

# Food Standards and the Peanut Butter & Jelly Sandwich

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Britain's 1875 and 1899 Sale of Food and Drugs Acts were similar in intent to the 1906 US Pure Food and Drugs Act, as Michael French and Jim Phillips have shown. Both statutes defined food adulterations as a danger to health and as consumer fraud. In Britain, the laws were interpreted and enforced by the Local Government Board and then, from its establishment in 1919, by the Ministry of Health. Issues of health rather than economics, therefore, dominated Britain's regulatory focus. The US Congress, in contrast, rather than assigning enforcement of the 1906 Act to the Public Health Service, or to the Department of Commerce, as some had advocated, charged an originally obscure scientific bureau in the Department of Agriculture with enforcement of its 1906 statute. In the heyday of analytical chemistry, and in the midst of the bacteriological revolution, Congress transformed the Bureau of Chemistry into a regulatory agency, fully expecting that science would be the arbiter of both health and commercial issues. Led by 'crusading chemist' Harvey Washington Wiley, the predecessor of the modern Food and Drug Administration initiated food regulatory policies that were more interventionist from their inception. [1]

Debates about the effects of federal regulation on the US economy have been fierce, with economists and historians on both sides of the issue generating a rich literature. In general, however, the weight of evidence supports the conclusion that business itself benefited from the trials and tribulations of early federal regulation.[2] Eliminating spoilage and waste, while gaining the confidence and good will of consumers, also proved good for business.[3] During World War One, and then amidst the Great Depression, however, this early lesson was revisited. In this setting, it is a uniquely American creation, the peanut butter and jelly sandwich (white bread, jelly, and peanut butter) that both illustrates and contains the basic ingredients of the United States' subsequent food standards programme.

## **Food Standards and the 1906 Act**

Absent from both the British and the US statute was any provision for the establishment of compositional food standards, although in the UK, standards were fixed, largely at the behest of the Board of Agriculture, for butter and milk to protect 'honest' farmers against competition.[4] Food standards had existed since ancient times for standard commodities such as bread, but food adulteration at this time was certainly more pervasive over a broader range of goods.[5] Oleomargarine, saccharin, baking powders, etc. were entirely new commodities competing with traditional foods such as sugar and butter. It was not difficult to condemn formaldehyde used to preserve milk as both a cheat and a danger to health, but it was not known whether borax, for example, could be safely used to preserve meat. The earliest specifications for pure food required, therefore, in defiance of ordinary logic, a committee.

In Britain, as French and Phillips have described, the Society of Public Analysts took up the fight for compositional food standards. In the US, there were similar and parallel efforts by state chemists and state food officials. The earliest food standards were adopted under state laws in order to protect local agricultural commodities, such as pure Vermont maple syrup, from deceptive imitations. The only national standard for a US comestible before 1906 was adopted to prevent substandard teas from being ‘dumped’ in America.[6] In 1897, however, the Association of Official Agricultural Chemists (AOAC) established the first national food standards committee, headed by Wiley. The Bureau’s authoritative studies of food composition and adulteration were already familiar to Congress and the public. The AOAC, which worked to establish and promote uniform methods of food analysis, quickly recognised the need for standards of identity to assist agricultural chemists in interpreting their data. Chemists clearly needed to know what normally comprised a particular food in order to detect deviations. A second food standards committee, more concerned with establishing and enforcing food quality standards, was established shortly thereafter under the auspices of the Association of State Food and Dairy Officials.

### **Scientific Advancements Redefine Standards**

By 1900, the AOAC had published some tentative definitions and standards for a few foods. In 1902, Congress appropriated funds to facilitate and support their work. Shortly thereafter the group began publishing some well researched food standards, just as the final legislative push for enactment of the 1906 Act began.[7] As chemists, their standards for ‘pure’ foods were compositional in content and written in laboratory language citing upper and lower limits for ash content, water content, solids, and fats. In 1904, the Supreme Court ruled in favour of the quality standards established in the 1897 Tea Act.[8] In upholding the law, which blocked the importation of substandard teas, the Supreme Court gave substance to the worst fears of ‘blended’ whiskey manufacturers and those making inferior, often chemically preserved, foods. Fearing that any kind of legal food standards would be used to declare their products illegal, their collective reaction was swift and powerful. Sympathetic Senators cut all appropriations for food standards work and eliminated all provisions for legal food standards in the pending food and drug bill.[9] Wiley bitterly lamented the outcome, writing to Food Standards Committee chairman William Frear that ‘I do not think any more vicious thing ever happened in the modern history of American legislation than this’, and concluding that ‘the first great legislative victory has been won by the opposition’.[10]

After more than twenty-five years of proposals, counterproposals, bills defeated, and bills allowed to die in benevolent and not-so-benevolent desuetude, the 1906 Pure Food and Drugs Act became law in 1906. Historians generally credit the slump in meat sales following publication of Upton Sinclair’s socialist novel, *The Jungle*, with the final push for enactment. According to Lawrence Friedman, *The Jungle* ‘made a point that the food industry understood better than sentiment or socialism. If pure food legislation would restore public confidence ... it was well worth the price of regulation, at least for the reputable firms.’[11]

Although legal standards for foods had been defeated, the earlier standards already published did prove useful.[12] Some were incorporated into state statutes.[13] In other states, they remained ‘advisory standards’. Legally, they were subject to cross-examination in court where some

standards were upheld and others overturned. Eventually, the early standards became increasingly outdated as science and technology changed. By 1923, Congress itself dictated a national standard of identity for butter. [14]

The 1906 law outlawed any food that was ‘an imitation of or offered for sale under the distinctive name of another article’, but considered such food legal if tagged ‘so as to plainly indicate that they are compounds, imitations, or blends’. [15] Initially officials felt that such derogatory terms would protect traditional foods, but without standards of identity to assign a ‘distinctive name’ to a familiar food, the provision offered little protection. In 1909, a jury condemned Mapleine, a product held misbranded for falsely claiming ‘to contain a product of the maple tree’. [16] Despite this condemnation, the judge effectively defined a legal loophole. He instructed the jury that a distinctive name was ‘either one so arbitrary or fanciful as to clearly distinguish it from all other things, or one which by common use has come to mean a substance clearly distinguishable by the public from everything else’ [17] In 1916, the Supreme Court ruled that the popular beverage ‘Coca Cola’ met these criteria. [18] From that point on, distinctive names became an important legal defence for manufacturers as well as an opening wedge for government prosecutions. By the late twenties, the issue was sufficiently confusing that at least one judge openly questioned the law’s intent. [19]

### **Advisory Food Standards under the 1906 Act: Jelly Jarred**

Under the 1906 Act, the Bureau of Chemistry prosecuted, generally unsuccessfully, accurately labelled products such as ‘Fruits in Sugar – Strawberry. Not a Preserve’. [20] Wiley’s successor, Carl Alsberg reconstituted a Joint Committee on Definitions and Standards in 1914. [21] The Committee’s new standards were published between 1913 and 1938 in Service and Regulatory Announcements (SRA) as a guide to enforcement actions. [22] For jams and preserves, the Joint Committee adopted a standard specifying not less than 45 lb. of fruit to each 55 lb. of sugar. In 1917, in anticipation of World War One, SRA 20 allowed for the addition of pectin to fruits with too little pectin ‘as long as it did not disguise damage or inferiority and the presence of the added pectin was noted on the label’. [23] The war created a marked expansion in the jam, jelly, and preserve industry to supply US and allied troops. Afterwards, the industry was overbuilt and sought volume sales with low prices. By 1919, Robert Douglas had patented a process for producing refined pectin, making it possible to make better preserves without using green fruit, but also making it possible to make a jelly without using fruit at all. Regulators, concerned that pectin was being used to cheapen jams, convened a trade hearing on 16 April 1924.

In June, the Supreme Court issued a landmark ruling against deceptive apple cider vinegar. Regulators were optimistic when the judges stated unequivocally that ‘the statute is plain and direct. Its comprehensive terms condemn every statement, design, and device which may mislead or deceive’, and admonished that ‘it is not difficult to choose statements, designs, and devices which will not deceive’. [24] Commissioner Charles A. Browne, taking the justices at their word, promptly notified preservers that no action would be taken against products with 25–45 lb. of fruit for every 55 lb. of sugar, and containing pectin, if they bore a compound label. Officials illustrated just how such a compound product should appear in comparison with a jar of pure strawberry jam. With such an austere label, they felt consumers would not be likely to confuse the two products (Figure 11.1).



Figure 11.1 Proposed label for 'compound product'.

Not surprisingly, manufacturers of the compound jams were less enthusiastic. Meanwhile, the Food and Drug Administration (FDA) continued to fight off amendments by proponents of corn syrup which would have allowed the use of cheaper corn sugar in place of expensive cane sugar without declaring it on the label.[25] Rejecting the government's compound label, many companies became even more bold and inventive in creating 'distinctive names' for their products, including one company that created an entire line of low fruit products coloured and flavoured to resemble preserves. Packaged in expensive glass jars and given the fanciful and 'distinctive' yet meaningless name, BRED-SPRED [sic], it quickly became a regulatory target for both state and federal officials. Bred-Spred typified the kind of inferior product that had begun to compete with the products of traditional jam and jelly manufacturers after the war, but its attractive packaging and aggressive advertising lent an appeal that previous compound products had lacked. Both in 1927 and again in 1931, the government lost in court. The courts were not persuaded by the government's argument that the product was adulterated because pectin had lowered its quality and concealed inferiority, or that it was misbranded because it was an imitation of jam with deceptive 'pictorial designs' of fruit on the label. The Department of Justice refused to refer the case to the Supreme Court, leaving the Bureau of Chemistry to lament the 'untold difficulty' caused by the distinctive name proviso and taking the unusual step of recommending its repeal.[26] Similarly, 'Salad Bouquet', weak vinegar promoted for use 'like vinegar', and 'Peanut Spred', with a low proportion of peanuts, were also marketed under 'distinctive' names. (Figure 11.2).



Figure 11.2 Inferior products marketed under 'distinctive names'.

### The McNary-Mapes Amendment

Meanwhile, pressure was mounting on the Department of Agriculture to adopt quality grade labelling for canned foods. Women's groups and home economists were strong advocates for such standards.[27] The majority of the canning industry and the National Canners' Association, however, opposed quality grade labelling, believing that housewives would want only high quality products. Nonetheless, concerned about competition with truly low-grade, branded products, they persuaded Congress to pass the McNary-Mapes amendment to the 1906 Act in 1930.[28]

The amendment authorised standards of quality, condition, and/or fill-of-container for most heat-sterilised, hermetically sealed canned foods. It did not authorise definitions and standards of identity, and without funding, the initial work was done only on peas (Figure 11.3), peaches, apricots, cherries, pears, and tomatoes.[29] Substandard products had to display a so-called 'crepe label': 'below U.S. standard, low quality but not illegal'.[30]



Figure 11.3 Consumers judging peas following the McNary-Mapes amendment.

Preservers tried to get their standards included under this law, but the Secretary of Agriculture refused to extend the statute to jarred products.[31] FDA also supported the industry's unsuccessful efforts to get Congress to enact legal standards for jams and jellies.[32] In 1933, however, as part of President Franklin Roosevelt's 'New Deal', the National Industrial Recovery Act (NIRA) was passed, which included provision for the establishment of Codes of Fair Practice to be enforced by a new agency, the National Recovery Administration (NRA). Preservers adopted one of the earliest codes containing quality standards. In contrast, the canned food industry, with support from grocery manufacturers, adamantly opposed the inclusion of any quality food provision in the Canner's Code. Still convinced that consumers preferred brands to any system of quality designations, the industry prevailed. Nevertheless, they were surprised when, contrary to their wishes, an Executive Order was issued requiring industry to formulate quality standards for eventual incorporation into the canned food code.[33]

The NRA scheme was short lived, its Blue Eagle symbol of compliance brought down by the US Supreme Court in the infamous 'sick chicken' case. In 1935, a poultry producer challenged the authority of the NRA to enforce the industry Code forbidding transport of allegedly ill or unfit chickens. The Court unanimously ruled that a federal agency such as NRA had no jurisdiction over interstate commerce. [34] Although historians generally consider the NRA a failure, some enduring successes, such as eliminating child labour in textile factories, did demonstrate the merits of many rational policies promoted by trade associations.[35] The National Preservers' Association enlisted the aid of the Federal Trade Commission (FTC) in 1936, which did issue 'cease and desist' orders against violators, but on a case by case basis.[36]

FDA experts testified at the FTC preserve hearings, but the agency's attention was focused, beginning in 1933, on drafting and passing a new federal food and drug act to replace the 1906 'Wiley' Act. The economic depression had left the food field in a 'jam'; pesticides were increasingly problematic; misleading drug advertisements and drug prosecutions were on the upswing; and cosmetics with dangerous ingredients remained unregulated. New Deal Secretary of Agriculture, Rexford Tugwell, secured permission from President Roosevelt to begin drafting a new food and drug bill.[37] The initial 'Tugwell' bill drew such a hostile response from industry that Senator Royal Copeland took up the cause for a new act.[38] Weak standards modelled on McNary-Mapes were expanded to all foods in his initial revision of the food and drug bill, but Copeland was soon persuaded by women's organisations at the first hearings on the bill in 1934, that the standards provisions should be strengthened. Alice Edwards conveyed the personal support of the President's wife, Eleanor Roosevelt, for quality grade labelling at the hearings. Representing the American Home Economic Association, Edwards testified that such standards were 'highly desirable from the point of view of the consumer, for the good of the industry itself, and for the building of consumer confidence in the advertising of these products'. [39] Women's groups also championed value for the consumer. Citing current economic hardships, Edwards advocated standards to fight against 'economic injustices' noting that 'if the commodity is one that does not give the consumer value for his money he should have an opportunity to know this even if the commodity is not so inferior as to injure health.[40] Harvey Wiley's widow also appeared in support of a revised bill, even though it would replace her husband's chief legacy. She complained that of nearly nine hours of hearings, only twenty-five minutes had been devoted to views of consumers, and made it clear that, in her view, food standards had the firm support of consumers.[41] Apart from the jam industry, women remained

almost exclusively the ones championing food standards for the new law. Historian Charles Jackson notes that ‘what distinguished them [women’s groups] from militant bodies such as Consumers’ Research was that failure to get all they wanted had little effect on their zeal’.[42]

### **The American Chamber of Horrors**

Consumers’ Research, a pioneer in US consumer advocacy, launched the opening volley in the consumer war with publication in 1933 of *100,000,000 Guinea Pigs* by Arthur Kallet and Frederick Schlink. [43] To illustrate the need for a new law, FDA officials had assembled a collection of problem products. Initially merely an exhibit for Congress, publication of Kallet and Schlink’s book elevated the collection into a public relations tool, particularly when Eleanor Roosevelt, a tireless advocate of causes, toured the exhibit.[44] A reporter accompanying her in 1933 dubbed it ‘The American Chamber of Horrors’ (Figure 11.4).



Figure 11.4 Commissioner Larrick explaining the Chamber of Horrors exhibit.

Even by the standards of the day, the ‘Chamber of Horrors’ was not an exciting exhibit. It was, however, both truthful and provocative, persuading many companies to change their ways just to secure removal from the exhibit. A major part of the food portion of the exhibit was devoted to explaining the need for various kinds of food standards. Products such as malted milk (Figure 11.5), egg noodles (Figure 11.6), and jarred chicken products (Figures 11.7–11.8) all required standards of identity in order for consumers to know what they were buying, since neither price nor packaging were reliable guides.

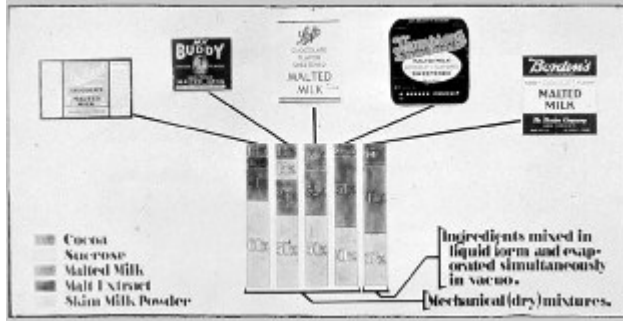


Figure 11.5 This exhibit emphasized the need for a definition or standard of identity for malted milk.



Figure 11.7 Deceptive packaging; jarred chicken, dark meat hidden under the label.



Figure 11.6 Deceptive packaging: egg noodles.



Figure 11.8 Exhibit illustrating the need for compositional standards.

One of the most problematic products for advocates of food standards was ice cream (FIGURE 11.9). Fat was considered the most valuable ingredient, and this ingredient was widely variable. Before home freezers were available, most ice cream was locally produced and consumers were often loyal to the ice cream to which they were accustomed, regardless of its fat content. Regulators believed labelling the cream content was the best way to insure that the consumer got what was expected.



Figure 11.9 This image shows how the manufacturer of ice cream can fool the consumer in their labelling of the cream content.



Several panels of the exhibit explained both the McNary-Mapes amendment (Figure 11.10) and the need to expand its provisions to other foods. The ‘distinctive name proviso’ had created immense confusion over the labelling and adulteration of maple syrup under the 1906 Act (Figure 11.11). In one panel, regulators tried to show that the ‘descriptive labelling’ advocated by some manufacturers as a model for the new statute, would still not correct basic deception in the marketing of maple flavoured syrups (Figure 11.12).



Figure 11.10 Packed in glass like these examples, it is easy to pick the higher quality product. This exhibit makes the case for standards of quality.



Figure 11.11 Shows the same products were labeled differently in states that required descriptive labelling.

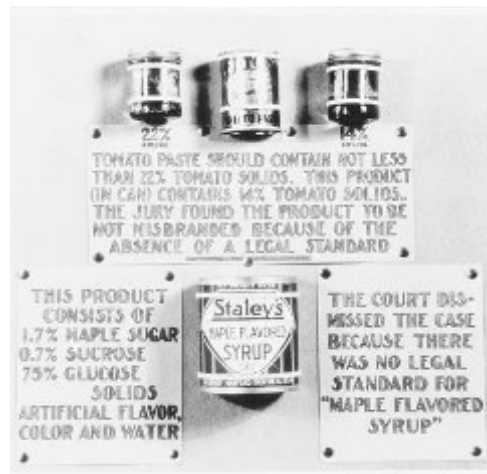


Figure 11.12 No legal standard for tomato paste or for maple flavoured syrup.

Finally, the Chamber of Horrors dramatically illustrated the use of deceptive containers. McNary-Mapes had eliminated some deceptive packaging in the canned foods industry (Figures 11.13 and 11.14), but deceptively large boxes, some with false bottoms (Figure 11.15), and bottles clearly designed to deceive, remained an important problem. Fill of container was an important economic issue. Expensive flavouring extracts and teas were easy targets.



Figure 11.15 Deceptive packaging with false bottoms continued to be a problem.



Figure 11.16 Vanilla extract packaging before and after the McNary-Mapes amendment.

Figure 11.17 Deceptive packaging with false bottoms continued to be a problem.

## Raising Public Awareness

The Chamber of Horrors was visually persuasive, illustrating vividly the old clichés about the worth of a picture and the one bad apple that spoils the barrel. The food industry, its trade associations and its lawyers, could and did argue that these examples were unusual, even rare, but the fact that such products existed and were easily recognised by consumers accustomed to trusting brand names made the case for regulation all the more compelling. Consumers, moreover, were more likely to accept the need for all standards proposed in the exhibit than to quibble over the merits of quality standards as opposed to standards of identity and fill of container.

The popular exhibit was displayed at the White House and the Chicago World's Fair, inspiring FDA's Chief Educational Officer, Ruth deForest Lamb, to employ a leave of absence to write a book by the same title. Where Kallet and Schlink simply condemned governmental inaction, Lamb exposed the legal weaknesses in the 1906 Act that frustrated government efforts. She also documented the less than forthright tactics employed by many industries, advertisers, trade associations, and lawyers to thwart enactment of effective regulation. Lamb was hardly a disinterested observer, but she also advocated a different kind of consumerism. Kallet and

Schlink portrayed consumers as rather hapless victims, but she cleverly dedicated her book to the host of women's organisations that were actively and effectively sponsoring the new law being debated in Congress. In the American Chamber of Horrors, Lamb's chapter on food standards was apparently persuasive. Lamb herself was pleased at the book's reception remarking that

... the only thing that makes me apprehensive is the number of endorsements from the trade press ... When the 'American Grocer' appears to endorse my chapter on standards I am inclined to think there is something wrong with the chapter. [45]

Late nineteenth century reform journalists known as muckrakers had been influential in persuading the public to support the 1906 Act. Likewise, consumer advocates such as Lamb, Kallet and Schlink proved equally influential in the legislative battle to enact a new food and drug law and were soon nicknamed 'guinea pig muckrakers'.

### **The 1938 Food, Drug, and Cosmetic Act**

More consumer-oriented than its predecessor, the 1938 Food, Drug, and Cosmetic Act was a watershed in US food policy. In contrast to the limited health-based standards that the Ministry of Health proposed in Britain during the Depression, the US, largely through the efforts of women's groups, pioneered policies designed to protect the pocketbooks of consumers, and food standards were enacted to ensure the 'value expected' by consumers.[46] The 1938 Act eliminated the 'distinctive name proviso' and required instead that the label of a food 'bear its common or usual name'. The food would be misbranded if it represented itself as a standardised food unless it conformed to that standard. The law provided for three kinds of food standards: 1) standards (definitions) of identity, 2) standards of quality, and 3) standards regulating the fill of container. Regulators had the discretionary authority to set standards 'whenever in the judgment of the Secretary such action will promote honesty and fair dealing in the interests of consumers'.[47]

### **Food Standards Under the 1938 Food, Drug, and Cosmetic Act: Bread and Jam**

But what was a food standard to look like? Congress thought that standards of identity would resemble a 'recipe'.[48] Foods would be defined in terms of home recipes for goods consumers could readily identify and one would find in any well-stocked pantry. FDA supported the concept of a recipe approach because it simplified enforcement. Lawyers, major food companies, and ingredient manufacturers had few objections because in many cases the standards recognised and even promoted the use of certain products and ingredients. Competitors met on a level playing field encompassing both foreign and domestic food manufacturers.[49]

The first standards issued were for tomato products, settling a long-standing dispute over the use of benzoate of soda as a preservative.[50] The standard did not recognise benzoate of soda as an ingredient, either mandatory or optional, in ketchup.[51] The second set of standards was for jams and jellies. It was a relatively easy standard to establish, since cookbooks over two hundred years old all agreed that jellies should be about half fruit or juice and half sugar, but its symbolic value was high. In a crushing blow, however, the Supreme Court ruled that a product labelled 'Delicious Brand Imitation Jam' with only 25 per cent fruit, instead of the 45 per cent required

under the standard, could be marketed conspicuously labelled as an ‘imitation’.[52] FDA had argued that Congress had not intended that such a product be marketed at all, since it did not meet the standard, and was marketed in competition with standardised products. In practice, the word ‘imitation’ did not prove commercially popular and was rarely used.

The recipe approach worked well with simple recipes during the 1940s and early 1950s and was upheld by the courts.[53] Recipe standards for enriched foods helped eliminate a number of nutritional deficiency diseases in the post-war era, particularly in southern states.[54] When challenged, the Supreme Court upheld the government’s approach, ruling that manufacturers had to adhere to the mandated formula in the standards or cease to enrich their foods altogether.[55] By 1957, standards had been set for many varieties of chocolate, flour, cereals and cereal grains, macaroni products, bakery products, milk and cream, cheese, butter, non-fat milk solids, dressings (mayonnaise), canned fruits, juices, preserves and jellies, shellfish, canned tuna, eggs, margarine, and canned vegetables.

### **Standards Hearings and Chemical Additives**

In 1954, hearing procedures were modified to waive hearings in undisputed cases. The amendment, however, also allowed ‘any interested person’ to initiate the standard-setting process. These procedural changes made the hearing process unwieldy, undermining FDA’s own food agenda, and creating an open forum for trade wars.[56] What Congress had intended to be a fact-finding process began to resemble a trial between adversaries. The hearings to set standards for enriched white bread best illustrates the new complexities in the food standards process by the mid-twentieth century.[57]

FDA officials had a saying based on years of regulatory work that anyone with a new food additive or ingredient tried it first in bread.[58] With little information about the safety of some of these proposed new ingredients, FDA turned to the standards hearings as one way to limit the introduction of new chemicals into the food supply. In the earliest bread hearings, begun in 1941, there had been minor disputes over the suitability of several new ingredients including mono and di-glycerides, hydrogenated shortening, soy lecithin, and some so-called dough ‘conditioners’. The final standards allowed most of the former ingredients, but disallowed some of the dough conditioners. World War Two then intervened and these standards were put on hold. During the war, bread was subject to a war food order mandating enrichment. After the war, when the bread hearings were re-opened, FDA elected not to mandate enrichment, but rather to write separate standards for enriched and for non-enriched products. The hearings, however, quickly began to revolve around the admission as optional ingredients in standardised bread of a new class of additives, known as polyoxyethylene monostearates (POEMS). The substance was variously described as an emulsifier, a ‘crumb softener’, a ‘staling retardant’, and an additive ‘to prolong palatability and softness’. Had the manufacturer limited its petition to a few products from this new line of chemical additives, observers felt that they might have been successful. It was painfully clear to everyone at the hearings, however, that all twenty-seven emulsifiers had not been subjected to the same level of scientific scrutiny for either safety or suitability for use in bread. Of course, the Institute of Shortening Manufacturers and Edible Oils opposed the inclusion of this new class of competitive ingredients in the standards for white bread, and ably represented by a future Supreme Court Justice, Potter Stewart, they successfully converted the

hearings into a full-fledged trade war.

The government, in a thankless attempt to locate more neutral grounds for debate, could not simply express its concerns about the safety of the new emulsifiers and the adequacy of their testing. Instead, under the law, the government had to show that the new ingredients would not promote ‘honesty and fair dealing in the interests of consumers’. FDA, therefore, began to build its case trying to show that the softeners deceived customers as to the freshness of a loaf of bread. It was this issue, more than any other, that led the hearings into absurdity. Consumers, it was universally acknowledged, tested bread by squeezing the loaf. 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. In a supervised taste test, women were simply asked to indicate a preference for one of two slices of bread, and to choose which one seemed fresher. Straightforwardly, it was reported that four of five women chose the bread with the softener as the fresher loaf. A statistician giving evidence for the defense, however, insisted that the more accurate conclusion was that ‘1100 consumers preferred soft bread and those who preferred soft bread preferred the bread made with the softener. Those who preferred firm bread, however, had noticed no differences between the control bread and the test bread’. Finally, the statistician testified that ‘for those who prefer the soft bread, the test bread is preferred both for its softness and for the factors other than softness (presumably taste, texture, grain, etc.) while the control bread is preferred for its firmness.’ This profound conclusion so confounded lawyers and listeners alike that the statistician was held over for cross-examination the next day. And so it went for day after day of the bread hearings. It was not until 1950 that a Federal Register notice formally announced the exclusion of POEMS from the standards of identity for white bread.[59]

Meanwhile, Congress appointed a Select Committee to Investigate the Use of Chemicals in Food Products.[60] This Committee’s work led to the passage of the 1958 Food Additives Amendment which established a pre-market approval process for new food additives similar to that applied to new drugs, requiring new food additives to be shown safe and suitable before they were allowed in food products.[61] A similar Color Additives Amendment was enacted in 1960.[62] Scientific petitions on food safety replaced pitched battles over food standards. Although the new amendments removed additive safety debates from the standards process, they did not noticeably speed up the process, and it still took over a decade to issue standards for peanut butter.

### **Food Standard Innovations: Peanut Butter's Sticky Standard**

By 1958, new food products, and a newly competitive refrigerated and frozen goods industry that developed after the Second World War, had redefined the household pantry fundamentally. With more new processed and fabricated foods, less time could be devoted to issuing refined standards for variations on traditional foods such as raisin bread and egg bread. More time had to be spent establishing new standards for products such as frozen orange juice, frozen ‘TV’ dinners, frozen breaded shrimp, freeze dried coffee, and ‘instant chocolate drinks’. The recipe concept proved ill suited to such widespread innovation in the food industry. Moreover, it did nothing to inform consumers about the composition of standardised foods.[63] Standardised foods had to list only the ingredients that were listed as optional in the food standard for that product on the product label, rather than listing all the mandated ingredients in the food standard. Ironically, consumers

knew less about the contents of standardised foods than about foods for which there were no standards. Non-standardised foods had to list all of their ingredients on the food label.[64]

Following enactment of the Food Additives amendment, FDA began to experiment with less restrictive food standards. In 1961, FDA first deviated from the recipe approach when it issued standards for ‘frozen raw breaded shrimp’ which simply provided for the use of ‘safe and suitable’ batter and breading ingredients, rather than listing all optional ingredients individually.[65] A legal definition of ‘safe and suitable’ was later codified and used to allow ‘safe and suitable preservatives’ or ‘safe and suitable emulsifiers’.[66]

## **Debating Peanut Butter**

The peanut butter hearings were launched before this period of regulatory innovation and relaxation of standards. In 1940, peanut butter manufacturers had inquired about the addition of glycerin to peanut butter to prevent oil separation. FDA’s response was ambivalent: if glycerin could be added without rendering the food adulterated, its addition would have to be set forth prominently on the product label. The term ‘peanut butter’, wrote the agency, ‘is generally understood ... to mean a product consisting solely of ground roasted peanuts, with or without a small quantity of added salt’.[67] Perhaps fearing another bread battle over ingredients, FDA waited until after the Food Additives amendment was passed to launch its assault on inferior peanut butters. A 1959 press release explained that a survey had shown that products labelled ‘peanut butter’ had reduced their peanut content as much as 20 per cent, by substituting cheaper hydrogenated or vegetable oils for expensive peanuts and peanut oil. FDA proposed a standard for peanut butter consisting of 95 per cent peanuts and 5 per cent optional ingredients including salt, sugar, dextrose, honey, or hydrogenated or partially hydrogenated peanut oil.[68] Although regulators considered this an adulteration issue, it was clear that consumers often preferred peanut butter that spread more easily as well as peanut butter that had some sweetening. In 1961, therefore, FDA proposed a standard recognising 90 per cent peanuts as well as some additional sweeteners. Three competitive brands of peanut butter then entered the standards battle: Skippy, Jif, and Peter Pan. The public evidentiary hearing alone, a small fragment in the decade long process, took twenty weeks and produced a transcript of nearly 8,000 pages. A prominent attorney on the case wryly observed that the peanut butter standards ‘put many lawyers’ children through college’. Participants began to feel that they were close to arguing about the number of angels dancing on the head of a pin when it became clear that the disagreement between the industrial protagonists was over a mere 3 per cent difference in proposed peanut content. In the end, the government did prevail as the US Appeals Court affirmed the FDA order setting standards for peanut butter at no less than 90 percent for peanuts and no more than 55 percent fat. The court found the Commissioner’s findings to be based upon substantial evidence and the promulgation of such standards within his authority. It was not a sweet victory, however. The peanut butter standards had merely underscored growing concerns that the food standards programme in the US had outgrown its usefulness.[69] As the standards setting process had grown increasingly complex and time-consuming, it was the peanut butter hearings that made it clear that strict standards were not only a waste of time and money, but actually and ultimately worked to the detriment of both business and consumers.

## **From Standards to Consumer Education**

Experimentation and innovation in the food standards process, first apparent in 1961 in the frozen shrimp standards, were propelled forward in 1969 following the White House Conference on Food, Nutrition, and Health convened by President Richard Nixon. An era of regulatory reform followed which transformed and modernised the food standards program with a new emphasis on food labels and nutrition. Law professor Richard Merrill expressed the new consensus, ‘we conclude that regulation should shift away from controlling food composition and focus on providing consumers with more complete information about foods’.[70] FDA, led by an innovative General Counsel, Peter Hutt, took steps to insure that regulatory practices did not stand in the way of innovative food products, provided new products were safe and informatively labelled. Freed from formulas, the ideals of a free food marketplace were close to being met during the 1970s. The agency encouraged more extensive ingredient labelling in general, and amended food standards to require the labelling of non-mandatory ingredients. A substitute food was designated ‘imitation’ only if it was nutritionally inferior to the original product. In the case of jams and jellies, this opened up the market for ‘fruit spreads’ which had less sugar and more fruit – a far cry from the era of BRED-SPRED. Non-standardised products were authorised to state exactly what the product was, so that a food standard would be unnecessary. For example, ‘SEAFOOD COCKTAIL: contains X% seafood’.

Increased industry and consumer concerns about healthy diets led to the 1978 regulations on the labelling of reduced calorie and low-calorie foods.[71] In 1994, when Skippy, Jif, and Peter Pan all developed lower-fat peanut butters, FDA agreed with competitors that the product did not meet FDA’s hard fought standards. The agency notified the makers that the new products could be called ‘spreads’ and compared with regular peanut butter on the label, or they could petition FDA to change the standard definition.[72] In an era of affluence accompanied by increased concerns about the relation between nutrition and health, the reduced fat peanut spreads have found a steady market and the standard has remained intact. Basic foods are still wholesome. They are competitive, now, however, not by strictly regulating every ingredient, optional and otherwise in the finished product, but through the standard format of mandatory nutritional food labels.[73]



Figure 11.20 Modern peanut butter and peanut spread labels.

Expansive labelling addresses many concerns over food composition. It allows the consumer to evaluate differences between branded and non-branded (generic) products, as well as to weigh the virtue of a modified food (low-fat, low-sodium, low calorie, etc.) against an unmodified product. The label reveals all food ingredients including food additives and food fortifications. It also offers nutritional profiles as a guide to achieving a more balanced diet. Fat, fibre, sugar, and sodium specifications have made this label the most widely read standard in American history.

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## Endnotes

- [1] In 1927, the regulatory part of the Bureau of Chemistry became the Food, Drug, Insecticide Administration, renamed the Food and Drug Administration in 1930. Extensive documentation on the history of FDA is maintained in the FDA History Office, Rockville, MD.
- [2] J. Young, *Pure Food*, Princeton, NJ, Princeton University Press, 1989, pp. 273–291.
- [3] *Federal Food, Drug, and Cosmetic Law Administrative Reports, 1908-1949*, New York, Commerce Clearing House, 1951, p. 355. Hereafter cited as *Annual Reports*.
- [4] See Chapter 2 for details concerning the development of British legislation.
- [5] P. B. Hutt and P. B. Hutt II, 'A History of Government Regulation of Adulteration and Misbranding of Food,' *Food, Drug, and Cosmetic Law Journal*, 1984, vol. 39, pp. 2–73.
- [6] 29 Stat 604 (March 2, 1897). S. White Junod, 'Tempest in the Teapot,' *FDLI Update*, 1996, vol. 2, issues 2 and 3, p. 6.
- [7] US Department of Agriculture, Office of the Secretary, *Standards of Purity for Food Products*, Circular 10, Washington, 1903 (also Circulars 13, 17, and 19).
- [8] *William J. Buttfield v. Nevada N. Stranahan*, 1904, 192 U.S. 470.
- [9] O. Anderson, *The Health of A Nation*, Chicago, University of Chicago Press, 1958, pp. 153–4; Young, *op. cit.*, pp. 161, 162, 264, 265.
- [10] H. W. Wiley to William Frear, 25 May 1906, FDA History Office, Rockville, MD (hereafter FDAHO) file 'Letters showing history and growth of food standards'.
- [11] L. M. Friedman, *A History of American Law*, New York, Simon and Schuster, 1973, p. 586.
- [12] B. Gutterman and T. Bellis, 'Food Standards – A Brief History', unpublished ms., 1965, FDAHO, Food Standards file.
- [13] *Savage v. Jones*, 1912, 225 U.S. 501.
- [14] 42 Stat. 1500 (1923).
- [15] 34 Stat. 669, 674 (1906), Section 8.



[16] M. White and O. Gates, *Decisions of Courts in Cases Under the Federal Food and Drugs Act*, Washington D.C., GPO, 1934, p. 39.

[17] *Ibid.*, p. 40.

[18] *Ibid.*, p. 741.

[19] *Ibid.*, p. 1204.

[20] W. Janssen, 'A Case History on Food Standards', speech delivered to the Annual Convention of the National Preservers Association, Chicago, Illinois, 3 March 1952, p. 3, FDAHO, Food Standards file.

[21] 'Food Standards Committee of the Food and Drug Administration,' *Science*, 1938, vol. 88, p. 234–5.

[22] H. Lepper, 'The Evolution of Food Standards and the Role of the A.O.A.C.,' *Food, Drug, and Cosmetic Law Journal*, 1953, vol. 8, pp. 133–89, at p. 146.

[23] Service and Regulatory Announcements, Food Inspection Decision 221, July 2, 1917.

[24] *U.S. v. Ninety Five Barrels, More or Less, Alleged Apple Cider Vinegar*, 1924, 265 U.S. 438; 1931 Annual Reports, p. 741. White and Gates, *op. cit.*, pp. 1118–21.

[25] F. Linton, 'Federal Food and Drug Laws – Leaders Who Achieved Their Enactment and Enforcement,' Chicago, Commerce Clearing House, 1950, pp. 60–62. R. Lamb, *American Chamber of Horrors*, New York, Farrar & Rinehart, 1936, p. 171.

[26] Annual Reports, p. 742.

[27] Ruth Lamb cites as supporters: 'American Home Economics Association, National League of Women Voters, General Federation of Women's Clubs, National Council of Women, American Association of University Women, American Federation of Labor, Consumers' Research and every Government agency that was by way of knowing anything about the subject', Lamb, *op. cit.*, p. 183.

[28] 46 Stat. 1019 (1930).

[29] Annual Reports, p. 746.

[30] Service and Regulatory Announcements, FD no. 4, rev. 2 revised labeling requirements for substandard goods. The original crepe label was retained for vegetables, but for fruits the new crepe label read: 'Below U.S. Standard, Good Food, Not High Grade', Annual Reports, p. 1781.

[31] Janssen, *op. cit.*, p. 4.

[32] Hearings Before the Committee on Agriculture and Forestry, U.S. Senate, 71st Cong., 2d Sess., April 16 and 24, 1930, Washington D.C., GPO, 1930.

[33] R. Lamb *op. cit.*, pp. 183–4. Lamb credits connections to Eleanor Roosevelt with the surprise Executive Order.

[34] R. Grover, *An American History*, Reading, PA, Addison and Wesley, 1976, p. 843.

[35] G. Tindall, *America: A Narrative History*, New York, Norton, 1984, pp. 1074–5.

- [36] 'Preserve Standards Now before Federal Trade Commission,' *The Glass Packer*, 1936, vol. 15, pp. 429–30; D. Forbes, 'Enforceable Standards for Food Products,' *The Glass Packer*, 1938, vol. 17, pp. 163–4.
- [37] P. Dunbar, 'Memories of Early Days of Federal Food and Drug Law Enforcement,' *Food, Drug, and Cosmetic Law Journal*, 1959, vol. 14, p. 134.
- [38] 'Over the Bumps with the "Tugwell" Bill', *Food Industries*, 1934, vol. 6, pp. 23–5.
- [39] *Legislative History of the 1938 Act*, 1974, vol. 2, p. 95.
- [40] *Ibid*
- [41] *Ibid.*, p. 170.
- [42] C. Jackson, *Food and Drug Legislation in the New Deal*, Princeton, NJ, Princeton University Press, 1970, p. 66.
- [43] A. Kallet and F. Schlink, *100,000,000 Guinea Pigs: Dangers in Everyday Foods, Drugs, and Cosmetics*, New York, Vanguard Press, 1933.
- [44] Lamb claims the exhibit was first assembled in 1912 for hearings on the Sherley Amendment. Lamb, *op. cit.*, p. 133.
- [45] R. Lamb to W. Wharton, frontispiece of presentation copy of *American Chamber of Horrors*, n.d., FDAHO
- [46] *Legislative History*, vol. 2, p. 93.
- [47] Pub. L. No. 75-717, 52 Stat. 1040 (1938).
- [48] R. Merrill and E. Collier, 'Like Mother Used to Make,' *Columbia Law Review*, 1974, vol. 74, p. 567.
- [49] S. R. White [Junod], 'Chemistry and Controversy, Regulating the Use of Chemicals in Foods, 1883–1959,' unpublished PhD thesis, 1994, Emory University, pp. 259–63.
- [50] *Ibid.*, pp. 46-95; A. Smith, *Pure Ketchup*, Columbia S.C., University of South Carolina Press, 1996, pp. 77–118.
- [51] The courts upheld the standard's prohibition of benzoate of soda in *Libby, McNeill & Libby v. United States*, 148 F.2d 71(2d Cir.1945).
- [52] *62 Cases of Jam v United States*, 1951, 340 U.S. 593.
- [53] Merrill correctly views the 1940s and 1950s as a period of enthusiasm for increasingly narrow standards, but this judgment has the benefit of hindsight. R. Merrill and E. Collier, 'Like Mother Used to Make,' p. 576. Also, H. Austern, 'The F-O-R-M-U-L-A-T-I-O-N of Mandatory Food Standards,' *Food, Drug, and Cosmetic Law Quarterly*, 1947, vol. 2, p. 532.
- [54] Federal standards combined with state statutes, for example, helped eliminate pellegra and beriberi in the US. D. Roe, *A Plague of Corn*, Ithaca, NY, Cornell University Press, 1973, pp. 132–3.
- [55] *Federal Security Administrator v. Quaker Oats*, 1943, 318 U.S. 218; S. White Junod, 'Whose Standards Should Prevail?: Quaker Oats' Battle Over Bottled Sunshine', *FDLI Update*, 1999, vol. 5, no. 2, p. 12; R. Apple, 'Patenting

University Research: Harry Steenbock and the Wisconsin Alumni Research Foundation,' Isis, 1989, vol. 80, pp. 375-94.

[56] 68 Stat. 54 (1954)

[57] This account of the bread hearings is summarized from S. White op. cit. pp. 254-308.

[58] M. Markel, 'Baking Industry Progress,' Food, Drug, and Cosmetic Law Journal, 1951, vol. 6, p. 782.

[59] 17 Federal Register, 15 May 1952, p. 4453.

[60] Hearings Before the House Select Committee to Investigate the Use of Chemicals in Food Products, 81st Cong., 2d Ses., 1950.

[61] 72 Stat. 1748 (1958).

[62] 74 Stat. 397 (1960).

[63] Merrill and Collier, op. cit.

[64] The 1966 Fair Packaging and Labeling Act required that ingredients be listed in order of prominence in the food product.

[65] 30 Federal Register, 5 March 1965, p. 2860.

[66] 39 Federal Register, 15 May 1974, p. 17304.

[67] Trade Correspondence, March 15, 1940, FDA Precedent File, F-341(1)54.

[68] 'Peanut Butter – A New Food Standard Proposed by FDA', FDA Press Release, 2 July 1959.

[69] Merrill and Collier, op. cit.

[70] Ibid., p. 562.

[71] 42 Federal Register, 19 July 1977, p. 37166; 43 Federal Register, 22 September 1978, p. 43248.

[72] 'Can you trim much of the fat and still have peanut butter'? USA Today, 6 April 1994, p. 6D.

[73] Pub. L. No. 103-417, 108 Stat 4325 (1994).