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# Making Food Standard: The U.S. Food and Drug Administration's Food Standards of Identity, 1930s–1960s

This article looks at the implementation of food standards of identity by the U.S Food and Drug Administration from the 1930s to the 1960s, a period in the FDA's history wedged between the "era of adulteration" of the early twentieth century and the agency's turn to "informational regulation" starting in the 1970s. The article describes the origin of food standards in the early twentieth century and outlines the political economy of government-mandated food standards in the 1930s. While consumer advocates believed government standards would be important to consumer empowerment because they would simplify choices at the grocery store, many in the food industry believed government standards would clash with private brands. The FDA faced challenges in defining what were "customary" standards for foods in an increasingly industrial food economy, and new diet-food marketing campaigns in the 1950s and 1960s ultimately led to the food standards system's undoing. The article concludes by looking at how FDA food standards came to be framed cynically, even though voluntary food standardization continued and the system of informative labeling that replaced FDA standards led to precisely the problem government standards were intended to solve.

**Keywords:** standardization, food regulation, Food and Drug Administration, consumer protection, food safety

In 1938, the U.S. Congress passed the Food, Drug, and Cosmetic Act (FDCA), which, among other things, charged the U.S. Food and Drug Administration (FDA) with developing food "standards of identity." These food standards consisted of pre-approved ingredients with acceptable ranges for proportions, a fixed common name (such as

*Business History Review* 96 (Spring 2022): 145–176. doi:10.1017/S0007680521000726
 ISSN 0007-6805; 2044-768X (Web).

"peanut butter" and "tomato soup"), and, at times, guidance as to how a food must be manufactured, or "process standards."[1] They were to be implemented for all mass-produced foods. Food identity standards were a response to the consumer confusion created by the proliferation of new consumer packaged goods with unclear and inconsistent labels. The first FDA food standards would appear within a year of the 1938 FDCA, and by 1954, half of all foods purchased in America would fit these food standards. In 1973, however, the FDA changed direction. FDA standards were increasingly seen to be a cumbersome governmental process and officials shifted agency resources away from identity standards toward informative labeling, including ingredients and nutrition labels. This article looks at the implementation of and debates about FDA food standards from the 1930s to 1960s, a period in the FDA's history wedged between the "era of adulteration" of the early twentieth century and the agency's turn to "informational regulation" starting in the 1970s.[2] It will explain how standards were deemed a pro-consumer policy tool, why their implementation complicated that story, and why highly public challenges to the FDA standards system led to the turn away from government standard setting and toward informative labeling.

FDA food standards were distinctive because they were established by government and not by private industry. Most of the literature on standards is focused on standards as a private form of regulation and industry self-governance that, when they work properly, are an invisible, backstage feature of the economy.[3] The first wave of standard setting in the early twentieth century began with private organizations and voluntary initiatives in consensus building and culminated in President Herbert Hoover's philosophy of "associationalism" in the 1930s. When historians look at government initiatives during this period, they describe the government as playing an indirect role in setting standards through performance specifications or voluntary guidance.[4] Indeed, this

[1] Lawrence Busch, "Food Standards: The Cacophony of Governance," *Journal of Experimental Botany* 62, no. 10 (2011): 3247–50.

[2] Benjamin R. Cohen, *Pure Adulterated: Cheating on Nature in the Age of Manufactured Food* (Chicago, 2019).; Xaq Frohlich, "The Informational Turn in Food Politics: The US FDA's Nutrition Label as Information Infrastructure," *Social Studies of Science* 47, no. 2 (2017): 145–71.

[3] Allison Loconto and Lawrence Busch, "Standards, Techno-Economic Networks, and Playing Fields: Performing the Global Market Economy," *Review of International Political Economy* 17, no. 3 (2010): 507–36; Martha Lampland and Susan Leigh Star, *Standards and Their Stories: How Quantifying, Classifying, and Formalizing Practices Shape Everyday Life* (Ithaca, NY, 2009).; Nils Brunsson and Bengt Jacobsson, *A World of Standards* (Oxford, 2000).

[4] JoAnne Yates and Craig N. Murphy, *Engineering Rules: Global Standard Setting since 1880* (Baltimore, 2019).; Lee Vinsel, "Virtue via Association: The National Bureau of Stan-

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press

was the approach used by the U.S. Department of Agriculture (USDA) when it issued voluntary food *quality* standards, better known as USDA grades. These are more familiar to consumers than FDA standards because of labels for "USDA prime" on beef or "U.S. Grade A" on canned fruit. While the USDA implemented these grades to ensure consumer confidence, a frequent criticism has been that the regulated industry "captured" government oversight and used it as a barrier to competitors. The classic example is the dairy industry and its use of butter standards to undercut margarine.[5]

The history of FDA food standards presents an opportunity to look at a contrasting case: when standards were set by a government institution and promoted publicly as a way the government could protect the consumer. Unlike many industry standards, which focus on measurement, compatibility, interoperability, or performance, FDA standards were primarily motivated by product safety and health.[6] Product safety standards are different because they reach beyond industry concerns with market-coordinating functions and impinge on matters of public interest. The introduction of food standards into the 1938 FDCA was driven by public health concerns about new artificial chemical additives used in foods as well as distrust with the way that processed foods transformed self-evident foods into credence goods whose qualities the average consumer was ill equipped to assess. New Deal officials and consumer advocates believed an expert-led administrative state could work as a "countervailing power" to big business.[7] Government food standards would deliver to the end consumer the same quality-assurance measures that market middlemen were already using backstage to build trust in business-to-business purchases. Yet, as historian Deborah Fitzgerald notes, "The very idea of standardizing food is slightly odd." There was a tension between food's sensual traits, that ephemeral nature which made food authentic and "fresh," and the shelf-stable, uniform traits producers and distributors were seeking as they built up national markets for manufactured foods.[8] In implementing identity standards,

dards, Automobiles, and Political Economy, 1919–1940," *Enterprise & Society* 17, no. 4 (2016): 809–38.

[5] See, for example, George J. Stigler, "The Theory of Economic Regulation," *Bell Journal of Economics and Management Science* 2, no. 1 (1971): 3–21. For a critique of Stigler's account of margarine, see G. P. Miller, "Public Choice at the Dawn of the Special Interest State: The Story of Butter and Margarine," *California Law Review* 77, no. 1 (1989): 83–131.

[6] On the different types and uses of standards, see Andrew L. Russell, *Open Standards and the Digital Age: History, Ideology, and Networks* (Cambridge, U.K., 2014), 18; Lawrence Busch, *Standards: Recipes for Reality* (Cambridge, MA, 2011).

[7] Lizabeth Cohen, *A Consumers' Republic: The Politics of Mass Consumption in Postwar America* (New York, 2003), 23–24.

[8] Deborah K. Fitzgerald, "World War II and the Quest for Time-Insensitive Foods," *Osiris* 35 (2020): 293.

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press

the FDA would find itself trapped between an ideal that the law sought to protect, the "time-honored" standards of housewives, and the reality of a national marketplace flooded with "fabricated" packaged foods.

The story of FDA food standards is more complicated than simplistic narratives of government capture or consumer protection. Instead, the standards reflected a mix of conflicting economic interests and alliances between retailers, wholesalers, manufacturers, and newly emerging consumer groups. Standards were just one solution among many to a broader problem at the time: how to distinguish products in national markets characterized by long, opaque supply chains, and how to establish confidence in a food's quality where personal connections between the producer and consumer no longer served. The 1920s and 1930s in the United States was a period when manufacturers and retailers were seeking to consolidate their control over national food markets.[9] Standards competed with other legal mechanisms—in particular, marketing built around protected trademarks—which were used to build reputation, accountability, and trust in a stranger economy. These included the "collective marks" of the *appélations d'origine controlee* (AOC) centered around the place a food was produced, fair trade "union labels" highlighting the workers who processed the product, and third-party certification programs by expert professional organizations, such as the American Medical Association's "Seal of Acceptance." But what was fast becoming the most dominant trademark tool was producers' self-certification through branding.[10] The brand was a legal means to prevent competition with cheap imitators by conferring a monopoly to producers on the identity of their product. Companies selling branded goods wanted to avoid what industry analysts regularly referred to as Gresham's law in food markets, where unrestricted competition drove food quality down to the lowest common denominator.[11] The FDA's *identity* standards, focused as they were on labeling and defining what made a product clearly identifiable, worked similar to brands as a strategy for

[9] Helen Tangires, *Movable Markets: Food Wholesaling in the Twentieth-Century City* (Baltimore, 2019); Richard S. Tedlow, *New and Improved: The Story of Mass Marketing in America* (New York, 1990); Mira Wilkins, "When and Why Brand Names in Food and Drink?," in *Adding Value: Brands and Marketing in Food and Drink*, ed. Geoffrey Jones and Nicholas J. Morgan (London, 1994), 15–40; Nancy F. Koehn, "Henry Heinz and Brand Creation in the Late Nineteenth Century: Making Markets for Processed Food," *Business History Review* 73, no. 3 (1999): 349–93.

[10] Paul Duguid, "Information in the Mark and the Marketplace: A Multivocal Account," *Enterprise & Society* 15, no. 1 (2014): 1–30; Alessandro Stanziani, "Negotiating Innovation in a Market Economy: Foodstuffs and Beverages Adulteration in Nineteenth-Century France," *Enterprise & Society* 8, no. 2 (2007): 375–412.

[11] See, for example, "Manufacturers' Brands Benefit from AMS Shield on Labels," *Food Industries* (May 1941): 43–44.

protecting a product's intellectual property in an increasingly abstract and anonymous marketplace.[12]

As this article will show, government-mandated identity standards positioned the FDA as a key mediator for enforcing public standards on foods yet did not threaten manufacturer's heavy investment in branding. Because FDA standard setting required stakeholder input, including (and especially) industry testimony about trade names and best practices, FDA identity standards were a hybridization of public-private governance and a form of "reputational interdependence" that often led to collaboration with and accommodation of industry interests.[13] Standards were an expedient legal guarantee, even though they often failed to meet the public's broader criteria of quality. The FDA, however, faced problems regarding how to define "customary" food standards in an increasingly industrial packaged and processed food economy—problems compounded by new diet-food marketing that directly challenged the food standards system and the FDA's contention that it served to protect the consumer's health.

## Comparing Apples and Oranges

Standard foods do not exist "out there" in nature, of course. Environmental historians have documented how nineteenth-century market middlemen transformed nature's regional diversity into discrete grades and standards to simplify the work of assessing and marketing large-scale flows of commodities. This sorting work was highly political. Why should measures of quality set by grain elevator operators or futures and options exchanges, located in the city, supersede those of the farmer who actually produces the food in the countryside? Whoever had the power to grade and standardize food held the power

[12] Identity standards were one of several types of food standards developed at the time. Others included quality standards, such as USDA grades, and fill standards, which regulated the shape and consistency of fill of packages. H. Thomas Austern, "Food Standards: The Balance between Certainty and Innovation," *Food, Drug, Cosmetic Law Journal* 24, no. 9 (1969): 450. See also Kara W. Swanson, "Food and Drug Law as Intellectual Property Law: Historical Reflections," *Wisconsin Law Review* 2011, no. 2 (2011): 331–95.

[13] On reputation interdependence, see Timothy D. Lytton, *Outbreak: Foodborne Illness and the Struggle for Food Safety* (Chicago, 2019), 237–38, 334–35. Others describe food standards as evidence that "co-regulation" has become a common mode in food safety governance. Marian Garcia Martinez, Andrew Fearne, Julie A. Caswell, and Spencer Henson, "Co-regulation as a Possible Model for Food Safety Governance: Opportunities for Public-Private Partnerships," *Food Policy* 32, no. 3 (2007): 299–314. See Edward J. Balleisen, "The Prospects for Effective Coregulation in the United States: A Historian's View from the Early Twenty-First Century," in *Government and Markets: Toward a New Theory of Regulation*, ed. Edward J. Balleisen and David A. Moss (Cambridge, U.K., 2009), 443; Ashton Wynette Merck, "The Fox Guarding the Henhouse: Coregulation and Consumer Protection in Food Safety, 1946–2002" (PhD diss., Duke University, 2020).

to define quality and, with it, profit on low-margin but big economies of scale.[14] Standardizing rested as much on ignoring a certain degree of natural variability or the finer points of quality as it did on making the raw agricultural materials uniform enough to compare. As late as the 1920s, an adman for the California Fruit Grower's Exchange, better known to consumers as Sunkist, could complain, "Nature is a notoriously poor standardizer."[15]

Despite this difficulty, national food manufacturers and grower cooperatives, distributors and wholesalers, and government regulators pursued voluntary consensus on standards for foods because they believed uniformity and consistency would bring predictability in markets, which in turn would restore consumer trust eroded by increasingly impersonal markets. Long before the FDA began implementing its food standards system in the 1930s, producers and distributors had invested substantial resources into making food standard. Early nineteenth-century horticulturalists, concerned with cataloging useful plants, laid the groundwork for a "commercial taxonomy" for many produce foods, standardizing nomenclature for commercially valuable fruit varietals.[16] The rise of nationally branded manufacturers in the United States, especially canned food industries, created a large-scale buyer for fruits and vegetables starting in the 1860s. Part of the art of ensuring canned foods were palatable was procuring ingredients that were similar enough in size, shape, appearance, and state of ripeness that, when preserved, what came out of the can was consistent, uniform, and safe. By the 1910s and 1920s, canners and produce cooperatives, working with government-funded researchers in agricultural experimental stations, were establishing consistent grades and best practices for inspection and dispute resolution among packers and shippers over bad shipments.[17] These voluntary industry standards were part of an emerging system of accountability for who would carry the cost of perishability, damage caused during delivery, or just simply "bad apples," and they were an alternative to the interpersonal practices of "trust brokering" that undergirded the less complex, more local food distribution chains of an earlier era.[18] While not as unified as the

[14] William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York, 1992).; Steven Stoll, *The Fruits of Natural Advantage: Making the Industrial Countryside in California* (Berkeley, CA, 1998).

[15] Susanne Freidberg, *Fresh: A Perishable History* (Cambridge, MA, 2010), 144.

[16] Emily Pawley, "Cataloging Nature: Standardizing Fruit Varieties in the United States, 1800-1860," *Business History Review* 90 (Autumn, 2016): 405-429.

[17] See Stoll, *Fruits of Natural Advantage*; Freidberg, *Fresh*; Anna Zeide, *Canned: The Rise and Fall of Consumer Confidence in the American Food Industry* (Berkeley, CA, 2018).

[18] Susan V. Spellman, "Trust Brokers: Traveling Grocery Salesmen and Confidence in Nineteenth-Century Trade," *Enterprise & Society* 13, no. 2 (2012): 302.

"cooperative capitalism" that drove the adoption of food standards in European countries, these standardizing practices in the United States had the same self-regulating effects and sometimes also served as a competitive barrier used by trade groups to squeeze out a competitor's products.[19]

Food standards were left out of the 1906 Pure Food and Drug Act, the signature federal legislation that governed national food markets in the United States until the 1930s.[20] However, state legislatures and federal agencies, especially the USDA, did play an important role promoting standards. Since its founding in 1884, the Association of Official Agricultural Chemists (AOAC) was a key advocate of food standardization. The AOAC collaborated with the USDA to publish its Circular 19 on voluntary guidance documents or "advisory standards" on common industrial ingredients. These early "standards of purity" took the form of definitions that drew upon the most commonly used trade names and often included specifications on limits in composition. Any substance not included in the definition was accordingly excluded from the food.[21] Some of these standards were incorporated into state-level food statutes to protect consumers from adulteration. In European countries, food standards were established as a unified national system of regulation; in contrast, in the United States most were voluntary, and those that were not, such as dairy standards set by legislation, were idiosyncratic to an industry's specific concerns.[22]

When the USDA developed standards, many regional producers disputed them as unreasonable "universal" standards, unaccommodating of regional variations in nature or local cultural practices.[23] Federal food standards became ensnared in the dominant legal debates of the era over federalism, balancing the rights of states to determine local

[19] On food standards in Europe, see Uwe Spiekermann, "Redefining Food: The Standardization of Products and Production in Europe and the United States, 1880–1914," *History and Technology* 27, no. 1 (2011): 24. A good example of pushing out the competition is different color codes in competing standards for oranges developed by grower cooperatives in Florida versus California, discussed in Ai Hisano, *Visualizing Taste: How Business Changed the Look of What You Eat* (Cambridge, MA, 2019), 96–124.

[20] This 1906 act did adopt standards for drugs, requiring manufacturers to follow standards set in the United States Pharmacopoeia and the National Formulary.

[21] Harvey Washington Wiley, *Foods and Their Adulteration: Origin, Manufacture, and Composition of Food Products; Infants' and Invalids' Foods; Detection of Common Adulterations, and Food Standards* (Philadelphia, 1911), 614; See Cohen, *Pure Adulteration*.

[22] Uwe Spiekermann identifies Austria's Codex Alimentarius Austriacus as the first systematic effort by a government to codify food standards. Spiekermann, "Redefining Food," 17–18.

[23] Ohio winemakers, for example, contested USDA wine standards that ruled out "amelioration," or adding sugar and water to wine, but allowed other techniques used by California producers. Andrew Ventimiglia, "'Deceptions Have Been Practiced': Food Standards as Intellectual Property in the Missouri and Ohio Wine Industries (1906–1920)," *Enterprise & Society* 22, no. 2 (2021): 530.

norms about food and safety versus the growing interest in making interstate commerce a coherent unified market. States sometimes created their own standards as a barrier to "foreign products" from other states, impeding interstate trade. They introduced egg-grading rules that required out-of-state producers to stamp "foreign eggs" on each egg, for example, and rules about standard-sized fruit baskets that were different in each state. This was one reason national producers began to lobby for federal standards: in the words of one industry analyst, "one law is better economy and easier to comply with than 48 laws—all at great variance."[24]

A significant turning point for the wider adoption of federal agricultural standards was the 1916 Warehouse Act. The act established a licensing system for warehousing agricultural commodities, where farmers could store their staple crops outside the harvest season as collateral for Federal Reserve Bank loans. In determining the value of the collateral, producers had to adopt quality standards developed by the USDA to justify a higher loan on higher-quality stored goods.[25] The USDA Bureau of Chemistry published "service and regulatory announcements" as proactive guides for industry regarding its regulatory actions and philosophy. Through a Joint Committee on Definitions and Standards, the USDA published numerous standards on common food products between 1913 and 1938.[26] However, these federal food standards were not law.[27] If industry ignored them, courts might determine whether a nonstandard product was illegal, a process a food lawyer described as "delegated legislation by litigation."[28] In such cases the USDA tried to argue, often unsuccessfully, that there existed a de facto "trade standard" for the product in question that the allegedly adulterated product fell short of in some legally significant way. This meant

[24] Ivan C. Miller, "State Regulations Steal Food Markets," *Food Industries* (Aug. 1939): 444–48, 471.

[25] Zeide, *Canned*, 114.

[26] The committee was composed of nine people: three from the USDA, three from the AOAC, and three representing the Association of Food and Dairy Control Officials. Albert K. Epstein and A. L. Israel, "How to Establish Standards under New Food Law," *Food Industries* (Sept. 1938): 488; Suzanne White Junod, "Food Standards in the United States: The Case of the Peanut Butter and Jelly Sandwich," in *Food, Science, Policy and Regulation in the Twentieth Century: International and Comparative Perspectives*, ed. David F. Smith and Jim Phillips (London, 2000), 170; Roy W. Lennartson, "What Grades Mean," *Yearbook of Agriculture* (1959), 344–52.

[27] The exception was a butter quality standard established by a congressional act in 1923, which stated "butter" was understood to mean "containing not less than 80 per centum by weight of milk fat." H.R. 12053, Pub. L. No. 519, 42 Stat. 1500, c. 268 (4 Mar. 1923). Municipal and state public health standards for dairy products have a long history that goes well back into the nineteenth century. Peter J. Atkins, "Sophistication Detected: Or, the Adulteration of the Milk Supply, 1850–1914," *Social History* 16, no. 3 (1991): 317–39.

[28] Austern, "Food Standards," 451.

that before the 1938 food legislation, "in each court case the [Bureau's] witness for the prosecution virtually had to develop a standard to the satisfaction of the court then sitting."[29]

Until the 1930s, advisory standards were more often motivated by protecting farmers and producers than protecting consumers, per se. The underlying assumption was that protecting the source and integrity of the food supply would benefit the consumer. By the 1930s, regulators had come to see their role in policing mass food markets differently, including several changes in how they understood food fraud and consumer protection that would be important for FDA food standards. First, adulteration was more than just food poisoning. It included cases of "economic adulteration," or the use of cheap substitutes that cheated consumers out of a more wholesome authentic product and cheapened the quality of the food supply. Many regulators saw a growing divide between new "artificial" or "fabricated" manufactured foods and traditional foods. The classic example was margarine versus butter, but there were other important trade battles, such as cottonseed oil versus olive oil, and glucose from corn starch versus cane or beet sugar.[30] The perception at the time was that conventional "natural" foods were familiar and self-evident. "Fabricated" foods, on the other hand, were wrapped not just in the mystery of packages but also in trade secrets about how they were processed. Agricultural industries both new (corn processors and meat industry) and old (cane sugar and dairy) appropriated the "pure food" movement in part to break this secrecy in manufactured foods and to push for full disclosure of ingredients.[31]

The 1906 food law limited regulators to policing only outright fraud or danger, however, and there was a loophole concerning nomenclature. So long as a manufacturer's foods did not contain "poisonous or deleterious ingredients," and they listed the address where the product was manufactured, companies could create their own "distinctive names," or brand, for any novelty product, even one of dubious standards, and they were not required to list any ingredients. A mixture of vegetable oils packaged to resemble genuine olive oil but named "Spanola—For Salads," for example, would have been legal even if it was a clear effort at deception.[32] By creating a novel branded food, a producer did not

[29] Edward Eugene Gallahue, *Some Factors in the Development of Market Standards with Special Reference to Food, Drugs, and Certain Other Household Wares* (Washington, DC, 1942), 98.

[30] Cohen, *Pure Adulterated*.

[31] Swanson, "Food and Drug Law," 355–65.

[32] This example was provided in David F. Cavers, "The Food, Drug, and Cosmetic Act of 1938: Its Legislative History and Its Substantive Provisions," *Law and Contemporary Problems* (Winter 1938): 29.

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press

have to provide more information about the food, including information that would help consumers recognize it as a cheap substitute. The result was a flood of novel branded foods from the 1910s through 1930s.

Second, regulatory scientists had their own idea of what evidence was self-evident. Regulatory scientists increasingly came to define unadulterated "pure" food as a *chemically* pure convention and *uniform* standard. "Pure" food may have once meant something more nebulous, like today's "organic": unprocessed and wholesome. By the 1930s, for legal and regulatory purposes, it was defined in increasingly chemical terms to reflect a primary chemical component or, to draw an analogy to a drug concept, an "active" ingredient. This transformed what made food "pure." Sugar, for example, came to be taxed based on its levels of the chemical sucrose. Vanilla was reduced to the quantity of the chemical vanillin. Even processed cottonseed oil, once considered nonfood, was marketed as more pure and therefore better than other cooking oils because its chemical refinement was more modern and not touched by workers' filthy hands.[33] Ironically, by defining what forms of chemical manipulation were and were not legitimate, regulators were effectively establishing what constituted the "legal adulteration" of food.[34]

Third, by the 1920s regulatory practices relied less on "the identity of their food based on provenance"—that is, where the food came from and who made it—and more on a product-based understanding of food "based on labels, scientific analysis, and marketed brands."[35] Focusing on the product's measurable qualities instead of where it came from or who made it was expedient for regulators because, in a national market, an economy of strangers where one did not know all or even most of the actors involved in a food's production, it could be too costly to trace cases of fraud. In practice, Bureau of Chemistry officials often *did* target the usual suspects of food fraud: local or regional producers who had a history of fraudulent practices, or national manufacturers who had attracted negative publicity. However, given the agency's limited staff and the rapidly expanding national food market, the goal was to create a practice of post-market enforcement based on assessments of products themselves.

[33] David Roth Singerman, "Inventing Purity in the Atlantic Sugar World, 1860–1930," *Enterprise & Society* 16, no. 4 (2015): 780–91; Nadia Berenstein, "Making a Global Sensation: Vanilla Flavor, Synthetic Chemistry, and the Meanings of Purity," *History of Science* 54, no. 4 (2016): 399–424; Helen Zoe Veit, "Eating Cotton: Cottonseed, Crisco, and Consumer Ignorance," *Journal of the Gilded Age and Progressive Era* 18 (2019): 397–421.

[34] Sébastien Rioux, "Capitalist Food Production and the Rise of Legal Adulteration: Regulating Food Standards in 19th-Century Britain," *Journal of Agrarian Change* 19, no. 1 (2019): 64–81.

[35] Cohen, *Pure Adulteration*, 16.

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press

Making food standard in the 1930s was about making food self-evident again. Yet, it was unclear whether food standards would be driven by new or old ideas about what made food wholesome. The push for standards was nostalgic and backward looking, to authenticate food *qua* food. New forms of chemically processing and preserving and packaging foods made it challenging to know where food had come from and what was in it. Food standards were supposed to restore transparency to this industrial system. The prevailing presumption had been that naturally produced foods were preferable and that artificial, manufactured foods warranted tougher regulation and closer governmental scrutiny. By the 1930s this view was being challenged by a new economy of nationally branded packaged foods, which in many cases were seen to be safer and even better than the natural, unprocessed economy of the previous century.

## Private Brands versus Public Standards

The interest in government standards in the 1930s should be seen in the broader context of an early twentieth-century crisis of confidence caused by America's shift from a producer economy to a consumer economy. This shift was especially significant in food markets. In the nineteenth century, most Americans were still involved in some form of food production. Those who did not make their own food shopped for it at neighborhood stores or marketplaces, often buying in bulk. By 1932 most Americans worked in cities in nonfood jobs and used paid wages to purchase food from retailers.[36] Businesses, policymakers, and a newly emerging class of consumer advocates were all concerned about a crisis of confidence caused by this estranged relationship between producer and consumer. Companies sought to solve what historian Roland Marchand has called the "vacuum of advice" through better market research on consumers and more advertising to increase demand for branded products.[37] Consumer advocates were skeptical of these corporate efforts at "consumer education." They saw the asymmetry of information between buyer and seller as an environment ripe for manipulation. Stuart Chase and Fredrick Schlink, authors of the best-selling 1927 book *Your Money's Worth: A Study in the Waste of the Consumer's Dollar*, started a consumer advocacy organization called Consumers' Research out of their concern about "the insufficient information on which to base decisions about purchases." A proliferation of consumer

[36] Cesare Silla, *The Rise of Consumer Capitalism in America, 1880–1930* (Milton Park, U.K., 2018), 27.

[37] Roland Marchand, *Advertising the American Dream: Making Way for Modernity, 1920-1940* (Berkeley, CA, 1985), 348.

goods and a lack of clear rules about how to assess their quality led to what one economist called "the problem of choosing."[38]

One of the key arguments for government standards was that many producers, manufacturers, and wholesalers were already using voluntary private standards. Consumer advocates argued that the "ultimate" consumer should have the same tools available to them as commercial buyers. In her 1936 exposé, *American Chamber of Horrors*, the FDA chief educational officer Ruth deForest Lamb noted ways in which canners used quality standards to their benefit, but at the expense of end consumers:

> What often happens in actual practice is this: The jobber orders 1,000 cans of corn, let us say, all of the same grade . . . and then labels them to suit his own purposes. . . . The men who branded the 505 cans in the survey knew exactly what quality of peaches, tomatoes, and corn they contained. The canner packed them on the basis of quality grades. The distributors bought them on grades. Banks and lending companies, before they would accept them as collateral for loans, would demand grade certificates. Only the housewife would have to take them on faith.[39]

Lamb noted with bitter irony that the same housewife, if buying feed for hens or livestock, would find labeled guarantees of what the feed contained. This double standard was even more striking in the 1930s, since individual consumers and commercial buyers often shopped at the same food markets. American urban wholesale and retail food markets were only just starting to diverge.[40] While both bulk buyers and individual shoppers shared the problems of negotiating price or assessing quality in a stranger economy, home economist Persia Campbell pointed out that end consumers were "unspecialized buyers" who could not compete with professional wholesale buyers.[41] New Deal consumer advocates urged the government to develop tools with businesses such as quality standards with informative labeling that would redress this imbalance in consumer information.

[38] Quoted in Meg Jacobs, *Pocketbook Politics: Economic Citizenship in Twentieth-Century America* (Princeton, NJ, 2005), 103. Economists came to refer to this as the problem of "information asymmetry," when buyers did not have continuing transactions with sellers and had incomplete knowledge of the product purchased. Pauline M. Ippolito, "Asymmetric Information in Product Markets: Looking to Other Sectors for Institutional Approaches," *American Journal of Agricultural Economics* 85, no. 3 (2003): 731–36.

[39] Ruth deforest Lamb, *American Chamber of Horrors: The Truth About Food and Drugs* (New York, 1936), 177.

[40] Tangires, *Movable Markets*, 2019.

[41] Persia Campbell, *Consumer Representation in the New Deal* (New York, 1940), 107–8; Jessie Vee Coles, *Standards and Labels for Consumers' Goods* (Berkeley, CA, 1949), 29.

The manufacturers, distributors, and food processors who had helped build the information infrastructure for voluntary standards viewed them as a market tool, not a legal tool, and believed competition in markets was sufficient to motivate businesses to meet the end consumer's concerns, particularly when differences in taste and flavor, discussed below, were at stake. Food companies worried that government-mandated standards would compete with an important new market tool they had developed: branding. By the 1920s American businesses were completing a period in which "the market becomes defined and united by a superior brand or product configuration."[42] Industry leaders had gained control over mass markets by developing strategies to sell their reputation. Brands were an important "distinctive device" that manufacturers could use to counter the price consciousness and price comparison that bargain retailers encouraged.[43] Food companies invested heavily in advertising to build brand loyalty, even litigating competitors who infringed on their trademarked name or undercut their reputation with cheap imitations.

One clear example of this is the Coca-Cola Company. Its core business model was a vast network of bottling companies that produced and shipped its syrup, while it aggressively guarded its secret formula and litigated "bogus substitutes" through trademark laws protecting its name. In 1920, the Coca-Cola Company won an important Supreme Court case against the Koke Company of America, where Justice Oliver Wendell Holmes Jr. conceded, "the drink characterizes the name as much as the name the drink."[44] A positive reputation and well-liked brand was a corporate solution to the information asymmetry caused by the emerging packaged goods and self-service retailing economy. If consumers could no longer turn to the grocer or the market stall proprietor to inform them about a food, then the package, and especially the brand, was a way the producer could "speak" directly to them.[45] By the 1930s and 1940s, people talked about a "battle of the brands" that marked the beginning of a new phase of marketing in America:

[42] Thomas K. McCraw and Richard S. Tedlow, "Henry Ford, Alfred Sloan, and the Three Phases of Marketing," in *Creating Modern Capitalism*, ed. Thomas K. McCraw (Cambridge, MA, 1997), 269.

[43] Jacobs, *Pocketbook Politics*, 33; Tedlow, *New and Improved*.

[44] Tedlow, *New and Improved*, 53–55. For a historical discussion on the relationship between branding and power struggles over value in supply chains, see Paul Duguid, "Brands in Chains," in *Trademarks, Brands, and Competitiveness*, ed. Teresa da Silva Lopes and Paul Duguid (New York, 2010), 138–64; Teresa da Silva Lopes, *Global Brands: The Evolution of Multinationals in Alcoholic Beverages* (Cambridge, U.K., 2007).

[45] Glenn Porter, "Cultural Forces and Commercial Constraints: Designing Packaging in the Twentieth-Century United States," *Journal of Design History* 12, no. 1 (1999): 25–43.

growing the markets for branded goods by extending product lines and deploying strategies of market segmentation.[46]

The introduction of food standards could pose a threat to brands, or it could aid them.[47] It depended on whether government-mandated standards would assess quality—as was the case with USDA voluntary grade labeling, in which case they might contradict branding claims—or simply set a floor, or minimum standard of identity, which would weed out cheap imitators. The growth of trade associations for specific commodities in the food industry created an important lobby for minimum standards. Consumers who purchased a substandard product, bad canned peas, for example, might not just reject that specific brand of peas but potentially view it as a sign that the industry's standards for peas or for canning were unreliable in general and choose to buy something else next time.[48] In 1930, Congress passed the McNary-Mapes Substandard Amendment, which established standards on canned fruits intended to prevent competition with gross examples of deceptively substandard canned foods. The National Canners Association supported the amendment because it created a minimum standard but left it to producers to decide how much they wanted to market different quality grades of produce and whether to put that information on the label for consumers.[49] The canning industry had a particular investment in rooting out substandard products as part of its continued battle to overcome consumer reservations about canned foods as a cheaper alternative to fresh foods.

The canning industry became concerned in 1934, however, when the division administrator of food codes for the New Deal's National Recovery Administration (NRA) proposed the introduction of a government-enforced system of "A B C labels" for ranked quality grades on canned foods. The National Canners Association countered with an alternative "descriptive labeling" system, which would highlight more objective factors used to assess quality, such as size, color, and solidity. While the NRA initiative ultimately failed, ruled unconstitutional by the Supreme Court, the consumer movement—including the American Home Economics Association, the American Association of University Women, and the League of Women Voters—endorsed the inclusion of compulsory A B C grading in the new Food and Drug Act. They saw it

[46] Tedlow, *New and Improved*.

[47] Historians, for example, have shown how large meatpacking companies invited government inspections required in the 1906 Meat Inspection Act as strategy to exclude smaller regional competitors and thereby confer an advantage on established national firms. Mary Yeager, *Competition and Regulation: The Development of Oligopoly in the Meat Packing Industry* (New York, 1981).

[48] "Expanding Food Markets by Quality Standards," *Food Industries* (July 1929): 434.

[49] Zeide, *Canned*.

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press

as part of their broader movement for consumer education.[50] L. V. Burton, editor of the trade journal *Food Industries*, echoed widespread negative sentiment in industry about government-mandated grades when he wrote, "Basically, the fight is whether manufacturers can sell by brands or by grades . . . consumer groups employed by the government seem to be determined to eliminate brands from all merchandising of consumer goods."[51] There would continue to be deep divisions among food firms, including deep-seated hostility toward regulators who interfered in markets, following the NRA and the Agricultural Adjustment Acts in the 1930s.[52]

The debates over quality standards were about what information each side thought consumers were interested in and capable of using. Consumer experts and industry consultants disagreed about the wisdom of government setting standards in the name of the consumer. Christine Frederick, a home economist and author of the influential 1929 guidebook for industry, *Selling Mrs. Consumer*, penned an article titled "Why Women Will Not Buy by Specification," published in the trade magazine *Printer's Ink*, where she attacked Chase and Schlink of Consumers' Research for being out of touch with women shoppers. She argued that they suffered from "slide-rule psychosis" and that Mrs. Consumer "does not make what you might call an engineering appraisal of her shoes . . . [She buys] on a basis very different from the basis on which the Government buys shoes for the army."[53] Most consumer advocates disagreed. In a report to the president titled "The People as Consumers," Robert Lynd made a case that government grading of certain products could simplify and expedite what had become a bewildering process of shopping.[54] Home economist Jessie Coles argued, "Although advertisers sometimes claim that the multiplicity of brands makes for freedom of choice, it may actually complicate the problem of choice. Consumers cannot try out all the brands or even a

[50] L. V. Burton, "Why A B C Grades Won't Work as Well as Descriptive Labels," *Food Industries* 6 (Dec. 1934): 543–44; Zeide, *Canned*, 109–24. On the consumer politics of the National Recovery Administration, see Susie McKellar, "'Seals of Approval': Consumer Representation in 1930s America," *Journal of Design History* 15, no. 1 (2002): 1–13.

[51] Burton, "A B C Grades," 543.

[52] Many believed the government's consumerist policies on grading and standardizing consumer goods were a communist strategy to make consumers distrustful of business. A 1941 report by the Association of National Advertisers, *The Movement for Standardization and Grading of Consumer Goods*, argued such regulations would be the first step toward "government ownership and operation of all business enterprise." Cohen, *Consumer's Republic*, 60. For a contemporary assessment of debates over the NRA and AAA, see Campbell, *Consumer Representation*.

[53] McKellar, "'Seals of Approval,'" 8–9.

[54] Robert Lynd, "The People as Consumer," in *Recent Social Trends in the United States*, vol. 2 (New York, 1933), 857–911.

small portion of them."[55] Her conclusion: simplifying markets with standards made mass selling possible.

Industry representatives also questioned whether the government should get involved in specifying the kind of subjective information required by quality standards. Quality standards, they argued, would require the FDA to get pulled into messy (and difficult to legally defend) debates about how to determine what foods should be classed "fancy" or "choice" versus "standard." Certain descriptive qualities such as the variety of material, size and number of contents, color, and texture or hardness were "definable, measurable, enforceable." Quality standards, one industry analyst stated, would not work because "the purchaser will also like to know about flavor. But, in general, definition of flavor is difficult or impossible."[56] Food researchers in the 1930s were starting to work on objective measures for many sensory qualities of foods; however, flavor was still widely believed to be beyond objective measurement.[57] For this reason, industry representatives argued that "the reputation of the manufacturer," by which they meant the brand, continued to be "a better guarantee than anything one can write into specifications."[58]

After five years of failed legislative efforts, Congress finally passed the Food, Drug, and Cosmetic Act of 1938, its passage helped through by a public scandal over a poorly regulated patent drug, elixir sulfanilamide, that caused numerous deaths. The 1938 FDCA substantially expanded the FDA's oversight over food and drug markets. Instead of waiting for product hazards to appear and then litigating after the fact, the FDA now had new preventive enforcement powers to establish best practices that would prevent food and drug scandals.[59] For food, the main innovation of the legislation was section 401, which empowered

[55] Coles, *Standards and Labels*, 82.

[56] R.S. McBride, "Developing Informative Labels," *Food Industries* (September, 1934): 392.

[57] Charles Mazzola, "Grading Food by a Descriptive Method," *Food Industries* (May 1930): 214–15; L. Charles Mazzola, "How a Formula for Descriptive Labeling Was Developed," *Food Industries* (Aug. 1930): 340–44. Nadia Berenstein describes how food researchers came to develop standard "flavor profiles" in the 1940s and 1950s using psychometric methods and trained taste panels. Companies saw the objective authority of these "taste communities" as a less expensive and more reliable alternative to consulting consumers. Berenstein, "Designing Flavors for Mass Consumption," *The Senses and Society* 13, no. 1 (2018): 25, 31.

[58] McBride, "Developing Informative Labels," 392.

[59] For drugs the main change was the requirement of premarket testing for drugs. This would create a substantial difference in the regulatory scrutiny of drugs versus foods. Product classification between the two became a significant dimension to how the FDA policed product markets. Xaq Frohlich, "The Rise (and Fall) of the Food-Drug Line: Classification, Gatekeepers, and Spatial Mediation in Regulating U.S. Food and Health Markets," in *Risk on the Table: Food Production, Health, and the Environment*, ed. Angela N. H. Creager and Jean-Paul Gaudillière (New York, 2021), 297–329.

the FDA to promulgate standards of identity for all mass-produced foods. Setting identity standards was an opportunity for the FDA to rationalize product lines for nationally marketed foods and to determine what ingredients and additives it felt the public did not want in their food supply.

The final legislation dropped mandatory quality standards and ingredients labeling. These would remain marketing tools used at the manufacturer's discretion. When testifying to Congress on the new legislation, FDA chief Walter G. Campbell said, "The definition and standard of identity, of course, represents the very lowest level of quality at which the article is entitled to be sold under the defined name."[60] The new system set identity standards as a floor. Even with this low bar, implementing FDA food standards would have a dramatic impact on branding for "fabricated" foods, that is, mixtures or compound foods with two or more ingredients. The 1938 FDCA required that a food either bear the "common or usual name," such as "olive oil," and follow section 403(g) in complying with the FDA identity standard for olive oil or follow section 403(i) and list all ingredients in the nonstandard imitation product. The second option, for nonstandard foods to list ingredients, would have been a deterrent to novelty-brand companies worried about revealing trade secrets on their recipes.[61]

While quality standards were dropped from the FDCA legislation, many national producers were starting to see third-party certification, even government quality standards, as advantageous for building confidence in their brands, as long as it was voluntary and not compulsory (see Figure 1). In June 1939, within a year of the FDCA legislation, the USDA Agricultural Marketing Service (AMS) initiated a voluntary quality standards program, which included continuous plant inspection and the use of an AMS shield on product labels for those producers who paid for the government service. First canners, and then many other food industries adopted the USDA's grade labeling program. They did so in part because the FDA had indicated that industry initiatives to create private A B C grade labels, if found to be inaccurate or inconsistent, might be subject to misbranding rules under the FDCA and seized.[62] The USDA's voluntary quality standards would develop in parallel to the FDA mandatory identity standards. They were in some ways much

[60] Wesley E. Forte, "Definitions and Standards of Identity for Foods," *UCLA Law Review* 14 (1967): 807.

[61] Austern, "Food Standards," 132–34.

[62] Industry analysts noted that national manufacturers of branded packaged foods, and chain retailers who were developing generic brands, such as A&P, benefited from the USDA program. Wholesale buyers and jobbers, in contrast, did not because it would reduce competition in markets. Ivan C. Miller, "What's behind U.S. Inspection and What It Involves," *Food Industries* (May 1941): 54–65; "Manufacturers' Brands Benefit."


Figure 1. Dole advertising its consumer-oriented labeling of private quality standards in the June 1929 issue of *Good Housekeeping*. (Source: *Good Housekeeping*, June 1929, 131. Found in Auburn University Library Offsite Storage.)

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press

more visible to the public, because consumers would read the USDA seal on the labels of foods they bought; in other respects, though, USDA quality standards were less subject to the public and political debates that quickly overtook the FDA's compulsory identity standards.

## What Was a "Customary" Industrial Food?

Lawrence Busch notes, "Standards always incorporate a metaphor or simile, either implicitly or explicitly."[63] For FDA standards that metaphor was the traditional recipe. Legislators debating the 1938 FDCA believed creating coded recipes for all mass-produced foods would help to preserve "the time-honored standards employed by housewives and reputable manufacturers." A critic of the system later noted, "Legislators explicitly analogized processed foods purchased in the market to their home-made counterparts."[64] As the FDA started to promulgate proposed standards of identity in 1939 it faced a fundamental challenge: What was a traditional or customary industrial food? There were clear differences between how one baked a pie at home and how food manufacturers baked thousands of pies on an industrial scale. Companies and regulators clashed over whether new trends in food processing and new additives with unknown safety profiles should be incorporated into a food standard. The hearings raised numerous questions about the scope and intent of the original legislation and the FDA's implementation: What were the limits to the FDA's powers to restrict new ingredients in the marketplace? What role would new diet science and food technology be allowed to play as America modernized its food? What did consumers want?

The FDA implemented a transparent procedure for issuing new standards to ensure they incorporated a broad range of stakeholder interests. A Food Standards Committee would first publish a proposed standard in the U.S. *Federal Register* based on initial survey research. The FDA gave at least thirty days' notice before holding what a food industry lawyer described as "an evidentiary trial-type hearing." This included calling witnesses, ranging from government officials and experts to representatives of manufacturers and others in the trade to consumers, who would be placed under oath and subject to cross-examination. A finding of fact based on the hearing was published in the *Federal Register* and was open to further public comment. Then a new definition and standard was promulgated by the FDA under the Title

[63] Busch, *Standards*, 10.

[64] R. A. Merrill and E. M. Collier Jr., "Like Mother Used to Make: An Analysis of FDA Food Standards of Identity," *Columbia Law Review* 74 (1974): 567.

21 Code of Federal Regulations, thus becoming law but still subject to review by courts (see Figure 2).[65] In 1954, the Hale Amendment modified this process, removing the requirement for public hearings if proposed standards were not contested within thirty days of being posted. While the FDA hoped the final food standard it adopted would satisfy the concerns of all or most stakeholders, reaching such a consensus was not required. This would be a marked difference from private, voluntary food standards, which depended on the goodwill of the industries that adopted them.

Different foods raised different concerns at the hearings and attracted different public and private stakeholders. Hearings on canned fruit held from 1940 to 1941, for example, became contentious over whether the standard would include only sugarcane (sucrose) or also corn sugar (dextrose) as a sweetener in the packing medium. The sugarcane industry argued that corn sugar would be a deception of their customers, but then secretary of agriculture Henry A. Wallace, who was from Iowa, was a staunch supporter of corn sugar. Both sweeteners were ultimately allowed.[66] The main debates at the peanut butter hearing were over the minimum percentage of peanut content and whether the standard should include glycerin, commonly used to make peanut butter more spreadable. On ice cream standards there were extended discussions about the minimum required percentage of milk fat.[67] Orange juice hearings in 1961 highlighted the extent to which new processing techniques, such as frozen concentrate and pasteurization, made it possible for industry to design levels of a juice's pulp and sugar content, or Brix, and thereby manipulate what consumers understood to be "fresh," natural, and thus healthy versus an unnatural and unhealthy "reconstituted" drink.[68]

The food standards hearings also became a space where certain citizens' interest groups could rally public opinion. Ruth Desmond, a housewife and "concerned citizen" who sat through ten years of standards hearings, regularly voiced her opinions about FDA rules and whether they reflected the ordinary consumer's interests. She founded the Federation of Homemakers in 1959 and published a quarterly newsletter that was sent to its members. During the peanut butter hearings in the late 1950s and early 1960s, she captured headlines for her snappy

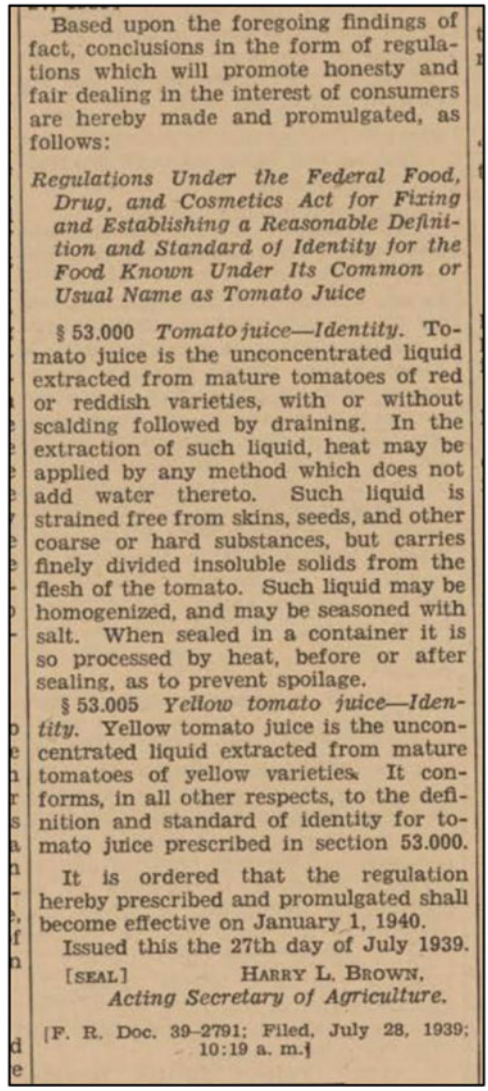
[65] Austern, "Food Standards," 451; Alice L. Edwards, *Product Standards and Labeling for Consumers* (New York, 1940), 53–55.

[66] R. S. McBride, "The Real Issue in the Sweetener Controversy," *Food Industries* (Sept. 1940): 36–37. This decision closed a decades-old debate on the nomenclature of glucose as "corn sugar." Cohen, *Pure Adulterated*, 169.

[67] Junod, "Food Standards," 167–88.

[68] Alissa Hamilton, *Squeezed: What You Don't Know about Orange Juice*, (New Haven, CT, 2009).

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press



Based upon the foregoing findings of fact, conclusions in the form of regulations which will promote honesty and fair dealing in the interest of consumers are hereby made and promulgated, as follows:

*Regulations Under the Federal Food, Drug, and Cosmetics Act for Fixing and Establishing a Reasonable Definition and Standard of Identity for the Food Known Under Its Common or Usual Name as Tomato Juice*

§ 53.000 *Tomato juice—Identity.* Tomato juice is the unconcentrated liquid extracted from mature tomatoes of red or reddish varieties, with or without scalding followed by draining. In the extraction of such liquid, heat may be applied by any method which does not add water thereto. Such liquid is strained free from skins, seeds, and other coarse or hard substances, but carries finely divided insoluble solids from the flesh of the tomato. Such liquid may be homogenized, and may be seasoned with salt. When sealed in a container it is so processed by heat, before or after sealing, as to prevent spoilage.

§ 53.005 *Yellow tomato juice—Identity.* Yellow tomato juice is the unconcentrated liquid extracted from mature tomatoes of yellow varieties. It conforms, in all other respects, to the definition and standard of identity for tomato juice prescribed in section 53.000.

It is ordered that the regulation hereby prescribed and promulgated shall become effective on January 1, 1940.

Issued this the 27th day of July 1939.

[SEAL] HARRY L. BROWN,
*Acting Secretary of Agriculture.*

[F. R. Doc. 39-2791; Filed, July 28, 1939; 10:19 a. m.]

Figure 2. FDA standard for "tomato juice," one of the earliest, published in the July 1939 *Federal Register*. (Source: "Regulations Under the Federal Food, Drug, and Cosmetics Act for Fixing and Establishing a Reasonable Definition and Standard of Identity for the Food Known Under Its Common or Usual Name as Tomato Juice." *Federal Register* 4:145 (July 29, 1939), 3454.)

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press

critiques of company attorneys, arguing that peanut butter containing less than 95 percent peanuts should be called "cold cream."[69]

One of the first tests of the new system of food standards was a series of hearings held for bread products. According to FDA historian Suzanne White Junod, FDA officials at the time had a saying: "anyone with a new food additive or ingredient tried it first in bread."[70] The FDA had already clashed with bread manufacturers in the 1910s over bleached flour. Regulators argued that bleaching flour and then marketing the idea of "whiteness" as quality was food fraud.[71] The bread hearings dragged out over several years, an early sign of the protracted and contentious nature of certain standards hearings. When they began in 1940, on the eve of World War II, regulators and industry were no longer concerned with bleaching. Instead, hearings during the war centered first on vitamin enrichment and then, after the war, on emulsifiers. Doubts about the FDA permitting vitamin enrichment for some foods but not others exposed the contradictions of establishing so-called *customary* standards for *industrial* foods. Should enrichment be limited to "restoring" vitamins to products in which industrial processing had depleted them? Or should vitamins be added to enhance widely consumed standard foods, such as bread, to meet important public health needs? Wartime imperatives won out, and widespread concerns about vitamin deficiencies led the FDA to eventually adopt standards for vitamin-enriched bread so long as it was clearly labeled as such on the package.[72]

After the war the bread standard hearings resumed but became bogged down over disagreements about new emulsifiers used to keep packaged bread soft and "fresh." The postwar bread hearings hinged less on health and more on the question of what consumers wanted. Junod describes with humor how "the question in dispute, therefore, became 'Did consumers conclude from squeezing, that a softer loaf was a fresher loaf'? All the tools of modern psychology and social science were brought to bear on the task of dissociating softness and freshness."[73] The final bread standards were not published until 1950. They excluded some controversial new emulsifiers for being unnatural and deceptive but allowed other emulsifiers because they were derived

[69] Angie M. Boyce, "'When Does It Stop Being Peanut Butter?': FDA Food Standards of Identity, Ruth Desmond, and the Politics of Consumer Activism, 1960s–1970s," *Technology and Culture* 57, no. 1 (2016): 54–79.

[70] Junod, "Food Standards," 181.

[71] Suzanne White [Junod], "Chemistry and Controversy: Regulating the Use of Chemicals in Foods, 1883–1959" (PhD diss., Emory University, 1994), 112–34; Aaron Bobrow-Strain, *White Bread: A Social History of the Store-Bought Loaf* (Boston, 2012).

[72] Rima Apple, *Vitamania: Vitamins in American Culture* (New Brunswick, NJ, 1996).

[73] Junod, "Food Standards," 182.

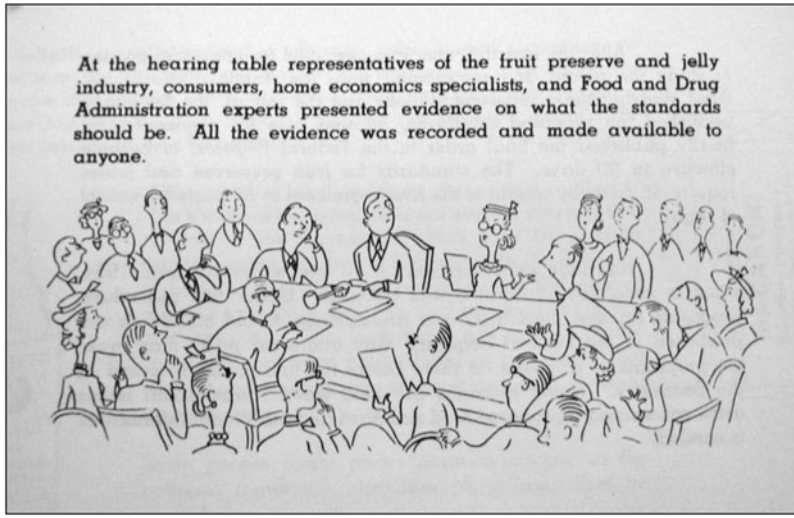



Figure 3. An idyllic illustration of an FDA food standards hearing in a 1961 pamphlet produced by the FDA for consumers. (Source: U.S. Food and Drug Administration, *Read the Label on Foods, Drugs, Devices, and Cosmetics and Household Chemicals* (FDA Publication No. 3 Rev. 3, Washington, DC, 1961). Found in the National Library of Medicine, Bethesda, MD.)

from natural fats and oils.[74] Following the debacle of the bread standards hearings the FDA created a Public Affairs Specialists office whose mission was public outreach and assessing consumers' evolving understandings of standard foods.[75] Far from operating in the background, the FDA would promote consumer awareness about its food standards. Over the next two decades the FDA published informational pamphlets for consumers explaining the role of food standards and how public hearings worked (see Figure 3).[76]

In these early years, litigation continued to be a key battlefront in the FDA's efforts to establish the new system of food standards and federal courts showed the FDA a fair amount of deference in how it chose to interpret consumer confusion. In a 1943 lawsuit known as the Quaker

[74] Clare Gordon Bettencourt, "Like Oil and Water: Food Additives and America's Food Identity Standards in the Mid-Twentieth Century," in *Proteins, Pathologies and Politics: Dietary Innovation and Disease from the Nineteenth Century*, ed. David Gentilcore and Matthew Smith (London, 2019), 165–68.

[75] Linda Bren, "Public Affairs Specialists on the FDA's Front Line," *FDA Consumer* (Nov./Dec. 2002), 31–35.

[76] See, for example, U.S. Food and Drug Administration, *Read the Label on Foods, Drugs, Devices, and Cosmetics and Household Chemicals* (FDA Publication No. 3 Rev. 3, Washington, DC, 1961), National Library of Medicine, Bethesda, MD.

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press

Farina case, courts revisited the matter of what rights companies had to set levels of vitamin enrichment. The Quaker Farina case was a test of the FDA's authority to use standards to simplify markets. The U.S. Supreme Court noted that if manufacturers experimented with the nutritive elements in food "on the basis of economic and merchandising considerations," it would likely lead to an increase in the variety of vitamin-enriched foods. The FDA wanted to restrict these to levels fixed in standards. Companies like Quaker Oats wanted to be free to vary the enrichment levels of their products based on what they saw a market for. The court ruled in favor of the FDA, because "such [market-driven] diversity would tend to confuse and mislead consumers as to the relative value of the need for the several nutritional elements." In other words, "diversity" in the marketplace could itself be taken as a source of confusion that the FDA was entitled to remedy.[77] The Quaker Farina case reflected a potential in the FDA's food standards for policy drift: the means of codifying standards, simplifying the market to make it legible to regulators, at times supplanted the ends, which ostensibly were public health and food safety.

Increasingly, courts, regulators, and food industries came to accept an "imitation" label as a viable path for marketing alternative, nonstandard foods under the FDCA standards system. A product labeled "imitation" implied an inferiority to an original and authentic standard and would have to list its ingredients so consumers knew what was in it. The imitation label offered companies some protection from the FDA when it sought to block their experiments in marketing novel foods. In 1951, in *62 Cases of Jam v. United States*, the Supreme Court rejected the FDA's arguments that "Delicious Brand Imitation Jam" was misbranded because it contained 25 percent fruit instead of the 45 percent required in official jam standards. Since the product was clearly labeled "imitation jam," the court decided consumers who bought it were adequately warned it was an inferior counterfeit. The imitation label requirement also served the FDA's efforts to bring an end to the use of novel branding and playful trademarks to disguise substandard products. In 1953, for example, the FDA seized an imitation ice cream, Rich's Chocolate Chil-Zert, that it claimed was not properly labeled. Chil-Zert was a chocolate-flavored frozen dessert made from soy fat and protein. The package truthfully and clearly stated it was "not an ice cream," but it didn't carry an imitation label. The Supreme Court agreed with the FDA. Its powers to create food standards implied that any substandard products that resembled a food standard, even if

[77] *Federal Security Administration v. Quaker Oats Company*, 318 US 218 (1943).

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truthfully labeled, had to be explicitly labeled an "imitation" of the standard.[78]

Ten years after the passage of the FDCA, FDA assistant commissioner Charles Crawford declared that the new standards system had "brought order out of chaos."[79] Food standards had helped simplify the market into rational classifications, which made it easier for regulators and businesses alike to monitor national markets and litigate any abuses that undermined consumer confidence. FDA standards were proving to be a boon to marketers seeking to build consumer confidence in national markets. Indeed, one management consultant, just a year after the war, acknowledged a changing sentiment among food industries about the recent food legislation: "Previously it was, 'Let the buyer, beware'," while "today, perhaps partially as a result of [the 1938 FDCA], customers read your statements and believe them. They look at your packaging, and believe your claims!"[80] However, the process of market simplification would be undermined by the rapidly growing postwar economy for packaged convenience foods. One sign of cracks in the new system was how the FDA, in the words of one industry lawyer, "fissioned" a food standard as a solution to ingredient battles. The FDA often created multiple identity standards for very similar products with disputed trade names, such as cream cheese versus the low-fat version "neufchâtel cheese," or lima beans versus a slightly different standard color of "butter beans."[81] A bigger problem was the paradox that the FDA first faced at the bread hearings: how to define what was a customary industrial food; the FDA also had to defend why it banned some added ingredients in some foods but permitted others. A wide variety of new industrial ingredients, which came to be classed as "food additives," were being used to make packaged "fabricated foods" more palatable to the consumer.[82] The marketing of additives with certain health claims would pose a particular challenge for the FDA in regard to classifying standard foods.

[78] *United States v. 651 Cases . . . Chocolate Chil-Zert* (1953), discussed in Peter Barton Hutt, Richard Merrill, and Lewis Grossman, *Food and Drug Law: Cases and Materials*, 3rd ed. (Sunderland, U.K., 2007), 181–82.

[79] C. W. Crawford, "Ten Years of Food Standardization" (paper delivered at the meeting of the Food Industries Advisory Committee of the Nutrition Foundation, 19 May 1948), FDA Record Group 88, General Subject Item 1A, Food Tech, Food Standards, Nutrition Labeling, 1924–78, National Archives, College Park, MD.

[80] Richard D. Elwell, "The Top Management Approach to Packaging," in *The Package as a Selling Tool* (Packaging Series Number 19, American Management Association, 1946), 3–4.

[81] Austern, "Food Standards," 443–46.

[82] Maricel V. Maffini and Sarah Vogel, "Defining Food Additives: Origins and Shortfalls of the US Regulatory Framework," in Creager and Gaudillière, *Risk on the Table*, 274–93.

## Deconstructing FDA Food Standards

At its core, the implementation of FDA standards was justified by concerns about food safety and health. Evolving ideas about food-related risk, diet, and health would therefore prove to be the weak link in the system's armor. The FDA's decisions in the early years of food standards reflected a regulatory culture that saw foods as wholesome because food was whole, meaning less processed, and sought to curb the rapid rise in industrial tinkering with food composition. Standards of identity implied that food could be self-evident and that consumers' expectations were relatively uniform. The new "consumer's republic" suggested otherwise. In the 1950s and 1960s the food standards system grew in tension with a changing postwar marketing model. One problem was market segmentation, including brand expansion through niche food products, which was fast replacing the mass-marketing approach of earlier decades.[83] A second problem arose from the flurry of legislation in the late 1950s to regulate the widespread use of food additives in packaged foods. Food additives became a distinct consumer protection concern that went above and beyond the food standards system. As Clare Gordon Bettencourt notes, an ironic consequence of this legislation was that FDA oversight of many additives was increasingly done independently of hearings for identity standards. Persistent public anxieties about additives did not curb their use in convenience foods, however, because working women (who despite working remained the primary homemaker responsible for their household's food purchases) faced time constraints that made processed foods appealing nonetheless.[84]

One market for new food additives that would present a particular challenge for the standards system was "special dietary foods," or foods designed with special health properties to be taken by patients under the care of a physician. The FDA intended these foods to be restricted to a narrow population of people with diagnosed medical conditions, but food, chemical, and pharmaceutical industries saw potential in new diet foods for diversifying their product lines to appeal to broader markets. One example was low-calorie artificial sweeteners. In the 1950s FDA regulators were wary of allowing untested artificial sweeteners into the broader food supply. They classed artificially sweetened products as special dietary foods to restrict them to sick patients whose calculus of risk was different than a healthy consumer's. They also discouraged industry from advertising them to the public. When the pharmaceutical

[83] Tracey Deutsch, *Building a Housewife's Paradise: Gender, Politics and the Emergence of Supermarkets, 1919–1968* (Chapel Hill, NC, 2010), 5; Tedlow, *New and Improved*.
[84] Bettencourt, "Like Oil and Water," 169–73.

company Abbott Laboratories began marketing its new synthetic sweetener cyclamate in the early 1950s under the trade name Sucaryl, it did so only in trade journals targeting the food industry or in medical journals targeting doctors. At the time, the president of Abbott Laboratories, Ernest H. Volwiler, was shifting the company away from its base in pharmaceuticals and diversifying product lines in other markets, including food.[85] By the mid-1950s, Sucaryl advertisements began to describe a "diet-shopper" using ambiguous language that not only reinforced the product's status as a dietetic food but also suggested its potential consumer base was growing beyond patients. By the late 1950s, artificially sweetened diet soda had become a new battlefront in the "Cola Wars."[86] In 1963 Coca-Cola rolled out its cyclamate-sweetened Tab diet soda to diet-conscious but otherwise healthy consumers. By 1965 producers of cyclamate and other artificial sweeteners began mass marketing diet sodas like RC Cola's Diet Rite cola, whose ads asked, "Who's drinking all that Diet-Rite Cola? Everybody."[87] This advertising creep, from targeting sick patients to targeting healthy, diet-conscious consumers, occurred despite no change in the status of cyclamate-sweetened products as a restricted category of special dietary food standards. The FDA chose not to sanction soda companies, but this was one of the issues that prompted it to consider reviewing its special dietary food standards.

A second front in the war on the FDA's food standards system emerged with vitamins. In 1966 the FDA proposed a revision of its standards on special dietary foods, suggesting a variety of new rules that prompted an aggressive backlash from food and supplement industries. One of the main complaints centered on a vitamin proviso the FDA was considering for labels on all dietary supplements: "Vitamins and minerals are supplied in abundant amounts by commonly available foods. Except for persons with special medical needs, there is no scientific basis for recommending routine use of dietary supplements."[88] The FDA saw the label as a compromise. The statement addressed the agency's decades-long battle against misleading vitamin puffery but

[85] Abbott Laboratory's expansion into vitamins in the 1920s proved very profitable. Ernest H. Volwiler, "Editorial: Relationships and Similarities of the Pharmaceutical and Food Industries," *Food Technology* (Nov. 1950): 463–66; Volwiler, interview by James J. Bohning, Lake Forest, IL, 18 Aug. 1986, Oral History Transcript No. 0050, Chemical Heritage Foundation, Philadelphia.

[86] Tedlow, *New and Improved*, 99–106, 110.

[87] Ted Sanchagrin, "Battle of the Brands: Soft Drinks," *Printer's Ink*, 9 Apr. 1965, 21–25.

[88] "FDA Fact Sheet: Regulations for Foods for Special Dietary Uses," binder "9.SpecialDietaryFoods5-1967–1969," personal archives of Peter Barton Hutt, private library of Covington & Burling Law Firm, Washington, DC (hereafter Hutt Archives). On the vitamin proviso label, see Apple, *Vitamania*, 131–40.

still allowed manufacturers to market approved products. Vitamin trade associations, however, distributed materials coaching consumers on how to lobby the government against the new rules. One colorful example is a fictional skit the National Dietary Foods Association paid to have published as an ad in the *Washington Post*. The play was set in "A Dietary Foods Store, one of hundreds of such stores in America." It featured several customers in dialogue with the store proprietor, alarmed to discover that their favorite products would soon be illegal. The customers drew comparisons between 1920s Prohibition and the FDA's new rules on dietary products. The play repeatedly framed the debate around the consumer's freedom of choice and ridiculed the FDA's political posturing as consumer protection. In one typical exchange in the script, the proprietor noted that the FDA claimed there was no scientific basis for routine use of vitamins, to which a customer replied, "Must I provide my government with scientific proof that I need something? Can't I just want it?"[89]

By the time the special dietary standards hearings began in 1968, public confidence in national food policies had reached a historic low. A CBS documentary called *Hunger in America* helped generate widespread public alarm about chronic hunger and malnutrition across the nation. Earlier campaigns by the FDA "against the nutritional 'big lie'—that the American food supply is impoverished and nutritionally deficient"—were suddenly recast in a negative light, and it was an election year.[90] Such was the public scrutiny around the FDA's proposed standards for special dietary foods that California governor Ronald Reagan cited them as yet another example of how government was arbitrarily undermining the freedom of business to run its own affairs:

> Now, . . . [the government] is on the march against vitamin pills. It wants to force industry to put a notice on every bottle of vitamins that you don't need vitamins if you get enough food. If I feel better taking a little vitamin C to ward off a cold, government can keep its sticky labels off my pill bottles. Don't take the regulatory threat lightly. For whether freedom is chipped away bit by bit, or slashed away in one bold legislative stroke, the end effect is the same.[91]

Adding to the chorus of complaints from industry and critics on the political right were complaints by consumer advocates on the left that

[89] National Dietary Foods Association, "Consumers Present to Congress Their View of the Consumer Protection Features of the Vitamin Volstead Act," *Washington Post*, 30 Aug. 1966, A21.

[90] George P. Larrick, "Report on Quackery from the FDA" (paper delivered to the AMA/FDA National Congress on Medical Quackery, Washington, DC, 6 Oct. 1961), 6, binder "FDA Speeches," Hutt Archives.

[91] "FDA Says New Drug Clearance May Be Necessary for High-Level Vitamins," *Food Chemical News*, 24 June 1968, 34.

standard foods had "silent labels," since they did not have to list any ingredients included in the standard.[92] The fallout from these disputes was an erosion of public support for the FDA standards system, and by 1970 the FDA was working to change its approach to regulating food markets.

In 1973 the FDA introduced new guidelines on labeling ingredients and nutrition information that effectively ended the contentious fixed-recipes approach to issuing food standards. In place of promulgating more standards the agency would now require ingredients labeling for all new foods for which there was no standard, and "voluntary" nutrition information labeling for foods that companies chose to enrich with vitamins or to advertise in terms of health properties. It would allow industry to diversify products while keeping consumers informed of product variations. This "informational turn" in how the government regulated food would gain momentum in subsequent decades as the FDA pivoted away from its activist role in consumer protection and toward a new role as information broker.

Meanwhile, voluntary food standardization, including the USDA's grade labeling program, continued to succeed as an industry tool for facilitating global markets. In the 1960s and 1970s, the same period in which the FDA began moving away from its identity standards, regulators from the FDA joined industry and government representatives from around the world in developing a global food safety regime of food standards known as the Codex Alimentarius.[93] While government-mandated food standards in the United States were becoming less important at the national level, a "tripartite standards regime" was emerging at the global level that wove together public and private organizations working to facilitate global trade with only modest government oversight.[94]

## Conclusion

Food standards are different from other standards for several reasons. First, food is not something one expects to be standard. Nature does not come prepackaged. While all standards are human-made conventions, making foods standard clashes directly with

[92] Michael F. Jacobson, *Eater's Digest: The Consumer's Fact-Book of Food Additives* (Garden City, NY, 1972).

[93] Brigit Ramsingh, "The Emergence of International Food Safety Standards and Guidelines: Understanding the Current Landscape through a Historical Approach," *Perspectives in Public Health* 134, no. 4 (2014): 206–15; David E., Winickoff and Douglas M. Bushey, "Science and Power in Global Food Regulation: The Rise of the Codex Alimentarius," *Science, Technology, & Human Values* 35, no. 3 (2010): 356–81.

[94] Loconto and Busch, "Standards, Techno-Economic Networks."

natural diversity and perishability. Food companies had to work continually to overcome that diversity to reassure consumers they could count on the branded packaged food to be the same each time they bought it. Evidence of this challenge can be seen in the accommodations the FDA regularly afforded industry for "variation beyond manufacturer control."[95] Second, food is personal. There is no accounting for taste. Consumers are more likely to question experts' criteria for a standard on something that is so familiar to them.[96] Third, food standards are always a safety concern because the components of the food become a part of the consumer's body. For this reason, the end user is salient. These are reasons why the FDA's food standards inspired public debates in a way that most other technical standards have not. Standards did not simply "sit in the background."[97] The FDA's food standards may not have generated front-page news, but debates about certain standards did regularly make the news and prompted widespread social commentary.

The divergent paths of FDA standards and USDA grades suggest that political debates about food standards have also been debates about what role the government should play in this form of market regulation. Critics of government standards exploited the expectation that food should be simple and self-evident, even though food in the twentieth century was becoming *more* processed and technical, not less. When President Jimmy Carter, owner of a peanut farm, outlined his proposal for regulatory reform at a press conference in 1979, he singled out the FDA's system of identity standards as an example and complained, "It should not have taken 12 years and a hearing record of over 100,000 pages for the FDA to decide what percentage of peanuts there ought to be in peanut butter."[98] Rather than receding into the background, where experts and industry could quietly build consensus, standard-making for food was pulled into the public sphere where experts' views of food were contested. Public stories about regulating food often invited public humor and ridicule. In 1969, for example, the FDA resisted efforts by the Nixon administration to ease standards on hot dogs and allow low-fat alternatives. When Nixon personally intervened,

[95] See, for example, Ira I. Somers, "Quality Control Problems in Nutrition Labeling," *FDC Law Journal* (May 1972): 293, 296–97.

[96] For a similar argument on the limits of expert opinion in food and diet science, see Steven Shapin, "Expertise, Common Sense, and the Atkins Diet," in *Public Science in Liberal Democracy*, ed. Peter W. B. Phillips (Toronto: 2007), 174–93.

[97] Geoffrey C. Bowker and Susan Leigh Star, *Sorting Things out: Classification and Its Consequences* (Cambridge, MA, 2000).

[98] Jimmy Carter, "The President's News Conference," (March 25, 1979), transcript of speech available online through the UC Santa Barbara The American Presidency Project: https://www.presidency.ucsb.edu/node/249337.

explaining that hot dogs had been important in his humble childhood and were a part of his current low-cholesterol diet, newspapers ran headlines such as "Major Administration Shift on Weenie." This humor worked. It suggested the government was incompetent or wasting its time on trivial affairs.[99]

The consequence of public scrutiny of government food standards was disillusionment with the FDA's system. It fed the push in the 1970s for informative labels intended to re-situate choices about food with the end consumer. The FDA seeks no longer to standardize foods but rather to standardize information about food.[100] Consumer advocates in the 1930s would have been dismayed to see informative labeling presented as an alternative to government standards rather than a complement to them. For public advocates, only the combination of standards (to simplify the market) and informative labeling (to aid the consumer in making rational choices) would ensure a retailing environment that empowered and protected consumers instead of confusing them. With the FDA's shift away from standards to regulating through labels, the marketing logic of endless novelty, the diversification of product lines, and promotion of eye-catching food labels drove an explosion of choice at the supermarket.

The FDA was able to largely abandon the identity standards system because it had partly succeeded in doing what it was intended to: simplify the marketplace. The introduction of FDA standards in the 1940s and 1950s paralleled moves by big manufacturers and retailers in the postwar period to curb the multiplication of novelty brands that competed with national brands. Whether this served consumers' interests, however, is unclear. Food standards did not deliver simpler food. Companies continued to expand lines of "fabricated" processed foods that used food additives, and neither FDA standards nor informative labeling did much to deter that. Recent industry efforts to market a "clean label"—that is, listing fewer ingredients on the label of foods that are designed to be (or that at least appear to be) "natural"—suggest a continued unmet consumer demand for making food simple again.[101]

[99] Humor about food standards is a good example of what sociologists Steve Woolgar and Daniel Neyland call "mundane governance," subjects that invite considerable passion and populist pushback in the form of ironic complaints about excessive government policing. Woolgar and Neyland, *Mundane Governance: Ontology and Accountability* (Oxford, 2013).

[100] In 1996 the FDA convened a task force to review its food standards regulations. The task force's report did not come out until 2005, and no final changes were ever approved despite continued debates over whether to update or strengthen enforcement for existing identity standards. "Proposed Rules: Food Standards: General Principles and Food Standards Modernization," *Federal Register* 70, no. 97 (20 May 2005): 29214–35.

[101] Nadia Berenstein, "Clean Label's Dirty Little Secret," *The Counter*, 1 Feb. 2018), https://thecounter.org/clean-label-dirty-little-secret/.

Meanwhile, industry efforts to portray government-mandated standards as overreach, a silly waste of time, or an example of regulatory capture have succeeded in generating pervasive cynicism about FDA standards today. Attempts by the FDA in recent years to revisit identity standards for terms such as "milk" or "yogurt," terms that have been appropriated by many vegetarian and low-fat alternatives, have been criticized as a thinly veiled move by the dairy industry at regulatory capture rather than anything resembling legitimate consumer protection.[102] Today many denigrate the idea that the government needs to standardize food nomenclature, even though the foods that consumers buy depend on continued public and private efforts to do so.

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[102] Joanne S. Hawana, "Food Identity Disputes Continue to Impose High-Profile Pressure on FDA," *National Review*, 21 Aug. 2017, https://www.natlawreview.com/article/food-identity-disputes-continue-to-impose-high-profile-pressure-fda; Candice Choi, "What's Yogurt? Industry Wants Greater Liberty to Use Term," *Associated Press News*, 25 Sept. 2018, https://apnews.com/article/health-north-america-us-news-business-ap-top-news-ee704f59d0604394ae324d7cc0705a24.

https://doi.org/10.1017/S0007680521000726 Published online by Cambridge University Press