

***Poison Squad* by Deborah Blum**

Discussion questions courtesy of University of Wisconsin-Madison and Madison Public Library

1. The publication of Upton Sinclair's *The Jungle* drew attention to the adulteration of food on a wider scale than ever before, though this was not the reaction the author had intended. He had hoped to draw more attention to the working conditions in meatpacking plants than to their products, lamenting "I aimed for the public's heart... and by accident I hit it in the stomach" (p. 143). How did public reaction to *The Jungle* affect the perception of the food industry? Do you think *The Poison Squad* was written with a desired reaction from the audience? How does the perspective of the storyteller affect the audience's perception of the facts?
2. The name "The Poison Squad" was coined by George Rothwell Brown, the Washington Post journalist who extensively covered Wiley's experiments. Brown also nicknamed Wiley "Old Borax" and fabricated news about the experiments, such as the alarming "bright-pink complexion that would make a society bride sick with envy" (p. 96) that some of the young men were said to have developed during their time on the Squad. Though the Post's editors did eventually acknowledge that much of Brown's reporting was fiction, the sensationalism Brown cultivated surrounding Wiley's experiments had already found a place in public opinion. Why did Brown select Wiley's work as a target for his fabrications? How did media coverage and public perception of Wiley's work affect the way the results of his experiments were used, scientifically and politically? How does media coverage of science today differ from coverage of Wiley's experiments?
3. Wiley said to students at Cornell University, "I believe in chemistry and its application to the welfare of humanity [...] But at the same time I can't help noticing how it is abused" (124). Chemists were often the ones to discover many of the additives, like saccharin, and specific applications of compounds, such as formaldehyde as a preservative, that concerned Wiley. Are scientists responsible for how their discoveries are eventually used? Can you think of other historical or contemporary examples where chemical discoveries were later "abused" by third parties?
4. While the experiments on the Poison Squad were groundbreaking, they would likely not be possible today due to the risks posed to the human subjects. Wiley also did not follow best practices in experimental design, such as maintaining a control group. What constraints impacted Wiley's experimental design? How could the Poison Squad experiments be improved scientifically and ethically?
5. Even with scientific evidence of the dangers of ingesting certain chemical additives, the fight to institute government oversight was an uphill battle. The National Food Manufacturers Association was created in an attempt to influence proposed legislation, and had members from industries such as meatpacking, dairy, railroads, industrial chemicals, and liquor wholesalers. The association paid scientists to testify at hearings that preservatives weren't harmful and could actually be beneficial in some instances, and some manufacturers were prepared to pay large sums of money to the campaigns of senators "considered friendly to the cause" (128). How does this tension between the government and industry affect the laws that are passed today? Aside from business concerns, what other factors come into play when making regulations in the food industry? Are there examples of this struggle in recent food legislation? In other industries?
6. The United States still allows for formaldehyde and formaldehyde-releasing ingredients in personal care and beauty products, while Canada and the European Union have limited or banned their use in cosmetics. How does this situation mirror the food regulation landscape in the early 1900s? How does contemporary food regulation in the United States differ from regulation in other countries?

7. Wiley predicted the negative health effects of certain chemical preservatives, dyes, and even tobacco, but those in industry attempted to discredit his concerns, labeling them as mistrust and fear of the future of food in the modern age. Today, chemophobia has led to negative consumer impacts, such as vaccine avoidance. Can you think of other examples where the mistrust of chemicals by the public has led to controversy?

8. The DAIRY PRIDE Act, bipartisan legislation introduced by Senators Tammy Baldwin (D-WI) and Jim Risch (R-ID) in March of 2019, sought to address labeling of non-dairy products that imitate products like milk, cheese, and yogurt, and to enforce current FDA regulations which define dairy products as being from dairy animals. In what ways is this legislation similar to legislation described in the book? How does interpretation and enforcement of laws impact industry and consumers? More broadly, what is food, and who gets to define it?

10. Fannie Farmer's 1903 cookbook went beyond recipes, noting the chemical composition of the body, food chemistry, and principles of nutrition. Farmer considered cookbooks to be a critical form of education for American women, many of whom were denied the opportunity to attend college (99). Meanwhile, Bigelow and Howard presented home cooks with methods to test for food adulterations within their own kitchens. What role did this empowerment of home cooks, predominantly women, play in broadening awareness of the pure food movement? What contemporary initiatives have you encountered that promote public awareness of scientific issues, or encourage citizen scientists?

11. Wiley saw women's organizations of the time as natural allies for the pure food movement, noting "There is something wonderful in the power which organized effort can develop and the women of this country, through organized effort, in my opinion can secure any good thing which they demand" (109-110). What role did women play in bringing attention to the issue of food additives and the use of preservatives? What parallels do you see with this today?

12. While Harvey Wiley was fighting for food regulation, Anna Kelton Wiley served a jail sentence for picketing the White House on behalf of women's right to vote. How were their political struggles similar? How were they different? In what ways did the consequences for their activism differ?

13. As Wiley pointed out, wealthy people "could easily afford fresh food and well-made condiments. The trade in cheap, chemically enhanced imitations catered to the poor" (195). Does this still hold true today? What present-day regulatory efforts have you heard about that are still trying to address this wealth gap when it comes to food?

14. Bonus Chemistry Question: Wiley pushed for accurate naming of products, but he was never able to convince anyone to rebrand corn syrup as "glucose syrup." Was Wiley right to push for this rebranding? Why would this be a more accurate name for corn-derived sugar, and how does this sugar differ (structurally, energetically, derivation methods) from beet or cane sugars?