

CONCURRENCE IN SENATE AMENDMENTS

AB 2316 (Gabriel)

As Amended August 21, 2024

Majority vote

SUMMARY

Prohibits, commencing December 31, 2027, food containing six specified food dye additives (Blue 1; Blue 2; Green 3; Red 40; Yellow 5; and Yellow 6) from being sold to students by school districts, county offices of education (COEs), charter schools, and state special schools.

Senate Amendments

- 1) Extend the implementation date to December 31, 2027.
- 2) Eliminate titanium dioxide from the list of prohibited additives.
- 3) Delete the requirement for food provided to students abide by the prohibition on the list of additives.
- 4) Exempt USDA commodity foods from the prohibition.

COMMENTS

What does this bill do? This bill prohibits food containing six specified food dye additives (Blue 1; Blue 2; Green 3; Red 40; Yellow 5; and Yellow 6) from being sold to students by school districts, COEs, charter schools and state special schools. This prohibition includes all school meals and competitive foods sold to students from midnight the night before to 30 minutes after the end of the schoolday.

Research on the effects of food dye on children. A 2021 report by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) entitled, "Potential Neurobehavioral Effects of Synthetic Food Dyes in Children," found that consumption of synthetic food dyes can result in hyperactivity and other neurobehavioral problems in some children and that children vary in their sensitivity to synthetic food dyes. The findings of the report include:

Current federal levels for safe intake of synthetic food dyes may not sufficiently protect children's behavioral health. The levels were established by the US Food and Drug Administration decades ago and do not reflect newer research.

The percentage of American children and adolescents diagnosed with Attention Deficit/Hyperactivity Disorder (ADHD) has increased from an estimated 6.1% to 10.2% during the last 20 years.

The body of evidence from human studies indicates that synthetic food dyes are associated with adverse neurobehavioral outcomes in children and that children vary in their sensitivity to synthetic food dyes. "Challenge studies" placed the children on a dye-free diet for several weeks and measured their behavior. The children were then given food or drinks with dyes added, and measures of their behavior were recorded by a number of standardized methods. These studies demonstrated clearly that some children are likely to be more adversely affected by synthetic food dyes than others. Animal studies indicate synthetic food dyes affect activity, memory and learning, cause changes in the neurotransmitters (chemicals that

carry signals from one nerve to the next) in the brain, and cause microscopic changes in brain structure.

Researchers also found that all of the U.S. Food and Drug Administration's (FDA's) Acceptable Daily Intake levels (ADIs) for synthetic food dyes are based on 35- to 70-year-old studies that were not designed to detect the types of behavioral effects that have been observed in children. Comparisons with newer studies indicate that the current ADIs may not adequately protect children from behavioral effects. For some of the dyes, these comparisons indicate that updated levels would be much lower.

OEHHA also collaborated with scientists at UC Berkeley and UC Davis to estimate the levels of exposure to synthetic food dyes by US children of varying ages as well as pregnant women and women of childbearing age. The research team found that children are exposed to multiple dyes in a day, and that the highest exposures are usually from juice drinks and soft drinks. They also found that common exposures to Red No. 3 from a few foods may exceed the existing ADI. If revised ADIs were to be based on newer studies, common exposures to food dyes in foods would exceed the revised guidance.

How many products might this affect in school meals? Using data from the Department of Agriculture's Child Nutrition Food Programs and analysis by the Center for Science in the Public Interest, the Environmental Working Group found that few foods available in schools use the ingredients that AB 2316 would ban. The analysis found that just 4.2% of all school meal products would be affected and just 2.5% of a la carte foods would be affected. The food categories with the highest percentages of affected food items include sweet bakery products, processed fruit, and chips.

The vast majority of school foods are already made without toxic chemicals linked to behavioral problems. Many students from low-income and under-resourced backgrounds often rely on free meals provided at school, so this bill would help ensure that, at least when it comes to school food, a student's socioeconomic status doesn't determine their access to food free of these toxic chemicals.

What are school districts in California doing? According to the Los Angeles Unified School District, "their school menus adhere to the following principles to ensure that every student finds healthy and appealing meal options at school:

- 1) Offer a variety of menu choices, including a daily vegetarian and vegan option, fresh salad, and sandwich options;
- 2) Provide only whole grain-rich products;
- 3) Offer fresh fruits and vegetables daily;
- 4) Offer only antibiotic free chicken;
- 5) Participate in Meatless Mondays, where the menu consists of only vegetarian items on Monday;
- 6) Meals have no more than 30% of total calories from fat, no more than 10% of total calories from saturated fat, and no added trans fats;
- 7) Meals *contain no artificial colors, flavors, monosodium glutamate (MSG), nitrates, or sulfites;*

- 8) Use student feedback obtained from student taste-testing of all potential menu items, where only those items with a high student acceptability rating are considered for menu placement."

According to the Tahoe Truckee Unified School District, "We serve fresh and nourishing food every day. We use locally sourced and organic ingredients whenever possible and we avoid highly processed foods, high fructose corn syrup, chemicals, *dyes, and food additives.*"

According to the Author

"California has a responsibility to protect our students from chemicals that harm children and that can interfere with their ability to learn. It is unacceptable that federal regulators have not stepped up to prevent the serving of school foods with additives that are linked to cancer, hyperactivity, and neurobehavioral harms. This bill will empower schools to better protect the health and wellbeing of our kids and encourage manufacturers to stop using these dangerous additives."

Arguments in Support

California Medical Association states, "At the direction of the legislature, in 2019, the California Office of Environmental Health Hazard Assessment (OEHHA) began a study on the impact synthetic food dyes have on children, releasing their final report in 2021. The report found that current U.S. Food and Drug Administration levels for safe intake of synthetic food dyes "are based on 35- to 70-year-old studies that were not designed to detect the types of behavioral effects that have been observed in children" and that "newer studies indicate that the [current FDA guidelines] may not adequately protect children." CMA supports that all food made available to children in schools meet scientifically based nutritional standards, and that the inclusion and emphasis on whole foods being prioritized are essential for the development of children. AB 2316 will encourage schools to incorporate healthier alternative products or manufacturers to make minor modifications to their recipes. Introducing children to whole foods helps establish healthy eating habits that continue through adulthood.

Arguments in Opposition

The Consumer Brands Association states, "Food safety is a paramount concern to our members; however, this measure usurps the comprehensive food safety and approval system for these colorings, would limit the availability of wholesome and healthy foods, and eliminates common opportunities for fundraising for sports teams and student clubs. The United States Federal Government has a comprehensive food safety process that reviews food additives, including food colorings. In addition, California has several laws that require removing chemicals from foods, attaching warning labels, and finding alternatives if those food additives are unsafe. All of these additives have been thoroughly reviewed by the federal and state systems and many international scientific bodies and continue to be deemed safe. FDA continuously monitors information relating to the safety of all food and color additives and maintains data on the safety of all color additives approved in the U.S. Additionally, the U.S. FDA, the European Food Safety Authority (EFSA) and the WHO/FAO Joint Expert Committee on Food Additives (JECFA) have all concluded that the evidence suggesting associations between exposure to FD&C colors and adverse behavior in children and concluded that no causal relationship has been established and no additional risk management is warranted."

FISCAL COMMENTS

According to the Senate Appropriations Committee:

- 1) To the extent that food manufacturers pass the costs of reformulating certain foods down to LEAs in the form of higher food prices or leave the school food market altogether, this bill could potentially result in additional Proposition 98 General Fund costs. The extent of these costs is unknown and could vary by LEA. However, if the bill only impacts a small percentage of food and beverage products that are served or if alternatives for these products already exist, the costs are likely to be minor. Further, if an LEA has already adopted a policy that prohibits these synthetic food dye additives, there would be no fiscal impact.
- 2) By limiting certain food and beverages that could be sold at schools, this bill could lead to a decrease in revenues from the sales of these products. The extent of these forgone revenues is unknown and would vary by LEA.
- 3) The California Department of Education (CDE) estimates General Fund costs of \$150,000 in the first year of implementation and \$95,000 thereafter to comply with the bill's requirements. This estimate includes one-time costs of \$75,000 to update the online and mobile California Competitive Foods Compliance Tool development, and to purchase food and beverage data.

VOTES:

ASM EDUCATION: 6-0-1

YES: Muratsuchi, Addis, Alvarez, Bonta, Flora, McCarty

ABS, ABST OR NV: Hoover

ASM ENVIRONMENTAL SAFETY AND TOXIC MATERIALS: 5-1-1

YES: Garcia, Connolly, McKinnor, Papan, Reyes

NO: Ta

ABS, ABST OR NV: Hoover

ASM APPROPRIATIONS: 12-3-0

YES: Wicks, Sanchez, Arambula, Bryan, Calderon, Wendy Carrillo, Mike Fong, Grayson, Haney, Hart, Pellerin, Villapudua

NO: Dixon, Jim Patterson, Ta

ASSEMBLY FLOOR: 59-0-21

YES: Addis, Aguiar-Curry, Alvarez, Arambula, Bains, Bauer-Kahan, Bennett, Berman, Boerner, Bonta, Bryan, Calderon, Juan Carrillo, Wendy Carrillo, Connolly, Flora, Mike Fong, Garcia, Gipson, Grayson, Haney, Hart, Irwin, Jackson, Jones-Sawyer, Kalra, Lee, Low, Lowenthal, Maienschein, McCarty, McKinnor, Muratsuchi, Stephanie Nguyen, Ortega, Pacheco, Papan, Joe Patterson, Pellerin, Petrie-Norris, Quirk-Silva, Ramos, Rendon, Reyes, Blanca Rubio, Sanchez, Santiago, Schiavo, Ting, Valencia, Waldron, Wallis, Ward, Weber, Wicks, Wilson, Wood, Zbur, Robert Rivas

ABS, ABST OR NV: Alanis, Cervantes, Chen, Megan Dahle, Davies, Dixon, Essayli, Vince Fong, Friedman, Gabriel, Gallagher, Holden, Hoover, Lackey, Mathis, Jim Patterson, Luz Rivas, Rodriguez, Soria, Ta, Villapudua

SENATE FLOOR: 36-0-4

YES: Allen, Archuleta, Ashby, Atkins, Becker, Blakespear, Bradford, Caballero, Cortese, Dahle, Dodd, Durazo, Eggman, Glazer, Gonzalez, Grove, Hurtado, Laird, Limón, McGuire,

Menjivar, Min, Newman, Nguyen, Ochoa Bogh, Padilla, Portantino, Roth, Rubio, Skinner,
Smallwood-Cuevas, Stern, Umberg, Wahab, Wiener, Wilk
ABS, ABST OR NV: Alvarado-Gil, Jones, Niello, Seyarto

UPDATED

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