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Carrots and Sticks: Safer Fresh Produce In The United States Through British Style Supermarket Co-Regulation

VICTORIA TOKAR*

I. INTRODUCTION

Between late July and mid-September 2011, cantaloupes farmed and packed by Jensen Farms in Colorado were shipped to major retailers such as Walmart and Safeway across the United States.¹ By mid-September, however, it became clear that something was seriously wrong. On September 12, 2011, the Centers for Disease Control and Prevention (“CDC”) declared an outbreak after fifteen people in four different states were infected with listeriosis, which resulted in the death of one person.² The CDC defines “outbreak” as “an incident in which two or more persons experience a similar illness resulting from the ingestion of a common food.”³ As the months wore on, the disease continued spreading and the death toll continued rising.⁴ The CDC released

* This paper is for my dad, Victor Tokar. Without his love, support, and knowledge of the produce industry, I never would have been able to complete this. I love you and I miss you, pater. I would also like to thank my mom for letting me drone on about food safety and Professor Katie Pratt of Loyola Law School for her time and help.

1. Jensen Farms Cantaloupes—Retail Distribution Information, EFOODALERT (Nov. 17, 2011), <http://efoodalert.wordpress.com/listeria-outbreak/jensen-farms-cantaloupes-retail-distribution-information>; see also Ryan Jaslow, *Listeria outbreak tied to cantaloupes triggers more recalls, lawsuit*, CBS NEWS (Sept. 16, 2011, 9:48 AM), <http://www.cbsnews.com/news/listeria-outbreak-tied-to-cantaloupes-triggers-more-recalls-lawsuit>.

2. *Investigation Announcement: Multistate Outbreak of Listeriosis Linked to Rocky Ford Cantaloupes*, CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) (Sept. 12, 2011), <http://www.cdc.gov/listeria/outbreaks/cantaloupes-jensen-farms/091211/index.html>.

3. *Appendix B - Guidelines for Confirmation of Foodborne-Disease Outbreaks*, CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) (Mar. 17, 2000), <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4901a3.htm> [hereinafter *Appendix B*].

4. *Multistate Outbreak of Listeriosis Linked to Whole Cantaloupes from Jensen Farms, Colorado*, CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) (Aug. 27, 2012), <http://www.cdc.gov/listeria/outbreaks/cantaloupes-jensen-farms/082712/index.html> [hereinafter *CDC, Multistate Outbreak*].

its final numbers from the outbreak on December 8, 2011, but had to release an updated report on August 27, 2012 to reflect the additional deaths and illnesses resulting from the disease.⁵ In sum, the outbreak caused 147 illnesses, thirty-three deaths, and one miscarriage across twenty-eight states,⁶ making it the deadliest outbreak of a foodborne illness that the United States has ever experienced.⁷

The outbreak prompted various responses from retailers, government agencies, and individuals impacted by the disease. After the initial report of the outbreak, supermarkets began issuing recall notices;⁸ Jensen Farms also issued a voluntary recall.⁹ An environmental analysis conducted by the Food and Drug Administration (“FDA”) and Colorado state officials found that listeria was present throughout Jensen Farm’s processing line, packing area, and cold storage.¹⁰

The FDA also identified several factors “likely [to have] contributed to the introduction, spread, and growth” of listeria on the cantaloupes;¹¹ the packing facility’s design allowed for water to pool on the floor, which was difficult to clean,¹² and the packing equipment adjacent to the floors were difficult to clean as well.¹³ These unsanitary conditions contributed to the listeria spreading despite the fact that Jensen Farms had received and passed a third party audit by PrimusLabs.¹⁴ Moreover, the cantaloupes were not properly pre-cooled to remove field

5. *Id.*

6. *Id.*

7. Jane E. Allen, *Tainted Cantaloupes Behind Deadliest Food-Borne Outbreak*, ABC NEWS (Nov. 3, 2001), <http://abcnews.go.com/Health/Health/cantaloupes-tied-deadliest-food-outbreak/story?id=14874373#.UJ1Sm4b9GOJ>.

8. *Safeway Recalls Jumbo Rocky Ford Cantaloupe from Jensen Farms Sold in Five States*, PR NEWSWIRE (Sept. 15, 2011), <http://www.prnewswire.com/news-releases/safeway-recalls-jumbo-rocky-ford-cantaloupe-from-jensen-farms-sold-in-five-states-129926738.html>.

9. Andy Nelson, *Listeria Outbreak Pushes Rocky Ford Cantaloupes to be Pulled*, PACKER (Sept. 12, 2011), <http://www.thepacker.com/fruit-vegetable-news/fresh-produce-retail/Cantaloupes-suspected-in-listeria-outbreak-129683568.html?view=all>.

10. *Information on the Recalled Jensen Farms Whole Cantaloupes*, U.S. FOOD AND DRUG ADMINISTRATION (FDA) (Jan. 9, 2012), <http://www.fda.gov/Food/RecallsOutbreaksEmergencies/Outbreaks/ucm272372.htm> [hereinafter *FDA Recalled Jensen Farms Whole Cantaloupes*].

11. *Id.*

12. *Results of the FDA-Led Root Cause Investigation of the Multi-State Listeria Outbreak Related to Jensen Farms Cantaloupe*, Moderator: Douglas Karas, FDA NEWSROOM (FDA) (Oct. 19, 2011), <http://www.fda.gov/downloads/NewsEvents/Newsroom/MediaTranscripts/UCM277070.pdf> [hereinafter *Results of FDA-Led Root Cause Investigation*].

13. *Id.*

14. *Id.*

heat before placing them into cold storage.¹⁵ Failing to pre-cool the cantaloupes prompted listeria growth in the condensation formed on the fruit.¹⁶ The FDA noted that this outbreak highlights the necessity of “good agricultural and good handling practices” as a means to prevent the spread of disease.¹⁷ Jensen Farms has since filed for bankruptcy.¹⁸

On September 26, 2013, Eric and Ryan Jensen, the owners and operators of Jensen farms, were both arrested and charged with “six misdemeanor counts of introducing adulterated food into interstate commerce.”¹⁹ The brothers pled guilty to the charges and on January 28, 2014, they were sentenced to five years of probation, six months of home detention, and required to pay \$150,000 each in restitution.²⁰ There are currently up to sixty-six civil suits filed by outbreak victims and their family members against Jensen, Jensen’s distributor, and Primus Labs.²¹

Incidents of foodborne illnesses from fresh produce in the United States have risen over the past few years, and while some attribute the increase to better detection methods and increased consumption of fresh produce, this increase of incidents actually highlights the gravity of the situation.²² The problem with addressing foodborne illness and food safety is that the process is reactionary. While farmers, packers, processors, shippers, and retailers have safety measures in place, food safety is essentially treated as a gamble through weighing the expense of safety measures against the potential for catastrophic economic loss if an outbreak should result. When corners are cut, the supply chain turns a profit at the expense of the third parties. Without more stringent measures for enforcement and penalties, there is no incentive to comply with ex-

15. *Id.*

16. *FDA Recalled Jensen Farms Cantaloupes*, *supra* note 10.

17. *Id.*

18. Michael Booth, *Jensen Farms files for bankruptcy in wake of deadly listeria outbreak*, DENVER POST (May 25, 2012), http://www.denverpost.com/breakingnews/ci_20714710/jensen-farms-files-bankruptcy-wake-deadly-listeria-outbreak.

19. Chris Vanderveen, *Colo. farmers arrested in listeria outbreak that killed 33*, USA TODAY (Sept. 26, 2013), <http://www.usatoday.com/story/news/nation/2013/09/26/colorado-cantaloupe-listeria/2877913>.

20. *Farmers Get Probation in Fatal Listeria Case*, CBS (Jan. 28, 2014), <http://denver.cbslocal.com/2014/01/28/farmers-sentenced-in-fatal-listeria-outbreak>.

21. Coral Beach, *U.S. attorney recommends probation for Jensens*, PACKER (Jan. 17, 2014, 4:51PM), <http://www.thepacker.com/fruit-vegetable-news/US-attorney-recommends-probation-for-Jensens-240915531.html>.

22. Michael S. Rosenwald & Ylan Q. Mui, *Calif. Farm Firm Linked to Tainted Spinach*, WASH. POST (Sept. 16, 2006), <http://www.washingtonpost.com/wp-dyn/content/article/2006/09/15/AR2006091500865.html>.

isting regulations.

A possible model for change might be to allow for a system of co-regulation whereby supermarkets, the last stop in the supply chain before the produce reaches the ultimate consumer, receive more freedom to manage and be responsible for the safety of their supply chain. Co-regulation involves using different approaches to attack a specific problem and combines the benefits of the predictability and binding nature of legislation with the flexibility of self-regulation.²³ In the United Kingdom, the system of co-regulation is currently in place and it can provide as a model for how co-regulation could effectively work in the United States.²⁴

This paper addresses how a co-regulation scheme in the US could ensure safer fresh produce. The second section considers some of the pathogens most commonly implicated in food-borne illness outbreaks caused by contaminated fresh produce and how those pathogens are introduced to the produce; it also considers the significant hurdles that fresh produce must undergo to ensure its safety. The third section discusses current food safety schemes in the US, specifically, the newly implemented Food Safety Modernization Act. The fourth section then turns to UK law and examines how co-regulation between legislation and supermarkets yields safer foods. Finally, the paper discusses how a co-regulation scheme could effectively function in the US.

II. CONSEQUENCES OF FOOD-BORNE ILLNESS FROM FRESH PRODUCE

A. Illness and Death Caused by Food-Borne Pathogens

While several pathogens affect the safety of fresh produce, there are three in particular that have sparked outbreaks in recent years: listeria, salmonella, and *Escherichia coli* ("*E. coli*"). Listeria causes a bacterial infection known as listeriosis, which typically manifests itself in flu-like symptoms.²⁵ In some cases, listeria may also enter the blood stream and cause systemic disease, meningitis, or even the death of the fetus in pregnant women.²⁶ The CDC, however, notes that listeriosis

23. Andrew Fearne & Marian Garcia Martinez, *Opportunities for the Coregulation of Food Safety: Insights from the United Kingdom*, CHOICES (2005), <http://www.choicesmagazine.org/2005-2/safety/2005-2-04.htm>.

24. *See generally id.*

25. BIBEK RAY & ARUN BHUNIA, FUNDAMENTALS OF FOOD MICROBIOLOGY 291 (4th ed. 2008).

26. *Id.* at 293.

may also present itself in ways specific to the infected individual.²⁷ Healthy adults do not typically fall into serious illness from listeria infections and might not even present symptoms of the disease at all.²⁸ For the elderly, pregnant women, newborns, infants, and immunocompromised individuals however, listeriosis can become a serious and fatal disease.²⁹ During the 2011 and 2012 listeriosis outbreaks in the US, the median age of infected individuals were 77³⁰ and 78,³¹ respectively. Listeria has a mortality rate between 20-30%.³²

Part of the problem posed by listeria is its resilience and wide range of habitats. Listeria occurs in a variety of natural environments such as soil, water, dead vegetation, and human and animal feces;³³ it can also withstand and multiply in refrigeration temperatures.³⁴ While listeria outbreaks have more commonly resulted from contaminated meat and dairy, fresh produce such as sprouts,³⁵ lettuce, spinach,³⁶ radishes, potatoes, and fruits have also been found to carry listeria.³⁷ Produce may either become contaminated in the field through the use of contaminated water and manure³⁸ or be introduced later in fresh-cut processing facilities,³⁹ particularly when unsanitary conditions are present.

The bacterium most commonly implicated in foodborne illness outbreaks in the US, however, is salmonella.⁴⁰ Salmonella results in di-

27. *Appendix B, supra* note 3.

28. RAY & BHUNIA, *supra* note 25, at 289.

29. *Id.*

30. *Investigation Update: Multistate Outbreak of Listeriosis Linked to Whole Cantaloupes from Jensen Farms, Colorado*, CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) (Nov. 2, 2011), <http://www.cdc.gov/listeria/outbreaks/cantaloupes-jensen-farms/110211>.

31. *CDC, Multistate Outbreak, supra* note 4.

32. *Listeriosis*, THE CENTER FOR FOOD SEC. & PUB. HEALTH (May, 2005), <http://www.cfsph.iastate.edu/Factsheets/pdfs/listeriosis.pdf> [hereinafter *Listeriosis*].

33. RAY & BHUNIA, *supra* note 25, at 290.

34. *Listeriosis, supra* note 32.

35. *Sprouts: What You Should Know*, FOODSAFETY.GOV, <http://www.foodsafety.gov/keep/types/fruits/sprouts.html> (last visited July 19, 2014).

36. *Food Press Releases*, U.S. FOOD AND DRUG ADMINISTRATION (FDA), <http://www.fda.gov/AJAX/Food/default.htm?Label=Food> (last visited July 18, 2014).

37. RAY & BHUNIA, *supra* note 25, at 293-94.

38. Renata Ivanek, Yrjo Grohn, & Martin Wiedmann, *Listeria Monocytogenes in Multiple Habitats and Host Populations: Review of Available Data for Mathematical Modeling*, 3 *FOODBORNE PATHOGENS & DISEASE* 319, 322-23 (2006), available at <http://online.liebertpub.com/doi/pdf/10.1089/fpd.2006.3.319>.

39. TREVOR SUSLOW & LINDA HARRIS, *GUIDELINES FOR CONTROLLING LISTERIA MONOCYTOGENES IN SMALL- TO MEDIUM-SCALE PACKING AND FRESH-CUT OPERATIONS*, Univ. of Cal. Agric. & Natural Res. (2000), available at <http://anrcatalog.ucdavis.edu/pdf/8015.pdf>.

40. RAY & BHUNIA, *supra* note 25, at 283.

arrhea and abdominal cramps.⁴¹ While the symptoms of salmonellosis appear quickly and typically last for two to three days, the individual can remain in a “carrier state” for months.⁴² Even though these infections are not typically fatal, salmonella can become deadly to infants, the elderly,⁴³ and those who are already sick. Salmonella occurs naturally in the gastrointestinal tracts of animals and is also present in the feces of humans who carry the bacteria after being infected.⁴⁴ Salmonella is most commonly associated with meat, eggs, and dairy, but may also appear on produce because of contamination in the field or by washing produce in polluted water.⁴⁵

Another common foodborne pathogen is *E. coli*, which causes diarrhea, abdominal cramps, and fever.⁴⁶ The bacterium occurs naturally in the intestinal tracts of humans, warm-blooded animals, and birds.⁴⁷ Given its gastrointestinal habitat, *E. coli* contamination occurs when fecal matter comes directly or indirectly into contact with food.⁴⁸ Sprouts and salad components such as spinach and lettuce, for example, can carry *E. coli*.⁴⁹ In 2006, the FDA linked California-grown spinach to a deadly outbreak of *E. coli* that sickened over 200 people in twenty-six states and resulted in the death of three people.⁵⁰ The contamination likely originated in the fields where groundwater contaminated by the fecal matter of cattle and wild pigs came into contact with the spinach.⁵¹

While producers and packers are able to take steps to prevent contaminating food with these pathogens, the consumers are often the last line of defense. The FDA recommends four steps towards greater food

41. *Id.* at 286.

42. *Id.* at 287.

43. *Id.*

44. *Id.* at 285-286.

45. *Id.* at 287.

46. *Id.* at 296.

47. *Id.* at 294.

48. *Id.* at 296.

49. *Id.* at 298.

50. Michael S. Rosenwald & Ylan Q. Mui, *Calif. Farm Firm Linked to Tainted Spinach*, WASH. POST (Sept. 16, 2006), <http://www.washingtonpost.com/wp-dyn/content/article/2006/09/15/AR2006091500865.html>; Gitika Ahuja & Richard Besser, *3 Years After E. Coli Outbreak, Is Spinach Safer?*, ABC NEWS (Nov. 10, 2009) <http://abcnews.go.com/GMA/HealthyLiving/coli-spinach-salad-safe/story?id=9034833>; see also THE FOOD SAFETY MODERNIZATION ACT: THE ROAD TO PASSAGE 27 (James William Woodlee ed., 2012), available at <http://www.hoganlovells.com/files/Publication/85853d64-c3f2-4bc7-9fbe-f0e3878675c1/Presentation/PublicationAttachment/751c016a-fe0f-49da-9767-f62cc75b5b98/Hogan%20Lovells%20FDLI%20Article.pdf> [hereinafter MODERNIZATION ACT].

51. Ahuja & Besser, *supra* note 50.

safety for consumers: (1) by cleaning hands, surfaces, and the skins of fruits and vegetables; (2) by separating raw meats from other foods; (3) by cooking foods to the proper temperatures; and (4) by refrigerating foods properly.⁵² Cooking is the most critical step because exposure to high temperatures would kill listeria, salmonella, and *E. coli*; it can also act as a final check against the spread of disease from contaminated food.⁵³ Unlike proteins, however, most consumers eat fresh produce raw or with minimal cooking; thus, the critical final check against the spread of foodborne illness, the “kill step,” is lacking.⁵⁴ Therefore, when it comes to fresh produce, the consumer is wholly dependent upon the supply chain to ensure the safety of his or her produce. A consumer may know to cook chicken until it is white on the inside, but the same precautionary steps cannot be taken when it comes to lettuce and tomatoes.⁵⁵ This indicates the need throughout the supply chain for stringent checks against pathogens on fresh produce.

B. Economic Damage Caused by Food-Borne Illness

In addition to endangering human health, foodborne illness outbreaks also cause great economic damage. According to the 2012 Census of Agriculture, the values of sales for fruit and vegetable sales were \$25.9 billion and \$16.9 billion, respectively.⁵⁶ The annual economic impact of foodborne illness is estimated to reach \$152 billion.⁵⁷ Another study reconsiders the \$152 billion mark and instead re-evaluates the cost at about \$77.7 billion in “medical costs, productivity losses, and illness-related death[s];”⁵⁸ but this alternate study did not include an

52. *Safe Food Handling: What You Need to Know*, U.S. FOOD AND DRUG ADMINISTRATION (FDA), <http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm255180.htm> (last updated Dec. 18, 2014).

53. *Id.*

54. MODERNIZATION ACT, *supra* note 50.

55. *Id.* at 27.

56. 2012 *Census of Agriculture Highlights: Farm Economics*, UNITED STATES DEP'T OF AGRIC. CENSUS OF AGRIC. (May, 2014), http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Economics/#sales.

57. *Foodborne Illness Costs Nation \$152 Billion Annually – Nearly \$39 Billion Loss Attributed to Produce*, PRODUCE SAFETY PROJECT, [http://www.pewtrusts.org/en/about/newsroom/press-releases/0001/01/01/foodborne-illness-costs-nation-\\$152-billion-annually-nearly-\\$39-billion-loss-attributed-to-produce](http://www.pewtrusts.org/en/about/newsroom/press-releases/0001/01/01/foodborne-illness-costs-nation-$152-billion-annually-nearly-$39-billion-loss-attributed-to-produce) (last visited Jan. 24, 2015).

58. Helena Bottemiller, *Annual Foodborne Illnesses Cost \$77 Billion, Study Finds*, FOOD SAFETY NEWS (Jan. 3, 2012), <http://www.foodsafetynews.com/2012/01/foodborne-illness-costs-77-billion-annually-study-finds/#.UsncTxZDvA5> [hereinafter *Annual Foodborne Illnesses Costs \$77 Billion*].

analysis of the impact that outbreaks have on the food industry itself, such as the costs resulting from loss of “consumer confidence, recall losses, or litigation.”⁵⁹ Considering both the sheer size of the US food industry and the peripheral factors, it is more likely that the actual cost of an outbreak is much higher than \$77.7 billion.

III. FOOD SAFETY ENFORCEMENT IN THE UNITED STATES

A. Federal Regulation

Prior to the 20th century, laws regulating the safety of food were practically non-existent in the United States. In 1906, President Roosevelt signed the Food and Drug Act in the wake of Upton Sinclair’s *The Jungle*.⁶⁰ The Act, a product of the Progressive Era, created the regulatory agency that would later become the FDA.⁶¹ The Food and Drug Act prohibited the manufacture or sale of misbranded or adulterated foods or drugs.⁶² While the act was a progressive step forward, it was subsequently replaced by the Food, Drug, and Cosmetic Act of 1938 (“FDCA”).⁶³ The FDCA further clarified the existing powers of the FDA, such as the ability to conduct factory inspections.⁶⁴ Today, the FDA continues to administer the heavily amended FDCA by inspecting facilities, developing testing standards and procedures, and enforcing its regulations.⁶⁵

59. *Id.*

60. *FDA History - Part I*, U.S. FOOD AND DRUG ADMINISTRATION (FDA) (Jun. 18, 2009) <http://www.fda.gov/AboutFDA/WhatWeDo/History/Origin/ucm054819.htm> (although Sinclair intended to expose the horrors of wage slavery and the suffering of immigrants working in the Chicago stockyards, the American public was thrown into uproar over the food handling practices instead); Karen Olsson, *Welcome to The Jungle*, SLATE (July 10, 2006), http://www.slate.com/articles/arts/books/2006/07/welcome_to_the_jungle.html (*The Jungle* describes the cost-cutting practices of the meat packing factories, including cleaning scraps of meat from floor traps and adding it to other processed meat and the slaughter of cows unfit for consumption after distracting the inspectors); UPTON SINCLAIR, *THE JUNGLE* 65-66 (Buccaneer Books, Inc., 1984) (1906) (report by government investigators confirmed the unsanitary conditions in the Chicago stockyards); see H.R. DOC. NO. 59-873 at 266 (1906).

61. *FDA History - Part I*, *supra* note 60 (the FDA actually grew out of the USDA’s Bureau of Chemistry, but the FDA itself considers the Food and Drug Act to be its founding document).

62. Federal Food and Drug Act, ch. 3915, 34 Stat. 768-772 1 (1906) (codified as 21 U.S.C. § 1-15 (1934), repealed by 21 U.S.C. § 329(a) (1938)).

63. *FDA History - Part I*, *supra* note 60.

64. *Id.*

65. RAY & BHUNIA, *supra* note 25, at 468.

The FDCA itself prohibits the introduction or receipt of any adulterated or misbranded food into interstate commerce.⁶⁶ The act defines “adulterated food” as any food that “bears or contains any poisonous or deleterious substance . . . render[ing] it injurious to health.”⁶⁷ To help prevent adulterated food from entering interstate commerce and causing injury, the FDCA sets forth requirements for facilities that handle foods.⁶⁸ For violations, the FDCA allows for penalties of no more than a year’s imprisonment, a fine that does not exceed \$1,000, or both.⁶⁹

B. The Food Safety Modernization Act of 2010

In December 2010, Congress passed the FDA Food Safety Modernization Act (“FSMA”), an amendment to the FDCA.⁷⁰ In January 2011, President Obama signed the FSMA into law.⁷¹ The FSMA updates the safety standards of the FDCA and strives to take a preventative rather than reactionary approach to food safety.⁷² To achieve this, the FSMA granted more powers to the FDA.⁷³ Key among the FDA’s expanded powers are the abilities to mandate recalls of unsafe foods, require that certain facilities implement preventive control schemes, set forth safety standards for produce, and establish a program for laboratory accreditation for food testing.⁷⁴ The FSMA also extends to imported food; importers are directed to establish foreign supplier verification programs.⁷⁵ The FDA must also inspect facilities on a schedule based on risk factors, and the facilities must give the FDA access to their records.⁷⁶

Section 103 of the FSMA amends the FDCA by adding a requirement that facilities engaged in manufacturing, processing, packing, or holding food identify “reasonably foreseeable hazards” and implement preventive controls against them.⁷⁷ Potential hazards may be biological

66. 21 U.S.C. § 331(a-c) (Jan. 7, 2011).

67. 21 U.S.C. § 342(a)(1) (Jan. 3, 2012).

68. 21 U.S.C. § 331(uu) (Jan. 7, 2011).

69. 21 U.S.C. § 333(a)(1) (Jan. 7, 2011).

70. FDA Food Safety Modernization Act, Pub. L. No. 111-353, 124 Stat. 3885 (2011).

71. *Background on the FDA Food Safety Modernization Act (FSMA)*, U.S. FOOD AND DRUG ADMINISTRATION (FDA), <http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm239907.htm> (last visited July 20, 2014).

72. *See generally id.*

73. *Id.* at 1.

74. *Id.* at 1-2.

75. *Id.* at 1.

76. FDA Food Safety Modernization Act, *supra* note 70, §§ 101 and 201.

77. *Id.* § 103 (a-b).

or chemical, including those that occur naturally and those introduced intentionally.⁷⁸ Under this section, facility operators, who are in the best position to evaluate the risks associated with their own operations,⁷⁹ are required to take charge of ensuring the efficacy of these measures and correcting improperly implemented or ineffective measures.⁸⁰ The FSMA promotes its goal of preventive food safety by stating that a facility must periodically reanalyze its plan in response to “new and emerging threats” in addition to any changes in the facility.⁸¹ Given the possibility of facilities developing too many standards, the FSMA also charged the FDA “to establish science-based minimum standards for conducting a hazard analysis . . . implementing preventive controls, and documenting the implementation of the preventive controls.”⁸²

Section 211 expands the 2007 FDCA Reportable Food Registry amendment. The registry allows parties to report food that has a reasonable probability of causing serious injury or death to humans or animals.⁸³ While these reports do not necessarily prevent contaminated foods from entering the supply chain, they are invaluable links in a chain of traceability and make containment of the problem easier. On the more preventive side, section 201 gives the FDA the authority to conduct scheduled inspections of facilities based on the amount of risk a food carries with it.⁸⁴

In setting forth these new authorities and mandates, the FSMA provided specific deadlines that these mandates needed to be implemented: (1) no later than ninety days after signing to establish a “consumer-friendly search engine with recall information;”⁸⁵ (2) no later than eighteen months after signing for the FDA to establish its hazard control guidelines and for facilities to implement hazard controls;⁸⁶ and

78. *Id.* § 103 (b)(1-2).

79. Letter from Robert J. Whitaker, Chief Science and Technology Officer Produce Marketing Association, to Food and Drug Administration (Aug. 22, 2011), *available at* <http://xchange.pma.com/PMA/Communities/Resources/ViewDocument/?DocumentKey=3c29184d-ea61-469a-8cc0-89dfe1f76f0e&ssopc=1>.

80. FDA Food Safety Modernization Act, *supra* note 70, § 103(d-e).

81. *Id.* § 103(f)(5).

82. 21 U.S.C. § 350(g)(n) (Jan. 3, 2012) (codified as amended and incorporated in the FDA Food Safety Modernization Act at § 103).

83. *Id.* § 101(a)(4).

84. *See generally id.* § 201.

85. Hogen Lovells, *Summary of Key Effective Dates*, GROCERY MANUFACTURERS ASSOCIATION (Feb. 2011), http://www.gmaonline.org/file-manager/Food_Safety/Summary_of_Key_FSMA_Effective_Dates.pdf.

86. FDA Food Safety Modernization Act, *supra* note 70, § 103.

finally, (3) no later than two years from signing for the FDA to establish its laboratory accreditation program and accreditation system for third-party auditors.⁸⁷

C. Ineffectiveness of the FSMA

Despite the FSMA's good intentions and deadlines, several sections of the law have not yet gone into effect.⁸⁸ Namely, the FDA has missed its preventive control deadline by more than six months and has yet to release a science-based minimum standard for safety measures, a turn of events that has left the food industry and food safety advocates confused.⁸⁹ Groups such as the Grocery Manufacturers Association ("GMA") and the Snack Food Association, joined by several other industry groups, sent letters in May 2012 inquiring when the FDA would begin enforcing the rules or whether the enforcements would be delayed until the final rules were settled.⁹⁰ In its response to these letters, the FDA stated that it expected compliance with the FSMA's requirements within the timeframes outlined in the final rules and that until then, the food safety provisions of the FDCA remain in effect.⁹¹ Despite the FDA's response, lawyers for the GMA recommended that regardless of whether the FDA finalizes the rules, facilities should nevertheless institute preventive controls to comply with the FSMA.⁹² On August 29, 2012, the Center for Food Safety filed a lawsuit in the United States District Court for the Northern District of California against the FDA and the Office of Management and Budget, alleging that the delays in implementing the law are unlawful.⁹³ The case settled and the FDA agreed to set publication dates for the final rules and implement the FSMA in 2015 and 2016.⁹⁴ There is also concern that the FSMA will be

87. *Id.*

88. Helena Bottemiller, *More Deadlines Missed as FSMA Rules Remain Stalled at OMB*, FOOD SAFETY NEWS (July 2, 2012), <http://www.foodsafetynews.com/2012/07/more-deadlines-missed-as-fmsa-rules-remain-stalled-at-omb/#.Unvh4v1QEoo>.

89. *Id.*

90. *Id.*

91. Michael R. Taylor, *Response to Letter from Grocery Manufacturers Association*, U.S. FOOD AND DRUG ADMINISTRATION (FDA) (June 18, 2012), <http://www.fda.gov/AboutFDA/CentersOffices/OfficeofFoods/CFSAN/CFSANFOIAElectronicReadingRoom/ucm310084.htm>.

92. See Bottemiller, *supra* note 88.

93. Complaint for Plaintiff at 3, *Ctr. for Food Safety v. Hamburg*, No. CV 12.4529 (N.D. Cal. 2012), available at http://www.centerforfoodsafety.org/files/2012-08-29-fsma-complaint-filed_78450.pdf.

94. Lydia Zuraw, *FSMA Gets New Deadlines for Final Rules*, FOOD SAFETY NEWS, (Feb.

more expensive to implement than anticipated. When the FSMA was enacted, the Congressional Budget Office estimated that the FDA would require an additional \$583 million over its fiscal year 2010 base to implement the bill; the FDA now estimates that it will require an increase of \$400-\$450 million over its fiscal year 2012 funding to implement the FSMA.⁹⁵

A fundamental flaw in the FSMA's management scheme is its insistence on the upstream management of the supply chain. The FSMA mandates factories, warehouses, and establishments that manufacture, process, pack, or hold food to put into place hazard analyses and preventive controls to ensure the safety of the food the facility handles.⁹⁶ While preventative measures have a positive effect and should be promoted, downstream management through co-regulation could actually work to ensure more uniform safety standards throughout the supply chain. Supermarkets, the last stop in the supply chain before the consumer, are actually the best situated to manage and maintain the entire length of their supply chains by setting forth specific standards for processors, packers, and shippers to follow. Furthermore, given the sheer volume of produce that supermarkets sell and the vast numbers of consumers they sell to, supermarkets take on a great deal of risk. Thus, holding supermarkets to a strict liability standard would be appropriate.

D. Civil Litigation as an Enforcement Strategy

Civil litigation has not been enough to effectuate the necessary changes to bring about safer produce or even safer food in general. Litigation over foodborne illness is rare and most cases involve meat; case decisions involving fresh produce are practically nonexistent. Litigating over foodborne illness can be a murky process involving several barriers. First, the particular bacteria that caused the illness must be identified, and the plaintiff must demonstrate that consuming a particular food item caused them to ingest that bacterium, making them ill.⁹⁷ Because symptoms of foodborne illnesses often mimic common gastrointestinal

21, 2014), <http://www.foodsafetynews.com/2014/02/fsma-gets-new-deadlines-for-final-rules/#.UxJOINF3vIU>.

95. KATHLEEN SEBELIUS, *ENSURING A SAFE FOOD SUPPLY: A REPORT TO CONGRESS UNDER THE FDA FOOD SAFETY MODERNIZATION ACT SECTION 110(A)(1)*, U.S. Food and Drug Administration (FDA) (Apr. 2013), available at <http://www.fda.gov/downloads/Food/GuidanceRegulation/FSMA/UCM351876.pdf>.

96. See 21 U.S.C. § 350(g) (2012).

97. David Polin, *Proof of Liability for Food Poisoning*, 47 AM. JUR. PROOF OF FACTS 3D § 1, § 18 (1998).

illnesses like the flu, foodborne illness can often go undetected.⁹⁸ Even if a plaintiff can establish that it was a bacterium like salmonella that made him ill, he may still encounter difficulty establishing that eating a particular food caused him to get sick.⁹⁹ Assuming that the individual is able to overcome these hurdles, another obstacle is that the plaintiff must still bring the proper defendant to court, which can be challenging when the consumer only knows that he bought (or ate) the tainted produce from the grocer or restaurant.¹⁰⁰

The plaintiff must identify the rest of the supply chain. Even if the individual can name each of the links in the supply chain as defendants, this can lead to seemingly odd distributions of fault.¹⁰¹ This, however, is not always the case. The dispute in *In re Shigellosis Litigation* involved indemnifying a restaurant for a \$1 million arbitration liability after the restaurant customer ate parsley tainted with shigella.¹⁰² This case also demonstrated the fact that many foodborne illness cases are often settled out of court. For example, the 2006 *E. coli* outbreak associated with Earthbound Farms spinach resulted in several settlements, including a \$42,750 award for a seven-year-old child placed in intensive care.¹⁰³ Accordingly, while produce companies may find it simply cheaper to gamble the occasional settlement payouts than invest in safety mechanisms,¹⁰⁴ this approach is undesirable because it is inherently reactionary rather than preventative. The ultimate deterrence and prevention of illness and death resulting from tainted produce is preferable to paying a settlement amount *ex post facto*.¹⁰⁵

Finally, even the primary tool in the plaintiff's toolbox in cases like this, strict liability, can oftentimes be altered to the negligence

98. *Id.*

99. *Id.*

100. Brian Dalusio, *Note, Is the Meat Here Safe? How Strict Liability for Retailers Can Lead to Safer Meat*, 92 B.U. L. REV. 1081, 1107-8 (2010), available at <http://www.bu.edu/law/central/jd/organizations/journals/bulr/documents/DALUISO.pdf>.

101. *Id.*

102. *Shigella - Shigellosis*, CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC), <http://www.cdc.gov/shigella/index.html> (last updated Aug. 12, 2014); *In re Shigellosis Litig.*, 647 N.W.2d 1 (Minn. Ct. App. 2002). *Shigella* is a bacterium that causes diarrhea, fever, and stomach cramps in humans. The bacteria may be present on fresh produce that was harvested from a field with sewage on it or was cross-contaminated due to poor handler hygiene.

103. Geoffrey Fattah, *Utahn settles suit over tainted spinach*, DESERET NEWS (Aug. 25, 2007), <http://www.deseretnews.com/article/695204185/Utahn-settles-suit-over-tainted-spinach.html>.

104. Dalusio, *supra* note 100, at 1101.

105. See generally Gerald F. Tietz, *Strict Products Liability, Design Defects and Corporate Decision-Making: Greater Deterrence through Stricter Process*, 38 VILL. L. REV. 1361 (1993).

standard in disguise.¹⁰⁶ A majority of courts uses the reasonable-expectations test, which asks the jury to determine whether a “reasonable consumer” would have expected *E. coli* to be on the plaintiff’s produce.¹⁰⁷ Brian Dalusio notes a split in the way courts have handled cases involving *trichinosis*,¹⁰⁸ a parasitic disease contracted by consumers of home-cooked pork.¹⁰⁹ While some courts held that it was unreasonable to expect all consumers who cook at home to ensure that all parts of the meat were thoroughly cooked, others have declined to follow this reasoning and rigidly held that *trichinosis* cannot be contracted through thoroughly cooked meat, placing the responsibility onto the consumer.¹¹⁰ While this reasoning may be applied to meat, which is most commonly consumed after cooking, it does not hold for fresh produce, which is commonly consumed raw. A consumer who may “reasonably expect” an undercooked piece of pork to contain *Trichinella* is unlikely to regard his salad components with similar suspicion. By making it more difficult for plaintiffs to succeed in cases against defendants in foodborne illness cases, assuming those cases are brought up at all, the threat of civil litigation as a means to encourage food safety loses its teeth.

IV. THE UNITED KINGDOM’S APPROACH TO FOOD SAFETY

In contrast, food safety legislation in the UK takes a dynamic approach. Instead of fighting upstream through the supply chain, the UK’s legislation encourages retailers to take responsibility for the safety of food supplied from their suppliers and incentivizes proper management.¹¹¹ This method of co-regulation of food safety between the government and supermarkets is supported by the flexibility of both the legislation and the markets themselves.

As a member of the European Union (“EU”), the UK’s food safety laws have two sources: those set forth by EU regulations and those cre-

106. Dalusio, *supra* note 100, at 1106.

107. *Id.*; see O’Dell v. De Jean’s Packing Co., Inc., 585 P.2d 399, 401 (Okla. App. 1978).

108. *Parasites—Trichinellosis: Epidemiology & Risk Factors*, CDC <http://www.cdc.gov/parasites/trichinellosis/epi.html> (last updated Aug. 8, 2012). Trichinosis is a parasitic disease caused by the consumption of *Trichinella* parasites which may be found in raw or undercooked pork and wild game meat.

109. Dalusio, *supra* note 100, at 1102-03.

110. *Id.*

111. See generally Jill E. Hobbs, Andrew Fearn & John Spriggs, *Incentive Structures for Food Safety and Quality Assurance: An International Comparison*, 13 FOOD CONTROL 77, 77-78 (2002), available at http://www.wavfh.ulg.ac.be/pdf/food_safety_legislation.pdf.

ated by the UK itself.¹¹² Food safety in both the UK and the EU underwent drastic changes in the late 1990's due to the bovine spongiform encephalopathy ("BSE") (also known as the "mad cow disease" crisis) in the UK and other food-borne illness outbreaks in EU countries.¹¹³ Food law became less concerned with free trade and shifted its focus on risk analysis and traceability.¹¹⁴ In 2002, the European Council passed Regulation 178/2002, which created the independent European Food Safety Authority ("EFSA") to oversee risk assessment.¹¹⁵ Regulation 178/2002 applies broadly across the food industry; it defines "food business" as "any undertaking . . . carrying out any of the activities related to any stage of production, processing, and distribution of food."¹¹⁶ While the regulation does mandate that member states have in place a system of official controls to enforce food law and ensure compliance by food businesses, it also places responsibilities on the food businesses themselves to meet the regulation's requirements and to maintain traceability systems.¹¹⁷

A. The Food Safety Act of 1990

The UK enacted the Food Safety Act of 1990 ("Food Safety Act") in order to bring the nation into compliance with the European Commission's directives on food safety issued in the 1980's.¹¹⁸ In 2004, the Food Safety Act was amended to bring the UK in line with Regulation 178/2002.¹¹⁹ On a basic level, the Food Safety Act contains provisions broadly similar to those in the FDCA. For instance, the Food Safety Act

112. MICHAEL BATZ & J. GLENN MORRIS JR., THE PRODUCE SAFETY PROJECT AT GEORGETOWN UNIVERSITY, *BUILDING THE SCIENCE FOUNDATION OF A MODERN FOOD SAFETY SYSTEM: LESSONS FROM DENMARK, THE NETHERLANDS, AND THE UNITED KINGDOM ON CREATING A MORE COORDINATED AND INTEGRATED APPROACH TO FOOD SAFETY INFORMATION*, Produce Safety Project 45-46, (May 10, 2010), http://www.pewtrusts.org/~media/legacy/uploadedfiles/phg/content_level_pages/reports/PSPRP_TBuildingtheSciencepdf.pdf.

113. *Id.*

114. *Id.* at 47.

115. Council Regulation 178/2002, art. 22, 23, 2002 O.J. (L 31/1) (EC).

116. *Id.* art. 2.

117. *Id.* arts. 17,18.

118. John Humphrey, *Food Safety, Private Standards Schemes and Trade: The Implications of the FDA Food Safety Modernization Act 16-19*, INSTITUTE OF DEV. STUDIES, Working Paper No. 403 (Sept. 2012), available at <http://www.ids.ac.uk/files/dmfile/Wp403.pdf>.

119. Commission General Food Law Regulation 178/2002: Guidance Notes on the Food Safety Act of 1990 (Amendment) Regulations 2004 and the General Food Regulations 2004, Oct. 3, 2005 O.J. (C) Version 2.0) <http://www.food.gov.uk/multimedia/pdfs/generalfoodsafetyguide2.pdf>.

and the FDCA both seek to control foods that could be hazardous to human health.¹²⁰ To protect the food supply, the Food Safety Act grants authorities the power to seize foods “likely to cause food poisoning or any disease communicable to human beings.”¹²¹ This is similar to how the FDCA grants the FDA the power to seize foods that run afoul of the FDCA’s provisions.¹²² Both the Food Safety Act and the FDCA penalize violations with fines or imprisonment for a period of months.¹²³

Unlike the FDCA, the Food Safety Act contains broader language and offers a due diligence defense.¹²⁴ When determining whether a party is guilty of an offense, the Food Safety Act uses a reasonableness standard.¹²⁵ For instance, under section 8 of the Food Safety Act, for the purposes of defining food that is not compliant with safety standards, the Food Safety Act states that food is not in compliance if:

- (a) [I]t has been rendered injurious to health by means of [adding substances to the food, using a substance as an ingredient in food preparation, abstracting constituents from the food, and processing or treating the food];
- (b) it is unfit for human consumption; or
- (c) it is so contaminated . . . that it would not be reasonable to expect it to be used for human consumption in that state.¹²⁶

In determining when food is rendered injurious to health, the Food Safety Act states that one must consider both the “probable effect of that food” on the consumer’s health and the “probable cumulative effect” of the food on the consumer’s health.¹²⁷ The words “reasonable” and “probable” introduce an element of reasonable care to food safety that is absent from both the FDCA and the FSMA. This also lends itself to the due diligence defense that the Food Safety Act introduced. Prior to the Food Safety Act, UK law provided a “warranty” defense for food safety violations; this only required buyers in the supply chain to “prove the food was not compromised while under their control.”¹²⁸ Under subsection 21 of the Food Safety Act, however, it is a defense to a charge

120. 21 U.S.C. § 334(a) (2012).

121. Food Safety Act of 1990, c.16 § 7 (1990) (U.K.).

122. 21 U.S.C. § 334(a) (2012).

123. Food Safety Act of 1990, *supra* note 121, § 35.

124. Hobbs et al., *supra* note 111.

125. Food Safety Act of 1990, *supra* note 121, §§ 7-8.

126. *Id.*

127. *Id.* § 7.

128. Hobbs et al., *supra* note 111, at 78.

under the Act for a person to “prove that he took all reasonable precautions and exercised all due diligence to avoid the commission of the offence by himself or by a person under his control.”¹²⁹

The Food Safety Act also details how a person can satisfy the requirements of the subsection, such as proving that he carried out reasonable checks of the food or that it was reasonable to rely upon the supplier’s checks; not knowing (or not having any reason) to suspect that the act was an offense; or showing that the offense was due to the act of someone outside of the defendant’s control.¹³⁰

By removing the warranty defense and instituting a due diligence defense, the UK incentivized buyers to take an active role in managing the safety of their food and sellers to demonstrate that they could supply safe food that would not expose the buyer to strict liability.¹³¹ Furthermore, since the reasonableness standard is so vague, retailers such as supermarkets have instituted their own strict standards for policing the safety of their supply chains.¹³² The Food Safety Act’s broad standards, in essence, encouraged retailers to fill in the gaps themselves in order to limit their liability and co-regulate.¹³³ Since implementing co-regulation, food safety in the UK has improved.¹³⁴

A. Supermarket Regulatory Schemes and Private Regulatory Schemes

In 2002, the Policy Commission on the Future of Farming and Food released its report discussing its ideals for reshaping the food industry in England.¹³⁵ The Policy Commission emphasized the need for the individual links in food supply chains, specifically, the retailers, to be full participants in order to cater best to consumers.⁵ Without specific guidelines from the government to follow, UK supermarkets such as Tesco and Marks and Spencer have implemented their own standards for regulating the safety of their supply chains.¹³⁶ These standards are

129. Food Safety Act of 1990, *supra* note 121, § 21.

130. *Id.*

131. Hobbs et al., *supra* note 111, at 78.

132. *Id.*

133. *Id.*

134. Fearn & Martinez, *supra* note 23.

135. See generally SIR DONALD CURRY ET AL., FARMING & FOOD - A SUSTAINABLE FUTURE (Crown Copyright 2002), available at <http://webarchive.nationalarchives.gov.uk/20100807034701/http://archive.cabinetoffice.gov.uk/farming/pdf/PC%20Report2.pdf> [hereinafter FARMING & FOOD A SUSTAINABLE FUTURE].

136. See TERRENCE WILDE, TESCO FOOD MANUFACTURING STANDARD (TESCO STORES LTD., VERSION 4.0 2010), available at http://www.itesco.cz/Files/dokumenty-ke-stazeni/prodovavatele/tesco_food_manufacturing_standard_en; *Field to Fork Assessment at the Heart of*

ambitious and encompass the entirety of the supply chain, from the farm to the ultimate consumer.¹³⁷ Tesco, the third-largest retailer in the world, applies its standard to “all primary and secondary food suppliers” and establishes detailed requirements for all types of food manufacturing.¹³⁸ Tesco distinguishes between different levels of risk associated with different foods and how food is handled at different stages of manufacturing; recognizes that risk levels change throughout the process;¹³⁹ and also adopts the Hazard Analysis and Critical Control Points (“HACCP”) plan for processing steps.¹⁴⁰

Marks and Spencer, another large British retailer, also developed its own fresh produce assurance standard called Field to Fork in 2002.¹⁴¹ Field to Fork sets standards ranging from the permissible levels of pesticides used on crops to the minimum labor standards on farms.¹⁴² Field to Fork divides produce into four risk groups ranging from Category 1, the highest risk to consumers for produce items typically consumed raw such as salad greens, to Category 4, the lowest risk, for produce items like potatoes and squashes that are almost always cooked before consumption.¹⁴³

While certain stores have established their own assurance programs, other retailers subscribe to standards set by groups such as the British Retail Consortium (“BRC”) and GLOBALG.A.P.¹⁴⁴ These programs develop safety standards and allow subscribing retailers and suppliers who meet those standards to use their program logo to indicate that they are in compliance.¹⁴⁵ Under the BRC model, a supplier who wishes to become certified may order a copy of the Standard to conduct

Continuous Improvement at Marks & Spencer, QUICKFIRE CASE STUDIES, available at http://www.salis-it.com/tl_files/salis-it/pdf/CaseStudy_Quickfire_MS.pdf (last visited on July 18, 2014) [hereinafter *Field to Fork Assessment*].

137. See WILDE, *supra* note 136, at 69.

138. *Id.* at 3.

139. *Id.* at 3-4.

140. *Id.* at 8.

141. *M&S Revises Field to Fork Assurance*, AGRIFOOD STANDARDS (May 31, 2007), http://www.agrifoodstandards.net/es/news/global/m_s_revises_field_to_fork_assurance.html.

142. *Id.*

143. *Field to Fork Assessment*, *supra* note 136, at 2.

144. See *Producer & Supplier Members*, GLOBALG.A.P., http://www.globalgap.org/uk_en/who-we-are/members/supplier/ (last visited on Nov. 4, 2013) [hereinafter *Producer & Supplier Members*]; *How to Gain Certification*, BRC GLOBAL STANDARDS, http://www.brcglobalstandards.com/Manufacturers/Food/Gettingstarted/Review.aspx#U-hGV_IdUnc (last visited Feb. 14, 2012).

145. See *Producer & Supplier Members*, *supra* note 144.

a self-assessment to identify areas that could use improvement before a full audit.¹⁴⁶ After self-assessment, the supplier goes through an audit and is then given a list of areas to be improved.¹⁴⁷ After corrective action is taken, the BRC's Certification Body reviews the reports and issues a certification decision.¹⁴⁸ GLOBALG.A.P. operates in a similar manner by publishing standards and checklists for producers.¹⁴⁹ Here, producers have the opportunity to conduct self-audits before official audits are carried out by certified auditing groups.¹⁵⁰ GLOBALG.A.P. also certifies Farm Assurers to act as consultants to producers undergoing the certification process.¹⁵¹ For the buyers' benefit, GLOBALG.A.P. maintains databases of certified suppliers.¹⁵²

Another standard used is the Red Tractor Assurance ("Red Tractor"), owned by Assured Food Standards and developed in Britain in 2000.¹⁵³ This scheme focuses on meat, dairy, and fresh produce from Britain; it also provides standards for the supply chain from the farm to the packer.¹⁵⁴ Products that meet the standard may display the Red Tractor logo on their packaging.¹⁵⁵ The logo features the eponymous "Red Tractor" and a Union Jack.¹⁵⁶ Several grocery chains use this standard; it is also the most widely used standard of compliance in the UK with approximately 60% of shoppers recognizing the logo.¹⁵⁷ The logo is key to consumer outreach because it allows shoppers to know at a glance that the produce before them originated in the UK and adhered to a known safety and traceability standard.¹⁵⁸

146. *How to Gain Certification*, *supra* note 144; FRUITS AND VEGETABLES, available at http://www.globalgap.org/export/sites/default/content/galleries/documents/120813-InfoKIT_FV_web_en.pdf (last visited Jan. 29, 2014).

147. *Id.*

148. *Id.*

149. *What We Do*, GLOBALG.A.P., http://www.globalgap.org/uk_en/what-we-do (last visited Feb. 12, 2015).

150. Aaron Crowe, *Biggest Grocery Store Markups: The Worst Deals in the Aisles*, DAILY FINANCE (Feb. 22, 2011), <http://www.dailyfinance.com/2011/02/18/biggest-grocery-store-markups/>.

151. *Farm Assurers*, GLOBALG.A.P., http://www.globalgap.org/uk_en/what-we-do/the-gg-system/gg-farm-assurers/ (last visited July 19, 2014).

152. *Source Certified Products*, GLOBALG.A.P., http://www.globalgap.org/uk_en/buyers/Sourcing-Certified-Products (last visited June 30, 2014).

153. ASSURED FOOD STANDARDS, *Red Tractor Labeling Audit 4* (May 2012), available at <http://www.redtractor.org.uk/documentdownload.axd?documentresourceid=65>.

154. *Id.*

155. *Id.*

156. *Id.*

157. *Id.*

158. *Id.*

B. Drawbacks to Co-Regulation Schemes

Despite the many benefits of co-regulation, there are also certain drawbacks. Co-regulation schemes work best when the businesses issuing the regulations actually have the resources and interest to regulate.¹⁵⁹ Overseeing the entirety of the supply chain is costly and some supermarkets might find themselves responding to food safety issues by either raising prices or even ceasing to carry certain products deemed too risky.¹⁶⁰ Major American retailers Kroger and Walmart, for example, have stopped carrying fresh bean sprouts, broccoli sprouts, and alfalfa sprouts because they have a high risk of being contaminated with pathogens.¹⁶¹ Producers and processors might also find themselves in a bad position due to such oversight if they simply cannot afford to make changes to their operations. As a result, producers are divided and now have lower bargaining power.¹⁶² In this scenario, producers and processors may decide it is simply not worth dealing with the demands of large retailers.¹⁶³

Avoiding this problem requires evolving with the changing landscape. The Policy Commission recognized that chain-wide participation would not work with “thousands of individual farmers around the table” and suggested that the farmers band together in order to negotiate more efficiently and effectively with processors and retailers.¹⁶⁴ Rather than cutting producers’ concerns out of the equation, the Policy Commission saw room for them at the bargaining table because they are a crucial part of the supply chain.¹⁶⁵

The Policy Commission realized, however, that there are certain barriers to collaboration that can prove difficult to farmers seeking to form cooperatives. Smaller producers and processors could form alliances with other producers and processors in order to pool resources and gain a stronger voice at the table with large retailers.¹⁶⁶ Many UK

159. *See generally id.*

160. *See e.g.* Elizabeth Weise, *Kroger stores stop selling sprouts as too dangerous*, USA TODAY (Oct. 20, 2012), <http://www.usatoday.com/story/news/2012/10/19/kroger-bans-sprouts-too-dangerous/1645147/>.

161. *Id.* (Between 1990 and 2010, there have been at least 46 outbreaks linked to sprouts).

162. Consumers International, *The relationship between supermarkets and suppliers: What are the implications for consumers?* 5, available at http://www.europe-economics.com/publications/the_relationship_between_supermarkets_and_suppliers.pdf.

163. FOOD SUPPLY CHAIN MANAGEMENT 147 (Michael A. Bourlakis & Paul W.H. Weightman eds., 2004).

164. FARMING & FOOD - A SUSTAINABLE FUTURE, *supra* note 135, at 32.

165. *See id.*

166. *Id.* at 34.

fresh fruit producers already belong to or are shareholders in co-ops which act as intermediaries between the producers and the grocery retailers.¹⁶⁷

Although the British government has taken a step back from aggressively regulating the food industry, it has made efforts to address the power disparity between suppliers and large retailers. Investigations by the Competition Commission revealed unfair practices by retailers; as a result, the Groceries Supply Code of Practice (“GSCOP”) was released in 2009 to address these problems.¹⁶⁸ The GSCOP, which replaced an earlier code of practice, applies to certain designated retailers including Tesco, Waitrose, Marks & Spencer, and any retailer with a turnover exceeding £1 billion in supply of groceries in the UK.¹⁶⁹ These designated retailers are required to incorporate the GSCOP into their supply agreements.¹⁷⁰ Responsibilities of buyers under the GSCOP include: a duty of fair dealing, giving reasonable notice to suppliers of changes to supply chain procedures, and compensating the supplier for costs incurred as a result of failing to give reasonable notice.¹⁷¹ Disputes under the GSCOP would be settled through arbitration.¹⁷² Choosing to resolve disputes through arbitration indicates that the industry should handle its affairs internally rather than wait for a government referee.

Private regulation standards coupled with legislation provide a cost-effective way for a nation to maintain the safety of its food supply by shifting the costs of regulation onto businesses¹⁷³ while giving industry players the flexibility to manage their own affairs. Retailers have a more intimate relationship with their suppliers than the government and as such, are in the best position since they know their own requirements and the concerns of their suppliers. Because problems that arise can translate into loss of profits, retailers have a great incentive to address issues quickly and efficiently in a manner that makes the most sense for that relationship. Instead of a one-size fit all approach, retailers are encouraged by this arrangement to develop their own individualized solu-

167. *Id.* at 34-35.

168. *See generally* Groceries Code Adjudicator Act, 2012-13, c.19 (U.K.).

169. GSCOP – A Guide for NFU (Nat’l Farmers Union of England and Wales) Members, NAT’L FARMERS UNION OF ENG. AND WALES 1 (June 9, 2014), <http://www.nfuonline.com/nfugscop-members-brief/>.

170. *Id.*

171. *Id.* at 12-13.

172. Groceries Code Adjudicator Bill, *supra* note 168, at cl. 2.

173. BRIDGET M. HUTTER & TOLA AMODU, RISK REGULATION AND COMPLIANCE: FOOD SAFETY IN THE UK 14-16 (Sept. 2008), *available at* <http://www2.lse.ac.uk/researchAndExpertise/units/CARR/pdf/NCP04219.pdf>.

tions within the confines of the law. By stating a broad provision for food safety and offering a due diligence defense, UK legislation encourages the industry as a whole to step up to the plate and take responsibility for the products it sells. Furthermore, the UK responded to the disparities of power between retailers and suppliers by introducing this code of practice.¹⁷⁴ A similar approach encouraging flexibility and accountability for retailers could be easily translated for application in the US.

V. HOW UK STYLE REGULATION COULD WORK IN THE U.S.

While the FSMA is ambitious and certainly represents a step towards safer foods in the US, it does little to encourage efficient maintenance of supply chains. The FSMA is overly specific and focuses on the individual links of the supply chain rather than recognizing the chain as a whole.¹⁷⁵ Moreover, the FSMA creates exceptions for smaller entities in the food industry. Estimates indicate that once fully implemented, approximately 79% of produce growers in the US would be exempt from the FSMA's provisions due to the Tester Amendment, which waives the requirements for farms making less than \$500,000 on average annually and growers who sell more than half of their produce directly to consumers, retailers, or restaurants within a 275 mile radius of the farm.¹⁷⁶

While this provision may set small farmers' minds at ease, it does little to actually protect the safety of the food supply; it actually creates more confusion. It is important to also note, however, that the 2% of farms making more than \$1 million annually account for 53% of the total US production of farm goods and dominate production of fruits and vegetables.¹⁷⁷ Farms making at least \$5 million produce between 35% to 45% of high-value crops, beef, and milk.¹⁷⁸ The USDA's report found that the majority of large and very large family farms were profitable

174. Adam Schoenborn, *The Right to Retail: Can localism save Britain's small retailers?*, RESPUBLICA 22 (Apr. 2011), <http://www.respublica.org.uk/wp-content/uploads/2015/01/Right-to-retail.pdf>.

175. See FDA Food Safety Modernization Act, *supra* note 70, § 106.

176. Helena Bottemiller, *Nearly 80 Percent of Product Growers Will Be Exempt From New Food Safety Rule*, FOOD SAFETY NEWS (Jan. 11, 2013), <http://www.foodsafetynews.com/2013/01/nearly-80-percent-of-produce-growers-to-be-exempt-from-new-food-safety-rule/#.U8zBCqgozkE>.

177. ROBERT A. HOPPE & DAVID E. BANKER, *STRUCTURE AND FINANCES OF U.S. FARMS: FAMILY FARM REPORT, 2010 EDITION*, Economic Information Bulletin No. 66, at 9 (July 2010), available at http://www.ers.usda.gov/media/184479/eib66_1_.pdf [hereinafter USDA Report].

178. *Id.* at 9 (High value crops are vegetables, fruit, and nut trees).

businesses.¹⁷⁹ Given that the majority of US produce comes from large farms operating profitably, it stands to reason that the burden of taking on more onerous safety standards is well placed.

In contrast to the FSMA, neither Regulation 178/2002 nor the Food Safety Act of 1990 exempt producers from adhering to their rules.¹⁸⁰ The broad language of both laws applies equally to all players in the food industry and encourages industry responsibility for safety and traceability while still providing for some government oversight. In particular, the UK's Food Safety Act encourages retailers to maintain control of their own supply line; the Act's due diligence defense rewards retailers for doing so.

A. The Produce Industry's Existing Supply Chain Management Mechanisms

To improve the safety of fresh produce, the US should adopt the British model. The British co-regulation method takes a chain wide view of food safety and provides an open canvas for retailers to develop innovative ways to address the management of their supply chains within the frame of liability. The US can easily adopt the system, especially considering that many of the pieces are already in place. Large US retailers such as Kroger and Walmart already require suppliers to adhere to standards set by the Global Food Safety Initiative.¹⁸¹ Food safety agreements are also in place upstream in the supply chain. In the wake of the 2007 Earthbound farms spinach outbreak, California producers banded together to form the California Leafy Green Products Handler Marketing Agreement (“LGMA”), which sets out a science-based standard for producers of leafy greens to follow.¹⁸² Producers who satisfy the standard and maintain a trace-back system may use the LGMA licensed mark.¹⁸³ With standards and initiatives such as these already in

179. *Id.*

180. See Commission General Food Law Regulation 178/2002; Council Regulation 178/2002, art. 3 § 5.

181. *The Kroger Co. Standard Vendor Agreement For Manufacturing Sourcing*, KROGER, 11 (Jan. 2013), <http://www.thekrogerco.com/docs/default-document-library/standard-vendor-agreement-for-manufacturing-procurement.pdf>; *Food Safety Requirements for Produce Suppliers*, WALMART, (Mar. 2012), http://az204679.vo.msecnd.net/media/documents/food-safety-requirements-for-produce-suppliers_130042261618354678.pdf.

182. *Model Program: Experienced and Proven*, CALIFORNIA LEAFY GREENS MARKETING AGREEMENT (LGMA), available at <http://www.safeleafygreens.com> (last visited Jan. 31, 2015).

183. *California Leafy Green Products Handler Marketing Agreement*, CAL. DEP'T OF FOOD AND AGRIC., available at <http://www.lgma.ca.gov/wp-content/uploads/2014/09/LGMA-marketing-agreement-03.08.pdf>.

operation, the US could put in place the broad legislative language of the Food Safety Act of 1990 to incentivize strict management of retail supply chains. Like in the UK, the broad language and due diligence defense would encourage large retailers to maintain control over their supply chains with limited government interference in exchange for the flexibility to determine their own approaches.

B. Cost Allocation Across the Supply Chain

Incidents of food borne illness outbreaks represent a negative externality in the produce industry. Negative externalities occur when the actions of industry players have negative consequences for a third party.¹⁸⁴ In the fresh produce supply chain, consumers experience this negative externality when they purchase or consume contaminated produce resulting from poor safety practices by industry players.¹⁸⁵ This is a grossly unfair burden to place onto consumers who lack the necessary information to protect themselves and are thereby entirely reliant upon the retailer and its supply chain to deliver safe produce.¹⁸⁶ The externality even extends past the individual consumers contracting the illnesses since it also places a preventable burden upon health services.¹⁸⁷ Producers and processors can correct this externality and alleviate the burden on the consumer by ensuring better food safety. The expenses of proper safety procedures like keeping cattle out of leafy green fields or using clean wash water on the processing line should justifiably fall on producers and processors. The US government is not best situated to monitor compliance; rather, retailers who can identify their suppliers should be the ones managing them. While the US government do recognize a market failure in fresh produce,¹⁸⁸ the FSMA may not be the best way to address it. The FSMA focuses far too much on the individual links within the supply chain and not enough on the supply chain as a whole.¹⁸⁹

184. Paul M. Johnson, "Externality," *A Glossary of Political Economy Terms*, <http://www.auburn.edu/~johnspm/gloss/externality> (last visited Jan. 31, 2015).

185. Batz & Morris, *supra* note 112, at 2.

186. Dalusio, *supra* note 100, at 1083.

187. *Annual Foodborne Illnesses Costs \$77 Billion*, *supra* note 58.

188. Humphrey, *supra* note 118, at 31.

189. FDA Food Safety Modernization Act, *supra* note 70, at § 106.

C. Cost on Retailers

Chief among the concerns for implementing a co-regulation model in the US would be the cost on retailers to strictly maintain their supply chains. Supermarkets in the US operate on a slim profit margin; according to one estimate, the margin is as low as 1.9%.¹⁹⁰ Despite an industry average net profit margin of 2.4% as of 2014, major US grocery chains such as Kroger and Safeway posted more modest net profit margins of 1.52% and 1.15% respectively.¹⁹¹ UK grocery chains Sainsbury and Tesco posted higher net profit margins: 2.99% and 3.01% respectively.¹⁹² It is clear that even large retailers run the risk of cutting into already slim margins should they take on active management of supply chains. Requiring suppliers and producers to adhere to strict agricultural and handling practices could potentially raise the price of fresh produce. Another drastic consequence may be that instead of paying more for safer produce, retailers may simply stop carrying certain “risky” produce like some retailers did with fresh sprouts in the midst of the outbreak.¹⁹³ A less drastic but more probable response may be to raise the sticker price of fresh produce; thereby pricing produce out of the grocery budgets of some consumers. In turn, this could lead to another negative externality—declining public health and the rising rates of obesity as consumer access to fresh produce becomes restricted. Ironically, a response geared towards improving public health could potentially damage it further.

This scenario, however, is highly unlikely. While UK supermarket profit margins are still higher than those of their US counterparts, their margins remain low; and yet, they are still able to co-regulate their supply chains.¹⁹⁴ It is important to note how supermarkets make their profit. Supermarkets generally rely on high sales volume rather than mark ups to generate profit.¹⁹⁵ The produce section is typically one of the most

190. The Reinvestment Fund, *Understanding the Grocery Industry* 10 (Sept. 30, 2011), available at http://www.cdfifund.gov/what_we_do/resources/Understanding%20Grocery%20Industry_for%20ofund_102411.pdf.

191. *Industry Browser—Services—Grocery Stores*, YAHOO FINANCE, <http://biz.yahoo.com/p/734conameu.html> (last visited Aug. 29, 2014).

192. *J Sainsbury PLC Financials*, FINANCIAL TIMES (Aug. 29, 2014), <http://markets.ft.com/research/Markets/Tearsheets/Financials?s=SBRY:LSE>; *Tesco PLC Financials*, FINANCIAL TIMES, (Aug. 29, 2014), <http://markets.ft.com/research/Markets/Tearsheets/Financials?s=TSCO:LSE>.

193. See, e.g., Weise, *supra* note 160.

194. *J Sainsbury PLC Financials*, *supra* note 192.

195. *Competition and Profit*, FOOD MARKETING INSTITUTE (Aug. 2008),

profitable areas of the store¹⁹⁶ and retailers tend to mark-up prices steeply there. While some price mark-ups may be attributable to retailers guarding against damaged and rotten produce, much of the mark-ups may be for profit purposes.¹⁹⁷ In addition to these considerations, prices for fresh produce change on a weekly basis and vary from region to region across the country.¹⁹⁸ With mark ups and variances like these, the additional cost that co-regulation might place on retailers seems minimal, moreover, it is unlikely that it will discourage customers from buying fresh produce.

D. Cost on Producers and Suppliers

The costs on producers and suppliers should also be taken into consideration. Farming in the US is still by and large a family industry with 98% of farms owned and operated by families.¹⁹⁹ It is important to also recognize, however, that “family farm” does not necessarily imply the picturesque farm owned and operated by only Ma and Pa Kent. Of all the farms in the US, it is the 12% of family and nonfamily farms that produce approximately 84% of the value of production.²⁰⁰ Many of the largest farms in the nation are “family farms” that operate very profitably²⁰¹ and can certainly afford the cost of meeting safety standards. Additionally, the costs associated with meeting safety standards appear to

<http://www.fmi.org/docs/facts-figures/competitionandprofit.pdf?sfvrsn=2>.

196. *Supermarket Sales by Department—Percent of Total Supermarket Sales*, FOOD MARKET INSTITUTE, <http://www.fmi.org/docs/default-source/facts-figures/supermarket-sales-by-department-2013.pdf?sfvrsn=2> (last accessed Aug. 31, 2014).

197. This can be seen by comparing the terminal market price to the supermarket price of various produce items. The USDA’s Agricultural Marketing Service provides terminal market prices and supermarket prices. For example, the price of bananas on Feb. 28, 2014 at the Los Angeles terminal market was on average \$18.00 for 40 lb. cartons or \$0.45/lb. USDA AGRICULTURAL MARKETING SERVICE, *LOS ANGELES TERMINAL PRICES AS OF 28-FEB-2014*, (Feb. 28, 2014), available at http://search.ams.usda.gov/mnsearch/hiLiteText.aspx?i=11&docid=HC_FV01020140228.TXT. For clementines, the terminal market price for 3lb bags was \$3.20/bag. *Id.* The average supermarket price for the Southwest was \$5.05/bag with a price range of \$3.99 to \$5.99. USDA AGRICULTURAL MARKETING SERVICE, *NATIONAL FRUIT AND VEGETABLE RETAIL REPORT*, (Feb. 28, 2014), available at [http://search.ams.usda.gov/mnsearch/hiliteinfo.aspx?i=3&docid=FV20140228WRETAIL.PDF](http://search.ams.usda.gov/mndms/2014/02/FV20140228WRETAIL.PDF#xml=http://search.ams.usda.gov/mnsearch/hiliteinfo.aspx?i=3&docid=FV20140228WRETAIL.PDF) The average supermarket price for bananas in the Southwestern US (including California) was \$0.52/lb. *Id.*

198. See generally USDA AGRICULTURAL MARKETING SERVICE, *NATIONAL FRUIT AND VEGETABLE RETAIL REPORT* (Feb. 28, 2014).

199. USDA Report, *supra* note 177, at 6.

200. *Id.* at iv.

201. *Id.* at iv-v.

be slight. A study involving Texas citrus producers found that there was a cost of \$11,385 or \$2.11 per acre to achieve PrimusLabs and Euregap (the precursor to GLOBALG.A.P.) certification.²⁰² When compared to the overall cost of regulation, \$171,235,²⁰³ compliance with safety standards represented only 6.6%²⁰⁴ of regulatory expense to growers. State and federal regulations controlling air quality, water quality, and worker protection standards among other regulations added more expense.²⁰⁵

Certain costs associated with certification are only one-time expenses.²⁰⁶ For example, a study of Moroccan farms achieving Euregap certification found that 72% of the total cost to comply with the standard was nonrecurring.²⁰⁷ This indicates that the ongoing, annual cost to farmers complying with safety standards is less than the initial sticker price of the certification. With such a nominal amount added to the cost of production, continuing to allow the threat of food-borne illness to be exposed to consumers is untenable. However, it is also possible that even these slight increases to production may be too much for certain operations to bear and could amount to the proverbial straw that breaks the camel's back as they cut into thin profit margins.

Recognizing the burden of requiring small farms with limited resources and slim profit margins to make changes in accordance with the FSMA, the Tester Amendment to the FSMA provides exemptions for small-scale farms that sell less than \$500,000 per year and sell to stores within a 275-mile radius of the farm.²⁰⁸ This may be an appropriate concession for small farmers whose produce is unlikely to be widely distributed and thereby unlikely to result in large-scale outbreaks of food-borne illness.

Nevertheless, the amendment fails to encompass the small farms that sell to co-ops, restaurants, and stores, a concern raised by agriculture groups in a letter sent to the Senate Health, Education, Labor, and

202. Lynn Hamilton, *Playing by the Rules: The High Cost of Regulation in California Agriculture*, 16, (June 23-26, 2007).

203. *Id.* at 17.

204. *Id.*

205. *See generally* Hamilton, *supra* note 202.

206. Omar Aloui & Lahcen Kenny, *The Cost of Compliance with SPS Standards for Moroccan Exports: A Case Study*, 26, WORLD BANK, (2004), available at <http://siteresources.worldbank.org/INTRANETTRADE/Resources/Topics/Standards/MoroccoCountrySurveyF.pdf>.

207. *Id.*

208. FDA Food Safety Modernization Act, *supra* note 70, at 3893.

Pensions Committee.²⁰⁹ Consequentially, it is possible that contaminated food could reach a wider group of consumers than contemplated. A possible solution for this is to focus on the size of the retailer the farm sells to rather than the size of the farm itself. This approach would help protect consumers buying from retailers sourcing their produce from small, local farms by justifiably placing the safety burden on the small farms that choose to market their products to larger retailers.

Alternatively, small farms may choose to follow in the footsteps of their British counterparts and adapt to the new regulatory landscape by forming cooperatives. Cooperatives would provide small farms the ability to pool resources and power, thereby giving them a stronger voice at the bargaining table with the more powerful retailers as well as the ability to access wider markets. In addition, the US could adopt a code of practice similar to the UK's GSCOP to address the bargaining power disparities between suppliers and retailers.

E. Informing Consumers about Standards

Another problem to address is how to best communicate what the standard means to the shopping public. To be useful as both a public health tool and a way for the retailer to benefit from its investment in improving food safety, the consumer needs to know that the fresh produce they are buying is safe. Retailers could do this by developing marks and displaying them prominently in the produce section and or on the packaging. Marks, such as the Red Tractor logo in the UK, have been useful to consumers because it offers costumers an easy opportunity to know that the produce they are purchasing has been subject to safety standards and have traceability.²¹⁰ To be useful, however, the consumer needs to not only recognize the mark but also understand what it means. Consumer comprehension is thus a necessary component to the success of an assurance scheme.

Using marks on packaging, however, runs the risk of logo-overload. Shoppers in the produce sections today are bombarded with the logos, marks, and labels of various groups; a customer may see the USDA's organic label,²¹¹ various front-of-pack nutrition labels²¹², and

209. Helena Bottemiller, *Food and Ag Groups Rally Against Tester Amendment*. FOOD SAFETY NEWS (Nov. 16, 2010), http://www.foodsafetynews.com/2010/11/food-and-ag-groups-rally-against-tester-amendment/#.Uk4nutfn_IU.

210. ASSURED FOOD STANDARDS, RED TRACTOR LABELING AUDIT 6 (May 2012), <http://www.redtractor.org.uk/documentdownload.axd?documentresourceid=65>.

211. USDA, *Labeling Organic Products*, available at

other marks. Instead of clarification, the increased number of insignias the consumer needs to read and understand in order to make an informed purchase could actually lead to confusion and frustration. Sainsbury's, for example, already pulled the Red Tractor logo, citing confusion as one of the reasons.²¹³

One way to avoid overuse of labels may be to have retailers, suppliers and producers, or even independent assurance schemes work together to develop a single mark for "their" system. By grouping the supply chain together, the consumer would only have to recognize and understand a few marks at a given retailer. Additionally, a single mark may also serve the symbolic purpose of uniting the disparate parts of the supply chain into a cohesive whole under one banner. The UK's Policy Commission recommended getting the industry behind a single standard in order to streamline assurance schemes and avoid confusing consumers.²¹⁴ The Commission also proposed government funding to endorse the brand so that it can achieve recognition among consumers.²¹⁵

A similar scheme could work in the US if the industry and the government can unite behind a common assurance scheme that is easily recognizable and meaningful to consumers. A drawback to this proposal, however, is that unlike the UK where the Red Tractor standard was already in use and recognized prior to 2002, no similar mark exists in the US. Marks in the US are primarily labels to indicate whether foods are organic, non-GMO, or to detail a product's nutritional value. To address the knowledge gap between consumers and the fresh produce industry, the industry, retailers in particular, need to introduce a food safety mark that consumers can readily recognize and understand.

Alternatively, a mark for produce safety could follow in the same vein as the USDA organic mark. In 2002, the USDA's National Organic program released their mark.²¹⁶ A product meeting the statutory definitions for "organic" per §205.303 of the Code of Federal Regulations, after being cleared as compliant by certifying agents,²¹⁷ may display the

<http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELDEV3004446&acct=noopeninfo>.

212. INSTITUTE OF MEDICINE, FRONT-OF-PACKAGE NUTRITION RATING SYSTEMS AND SYMBOLS: PHASE I REPORT 51 (Ellen A. Wartella et al. eds., 2010).

213. Julia Glotz, *Sainsbury's dumps Red Tractor logo*, GROCER (Oct. 16, 2012), <http://www.thegrocer.co.uk/companies/supermarkets/sainsburys/sainsburys-dumps-red-tractor-logo/233499.article>.

214. FARMING & FOOD - A SUSTAINABLE FUTURE, *supra* note 135, at 40.

215. *Id.*

216. Certified Organic Label Guide, ORGANIC, <http://www.organic.org/articles/showarticle/article-201> (last visited July 1, 2014).

217. CFR § 205.303 (1990); *and see* CFR § 205.2.

mark.²¹⁸

The Swedish Keyhole also provides a useful example. The Livsmedelsverket (the Swedish National Food Agency) introduced the symbol in 1989 as a way to identify more nutritious foods to consumers and to encourage manufacturers to produce healthier products.²¹⁹ The system is trademarked, but any manufacturer whose food meets the nutritional requirements set forth by the Livsmedelsverket may display the symbol without notification.²²⁰ Recognition of the symbol is high according to a study by the European Food Information Council.²²¹

Developing a mark or symbol to indicate that produce has met FSMA standards could be a cost effective way for the US government to address produce safety. Much like how Livsmedelsverket set nutritional standards for the Keyhole,²²² the US government could set forth standards governing produce safety. Supermarkets could then display the symbol in their produce section or on their store doors if their produce met the criteria. Certifying agencies or auditors could check to make sure the supply chain meets the standard, similar to the USDA organic system.

Retailers could also release advertisements featuring the mark and describe what assurance scheme the retailer uses and how it protects the consumer. Such marks might even become a marketing tool for the retailer as consumers become more comfortable and confident in what the mark represents.

VI. CONCLUSION

Food safety in the US represents a growing concern as outbreaks of food-borne illnesses connected to fresh produce have become more frequent and large scale. Outbreaks indicate a failure on the part of the market to correct a negative externality that contains deadly consequences. While US laws have attempted to address this, they focus my-

218. See *id.*; see also *Instruction: The Organic Certification Process*, U.S. DEP'T OF AGRIC. AND MARKETING SERV. NAT'L ORGANIC PROG. (Dec. 16, 2013), <http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5087109>.

219. *The Keyhole Symbol*, LIVSMEDELSVERKET, <http://www.slv.se/en-gb/Group1/Food-labelling/Keyhole-symbol/> (last updated Feb. 25, 2007).

220. T. Lobstein & S. Davies, *Defining and labelling 'healthy' and 'unhealthy' food*, 12 PUB. HEALTH NUTRITION 331, 333 (2009).

221. *Pan-European consumer research on in-store observation, understanding & use of nutrition information on food labels, combined with assessing nutrition knowledge*, EUFIC, <http://www.eufic.org/article/en/page/FARCHIVE/expid/pan-eu-study-nutrition-labelling-eufic-forum-4> (last updated Jan. 29, 2015).

222. *The Keyhole Symbol*, *supra* note 219.

opically on the individual links of the supply chains that bring fresh produce to the tables of millions of Americans. Regulating the “link” level instead of the “chain” level can lead to a disjointed and ineffective approach. The US should instead take into serious consideration of using the co-regulation approach favored by the UK. This approach encourages retailers, the final link in the supply chain before produce reaches the ultimate consumer, to actively manage their supply chains from producers to processors by availing a due diligence defense. Retailers have the opportunity to develop their own safety assurance programs or to subscribe to one of the many privately owned standards. It is evident that pieces of this system are already in place in the US where retailers use assurance schemes to help protect consumers. What is now missing is the legislative impetus to maintain the strictest of holds over supply chains. This approach not only requires minimum government input and expense, but would also enable the industry to address problems more swiftly and efficiently.