars content of fat-free flavored milk (10 g) was similar to that of low-fat flavored milk (11 g) ( $U = 120.5$ ,  $z = 0.693$ ,  $P = 0.505$ ). Shamrock Farms had the highest median added sugars (14 g) and the single product with the highest added sugars content (16 g). Borden Dairy Co. had the lowest median added sugars content of 6 g, with its low-fat chocolate and fat-free chocolate and strawberry milk products all containing 6 g of added sugars. The flavored milk products sold by Producers Dairy Foods Inc. were the second lowest in added sugars, with a median of 6.5 g.

**Figure 3: Comparison of Median Added Sugars (Minimum, Maximum) Content in Flavored Milk**



As with sodium, we assessed each flavored milk product’s percent contribution to a DGA-aligned added sugars standard at both breakfast and lunch for grade group K–5 (the grade group with the lowest added sugars allowances) and grade group 9–12 (the grade group with the highest added sugars allowances) (Table 8). At breakfast, seven flavored milk products (four fat-free, three low-fat) would account for over 100 percent of a DGA-aligned added sugars allowance for K–5, and 13 others (five fat-free, eight low-fat) would contribute 80 percent or more. For the 9–12 grade group, only one low-fat flavored milk would account for over 100 percent of a DGA-aligned added sugars allowance at breakfast, but six others (four fat-free, two low-fat) would contribute 80 percent or more. No flavored milk products exceeded the DGA-aligned added sugars allowance at lunch for any grade group, but seven products (four fat-free, three low-fat) contributed 80 percent or more of a DGA-aligned added sugars allowance at lunch for the K–5 grade group.

**Table 8:** Ranges of Contributions to Grade Group Added Sugars Standards from Flavored Milk Products



**LOW-CALORIE SWEETENERS OF CONCERN**

None of the 51 products analyzed in this report contained Aspartame (NutraSweet® and Equal®), Acesulfame potassium (acesulfame-K; Sweet One®), Saccharin (Sweet’N Low®), or Sucralose (Splenda®).

**SYNTHETIC DYES**

No unflavored milk products contained synthetic dyes. Five of the 29 (17 percent) flavored milk products—all strawberry milk products—contained at least one synthetic dye. Wawa Inc., Upstate Niagara Cooperative Inc., Gossner Foods Inc., and Shamrock Farms all offer at least one synthetically dyed strawberry milk to the K-12 market (Table 9).

**Table 9: School Milk Products Containing Color Additives**

Company	Product	Synthetic Dye(s)		Other Color Additives	
Borden Dairy Co.	½ Pint Borden Chocolate Fat Free Milk			Caramel Color	
Gossner Foods Inc.	Gossner Fat Free Strawberry Milk	Red 40	Blue 1		
Prairie Farms Dairy Inc.	Local Fresh 1% Low Fat Strawberry Milk			Beet Juice Color	
Producers Dairy Foods Inc.	Strawberry Milk			Beet Juice Color Powder	
Shamrock Farms	Shamrock Farms Strawberry Fat Free Milk	Red 40			
Shamrock Farms	Half Pint Shamrock Farms Fat Free Birthday Cake Milk			Annatto Extract	Turmeric Oleoresin
Upstate Niagara Cooperative Inc.	School Milk - 1% Milkfat - Strawberry Milk (8 oz)	Red 40	Blue 1		
Upstate Niagara Cooperative Inc.	School Milk - Fat Free - Strawberry Milk (8 oz)	Red 40	Blue 1		
Wawa Inc.	Strawberry Nonfat Milk	Red 40			

Notably, two strawberry milk products (one from Danone North America’s Horizon Organic brand, and one from Borden Dairy Co.) did not contain any color additives, and two others (one from Prairie Farms Dairy Inc., and one from Producers Dairy Foods Inc.) used beet juice color and beet juice color powder respectively. Similarly, Shamrock Farms had a fat-free birthday cake-flavored milk that included annatto extract and turmeric oleoresin for color. Lastly, Borden Dairy Co. had a fat-free chocolate milk with caramel color listed an ingredient. Some of these other color additives present health concerns, but they were not the focus of this report (Table 9). Please refer to Chemical Cuisine for more details.

## Discussion & Recommendations

### SODIUM

Sodium is naturally occurring in milk (approximately 101 mg per 1 cup for fat-free milk<sup>xliii</sup> and 96 mg per 1 cup for low-fat milk<sup>xliv</sup>) and in that form does not present a public health concern and would be outside the scope of any company’s efforts to reduce sodium in their own products. However, in our sample of school milk products, sodium was a common additive in flavored milk; 20 of the 29 (69 percent) flavored milk products included in this report list salt as an ingredient. (Naturally occurring sodium does not appear on the ingredients list). So, the flavored milk products—regardless of fat content—typically contained more sodium than the unflavored ones. Among the flavored milk products, sodium content varied dramatically (95–250 mg), even between products sold by the same company. For example, Upstate Dairy Cooperative Inc. had one fat-free flavored milk (chocolate) with 250 mg of sodium and another (strawberry) with 110 mg.

None of the school milk products included in this report exceed either current (Target 1) or DGA-aligned per-meal sodium limits on their own. This result was unsurprising considering that fluid milk is only one of three required meal components at breakfast and one of five at lunch. Moreover, according to the

USDA, the average school lunch in SY 2014–15 was already well below Target 1, while the average school breakfast was meeting Targets 1 and 2 and was very close to meeting Target 3.<sup>lxv</sup> (The 2022 transitional rule eliminated Targets 2 and 3). However, 16 chocolate milk products in this report—all of which contain added sodium—had sodium levels that would account for half (170 mg) or more of the sodium allowed at K–5 breakfast if schools implemented a DGA-aligned sodium target. Not all flavored milk products, however, contain so much sodium: Producers Dairy Foods Inc. has a fat-free chocolate milk (150 mg) with only 20 mg more sodium than their unflavored fat-free milk (130 mg). In comparison, Upstate Niagara Cooperative Inc.’s fat-free chocolate milk (250 mg) contains 135 mg more sodium than their fat-free plain milk (115 mg).

### Recommendations

- Dairy companies can and should reduce the sodium content of their flavored milk products.
- The USDA should set a sodium-reduction schedule that would align school meals with the DGA recommendations for all grade groups.



### ADDED SUGARS

Unsurprisingly, none of the 22 unflavored milk products included in this report contained any added sugars.

For flavored milk, added sugars were as low as 6 g and as high as 16 g. Among our small sample of flavored milk products, the average added sugars content was 10 g. For context, the recommended daily limit of added sugars for adults is 50 g (based on a 2,000 calorie daily diet), and products that contain 20 percent or more of that daily value (i.e., 10 g or more) are considered “high” in added sugars by the FDA.<sup>lxvi</sup> If many of the flavored milk products included in this report are considered high in added sugars for adults, they are certainly too high to serve to children at school.

A recent study showed that flavored milk was the top contributor of added sugars at both school breakfast and lunch, contributing 29 percent of the added sugars in school breakfasts and 47 percent of the added sugars in school lunches.<sup>lxvii</sup> Of the 29 flavored milk products in this report, all could fit within a DGA-aligned added sugars standard at lunch across grade groups if the other meal components contained little to no added sugars. Meeting a DGA-aligned added sugars standard at lunch is already feasible considering that—after flavored fat-free milk (contributing 47 percent of added sugars at lunch)—the next top contributor of added sugars is condiments and toppings (9 percent) followed by flavored 1-percent milk (3 percent) and breads, rolls, bagels, and other plain breads (3 percent).<sup>lxviii</sup>

The same, however, cannot be said for breakfast where sweet grains and cereals are commonplace alongside flavored milk; while flavored skim milk contributes 29 percent of added sugars, sweetened cold cereals contribute 13 percent, condiments and toppings 12 percent, and muffins and sweet/quick breads 7 percent.<sup>lxix</sup> To put it simply, more breakfast menu items have added sugars than lunch menu item, which means that it is more difficult for SFAs to reduce the overall added sugars at breakfast, especially when offering flavored milk. With 13–16 g of added sugars, seven flavored milk products in our sample would account for 100 percent or more of the added sugars allowance at breakfast for grade group K–5, and one product (Shamrock Farm’s low-fat chocolate milk) on its own has too much added sugars for even grade group 9–12’s breakfast. While there are multiple strategies for reducing added sugars at breakfast (e.g., purchasing products low in added sugars when available, offering savory entrees in place of sweet ones, offering flavored milk only on certain days of the week), some flavored milk products would still have too much added sugars to fit within a DGA-aligned added sugars standard for grade group K–5 at breakfast.

We were encouraged, however, to find six flavored milk products with only 6–7 g of added sugars, which suggests that flavored milk products lower in added sugars are deemed by companies to be palatable to children and thus viable products in the K–12 market.

### Recommendations

- Dairy companies can and should reduce the added sugars in their flavored milk products.
- The USDA should set a quantitative, per-meal added sugars standard that would align school meals with the DGA recommendations for all grade groups.

## LOW-CALORIE SWEETENERS OF CONCERN

None of the school milk products analyzed in this report contained low-calorie sweeteners of concern. This report shows that there are currently school milk products low in added sugars and without low-calorie sweeteners on the market; dairy companies can reformulate school milk products high in added sugars without introducing low-calorie sweeteners into their products.

### Recommendations

- As dairy companies reformulate their products to reduce added sugars, they should not replace added sugars with low-calorie sweeteners of concern.
- The USDA should require that low-calorie sweeteners of concern be phased out of school meals.

## SYNTHETIC DYES

Synthetic dyes were only present in five products, all of which were strawberry-flavored. The remaining four strawberry milk products either did not use any color additives or used beet juice to produce a pink color. There are currently flavored school milk products—chocolate as well as strawberry—without synthetic dyes on the market, and if dairy companies want their strawberry milk products to be colored, there are safe alternatives to synthetic dyes already being used by the industry.

### Recommendations

- Dairy companies should remove synthetic dyes from their flavored milk products.
- The USDA should require that synthetic dyes be phased out of school meals.

## TRANSPARENCY IN THE SCHOOL MILK INDUSTRY



In preparing this report, we discovered very little information on the nutritional quality of school milk that was publicly available. While local SFAs can know who supplies their milk and look at the Nutrition Facts labels on the products that they serve, neither the USDA nor state agencies have information on the nutritional content of milk sold to schools. Furthermore, we learned that the nutrition information for the specific school milk products being offered at meals is not collected during SFAs' administrative reviews (ARs), and instead, standard nutrient values are provided to represent different milk types, which are used in calculating overall menu compliance. The wide range of sodium and added sugars levels among the products included in this report indicate that this current approach is severely flawed and should be rectified. During ARs, state agencies should collect the nutrition information of each school milk product offered by the SFA and report these data to the USDA.

At the same time, the dairy industry currently controls the narrative around school milk nutritional quality and closely guards its data. Take for example the public comment that the International Dairy Foods Association (IDFA) and the National Milk Producers Federation (NMPF) submitted in response to the USDA's 2022 transitional rule.<sup>1xx</sup> In their comment, IDFA and NMPF claim the following about added sugars in the flavored milk products sold to schools:

"Between the 2006-2007 and 2019-2020 school years, average added sugar levels declined by 57 percent, going from 16.7 grams to 7.1 grams in an 8-ounce serving of flavored school milk."

While our data set is relatively small and non-representative, we found the average added sugar content for flavored milk to be higher at 10 g, and only six out of 29 flavored milk products contained under 7.1 g of added sugars. To support these statements, IDFA and NMPF cite Prime Consulting's 2019 All Channel Tracking (ACT) report written for the Milk Processor Education Program (Milk PEP), which is "an exclusive annual report of milk's performance at all major channels of distribution including retail, foodservice, schools and more."<sup>1xxi</sup> Milk PEP's annual ACT reports, however, can only be viewed by "dairy milk processors and their respective agency partners" or "dairy state and regional organizations with relationships to their milk brands."<sup>1xxii</sup>

Since only members of the dairy industry can view the report cited in IDFA and NMPF's comment to the USDA, there is no way for the public to assess their strategic claims about added sugars in flavored school

milk. Publicly available, peer-reviewed data should be the standard for evaluating the national school milk marketplace, and the USDA should not rely on proprietary industry data to evaluate compliance with nutrition standards.

### Recommendations

- The USDA should instruct state agencies to collect and report product-specific nutrition information for milk products during administrative reviews.
- The USDA should conduct their own study of the national school milk marketplace and publish a report with corresponding data sets.

## Limitations

There are several limitations to this report. First, due to a low response rate from companies, we were only able to analyze 51 products from 11 companies, and so our findings cannot be taken as representative of the school milk market in the U.S. Notably, we did not receive data from Dairy Farmers of America Inc., which by our estimation owns at least 26 dairy brands with fluid milk products across the country, including TrueMoo which is known to be a major supplier of chocolate milk to schools. While we can comment on the individual products from this small number of companies, we cannot extrapolate and speak to trends in the school milk market at large.

Second, we selected companies based Dairy Food’s top 100 list which ranks North American dairy companies by overall company sales, not K–12 sales. Because we do not have school sales data, we cannot weigh the products by sales to determine which companies have the greatest share of the school food marketplace or which brands are most commonly sold.

Third, our analysis did not consider the cost or regional availability of products. Organic milk and milk in shelf-stable packaging can cost more than the typical fluid milk in cartons and so may not be cost-effective for some schools. Likewise, the milk market is highly regional, and so some schools may not have the option of purchasing fluid milk from certain companies with better nutrient profiles.

Fourth, there were also unexpected irregularities in the data that we received from some companies (n = 4) where certain strawberry milk products (n = 5) contained less sodium than the unflavored milk of the same fat content. These differences were not large, however, and only ranged from 5–25 mg.

## Conclusion

This report is only a snapshot of the fluid milk products currently sold to schools. Our analysis was based entirely upon data that companies voluntarily shared with us because of the lack of publicly available information on milk sold to schools. This fact speaks to the need for greater transparency around school milk. Although our findings cannot be considered representative of the market, we can conclude that there are already school milk products without low-calorie sweeteners or synthetic dyes and with low enough sodium and added sugars to meet DGA-aligned standards at breakfast and lunch for all grade groups. The USDA can and should promulgate strong school nutrition standards with the knowledge that even today the dairy industry is capable of producing products to meet them.



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Appendix A: Full Data Set

ID	Company	Category	Subcategory	Product Name	Serving Size Value	Serving Size Units	Calories (kcal)	Total Fat (g)	Saturated Fat (g)	Trans Fat (g)	Sodium (mg)	Total Sugars (g)	Added Sugars (g)	Ingredients
1	Borden Dairy Co.	1% Low-fat	Unflavored	1/2 Pint Borden 1% Lowfat Milk	236	mL	100	2.5	1.5	0	120	12	Missing	Lowfat Milk, Vitamin A Palmitate, Vitamin D3.
2	Borden Dairy Co.	Fat-free	Unflavored	1/2 Pint Fat Free Skim Milk	236	mL	80	0	0	0	120	12	Missing	Skim Milk, Vitamin A Palmitate, Vitamin D3.
3	Borden Dairy Co.	1% Low-fat	Flavored	1/2 Pint Borden Chocolate 1% Lowfat Milk	0.5	pint	140	2.5	1.5	0	190	18	6	Lowfat Milk, Sugar, Corn Starch, Cocoa, Cocoa (Processed with Alkali), Salt, Carrageenan, Natural & Artificial Flavor, Vitamin A Palmitate, Vitamin D3.
4	Borden Dairy Co.	Fat-free	Flavored	1/2 Pint Borden Chocolate Fat Free Milk	0.5	pint	120	0	0	0	190	18	6	Fat Free Milk, Sugar, Corn Starch, Cocoa (Processed with Alkali), Salt, Caramel Color, Carrageenan, Natural & Artificial Flavor, Vitamin A Palmitate, Vitamin D3.
5	Borden Dairy Co.	Fat-free	Flavored	1/2 Pint Borden Strawberry Fat Free Milk	1	cp	110	0	0	0	135	18	6	Fat Free Milk, Sugar, Natural & Artificial Flavor, Vitamin A Palmitate, Vitamin D3.
6	Crystal Creamery	1% Low-fat	Unflavored	1% Low Fat Milk	1	cp	120	2.5	1.5	0	110	13	0	Nonfat Milk, Milk, Vitamin A Palmitate, Vitamin D3.
7	Crystal Creamery	Fat-free	Unflavored	Fat Free Milk	1	cp	90	0	0	0	95	11	0	Nonfat Milk, Vitamin A Palmitate, Vitamin D3.
8	Crystal Creamery	1% Low-fat	Flavored	1% Low Fat Chocolate Milk	1	cp	170	2	1	0	200	25	13	Nonfat Milk, Sugar, Milk, Cream, Cocoa (Processed with Alkali), Salt, Carrageenan, Natural Vanilla Flavor, Vitamin A Palmitate, Vitamin D3.
9	Crystal Creamery	Fat-free	Flavored	Fat Free Chocolate Milk	1	cp	120	0	0	0	170	20	7	Nonfat Milk, Sugar, Cornstarch, Cocoa (Processed with Alkali), Salt, Carrageenan, Natural Flavor, Vitamin A Palmitate, Vitamin D3.

10	Danone North America, Horizon Organic	1% Low-fat	Unflavored	Original Low Fat Aseptic	8	oz	110	2.5	1.5	0	130	12	0	Organic Grade A Lowfat Milk, Vitamin A Palmitate, Vitamin D3.
11	Danone North America, Horizon Organic	1% Low-fat	Flavored	Vanilla Low Fat Aseptic	8	oz	140	2.5	1.5	0	130	21	9	Organic Grade A Lowfat Milk, Organic Cane Sugar, Organic Vanilla Extract, Gellan Gum, Vitamin A Palmitate, Vitamin D3.
12	Danone North America, Horizon Organic	1% Low-fat	Flavored	Chocolate Low Fat Aseptic	8	oz	150	2.5	1.5	0	180	22	10	Organic Grade A Lowfat Milk, Organic Cane Sugar, Organic Cocoa (Dutch Process), Organic Cocoa, Gellan Gum, Organic Vanilla Extract, Salt, Vitamin A Palmitate, Vitamin D3.
13	Danone North America, Horizon Organic	1% Low-fat	Flavored	Strawberry Low Fat Aseptic	8	oz	150	2.5	1.5	0	160	23	11	Organic Grade A Lowfat Milk, Organic Cane Sugar, Natural Strawberry Flavor, Gellan Gum, Vitamin A Palmitate, Vitamin D3.
14	Gossner Foods Inc.	1% Low-fat	Unflavored	Gossner 1% Milk	1	cp	100	2.5	1.5	0	105	12	Missing	Lowfat Milk, Vitamin A Palmitate, Vitamin D3.
15	Gossner Foods Inc.	Fat-free	Flavored	Fat-free Chocolate Milk	1	cp	135	0	0	0	180	23	11	Nonfat Milk, Sugar, Cocoa (Processed with Alkali), Corn Starch, Salt, Carageenan, Guar Gum, Vanillin (an Artificial Flavor), Vitamin A Palmitate, Vitamin D3.
16	Gossner Foods Inc.	Fat-free	Unflavored	Gossner Skim Milk	1	cp	80	0	0	0	105	12	Missing	Skim Milk, Vitamin A Palmitate, Vitamin D3.
17	Gossner Foods Inc.	Fat-free	Flavored	Gossner Fat Free Strawberry Milk	1	cp	125	0	0	0	100	23	11	Grade A Nonfat Milk, Sugar, Natural and Artificial Flavors, Red 40, Blue #1, Vitamin A Palmitate, Vitamin D3.
18	Organic Valley	1% Low-fat	Unflavored	Lowfat 1%	8	oz	110	2.5	1.5	0	125	12	0	Organic Grade A Lowfat Milk, Vitamin A Palmitate, Vitamin D3.
19	Organic Valley	1% Low-fat	Flavored	Chocolate Lowfat 1%	8	oz	150	2.5	1.5	0	200	21	10	Organic Grade A Lowfat Milk, Organic Fair Trade Unrefined Cane Sugar, Organic Fair Trade Cocoa (Processed with Alkali), Organic Natural Flavor, Salt, Gellan Gum, Vitamin A Palmitate, Vitamin D3.
20	Prairie Farms Dairy Inc.	1% Low-fat	Unflavored	Local Fresh 1% Low Fat Milk	236	mL	100	2.5	1.5	0	120	11	0	Lowfat Milk, Vitamin A Palmitate and Vitamin D3.

21	Prairie Farms Dairy Inc.	1% Low-fat	Flavored	Local Fresh 1% Low Fat Chocolate Milk	236	mL	150	2.5	1.5	0	230	22	11	Lowfat Milk, Sugar, Cornstarch, Cocoa, Alkalized Cocoa, Salt, Carrageenan, Natural Flavor, Vitamin A Palmitate and Vitamin D3.
22	Prairie Farms Dairy Inc.	1% Low-fat	Flavored	Local Fresh 1% Low Fat Strawberry Milk	236	mL	140	2.5	1.5	0	105	22	9	Lowfat Milk, Sugar, Carrageenan, Natural Flavor, Beet Juice Color, Vitamin A Palmitate and Vitamin D3.
23	Prairie Farms Dairy Inc.	1% Low-fat	Unflavored	1% Low Fat Milk	236	mL	100	2.5	1.5	0	105	12	0	Lowfat Milk, Vitamin A Palmitate, Vitamin D3.
24	Prairie Farms Dairy Inc.	1% Low-fat	Flavored	1% Low Fat Chocolate Milk	236	mL	140	2.5	1.5	0	150	22	11	Skim Milk, Whole Milk, Sugar, Cocoa (Processed with Alkali), Carrageenan, Salt, Vitamin A Palmitate, Vitamin D3.
25	Prairie Farms Dairy Inc.	1% Low-fat	Unflavored	1% Low Fat Lactose Free Milk	236	mL	100	2.5	1.5	0	130	12	0	Lowfat Milk, Lactase Enzyme, Vitamin A Palmitate, Vitamin D3.
26	Prairie Farms Dairy Inc.	Fat-free	Unflavored	Pasteurized Homogenized Fat Free Skim Milk	1	cp	80	0	0	0	120	11	0	Grade A Fat Free (Skim) Milk, Vitamin A Palmitate & Vitamin D3.
27	Producers Dairy Foods Inc.	Fat-free	Flavored	Fat Free Chocolate Milk	1	cp	120	0	0	0	150	19	7	Skim Milk, Sugar, Cocoa (Processed With Alkali), Carrageenan, Salt, Vanillin, Vitamin A Palmitate, Vitamin D3.
28	Producers Dairy Foods Inc.	1% Low-fat	Unflavored	Low Fat Milk	1	cp	130	2.5	1.5	0	160	15	0	Low Fat Milk, Vitamin A Palmitate, Vitamin D3.
29	Producers Dairy Foods Inc.	Fat-free	Unflavored	Fat Free Milk	1	cp	90	0	0	0	130	12	0	Fat Free Milk, Vitamin A Palmitate, Vitamin D3.
30	Producers Dairy Foods Inc.	Fat-free	Flavored	Strawberry Milk	1	cp	110	0	0	0	130	19	6	Fat Free Milk, Sugar, Maltodextrin, Natural Flavor, Carrageenan, Guar Gum, Beet Juice Color Powder, Vitamin A Palmitate, Vitamin D3.
31	Shamrock Farms	1% Low-fat	Flavored	Shamrock Farms Chocolate 1% Low Fat Milk	236	mL	160	2.5	1.5	0	180	27	16	Lowfat Milk, High Fructose Corn Syrup, Contains Less than 1% of: Cocoa (Processed with Alkali), Cornstarch, Salt, Carrageenan, Vanillin, Vitamin A Palmitate and Vitamin D3.

32	Shamrock Farms	1% Low-fat	Unflavored	Shamrock Farms 1% Lowfat Milk	236	mL	100	2.5	1.5	0	105	12	0	Lowfat Milk, Vitamin A Palmitate and Vitamin D3.
33	Shamrock Farms	Fat-free	Flavored	Half Pint Shamrock Farms Fat Free Birthday Cake Milk	236	mL	140	0	0	0	160	26	14	Fat Free Milk, Sugar, Less than 2% of: Maltodextrin, Salt, Natural and Artificial Flavor (Milk), Carrageenan, Guar Gum, Annatto Extract and Turmeric Oleoresin (For Color), Vitamin A Palmitate and Vitamin D3.
34	Shamrock Farms	Fat-free	Flavored	Shamrock Farms Chocolate Fat Free Milk	236	mL	130	0	0	0	180	24	13	Fat Free Milk, Sugar, Contains Less than 1% of: Cocoa (Processed with Alkali), Cornstarch, Salt, Carrageenan, Vanillin, Vitamin A Palmitate and Vitamin D3.
35	Shamrock Farms	Fat-free	Unflavored	Shamrock Farms Fat Free Milk	236	mL	90	0	0	0	120	12	0	Fat Free Milk, Vitamin A Palmitate and Vitamin D3.
36	Shamrock Farms	Fat-free	Flavored	Shamrock Farms Strawberry Fat Free Milk	236	mL	130	0	0	0	95	25	14	Fat Free Milk, Sugar, Contains Less than 1% of: Natural and Artificial Flavors, Carrageenan, Guar Gum, Red #40, Vitamin A Palmitate and Vitamin D3.
37	Smith-Foods Inc.	1% Low-fat	Unflavored	Lowfat 1% Milk - rBST Free - Half Pint	1	cp	100	2.5	1.5	0	125	12	0	Lowfat Milk, Vitamins A Palmitate and D3 Added.
38	Smith-Foods Inc.	Fat-free	Flavored	Fat Free Chocolate Milk	1	cp	130	0	0	0	170	23	13	Nonfat Milk, Sugar, Cocoa (Cocoa Processed with Alkali, Salt, Carrageenan, Vanillin), Vitamin A Palmitate and D3 Added.
39	Smith-Foods Inc.	1% Low-fat	Flavored	Lowfat Chocolate Milk - rBST Free	1	cp	150	2.5	1.5	0	190	22	11	Lowfat Milk, Cane Syrup, Cocoa (Cocoa Processed with Alkali, Salt, Carrageenan, Vanillin), Vitamins A Palmitate and D3 Added.
40	Smith-Foods Inc.	Fat-free	Unflavored	Fat Free Skim Milk - rBST Free	1	cp	90	0	0	0	105	12	0	Nonfat Milk, Vitamins A Palmitate and D3 Added.
41	Upstate Niagara Cooperative Inc.	1% Low-fat	Flavored	School Milk - 1% Milkfat - Strawberry Milk (8 oz)	8	oz	140	2.5	1.5	0	110	22	11	Pasteurized Grade A Lowfat Milk, Sugar, Natural Flavors, Carraggenan, Red #40, Blue #1, Vitamin A Palmitate, Vitamin D3.

42	Upstate Niagara Cooperative Inc.	Fat-free	Flavored	School Milk - Fat Free - Strawberry Milk (8 oz)	8	oz	120	0	0	0	110	22	11	Pasteurized Grade A Skim Milk, Sugar, Natural Flavors, Carraggenan, Red #40, Blue #1, Vitamin A Palmitate, Vitamin D3.
43	Upstate Niagara Cooperative Inc.	Fat-free	Unflavored	Skim Milk - 0% Milkfat - Vitamins A & D (8 oz)	1	cp	80	0	0	0	115	12	0	Fat Free Milk, Vitamin A Palmitate, Vitamin D3.
44	Upstate Niagara Cooperative Inc.	1% Low-fat	Unflavored	LowFat Milk - 1% Milkfat - Vitamins A & D (8 oz)	1	cp	100	2.5	1.5	0	115	12	0	Lowfat Milk (1% Milkfat), Vitamin A Palmitate, Vitamin D3.
<del>45</del>	<del>Upstate Niagara Cooperative Inc.</del>	<del>1% Low-fat</del>	<del>Flavored</del>	<del>Chocolate Milk - Lowfat*</del>	<del>1</del>	<del>cp</del>	<del>160</del>	<del>2.5</del>	<del>1.5</del>	<del>0</del>	<del>180</del>	<del>25</del>	<del>14</del>	<del>Lowfat Milk (1% Milkfat), High Fructose Corn Syrup, Sugar, Cocoa (Processed with Alkali), Corn Starch, Salt, Carrageenan, Natural Vanilla Flavor, Vitamin A Palmitate, Vitamin D3.</del>
46	Upstate Niagara Cooperative Inc.	Fat-free	Flavored	School Milk - Fat Free - Chocolate Milk (8 oz)	8	oz	120	0	0	0	250	20	9	Pasteurized Grade A Skim Milk, Sugar, Cocoa (Processed with Alkali), Salt, Carrageenan, Natural Flavors, Vitamin A Palmitate, Vitamin D3.
47	Upstate Niagara Cooperative Inc.	1% Low-fat	Flavored	Flavored Milk - Chocolate Milk - Lowfat (8 oz)	1	cp	140	2.5	1.5	0	220	22	11	Pasteurized Grade A Lowfat Milk (1% Milkfat), Sugar, Fructose, Cocoa (Processed with Alkali), Salt, Carrageenan, Natural Flavor, Vitamin A Palmitate, Vitamin D3.
48	Wawa Inc.	Fat-free	Unflavored	Nonfat Milk	8	oz	80	0	0	0	105	12	0	Grade A Nonfat Milk, Vitamin A Palmitate, Vitamin D3.
49	Wawa Inc.	1% Low-fat	Unflavored	Lowfat Milk	8	oz	100	2.5	1.5	0	105	12	0	Grade A Lowfat Milk, Vitamin A Palmitate, Vitamin D3.
50	Wawa Inc.	1% Low-fat	Flavored	Chocolate Lowfat Milk	8	oz	160	2.5	1.5	0	200	26	14	Grade A Lowfat Milk (Vitamin A Palmitate and Vitamin D3 Added), Cane Sugar, Cocoa (Processed with Alkali), Cornstarch, Salt, Carrageenan, Vanillin.

51	Wawa Inc.	Fat-free	Flavored	Chocolate Nonfat Milk	8	oz	130	0	0	0	190	22	11	Grade A Nonfat Milk (Vitamin A Palmitate and Vitamin D3 Added), Cane Sugar, Cocoa (Processed with Alkali), Cornstarch, Salt, Carrageenan, Vanillin.
52	Wawa Inc.	Fat-free	Flavored	Strawberry Nonfat Milk	8	oz	120	0	0	0	105	22	10	Grade A Nonfat Milk (Vitamin A Palmitate and Vitamin D3 Added), Cane Sugar, Cornstarch, Carrageenan, Artificial Flavor, Salt, Artificial Color (FD&C Red 40).

\* Excluded from analysis since we could not determine whether the milk was sold in a single-serve container

**Appendix B: List of Companies**

Rank	Company	Offer 1/2 pint (8 fl oz) containers of milk to K-12 schools?	Provided requested data?
1	Nestlé, Zone Americas	No	
2	Saputo Inc.	No	
3	Dairy Farmers of America Inc.	Yes	No
4	Danone North America	Yes	Yes
5	Agropur	No	
6	Kraft Heinz Co.	No	
7	Schreiber Foods Inc.	No	
8	Conagra Brands	No	
9	Unilever, North American operations	No	
10 (tie)	Land O'Lakes Inc.	No	
10 (tie)	California Dairies Inc.	No	
12	Grupo LALA	No	
13	The Kroger Co.	No	
14	Leprino Foods Co.	No	
15	Prairie Farms Dairy Inc.	Yes	Yes, but incomplete*
16	Great Lakes Cheese Co.	No	
17	General Mills Inc.	No	
18	Lactalis Group, North American operations	No	
19	Glanbia Nutritionals, U.S.	No	
20	Hilmar Cheese Co.	No	
21	HP Hood LLC	Yes	No
22	Darigold Inc.	Did not respond	
23	Publix Super Markets	No	
24	H-E-B	No	
25	Grassland Dairy Products Inc.	No	
26	Associated Milk Producers Inc.	No	
27	Chobani LLC	No	
28	Foremost Farms USA	No	
29	Wells Enterprises Inc.	No	
30	Albertsons Dairy Division	No	
31	Borden Dairy Co.	Yes	Yes
32	Emmi, Americas Division	No	
33	Sargento Foods Inc.	No	
34	Masters Gallery Foods	No	
35	Organic Valley	Yes	Yes
36	Upstate Niagara Cooperative Inc.	Yes	Yes
37	Tillamook County Creamery Association	No	
38	Fairlife LLC	Did not respond	
39	Agri-Mark Inc.	No	
40	Bel Brands USA	No	
41	Daisy Brand LLC	No	
42	Michigan Milk Producers Association	No	

Rank	Company	Offer 1/2 pint (8 fl oz) containers of milk to K-12 schools?	Provided requested data?
43	Maryland & Virginia Milk Producers Cooperative	Declined to answer	
44	Savencia Fromage & Dairy, U.S. operations	No	
45	Bongards Premium Cheese	No	
46 (tie)	United Dairyemen of Arizona	No	
46 (tie)	Milk Specialties Global	No	
48	First District Association	No	
49	Southeast Milk Inc.	No	
50	Schuman Cheese	No	
51	T. Marzetti Co.	No	
52	Winona Foods	No	
53	Blue Bell Creameries	No	
54	Crystal Creamery	Yes	Yes
55	BelGioioso Cheese Inc.	No	
56	Rockview Family Farms	Did not respond	
57	Rich Products Corp.	No	
58	Berner Food and Beverage LLC	No	
59	Producers Dairy Foods Inc.	Yes	Yes
60	Turkey Hill Dairy	Did not respond	
61	Gehl Foods LLC	No	
62	Byrne Dairy	No	
63	SmithFoods Inc.	Yes	Yes
64	Galliker Dairy Co.	Did not respond	
65	Grande Cheese Co.	No	
66	Brewster Cheese	No	
67	Gossner Foods Inc.	Yes	Yes
68	Dippin' Dots LLC	No	
69	Shamrock Farms	Yes	Yes
70	Continental Dairy Facilities	No	
71	Sartori Co.	No	
72	J&J Snack Foods Corp.	No	
73	Litehouse Inc.	No	
74	Fage USA Dairy Industry Inc.	No	
75	Meijer	No	
76	Ellsworth Cooperative Creamery	No	
77	Wawa Inc.	Yes	Yes
78	High Desert Milk	No	
79	Crystal Farms Dairy Co.	No	
80	Mars Ice Cream	No	
81	Clover Sonoma	Did not respond	
82	Ornua Ingredients North America	No	
83	Johanna Foods Inc.	No	
84 (tie)	Arla Foods USA Inc.	No	

Rank	Company	Offer 1/2 pint (8 fl oz) containers of milk to K-12 schools?	Provided requested data?
84 (tie)	Steuben Foods	No	
86	Aurora Organic Dairy	No	
87	KanPak U.S.	No	
88	United Dairy Inc.	Yes	No
89	Biery Cheese	No	
90	Schwan's Co.	No	
91	Braum's Inc.	No	
92	Joseph Farms	No	
93	Anderson Erickson Dairy Co.	Did not respond	
94 (tie)	Super Store Industries	No	
94 (tie)	Valley Queen Cheese Factory Inc.	No	
96	Clover Farms Dairy Co.	Did not respond	
97	Cloverland Dairy L.P.	Did not respond	
98	Baker Cheese Inc.	No	
99	Perry's Ice Cream Company Inc.	No	
100	Hershey's Ice Cream Co.	No	

\* Data supplied for the Akron, Ohio depot only

Grey cells denote companies that did not meet the inclusion criteria for this report.

### Appendix C: Company Profiles

A summary of the key findings for each company's school milk portfolio, including every product's sodium and added sugars contents and presence (if any) of synthetic dyes or low-calorie sweeteners of concern.



Borden Dairy Co.				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
½ Pint Fat Free Skim Milk	120 mg	—	None	None
½ Pint Borden 1% Lowfat Milk	120 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
½ Pint Borden Chocolate Fat Free Milk	190 mg	6 g	None	None
½ Pint Borden Strawberry Fat Free Milk	135 mg	6 g	None	None
½ Pint Borden Chocolate 1% Lowfat Milk	190 mg	6 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

#### Key Findings

- Borden Dairy Co. tied for the highest median sodium content for flavored milk (190 mg).
- Borden Dairy Co.'s flavored milk products had the lowest median added sugars content (6 g): ½ Pint Borden Chocolate 1% Low fat Milk, ½ Pint Borden Strawberry Fat Free Milk, and ½ Pint Borden Chocolate Fat Free Milk all contain 6 g of added sugars.
- No products contained synthetic dyes.
- No products contained any low-calorie sweeteners of concern.



Crystal Creamery				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Fat Free Milk	95 mg	—	None	None
1% Low Fat Milk	110 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Fat Free Chocolate Milk	170 mg	7 g	None	None
1% Low Fat Chocolate Milk	200 mg	13 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- Crystal Creamery’s flavored milk products had a median sodium content of 185 mg.
- Crystal Creamery’s flavored milk products had a median added sugars content of 10 g.
- One product—Crystal Creamery’s 1% Low Fat Chocolate Milk—would exceed a DGA-aligned added sugars limit for grades K–5 at breakfast.
- No products contained synthetic dyes.
- No products contained any low-calorie sweeteners of concern.



Danone North America, Horizon Organic				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Original Low Fat Aseptic	130 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Chocolate Low Fat Aseptic	180 mg	10 g	None	None
Strawberry Low Fat Aseptic	160 mg	11 g	None	None
Vanilla Low Fat Aseptic	130 mg	9 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- Horizon Organic's flavored milk products had a median sodium content of 160 mg.
- Horizon Organic's flavored milk products had a median added sugars content of 10 g.
- No products contained synthetic dyes.
- No products contained any low-calorie sweeteners of concern.



Gossner Foods Inc.				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Gossner Skim Milk	105 mg	—	None	None
Gossner 1% Milk	105 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Fat-free Chocolate Milk	180 mg	11 g	None	None
Gossner Fat Free Strawberry Milk	100 mg	11 g	Red #40, Blue #1	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- Gossner Foods Inc. tied for the lowest median sodium content for flavored milk (140 mg).
- Gossner Foods Inc.'s flavored milk products all had an added sugars content of 11 g.
- One product—Gossner Fat Free Strawberry Milk—contained the synthetic dyes Red #40 and Blue #1.
- No products contained any low-calorie sweeteners of concern.



Organic Valley				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Lowfat 1%	125 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Chocolate Lowfat 1%	200 mg	10 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- No products contained synthetic dyes.
- No products contained any low-calorie sweeteners of concern.



Prairie Farms Dairy Inc.				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Pasteurized Homogenized Fat Free Skim Milk	120 mg	—	None	None
Local Fresh 1% Low Fat Milk	120 mg	—	None	None
1% Low Fat Milk	105 mg	—	None	None
1% Low Fat Lactose Free Milk	130 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Local Fresh 1% Low Fat Chocolate Milk	230 mg	11 g	None	None
1% Low Fat Chocolate Milk	150 mg	11 g	None	None
Local Fresh 1% Low Fat Strawberry Milk	105 mg	9 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- Prairie Farms Dairy Inc.’s flavored milk had a median sodium content of 150 mg.
- One product—Prairie Farms Dairy Inc.’s Local Fresh 1% Low Fat Chocolate Milk—had the second highest sodium content in this report (230 mg).
- Prairie Farms Dairy Inc.’s flavored milk products had a median added sugars content of 11 g.
- No products contained synthetic dyes.
- No products contained any low-calorie sweeteners of concern.



Producers Dairy Foods Inc.				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Fat Free Milk	130 mg	—	None	None
Low Fat Milk	160 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Fat Free Chocolate Milk	150 mg	7 g	None	None
Strawberry Milk	130 mg	6 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- Producers Dairy Foods Inc. had the highest median sodium content for unflavored milk (145 mg) but tied for the lowest median sodium content for flavored milk (140 mg). Unlike the other ten companies in this report, the median sodium contents of Producers Dairy Foods Inc.’s unflavored (145 mg) and flavored milk (140 mg) were notably similar.
- Producers Dairy Foods Inc.’s Low Fat Milk had the highest sodium content for an unflavored milk product (160 mg).
- Producers Dairy Foods Inc.’s flavored milk products had the second lowest median added sugars content (6.5 g).
- Producers Dairy Foods Inc. tied for the single flavored milk—Strawberry Milk—with the lowest added sugars content (6 g).
- No products contained synthetic dyes.
- No products contained any low-calorie sweeteners of concern.



Shamrock Farms				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Shamrock Farms Fat Free Milk	120 mg	—	None	None
Shamrock Farms 1% Lowfat Milk	105 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Shamrock Farms Chocolate Fat Free Milk	180 mg	13 g	None	None
Shamrock Farms Strawberry Fat Free Milk	95 mg	14 g	Red #40	None
Half Pint Shamrock Farms Fat Free Birthday Cake Milk	160 mg	14 g	None	None
Shamrock Farms Chocolate 1% Low Fat Milk	180 mg	16 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- Shamrock Farms’ flavored milk products had a median sodium content of 170 mg.
- Shamrock Farms’ flavored milk products had the highest median added sugars content (14 g).
- Shamrock Farms Chocolate 1% Low Fat Milk had the highest added sugars content in this report (16 g) and was the only product that would exceed any DGA-aligned added sugars limit for grades 9–12.
- All four of Shamrock Farms’ flavored milk products would exceed a DGA-aligned added sugars limit for grades K–5 at breakfast.
- One product—Shamrock Farms Strawberry Fat Free Milk—contained the synthetic dye Red #40.
- No products contained any low-calorie sweeteners of concern.



SmithFoods Inc.				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Fat Free Skim Milk - rBST Free	105 mg	—	None	None
Lowfat 1% Milk - rBST Free - Half Pint	125 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Fat Free Chocolate Milk	170 mg	13 g	None	None
Lowfat Chocolate Milk - rBST Free	190 mg	11 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- SmithFoods Inc.'s flavored milk products had a median sodium content of 180 mg.
- SmithFoods Inc.'s flavored milk products had a median added sugars content of 12 g.
- One product—SmithFoods Inc.'s Fat Free Chocolate Milk—would exceed a DGA-aligned added sugars limit for grades K–5 at breakfast.
- No products contained synthetic dyes.
- No products contained any low-calorie sweeteners of concern.



Upstate Niagara Cooperative Inc.				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Skim Milk - 0% Milkfat - Vitamins A & D (8 oz)	115 mg	—	None	None
LowFat Milk - 1% Milkfat - Vitamins A & D (8 oz)	115 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
School Milk - Fat Free - Chocolate Milk (8 oz)	250 mg	9 g	None	None
School Milk - Fat Free - Strawberry Milk (8 oz)	110 mg	11 g	Red #40, Blue #1	None
Flavored Milk - Chocolate Milk - Lowfat (8 oz)	220 mg	11 g	None	None
School Milk - 1% Milkfat - Strawberry Milk (8 oz)	110 mg	11 g	Red #40, Blue #1	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- Upstate Niagara Cooperative Inc.'s flavored milk products had a median sodium content of 165 mg.
- Upstate Niagara Cooperative Inc. had the single flavored milk product—School Milk - Fat Free - Chocolate Milk (8 oz)—with the highest sodium content in this report (250 mg).
- Upstate Niagara Cooperative Inc.'s flavored milk products had a median added sugars content of 11 g.
- Two products—Upstate Niagara Cooperative Inc.'s School Milk - Fat Free - Strawberry Milk (8 oz) and School Milk - 1% Milkfat - Strawberry Milk (8 oz)—contained the synthetic dyes Red #40 and Blue #1.
- No products contained any low-calorie sweeteners of concern.



Wawa Inc.				
PRODUCT NAME	SODIUM	ADDED SUGARS	SYNTHETIC DYES	LOW-CALORIE SWEETENERS OF CONCERN
<b>Unflavored</b>				
Nonfat Milk	105 mg	—	None	None
Lowfat Milk	105 mg	—	None	None
<i>Report Average*</i>	<i>117 mg</i>			
<b>Flavored</b>				
Chocolate Nonfat Milk	190 mg	11 g	None	None
Strawberry Nonfat Milk	105 mg	10 g	FD&C Red 40	None
Chocolate Lowfat Milk	200 mg	14 g	None	None
<i>Report Average**</i>	<i>164 mg</i>	<i>10 g</i>		

\* Average of total unflavored milk sample (n = 22)

\*\* Average of total flavored milk sample (n = 29)

### Key Findings

- Wawa Inc. tied for the highest median sodium content for flavored milk (190 mg).
- Wawa Inc.'s flavored milk products had a median added sugars content of 11 g.
- One product—Wawa Inc.'s Chocolate Lowfat Milk—would alone exceed a DGA-aligned added sugars limit for grades K–5 at breakfast.
- One product—Wawa Inc.'s Strawberry Nonfat Milk—contained the synthetic dye FD&C Red 40.
- No products contained any low-calorie sweeteners of concern.